

**5D Plan Report**

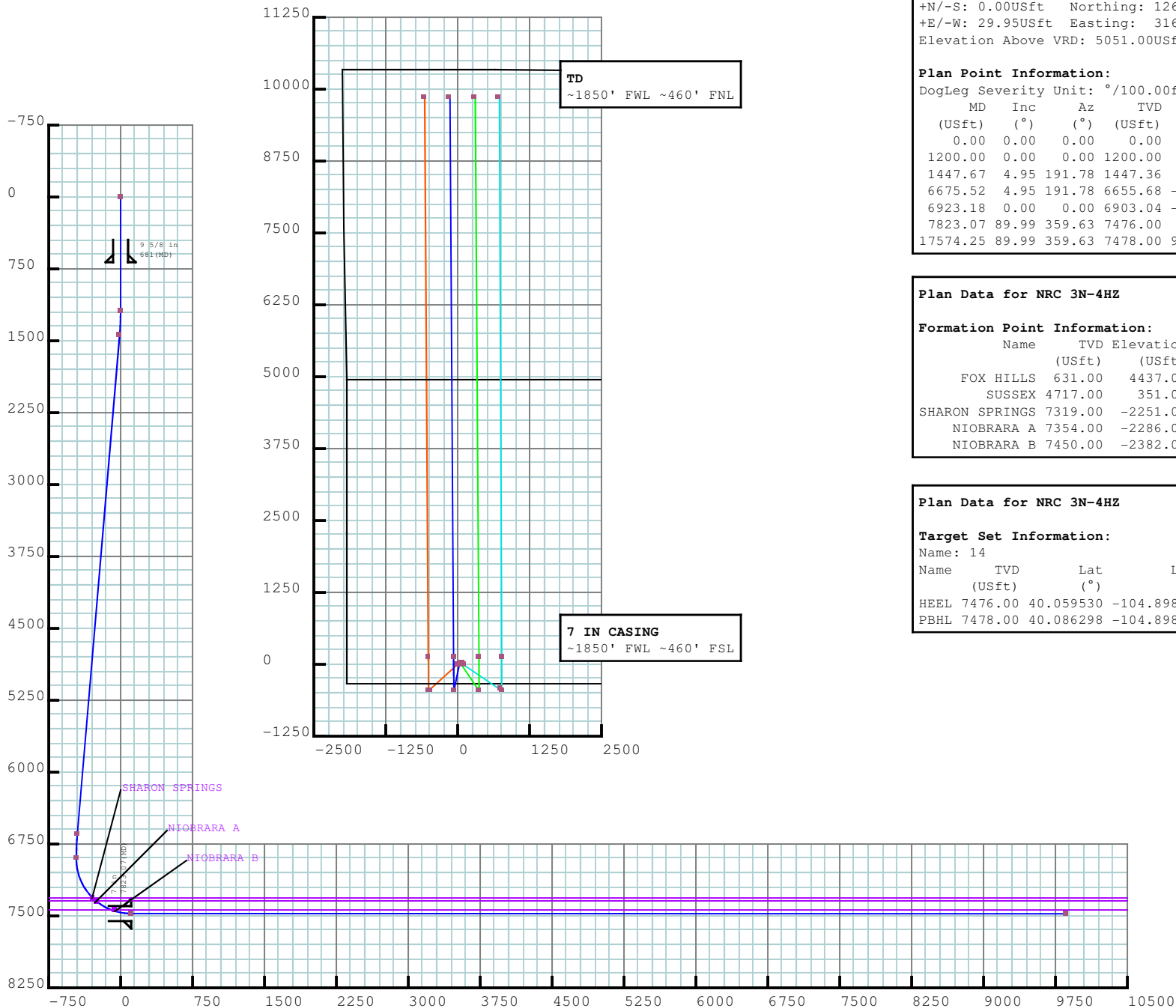
---

**Anadarko Petroleum**

**Field Name:** *WATTENBERG\_ANADARKO\_NAD 83*  
**Site Name:** *NRC 3C-4HZ PAD*  
**Well Name:** *NRC 3N-4HZ*  
**Plan:** *WP01 PERMIT*

