

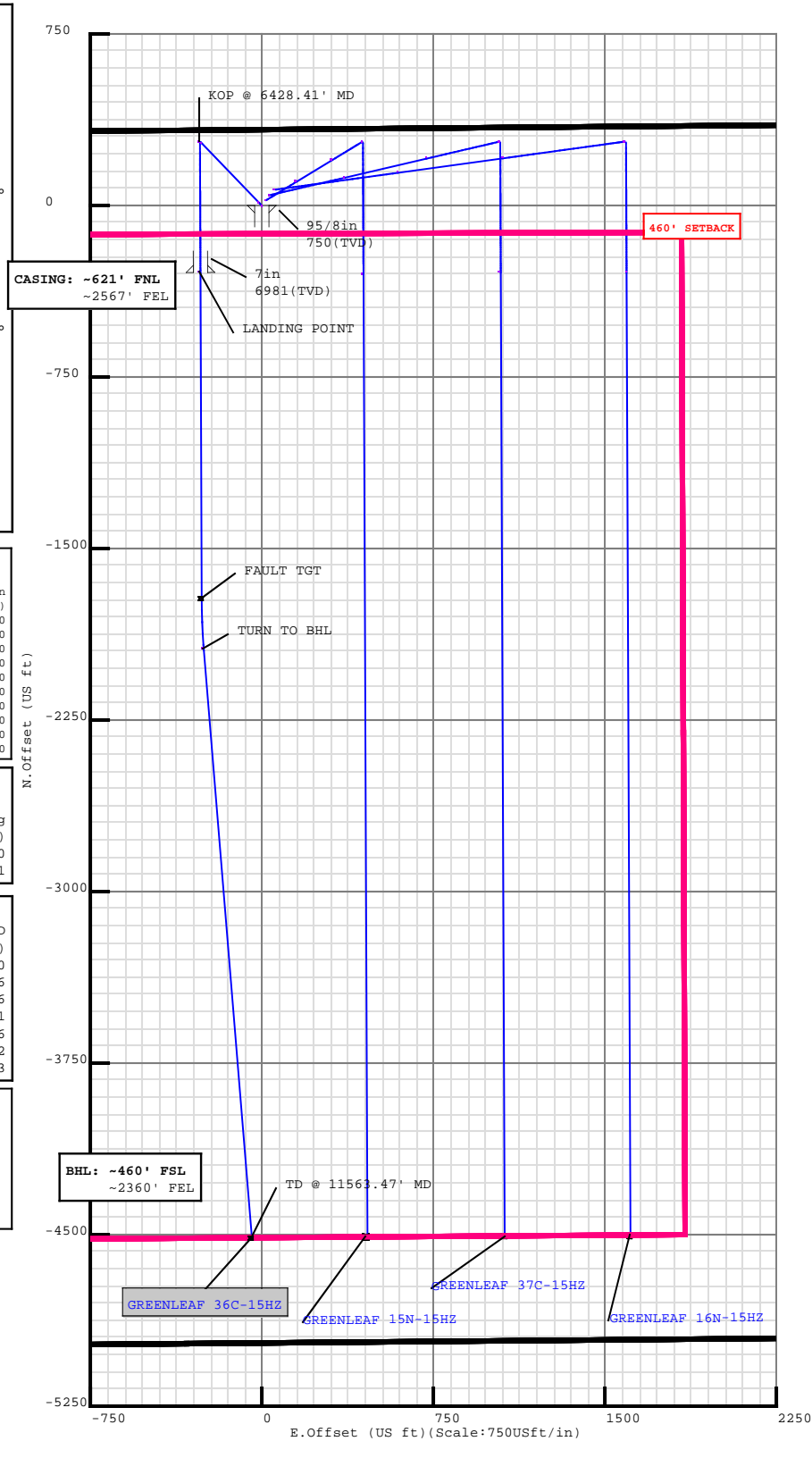
