

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 4-T2N-R65W

Reigle 28C-4HZ

Plan A Rev 0

Plan: Plan A Rev 0 Permit

Sperry Drilling Services Proposal Report

16 August, 2012

Well Coordinates: 1,303,020.78 N, 3,232,556.30 E (40° 09' 43.89" N, 104° 40' 04.46" W)

Ground Level: 4,858.00 ft

Local Coordinate Origin:

Centered on Well Reigle 28C-4HZ

Viewing Datum:

RKB=16 @ 4874.00ft (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. 4-T2N-R65W
Well: Reigle 28C-4HZ
Wellbore: Plan A Rev 0
Design: Plan A Rev 0 Permit

Anadarko Petroleum Corp.

HALLIBURTON
Sperry Drilling

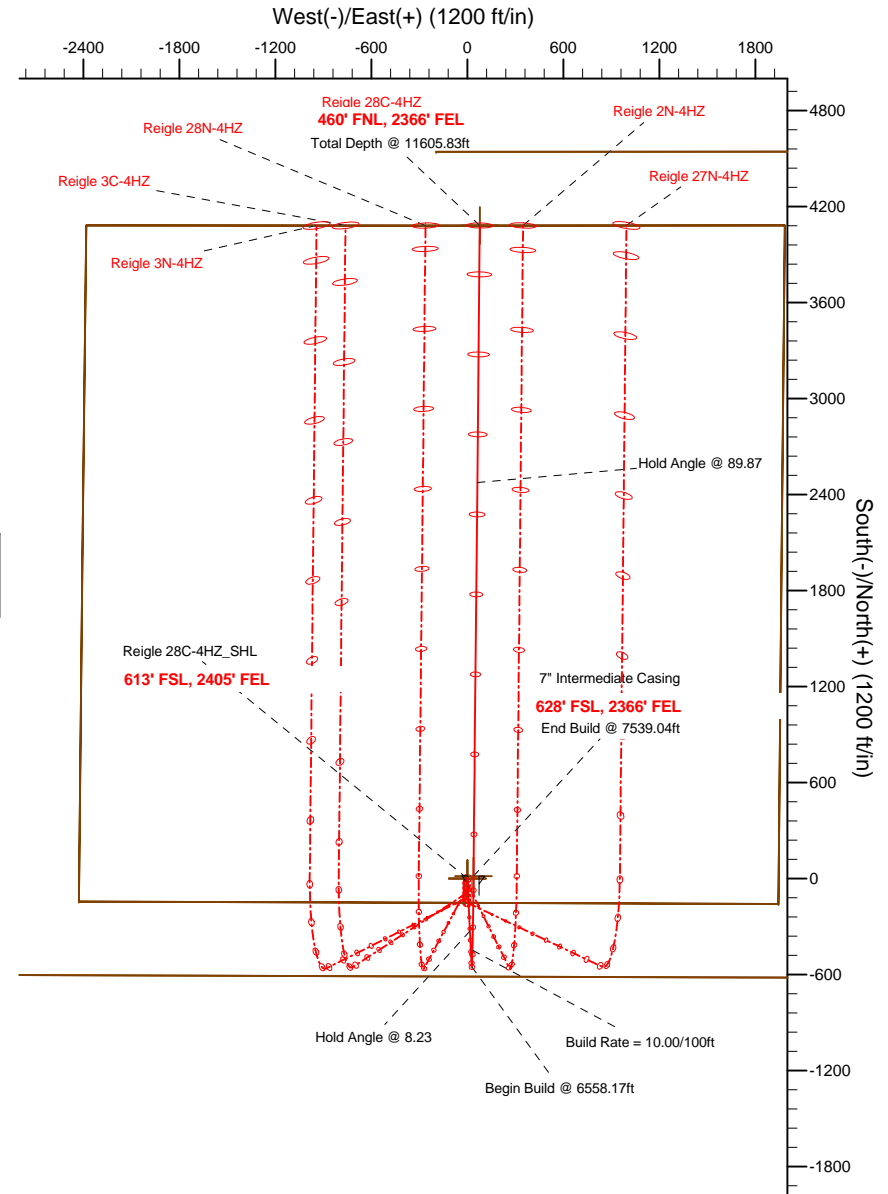
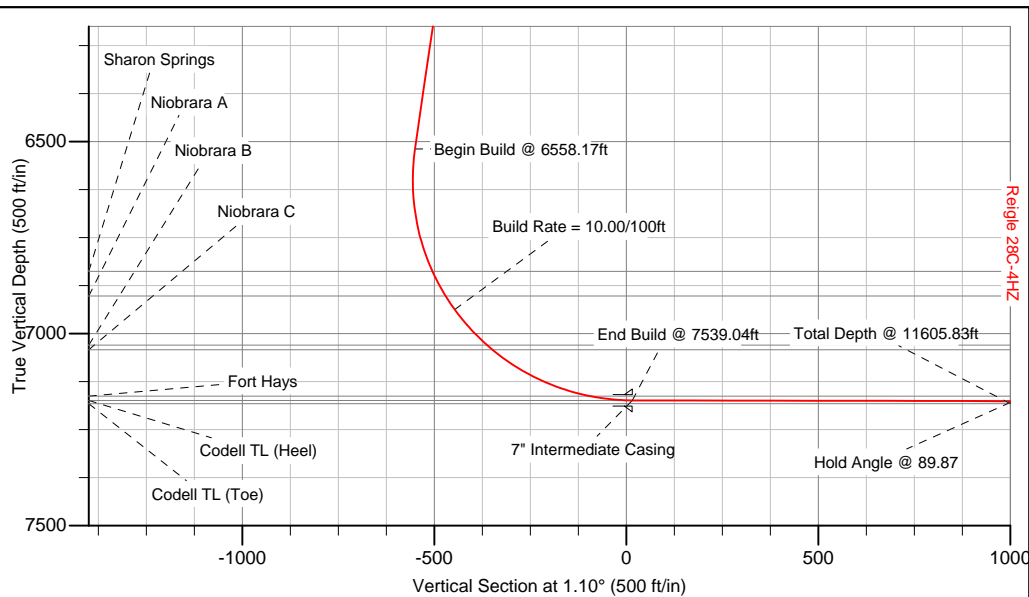
SECTION DETAILS

