

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 5-T1N-R65W

Ziemer 35C-5HZ

Plan B 0

Plan: Plan B 0 - PERMIT

Sperry Drilling Services

Proposal Report

03 June, 2013

Well Coordinates: 1,275,448.53 N, 3,227,104.67 E (40° 05' 11.92" N, 104° 41' 17.93" W)

Ground Level: 4,946.00 ft

Local Coordinate Origin:

Centered on Well Ziemer 35C-5HZ

Viewing Datum:

RKB=17 @ 4963.00ft (Drilling Rig)

TVDs to System:

N

North Reference:

True

Unit System:

API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

HALLIBURTON

Project: Weld County, CO (NAD 83)
 Site: Sec. 5-T1N-R65W
 Well: Ziemer 35C-5HZ
 Wellbore: Plan B 0
 Design: Plan B 0 - PERMIT



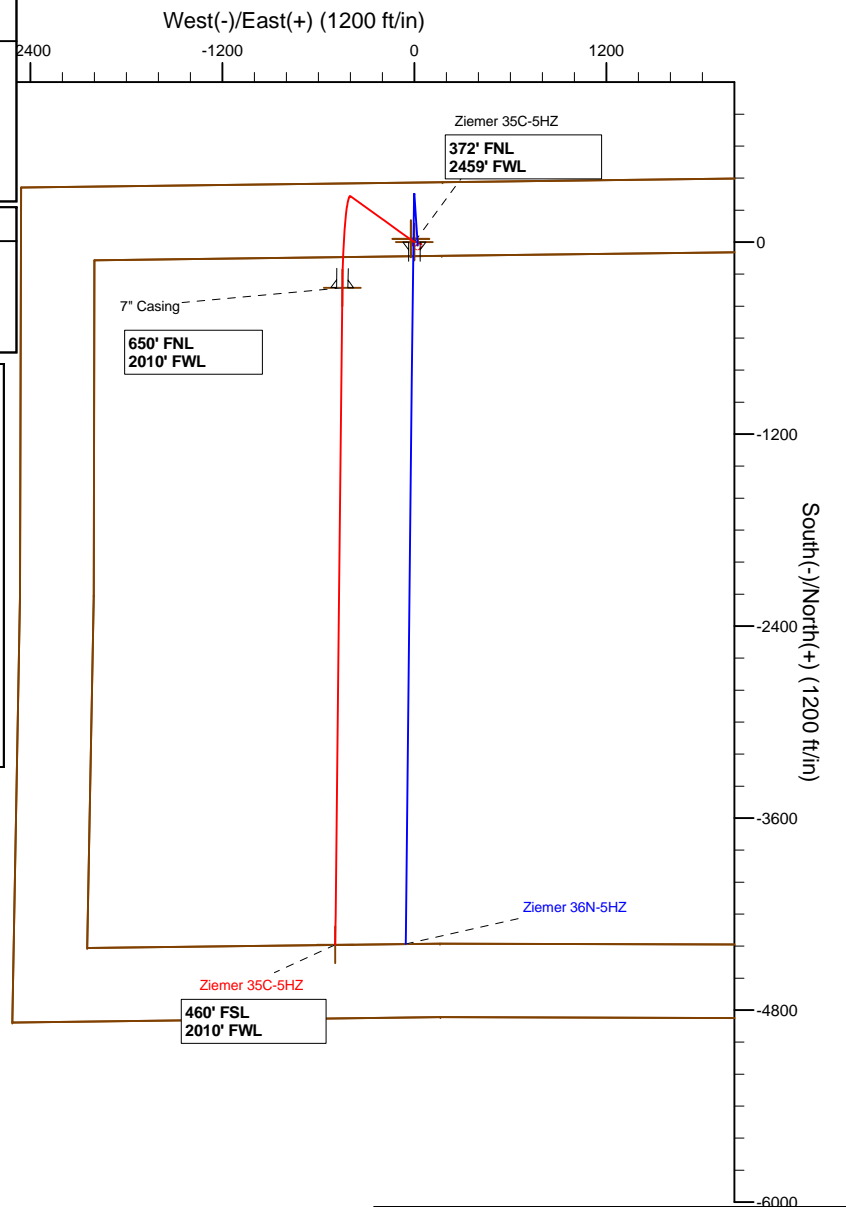
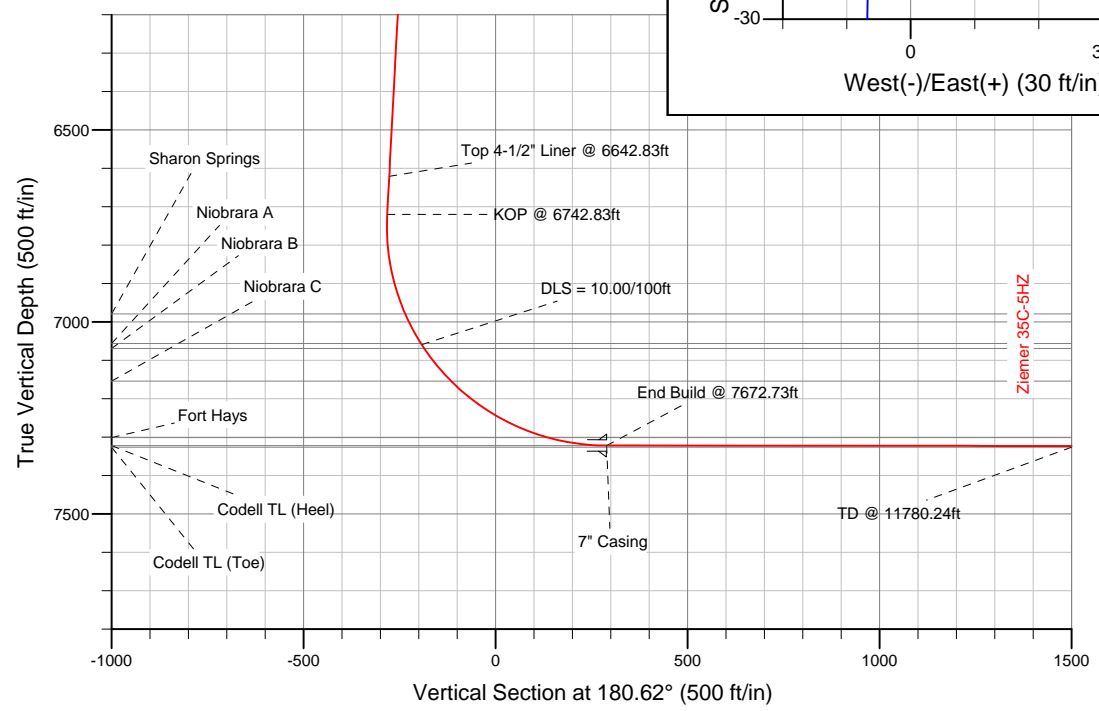
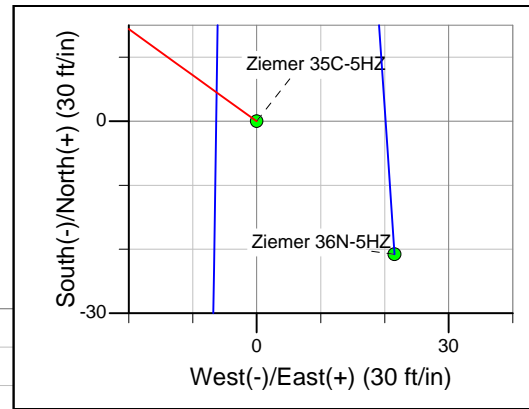
SECTION DETAILS

