

**5D Plan Report**

Anadarko Petroleum

Field Name: *WATTENBURG_NAD83*
Site Name: *BERRY FARMS 41N-8HZ PAD*
Well Name: *BERRY FARMS 32C-8HZ*
Plan: *PLAN 1*





Plan Data for BERRY FARMS 32C-8HZ											
Plan Point Information:											
DogLeg Severity Unit: °/100.00ft											
Position offsets from Slot centre											
MD	Inc	Az	TVD	+N/-S	+E/-W	VSec	DLS	Toolface	Build	Turn	
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(DLSU)	(°)	(DLSU)	(DLSU)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	
1900.10	16.00	164.17	1889.74	-106.80	30.27	-31.57	2.00	164.2	2.00	0.00	
4420.27	16.00	164.17	4312.26	-775.20	219.73	-229.18	0.00	0.0	0.00	0.00	
5220.37	0.00	0.00	5102.00	-882.00	250.00	-260.76	2.00	180.0	-2.00	0.00	
6688.41	0.00	0.00	6570.04	-882.00	250.00	-260.76	0.00	0.0	0.00	0.00	
7587.65	89.92	270.70	7143.00	-875.05	-322.15	311.43	10.00	270.7	10.00	0.00	
12064.07	89.92	270.70	7149.00	-820.63	-4798.23	4787.85	0.00	0.0	0.00	0.00	