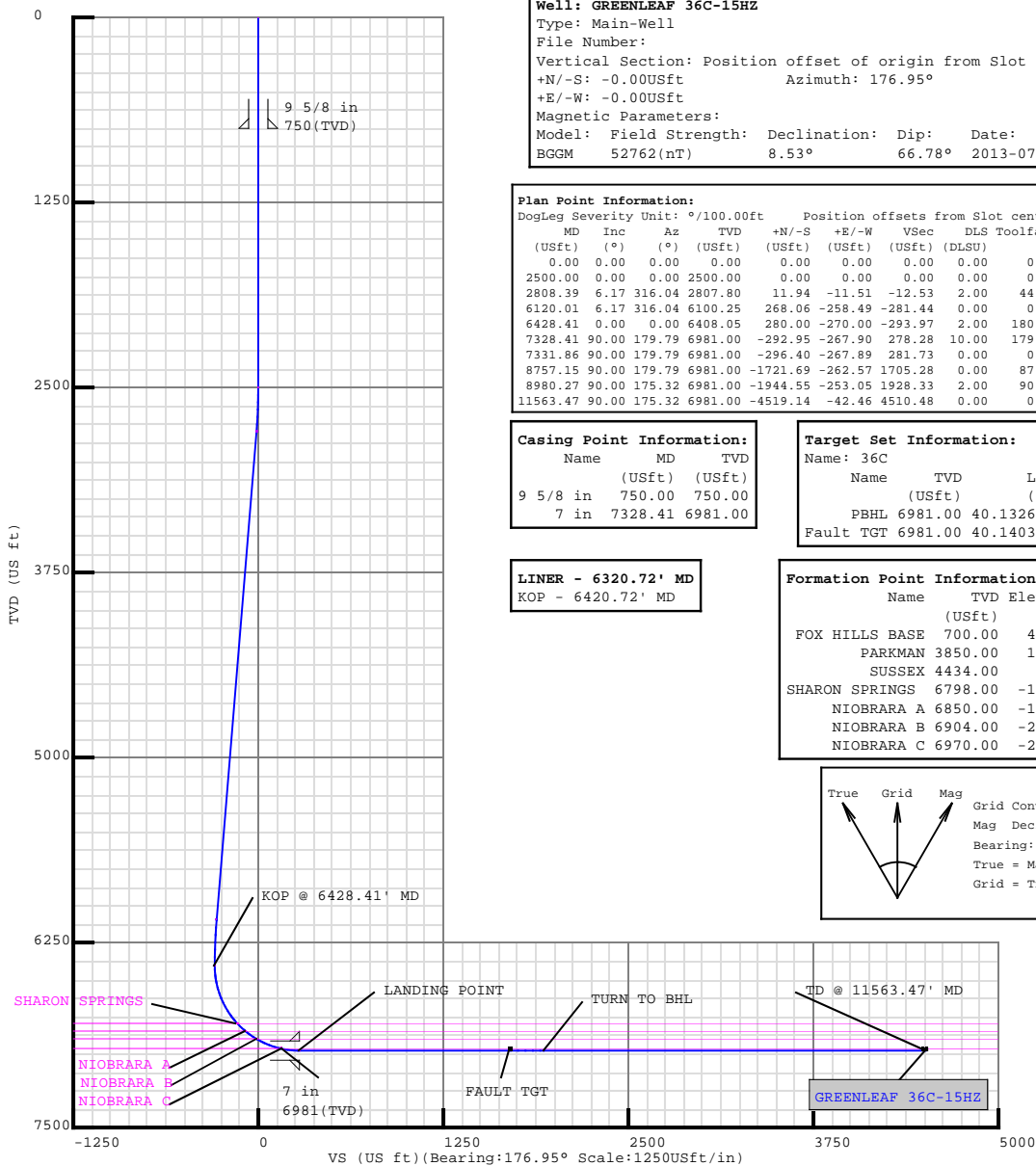
**5D Plan Report****ANADARKO**