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	2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	
3	2911.44	8.23	177.10	2910.02	-29.46	1.49	2.00	177.10	-29.42	
4	6558.17	8.23	177.10	6519.21	-550.73	27.86	0.00	0.00	-550.10	
5	7539.04	89.87	0.55	7174.00	15.00	39.00	10.00	-176.52	15.74	Reigle 28C-4HZ_Casing Point
6	11605.84	89.87	0.55	7183.00	4081.60	78.25	0.00	0.00	4082.35	Reigle 28C-4HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Reigle 28C-4HZ_Section Lines	0.00	0.00	0.00	40.162192	-104.667906	Polygon
Reigle 28C-4HZ_Setback Lines	0.00	0.00	0.00	40.162192	-104.667906	Polygon
Reigle 28C-4HZ_SHL	0.00	0.00	0.00	40.162192	-104.667906	Point
Reigle 28C-4HZ_Casing Point	7174.00	15.00	39.00	40.162233	-104.667766	Point
Reigle 28C-4HZ_BHL	7183.00	4081.60	78.25	40.173396	-104.667626	Point

Target Line:
7173.74' TVDkb @ 0° VS Drilling 89.87°



WELL DETAILS: Reigle 28C-4HZ

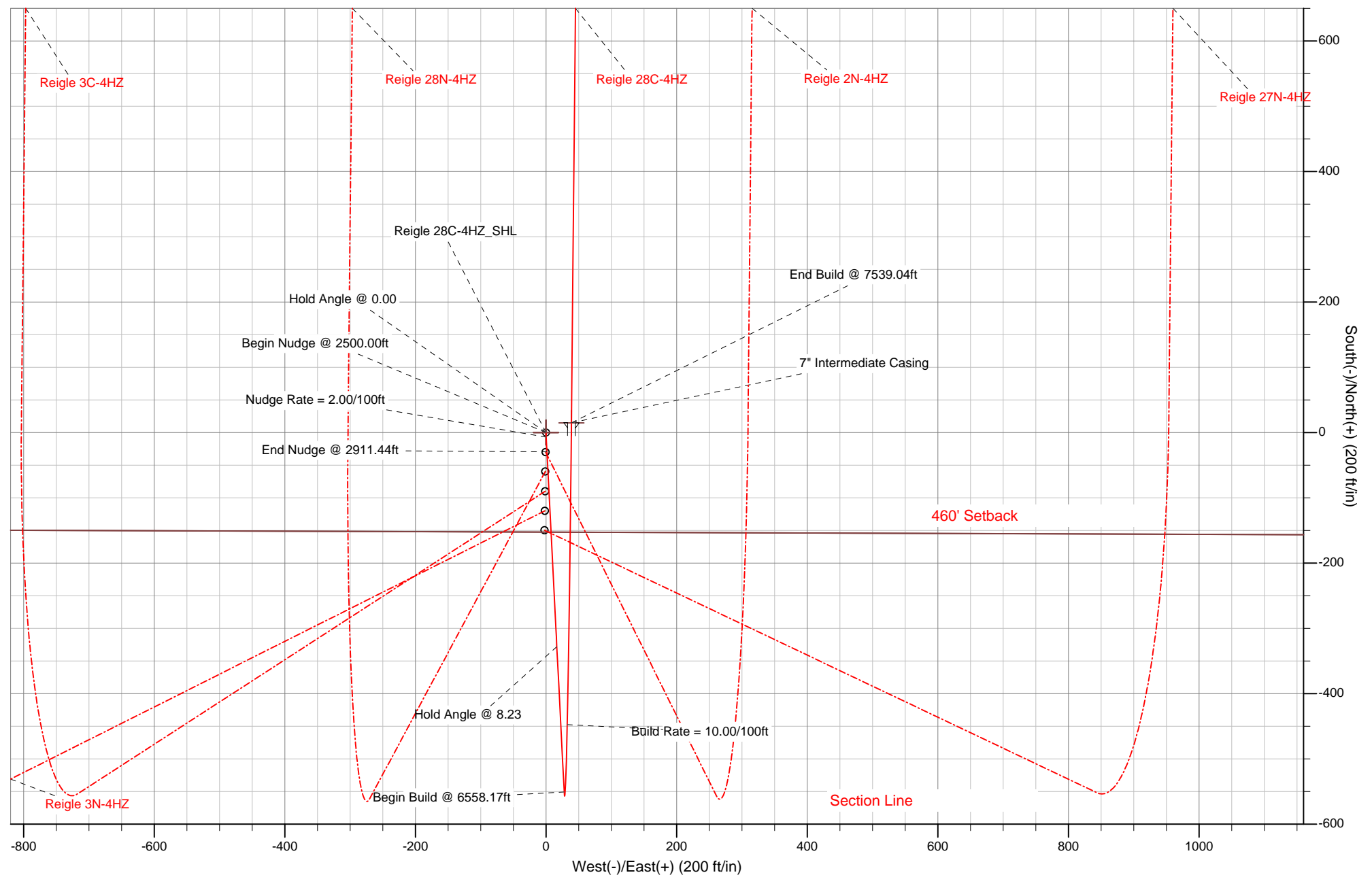
Ground Level: 4858.00 RKB=16 @ 4874.00ft (Drilling Rig)

Plan: Plan A Rev 0 Permit (Reigle 28C-4HZ/Plan A Rev 0)

Created By: Fred Hartmann Date: 08/02/2012
Reviewed: _____ Date: _____

Project: Weld County, CO (NAD 83)
Site: Sec. 4-T2N-R65W
Well: Reigle 28C-4HZ
Wellbore: Plan A Rev 0
Design: Plan A Rev 0 Permit

Anadarko Petroleum Corp.