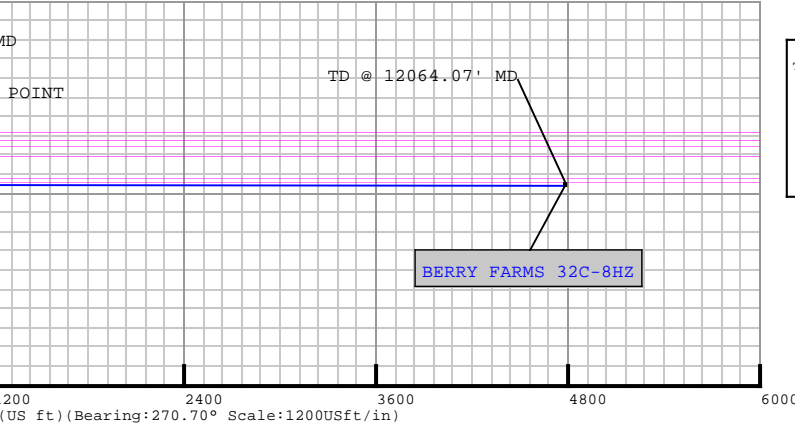
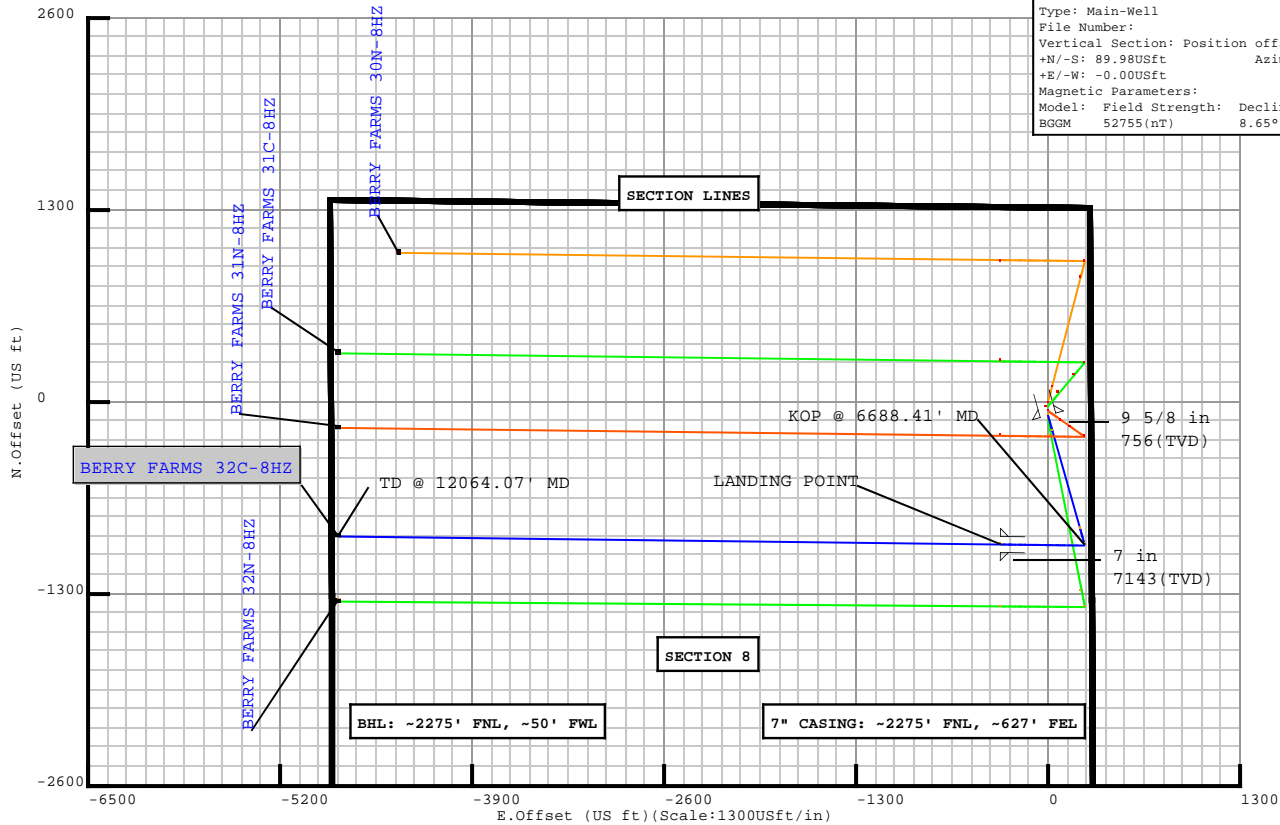
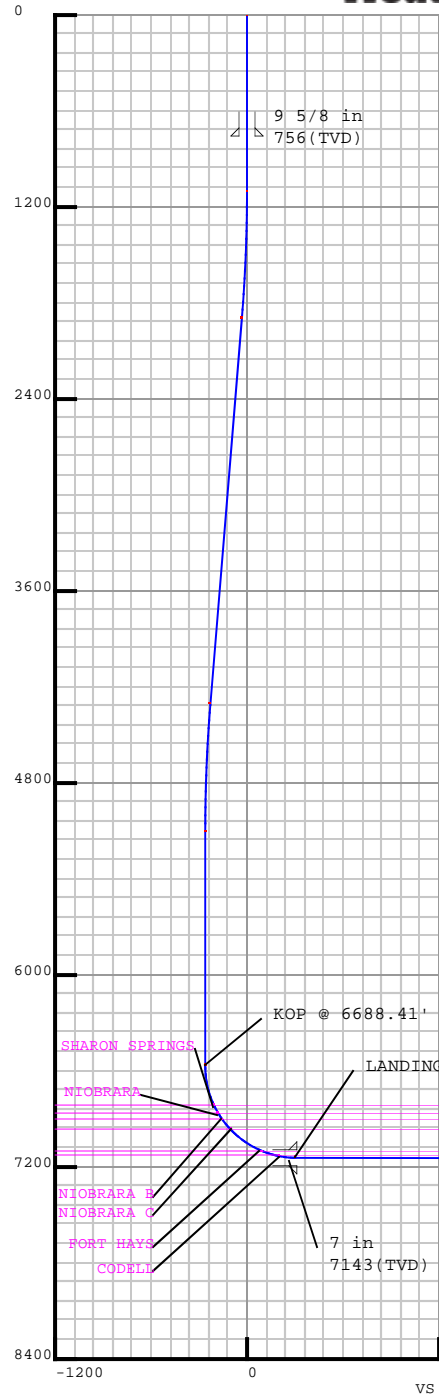
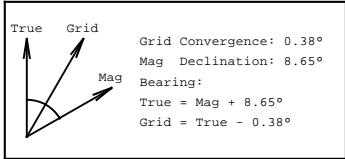
Field: WATTENBURG_NAD83
Map Unit: USFt
Projected Coordinate System: NAD83 / Colorado North (ftUS)
Site: BERRY FARMS 41N-8HZ PAD
Unit: USFeet
TVD Reference:
Company Name: Anadarko Petroleum
Position: Northing: 1332293.10USft Latitude: 40.244018°
Easting: 3165843.86USft Longitude: -104.905895°
North Reference: True
Grid Convergence: 0.38°
Elevation Above VRD: 4821.00USft
Slot: BERRY FARMS 32C-8HZ
Position:
Offset is from Site centre
+N/-S: -89.98USft
Northing: 1332203.12USft
Latitude: 40.243771°
+E/-W: 0.00USft
Easting: 3165844.47USft
Longitude: -104.905895°
Elevation Above VRD: 4820.70USft
Well: BERRY FARMS 32C-8HZ
Type: Main-Well
File Number:
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 89.98USft
Azimuth: 270.70°
+E/-W: -0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
BGGM 52755(nT) 8.65° 66.81° 2013-10-17