---





### Plan Data for NRC 3N-4HZ

**Field:** WATTENBERG\_ANADARKO\_NAD 83

Map Unit: USft Vertical Reference Datum (VRD): Mean Sea Level  
Projected Coordinate System: NAD83 / Colorado North (ftUS)

### Slot: NRC 3N-4HZ

Position:

Offset is from Site centre

+N/-S: 0.00USft Northing: 1264993.85USft Latitude: 40.059228°

+E/-W: 29.95USft Easting: 3168469.15USft Longitude: -104.898127°

Elevation Above VRD: 5051.00USft

### Plan Point Information:

DogLeg	Severity	Unit:	°/100.00ft	Position	offsets	from	Slot	centre
MD	Inc	Az	TVD	+N/-S	+E/-W	VSec	DLS	Toolface
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(DLSU)	(°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0R
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.0R
1447.67	4.95	191.78	1447.36	-10.47	-2.18	-10.46	2.00	168.2L
6675.52	4.95	191.78	6655.68	-452.37	-94.32	-451.75	0.00	0.0R
6923.18	0.00	0.00	6903.04	-462.84	-96.50	-462.21	2.00	180.0R
7823.07	89.99	359.63	7476.00	109.99	-100.21	110.63	10.00	0.4L
17574.25	89.99	359.63	7478.00	9860.97	-163.41	9861.82	0.00	0.0R

### Plan Data for NRC 3N-4HZ

#### Formation Point Information:

Name	TVD	Elevation	MD
	(USft)	(USft)	(USft)
FOX HILLS	631.00	4437.00	631.00
SUSSEX	4717.00	351.00	4729.57
SHARON SPRINGS	7319.00	-2251.00	7388.69
NIOBRARA A	7354.00	-2286.00	7442.31
NIOBRARA B	7450.00	-2382.00	7649.91

### Plan Data for NRC 3N-4HZ

#### Casing Point Information:

Name	MD	TVD
	(USft)	(USft)
9 5/8 in	681.00	681.00
7 in	7823.07	7476.00

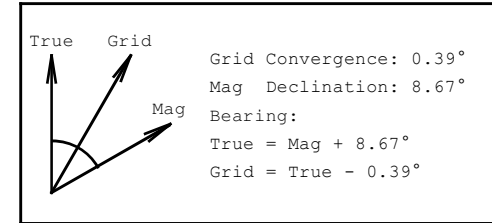
### Plan Data for NRC 3N-4HZ

#### Target Set Information:

Name	TVD	Lat	Long	Shape
	(USft)	(°)	(°)	
HEEL	7476.00	40.059530	-104.898485	Cuboid
PBHL	7478.00	40.086298	-104.898711	Cuboid

### LINER TOP- 6823.18' MD

KOP- 6923.18' MD





# Weatherford®



## Plan Surveys for the NRC 3N-4HZ

Site Name  NRC 3C-4HZ PAD	Units : US ft	North Reference : True	Convergence Angle : 0.39	
	Position	Northing : 1264993.64 US ft	Latitude : 40.059228	
		Easting : 3168439.20 US ft	Longitude : -104.898234	
	Elevation above:5051.00 US ft			
Comment :				
Slot Name  NRC 3N-4HZ	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing :1264993.85 US ft	Latitude : 40.059228	
	+E / -W : 29.95 US ft	Easting :3168469.15 US ft	Longitude : -104.898127	
	Slot TVD Reference : Ground Elevation			
	Elevation above : 5051.00 US ft			
	Comment :			
Well Name  NRC 3N-4HZ	Type : Main well		UWI :	Plan : WP01 PERMIT
	Rig Height <i>Drill Floor</i> : 17.00 US ft		Comment :	
	Relative to : 5068.00 US ft			
	Closure Distance : 9862.32 US ft		Closure Azimuth : 359.051°	
	Vertical Section (Position of Origin Relative to Slot )			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az :359.63°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 52684.0nT	Dec : 8.67°	Dip : 66.64°

