

# Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 10-T2N-R66W

Cannon 34C-10HZ

Plan A Rev 0

Plan: Plan A Rev 0 Permit

## Sperry Drilling Services

## Proposal Report

14 December, 2012

Well Coordinates: 1,301,569.32 N, 3,204,399.75 E (40° 09' 32.00" N, 104° 46' 07.28" W)

Ground Level: 4,948.00 ft

Local Coordinate Origin:

Centered on Well Cannon 34C-10HZ

Viewing Datum:

RKB=17 @ 4965.00ft (Drilling Rig)

TVDs to System:

N

North Reference:

True

Unit System:

API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 43I

**HALLIBURTON**

Project: Weld County, CO (NAD 83)  
 Site: Sec. 10-T2N-R66W  
 Well: Cannon 34C-10HZ  
 Wellbore: Plan A Rev 0  
 Design: Plan A Rev 0 Permit

# Anadarko Petroleum Corp.

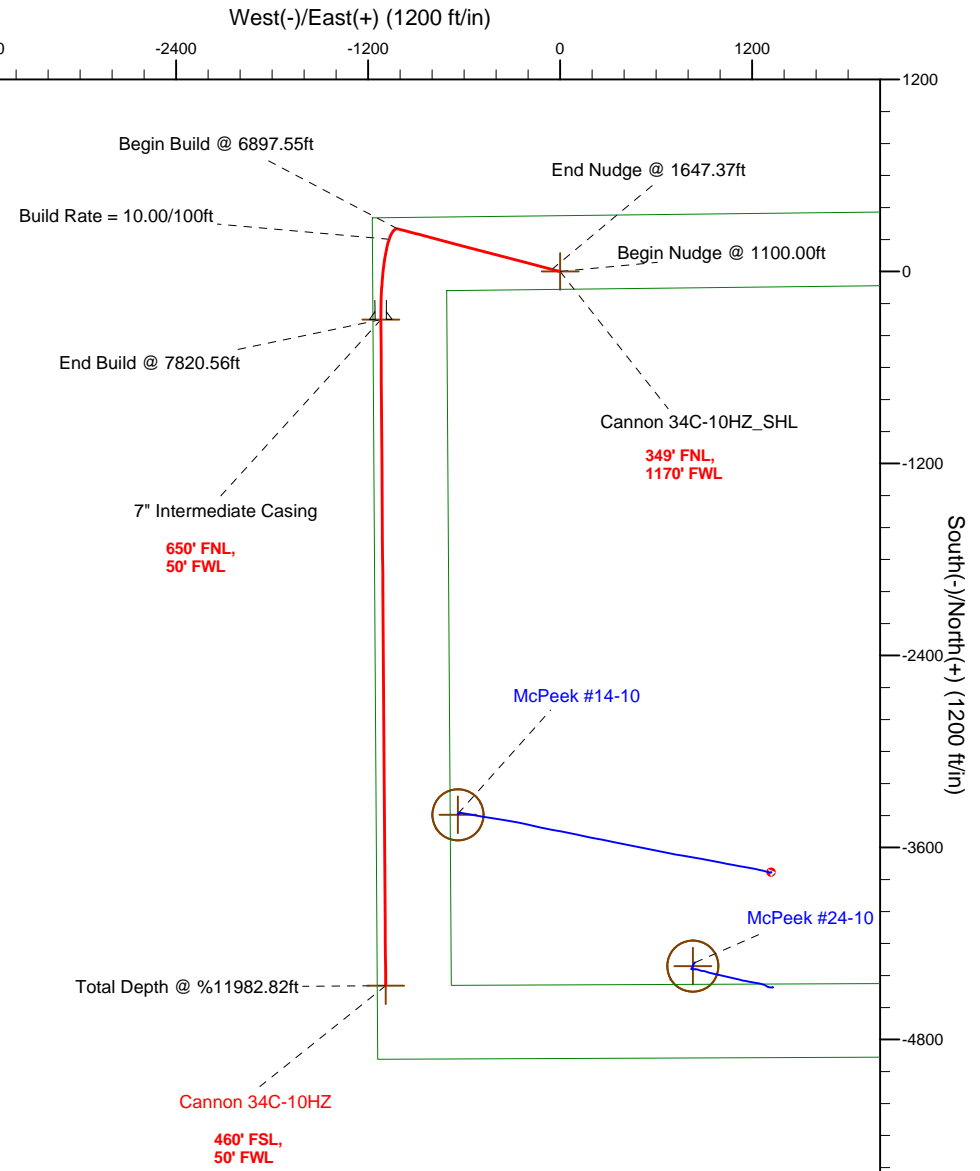
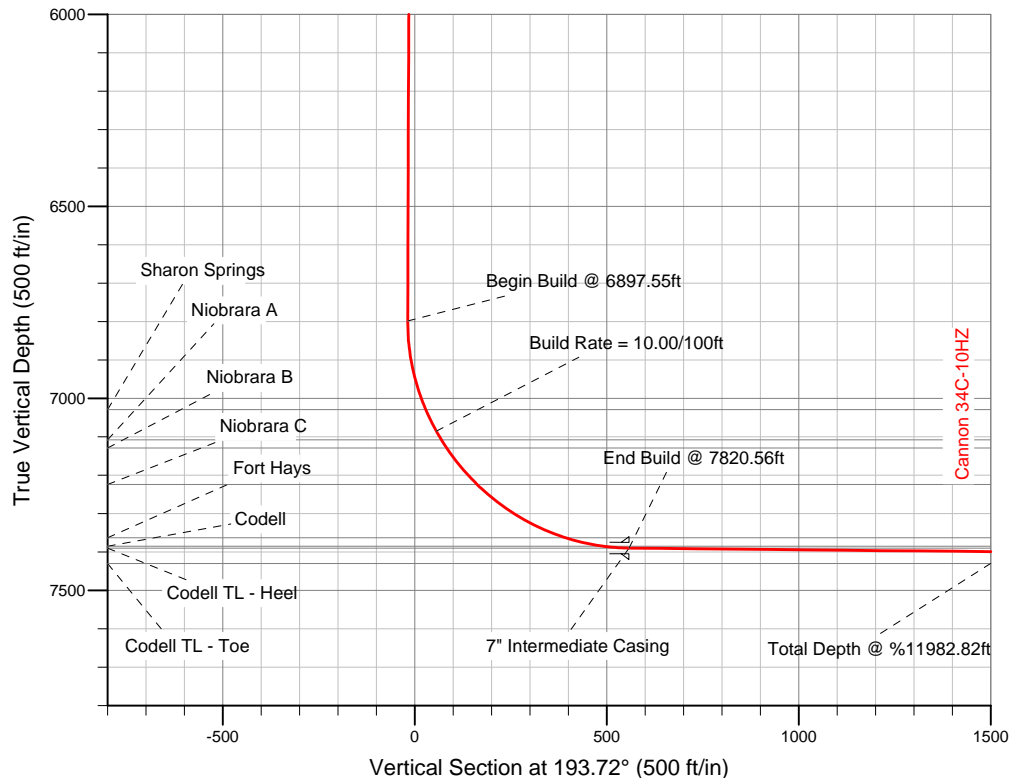
**HALLIBURTON**  
 Sperry Drilling