Target Set Information:				
Name: BERRY FARMS 32C-8HZ				
Name	TVD	Lat	Long	
	(USft)	(°)	(°)	
PBHL	7149.00	40.241517	-104.923083	

Casing Point Information:			
Name	MD	TVD	
	(USft)	(USft)	
9 5/8 in	756.00	756.00	
7 in	7587.65	7143.00	

LINER: 6588.41' MD
KOP: 6688.41' MD

Formation Point Information:			
Name	TVD	Elevation	MD
	(USft)	(USft)	(USft)
FOX HILLS BASE	706.00	4131.70	706.00
SUSSEX	4123.00	714.70	4223.38
SHANNON	4532.00	305.70	4646.54
SHARON SPRINGS	6821.00	-1983.30	6948.18
NIOBRARA	6870.00	-2032.30	7004.11
NIOBRARA B	6906.00	-2068.30	7047.41
NIOBRARA C	6972.00	-2134.30	7133.93
FORT HAYS	7100.00	-2262.30	7365.03
CODELL	7134.00	-2296.30	7486.74



Plan Surveys for the BERRY FARMS 32C-8HZ

Site Name BERRY FARMS 41N-8HZ PAD	Units : US ft	North Reference : True	Convergence Angle : 0.38
	Position	Northing : 1332293.10 US ft	Latitude : 40.244018
		Easting : 3165843.86 US ft	Longitude : -104.905895
	Elevation above: 4821.00 US ft Comment :		
Slot Name BERRY FARMS 32C-8HZ	Position (Offsets relative to Site Centre)		
	+N / -S : -89.98 US ft	Northing : 1332203.12 US ft	Latitude : 40.243771
	+E / -W : 0.00 US ft	Easting : 3165844.47 US ft	Longitude : -104.905895
	Slot TVD Reference : Ground Elevation Elevation above : 4820.70 US ft Comment :		
Well Name BERRY FARMS 32C-8HZ	Type : Main well	UWI :	Plan : PLAN 1
	Rig Height Drill Floor : 17.00 US ft	Comment :	
	Relative to : 4837.70 US ft		
	Closure Distance : 4867.9 US ft	Closure Azimuth : 260.295°	
	Vertical Section (Position of Origin Relative to Slot)		
	+N / -S : 89.98 US ft	+E / -W : -0.00 US ft	Az : 270.70°
	Magnetic Parameters		
	Model : BGGM	Field Strength : 52755.5nT	Dec : 8.65°
			Dip : 66.81°
			Date : 17/Oct/2013

Target Set**Name :** BERRY FARMS 32C-8HZ**Number of Targets :** 1**Comment :**

TargetName:	Position (Relative to centre)			
PBHL	+N / -S : -820.63US ft		Northing : 1331350.36 US ft	Latitude : 40°14'29.461200"
Shape:	+E / -W : -4798.23 US ft		Easting : 3161051.85US ft	Longitude : -104°55'23.098800"
Cuboid	TVD (Drill Floor) : 7149.00 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	756.00	0.00	0.00	756.00	0.00	0.00	40.243771	-104.905895
7 in	7587.65	89.92	270.70	7143.00	-875.05	-322.15	40.241369	-104.907049

