

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 19-T2N-65W

Russian Fiddler36C-18HZ

Plan A Rev 0

Plan: Plan A Rev 0 Permit

Sperry Drilling Services

Proposal Report

29 June, 2012

Well Coordinates: 1,286,735.72 N, 3,222,028.33 E (40° 07' 03.91" N, 104° 42' 21.94" W)

Ground Level: 4,989.00 ft

Local Coordinate Origin: Centered on Well Russian Fiddler36C-18HZ

Viewing Datum: RKB=17ft @ 5006.00ft (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. 19-T2N-65W
Well: Russian Fiddler36C-18HZ
Wellbore: Plan A Rev 0
Design: Plan A Rev 0 Permit

Anadarko Petroleum Corp.

HALLIBURTON
Sperry Drilling

SECTION DETAILS

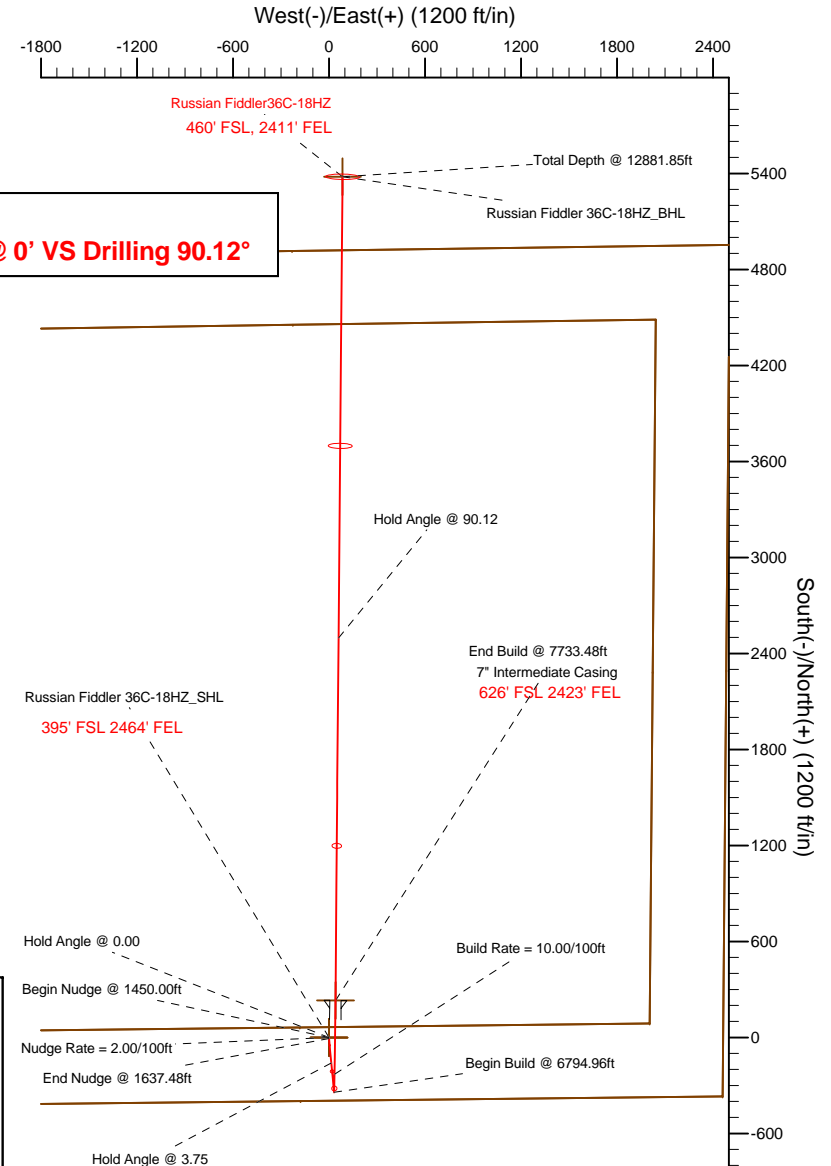
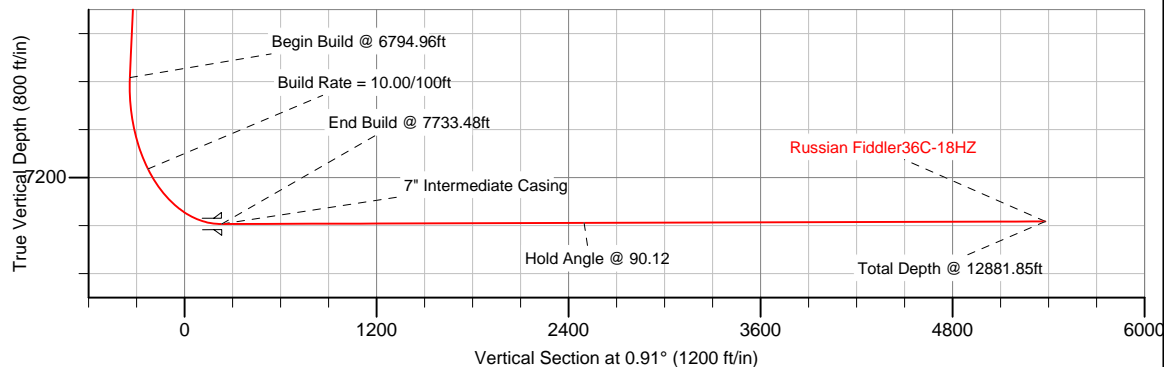
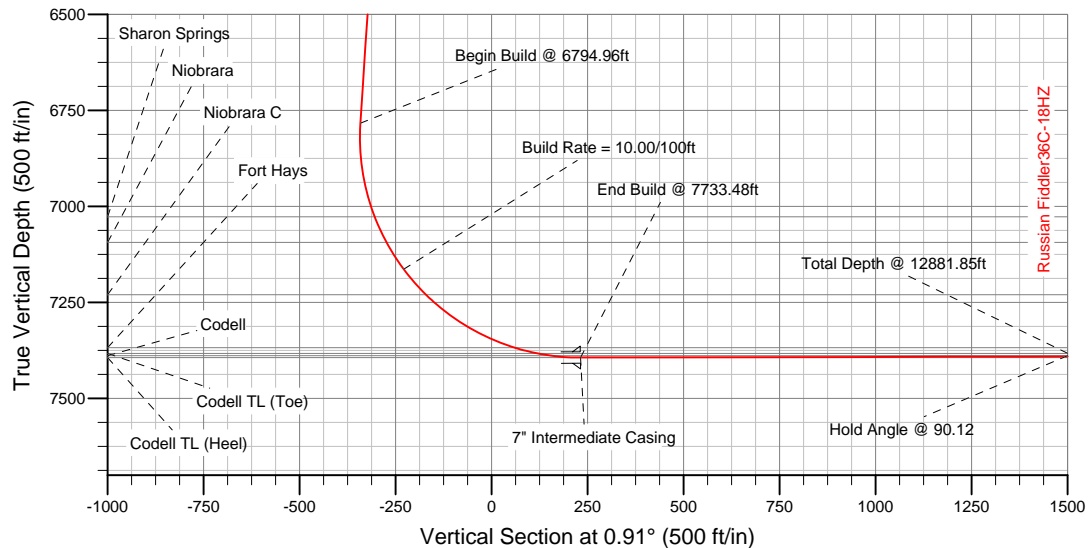
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1450.00	0.00	0.00	1450.00	0.00	0.00	0.00	0.00	0.00	
3	1637.48	3.75	174.65	1637.34	-6.11	0.57	2.00	174.65	-6.10	
4	6794.96	3.75	174.65	6783.78	-341.91	32.02	0.00	0.00	-341.36	
5	7733.48	90.12	0.49	7394.00	231.00	41.00	10.00	-174.15	231.62	Russian Fiddler 36C-18HZ_Casing Point
6	12881.85	90.12	0.49	7383.00	5379.17	85.00	0.00	0.00	5379.84	Russian Fiddler 36C-18HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Russian Fiddler 36C-18HZ_Section Line	0.00	0.00	0.00	40.117754	-104.706095	Polygon
Russian Fiddler 36C-18HZ_Setback Line	0.00	0.00	0.00	40.117754	-104.706095	Polygon
Russian Fiddler 36C-18HZ_SHL	0.00	0.00	0.00	40.117754	-104.706095	Point
Russian Fiddler 36C-18HZ_BHL	7383.00	5379.17	85.00	40.132520	-104.705791	Point
Russian Fiddler 36C-18HZ_Casing Point	7394.00	231.00	41.00	40.118388	-104.705948	Point