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	1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	
3	1564.94	5.30	305.74	1564.56	7.15	-9.94	2.00	305.74	-7.04	
4	6742.83	5.30	305.74	6720.33	286.44	-398.08	0.00	0.00	-282.12	
5	7672.73	89.94	180.62	7322.00	-284.62	-449.85	10.00	-125.01	289.48	Zierner 35C-5HZ PERMIT_CP
6	11780.24	89.94	180.62	7326.00	-4391.89	-494.23	0.00	0.00	4396.98	Zierner 35C-5HZ PERMIT_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Zierner 35C-5HZ PERMIT_SHL	0.00	0.00	0.00	40.086644	-104.688314	Point
Zierner SB	0.00	21.13	-21.55	40.086702	-104.688391	Polygon
Zierner Sec	0.00	21.13	-21.55	40.086702	-104.688391	Polygon
Zierner 35C-5HZ PERMIT_CP	7322.00	-284.62	-449.85	40.085863	-104.689922	Point
Zierner 35C-5HZ PERMIT_BHL	7326.00	-4391.89	-494.23	40.074588	-104.690080	Point

MD	TVD	
6642.83	6620.75	Top 4-1/2" Liner @ 6642.83ft
6742.83	6720.33	KOP @ 6742.83ft



WELL DETAILS: Zierner 35C-5HZ	
Ground Level:	4946.00
RKB=17 @ 4963.00ft (Drilling Rig)	
Plan: Plan B 0 - PERMIT (Zierner 35C-5HZ/Plan B 0)	
Created By: Fred Hartmann Date: 06/03/2013	

Plan Report for Ziemer 35C-5HZ - Plan B 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
1,080.00	0.00	0.00	1,080.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8" Casing										
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 1300.00ft										
1,400.00	2.00	305.74	1,399.98	1.02	-1.42	-1.00	2.00	2.00	0.00	305.74
1,500.00	4.00	305.74	1,499.84	4.08	-5.66	-4.01	2.00	2.00	0.00	0.00
1,564.94	5.30	305.74	1,564.56	7.15	-9.94	-7.04	2.00	2.00	0.00	0.00
End Nudge @ 1564.94ft										
1,600.00	5.30	305.74	1,599.47	9.04	-12.57	-8.90	0.00	0.00	0.00	0.00
1,700.00	5.30	305.74	1,699.05	14.44	-20.06	-14.22	0.00	0.00	0.00	0.00
1,800.00	5.30	305.74	1,798.62	19.83	-27.56	-19.53	0.00	0.00	0.00	0.00
1,900.00	5.30	305.74	1,898.19	25.22	-35.05	-24.84	0.00	0.00	0.00	0.00
2,000.00	5.30	305.74	1,997.76	30.62	-42.55	-30.15	0.00	0.00	0.00	0.00
2,100.00	5.30	305.74	2,097.34	36.01	-50.05	-35.47	0.00	0.00	0.00	0.00
2,200.00	5.30	305.74	2,196.91	41.40	-57.54	-40.78	0.00	0.00	0.00	0.00
2,300.00	5.30	305.74	2,296.48	46.80	-65.04	-46.09	0.00	0.00	0.00	0.00
2,400.00	5.30	305.74	2,396.05	52.19	-72.53	-51.40	0.00	0.00	0.00	0.00
2,500.00	5.30	305.74	2,495.63	57.59	-80.03	-56.72	0.00	0.00	0.00	0.00
2,600.00	5.30	305.74	2,595.20	62.98	-87.53	-62.03	0.00	0.00	0.00	0.00
2,700.00	5.30	305.74	2,694.77	68.37	-95.02	-67.34	0.00	0.00	0.00	0.00
2,800.00	5.30	305.74	2,794.34	73.77	-102.52	-72.65	0.00	0.00	0.00	0.00
2,900.00	5.30	305.74	2,893.92	79.16	-110.01	-77.97	0.00	0.00	0.00	0.00
3,000.00	5.30	305.74	2,993.49	84.56	-117.51	-83.28	0.00	0.00	0.00	0.00
3,100.00	5.30	305.74	3,093.06	89.95	-125.01	-88.59	0.00	0.00	0.00	0.00
3,200.00	5.30	305.74	3,192.64	95.34	-132.50	-93.90	0.00	0.00	0.00	0.00
3,300.00	5.30	305.74	3,292.21	100.74	-140.00	-99.22	0.00	0.00	0.00	0.00
3,400.00	5.30	305.74	3,391.78	106.13	-147.49	-104.53	0.00	0.00	0.00	0.00
3,500.00	5.30	305.74	3,491.35	111.53	-154.99	-109.84	0.00	0.00	0.00	0.00
3,600.00	5.30	305.74	3,590.93	116.92	-162.49	-115.15	0.00	0.00	0.00	0.00
3,700.00	5.30	305.74	3,690.50	122.31	-169.98	-120.47	0.00	0.00	0.00	0.00
3,800.00	5.30	305.74	3,790.07	127.71	-177.48	-125.78	0.00	0.00	0.00	0.00
3,900.00	5.30	305.74	3,889.64	133.10	-184.98	-131.09	0.00	0.00	0.00	0.00
3,946.56	5.30	305.74	3,936.00	135.61	-188.47	-133.57	0.00	0.00	0.00	0.00
Parkman										
4,000.00	5.30	305.74	3,989.22	138.50	-192.47	-136.40	0.00	0.00	0.00	0.00
4,100.00	5.30	305.74	4,088.79	143.89	-199.97	-141.72	0.00	0.00	0.00	0.00
4,200.00	5.30	305.74	4,188.36	149.28	-207.46	-147.03	0.00	0.00	0.00	0.00
4,300.00	5.30	305.74	4,287.93	154.68	-214.96	-152.34	0.00	0.00	0.00	0.00
4,400.00	5.30	305.74	4,387.51	160.07	-222.46	-157.65	0.00	0.00	0.00	0.00
4,477.83	5.30	305.74	4,465.00	164.27	-228.29	-161.79	0.00	0.00	0.00	0.00
Sussex										
4,500.00	5.30	305.74	4,487.08	165.46	-229.95	-162.97	0.00	0.00	0.00	0.00
4,600.00	5.30	305.74	4,586.65	170.86	-237.45	-168.28	0.00	0.00	0.00	0.00
4,700.00	5.30	305.74	4,686.23	176.25	-244.94	-173.59	0.00	0.00	0.00	0.00
4,800.00	5.30	305.74	4,785.80	181.65	-252.44	-178.90	0.00	0.00	0.00	0.00

