

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_USA Fed 16-36HZ PAD

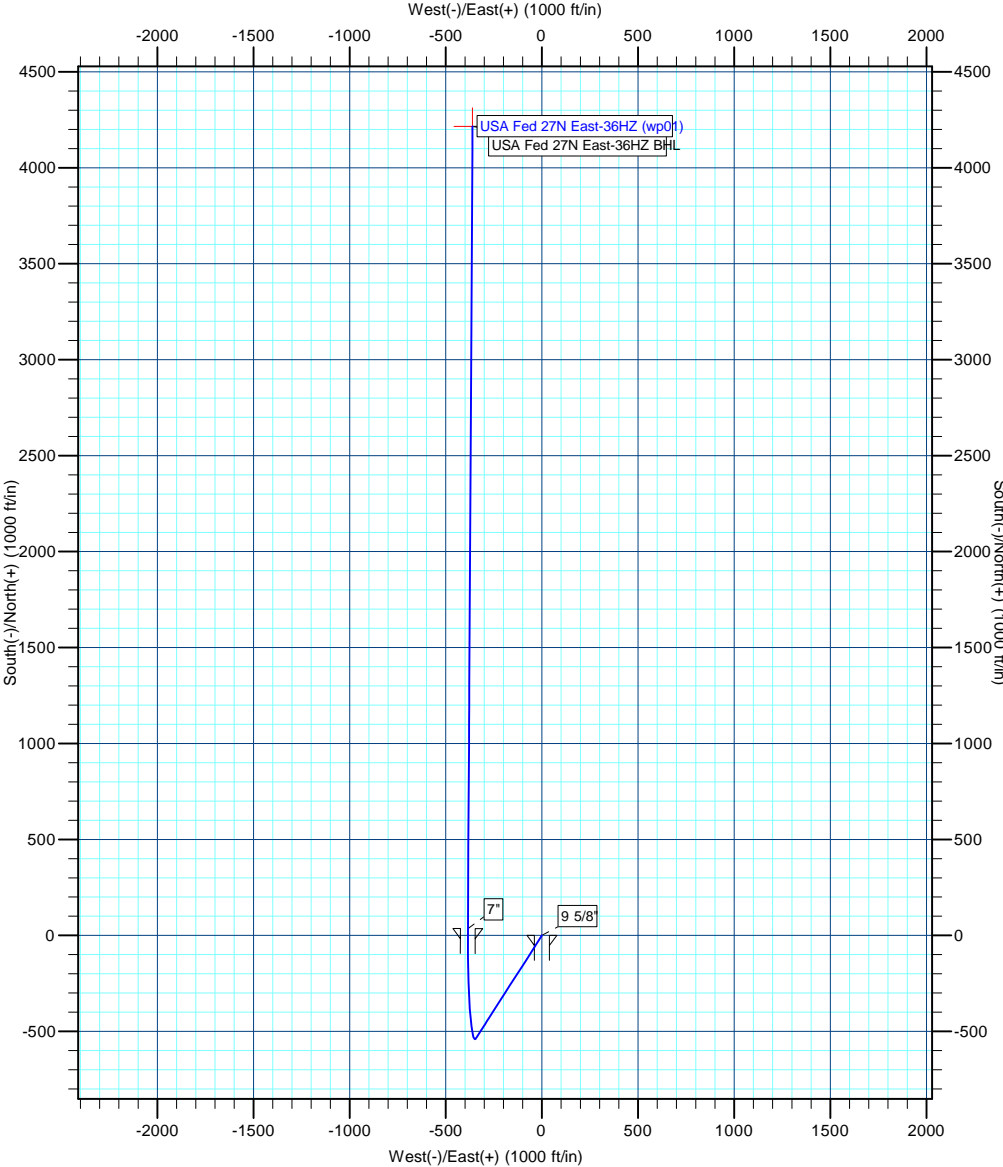
USA Fed 27N East-36HZ

USA Fed 27N East-36HZ

Plan: USA Fed 27N East-36HZ (wp01)

Standard Planning Report

29 March, 2012



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Azimuths to True North

Magnetic North: 8.71°

Magnetic Field

Strength: 52934.4snT

Dip Angle: 66.85°

Date: 3/29/2012

Model: IGRF2010



Project: COLORADO NORTHERN ZONE - 83

Site: WELD_USA Fed 16-36HZ PAD

Well: USA Fed 27N East-36HZ

Wellbore: USA Fed 27N East-36HZ

Section:

SHL:

Design: USA Fed 27N East-36HZ (wp01)

Latitude: 40.176319

Longitude: -104.718374

GL: 4985.00

KB: GL + RKB @ 5002.00ft

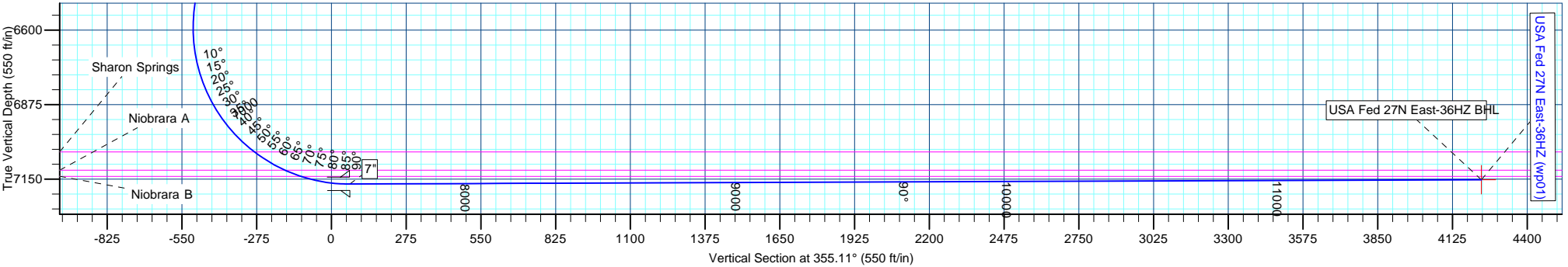
WELL DETAILS: USA Fed 27N East-36HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4985.00 Latitude	Longitude	Slot
0.00	0.00	1308038.45	3218406.35	40.176319	-104.718374	

SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00
1874.67	7.49	212.61	1873.60	-20.61	-13.19	2.00	212.61	-19.41
6574.66	7.49	212.61	6533.45	-536.88	-343.55	0.00	0.00	-505.65
7540.13	90.22	0.33	7168.00	35.00	-385.00	10.00	147.48	67.69
7540.46	90.22	0.33	7168.00	35.33	-385.00	1.00	56.66	68.02
11721.09	90.22	0.33	7152.00	4215.87	-360.68	0.00	0.00	4231.27

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
USA Fed 27N East-36HZ BHL	7152.00	4215.87	-360.68	40.187892	-104.719665	Point

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3265.00	3278.05	Parkman
4416.00	4438.97	Sussex
7050.00	7163.12	Sharon Springs
7117.00	7294.05	Niobrara A
7140.00	7357.85	Niobrara B

CASING DETAILS			
TVD	MD	Name	Size
800.00	800.00	9 5/8"	9-5/8
7168.00	7540.13	7"	7



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well USA Fed 27N East-36HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 5002.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 5002.00ft
Site:	WELD_USA Fed 16-36HZ PAD	North Reference:	True
Well:	USA Fed 27N East-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	USA Fed 27N East-36HZ		
Design:	USA Fed 27N East-36HZ (wp01)		

Project	COLORADO NORTHERN ZONE - 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_USA Fed 16-36HZ PAD			
Site Position:		Northing:	1,308,038.47 usft	Latitude: 40.176319
From:	Lat/Long	Easting:	3,218,406.36 usft	Longitude: -104.718374
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.51 °

Well	USA Fed 27N East-36HZ			
Well Position	+N/-S	-0.02 ft	Northing:	1,308,038.45 usft
	+E/-W	0.00 ft	Easting:	3,218,406.36 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 4,985.00 ft

Wellbore	USA Fed 27N East-36HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/29/2012	8.71	66.85	52,934

Design	USA Fed 27N East-36HZ (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	355.11