**Target Set****Name :** 14**Number of Targets :** 2**Comment :**

<b>TargetName:</b>	<b>Position (Relative to centre)</b>			
HEEL	<b>+N / -S</b> : 110.01US ft	<b>Northing</b> : 1265103.18 US ft	<b>Latitude</b> : 40°3'34.308000"	
<b>Shape:</b>	<b>+E / -W</b> : -100.20 US ft	<b>Easting</b> : 3168368.20US ft	<b>Longitude</b> : -104°53'54.546000"	
Cuboid	<b>TVD (Drill Floor)</b> : 7476.00 US ft			
	<b>Orientation</b>	<b>Azimuth</b> : 0.00°	<b>Inclination</b> : 0.00°	
	<b>Dimensions</b>	<b>Length</b> : 1.00 US ft	<b>Breadth</b> : 1.00 US ft	<b>Height</b> : 1.00 US ft

<b>TargetName:</b>	<b>Position (Relative to centre)</b>			
PBHL	<b>+N / -S</b> : 9860.97US ft	<b>Northing</b> : 1274853.48 US ft	<b>Latitude</b> : 40°5'10.672800"	
<b>Shape:</b>	<b>+E / -W</b> : -163.41 US ft	<b>Easting</b> : 3168238.83US ft	<b>Longitude</b> : -104°53'55.359600"	
Cuboid	<b>TVD (Drill Floor)</b> : 7478.00 US ft			
	<b>Orientation</b>	<b>Azimuth</b> : 0.00°	<b>Inclination</b> : 0.00°	
	<b>Dimensions</b>	<b>Length</b> : 1.00 US ft	<b>Breadth</b> : 1.00 US ft	<b>Height</b> : 1.00 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	681.00	0.00	0.00	681.00	0.00	0.00	40.059228	-104.898127
7 in	7823.07	89.99	359.63	7476.00	109.99	-100.21	40.059530	-104.898485

**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)	Northing (US ft)	Easting (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	1264993.85	3168469.15	0.00	0.00	0.00	SURFACE
681.00	0.00	0.00	681.00	0.00	0.00	1264993.85	3168469.15	0.00	0.00	0.00	9 5/8 in
1200.00	0.00	0.00	1200.00	0.00	0.00	1264993.85	3168469.15	0.00	0.00	0.00	BEGIN NUDGE
1447.67	4.95	191.78	1447.36	-10.47	-2.18	1264983.36	3168467.04	2.00	191.78	-10.46	
6675.52	4.95	191.78	6655.68	-452.37	-94.32	1264540.85	3168377.91	0.00	0.00	-451.75	

## 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)	Northing (US ft)	Easting (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
6923.18	0.00	0.00	6903.04	-462.84	-96.50	1264530.37	3168375.79	2.00	180.00	-462.21	KOP
7823.07	89.99	359.63	7476.00	109.99	-100.21	1265103.16	3168368.19	10.00	359.63	110.63	
7823.07	89.99	359.63	7476.00	109.99	-100.21	1265103.16	3168368.19	0.00	0.00	110.64	7 in
17574.25	89.99	359.63	7478.00	9860.97	-163.41	1274853.48	3168238.83	0.00	0.00	9861.82	TD

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	SURFACE		
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			
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	BEGIN NUDGE		
1300.00	2.00	191.78	1299.98	-1.71	-0.36	2.00	191.78	-1.71			
1400.00	4.00	191.78	1399.84	-6.83	-1.42	2.00	0.00	-6.82			
1447.67	4.95	191.78	1447.36	-10.47	-2.18	2.00	0.00	-10.46			
1500.00	4.95	191.78	1499.50	-14.90	-3.11	0.00	0.00	-14.88			
1600.00	4.95	191.78	1599.12	-23.35	-4.87	0.00	0.00	-23.32			
1700.00	4.95	191.78	1698.75	-31.80	-6.63	0.00	0.00	-31.76			
1800.00	4.95	191.78	1798.38	-40.26	-8.39	0.00	0.00	-40.20			
1900.00	4.95	191.78	1898.00	-48.71	-10.16	0.00	0.00	-48.64			
2000.00	4.95	191.78	1997.63	-57.16	-11.92	0.00	0.00	-57.08			
2100.00	4.95	191.78	2097.26	-65.61	-13.68	0.00	0.00	-65.52			
2200.00	4.95	191.78	2196.88	-74.07	-15.44	0.00	0.00	-73.96			
2300.00	4.95	191.78	2296.51	-82.52	-17.20	0.00	0.00	-82.41			
2400.00	4.95	191.78	2396.13	-90.97	-18.97	0.00	0.00	-90.85			
2500.00	4.95	191.78	2495.76	-99.42	-20.73	0.00	0.00	-99.29			
2600.00	4.95	191.78	2595.39	-107.88	-22.49	0.00	0.00	-107.73			
2700.00	4.95	191.78	2695.01	-116.33	-24.25	0.00	0.00	-116.17			
2800.00	4.95	191.78	2794.64	-124.78	-26.02	0.00	0.00	-124.61			
2900.00	4.95	191.78	2894.27	-133.23	-27.78	0.00	0.00	-133.05			
3000.00	4.95	191.78	2993.89	-141.69	-29.54	0.00	0.00	-141.49			
3100.00	4.95	191.78	3093.52	-150.14	-31.30	0.00	0.00	-149.93			
3200.00	4.95	191.78	3193.15	-158.59	-33.07	0.00	0.00	-158.38			

