



Laramie Energy II, LLC

Mesa, Co

Sec 30-T9S-R93W (Bruton Pad)

Bruton 30-06B

Original Hole

Survey: DD

Final Survey Report

12 February, 2012





REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Bruton 30-06B, True North
Vertical (TVD) Reference: Est. KB @ 7668.00ft
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: Est. KB @ 7668.00ft
Calculation Method: Minimum Curvature

Project: Mesa, Co
Site: Sec 30-T9S-R93W (Bruton Pad)
Well: Bruton 30-06B
Wellbore: Original Hole
Design: Revision 3

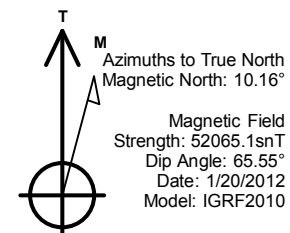
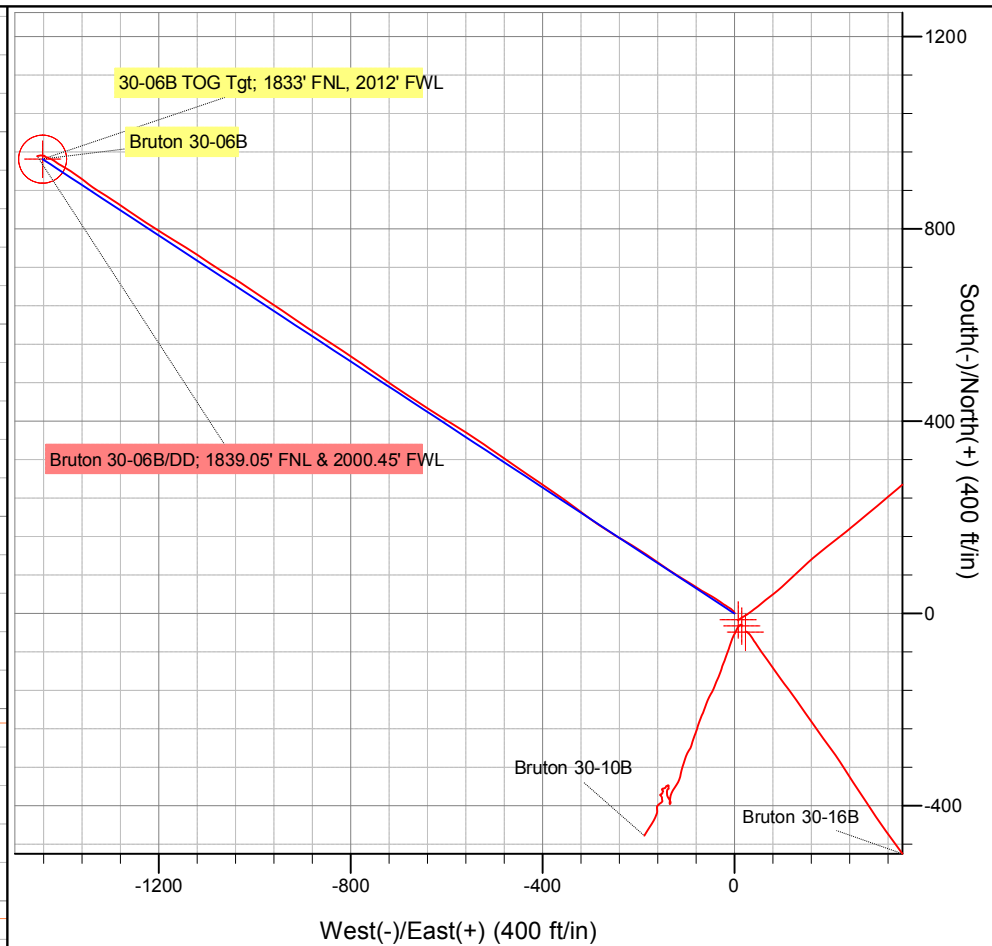
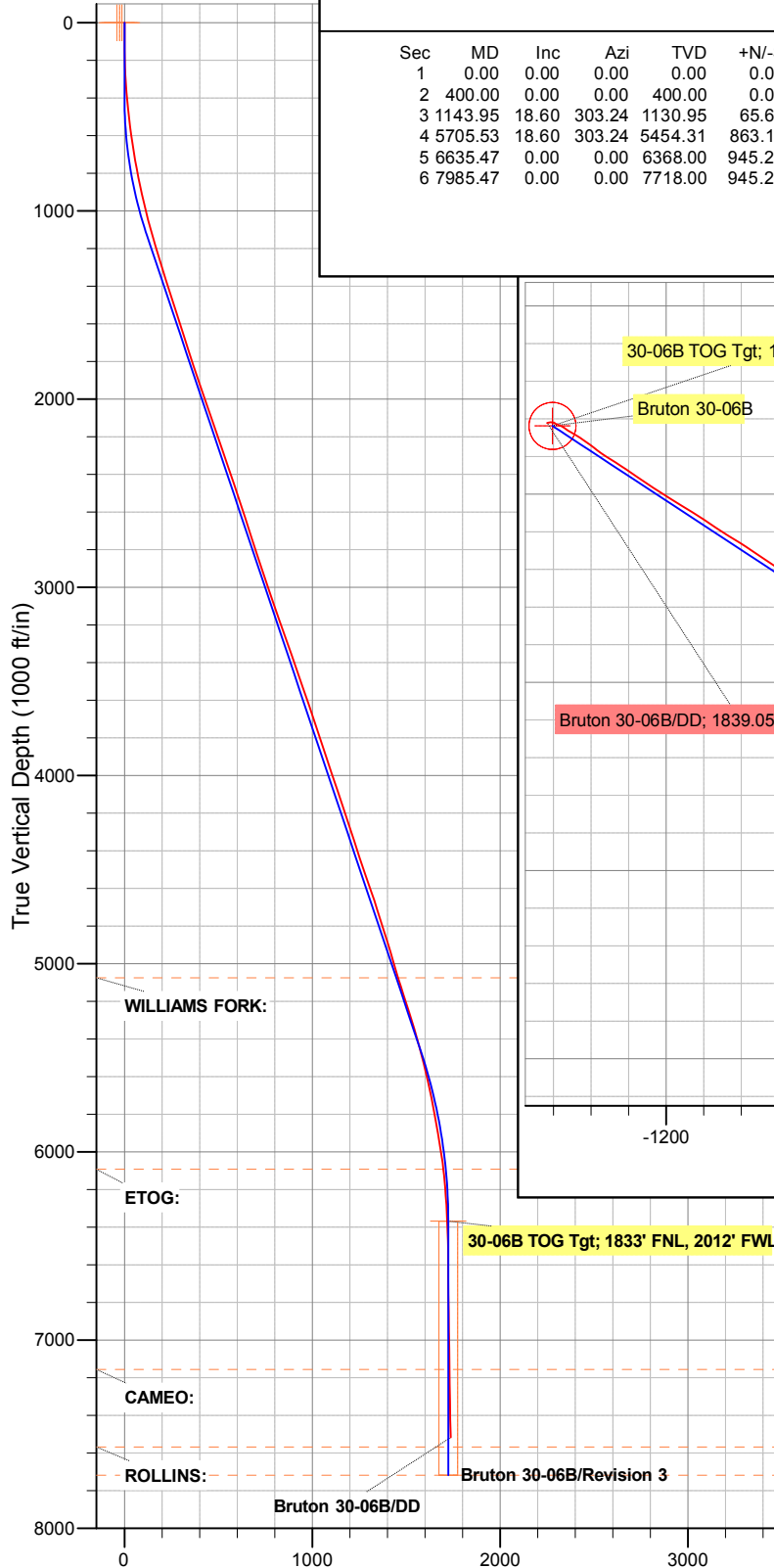