Plan Report for Reigle 28C-4HZ - 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
Reigle 28C-4HZ_SHL - Reigle 28C-4HZ_Section Lines - Reigle 28C-4HZ_Setback Lines										
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
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hold Angle @ 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
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 2500.00ft										
2,600.00	2.00	177.10	2,599.98	-1.74	0.09	-1.74	2.00	2.00	0.00	177.10
2,700.00	4.00	177.10	2,699.84	-6.97	0.35	-6.96	2.00	2.00	0.00	0.00
Nudge Rate = 2.00/100ft										
2,800.00	6.00	177.10	2,799.45	-15.67	0.79	-15.66	2.00	2.00	0.00	0.00
2,900.00	8.00	177.10	2,898.70	-27.84	1.41	-27.81	2.00	2.00	0.00	0.00
2,911.44	8.23	177.10	2,910.03	-29.46	1.49	-29.42	2.00	2.00	0.00	0.00
End Nudge @ 2911.44ft										
3,000.00	8.23	177.10	2,997.68	-42.12	2.13	-42.07	0.00	0.00	0.00	0.00
3,100.00	8.23	177.10	3,096.65	-56.41	2.85	-56.35	0.00	0.00	0.00	0.00
3,200.00	8.23	177.10	3,195.62	-70.70	3.58	-70.62	0.00	0.00	0.00	0.00
3,300.00	8.23	177.10	3,294.59	-85.00	4.30	-84.90	0.00	0.00	0.00	0.00
3,400.00	8.23	177.10	3,393.56	-99.29	5.02	-99.18	0.00	0.00	0.00	0.00
3,500.00	8.23	177.10	3,492.53	-113.59	5.75	-113.46	0.00	0.00	0.00	0.00
3,600.00	8.23	177.10	3,591.50	-127.88	6.47	-127.73	0.00	0.00	0.00	0.00
3,700.00	8.23	177.10	3,690.47	-142.18	7.19	-142.01	0.00	0.00	0.00	0.00
3,800.00	8.23	177.10	3,789.44	-156.47	7.91	-156.29	0.00	0.00	0.00	0.00
3,873.32	8.23	177.10	3,862.00	-166.95	8.44	-166.76	0.00	0.00	0.00	0.00
Parkman										
3,900.00	8.23	177.10	3,888.41	-170.76	8.64	-170.57	0.00	0.00	0.00	0.00
4,000.00	8.23	177.10	3,987.38	-185.06	9.36	-184.85	0.00	0.00	0.00	0.00
4,100.00	8.23	177.10	4,086.35	-199.35	10.08	-199.12	0.00	0.00	0.00	0.00
4,200.00	8.23	177.10	4,185.32	-213.65	10.81	-213.40	0.00	0.00	0.00	0.00
4,300.00	8.23	177.10	4,284.29	-227.94	11.53	-227.68	0.00	0.00	0.00	0.00
4,400.00	8.23	177.10	4,383.26	-242.24	12.25	-241.96	0.00	0.00	0.00	0.00
4,470.46	8.23	177.10	4,453.00	-252.31	12.76	-252.02	0.00	0.00	0.00	0.00
Sussex										
4,500.00	8.23	177.10	4,482.23	-256.53	12.98	-256.23	0.00	0.00	0.00	0.00
4,600.00	8.23	177.10	4,581.20	-270.82	13.70	-270.51	0.00	0.00	0.00	0.00