Field Name: *WATTENBURG_NAD83*
Site Name: *GREENLEAF PAD*
Well Name: *GREENLEAF 36C-15HZ*
Plan: *PLAN 2*





Weatherford®



Plan Surveys for the GREENLEAF 36C-15HZ

Site Name GREENLEAF PAD	Units : US ft	North Reference : Grid	Convergence Angle : 0.55
	Position	Northing : 1296828.47 US ft	Latitude : 40.145053
		Easting : 3237966.22 US ft	Longitude : -104.648763
	Elevation above: 4868.00 US ft Comment :		
Slot Name GREENLEAF 36C-15HZ	Position (Offsets relative to Site Centre)		
	+N / -S : 0.00 US ft	Northing : 1296828.47 US ft	Latitude : 40.145053
	+E / -W : 0.00 US ft	Easting : 3237966.22 US ft	Longitude : -104.648763
	Slot TVD Reference : Ground Elevation Elevation above : 4868.00 US ft Comment :		
Well Name GREENLEAF 36C-15HZ	Type : Main well	UWI :	Plan : PLAN 2
	Rig Height <i>Drill Floor</i> : 17.00 US ft	Comment :	
	Relative to : 4885.00 US ft		
	Closure Distance : 4519.34 US ft	Closure Azimuth : 180.538°	
	Vertical Section (Position of Origin Relative to Slot)		
	+N / -S : -0.00 US ft	+E / -W : -0.00 US ft	Az : 176.95°
	Magnetic Parameters		
	Model : BGGM	Field Strength : 52762.8nT	Dec : 8.53°
			Dip : 66.78°
			Date : 08/Jul/2013

Target Set				
Name : 36C		Number of Targets : 2		
Comment :				
TargetName: PBHL Shape: Cuboid	Position (Relative to centre)			
	+N / -S : -4519.14US ft		Northing : 1292309.33 US ft	
	+E / -W : -42.46 US ft		Easting : 3237923.76US ft	
	Latitude : 40°7'57.536400"			
	Longitude : -104°38'56.652000"			
TargetName: Fault TGT Shape: Cuboid	TVD (Drill Floor) : 6981.00 US ft			
	Orientation		Azimuth : 0.00°	
	Inclination : 0.00°			
	Dimensions		Length : 20.00 US ft	
	Breadth : 20.00 US ft		Height : 20.00 US ft	
TargetName: Fault TGT Shape: Cuboid	Position (Relative to centre)			
	+N / -S : -1721.69US ft		Northing : 1295106.78 US ft	
	+E / -W : -262.57 US ft		Easting : 3237703.65US ft	
	Latitude : 40°8'25.201867"			
	Longitude : -104°38'59.140457"			
TargetName: Fault TGT Shape: Cuboid	TVD (Drill Floor) : 6981.00 US ft			
	Orientation		Azimuth : 0.00°	
	Inclination : 0.00°			
	Dimensions		Length : 20.00 US ft	
	Breadth : 20.00 US ft		Height : 20.00 US ft	

Casing Points (Relative to centre, TVD relative to Drill Floor)								
Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)
9 5/8 in	750.00	0.00	0.00	750.00	0.00	0.00	40.145053	-104.648763
7 in	7328.41	90.00	179.79	6981.00	-292.95	-267.90	40.144256	-104.649731

Well path created using minimum curvature

Salient Points (Relative to centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	-0.00	FOX HILLS BASE :
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	-0.00	9 5/8 in
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	-0.00	
2808.39	6.17	316.04	2807.80	11.94	-11.51	2.00	316.04	-12.53	

5D Plan Report

Salient Points (Relative to centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
3856.66	6.17	316.04	3850.00	93.01	-89.69	0.00	0.00	-97.65	PARKMAN :
4444.06	6.17	316.04	4434.00	138.44	-133.50	0.00	0.00	-145.35	SUSSEX :
6120.01	6.17	316.04	6100.25	268.06	-258.49	0.00	0.00	-281.44	
6428.41	0.00	0.00	6408.05	280.00	-270.00	2.00	180.00	-293.97	KOP @ 6428.41' MD
6857.31	42.89	179.79	6798.00	126.83	-269.44	10.00	179.79	-140.98	SHARON SPRINGS :
6933.16	50.48	179.79	6850.00	71.68	-269.24	10.00	0.00	-85.90	NIOBRARA A :
7027.92	59.95	179.79	6904.00	-6.06	-268.95	10.00	0.00	-8.26	NIOBRARA B :
7215.93	78.75	179.79	6970.00	-181.20	-268.31	10.00	0.00	166.66	NIOBRARA C :
7328.41	90.00	179.79	6981.00	-292.95	-267.90	10.00	0.00	278.28	LANDING POINT; 7 in
7331.86	90.00	179.79	6981.00	-296.40	-267.89	0.00	0.00	281.73	
8757.15	90.00	179.79	6981.00	-1721.69	-262.57	0.00	272.92	1705.28	FAULT TGT
8980.27	90.00	175.32	6981.00	-1944.55	-253.05	2.00	270.00	1928.33	TURN TO BHL
11563.47	90.00	175.32	6981.00	-4519.14	-42.46	0.00	0.00	4510.48	TD @ 11563.47' MD