Departure
Energy Services (US) LP

Phone: 307.265.2231
Fax: 307.472.5064
www.departureus.com

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	1143.95	18.60	303.24	1130.95	65.62	-100.10	2.50	303.24	119.69	
4	5705.53	18.60	303.24	5454.31	863.19	-1316.86	0.00	0.00	1574.55	
5	6635.47	0.00	0.00	6368.00	945.21	-1441.98	2.00	180.00	1724.16	30-06B TOG Tgt; 1833' FNL, 2012' FWL
6	7985.47	0.00	0.00	7718.00	945.21	-1441.98	0.00	0.00	1724.16	





Company Name: Laramie Energy II, LLC

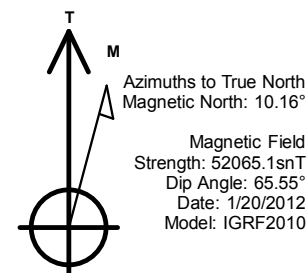
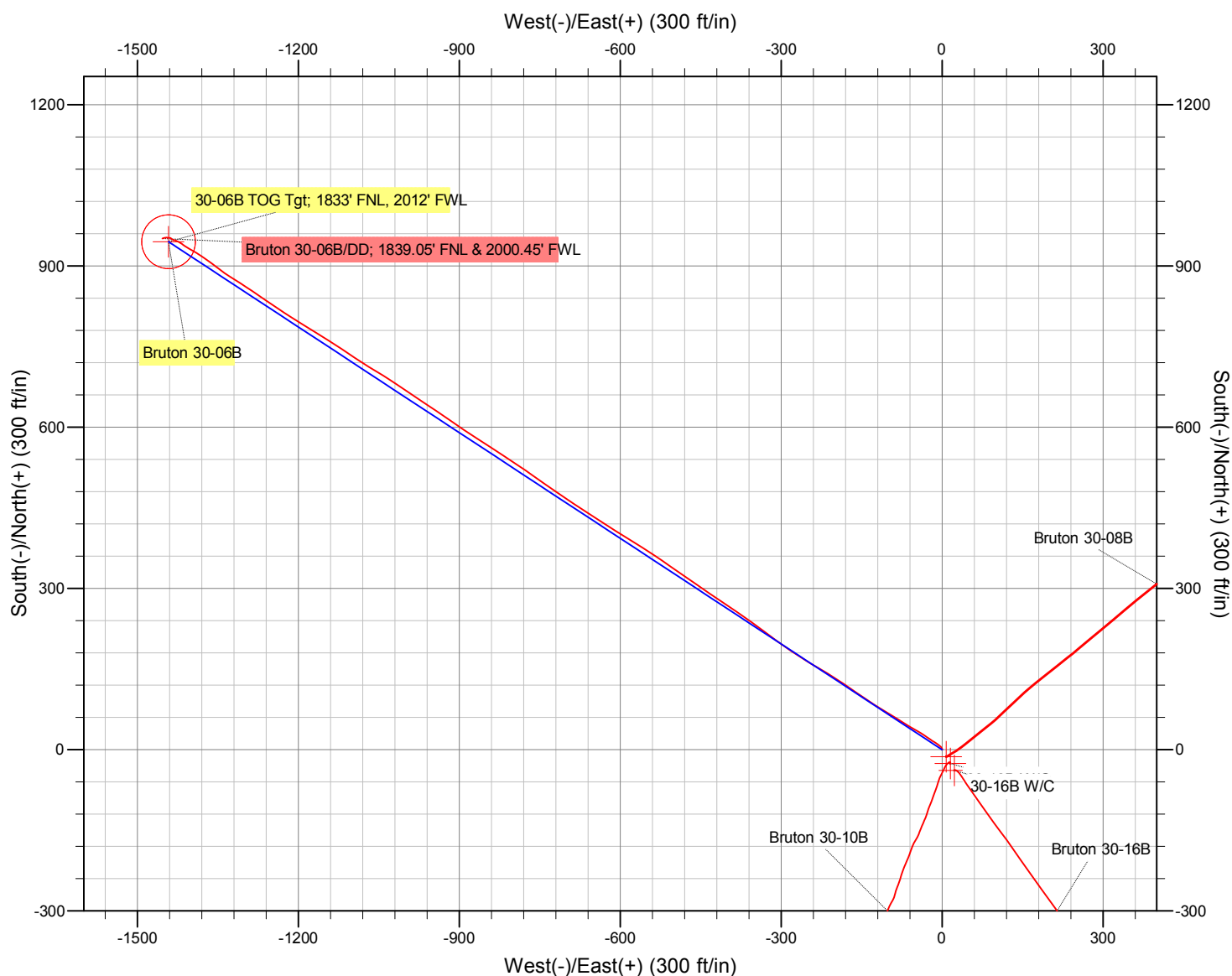
Project: Mesa, Co
Site: Sec 30-T9S-R93W (Bruton Pad)
Well: Bruton 30-06B
Wellbore: Original Hole
Design: Revision 3