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	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	
1,874.67	7.49	212.61	1,873.60	-20.61	-13.19	2.00	2.00	0.00	212.61	
6,574.66	7.49	212.61	6,533.45	-536.88	-343.55	0.00	0.00	0.00	0.00	
7,540.13	90.22	0.33	7,168.00	35.00	-385.00	10.00	8.57	15.30	147.48	
7,540.46	90.22	0.33	7,168.00	35.33	-385.00	1.00	0.55	0.84	56.66	
11,721.09	90.22	0.33	7,152.00	4,215.87	-360.68	0.00	0.00	0.00	0.00	USA Fed 27N East-36

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well USA Fed 27N East-36HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 5002.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 5002.00ft
Site:	WELD_USA Fed 16-36HZ PAD	North Reference:	True
Well:	USA Fed 27N East-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	USA Fed 27N East-36HZ		
Design:	USA Fed 27N East-36HZ (wp01)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
200.00	0.00	0.00	200.00	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
400.00	0.00	0.00	400.00	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
600.00	0.00	0.00	600.00	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
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
900.00	0.00	0.00	900.00	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
1,100.00	0.00	0.00	1,100.00	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
1,300.00	0.00	0.00	1,300.00	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
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,600.00	2.00	212.61	1,599.98	-1.47	-0.94	-1.38	2.00	2.00	0.00
1,700.00	4.00	212.61	1,699.84	-5.88	-3.76	-5.54	2.00	2.00	0.00
1,800.00	6.00	212.61	1,799.45	-13.22	-8.46	-12.45	2.00	2.00	0.00
1,874.67	7.49	212.61	1,873.60	-20.61	-13.19	-19.41	2.00	2.00	0.00
Start 4699.99 hold at 1874.67 MD									
1,900.00	7.49	212.61	1,898.72	-23.39	-14.97	-22.03	0.00	0.00	0.00
2,000.00	7.49	212.61	1,997.86	-34.37	-22.00	-32.37	0.00	0.00	0.00
2,100.00	7.49	212.61	2,097.01	-45.36	-29.02	-42.72	0.00	0.00	0.00
2,200.00	7.49	212.61	2,196.15	-56.34	-36.05	-53.07	0.00	0.00	0.00
2,300.00	7.49	212.61	2,295.30	-67.33	-43.08	-63.41	0.00	0.00	0.00
2,400.00	7.49	212.61	2,394.45	-78.31	-50.11	-73.76	0.00	0.00	0.00
2,500.00	7.49	212.61	2,493.59	-89.30	-57.14	-84.10	0.00	0.00	0.00
2,600.00	7.49	212.61	2,592.74	-100.28	-64.17	-94.45	0.00	0.00	0.00
2,700.00	7.49	212.61	2,691.88	-111.27	-71.20	-104.79	0.00	0.00	0.00
2,800.00	7.49	212.61	2,791.03	-122.25	-78.23	-115.14	0.00	0.00	0.00
2,900.00	7.49	212.61	2,890.18	-133.24	-85.26	-125.48	0.00	0.00	0.00
3,000.00	7.49	212.61	2,989.32	-144.22	-92.29	-135.83	0.00	0.00	0.00
3,100.00	7.49	212.61	3,088.47	-155.21	-99.31	-146.17	0.00	0.00	0.00
3,200.00	7.49	212.61	3,187.61	-166.19	-106.34	-156.52	0.00	0.00	0.00
3,278.05	7.49	212.61	3,265.00	-174.76	-111.83	-164.60	0.00	0.00	0.00
Parkman									
3,300.00	7.49	212.61	3,286.76	-177.17	-113.37	-166.87	0.00	0.00	0.00
3,400.00	7.49	212.61	3,385.91	-188.16	-120.40	-177.21	0.00	0.00	0.00
3,500.00	7.49	212.61	3,485.05	-199.14	-127.43	-187.56	0.00	0.00	0.00