Interpolated Points (Relative to centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	-0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	-0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	-0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	-0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	-0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	-0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	-0.00	FOX HILLS BASE :
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	-0.00	9 5/8 in
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	-0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	-0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	-0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	-0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	-0.00	
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	-0.00	
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	-0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	-0.00	
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	-0.00	
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	-0.00	
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	-0.00	
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	-0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	-0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	-0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	-0.00	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	-0.00	

5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	-0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	-0.00	
2600.00	2.00	316.04	2599.98	1.26	-1.21	2.00	316.04	-1.32	
2700.00	4.00	316.04	2699.84	5.02	-4.84	2.00	0.00	-5.27	
2800.00	6.00	316.04	2799.45	11.30	-10.89	2.00	0.00	-11.86	
2808.39	6.17	316.04	2807.80	11.94	-11.51	2.00	0.00	-12.53	
2900.00	6.17	316.04	2898.87	19.02	-18.34	0.00	0.00	-19.97	
3000.00	6.17	316.04	2998.30	26.76	-25.80	0.00	0.00	-28.09	
3100.00	6.17	316.04	3097.72	34.49	-33.26	0.00	0.00	-36.21	
3200.00	6.17	316.04	3197.14	42.22	-40.72	0.00	0.00	-44.33	
3300.00	6.17	316.04	3296.56	49.96	-48.17	0.00	0.00	-52.45	
3400.00	6.17	316.04	3395.98	57.69	-55.63	0.00	0.00	-60.57	
3500.00	6.17	316.04	3495.40	65.43	-63.09	0.00	0.00	-68.69	
3600.00	6.17	316.04	3594.82	73.16	-70.55	0.00	0.00	-76.81	
3700.00	6.17	316.04	3694.24	80.90	-78.01	0.00	0.00	-84.93	
3800.00	6.17	316.04	3793.66	88.63	-85.46	0.00	0.00	-93.05	
3856.66	6.17	316.04	3850.00	93.01	-89.69	0.00	0.00	-97.65	PARKMAN :
3900.00	6.17	316.04	3893.09	96.36	-92.92	0.00	0.00	-101.17	
4000.00	6.17	316.04	3992.51	104.10	-100.38	0.00	0.00	-109.29	
4100.00	6.17	316.04	4091.93	111.83	-107.84	0.00	0.00	-117.41	
4200.00	6.17	316.04	4191.35	119.57	-115.30	0.00	0.00	-125.53	
4300.00	6.17	316.04	4290.77	127.30	-122.75	0.00	0.00	-133.65	
4400.00	6.17	316.04	4390.19	135.03	-130.21	0.00	0.00	-141.77	
4444.06	6.17	316.04	4434.00	138.44	-133.50	0.00	0.00	-145.35	SUSSEX :
4500.00	6.17	316.04	4489.61	142.77	-137.67	0.00	0.00	-149.89	
4600.00	6.17	316.04	4589.03	150.50	-145.13	0.00	0.00	-158.01	
4700.00	6.17	316.04	4688.45	158.24	-152.59	0.00	0.00	-166.13	
4800.00	6.17	316.04	4787.88	165.97	-160.04	0.00	0.00	-174.25	
4900.00	6.17	316.04	4887.30	173.71	-167.50	0.00	0.00	-182.37	
5000.00	6.17	316.04	4986.72	181.44	-174.96	0.00	0.00	-190.49	
5100.00	6.17	316.04	5086.14	189.17	-182.42	0.00	0.00	-198.61	
5200.00	6.17	316.04	5185.56	196.91	-189.88	0.00	0.00	-206.73	
5300.00	6.17	316.04	5284.98	204.64	-197.33	0.00	0.00	-214.85	
5400.00	6.17	316.04	5384.40	212.38	-204.79	0.00	0.00	-222.97	
5500.00	6.17	316.04	5483.82	220.11	-212.25	0.00	0.00	-231.09	
5600.00	6.17	316.04	5583.24	227.84	-219.71	0.00	0.00	-239.21	
5700.00	6.17	316.04	5682.67	235.58	-227.17	0.00	0.00	-247.33	
5800.00	6.17	316.04	5782.09	243.31	-234.62	0.00	0.00	-255.45	
5900.00	6.17	316.04	5881.51	251.05	-242.08	0.00	0.00	-263.57	
6000.00	6.17	316.04	5980.93	258.78	-249.54	0.00	0.00	-271.69	
6100.00	6.17	316.04	6080.35	266.52	-257.00	0.00	0.00	-279.81	