Departure
Energy Services (US) LP

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00		KOP - Build at 2.5°/100'
3	1143.95	18.60	303.24	1130.95	65.62	-100.10	2.50	303.24	119.69		End of Build - Hold at 18.60° Inc.
4	5705.53	18.60	303.24	5454.31	863.19	-1316.86	0.00	0.00	1574.55		Drop at 2°/100'
5	6635.47	0.00	0.00	6368.00	945.21	-1441.98	2.00	180.00	1724.16	30-06B TOG Tgt; 1833' FNL, 2012' FWL	End of Drop - TOG
6	7985.47	0.00	0.00	7718.00	945.21	-1441.98	0.00	0.00	1724.16		FTD - 1833' FNL & 2021' FWL





Departure Energy Services (US) LP

Final Survey Report



Company:	Laramie Energy II, LLC	Local Co-ordinate Reference:	Well Bruton 30-06B
Project:	Mesa, Co	TVD Reference:	Est. KB @ 7668.00ft
Site:	Sec 30-T9S-R93W (Bruton Pad)	MD Reference:	Est. KB @ 7668.00ft
Well:	Bruton 30-06B	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 Single User Db

Project	Mesa, Co		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Sec 30-T9S-R93W (Bruton Pad)			
Site Position:		Northing:	1,523,463.69 ft	Latitude:	39.247822°N
From:	Lat/Long	Easting:	2,346,269.86 ft	Longitude:	107.808671°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.46 °

Well	Bruton 30-06B					
Well Position	+N/-S	0.00 ft	Northing:	1,523,463.69 ft	Latitude:	39.247822°N
	+E/-W	0.00 ft	Easting:	2,346,269.86 ft	Longitude:	107.808671°W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	7,647.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/20/2012	10.16	65.55	52,065

Design	DD				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	303.24	

Survey Program	Date	2/12/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
98.00	7,774.00	DD (Original Hole)	MWD	MWD - Standard	

Survey								
MD (ft)	Inc (°)	Azi (azimuth) (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98.00	0.50	11.80	98.00	0.42	0.09	0.16	0.51	
190.00	1.80	340.40	189.98	2.17	-0.32	1.45	1.52	
280.00	3.00	316.50	279.90	5.21	-2.41	4.87	1.71	
371.00	4.80	306.50	370.69	9.21	-7.11	10.99	2.11	
462.00	5.80	301.30	461.30	13.86	-14.10	19.39	1.22	
553.00	7.30	304.30	551.70	19.51	-22.81	29.77	1.69	
644.00	8.50	305.70	641.84	26.69	-33.04	42.27	1.34	
735.00	10.00	299.10	731.65	34.46	-45.41	56.87	2.02	
826.00	11.50	299.90	821.05	42.82	-60.18	73.80	1.66	
917.00	12.30	302.90	910.10	52.61	-76.18	92.55	1.11	
1,012.00	14.00	301.50	1,002.60	64.11	-94.48	114.16	1.82	