Plan Report for Ziemer 35C-5HZ - Plan B 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 (°)
4,900.00	5.30	305.74	4,885.37	187.04	-259.94	-184.22	0.00	0.00	0.00	0.00
5,000.00	5.30	305.74	4,984.94	192.43	-267.43	-189.53	0.00	0.00	0.00	0.00
5,100.00	5.30	305.74	5,084.52	197.83	-274.93	-194.84	0.00	0.00	0.00	0.00
5,200.00	5.30	305.74	5,184.09	203.22	-282.42	-200.15	0.00	0.00	0.00	0.00
5,300.00	5.30	305.74	5,283.66	208.62	-289.92	-205.47	0.00	0.00	0.00	0.00
5,400.00	5.30	305.74	5,383.23	214.01	-297.42	-210.78	0.00	0.00	0.00	0.00
5,500.00	5.30	305.74	5,482.81	219.40	-304.91	-216.09	0.00	0.00	0.00	0.00
5,600.00	5.30	305.74	5,582.38	224.80	-312.41	-221.40	0.00	0.00	0.00	0.00
5,700.00	5.30	305.74	5,681.95	230.19	-319.90	-226.72	0.00	0.00	0.00	0.00
5,800.00	5.30	305.74	5,781.52	235.59	-327.40	-232.03	0.00	0.00	0.00	0.00
5,900.00	5.30	305.74	5,881.10	240.98	-334.90	-237.34	0.00	0.00	0.00	0.00
6,000.00	5.30	305.74	5,980.67	246.37	-342.39	-242.65	0.00	0.00	0.00	0.00
6,100.00	5.30	305.74	6,080.24	251.77	-349.89	-247.97	0.00	0.00	0.00	0.00
6,200.00	5.30	305.74	6,179.81	257.16	-357.39	-253.28	0.00	0.00	0.00	0.00
6,300.00	5.30	305.74	6,279.39	262.56	-364.88	-258.59	0.00	0.00	0.00	0.00
6,400.00	5.30	305.74	6,378.96	267.95	-372.38	-263.90	0.00	0.00	0.00	0.00
6,500.00	5.30	305.74	6,478.53	273.34	-379.87	-269.22	0.00	0.00	0.00	0.00
6,600.00	5.30	305.74	6,578.11	278.74	-387.37	-274.53	0.00	0.00	0.00	0.00
6,642.83	5.30	305.74	6,620.75	281.05	-390.58	-276.80	0.00	0.00	0.00	0.00
Top 4-1/2" Liner @ 6642.83ft										
6,700.00	5.30	305.74	6,677.68	284.13	-394.87	-279.84	0.00	0.00	0.00	0.00
6,742.83	5.30	305.74	6,720.33	286.44	-398.08	-282.12	0.00	0.00	0.00	0.00
KOP @ 6742.83ft										
6,800.00	5.09	238.95	6,777.31	286.67	-402.40	-282.30	10.00	-0.36	-116.82	-125.01
6,900.00	13.38	199.21	6,876.00	273.42	-410.03	-268.97	10.00	8.29	-39.74	-58.44
7,000.00	23.06	190.88	6,970.89	243.19	-417.55	-238.65	10.00	9.68	-8.33	-19.08
7,008.84	23.93	190.46	6,979.00	239.72	-418.20	-235.18	10.00	9.82	-4.76	-11.13
Sharon Springs										