Target Line:

7394.27' TVDkb @ 0' VS Drilling 90.12°



WELL DETAILS: Russian Fiddler36C-18HZ

Ground Level: 4989.00 RKB=17ft @ 5006.00ft (Drilling Rig)

Plan: Plan A Rev 0 Permit (Russian Fiddler36C-18HZ/Plan A Rev 0)

Created By: Fred Hartmann Date: 06/28/2012
Reviewed: Date:

Plan Report for Russian Fiddler36C-18HZ - 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
Tie-On to Surface @ 0.00ft - Russian Fiddler 36C-18HZ_SHL - Russian Fiddler 36C-18HZ_Section Line - Russian Fiddler 36C-18H										
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
Hold Angle @ 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
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
1,450.00	0.00	0.00	1,450.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 1450.00ft										
1,500.00	1.00	174.65	1,500.00	-0.43	0.04	-0.43	2.00	2.00	0.00	174.65
Nudge Rate = 2.00/100ft										
1,600.00	3.00	174.65	1,599.93	-3.91	0.37	-3.90	2.00	2.00	0.00	0.00
1,637.48	3.75	174.65	1,637.35	-6.11	0.57	-6.10	2.00	2.00	0.00	0.00
End Nudge @ 1637.48ft										
1,700.00	3.75	174.65	1,699.73	-10.18	0.95	-10.16	0.00	0.00	0.00	0.00
1,800.00	3.75	174.65	1,799.52	-16.69	1.56	-16.66	0.00	0.00	0.00	0.00
1,900.00	3.75	174.65	1,899.30	-23.20	2.17	-23.16	0.00	0.00	0.00	0.00
2,000.00	3.75	174.65	1,999.09	-29.71	2.78	-29.66	0.00	0.00	0.00	0.00
2,100.00	3.75	174.65	2,098.88	-36.22	3.39	-36.16	0.00	0.00	0.00	0.00
2,200.00	3.75	174.65	2,198.66	-42.73	4.00	-42.66	0.00	0.00	0.00	0.00
2,300.00	3.75	174.65	2,298.45	-49.24	4.61	-49.16	0.00	0.00	0.00	0.00
2,400.00	3.75	174.65	2,398.23	-55.75	5.22	-55.66	0.00	0.00	0.00	0.00
2,500.00	3.75	174.65	2,498.02	-62.26	5.83	-62.17	0.00	0.00	0.00	0.00
2,600.00	3.75	174.65	2,597.81	-68.78	6.44	-68.67	0.00	0.00	0.00	0.00
2,700.00	3.75	174.65	2,697.59	-75.29	7.05	-75.17	0.00	0.00	0.00	0.00
2,800.00	3.75	174.65	2,797.38	-81.80	7.66	-81.67	0.00	0.00	0.00	0.00
2,900.00	3.75	174.65	2,897.16	-88.31	8.27	-88.17	0.00	0.00	0.00	0.00
3,000.00	3.75	174.65	2,996.95	-94.82	8.88	-94.67	0.00	0.00	0.00	0.00
3,100.00	3.75	174.65	3,096.74	-101.33	9.49	-101.17	0.00	0.00	0.00	0.00
3,200.00	3.75	174.65	3,196.52	-107.84	10.10	-107.67	0.00	0.00	0.00	0.00
3,300.00	3.75	174.65	3,296.31	-114.35	10.71	-114.17	0.00	0.00	0.00	0.00
3,400.00	3.75	174.65	3,396.09	-120.86	11.32	-120.67	0.00	0.00	0.00	0.00
3,500.00	3.75	174.65	3,495.88	-127.38	11.93	-127.17	0.00	0.00	0.00	0.00
3,600.00	3.75	174.65	3,595.67	-133.89	12.54	-133.67	0.00	0.00	0.00	0.00
3,700.00	3.75	174.65	3,695.45	-140.40	13.15	-140.17	0.00	0.00	0.00	0.00
3,800.00	3.75	174.65	3,795.24	-146.91	13.76	-146.67	0.00	0.00	0.00	0.00
3,900.00	3.75	174.65	3,895.02	-153.42	14.37	-153.17	0.00	0.00	0.00	0.00
4,000.00	3.75	174.65	3,994.81	-159.93	14.98	-159.67	0.00	0.00	0.00	0.00
Hold Angle @ 3.75										
4,062.32	3.75	174.65	4,057.00	-163.99	15.36	-163.73	0.00	0.00	0.00	0.00
Parkman										
4,100.00	3.75	174.65	4,094.59	-166.44	15.59	-166.17	0.00	0.00	0.00	0.00
4,200.00	3.75	174.65	4,194.38	-172.95	16.20	-172.68	0.00	0.00	0.00	0.00
4,300.00	3.75	174.65	4,294.17	-179.46	16.81	-179.18	0.00	0.00	0.00	0.00
4,400.00	3.75	174.65	4,393.95	-185.98	17.42	-185.68	0.00	0.00	0.00	0.00
4,500.00	3.75	174.65	4,493.74	-192.49	18.03	-192.18	0.00	0.00	0.00	0.00
4,600.00	3.75	174.65	4,593.52	-199.00	18.64	-198.68	0.00	0.00	0.00	0.00