5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
6120.01	6.17	316.04	6100.25	268.06	-258.49	0.00	0.00	-281.44	
6200.00	4.57	316.04	6179.88	273.45	-263.68	2.00	180.00	-287.09	
6300.00	2.57	316.04	6279.68	277.93	-268.00	2.00	180.00	-291.80	
6400.00	0.57	316.04	6379.64	279.90	-269.90	2.00	180.00	-293.86	
6428.41	0.00	0.00	6408.05	280.00	-270.00	2.00	180.00	-293.97	KOP @ 6428.41' MD
6500.00	7.16	179.79	6479.45	275.53	-269.98	10.00	179.79	-289.51	
6600.00	17.16	179.79	6577.09	254.50	-269.91	10.00	0.00	-268.50	
6700.00	27.16	179.79	6669.58	216.83	-269.77	10.00	0.00	-230.87	
6800.00	37.16	179.79	6754.13	163.67	-269.57	10.00	0.00	-177.78	
6857.31	42.89	179.79	6798.00	126.83	-269.44	10.00	0.00	-140.98	SHARON SPRINGS :
6900.00	47.16	179.79	6828.17	96.63	-269.33	10.00	0.00	-110.83	
6933.16	50.48	179.79	6850.00	71.68	-269.24	10.00	0.00	-85.90	NIOBRARA A :
7000.00	57.16	179.79	6889.44	17.76	-269.04	10.00	0.00	-32.05	
7027.92	59.95	179.79	6904.00	-6.06	-268.95	10.00	0.00	-8.26	NIOBRARA B :
7100.00	67.16	179.79	6936.08	-70.55	-268.72	10.00	0.00	56.15	
7200.00	77.16	179.79	6966.68	-165.62	-268.37	10.00	0.00	151.10	
7215.93	78.75	179.79	6970.00	-181.20	-268.31	10.00	0.00	166.66	NIOBRARA C :
7300.00	87.16	179.79	6980.30	-264.56	-268.01	10.00	0.00	249.92	
7328.41	90.00	179.79	6981.00	-292.95	-267.90	10.00	0.00	278.28	LANDING POINT; 7 in
7331.86	90.00	179.79	6981.00	-296.40	-267.89	0.00	0.00	281.73	
7400.00	90.00	179.79	6981.00	-364.54	-267.64	0.00	0.00	349.79	
7500.00	90.00	179.79	6981.00	-464.54	-267.27	0.00	0.00	449.67	
7600.00	90.00	179.79	6981.00	-564.54	-266.90	0.00	0.00	549.54	
7700.00	90.00	179.79	6981.00	-664.54	-266.54	0.00	0.00	649.42	
7800.00	90.00	179.79	6981.00	-764.54	-266.17	0.00	0.00	749.30	
7900.00	90.00	179.79	6981.00	-864.54	-265.80	0.00	0.00	849.17	
8000.00	90.00	179.79	6981.00	-964.54	-265.43	0.00	0.00	949.05	
8100.00	90.00	179.79	6981.00	-1064.54	-265.06	0.00	0.00	1048.93	
8200.00	90.00	179.79	6981.00	-1164.54	-264.69	0.00	0.00	1148.81	
8300.00	90.00	179.79	6981.00	-1264.54	-264.32	0.00	0.00	1248.68	
8400.00	90.00	179.79	6981.00	-1364.54	-263.95	0.00	0.00	1348.56	
8500.00	90.00	179.79	6981.00	-1464.54	-263.58	0.00	0.00	1448.44	
8600.00	90.00	179.79	6981.00	-1564.54	-263.20	0.00	0.00	1548.32	
8700.00	90.00	179.79	6981.00	-1664.54	-262.83	0.00	0.00	1648.19	
8757.15	90.00	179.79	6981.00	-1721.69	-262.57	0.00	272.92	1705.28	FAULT TGT
8800.00	90.00	178.93	6981.00	-1764.53	-262.09	2.00	270.00	1748.09	
8900.00	90.00	176.93	6981.00	-1864.46	-258.48	2.00	270.00	1848.07	
8980.27	90.00	175.32	6981.00	-1944.55	-253.05	2.00	270.00	1928.33	TURN TO BHL
9000.00	90.00	175.32	6981.00	-1964.21	-251.45	0.00	0.00	1948.05	
9100.00	90.00	175.32	6981.00	-2063.88	-243.29	0.00	0.00	2048.01	
9200.00	90.00	175.32	6981.00	-2163.54	-235.14	0.00	0.00	2147.97	