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
3	1647.37	10.95	284.72	1644.05	13.25	-50.42	2.00	284.72	-0.91	
4	6897.55	10.95	284.72	6798.68	266.61	-1014.75	0.00	0.00	-18.24	
5	7820.56	89.45	179.59	7390.00	-301.00	-1120.00	10.00	-104.97	558.14	Cannon 34C-10HZ_CP
6	11982.82	89.45	179.59	7430.00	-4462.96	-1090.02	0.00	0.00	4594.15	Cannon 34C-10HZ_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Cannon 34C-10HZ_SHL	0.00	0.00	0.00	40.158889	-104.768689	Point
-McPeck 24-10 - 160'	7175.52	-4341.30	829.74	40.146972	-104.765721	Circle (Radius: 160.00)
-McPeck 14-10 - 160'	7180.12	-3395.23	-638.49	40.149569	-104.770973	Circle (Radius: 160.00)
Cannon 34C-10HZ_CP	7390.00	-301.00	-1120.00	40.158063	-104.772696	Point
Cannon 34C-10HZ_BHL	7430.00	-4462.96	-1090.02	40.146638	-104.772588	Point



## WELL DETAILS: Cannon 34C-10HZ

Ground Level#948.00 RKB=17 @ 4965.00ft (Drilling Rig)

Plan: Plan A Rev 0 Permit (Cannon 34C-10HZ/Plan A Rev 0)

Created By: Fred Hartmann Date: 12/14/2012  
 Reviewed: Date:

**Plan Report for Cannon 34C-10HZ - Plan A Rev 0 Permit**

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)	Toolface Azimuth (°)
0.00	0.00	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	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	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	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	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	0.00	0.00
600.00	0.00	0.00	600.00	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	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	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	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Begin Nudge @ 1100.00ft</b>										
1,200.00	2.00	284.72	1,199.98	0.44	-1.69	-0.03	2.00	2.00	0.00	284.72
1,300.00	4.00	284.72	1,299.84	1.77	-6.75	-0.12	2.00	2.00	0.00	0.00
1,400.00	6.00	284.72	1,399.45	3.99	-15.18	-0.27	2.00	2.00	0.00	0.00
1,500.00	8.00	284.72	1,498.70	7.08	-26.96	-0.48	2.00	2.00	0.00	0.00
1,600.00	10.00	284.72	1,597.47	11.06	-42.09	-0.76	2.00	2.00	0.00	0.00
1,647.37	10.95	284.72	1,644.05	13.25	-50.42	-0.91	2.00	2.00	0.00	0.00
<b>End Nudge @ 1647.37ft</b>										
1,700.00	10.95	284.72	1,695.72	15.79	-60.09	-1.08	0.00	0.00	0.00	0.00
1,800.00	10.95	284.72	1,793.90	20.61	-78.46	-1.41	0.00	0.00	0.00	0.00
1,900.00	10.95	284.72	1,892.08	25.44	-96.82	-1.74	0.00	0.00	0.00	0.00