3,600.00	7.49	212.61	3,584.20	-210.13	-134.46	-197.90	0.00	0.00	0.00
3,700.00	7.49	212.61	3,683.34	-221.11	-141.49	-208.25	0.00	0.00	0.00
3,800.00	7.49	212.61	3,782.49	-232.10	-148.52	-218.59	0.00	0.00	0.00
3,900.00	7.49	212.61	3,881.64	-243.08	-155.55	-228.94	0.00	0.00	0.00
4,000.00	7.49	212.61	3,980.78	-254.07	-162.58	-239.28	0.00	0.00	0.00
4,100.00	7.49	212.61	4,079.93	-265.05	-169.60	-249.63	0.00	0.00	0.00
4,200.00	7.49	212.61	4,179.07	-276.04	-176.63	-259.98	0.00	0.00	0.00
4,300.00	7.49	212.61	4,278.22	-287.02	-183.66	-270.32	0.00	0.00	0.00
4,400.00	7.49	212.61	4,377.37	-298.01	-190.69	-280.67	0.00	0.00	0.00
4,438.97	7.49	212.61	4,416.00	-302.29	-193.43	-284.70	0.00	0.00	0.00
Sussex									
4,500.00	7.49	212.61	4,476.51	-308.99	-197.72	-291.01	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well USA Fed 27N East-36HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 5002.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 5002.00ft
Site:	WELD_USA Fed 16-36HZ PAD	North Reference:	True
Well:	USA Fed 27N East-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	USA Fed 27N East-36HZ		
Design:	USA Fed 27N East-36HZ (wp01)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.00	7.49	212.61	4,575.66	-319.98	-204.75	-301.36	0.00	0.00	0.00
4,700.00	7.49	212.61	4,674.80	-330.96	-211.78	-311.70	0.00	0.00	0.00
4,800.00	7.49	212.61	4,773.95	-341.94	-218.81	-322.05	0.00	0.00	0.00
4,900.00	7.49	212.61	4,873.10	-352.93	-225.84	-332.39	0.00	0.00	0.00
5,000.00	7.49	212.61	4,972.24	-363.91	-232.86	-342.74	0.00	0.00	0.00
5,100.00	7.49	212.61	5,071.39	-374.90	-239.89	-353.08	0.00	0.00	0.00
5,200.00	7.49	212.61	5,170.54	-385.88	-246.92	-363.43	0.00	0.00	0.00
5,300.00	7.49	212.61	5,269.68	-396.87	-253.95	-373.78	0.00	0.00	0.00
5,400.00	7.49	212.61	5,368.83	-407.85	-260.98	-384.12	0.00	0.00	0.00
5,500.00	7.49	212.61	5,467.97	-418.84	-268.01	-394.47	0.00	0.00	0.00
5,600.00	7.49	212.61	5,567.12	-429.82	-275.04	-404.81	0.00	0.00	0.00
5,700.00	7.49	212.61	5,666.27	-440.81	-282.07	-415.16	0.00	0.00	0.00
5,800.00	7.49	212.61	5,765.41	-451.79	-289.10	-425.50	0.00	0.00	0.00
5,900.00	7.49	212.61	5,864.56	-462.78	-296.13	-435.85	0.00	0.00	0.00
6,000.00	7.49	212.61	5,963.70	-473.76	-303.15	-446.19	0.00	0.00	0.00
6,100.00	7.49	212.61	6,062.85	-484.74	-310.18	-456.54	0.00	0.00	0.00
6,200.00	7.49	212.61	6,162.00	-495.73	-317.21	-466.88	0.00	0.00	0.00
6,300.00	7.49	212.61	6,261.14	-506.71	-324.24	-477.23	0.00	0.00	0.00
6,400.00	7.49	212.61	6,360.29	-517.70	-331.27	-487.58	0.00	0.00	0.00
6,500.00	7.49	212.61	6,459.43	-528.68	-338.30	-497.92	0.00	0.00	0.00
6,574.66	7.49	212.61	6,533.45	-536.88	-343.55	-505.65	0.00	0.00	0.00
Start DLS 10.00 TFO 147.48									
6,600.00	5.53	226.91	6,558.63	-539.11	-345.33	-507.71	10.00	-7.76	56.39
6,700.00	7.39	327.50	6,658.24	-536.97	-352.32	-504.98	10.00	1.86	100.59
6,800.00	16.68	346.75	6,755.97	-517.52	-359.08	-485.03	10.00	9.29	19.25
6,900.00	26.49	352.21	6,848.85	-481.36	-365.41	-448.46	10.00	9.81	5.46