Plan Report for Reigle 28C-4HZ - 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 (°)
4,700.00	8.23	177.10	4,680.17	-285.12	14.42	-284.79	0.00	0.00	0.00	0.00
4,800.00	8.23	177.10	4,779.14	-299.41	15.14	-299.07	0.00	0.00	0.00	0.00
4,900.00	8.23	177.10	4,878.11	-313.71	15.87	-313.35	0.00	0.00	0.00	0.00
5,000.00	8.23	177.10	4,977.08	-328.00	16.59	-327.62	0.00	0.00	0.00	0.00
Hold Angle @ 8.23										
5,100.00	8.23	177.10	5,076.05	-342.30	17.31	-341.90	0.00	0.00	0.00	0.00
5,200.00	8.23	177.10	5,175.03	-356.59	18.04	-356.18	0.00	0.00	0.00	0.00
5,300.00	8.23	177.10	5,274.00	-370.88	18.76	-370.46	0.00	0.00	0.00	0.00
5,400.00	8.23	177.10	5,372.97	-385.18	19.48	-384.73	0.00	0.00	0.00	0.00
5,500.00	8.23	177.10	5,471.94	-399.47	20.21	-399.01	0.00	0.00	0.00	0.00
5,600.00	8.23	177.10	5,570.91	-413.77	20.93	-413.29	0.00	0.00	0.00	0.00
5,700.00	8.23	177.10	5,669.88	-428.06	21.65	-427.57	0.00	0.00	0.00	0.00
5,800.00	8.23	177.10	5,768.85	-442.36	22.37	-441.85	0.00	0.00	0.00	0.00
5,900.00	8.23	177.10	5,867.82	-456.65	23.10	-456.12	0.00	0.00	0.00	0.00
6,000.00	8.23	177.10	5,966.79	-470.94	23.82	-470.40	0.00	0.00	0.00	0.00
6,100.00	8.23	177.10	6,065.76	-485.24	24.54	-484.68	0.00	0.00	0.00	0.00
6,200.00	8.23	177.10	6,164.73	-499.53	25.27	-498.96	0.00	0.00	0.00	0.00
6,300.00	8.23	177.10	6,263.70	-513.83	25.99	-513.24	0.00	0.00	0.00	0.00
6,400.00	8.23	177.10	6,362.67	-528.12	26.71	-527.51	0.00	0.00	0.00	0.00
6,500.00	8.23	177.10	6,461.64	-542.42	27.44	-541.79	0.00	0.00	0.00	0.00
6,558.17	8.23	177.10	6,519.21	-550.73	27.86	-550.10	0.00	0.00	0.00	0.00
Begin Build @ 6558.17ft										
6,600.00	4.06	173.52	6,560.79	-555.19	28.18	-554.55	10.00	-9.96	-8.58	-176.52
6,700.00	5.99	5.31	6,660.65	-553.51	29.06	-552.86	10.00	1.93	-168.21	-172.95
6,800.00	15.98	2.29	6,758.69	-534.52	30.10	-533.84	10.00	9.99	-3.01	-4.78
6,884.58	24.43	1.65	6,838.00	-505.35	31.07	-504.66	10.00	10.00	-0.76	-1.81
Sharon Springs										
6,900.00	25.97	1.57	6,851.95	-498.79	31.25	-498.10	10.00	10.00	-0.48	-1.20