## 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
3300.00	4.95	191.78	3292.77	-167.05	-34.83	0.00	0.00	-166.82	
3400.00	4.95	191.78	3392.40	-175.50	-36.59	0.00	0.00	-175.26	
3500.00	4.95	191.78	3492.03	-183.95	-38.35	0.00	0.00	-183.70	
3600.00	4.95	191.78	3591.65	-192.40	-40.12	0.00	0.00	-192.14	
3700.00	4.95	191.78	3691.28	-200.86	-41.88	0.00	0.00	-200.58	
3800.00	4.95	191.78	3790.91	-209.31	-43.64	0.00	0.00	-209.02	
3900.00	4.95	191.78	3890.53	-217.76	-45.40	0.00	0.00	-217.46	
4000.00	4.95	191.78	3990.16	-226.21	-47.16	0.00	0.00	-225.90	
4100.00	4.95	191.78	4089.79	-234.67	-48.93	0.00	0.00	-234.35	
4200.00	4.95	191.78	4189.41	-243.12	-50.69	0.00	0.00	-242.79	
4300.00	4.95	191.78	4289.04	-251.57	-52.45	0.00	0.00	-251.23	
4400.00	4.95	191.78	4388.67	-260.02	-54.21	0.00	0.00	-259.67	
4500.00	4.95	191.78	4488.29	-268.48	-55.98	0.00	0.00	-268.11	
4600.00	4.95	191.78	4587.92	-276.93	-57.74	0.00	0.00	-276.55	
4700.00	4.95	191.78	4687.55	-285.38	-59.50	0.00	0.00	-284.99	
4800.00	4.95	191.78	4787.17	-293.84	-61.26	0.00	0.00	-293.43	
4900.00	4.95	191.78	4886.80	-302.29	-63.03	0.00	0.00	-301.87	
5000.00	4.95	191.78	4986.42	-310.74	-64.79	0.00	0.00	-310.32	
5100.00	4.95	191.78	5086.05	-319.19	-66.55	0.00	0.00	-318.76	
5200.00	4.95	191.78	5185.68	-327.65	-68.31	0.00	0.00	-327.20	
5300.00	4.95	191.78	5285.30	-336.10	-70.08	0.00	0.00	-335.64	
5400.00	4.95	191.78	5384.93	-344.55	-71.84	0.00	0.00	-344.08	
5500.00	4.95	191.78	5484.56	-353.00	-73.60	0.00	0.00	-352.52	
5600.00	4.95	191.78	5584.18	-361.46	-75.36	0.00	0.00	-360.96	
5700.00	4.95	191.78	5683.81	-369.91	-77.12	0.00	0.00	-369.40	
5800.00	4.95	191.78	5783.44	-378.36	-78.89	0.00	0.00	-377.84	
5900.00	4.95	191.78	5883.06	-386.81	-80.65	0.00	0.00	-386.29	
6000.00	4.95	191.78	5982.69	-395.27	-82.41	0.00	0.00	-394.73	
6100.00	4.95	191.78	6082.32	-403.72	-84.17	0.00	0.00	-403.17	
6200.00	4.95	191.78	6181.94	-412.17	-85.94	0.00	0.00	-411.61	
6300.00	4.95	191.78	6281.57	-420.63	-87.70	0.00	0.00	-420.05	
6400.00	4.95	191.78	6381.20	-429.08	-89.46	0.00	0.00	-428.49	
6500.00	4.95	191.78	6480.82	-437.53	-91.22	0.00	0.00	-436.93	
6600.00	4.95	191.78	6580.45	-445.98	-92.99	0.00	0.00	-445.37	
6675.52	4.95	191.78	6655.68	-452.37	-94.32	0.00	0.00	-451.75	
6700.00	4.46	191.78	6680.08	-454.33	-94.73	2.00	180.00	-453.71	
6800.00	2.46	191.78	6779.90	-460.25	-95.96	2.00	180.00	-459.62	
6900.00	0.46	191.78	6879.86	-462.75	-96.48	2.00	180.00	-462.12	
6923.18	0.00	0.00	6903.04	-462.84	-96.50	2.00	180.00	-462.21	KOP
7000.00	7.68	359.63	6979.63	-457.70	-96.53	10.00	359.63	-457.07	
7100.00	17.68	359.63	7077.07	-435.77	-96.68	10.00	0.00	-435.14	