Plan Report for Russian Fiddler36C-18HZ - 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 (°)
4,600.48	3.75	174.65	4,594.00	-199.03	18.64	-198.71	0.00	0.00	0.00	0.00
Sussex										
4,700.00	3.75	174.65	4,693.31	-205.51	19.25	-205.18	0.00	0.00	0.00	0.00
4,800.00	3.75	174.65	4,793.10	-212.02	19.86	-211.68	0.00	0.00	0.00	0.00
4,900.00	3.75	174.65	4,892.88	-218.53	20.47	-218.18	0.00	0.00	0.00	0.00
5,000.00	3.75	174.65	4,992.67	-225.04	21.08	-224.68	0.00	0.00	0.00	0.00
5,100.00	3.75	174.65	5,092.45	-231.55	21.69	-231.18	0.00	0.00	0.00	0.00
5,200.00	3.75	174.65	5,192.24	-238.06	22.30	-237.68	0.00	0.00	0.00	0.00
5,300.00	3.75	174.65	5,292.03	-244.57	22.91	-244.18	0.00	0.00	0.00	0.00
5,400.00	3.75	174.65	5,391.81	-251.09	23.52	-250.68	0.00	0.00	0.00	0.00
5,500.00	3.75	174.65	5,491.60	-257.60	24.13	-257.18	0.00	0.00	0.00	0.00
5,600.00	3.75	174.65	5,591.38	-264.11	24.74	-263.68	0.00	0.00	0.00	0.00
5,700.00	3.75	174.65	5,691.17	-270.62	25.35	-270.18	0.00	0.00	0.00	0.00
5,800.00	3.75	174.65	5,790.96	-277.13	25.96	-276.69	0.00	0.00	0.00	0.00
5,900.00	3.75	174.65	5,890.74	-283.64	26.57	-283.19	0.00	0.00	0.00	0.00
6,000.00	3.75	174.65	5,990.53	-290.15	27.18	-289.69	0.00	0.00	0.00	0.00
6,100.00	3.75	174.65	6,090.31	-296.66	27.79	-296.19	0.00	0.00	0.00	0.00
6,200.00	3.75	174.65	6,190.10	-303.17	28.40	-302.69	0.00	0.00	0.00	0.00
6,300.00	3.75	174.65	6,289.89	-309.69	29.01	-309.19	0.00	0.00	0.00	0.00
6,400.00	3.75	174.65	6,389.67	-316.20	29.62	-315.69	0.00	0.00	0.00	0.00
6,500.00	3.75	174.65	6,489.46	-322.71	30.23	-322.19	0.00	0.00	0.00	0.00
6,600.00	3.75	174.65	6,589.24	-329.22	30.84	-328.69	0.00	0.00	0.00	0.00
6,700.00	3.75	174.65	6,689.03	-335.73	31.45	-335.19	0.00	0.00	0.00	0.00
6,794.96	3.75	174.65	6,783.79	-341.91	32.02	-341.36	0.00	0.00	0.00	0.00
Begin Build @ 6794.96ft										
6,800.00	3.25	173.74	6,788.82	-342.22	32.06	-341.67	10.01	-9.95	-18.01	-174.15
6,900.00	6.78	3.70	6,888.64	-339.13	32.75	-338.57	10.00	3.54	-170.04	-173.24
7,000.00	16.78	1.76	6,986.41	-318.76	33.57	-318.19	10.00	9.99	-1.95	-3.24