2,000.00	10.95	284.72	1,990.26	30.27	-115.19	-2.07	0.00	0.00	0.00	0.00
2,100.00	10.95	284.72	2,088.44	35.09	-133.56	-2.40	0.00	0.00	0.00	0.00
2,200.00	10.95	284.72	2,186.62	39.92	-151.93	-2.73	0.00	0.00	0.00	0.00
2,300.00	10.95	284.72	2,284.80	44.74	-170.29	-3.06	0.00	0.00	0.00	0.00
2,400.00	10.95	284.72	2,382.98	49.57	-188.66	-3.39	0.00	0.00	0.00	0.00
2,500.00	10.95	284.72	2,481.16	54.39	-207.03	-3.72	0.00	0.00	0.00	0.00
2,600.00	10.95	284.72	2,579.34	59.22	-225.40	-4.05	0.00	0.00	0.00	0.00
2,700.00	10.95	284.72	2,677.52	64.05	-243.76	-4.38	0.00	0.00	0.00	0.00
2,800.00	10.95	284.72	2,775.70	68.87	-262.13	-4.71	0.00	0.00	0.00	0.00
2,900.00	10.95	284.72	2,873.88	73.70	-280.50	-5.04	0.00	0.00	0.00	0.00
3,000.00	10.95	284.72	2,972.06	78.52	-298.87	-5.37	0.00	0.00	0.00	0.00
3,100.00	10.95	284.72	3,070.24	83.35	-317.23	-5.70	0.00	0.00	0.00	0.00
3,200.00	10.95	284.72	3,168.42	88.18	-335.60	-6.03	0.00	0.00	0.00	0.00
3,300.00	10.95	284.72	3,266.60	93.00	-353.97	-6.36	0.00	0.00	0.00	0.00
3,400.00	10.95	284.72	3,364.78	97.83	-372.34	-6.69	0.00	0.00	0.00	0.00
3,500.00	10.95	284.72	3,462.96	102.65	-390.70	-7.02	0.00	0.00	0.00	0.00
3,600.00	10.95	284.72	3,561.14	107.48	-409.07	-7.35	0.00	0.00	0.00	0.00
3,700.00	10.95	284.72	3,659.32	112.30	-427.44	-7.68	0.00	0.00	0.00	0.00
3,800.00	10.95	284.72	3,757.50	117.13	-445.81	-8.01	0.00	0.00	0.00	0.00
3,900.00	10.95	284.72	3,855.68	121.96	-464.17	-8.34	0.00	0.00	0.00	0.00
4,000.00	10.95	284.72	3,953.86	126.78	-482.54	-8.67	0.00	0.00	0.00	0.00
4,042.92	10.95	284.72	3,996.00	128.85	-490.42	-8.81	0.00	0.00	0.00	0.00
<b>Parkman</b>										
4,100.00	10.95	284.72	4,052.04	131.61	-500.91	-9.00	0.00	0.00	0.00	0.00
4,200.00	10.95	284.72	4,150.22	136.43	-519.28	-9.33	0.00	0.00	0.00	0.00
4,300.00	10.95	284.72	4,248.40	141.26	-537.64	-9.66	0.00	0.00	0.00	0.00
4,400.00	10.95	284.72	4,346.58	146.08	-556.01	-9.99	0.00	0.00	0.00	0.00
4,457.46	10.95	284.72	4,403.00	148.86	-566.56	-10.18	0.00	0.00	0.00	0.00
<b>Sussex</b>										
4,500.00	10.95	284.72	4,444.76	150.91	-574.38	-10.32	0.00	0.00	0.00	0.00
4,600.00	10.95	284.72	4,542.94	155.74	-592.74	-10.65	0.00	0.00	0.00	0.00
4,700.00	10.95	284.72	4,641.12	160.56	-611.11	-10.98	0.00	0.00	0.00	0.00
4,800.00	10.95	284.72	4,739.30	165.39	-629.48	-11.31	0.00	0.00	0.00	0.00
4,900.00	10.95	284.72	4,837.48	170.21	-647.85	-11.64	0.00	0.00	0.00	0.00
5,000.00	10.95	284.72	4,935.66	175.04	-666.21	-11.97	0.00	0.00	0.00	0.00