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)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	40.243771	-104.905895	0.00	0.00	-1.10	
706.00	0.00	0.00	706.00	0.00	0.00	40.243771	-104.905895	0.00	0.00	-1.10	FOX HILLS BASE :
756.00	0.00	0.00	756.00	0.00	0.00	40.243771	-104.905895	0.00	0.00	-1.10	9 5/8 in
1100.00	0.00	0.00	1100.00	0.00	0.00	40.243771	-104.905895	0.00	0.00	-1.10	
1900.10	16.00	164.17	1889.74	-106.80	30.27	40.243478	-104.905787	2.00	164.17	-32.68	
4223.38	16.00	164.17	4123.00	-722.98	204.93	40.241786	-104.905161	0.00	0.00	-214.85	SUSSEX :
4420.27	16.00	164.17	4312.26	-775.20	219.73	40.241643	-104.905108	0.00	0.00	-230.29	
4646.54	11.48	164.17	4532.00	-826.89	234.38	40.241501	-104.905055	2.00	180.00	-245.57	SHANNON :
5220.37	0.00	0.00	5102.00	-882.00	250.00	40.241350	-104.904999	2.00	180.00	-261.86	
6688.41	0.00	0.00	6570.04	-882.00	250.00	40.241350	-104.904999	0.00	0.00	-261.86	KOP @ 6688.41' MD
6948.18	25.98	270.70	6821.00	-881.30	192.12	40.241352	-104.905207	10.00	270.70	-203.98	SHARON SPRINGS :
7004.11	31.57	270.70	6870.00	-880.97	165.22	40.241353	-104.905303	10.00	0.00	-177.07	NIOBRARA :
7047.41	35.90	270.70	6906.00	-880.68	141.18	40.241353	-104.905389	10.00	0.00	-153.03	NIOBRARA B :
7133.93	44.55	270.70	6972.00	-880.00	85.36	40.241355	-104.905589	10.00	0.00	-97.20	NIOBRARA C :

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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)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
7365.03	67.66	270.70	7100.00	-877.68	-105.16	40.241362	-104.906272	10.00	0.00	93.33	FORT HAYS :
7486.74	79.83	270.70	7134.00	-876.27	-221.78	40.241366	-104.906689	10.00	0.00	209.95	CODELL :
7587.65	89.92	270.70	7143.00	-875.05	-322.15	40.241369	-104.907049	10.00	0.00	310.33	LANDING POINT
7587.65	89.92	270.70	7143.00	-875.05	-322.15	40.241369	-104.907049	0.00	0.00	310.33	7 in
12064.07	89.92	270.70	7149.00	-820.63	-4798.23	40.241517	-104.923083	0.00	0.00	4786.74	TD @ 12064.07' 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	-1.10			
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	-1.10			
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	-1.10			
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	-1.10			
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	-1.10			
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	-1.10			
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	-1.10			
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	-1.10			
706.00	0.00	0.00	706.00	0.00	0.00	0.00	0.00	-1.10			
756.00	0.00	0.00	756.00	0.00	0.00	0.00	0.00	-1.10			
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	-1.10			
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	-1.10			
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	-1.10			
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	-1.10			
1200.00	2.00	164.17	1199.98	-1.68	0.48	2.00	164.17	-1.60			
1300.00	4.00	164.17	1299.84	-6.71	1.90	2.00	0.00	-3.09			
1400.00	6.00	164.17	1399.45	-15.10	4.28	2.00	0.00	-5.57			
1500.00	8.00	164.17	1498.70	-26.82	7.60	2.00	0.00	-9.03			
1600.00	10.00	164.17	1597.47	-41.87	11.87	2.00	0.00	-13.48			
1700.00	12.00	164.17	1695.62	-60.23	17.07	2.00	0.00	-18.91			
1800.00	14.00	164.17	1793.06	-81.87	23.21	2.00	0.00	-25.31			
1900.00	16.00	164.17	1889.64	-106.77	30.26	2.00	0.00	-32.67			
1900.10	16.00	164.17	1889.74	-106.80	30.27	0.00	0.00	-32.68			
2000.00	16.00	164.17	1985.77	-133.29	37.78	0.00	0.00	-40.51			
2100.00	16.00	164.17	2081.89	-159.82	45.30	0.00	0.00	-48.35			
2200.00	16.00	164.17	2178.02	-186.34	52.82	0.00	0.00	-56.19			
2300.00	16.00	164.17	2274.14	-212.86	60.33	0.00	0.00	-64.03			
2400.00	16.00	164.17	2370.27	-239.38	67.85	0.00	0.00	-71.88			
2500.00	16.00	164.17	2466.39	-265.90	75.37	0.00	0.00	-79.72			
2600.00	16.00	164.17	2562.52	-292.43	82.89	0.00	0.00	-87.56			
2700.00	16.00	164.17	2658.64	-318.95	90.41	0.00	0.00	-95.40			
2800.00	16.00	164.17	2754.77	-345.47	97.92	0.00	0.00	-103.24			

