



Laramie Energy II, LLC

Mesa, Co

Sec 30-T9S-R93W

Bruton 30-08B

Original Hole

Design: DD

Standard Survey Report

27 January, 2012





REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Bruton 30-08B, 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



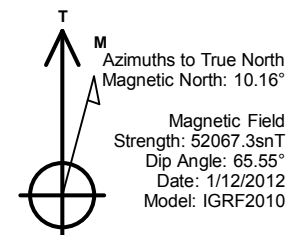
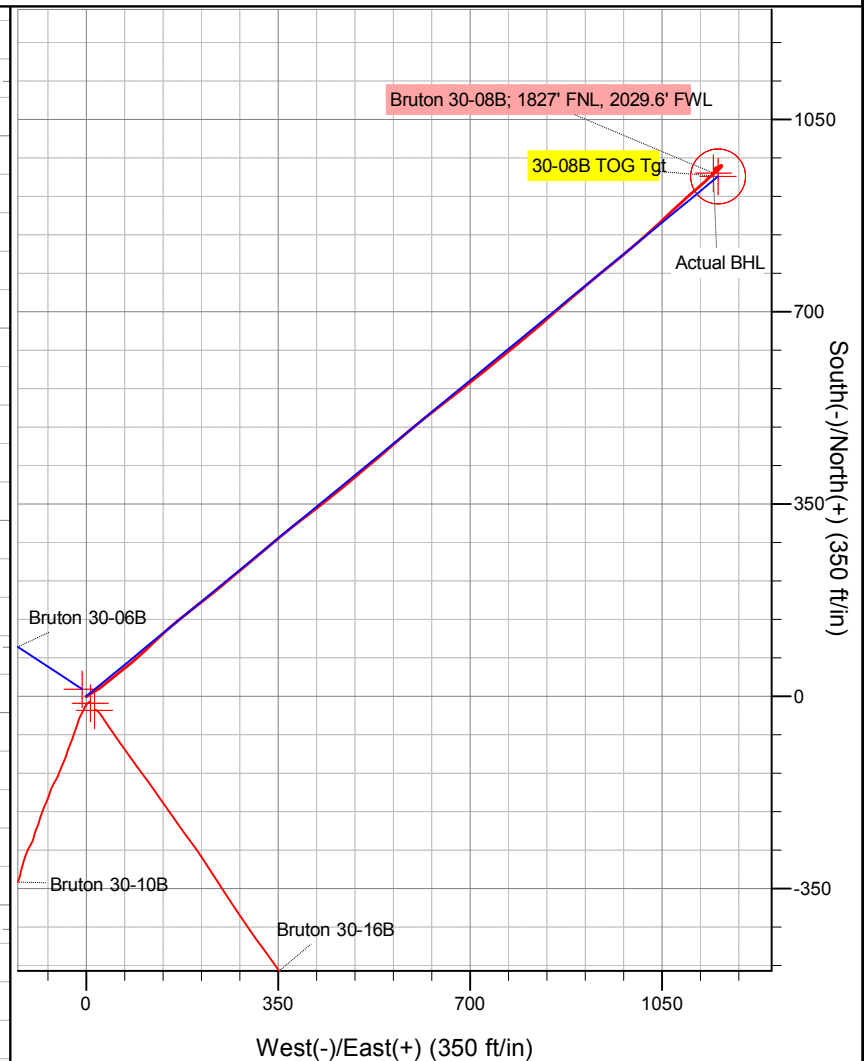
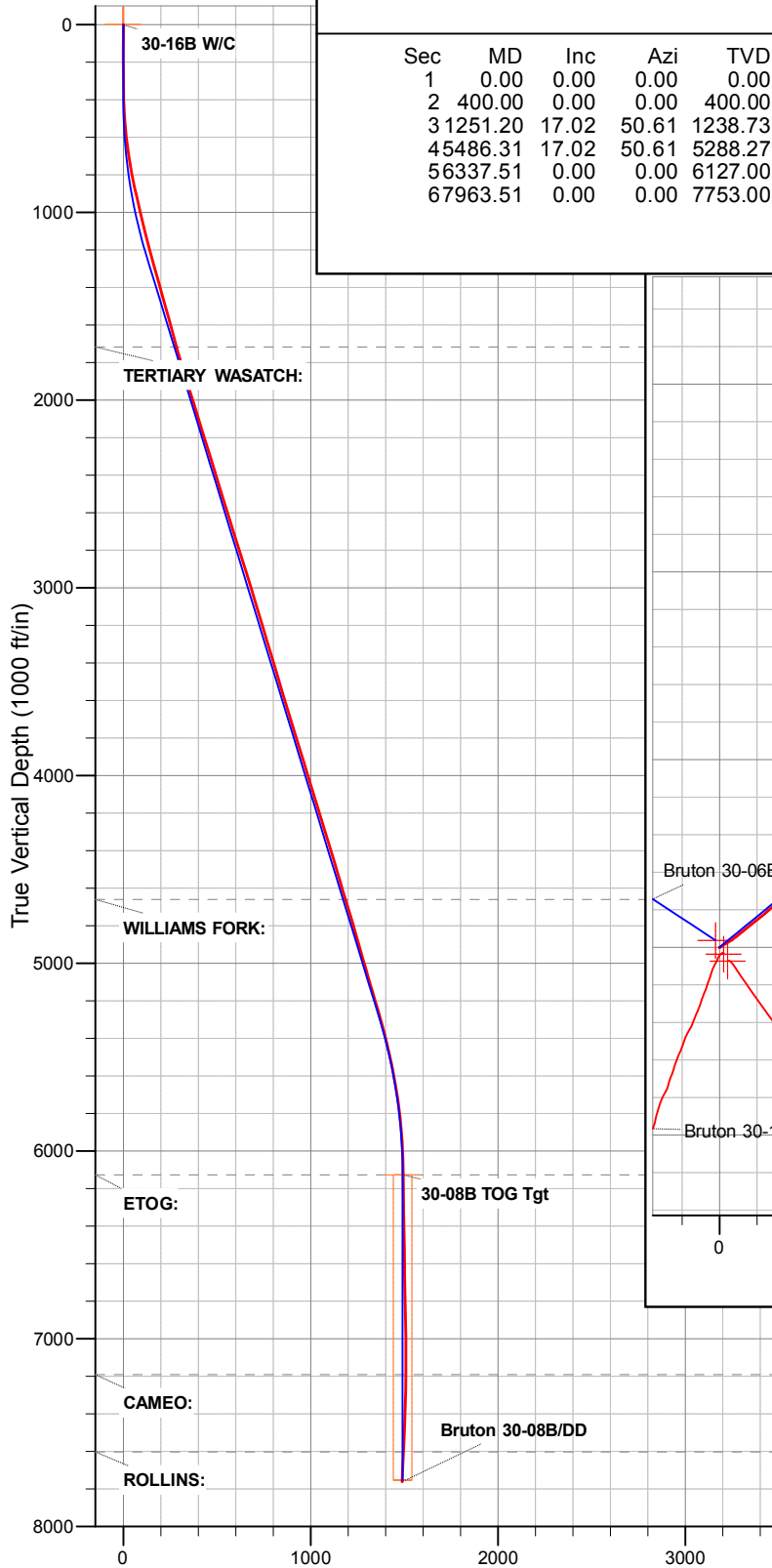
Departure
 Energy Services (US) LP