**Plan Report for Cannon 34C-10HZ - Plan A Rev 0 Permit**

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)	Toolface Azimuth (°)
5,100.00	10.95	284.72	5,033.84	179.87	-684.58	-12.30	0.00	0.00	0.00	0.00
5,200.00	10.95	284.72	5,132.02	184.69	-702.95	-12.63	0.00	0.00	0.00	0.00
5,300.00	10.95	284.72	5,230.20	189.52	-721.32	-12.96	0.00	0.00	0.00	0.00
5,400.00	10.95	284.72	5,328.38	194.34	-739.68	-13.30	0.00	0.00	0.00	0.00
5,500.00	10.95	284.72	5,426.56	199.17	-758.05	-13.63	0.00	0.00	0.00	0.00
5,600.00	10.95	284.72	5,524.75	203.99	-776.42	-13.96	0.00	0.00	0.00	0.00
5,700.00	10.95	284.72	5,622.93	208.82	-794.79	-14.29	0.00	0.00	0.00	0.00
5,800.00	10.95	284.72	5,721.11	213.65	-813.15	-14.62	0.00	0.00	0.00	0.00
5,900.00	10.95	284.72	5,819.29	218.47	-831.52	-14.95	0.00	0.00	0.00	0.00
6,000.00	10.95	284.72	5,917.47	223.30	-849.89	-15.28	0.00	0.00	0.00	0.00
6,100.00	10.95	284.72	6,015.65	228.12	-868.26	-15.61	0.00	0.00	0.00	0.00
6,200.00	10.95	284.72	6,113.83	232.95	-886.62	-15.94	0.00	0.00	0.00	0.00
6,300.00	10.95	284.72	6,212.01	237.78	-904.99	-16.27	0.00	0.00	0.00	0.00
6,400.00	10.95	284.72	6,310.19	242.60	-923.36	-16.60	0.00	0.00	0.00	0.00
6,500.00	10.95	284.72	6,408.37	247.43	-941.73	-16.93	0.00	0.00	0.00	0.00
6,600.00	10.95	284.72	6,506.55	252.25	-960.09	-17.26	0.00	0.00	0.00	0.00
6,700.00	10.95	284.72	6,604.73	257.08	-978.46	-17.59	0.00	0.00	0.00	0.00
6,800.00	10.95	284.72	6,702.91	261.90	-996.83	-17.92	0.00	0.00	0.00	0.00
6,897.55	10.95	284.72	6,798.68	266.61	-1,014.75	-18.24	0.00	0.00	0.00	0.00
<b>Begin Build @ 6897.55ft</b>										
6,900.00	10.89	283.47	6,801.09	266.73	-1,015.20	-18.24	9.99	-2.48	-51.12	-104.97
7,000.00	12.87	234.25	6,899.18	262.41	-1,033.46	-9.71	10.00	1.98	-49.22	-103.74
7,100.00	20.26	209.85	6,995.07	240.83	-1,051.17	15.45	10.00	7.39	-24.39	-55.45
7,136.55	23.44	204.98	7,029.00	228.74	-1,057.39	28.67	10.00	8.69	-13.33	-31.99
<b>Sharon Springs</b>										
7,200.00	29.21	198.99	7,085.85	202.64	-1,067.77	56.48	10.00	9.09	-9.45	-27.47
<b>Build Rate = 10.00/100ft</b>										
7,225.68	31.60	197.15	7,108.00	190.29	-1,071.79	69.44	10.00	9.32	-7.17	-22.09
<b>Niobrara A</b>										
7,250.65	33.95	195.58	7,129.00	177.32	-1,075.59	82.94	10.00	9.41	-6.27	-20.50
<b>Niobrara B</b>										
7,300.00	38.64	192.99	7,168.76	149.01	-1,082.76	112.14	10.00	9.51	-5.26	-19.18
7,374.64	45.82	189.93	7,224.00	99.88	-1,092.63	162.21	10.00	9.62	-4.09	-17.09
<b>Niobrara C</b>										
7,400.00	48.27	189.07	7,241.28	81.57	-1,095.69	180.72	10.00	9.68	-3.43	-14.82
7,500.00	58.00	186.18	7,301.21	2.36	-1,106.16	260.15	10.00	9.73	-2.89	-14.23
7,600.00	67.79	183.85	7,346.72	-86.21	-1,113.85	348.02	10.00	9.78	-2.33	-12.49
7,647.94	72.49	182.86	7,363.00	-131.21	-1,116.49	392.36	10.00	9.81	-2.08	-11.43
<b>Fort Hays</b>										
7,700.00	77.60	181.84	7,376.43	-181.44	-1,118.54	441.65	10.00	9.82	-1.97	-11.09
7,749.55	82.47	180.90	7,385.00	-230.22	-1,119.70	489.31	10.00	9.82	-1.89	-10.83
<b>Codell</b>										
7,800.00	87.43	179.96	7,389.44	-280.45	-1,120.08	538.20	10.00	9.83	-1.85	-10.66
7,820.56	89.45	179.59	7,390.00	-301.00	-1,120.00	558.14	10.00	9.83	-1.84	-10.58
<b>End Build @ 7820.56ft - Codell TL - Heel - 7" Intermediate Casing - Cannon 34C-10HZ_CP</b>										
7,900.00	89.45	179.59	7,390.76	-380.44	-1,119.43	635.17	0.00	0.00	0.00	-10.57
8,000.00	89.45	179.59	7,391.72	-480.43	-1,118.71	732.14	0.00	0.00	0.00	0.00
8,100.00	89.45	179.59	7,392.69	-580.42	-1,117.99	829.10	0.00	0.00	0.00	0.00
8,200.00	89.45	179.59	7,393.65	-680.41	-1,117.27	926.07	0.00	0.00	0.00	0.00
8,300.00	89.45	179.59	7,394.61	-780.41	-1,116.55	1,023.04	0.00	0.00	0.00	0.00
8,400.00	89.45	179.59	7,395.57	-880.40	-1,115.83	1,120.00	0.00	0.00	0.00	0.00
8,500.00	89.45	179.59	7,396.53	-980.39	-1,115.11	1,216.97	0.00	0.00	0.00	0.00
8,600.00	89.45	179.59	7,397.49	-1,080.39	-1,114.39	1,313.94	0.00	0.00	0.00	0.00
8,700.00	89.45	179.59	7,398.45	-1,180.38	-1,113.66	1,410.90	0.00	0.00	0.00	0.00
8,800.00	89.45	179.59	7,399.41	-1,280.37	-1,112.94	1,507.87	0.00	0.00	0.00	0.00
8,900.00	89.45	179.59	7,400.37	-1,380.36	-1,112.22	1,604.84	0.00	0.00	0.00	0.00
9,000.00	89.45	179.59	7,401.33	-1,480.36	-1,111.50	1,701.80	0.00	0.00	0.00	0.00
9,100.00	89.45	179.59	7,402.30	-1,580.35	-1,110.78	1,798.77	0.00	0.00	0.00	0.00