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Site:	Sec 30-T9S-R93W (Bruton Pad)	MD Reference:	Est. KB @ 7668.00ft
Well:	Bruton 30-06B	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 Single User Db

Survey								
MD (ft)	Inc (°)	Azi (azimuth) (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	
1,107.00	15.60	301.50	1,094.45	76.79	-115.17	138.42	1.68	
1,202.00	16.50	303.50	1,185.75	90.91	-137.31	164.67	1.11	
1,298.00	17.00	305.00	1,277.67	106.48	-160.17	192.33	0.69	
1,393.00	17.60	304.30	1,368.37	122.54	-183.41	220.58	0.67	
1,510.00	17.90	301.30	1,479.81	141.85	-213.39	256.23	0.82	
1,584.00	18.00	299.40	1,550.21	153.37	-233.07	279.01	0.80	
1,679.00	17.80	303.00	1,640.61	168.49	-258.04	308.17	1.18	
1,774.00	17.90	303.10	1,731.04	184.37	-282.44	337.29	0.11	
1,869.00	18.50	306.70	1,821.29	201.35	-306.76	366.94	1.34	
1,965.00	18.90	306.50	1,912.22	219.70	-331.47	397.66	0.42	
2,060.00	19.20	306.20	2,002.02	238.08	-356.44	428.63	0.33	
2,155.00	19.20	303.80	2,091.73	256.00	-382.03	459.85	0.83	
2,250.00	19.00	303.90	2,181.50	273.31	-407.85	490.93	0.21	
2,345.00	19.00	304.30	2,271.33	290.65	-433.46	521.86	0.14	
2,441.00	18.60	304.70	2,362.21	308.17	-458.96	552.79	0.44	
2,536.00	18.50	304.00	2,452.27	325.23	-483.91	583.00	0.26	
2,632.00	18.70	305.70	2,543.26	342.72	-509.03	613.61	0.60	
2,727.00	17.70	303.50	2,633.50	359.58	-533.44	643.27	1.28	
2,823.00	18.20	303.00	2,724.83	375.80	-558.18	672.85	0.55	
2,919.00	18.20	301.00	2,816.03	391.69	-583.61	702.82	0.65	
3,014.00	18.30	302.10	2,906.25	407.26	-608.96	732.56	0.38	
3,108.00	19.00	303.50	2,995.31	423.54	-634.22	762.62	0.88	
3,204.00	18.90	302.00	3,086.11	440.41	-660.44	793.79	0.52	
3,299.00	19.20	304.30	3,175.91	457.36	-686.39	824.79	0.85	
3,394.00	19.60	303.90	3,265.52	475.05	-712.52	856.34	0.44	
3,490.00	19.50	304.90	3,355.98	493.20	-739.03	888.46	0.36	
3,585.00	18.70	305.40	3,445.75	511.10	-764.45	919.53	0.86	
3,680.00	19.50	303.50	3,535.52	528.67	-790.08	950.60	1.07	
3,776.00	18.70	303.50	3,626.24	546.01	-816.28	982.01	0.83	
3,871.00	18.30	303.50	3,716.33	562.65	-841.41	1,012.16	0.42	
3,966.00	18.70	302.20	3,806.42	578.99	-866.74	1,042.30	0.60	
4,061.00	18.20	304.30	3,896.54	595.47	-891.88	1,072.36	0.88	
4,157.00	19.00	304.60	3,987.52	612.79	-917.13	1,102.97	0.84	
4,252.00	18.70	303.80	4,077.43	630.04	-942.51	1,133.66	0.42	
4,347.00	18.10	304.10	4,167.57	646.79	-967.39	1,163.64	0.64	
4,443.00	18.40	303.10	4,258.74	663.43	-992.43	1,193.71	0.45	
4,538.00	18.00	304.70	4,348.99	679.97	-1,017.06	1,223.37	0.67	
4,633.00	18.30	301.40	4,439.26	696.10	-1,041.86	1,252.96	1.13	
4,729.00	19.10	301.60	4,530.19	712.18	-1,068.10	1,283.72	0.84	
4,824.00	19.10	303.90	4,619.97	728.99	-1,094.24	1,314.80	0.79	
4,919.00	17.70	303.70	4,710.11	745.68	-1,119.16	1,344.78	1.48	
5,015.00	17.50	301.80	4,801.61	761.38	-1,143.57	1,373.81	0.63	
5,110.00	17.30	302.00	4,892.27	776.39	-1,167.68	1,402.21	0.22	
5,205.00	16.20	301.10	4,983.23	790.72	-1,191.01	1,429.57	1.19	