## 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
7200.00	27.68	359.63	7169.21	-397.26	-96.93	10.00	0.00	-396.63	
7300.00	37.68	359.63	7253.28	-343.34	-97.27	10.00	0.00	-342.70	
7400.00	47.68	359.63	7326.70	-275.63	-97.71	10.00	0.00	-274.99	
7500.00	57.68	359.63	7387.24	-196.20	-98.23	10.00	0.00	-195.57	
7600.00	67.68	359.63	7433.08	-107.47	-98.80	10.00	0.00	-106.83	
7700.00	77.68	359.63	7462.81	-12.13	-99.42	10.00	0.00	-11.49	
7800.00	87.68	359.63	7475.53	86.93	-100.06	10.00	0.00	87.57	
7823.07	89.99	359.63	7476.00	109.99	-100.21	10.00	0.00	110.63	
7900.00	89.99	359.63	7476.02	186.92	-100.71	0.00	0.00	187.57	
8000.00	89.99	359.63	7476.04	286.92	-101.36	0.00	0.00	287.57	
8100.00	89.99	359.63	7476.06	386.92	-102.01	0.00	0.00	387.57	
8200.00	89.99	359.63	7476.08	486.91	-102.66	0.00	0.00	487.57	
8300.00	89.99	359.63	7476.10	586.91	-103.30	0.00	0.00	587.57	
8400.00	89.99	359.63	7476.12	686.91	-103.95	0.00	0.00	687.57	
8500.00	89.99	359.63	7476.14	786.91	-104.60	0.00	0.00	787.57	
8600.00	89.99	359.63	7476.16	886.91	-105.25	0.00	0.00	887.57	
8700.00	89.99	359.63	7476.18	986.90	-105.90	0.00	0.00	987.57	
8800.00	89.99	359.63	7476.20	1086.90	-106.54	0.00	0.00	1087.57	
8900.00	89.99	359.63	7476.22	1186.90	-107.19	0.00	0.00	1187.57	
9000.00	89.99	359.63	7476.24	1286.90	-107.84	0.00	0.00	1287.57	
9100.00	89.99	359.63	7476.26	1386.89	-108.49	0.00	0.00	1387.57	
9200.00	89.99	359.63	7476.28	1486.89	-109.14	0.00	0.00	1487.57	
9300.00	89.99	359.63	7476.30	1586.89	-109.78	0.00	0.00	1587.57	
9400.00	89.99	359.63	7476.32	1686.89	-110.43	0.00	0.00	1687.57	
9500.00	89.99	359.63	7476.34	1786.89	-111.08	0.00	0.00	1787.57	
9600.00	89.99	359.63	7476.37	1886.88	-111.73	0.00	0.00	1887.57	
9700.00	89.99	359.63	7476.39	1986.88	-112.38	0.00	0.00	1987.57	
9800.00	89.99	359.63	7476.41	2086.88	-113.03	0.00	0.00	2087.57	
9900.00	89.99	359.63	7476.43	2186.88	-113.67	0.00	0.00	2187.57	
10000.00	89.99	359.63	7476.45	2286.88	-114.32	0.00	0.00	2287.57	
10100.00	89.99	359.63	7476.47	2386.87	-114.97	0.00	0.00	2387.57	
10200.00	89.99	359.63	7476.49	2486.87	-115.62	0.00	0.00	2487.57	
10300.00	89.99	359.63	7476.51	2586.87	-116.27	0.00	0.00	2587.57	
10400.00	89.99	359.63	7476.53	2686.87	-116.91	0.00	0.00	2687.57	
10500.00	89.99	359.63	7476.55	2786.87	-117.56	0.00	0.00	2787.57	
10600.00	89.99	359.63	7476.57	2886.86	-118.21	0.00	0.00	2887.57	
10700.00	89.99	359.63	7476.59	2986.86	-118.86	0.00	0.00	2987.57	
10800.00	89.99	359.63	7476.61	3086.86	-119.51	0.00	0.00	3087.57	
10900.00	89.99	359.63	7476.63	3186.86	-120.15	0.00	0.00	3187.57	
11000.00	89.99	359.63	7476.65	3286.85	-120.80	0.00	0.00	3287.57	
11100.00	89.99	359.63	7476.67	3386.85	-121.45	0.00	0.00	3387.57	