Phone: 307.265.2231
 Fax: 307.472.5064
 www.departureus.com

Project: Mesa, Co
 Site: Sec 30-T9S-R93W
 Well: Bruton 30-08B
 Wellbore: Original Hole
 Design: Plan #3

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	1251.20	17.02	50.61	1238.73	79.67	97.01	2.00	50.61	125.53	
4	5486.31	17.02	50.61	5288.27	866.57	1055.24	0.00	0.00	1365.46	
5	6337.51	0.00	0.00	6127.00	946.23	1152.25	2.00	180.00	1490.99	30-08B TOG Tgt
6	7963.51	0.00	0.00	7753.00	946.23	1152.25	0.00	0.00	1490.99	





Company Name: Laramie Energy II, LLC

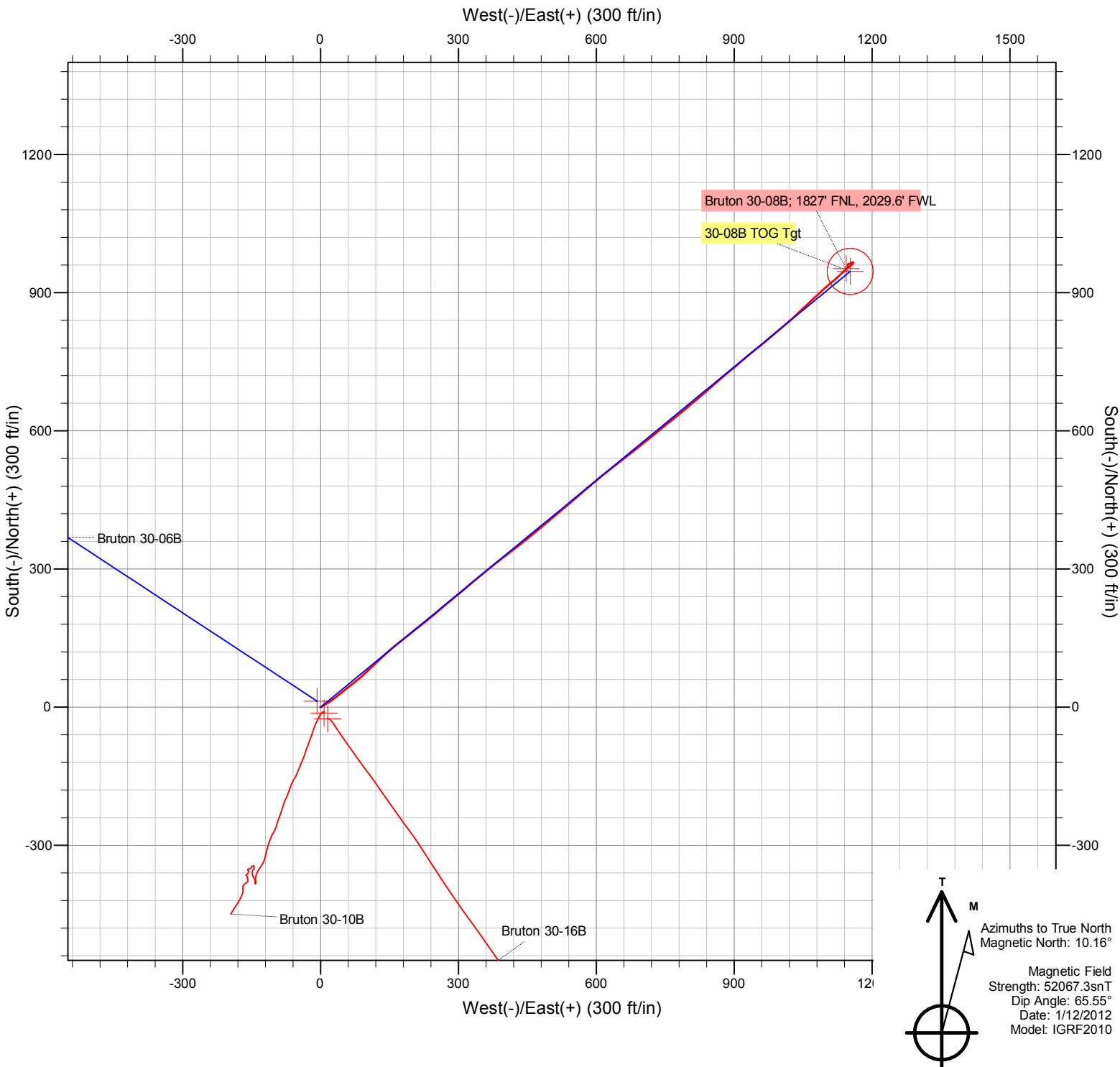
Project: Mesa, Co
Site: Sec 30-T9S-R93W
Well: Bruton 30-08B
Wellbore: Original Hole
Design: Plan #3