**Plan Report for Cannon 34C-10HZ - Plan A Rev 0 Permit**

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)	Toolface Azimuth (°)
9,200.00	89.45	179.59	7,403.26	-1,680.34	-1,110.06	1,895.74	0.00	0.00	0.00	0.00
9,300.00	89.45	179.59	7,404.22	-1,780.34	-1,109.34	1,992.70	0.00	0.00	0.00	0.00
9,400.00	89.45	179.59	7,405.18	-1,880.33	-1,108.62	2,089.67	0.00	0.00	0.00	0.00
9,500.00	89.45	179.59	7,406.14	-1,980.32	-1,107.90	2,186.64	0.00	0.00	0.00	0.00
9,600.00	89.45	179.59	7,407.10	-2,080.31	-1,107.18	2,283.60	0.00	0.00	0.00	0.00
9,700.00	89.45	179.59	7,408.06	-2,180.31	-1,106.46	2,380.57	0.00	0.00	0.00	0.00
9,800.00	89.45	179.59	7,409.02	-2,280.30	-1,105.74	2,477.54	0.00	0.00	0.00	0.00
9,900.00	89.45	179.59	7,409.98	-2,380.29	-1,105.02	2,574.50	0.00	0.00	0.00	0.00
10,000.00	89.45	179.59	7,410.94	-2,480.28	-1,104.30	2,671.47	0.00	0.00	0.00	0.00
10,100.00	89.45	179.59	7,411.91	-2,580.28	-1,103.58	2,768.44	0.00	0.00	0.00	0.00
10,200.00	89.45	179.59	7,412.87	-2,680.27	-1,102.86	2,865.40	0.00	0.00	0.00	0.00
10,300.00	89.45	179.59	7,413.83	-2,780.26	-1,102.14	2,962.37	0.00	0.00	0.00	0.00
10,400.00	89.45	179.59	7,414.79	-2,880.26	-1,101.42	3,059.34	0.00	0.00	0.00	0.00
10,500.00	89.45	179.59	7,415.75	-2,980.25	-1,100.70	3,156.30	0.00	0.00	0.00	0.00
10,600.00	89.45	179.59	7,416.71	-3,080.24	-1,099.98	3,253.27	0.00	0.00	0.00	0.00
10,700.00	89.45	179.59	7,417.67	-3,180.23	-1,099.26	3,350.24	0.00	0.00	0.00	0.00
10,800.00	89.45	179.59	7,418.63	-3,280.23	-1,098.54	3,447.20	0.00	0.00	0.00	0.00
10,900.00	89.45	179.59	7,419.59	-3,380.22	-1,097.82	3,544.17	0.00	0.00	0.00	0.00
11,000.00	89.45	179.59	7,420.55	-3,480.21	-1,097.10	3,641.14	0.00	0.00	0.00	0.00
11,100.00	89.45	179.59	7,421.52	-3,580.21	-1,096.38	3,738.10	0.00	0.00	0.00	0.00
11,200.00	89.45	179.59	7,422.48	-3,680.20	-1,095.66	3,835.07	0.00	0.00	0.00	0.00
11,300.00	89.45	179.59	7,423.44	-3,780.19	-1,094.93	3,932.04	0.00	0.00	0.00	0.00
11,400.00	89.45	179.59	7,424.40	-3,880.18	-1,094.21	4,029.00	0.00	0.00	0.00	0.00
11,500.00	89.45	179.59	7,425.36	-3,980.18	-1,093.49	4,125.97	0.00	0.00	0.00	0.00
11,600.00	89.45	179.59	7,426.32	-4,080.17	-1,092.77	4,222.94	0.00	0.00	0.00	0.00
11,700.00	89.45	179.59	7,427.28	-4,180.16	-1,092.05	4,319.90	0.00	0.00	0.00	0.00
11,800.00	89.45	179.59	7,428.24	-4,280.16	-1,091.33	4,416.87	0.00	0.00	0.00	0.00
11,900.00	89.45	179.59	7,429.20	-4,380.15	-1,090.61	4,513.84	0.00	0.00	0.00	0.00
11,982.82	89.45	179.59	7,430.00	-4,462.96	-1,090.02	4,594.14	0.00	0.00	0.00	0.00