6,957.16	31.69	1.36	6,902.00	-471.24	31.95	-470.54	10.00	10.00	-0.38	-1.14
Niobrara A										
7,000.00	35.97	1.24	6,937.58	-447.40	32.49	-446.70	10.00	10.00	-0.28	-0.95
Build Rate = 10.00/100ft										
7,100.00	45.97	1.03	7,012.99	-381.93	33.78	-381.21	10.00	10.00	-0.20	-0.85
7,125.05	48.48	0.99	7,030.00	-363.55	34.10	-362.83	10.00	10.00	-0.16	-0.69
Niobrara B										
7,143.49	50.32	0.97	7,042.00	-349.55	34.34	-348.83	10.00	10.00	-0.15	-0.67
Niobrara C										
7,200.00	55.97	0.89	7,075.88	-304.36	35.07	-303.63	10.00	10.00	-0.14	-0.65
7,300.00	65.97	0.77	7,124.34	-217.04	36.33	-216.30	10.00	10.00	-0.11	-0.60
7,400.00	75.97	0.68	7,156.91	-122.63	37.53	-121.89	10.00	10.00	-0.10	-0.55
7,427.85	78.75	0.65	7,163.00	-95.47	37.84	-94.72	10.00	10.00	-0.09	-0.51
Fort Hays										
7,500.00	85.97	0.59	7,172.58	-24.00	38.61	-23.26	10.00	10.00	-0.09	-0.51
7,539.04	89.87	0.55	7,174.00	15.00	39.00	15.74	10.00	10.00	-0.09	-0.50
End Build @ 7539.04ft - Codell TL (Heel) - 7" Intermediate Casing - Reigle 28C-4HZ Casing Point										
7,600.00	89.87	0.55	7,174.13	75.96	39.59	76.70	0.00	0.00	0.00	-0.50
7,700.00	89.87	0.55	7,174.36	175.95	40.55	176.70	0.00	0.00	0.00	0.00
7,800.00	89.87	0.55	7,174.58	275.95	41.52	276.69	0.00	0.00	0.00	0.00
7,900.00	89.87	0.55	7,174.80	375.94	42.48	376.69	0.00	0.00	0.00	0.00
8,000.00	89.87	0.55	7,175.02	475.94	43.45	476.68	0.00	0.00	0.00	0.00
8,100.00	89.87	0.55	7,175.24	575.93	44.41	576.68	0.00	0.00	0.00	0.00
8,200.00	89.87	0.55	7,175.46	675.93	45.38	676.67	0.00	0.00	0.00	0.00
8,300.00	89.87	0.55	7,175.68	775.92	46.34	776.67	0.00	0.00	0.00	0.00
8,400.00	89.87	0.55	7,175.91	875.92	47.31	876.66	0.00	0.00	0.00	0.00
8,500.00	89.87	0.55	7,176.13	975.91	48.27	976.66	0.00	0.00	0.00	0.00
8,600.00	89.87	0.55	7,176.35	1,075.91	49.24	1,076.65	0.00	0.00	0.00	0.00
8,700.00	89.87	0.55	7,176.57	1,175.90	50.20	1,176.65	0.00	0.00	0.00	0.00
8,800.00	89.87	0.55	7,176.79	1,275.90	51.17	1,276.65	0.00	0.00	0.00	0.00
8,900.00	89.87	0.55	7,177.01	1,375.89	52.13	1,376.64	0.00	0.00	0.00	0.00