5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
9300.00	90.00	175.32	6981.00	-2263.21	-226.99	0.00	0.00	2247.93	
9400.00	90.00	175.32	6981.00	-2362.88	-218.84	0.00	0.00	2347.89	
9500.00	90.00	175.32	6981.00	-2462.55	-210.68	0.00	0.00	2447.85	
9600.00	90.00	175.32	6981.00	-2562.21	-202.53	0.00	0.00	2547.81	
9700.00	90.00	175.32	6981.00	-2661.88	-194.38	0.00	0.00	2647.77	
9800.00	90.00	175.32	6981.00	-2761.55	-186.23	0.00	0.00	2747.73	
9900.00	90.00	175.32	6981.00	-2861.21	-178.07	0.00	0.00	2847.69	
10000.00	90.00	175.32	6981.00	-2960.88	-169.92	0.00	0.00	2947.65	
10100.00	90.00	175.32	6981.00	-3060.55	-161.77	0.00	0.00	3047.61	
10200.00	90.00	175.32	6981.00	-3160.22	-153.62	0.00	0.00	3147.57	
10300.00	90.00	175.32	6981.00	-3259.88	-145.46	0.00	0.00	3247.53	
10400.00	90.00	175.32	6981.00	-3359.55	-137.31	0.00	0.00	3347.49	
10500.00	90.00	175.32	6981.00	-3459.22	-129.16	0.00	0.00	3447.44	
10600.00	90.00	175.32	6981.00	-3558.88	-121.01	0.00	0.00	3547.40	
10700.00	90.00	175.32	6981.00	-3658.55	-112.85	0.00	0.00	3647.36	
10800.00	90.00	175.32	6981.00	-3758.22	-104.70	0.00	0.00	3747.32	
10900.00	90.00	175.32	6981.00	-3857.89	-96.55	0.00	0.00	3847.28	
11000.00	90.00	175.32	6981.00	-3957.55	-88.40	0.00	0.00	3947.24	
11100.00	90.00	175.32	6981.00	-4057.22	-80.25	0.00	0.00	4047.20	
11200.00	90.00	175.32	6981.00	-4156.89	-72.09	0.00	0.00	4147.16	
11300.00	90.00	175.32	6981.00	-4256.55	-63.94	0.00	0.00	4247.12	
11400.00	90.00	175.32	6981.00	-4356.22	-55.79	0.00	0.00	4347.08	
11500.00	90.00	175.32	6981.00	-4455.89	-47.64	0.00	0.00	4447.04	
11563.47	90.00	175.32	6981.00	-4519.14	-42.46	0.00	0.00	4510.48	TD @ 11563.47' MD

Formation Points (Relative to centre, TVD relative to Drill Floor)			
Name	MD (US ft)	TVD (US ft)	
FOX HILLS BASE	700.00	700.00	
PARKMAN	3856.66	3850.00	
SUSSEX	4444.06	4434.00	
SHARON SPRINGS	6857.31	6798.00	
NIOBRARA A	6933.16	6850.00	
NIOBRARA B	7027.92	6904.00	
NIOBRARA C	7215.93	6970.00	