FOX HILLS BASE :
9 5/8 in

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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
2900.00	16.00	164.17	2850.89	-371.99	105.44	0.00	0.00	-111.08	
3000.00	16.00	164.17	2947.02	-398.52	112.96	0.00	0.00	-118.92	
3100.00	16.00	164.17	3043.15	-425.04	120.48	0.00	0.00	-126.76	
3200.00	16.00	164.17	3139.27	-451.56	127.99	0.00	0.00	-134.60	
3300.00	16.00	164.17	3235.40	-478.08	135.51	0.00	0.00	-142.45	
3400.00	16.00	164.17	3331.52	-504.60	143.03	0.00	0.00	-150.29	
3500.00	16.00	164.17	3427.65	-531.13	150.55	0.00	0.00	-158.13	
3600.00	16.00	164.17	3523.77	-557.65	158.06	0.00	0.00	-165.97	
3700.00	16.00	164.17	3619.90	-584.17	165.58	0.00	0.00	-173.81	
3800.00	16.00	164.17	3716.02	-610.69	173.10	0.00	0.00	-181.65	
3900.00	16.00	164.17	3812.15	-637.22	180.62	0.00	0.00	-189.49	
4000.00	16.00	164.17	3908.27	-663.74	188.14	0.00	0.00	-197.33	
4100.00	16.00	164.17	4004.40	-690.26	195.65	0.00	0.00	-205.17	
4200.00	16.00	164.17	4100.52	-716.78	203.17	0.00	0.00	-213.02	
4223.38	16.00	164.17	4123.00	-722.98	204.93	0.00	0.00	-214.85	SUSSEX :
4300.00	16.00	164.17	4196.65	-743.30	210.69	0.00	0.00	-220.86	
4400.00	16.00	164.17	4292.77	-769.83	218.21	0.00	0.00	-228.70	
4420.27	16.00	164.17	4312.26	-775.20	219.73	0.00	0.00	-230.29	
4500.00	14.41	164.17	4389.19	-795.32	225.43	2.00	180.00	-236.24	
4600.00	12.41	164.17	4486.46	-817.63	231.76	2.00	180.00	-242.83	
4646.54	11.48	164.17	4532.00	-826.89	234.38	2.00	180.00	-245.57	SHANNON :
4700.00	10.41	164.17	4584.48	-836.66	237.15	2.00	180.00	-248.46	
4800.00	8.41	164.17	4683.13	-852.38	241.61	2.00	180.00	-253.10	
4900.00	6.41	164.17	4782.29	-864.78	245.12	2.00	180.00	-256.77	
5000.00	4.41	164.17	4881.84	-873.85	247.69	2.00	180.00	-259.45	
5100.00	2.41	164.17	4981.66	-879.57	249.31	2.00	180.00	-261.14	
5200.00	0.41	164.17	5081.63	-881.93	249.98	2.00	180.00	-261.84	
5220.37	0.00	0.00	5102.00	-882.00	250.00	2.00	180.00	-261.86	
5300.00	0.00	0.00	5181.63	-882.00	250.00	0.00	0.00	-261.86	
5400.00	0.00	0.00	5281.63	-882.00	250.00	0.00	0.00	-261.86	
5500.00	0.00	0.00	5381.63	-882.00	250.00	0.00	0.00	-261.86	
5600.00	0.00	0.00	5481.63	-882.00	250.00	0.00	0.00	-261.86	
5700.00	0.00	0.00	5581.63	-882.00	250.00	0.00	0.00	-261.86	
5800.00	0.00	0.00	5681.63	-882.00	250.00	0.00	0.00	-261.86	
5900.00	0.00	0.00	5781.63	-882.00	250.00	0.00	0.00	-261.86	
6000.00	0.00	0.00	5881.63	-882.00	250.00	0.00	0.00	-261.86	
6100.00	0.00	0.00	5981.63	-882.00	250.00	0.00	0.00	-261.86	
6200.00	0.00	0.00	6081.63	-882.00	250.00	0.00	0.00	-261.86	
6300.00	0.00	0.00	6181.63	-882.00	250.00	0.00	0.00	-261.86	
6400.00	0.00	0.00	6281.63	-882.00	250.00	0.00	0.00	-261.86	
6500.00	0.00	0.00	6381.63	-882.00	250.00	0.00	0.00	-261.86	