7,096.33	32.56	187.44	7,056.00	198.85	-424.48	-194.25	10.00	9.87	-3.45	-10.75
Niobrara A										
7,100.00	32.93	187.34	7,059.09	196.88	-424.74	-192.27	10.00	9.90	-2.59	-8.08
DLS = 10.00/100ft										
7,111.89	34.10	187.05	7,069.00	190.37	-425.56	-185.75	10.00	9.91	-2.48	-8.00
Niobrara B										
7,200.00	42.85	185.31	7,137.91	135.91	-431.37	-131.24	10.00	9.92	-1.98	-7.75
7,222.35	45.07	184.95	7,154.00	120.46	-432.76	-115.77	10.00	9.94	-1.57	-6.39
Niobrara C										
7,300.00	52.80	183.92	7,204.98	62.14	-437.25	-57.40	10.00	9.95	-1.34	-6.13
7,400.00	62.76	182.85	7,258.23	-22.21	-442.20	26.99	10.00	9.96	-1.06	-5.45
7,500.00	72.72	181.97	7,296.07	-114.55	-446.06	119.37	10.00	9.97	-0.89	-4.88
7,517.46	74.46	181.82	7,301.00	-131.29	-446.61	136.12	10.00	9.97	-0.82	-4.54
Fort Hays										
7,600.00	82.69	181.17	7,317.33	-212.10	-448.72	216.94	10.00	9.97	-0.79	-4.50
7,672.73	89.94	180.62	7,322.00	-284.62	-449.85	289.48	10.00	9.97	-0.76	-4.37
End Build @ 7672.73ft - Codell TL (Heel) - 7" Casing - Ziemer 35C-5HZ PERMIT_CP										
7,700.00	89.94	180.62	7,322.03	-311.89	-450.14	316.75	0.00	0.00	0.00	-4.34
7,800.00	89.94	180.62	7,322.12	-411.89	-451.23	416.75	0.00	0.00	0.00	0.00
7,900.00	89.94	180.62	7,322.22	-511.88	-452.31	516.75	0.00	0.00	0.00	0.00
8,000.00	89.94	180.62	7,322.32	-611.87	-453.39	616.74	0.00	0.00	0.00	0.00
8,100.00	89.94	180.62	7,322.42	-711.87	-454.47	716.74	0.00	0.00	0.00	0.00
8,200.00	89.94	180.62	7,322.51	-811.86	-455.55	816.74	0.00	0.00	0.00	0.00
8,300.00	89.94	180.62	7,322.61	-911.86	-456.63	916.74	0.00	0.00	0.00	0.00
8,400.00	89.94	180.62	7,322.71	-1,011.85	-457.71	1,016.74	0.00	0.00	0.00	0.00
8,500.00	89.94	180.62	7,322.81	-1,111.85	-458.79	1,116.74	0.00	0.00	0.00	0.00
8,600.00	89.94	180.62	7,322.90	-1,211.84	-459.87	1,216.74	0.00	0.00	0.00	0.00
8,700.00	89.94	180.62	7,323.00	-1,311.83	-460.95	1,316.74	0.00	0.00	0.00	0.00
8,800.00	89.94	180.62	7,323.10	-1,411.83	-462.03	1,416.74	0.00	0.00	0.00	0.00
8,900.00	89.94	180.62	7,323.20	-1,511.82	-463.11	1,516.74	0.00	0.00	0.00	0.00