7,042.92	21.07	1.48	7,027.00	-304.85	33.96	-304.27	10.00	10.00	-0.64	-1.32
Sharon Springs										
7,100.00	26.78	1.25	7,079.15	-281.72	34.51	-281.14	10.00	10.00	-0.41	-1.06
7,116.75	28.45	1.20	7,094.00	-273.95	34.68	-273.37	10.00	10.00	-0.31	-0.85
Niobrara										
7,200.00	36.78	1.00	7,164.06	-229.13	35.53	-228.54	10.00	10.00	-0.23	-0.80
Build Rate = 10.00/100ft										
7,287.67	45.54	0.87	7,230.00	-171.50	36.46	-170.90	10.00	10.00	-0.16	-0.64
Niobrara C										
7,300.00	46.78	0.85	7,238.54	-162.61	36.59	-162.01	10.00	10.00	-0.13	-0.54
7,400.00	56.78	0.74	7,300.34	-84.15	37.68	-83.55	10.00	10.00	-0.11	-0.52
7,500.00	66.77	0.65	7,347.57	3.84	38.75	4.45	10.00	10.00	-0.09	-0.46
7,558.98	72.67	0.61	7,368.00	59.14	39.36	59.75	10.00	10.00	-0.08	-0.42
Fort Hays										
7,600.00	76.77	0.58	7,378.80	98.70	39.77	99.31	10.00	10.00	-0.07	-0.40
7,656.50	82.42	0.54	7,389.00	154.24	40.31	154.86	10.00	10.00	-0.07	-0.39
Codell										
7,700.00	86.77	0.51	7,393.09	197.54	40.71	198.16	10.00	10.00	-0.07	-0.39
7,733.48	90.12	0.49	7,394.00	231.00	41.00	231.62	10.00	10.00	-0.07	-0.38
End Build @ 7733.48ft - Codell TL (Heel) - 7" Intermediate Casing - Russian Fiddler 36C-18HZ_Casing Point										
7,800.00	90.12	0.49	7,393.86	297.52	41.57	298.14	0.00	0.00	0.00	-0.38
7,900.00	90.12	0.49	7,393.64	397.51	42.42	398.13	0.00	0.00	0.00	0.00
8,000.00	90.12	0.49	7,393.43	497.51	43.28	498.13	0.00	0.00	0.00	0.00
8,100.00	90.12	0.49	7,393.22	597.50	44.13	598.13	0.00	0.00	0.00	0.00
8,200.00	90.12	0.49	7,393.00	697.50	44.99	698.12	0.00	0.00	0.00	0.00
8,300.00	90.12	0.49	7,392.79	797.50	45.84	798.12	0.00	0.00	0.00	0.00
8,400.00	90.12	0.49	7,392.58	897.49	46.70	898.12	0.00	0.00	0.00	0.00
8,500.00	90.12	0.49	7,392.36	997.49	47.55	998.12	0.00	0.00	0.00	0.00
8,600.00	90.12	0.49	7,392.15	1,097.48	48.41	1,098.11	0.00	0.00	0.00	0.00
8,700.00	90.12	0.49	7,391.93	1,197.48	49.26	1,198.11	0.00	0.00	0.00	0.00
8,800.00	90.12	0.49	7,391.72	1,297.48	50.12	1,298.11	0.00	0.00	0.00	0.00