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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
6600.00	0.00	0.00	6481.63	-882.00	250.00	0.00	0.00	-261.86	KOP @ 6688.41' MD
6688.41	0.00	0.00	6570.04	-882.00	250.00	0.00	0.00	-261.86	
6700.00	1.16	270.70	6581.63	-882.00	249.88	10.00	270.70	-261.74	
6800.00	11.16	270.70	6680.92	-881.87	239.17	10.00	0.00	-251.03	
6900.00	21.16	270.70	6776.85	-881.53	211.38	10.00	0.00	-223.24	SHARON SPRINGS : 1000'
6948.18	25.98	270.70	6821.00	-881.30	192.12	10.00	0.00	-203.98	
7000.00	31.16	270.70	6866.49	-881.00	167.35	10.00	0.00	-179.21	
7004.11	31.57	270.70	6870.00	-880.97	165.22	10.00	0.00	-177.07	
7047.41	35.90	270.70	6906.00	-880.68	141.18	10.00	0.00	-153.03	NIOBRARA B : 1000'
7100.00	41.16	270.70	6947.13	-880.28	108.43	10.00	0.00	-120.28	NIOBRARA C : 1000'
7133.93	44.55	270.70	6972.00	-880.00	85.36	10.00	0.00	-97.20	
7200.00	51.16	270.70	7016.31	-879.40	36.40	10.00	0.00	-48.24	
7300.00	61.16	270.70	7071.93	-878.40	-46.55	10.00	0.00	34.71	
7365.03	67.66	270.70	7100.00	-877.68	-105.16	10.00	0.00	93.33	FORT HAYS : 1000'
7400.00	71.16	270.70	7112.30	-877.29	-137.89	10.00	0.00	126.06	CODELL : 1000'
7486.74	79.83	270.70	7134.00	-876.27	-221.78	10.00	0.00	209.95	
7500.00	81.16	270.70	7136.19	-876.11	-234.86	10.00	0.00	223.03	
7587.65	89.92	270.70	7143.00	-875.05	-322.15	10.00	0.00	310.33	
7587.65	89.92	270.70	7143.00	-875.05	-322.15	0.00	0.00	310.33	LANDING POINT 7 in
7600.00	89.92	270.70	7143.01	-874.90	-334.50	0.00	0.00	322.68	
7700.00	89.92	270.70	7143.15	-873.68	-434.49	0.00	0.00	422.68	
7800.00	89.92	270.70	7143.28	-872.46	-534.48	0.00	0.00	522.68	
7900.00	89.92	270.70	7143.42	-871.25	-634.48	0.00	0.00	622.68	
8000.00	89.92	270.70	7143.55	-870.03	-734.47	0.00	0.00	722.68	
8100.00	89.92	270.70	7143.68	-868.82	-834.46	0.00	0.00	822.68	
8200.00	89.92	270.70	7143.82	-867.60	-934.45	0.00	0.00	922.68	
8300.00	89.92	270.70	7143.95	-866.39	-1034.45	0.00	0.00	1022.68	
8400.00	89.92	270.70	7144.09	-865.17	-1134.44	0.00	0.00	1122.68	
8500.00	89.92	270.70	7144.22	-863.96	-1234.43	0.00	0.00	1222.68	
8600.00	89.92	270.70	7144.36	-862.74	-1334.42	0.00	0.00	1322.68	
8700.00	89.92	270.70	7144.49	-861.52	-1434.42	0.00	0.00	1422.68	
8800.00	89.92	270.70	7144.62	-860.31	-1534.41	0.00	0.00	1522.68	
8900.00	89.92	270.70	7144.76	-859.09	-1634.40	0.00	0.00	1622.68	
9000.00	89.92	270.70	7144.89	-857.88	-1734.39	0.00	0.00	1722.68	
9100.00	89.92	270.70	7145.03	-856.66	-1834.39	0.00	0.00	1822.68	
9200.00	89.92	270.70	7145.16	-855.45	-1934.38	0.00	0.00	1922.68	
9300.00	89.92	270.70	7145.29	-854.23	-2034.37	0.00	0.00	2022.68	
9400.00	89.92	270.70	7145.43	-853.02	-2134.36	0.00	0.00	2122.68	
9500.00	89.92	270.70	7145.56	-851.80	-2234.36	0.00	0.00	2222.68	
9600.00	89.92	270.70	7145.70	-850.58	-2334.35	0.00	0.00	2322.68	
9700.00	89.92	270.70	7145.83	-849.37	-2434.34	0.00	0.00	2422.68	