Plan Report for Ziemer 35C-5HZ - Plan B 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 (°)
9,000.00	89.94	180.62	7,323.29	-1,611.82	-464.19	1,616.74	0.00	0.00	0.00	0.00
9,100.00	89.94	180.62	7,323.39	-1,711.81	-465.27	1,716.74	0.00	0.00	0.00	0.00
9,200.00	89.94	180.62	7,323.49	-1,811.80	-466.35	1,816.74	0.00	0.00	0.00	0.00
9,300.00	89.94	180.62	7,323.58	-1,911.80	-467.43	1,916.74	0.00	0.00	0.00	0.00
9,400.00	89.94	180.62	7,323.68	-2,011.79	-468.51	2,016.74	0.00	0.00	0.00	0.00
9,500.00	89.94	180.62	7,323.78	-2,111.79	-469.59	2,116.74	0.00	0.00	0.00	0.00
9,600.00	89.94	180.62	7,323.88	-2,211.78	-470.67	2,216.74	0.00	0.00	0.00	0.00
9,700.00	89.94	180.62	7,323.97	-2,311.77	-471.75	2,316.74	0.00	0.00	0.00	0.00
9,800.00	89.94	180.62	7,324.07	-2,411.77	-472.83	2,416.74	0.00	0.00	0.00	0.00
9,900.00	89.94	180.62	7,324.17	-2,511.76	-473.91	2,516.74	0.00	0.00	0.00	0.00
10,000.00	89.94	180.62	7,324.27	-2,611.76	-474.99	2,616.74	0.00	0.00	0.00	0.00
10,100.00	89.94	180.62	7,324.36	-2,711.75	-476.08	2,716.74	0.00	0.00	0.00	0.00
10,200.00	89.94	180.62	7,324.46	-2,811.75	-477.16	2,816.74	0.00	0.00	0.00	0.00
10,300.00	89.94	180.62	7,324.56	-2,911.74	-478.24	2,916.74	0.00	0.00	0.00	0.00
10,400.00	89.94	180.62	7,324.66	-3,011.73	-479.32	3,016.74	0.00	0.00	0.00	0.00
10,500.00	89.94	180.62	7,324.75	-3,111.73	-480.40	3,116.74	0.00	0.00	0.00	0.00
10,600.00	89.94	180.62	7,324.85	-3,211.72	-481.48	3,216.74	0.00	0.00	0.00	0.00
10,700.00	89.94	180.62	7,324.95	-3,311.72	-482.56	3,316.74	0.00	0.00	0.00	0.00
10,800.00	89.94	180.62	7,325.05	-3,411.71	-483.64	3,416.74	0.00	0.00	0.00	0.00
10,900.00	89.94	180.62	7,325.14	-3,511.70	-484.72	3,516.74	0.00	0.00	0.00	0.00
11,000.00	89.94	180.62	7,325.24	-3,611.70	-485.80	3,616.74	0.00	0.00	0.00	0.00
11,100.00	89.94	180.62	7,325.34	-3,711.69	-486.88	3,716.74	0.00	0.00	0.00	0.00
11,200.00	89.94	180.62	7,325.43	-3,811.69	-487.96	3,816.74	0.00	0.00	0.00	0.00
11,300.00	89.94	180.62	7,325.53	-3,911.68	-489.04	3,916.74	0.00	0.00	0.00	0.00
11,400.00	89.94	180.62	7,325.63	-4,011.67	-490.12	4,016.74	0.00	0.00	0.00	0.00
11,500.00	89.94	180.62	7,325.73	-4,111.67	-491.20	4,116.74	0.00	0.00	0.00	0.00
11,600.00	89.94	180.62	7,325.82	-4,211.66	-492.28	4,216.74	0.00	0.00	0.00	0.00
11,700.00	89.94	180.62	7,325.92	-4,311.66	-493.36	4,316.74	0.00	0.00	0.00	0.00
11,780.24	89.94	180.62	7,326.00	-4,391.89	-494.23	4,396.98	0.00	0.00	0.00	0.00