Plan Report for Russian Fiddler36C-18HZ - 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 (°)
8,900.00	90.12	0.49	7,391.51	1,397.47	50.97	1,398.10	0.00	0.00	0.00	0.00
9,000.00	90.12	0.49	7,391.29	1,497.47	51.83	1,498.10	0.00	0.00	0.00	0.00
9,100.00	90.12	0.49	7,391.08	1,597.47	52.68	1,598.10	0.00	0.00	0.00	0.00
9,200.00	90.12	0.49	7,390.87	1,697.46	53.53	1,698.10	0.00	0.00	0.00	0.00
9,300.00	90.12	0.49	7,390.65	1,797.46	54.39	1,798.09	0.00	0.00	0.00	0.00
9,400.00	90.12	0.49	7,390.44	1,897.45	55.24	1,898.09	0.00	0.00	0.00	0.00
9,500.00	90.12	0.49	7,390.23	1,997.45	56.10	1,998.09	0.00	0.00	0.00	0.00
9,600.00	90.12	0.49	7,390.01	2,097.45	56.95	2,098.08	0.00	0.00	0.00	0.00
9,700.00	90.12	0.49	7,389.80	2,197.44	57.81	2,198.08	0.00	0.00	0.00	0.00
9,800.00	90.12	0.49	7,389.58	2,297.44	58.66	2,298.08	0.00	0.00	0.00	0.00
9,900.00	90.12	0.49	7,389.37	2,397.43	59.52	2,398.08	0.00	0.00	0.00	0.00
10,000.00	90.12	0.49	7,389.16	2,497.43	60.37	2,498.07	0.00	0.00	0.00	0.00
Hold Angle @ 90.12										
10,100.00	90.12	0.49	7,388.94	2,597.43	61.23	2,598.07	0.00	0.00	0.00	0.00
10,200.00	90.12	0.49	7,388.73	2,697.42	62.08	2,698.07	0.00	0.00	0.00	0.00
10,300.00	90.12	0.49	7,388.52	2,797.42	62.94	2,798.06	0.00	0.00	0.00	0.00
10,400.00	90.12	0.49	7,388.30	2,897.42	63.79	2,898.06	0.00	0.00	0.00	0.00
10,500.00	90.12	0.49	7,388.09	2,997.41	64.65	2,998.06	0.00	0.00	0.00	0.00
10,600.00	90.12	0.49	7,387.88	3,097.41	65.50	3,098.06	0.00	0.00	0.00	0.00
10,700.00	90.12	0.49	7,387.66	3,197.40	66.36	3,198.05	0.00	0.00	0.00	0.00
10,800.00	90.12	0.49	7,387.45	3,297.40	67.21	3,298.05	0.00	0.00	0.00	0.00
10,900.00	90.12	0.49	7,387.23	3,397.40	68.07	3,398.05	0.00	0.00	0.00	0.00
11,000.00	90.12	0.49	7,387.02	3,497.39	68.92	3,498.04	0.00	0.00	0.00	0.00
11,100.00	90.12	0.49	7,386.81	3,597.39	69.77	3,598.04	0.00	0.00	0.00	0.00
11,200.00	90.12	0.49	7,386.59	3,697.38	70.63	3,698.04	0.00	0.00	0.00	0.00
11,300.00	90.12	0.49	7,386.38	3,797.38	71.48	3,798.04	0.00	0.00	0.00	0.00
11,400.00	90.12	0.49	7,386.17	3,897.38	72.34	3,898.03	0.00	0.00	0.00	0.00
11,500.00	90.12	0.49	7,385.95	3,997.37	73.19	3,998.03	0.00	0.00	0.00	0.00
11,600.00	90.12	0.49	7,385.74	4,097.37	74.05	4,098.03	0.00	0.00	0.00	0.00
11,700.00	90.12	0.49	7,385.53	4,197.36	74.90	4,198.02	0.00	0.00	0.00	0.00
11,800.00	90.12	0.49	7,385.31	4,297.36	75.76	4,298.02	0.00	0.00	0.00	0.00
11,900.00	90.12	0.49	7,385.10	4,397.36	76.61	4,398.02	0.00	0.00	0.00	0.00
12,000.00	90.12	0.49	7,384.88	4,497.35	77.47	4,498.02	0.00	0.00	0.00	0.00
12,100.00	90.12	0.49	7,384.67	4,597.35	78.32	4,598.01	0.00	0.00	0.00	0.00
12,200.00	90.12	0.49	7,384.46	4,697.35	79.18	4,698.01	0.00	0.00	0.00	0.00
12,300.00	90.12	0.49	7,384.24	4,797.34	80.03	4,798.01	0.00	0.00	0.00	0.00
12,400.00	90.12	0.49	7,384.03	4,897.34	80.89	4,898.00	0.00	0.00	0.00	0.00
12,500.00	90.12	0.49	7,383.82	4,997.33	81.74	4,998.00	0.00	0.00	0.00	0.00
12,600.00	90.12	0.49	7,383.60	5,097.33	82.60	5,098.00	0.00	0.00	0.00	0.00
12,700.00	90.12	0.49	7,383.39	5,197.33	83.45	5,198.00	0.00	0.00	0.00	0.00
12,800.00	90.12	0.49	7,383.17	5,297.32	84.31	5,297.99	0.00	0.00	0.00	0.00
12,881.84	90.12	0.49	7,383.00	5,379.16	85.00	5,379.83	0.00	0.00	0.00	0.00
Codell TL (Toe)										
12,881.85	90.12	0.49	7,383.00	5,379.17	85.00	5,379.84	0.01	0.00	0.00	0.00
Russian Fiddler 36C-18HZ_BHL										