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
9800.00	89.92	270.70	7145.96	-848.15	-2534.33	0.00	0.00	2522.68	
9900.00	89.92	270.70	7146.10	-846.94	-2634.33	0.00	0.00	2622.68	
10000.00	89.92	270.70	7146.23	-845.72	-2734.32	0.00	0.00	2722.68	
10100.00	89.92	270.70	7146.37	-844.51	-2834.31	0.00	0.00	2822.68	
10200.00	89.92	270.70	7146.50	-843.29	-2934.30	0.00	0.00	2922.68	
10300.00	89.92	270.70	7146.63	-842.08	-3034.30	0.00	0.00	3022.68	
10400.00	89.92	270.70	7146.77	-840.86	-3134.29	0.00	0.00	3122.68	
10500.00	89.92	270.70	7146.90	-839.64	-3234.28	0.00	0.00	3222.68	
10600.00	89.92	270.70	7147.04	-838.43	-3334.27	0.00	0.00	3322.68	
10700.00	89.92	270.70	7147.17	-837.21	-3434.27	0.00	0.00	3422.68	
10800.00	89.92	270.70	7147.31	-836.00	-3534.26	0.00	0.00	3522.68	
10900.00	89.92	270.70	7147.44	-834.78	-3634.25	0.00	0.00	3622.68	
11000.00	89.92	270.70	7147.57	-833.57	-3734.24	0.00	0.00	3722.68	
11100.00	89.92	270.70	7147.71	-832.35	-3834.24	0.00	0.00	3822.68	
11200.00	89.92	270.70	7147.84	-831.14	-3934.23	0.00	0.00	3922.68	
11300.00	89.92	270.70	7147.98	-829.92	-4034.22	0.00	0.00	4022.68	
11400.00	89.92	270.70	7148.11	-828.70	-4134.21	0.00	0.00	4122.68	
11500.00	89.92	270.70	7148.24	-827.49	-4234.21	0.00	0.00	4222.68	
11600.00	89.92	270.70	7148.38	-826.27	-4334.20	0.00	0.00	4322.68	
11700.00	89.92	270.70	7148.51	-825.06	-4434.19	0.00	0.00	4422.68	
11800.00	89.92	270.70	7148.65	-823.84	-4534.18	0.00	0.00	4522.68	
11900.00	89.92	270.70	7148.78	-822.63	-4634.18	0.00	0.00	4622.68	
12000.00	89.92	270.70	7148.91	-821.41	-4734.17	0.00	0.00	4722.68	
12064.07	89.92	270.70	7149.00	-820.63	-4798.23	0.00	0.00	4786.74	TD @ 12064.07' MD

Formation Points (Relative to centre, TVD relative to Drill Floor)		
Name	MD (US ft)	TVD (US ft)
FOX HILLS BASE	706.00	706.00
SUSSEX	4223.38	4123.00
SHANNON	4646.54	4532.00
SHARON SPRINGS	6948.18	6821.00
NIOBRARA	7004.11	6870.00
NIOBRARA B	7047.41	6906.00
NIOBRARA C	7133.93	6972.00
FORT HAYS	7365.03	7100.00
CODELL	7486.74	7134.00