## 5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Drill Floor )										Comment
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)		
11200.00	89.99	359.63	7476.69	3486.85	-122.10	0.00	0.00	3487.57		
11300.00	89.99	359.63	7476.71	3586.85	-122.75	0.00	0.00	3587.57		
11400.00	89.99	359.63	7476.73	3686.85	-123.39	0.00	0.00	3687.57		
11500.00	89.99	359.63	7476.75	3786.84	-124.04	0.00	0.00	3787.57		
11600.00	89.99	359.63	7476.78	3886.84	-124.69	0.00	0.00	3887.57		
11700.00	89.99	359.63	7476.80	3986.84	-125.34	0.00	0.00	3987.57		
11800.00	89.99	359.63	7476.82	4086.84	-125.99	0.00	0.00	4087.57		
11900.00	89.99	359.63	7476.84	4186.84	-126.64	0.00	0.00	4187.57		
12000.00	89.99	359.63	7476.86	4286.83	-127.28	0.00	0.00	4287.57		
12100.00	89.99	359.63	7476.88	4386.83	-127.93	0.00	0.00	4387.57		
12200.00	89.99	359.63	7476.90	4486.83	-128.58	0.00	0.00	4487.57		
12300.00	89.99	359.63	7476.92	4586.83	-129.23	0.00	0.00	4587.57		
12400.00	89.99	359.63	7476.94	4686.83	-129.88	0.00	0.00	4687.57		
12500.00	89.99	359.63	7476.96	4786.82	-130.52	0.00	0.00	4787.57		
12600.00	89.99	359.63	7476.98	4886.82	-131.17	0.00	0.00	4887.57		
12700.00	89.99	359.63	7477.00	4986.82	-131.82	0.00	0.00	4987.57		
12800.00	89.99	359.63	7477.02	5086.82	-132.47	0.00	0.00	5087.57		
12900.00	89.99	359.63	7477.04	5186.81	-133.12	0.00	0.00	5187.57		
13000.00	89.99	359.63	7477.06	5286.81	-133.76	0.00	0.00	5287.57		
13100.00	89.99	359.63	7477.08	5386.81	-134.41	0.00	0.00	5387.57		
13200.00	89.99	359.63	7477.10	5486.81	-135.06	0.00	0.00	5487.57		
13300.00	89.99	359.63	7477.12	5586.81	-135.71	0.00	0.00	5587.57		
13400.00	89.99	359.63	7477.14	5686.80	-136.36	0.00	0.00	5687.57		
13500.00	89.99	359.63	7477.16	5786.80	-137.00	0.00	0.00	5787.57		
13600.00	89.99	359.63	7477.19	5886.80	-137.65	0.00	0.00	5887.57		
13700.00	89.99	359.63	7477.21	5986.80	-138.30	0.00	0.00	5987.57		
13800.00	89.99	359.63	7477.23	6086.80	-138.95	0.00	0.00	6087.57		
13900.00	89.99	359.63	7477.25	6186.79	-139.60	0.00	0.00	6187.57		
14000.00	89.99	359.63	7477.27	6286.79	-140.25	0.00	0.00	6287.57		
14100.00	89.99	359.63	7477.29	6386.79	-140.89	0.00	0.00	6387.57		
14200.00	89.99	359.63	7477.31	6486.79	-141.54	0.00	0.00	6487.57		
14300.00	89.99	359.63	7477.33	6586.79	-142.19	0.00	0.00	6587.57		
14400.00	89.99	359.63	7477.35	6686.78	-142.84	0.00	0.00	6687.57		
14500.00	89.99	359.63	7477.37	6786.78	-143.49	0.00	0.00	6787.57		
14600.00	89.99	359.63	7477.39	6886.78	-144.13	0.00	0.00	6887.57		
14700.00	89.99	359.63	7477.41	6986.78	-144.78	0.00	0.00	6987.57		
14800.00	89.99	359.63	7477.43	7086.77	-145.43	0.00	0.00	7087.57		
14900.00	89.99	359.63	7477.45	7186.77	-146.08	0.00	0.00	7187.57		
15000.00	89.99	359.63	7477.47	7286.77	-146.73	0.00	0.00	7287.57		
15100.00	89.99	359.63	7477.49	7386.77	-147.37	0.00	0.00	7387.57		
15200.00	89.99	359.63	7477.51	7486.77	-148.02	0.00	0.00	7487.57		