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		Start Build 2.00
3	1251.20	17.02	50.61	1238.73	79.67	97.01	2.00	50.61	125.53		Start 4235.11 hold at 1251.20 MD
4	5486.31	17.02	50.61	5288.27	866.57	1055.24	0.00	0.00	1365.46		Start Drop -2.00
5	6337.51	0.00	0.00	6127.00	946.23	1152.25	2.00	180.00	1490.99	30-08B TOG Tgt	Start 1626.00 hold at 6337.51 MD
6	7963.51	0.00	0.00	7753.00	946.23	1152.25	0.00	0.00	1490.99		TD at 7963.51





Departure Energy Services (US) LP

Survey Report



Company:	Laramie Energy II, LLC	Local Co-ordinate Reference:	Well Bruton 30-08B
Project:	Mesa, Co	TVD Reference:	Est. KB @ 7668.00ft
Site:	Sec 30-T9S-R93W	MD Reference:	Est. KB @ 7668.00ft
Well:	Bruton 30-08B	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			
Site Position:		Northing:	1,523,463.71 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 30-08B					
Well Position	+N/-S	0.00 ft	Northing:	1,523,450.45 ft	Latitude:	39.247786°N
	+E/-W	0.00 ft	Easting:	2,346,277.20 ft	Longitude:	107.808644°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	1/12/2012	10.16	65.55	52,067

Design	DD				
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	50.61	

Survey Program	Date	1/27/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
128.00	7,970.00	Surveys (Original Hole)	MWD	MWD - Standard	

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	
128.00	0.10	265.30	128.00	-0.01	-0.11	-0.09	0.08	0.08	0.00	
189.00	0.20	87.60	189.00	-0.01	-0.06	-0.05	0.49	0.16	-291.31	
280.00	0.30	83.30	280.00	0.03	0.34	0.28	0.11	0.11	-4.73	
370.00	1.10	77.10	369.99	0.25	1.41	1.25	0.89	0.89	-6.89	
461.00	3.10	49.50	460.93	2.04	4.14	4.49	2.40	2.20	-30.33	
552.00	5.40	60.60	551.67	5.74	9.74	11.17	2.67	2.53	12.20	
644.00	7.20	57.80	643.11	10.94	18.39	21.15	1.98	1.96	-3.04	
734.00	9.30	52.80	732.18	18.34	28.96	34.02	2.46	2.33	-5.56	
826.00	11.40	51.10	822.68	28.55	41.95	50.54	2.31	2.28	-1.85	



Departure Energy Services (US) LP

Survey Report



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Site:	Sec 30-T9S-R93W	MD Reference:	Est. KB @ 7668.00ft
Well:	Bruton 30-08B	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 Single User Db