Codell TL (Toe) - Ziemer 35C-5HZ PERMIT_BHL

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,300.00	1,300.00	0.00	0.00	Begin Nudge @ 1300.00ft
1,564.94	1,564.56	7.15	-9.94	End Nudge @ 1564.94ft
6,642.83	6,620.75	281.05	-390.58	Top 4-1/2" Liner @ 6642.83ft
6,742.83	6,720.33	286.44	-398.08	KOP @ 6742.83ft
7,100.00	7,059.09	196.88	-424.74	DLS = 10.00/100ft
7,672.73	7,322.00	-284.62	-449.85	End Build @ 7672.73ft
11,780.24	7,326.00	-4,391.89	-494.23	TD @ 11780.24ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/-S (ft)	+E/-W (ft)	
User	No Target (Freehand)	180.62	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	11,780.24	Plan B 0 - PERMIT	MWD

Plan Report for Ziemer 35C-5HZ - Plan B 0 - PERMIT**Casing Details**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
1,080.00	1,080.00	9 5/8" Casing	9-5/8	13-1/2
7,672.73	7,322.00	7" Casing	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,946.56	3,936.00	Parkman			
4,477.83	4,465.00	Sussex			
7,008.84	6,979.00	Sharon Springs			
7,096.33	7,056.00	Niobrara A			
7,111.89	7,069.00	Niobrara B			
7,222.35	7,154.00	Niobrara C			
7,517.46	7,301.00	Fort Hays			
7,672.73	7,322.00	Codell TL (Heel)			
11,780.24	7,326.00	Codell TL (Toe)			

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Ziemer 35C-5HZ PERMIT_SHL	0.00	0.00	0.00	Point
Ziemer Sec	0.00	21.13	-21.55	Polygon
Ziemer SB	0.00	21.13	-21.55	Polygon
Ziemer 35C-5HZ PERMIT_CP	7,322.00	-284.62	-449.85	Point
Ziemer 35C-5HZ PERMIT_BHL	7,326.00	-4,391.89	-494.23	Point

North Reference Sheet for Sec. 5-T1N-R65W - Ziemer 35C-5HZ - Plan B 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 @ 4963.00ft (Drilling Rig). Northing and Easting are relative to Ziemer 35C-5HZ
 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: 0.99996093

Grid Coordinates of Well: 1,275,448.53 ft N, 3,227,104.67 ft E
 Geographical Coordinates of Well: 40° 05' 11.92" N, 104° 41' 17.93" W
 Grid Convergence at Surface is: 0.52°

Based upon Minimum Curvature type calculations, at a Measured Depth of 11,780.24ft
 the Bottom Hole Displacement is 4,419.61ft in the Direction of 186.42° (True).

Magnetic Convergence at surface is: -8.07° (3 June 2013, , BGGM2012)