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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 Single User Db

Survey								
MD (ft)	Inc (°)	Azi (azimuth) (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	
5,301.00	17.00	302.70	5,075.23	805.22	-1,214.29	1,456.99	0.96	
5,396.00	18.10	304.40	5,165.81	821.06	-1,238.15	1,485.63	1.28	
5,492.00	17.60	303.80	5,257.19	837.56	-1,262.52	1,515.05	0.55	
5,587.00	16.80	304.10	5,347.94	853.25	-1,285.82	1,543.14	0.85	
5,682.00	15.20	302.40	5,439.26	867.62	-1,307.71	1,569.32	1.75	
5,777.00	13.80	302.00	5,531.23	880.30	-1,327.83	1,593.11	1.48	
5,873.00	13.10	308.30	5,624.60	893.11	-1,346.08	1,615.39	1.69	
5,968.00	11.30	305.70	5,717.45	905.21	-1,362.09	1,635.42	1.98	
6,061.00	10.50	304.80	5,808.77	915.37	-1,376.45	1,652.99	0.88	
6,157.00	9.60	302.10	5,903.30	924.61	-1,390.41	1,669.74	1.06	
6,252.00	8.90	298.40	5,997.06	932.32	-1,403.59	1,684.98	0.97	
6,347.00	6.90	307.60	6,091.16	939.29	-1,414.57	1,698.00	2.48	
6,443.00	4.50	295.50	6,186.68	944.44	-1,422.54	1,707.48	2.78	
6,538.00	3.50	291.60	6,281.45	947.11	-1,428.60	1,714.01	1.09	
6,634.00	2.50	287.10	6,377.32	948.80	-1,433.33	1,718.89	1.07	
6,729.00	1.50	307.10	6,472.26	950.16	-1,436.30	1,722.12	1.27	
6,824.00	0.30	357.80	6,567.25	951.16	-1,437.30	1,723.51	1.40	
6,919.00	0.30	324.20	6,662.25	951.61	-1,437.46	1,723.89	0.18	
7,015.00	0.70	292.40	6,758.24	952.04	-1,438.15	1,724.70	0.49	
7,110.00	1.10	273.70	6,853.23	952.32	-1,439.59	1,726.06	0.52	
7,203.00	1.40	270.90	6,946.21	952.39	-1,441.62	1,727.80	0.33	
7,299.00	0.90	283.80	7,042.19	952.59	-1,443.52	1,729.50	0.58	
7,394.00	0.80	280.20	7,137.18	952.89	-1,444.90	1,730.81	0.12	
7,489.00	0.80	259.10	7,232.17	952.88	-1,446.20	1,731.90	0.31	
7,584.00	1.10	264.80	7,327.16	952.67	-1,447.76	1,733.09	0.33	
7,680.00	1.90	257.90	7,423.12	952.25	-1,450.24	1,734.93	0.85	
7680.00 MD-Projection to Bit								
7,774.00	2.30	249.20	7,517.06	951.26	-1,453.53	1,737.13	0.54	
7774.00 MD- Last Survey								

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
7,680.00	7,423.12	952.25	-1,450.24	7680.00 MD-Projection to Bit	
7,774.00	7,517.06	951.26	-1,453.53	7774.00 MD- Last Survey	

Checked By: _____ Approved By: _____ Date: _____