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)
917.00	13.30	50.50	911.57	40.85	57.03	70.00	2.09	2.09	-0.66
1,012.00	12.90	53.20	1,004.10	54.16	73.95	91.52	0.77	-0.42	2.84
1,107.00	14.40	48.00	1,096.41	68.41	91.23	113.92	2.04	1.58	-5.47
1,203.00	14.70	46.40	1,189.33	84.80	108.92	137.99	0.52	0.31	-1.67
1,298.00	15.50	46.50	1,281.05	101.85	126.86	162.67	0.84	0.84	0.11
1,393.00	15.80	47.90	1,372.53	119.26	145.66	188.25	0.51	0.32	1.47
1,495.00	15.70	51.70	1,470.70	137.12	166.79	215.92	1.02	-0.10	3.73
1,585.00	15.60	51.20	1,557.37	152.25	185.78	240.20	0.19	-0.11	-0.56
1,681.00	15.10	51.40	1,649.94	168.14	205.61	265.61	0.52	-0.52	0.21
1,776.00	15.80	52.40	1,741.51	183.75	225.53	290.91	0.79	0.74	1.05
1,871.00	16.90	49.60	1,832.67	200.60	246.29	317.64	1.42	1.16	-2.95
1,965.00	17.80	50.20	1,922.39	218.65	267.74	345.67	0.98	0.96	0.64
2,060.00	17.50	50.60	2,012.92	237.01	289.93	374.48	0.34	-0.32	0.42
2,156.00	16.80	49.80	2,104.65	255.13	311.68	402.78	0.77	-0.73	-0.83
2,251.00	17.60	50.10	2,195.40	273.20	333.19	430.87	0.85	0.84	0.32
2,346.00	16.90	50.20	2,286.13	291.25	354.81	459.04	0.74	-0.74	0.11
2,442.00	17.50	51.60	2,377.83	309.15	376.85	487.43	0.76	0.63	1.46
2,535.00	16.70	52.50	2,466.72	325.97	398.41	514.77	0.91	-0.86	0.97
2,630.00	17.10	53.20	2,557.62	342.65	420.42	542.36	0.47	0.42	0.74
2,726.00	17.80	50.50	2,649.20	360.43	443.04	571.13	1.11	0.73	-2.81
2,821.00	17.20	51.70	2,739.80	378.38	465.27	599.70	0.74	-0.63	1.26
2,916.00	17.90	48.80	2,830.38	396.70	487.28	628.34	1.18	0.74	-3.05
3,012.00	17.20	50.80	2,921.92	415.39	509.38	657.28	0.96	-0.73	2.08
3,107.00	17.30	49.50	3,012.64	433.44	531.01	685.44	0.42	0.11	-1.37
3,202.00	16.40	49.30	3,103.56	451.36	551.92	712.98	0.95	-0.95	-0.21
3,297.00	16.70	49.90	3,194.63	468.90	572.52	740.03	0.36	0.32	0.63
3,393.00	17.10	49.00	3,286.48	487.04	593.73	767.93	0.50	0.42	-0.94
3,488.00	16.70	52.10	3,377.38	504.59	615.04	795.54	1.04	-0.42	3.26
3,582.00	16.40	51.30	3,467.49	521.18	636.05	822.31	0.40	-0.32	-0.85
3,678.00	16.70	52.50	3,559.51	538.05	657.57	849.65	0.47	0.31	1.25
3,773.00	17.50	52.10	3,650.31	555.14	679.67	877.57	0.85	0.84	-0.42
3,868.00	16.70	51.00	3,741.11	572.50	701.55	905.50	0.91	-0.84	-1.16
3,964.00	17.50	51.10	3,832.86	590.25	723.50	933.72	0.83	0.83	0.10
4,058.00	16.80	50.70	3,922.68	607.73	745.02	961.44	0.76	-0.74	-0.43
4,154.00	17.60	51.30	4,014.39	625.59	767.08	989.83	0.85	0.83	0.63
4,249.00	16.90	50.50	4,105.12	643.35	788.94	1,018.00	0.78	-0.74	-0.84
4,344.00	16.60	50.00	4,196.09	660.86	809.99	1,045.38	0.35	-0.32	-0.53
4,440.00	17.40	49.60	4,287.89	678.98	831.43	1,073.44	0.84	0.83	-0.42
4,535.00	16.80	47.90	4,378.69	697.39	852.43	1,101.36	0.82	-0.63	-1.79
4,630.00	17.10	50.20	4,469.57	715.53	873.35	1,129.04	0.77	0.32	2.42
4,725.00	16.00	50.40	4,560.63	732.82	894.17	1,156.10	1.16	-1.16	0.21
4,821.00	17.10	48.70	4,652.65	750.57	914.97	1,183.44	1.25	1.15	-1.77
4,916.00	17.20	51.60	4,743.43	768.51	936.47	1,211.44	0.91	0.11	3.05
5,012.00	16.00	50.90	4,835.42	785.67	957.86	1,238.86	1.27	-1.25	-0.73



Departure Energy Services (US) LP

Survey Report



Company:	Laramie Energy II, LLC	Local Co-ordinate Reference:	Well Bruton 30-08B
Project:	Mesa, Co	TVD Reference:	Est. KB @ 7668.00ft
Site:	Sec 30-T9S-R93W	MD Reference:	Est. KB @ 7668.00ft
Well:	Bruton 30-08B	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 Single User Db