Plan Report for Reigle 28C-4HZ - 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 (°)
9,000.00	89.87	0.55	7,177.23	1,475.89	53.10	1,476.64	0.00	0.00	0.00	0.00
9,100.00	89.87	0.55	7,177.45	1,575.88	54.06	1,576.63	0.00	0.00	0.00	0.00
9,200.00	89.87	0.55	7,177.68	1,675.88	55.03	1,676.63	0.00	0.00	0.00	0.00
9,300.00	89.87	0.55	7,177.90	1,775.87	55.99	1,776.62	0.00	0.00	0.00	0.00
9,400.00	89.87	0.55	7,178.12	1,875.87	56.96	1,876.62	0.00	0.00	0.00	0.00
9,500.00	89.87	0.55	7,178.34	1,975.86	57.92	1,976.61	0.00	0.00	0.00	0.00
9,600.00	89.87	0.55	7,178.56	2,075.86	58.89	2,076.61	0.00	0.00	0.00	0.00
9,700.00	89.87	0.55	7,178.78	2,175.85	59.85	2,176.60	0.00	0.00	0.00	0.00
9,800.00	89.87	0.55	7,179.00	2,275.85	60.82	2,276.60	0.00	0.00	0.00	0.00
9,900.00	89.87	0.55	7,179.22	2,375.85	61.78	2,376.59	0.00	0.00	0.00	0.00
10,000.00	89.87	0.55	7,179.45	2,475.84	62.75	2,476.59	0.00	0.00	0.00	0.00
Hold Angle @ 89.87										
10,100.00	89.87	0.55	7,179.67	2,575.84	63.71	2,576.58	0.00	0.00	0.00	0.00
10,200.00	89.87	0.55	7,179.89	2,675.83	64.68	2,676.58	0.00	0.00	0.00	0.00
10,300.00	89.87	0.55	7,180.11	2,775.83	65.64	2,776.57	0.00	0.00	0.00	0.00
10,400.00	89.87	0.55	7,180.33	2,875.82	66.61	2,876.57	0.00	0.00	0.00	0.00
10,500.00	89.87	0.55	7,180.55	2,975.82	67.57	2,976.56	0.00	0.00	0.00	0.00
10,600.00	89.87	0.55	7,180.77	3,075.81	68.54	3,076.56	0.00	0.00	0.00	0.00
10,700.00	89.87	0.55	7,181.00	3,175.81	69.51	3,176.55	0.00	0.00	0.00	0.00
10,800.00	89.87	0.55	7,181.22	3,275.80	70.47	3,276.55	0.00	0.00	0.00	0.00
10,900.00	89.87	0.55	7,181.44	3,375.80	71.44	3,376.55	0.00	0.00	0.00	0.00
11,000.00	89.87	0.55	7,181.66	3,475.79	72.40	3,476.54	0.00	0.00	0.00	0.00
11,100.00	89.87	0.55	7,181.88	3,575.79	73.37	3,576.54	0.00	0.00	0.00	0.00
11,200.00	89.87	0.55	7,182.10	3,675.78	74.33	3,676.53	0.00	0.00	0.00	0.00
11,300.00	89.87	0.55	7,182.32	3,775.78	75.30	3,776.53	0.00	0.00	0.00	0.00
11,400.00	89.87	0.55	7,182.54	3,875.77	76.26	3,876.52	0.00	0.00	0.00	0.00
11,500.00	89.87	0.55	7,182.77	3,975.77	77.23	3,976.52	0.00	0.00	0.00	0.00
11,600.00	89.87	0.55	7,182.99	4,075.76	78.19	4,076.51	0.00	0.00	0.00	0.00
11,604.82	89.87	0.55	7,183.00	4,080.58	78.24	4,081.33	0.00	0.00	0.00	0.00
Codell TL (Toe)										
11,605.82	89.87	0.55	7,183.00	4,081.58	78.25	4,082.33	0.00	0.00	0.00	0.00
Total Depth @ 11605.83ft										
11,605.84	89.87	0.55	7,183.00	4,081.60	78.25	4,082.35	0.00	0.00	0.00	0.00
Reigle 28C-4HZ_BHL										