Plan Report for Russian Fiddler36C-18HZ - Plan A Rev 0 Permit

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
0.00	0.00	0.00	0.00	Tie-On to Surface @ 0.00ft
700.00	700.00	0.00	0.00	Hold Angle @ 0.00
1,450.00	1,450.00	0.00	0.00	Begin Nudge @ 1450.00ft
1,500.00	1,500.00	-0.43	0.04	Nudge Rate = 2.00/100ft
1,637.48	1,637.35	-6.11	0.57	End Nudge @ 1637.48ft
4,000.00	3,994.81	-159.93	14.98	Hold Angle @ 3.75
6,794.96	6,783.79	-341.91	32.02	Begin Build @ 6794.96ft
7,200.00	7,164.06	-229.13	35.53	Build Rate = 10.00/100ft
7,733.48	7,394.00	231.00	41.00	End Build @ 7733.48ft
10,000.00	7,389.16	2,497.43	60.37	Hold Angle @ 90.12
12,881.85	7,383.00	5,379.17	85.00	Total Depth @ 12881.85ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/-S (ft)	+E/-W (ft)	
Target	Russian Fiddler 36C-18HZ_BHL	0.91	Slot	0.00	0.00	7,383.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	12,881.85	Plan A Rev 0 Permit	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,733.48	7,394.00	7" Intermediate Casing	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,062.32	4,057.00	Parkman		0.00	
4,600.48	4,594.00	Sussex		0.00	
7,042.92	7,027.00	Sharon Springs		0.00	
7,116.75	7,094.00	Niobrara		0.00	
7,287.67	7,230.00	Niobrara C		0.00	
7,558.98	7,368.00	Fort Hays		0.00	
7,656.50	7,389.00	Codell		0.00	
7,733.48	7,394.00	Codell TL (Heel)		0.00	
12,881.84	7,383.00	Codell TL (Toe)		0.00	

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Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Russian Fiddler 36C-18HZ_Casing Point	7,394.00	231.00	41.00	Point
Russian Fiddler 36C-18HZ_Setback Line	0.00	0.00	0.00	Polygon
Russian Fiddler 36C-18HZ_Section Line	0.00	0.00	0.00	Polygon
Russian Fiddler 36C-18HZ_SHL	0.00	0.00	0.00	Point
Russian Fiddler 36C-18HZ_BHL	7,383.00	5,379.17	85.00	Point

North Reference Sheet for Sec. 19-T2N-65W - Russian Fiddler36C-18HZ - 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=17ft @ 5006.00ft (Drilling Rig). Northing and Easting are relative to Russian Fiddler36C-18HZ
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: 0.99995953

Grid Coordinates of Well: 1,286,735.723215 ft N, 3,222,028.332375 ft E
Geographical Coordinates of Well: 40° 07' 03.91" N, 104° 42' 21.94" W
Grid Convergence at Surface is: 0.51°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,881.85ft
the Bottom Hole Displacement is 5,379.84ft in the Direction of 0.91° (True).

Magnetic Convergence at surface is: -8.15° (29 June 2012, , BGGM2011)