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)	
5,107.00	15.60	49.50	4,926.84	802.22	977.74	1,264.73	0.58	-0.42	-1.47	
5,202.00	16.60	50.20	5,018.11	819.21	997.88	1,291.07	1.07	1.05	0.74	
5,298.00	15.90	48.30	5,110.27	836.73	1,018.23	1,317.92	0.92	-0.73	-1.98	
5,393.00	17.10	47.20	5,201.36	854.88	1,038.19	1,344.87	1.31	1.26	-1.16	
5,488.00	15.80	45.90	5,292.47	873.37	1,057.73	1,371.70	1.42	-1.37	-1.37	
5,583.00	14.20	48.40	5,384.23	890.11	1,075.73	1,396.23	1.82	-1.68	2.63	
5,679.00	12.90	46.40	5,477.56	905.32	1,092.30	1,418.69	1.44	-1.35	-2.08	
5,774.00	10.70	51.50	5,570.55	918.12	1,106.88	1,438.09	2.56	-2.32	5.37	
5,869.00	9.90	48.00	5,664.02	929.08	1,119.86	1,455.06	1.07	-0.84	-3.68	
5,964.00	7.80	46.30	5,757.88	939.00	1,130.59	1,469.65	2.23	-2.21	-1.79	
6,059.00	5.50	49.50	5,852.23	946.41	1,138.71	1,480.63	2.45	-2.42	3.37	
6,155.00	3.70	40.30	5,947.92	951.76	1,144.21	1,488.28	2.02	-1.88	-9.58	
6,250.00	1.90	31.70	6,042.81	955.44	1,147.02	1,492.79	1.94	-1.89	-9.05	
6,345.00	1.10	347.90	6,137.78	957.67	1,147.66	1,494.69	1.41	-0.84	-46.11	
6,441.00	1.00	334.10	6,233.76	959.32	1,147.10	1,495.31	0.28	-0.10	-14.38	
6,536.00	1.60	27.80	6,328.74	961.24	1,147.36	1,496.73	1.36	0.63	56.53	
6,632.00	1.40	90.30	6,424.71	962.42	1,149.15	1,498.87	1.63	-0.21	65.10	
6,727.00	0.90	76.60	6,519.69	962.59	1,151.04	1,500.43	0.60	-0.53	-14.42	
6,822.00	0.40	93.80	6,614.68	962.74	1,152.10	1,501.34	0.56	-0.53	18.11	
6,918.00	1.50	56.30	6,710.67	963.41	1,153.48	1,502.84	1.26	1.15	-39.06	
7,013.00	1.00	44.00	6,805.65	964.70	1,155.09	1,504.90	0.59	-0.53	-12.95	
7,108.00	1.20	62.70	6,900.63	965.75	1,156.55	1,506.69	0.43	0.21	19.68	
7,203.00	0.70	72.90	6,995.62	966.38	1,157.99	1,508.20	0.55	-0.53	10.74	
7,298.00	0.40	134.40	7,090.61	966.32	1,158.78	1,508.78	0.65	-0.32	64.74	
7,393.00	0.70	174.40	7,185.61	965.51	1,159.07	1,508.49	0.49	0.32	42.11	
7,489.00	1.20	212.80	7,281.60	964.08	1,158.58	1,507.21	0.82	0.52	40.00	
7,584.00	1.90	220.00	7,376.56	962.04	1,157.03	1,504.71	0.76	0.74	7.58	
7,679.00	2.30	228.90	7,471.50	959.58	1,154.58	1,501.26	0.54	0.42	9.37	
7,774.00	2.60	233.30	7,566.41	957.04	1,151.42	1,497.20	0.37	0.32	4.63	
7,870.00	2.70	238.40	7,662.31	954.55	1,147.75	1,492.79	0.27	0.10	5.31	
7,918.00	2.70	241.20	7,710.26	953.41	1,145.79	1,490.55	0.27	0.00	5.83	
7918.00 MD- Last Survey										
7,970.00	2.70	241.20	7,762.20	952.23	1,143.65	1,488.15	0.00	0.00	0.00	
Straight Line Projection to TD @ 7970' MD										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
7,918.00	7,710.26	953.41	1,145.79	7918.00 MD- Last Survey	
7,970.00	7,762.20	952.23	1,143.65	Straight Line Projection to TD @ 7970' MD	



Departure Energy Services (US) LP
Survey Report



Company:	Laramie Energy II, LLC	Local Co-ordinate Reference:	Well Bruton 30-08B
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Well:	Bruton 30-08B	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 Single User Db

Checked By: _____ Approved By: _____ Date: _____