## 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
15300.00	89.99	359.63	7477.53	7586.76	-148.67	0.00	0.00	7587.57	
15400.00	89.99	359.63	7477.55	7686.76	-149.32	0.00	0.00	7687.57	
15500.00	89.99	359.63	7477.57	7786.76	-149.97	0.00	0.00	7787.57	
15600.00	89.99	359.63	7477.60	7886.76	-150.62	0.00	0.00	7887.57	
15700.00	89.99	359.63	7477.62	7986.76	-151.26	0.00	0.00	7987.57	
15800.00	89.99	359.63	7477.64	8086.75	-151.91	0.00	0.00	8087.57	
15900.00	89.99	359.63	7477.66	8186.75	-152.56	0.00	0.00	8187.57	
16000.00	89.99	359.63	7477.68	8286.75	-153.21	0.00	0.00	8287.57	
16100.00	89.99	359.63	7477.70	8386.75	-153.86	0.00	0.00	8387.57	
16200.00	89.99	359.63	7477.72	8486.75	-154.50	0.00	0.00	8487.57	
16300.00	89.99	359.63	7477.74	8586.74	-155.15	0.00	0.00	8587.57	
16400.00	89.99	359.63	7477.76	8686.74	-155.80	0.00	0.00	8687.57	
16500.00	89.99	359.63	7477.78	8786.74	-156.45	0.00	0.00	8787.57	
16600.00	89.99	359.63	7477.80	8886.74	-157.10	0.00	0.00	8887.57	
16700.00	89.99	359.63	7477.82	8986.73	-157.74	0.00	0.00	8987.57	
16800.00	89.99	359.63	7477.84	9086.73	-158.39	0.00	0.00	9087.57	
16900.00	89.99	359.63	7477.86	9186.73	-159.04	0.00	0.00	9187.57	
17000.00	89.99	359.63	7477.88	9286.73	-159.69	0.00	0.00	9287.57	
17100.00	89.99	359.63	7477.90	9386.73	-160.34	0.00	0.00	9387.57	
17200.00	89.99	359.63	7477.92	9486.72	-160.98	0.00	0.00	9487.57	
17300.00	89.99	359.63	7477.94	9586.72	-161.63	0.00	0.00	9587.57	
17400.00	89.99	359.63	7477.96	9686.72	-162.28	0.00	0.00	9687.57	
17500.00	89.99	359.63	7477.98	9786.72	-162.93	0.00	0.00	9787.57	
17574.25	89.99	359.63	7478.00	9860.97	-163.41	0.00	0.00	9861.82	TD

Formation Points (Relative to centre, TVD relative to Drill Floor )		
Name	MD (US ft)	TVD (US ft)
FOX HILLS	631.00	631.00
SUSSEX	4729.57	4717.00
SHARON SPRINGS	7388.69	7319.00
NIOBRARA A	7442.31	7354.00
NIOBRARA B	7649.91	7450.00