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
1,200.00	1,200.00	0.00	0.00	Hold Angle @ 0.00
2,500.00	2,500.00	0.00	0.00	Begin Nudge @ 2500.00ft
2,700.00	2,699.84	-6.97	0.35	Nudge Rate = 2.00/100ft
2,911.44	2,910.03	-29.46	1.49	End Nudge @ 2911.44ft
5,000.00	4,977.08	-328.00	16.59	Hold Angle @ 8.23
6,558.17	6,519.21	-550.73	27.86	Begin Build @ 6558.17ft
7,000.00	6,937.58	-447.40	32.49	Build Rate = 10.00/100ft
7,539.04	7,174.00	15.00	39.00	End Build @ 7539.04ft
10,000.00	7,179.45	2,475.84	62.75	Hold Angle @ 89.87
11,605.82	7,183.00	4,081.58	78.25	Total Depth @ 11605.83ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (ft)	+E/-W (ft)	Start TVD (ft)
Target	Reigle 28C-4HZ_BHL	1.10	Slot	0.00	0.00	0.00

Plan Report for Reigle 28C-4HZ - Plan A Rev 0 Permit**Survey tool program**

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	11,605.82	Plan A Rev 0 Permit	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,539.04	7,174.00	7" Intermediate Casing	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,873.32	3,862.00	Parkman		0.00	
4,470.46	4,453.00	Sussex		0.00	
6,884.58	6,838.00	Sharon Springs		0.00	
6,957.16	6,902.00	Niobrara A		0.00	
7,125.05	7,030.00	Niobrara B		0.00	
7,143.49	7,042.00	Niobrara C		0.00	
7,427.85	7,163.00	Fort Hays		0.00	
7,539.04	7,174.00	Codell TL (Heel)		0.00	
11,604.82	7,183.00	Codell TL (Toe)		0.00	

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Reigle 28C-4HZ_Casing Point	7,174.00	15.00	39.00	Point
Reigle 28C-4HZ_BHL	7,183.00	4,081.60	78.25	Point
Reigle 28C-4HZ_Section Lines	0.00	0.00	0.00	Polygon
Reigle 28C-4HZ_Setback Lines	0.00	0.00	0.00	Polygon
Reigle 28C-4HZ_SHL	0.00	0.00	0.00	Point

North Reference Sheet for Sec. 4-T2N-R65W - Reigle 28C-4HZ - 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=16 @ 4874.00ft (Drilling Rig). Northing and Easting are relative to Reigle 28C-4HZ
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: 3,000,000.000644ft, False Northing: 1,000,000.001308ft, Scale Reduction: 0.99995803

Grid Coordinates of Well: 1,303,020.779901 ft N, 3,232,556.296629 ft E
Geographical Coordinates of Well: 40° 09' 43.89" N, 104° 40' 04.46" W
Grid Convergence at Surface is: 0.54°

Based upon Minimum Curvature type calculations, at a Measured Depth of 11,605.84ft
the Bottom Hole Displacement is 4,082.35ft in the Direction of 1.10° (True).

Magnetic Convergence at surface is: -8.09° (16 August 2012, , BGGM2011)