**Total Depth @ %11982.82ft - Cannon 34C-10HZ\_BHL****Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,100.00	1,100.00	0.00	0.00	Begin Nudge @ 1100.00ft
1,647.37	1,644.05	13.25	-50.42	End Nudge @ 1647.37ft
6,897.55	6,798.68	266.61	-1,014.75	Begin Build @ 6897.55ft
7,200.00	7,085.85	202.64	-1,067.77	Build Rate = 10.00/100ft
7,820.56	7,390.00	-301.00	-1,120.00	End Build @ 7820.56ft
11,982.82	7,430.00	-4,462.96	-1,090.02	Total Depth @ %11982.82ft

**Vertical Section Information**

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/-S (ft)	+E/-W (ft)	
Target	Cannon 34C-10HZ_BHL	193.72	Slot	0.00	0.00	7,430.00

**Survey tool program**

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	11,982.82	Plan A Rev 0 Permit	MWD

**Plan Report for Cannon 34C-10HZ - Plan A Rev 0 Permit****Casing Details**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,820.56	7,390.00	7" Intermediate Casing	7	8-3/4

**Formation Details**

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,042.92	3,996.00	Parkman		0.00	
4,457.46	4,403.00	Sussex		0.00	
7,136.55	7,029.00	Sharon Springs		0.00	
7,225.68	7,108.00	Niobrara A		0.00	
7,250.65	7,129.00	Niobrara B		0.00	
7,374.64	7,224.00	Niobrara C		0.00	
7,647.94	7,363.00	Fort Hays		0.00	
7,749.55	7,385.00	Codell		0.00	
7,820.56	7,390.00	Codell TL - Heel		0.00	
11,982.82	7,430.00	Codell TL - Toe		0.00	

***Targets associated with this wellbore***

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
-McPeck 14-10 - 160'	7,180.12	-3,395.23	-638.49	Circle
-McPeck 24-10 - 160'	7,175.52	-4,341.30	829.74	Circle
Cannon 34C-10HZ_CP	7,390.00	-301.00	-1,120.00	Point
Cannon 34C-10HZ_BHL	7,430.00	-4,462.96	-1,090.02	Point
Cannon 34C-10HZ_SHL	0.00	0.00	0.00	Point

## North Reference Sheet for Sec. 10-T2N-R66W - Cannon 34C-10HZ - Plan A Rev 0

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to RKB=17 @ 4965.00ft (Drilling Rig). Northing and Easting are relative to Cannon 34C-10HZ

Coordinate System is US State Plane 1983, Colorado Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is -105.50°, Longitude Origin:0.000000°, Latitude Origin:40.783333°

False Easting: 3,000,000.00ft, False Northing: 1,000,000.00ft, Scale Reduction: 0.99995812

Grid Coordinates of Well: 1,301,569.32 ft N, 3,204,399.75 ft E

Geographical Coordinates of Well: 40° 09' 32.00" N, 104° 46' 07.28" W

Grid Convergence at Surface is: 0.47°

Based upon Minimum Curvature type calculations, at a Measured Depth of 11,982.82ft  
the Bottom Hole Displacement is 4,594.14ft in the Direction of 193.72° (True).

Magnetic Convergence at surface is: -8.22° (13 December 2012, , BGGM2012)