7,000.00	36.40	354.84	6,934.06	-429.59	-371.11	-396.39	10.00	9.91	2.64
7,100.00	46.34	356.47	7,009.01	-363.76	-376.02	-330.39	10.00	9.94	1.63
7,163.12	52.63	357.24	7,050.00	-315.88	-378.64	-282.45	10.00	9.96	1.22
Sharon Springs									
7,200.00	56.30	357.63	7,071.43	-285.90	-379.98	-252.47	10.00	9.96	1.06
7,294.05	65.67	358.49	7,117.00	-203.79	-382.73	-170.42	10.00	9.97	0.92
Niobrara A									
7,300.00	66.27	358.54	7,119.42	-198.36	-382.87	-165.00	10.00	9.97	0.84
7,357.85	72.04	359.01	7,140.00	-144.34	-384.02	-111.08	10.00	9.97	0.80
Niobrara B									
7,400.00	76.24	359.33	7,151.52	-103.80	-384.61	-70.64	10.00	9.97	0.76
7,500.00	86.21	0.05	7,166.75	-5.10	-385.13	27.75	10.00	9.97	0.72
7,540.13	90.22	0.33	7,168.00	35.00	-385.00	67.70	10.00	9.97	0.70
7"									
7,540.46	90.22	0.33	7,168.00	35.33	-385.00	68.02	1.01	0.56	0.85
Start 4180.64 hold at 7540.46 MD									
7,600.00	90.22	0.33	7,167.77	94.87	-384.65	127.32	0.00	0.00	0.00
7,700.00	90.22	0.33	7,167.39	194.87	-384.07	226.90	0.00	0.00	0.00
7,800.00	90.22	0.33	7,167.01	294.87	-383.49	326.48	0.00	0.00	0.00
7,900.00	90.22	0.33	7,166.62	394.87	-382.91	426.07	0.00	0.00	0.00
8,000.00	90.22	0.33	7,166.24	494.86	-382.33	525.65	0.00	0.00	0.00
8,100.00	90.22	0.33	7,165.86	594.86	-381.74	625.24	0.00	0.00	0.00
8,200.00	90.22	0.33	7,165.47	694.86	-381.16	724.82	0.00	0.00	0.00
8,300.00	90.22	0.33	7,165.09	794.86	-380.58	824.40	0.00	0.00	0.00
8,400.00	90.22	0.33	7,164.71	894.85	-380.00	923.99	0.00	0.00	0.00
8,500.00	90.22	0.33	7,164.33	994.85	-379.42	1,023.57	0.00	0.00	0.00
8,600.00	90.22	0.33	7,163.94	1,094.85	-378.84	1,123.16	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well USA Fed 27N East-36HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 5002.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 5002.00ft
Site:	WELD_USA Fed 16-36HZ PAD	North Reference:	True
Well:	USA Fed 27N East-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	USA Fed 27N East-36HZ		
Design:	USA Fed 27N East-36HZ (wp01)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,700.00	90.22	0.33	7,163.56	1,194.85	-378.25	1,222.74	0.00	0.00	0.00
8,800.00	90.22	0.33	7,163.18	1,294.84	-377.67	1,322.32	0.00	0.00	0.00
8,900.00	90.22	0.33	7,162.80	1,394.84	-377.09	1,421.91	0.00	0.00	0.00
9,000.00	90.22	0.33	7,162.41	1,494.84	-376.51	1,521.49	0.00	0.00	0.00
9,100.00	90.22	0.33	7,162.03	1,594.84	-375.93	1,621.08	0.00	0.00	0.00
9,200.00	90.22	0.33	7,161.65	1,694.83	-375.35	1,720.66	0.00	0.00	0.00
9,300.00	90.22	0.33	7,161.27	1,794.83	-374.76	1,820.25	0.00	0.00	0.00
9,400.00	90.22	0.33	7,160.88	1,894.83	-374.18	1,919.83	0.00	0.00	0.00
9,500.00	90.22	0.33	7,160.50	1,994.83	-373.60	2,019.41	0.00	0.00	0.00
9,600.00	90.22	0.33	7,160.12	2,094.82	-373.02	2,119.00	0.00	0.00	0.00
9,700.00	90.22	0.33	7,159.73	2,194.82	-372.44	2,218.58	0.00	0.00	0.00
9,800.00	90.22	0.33	7,159.35	2,294.82	-371.86	2,318.17	0.00	0.00	0.00
9,900.00	90.22	0.33	7,158.97	2,394.82	-371.27	2,417.75	0.00	0.00	0.00
10,000.00	90.22	0.33	7,158.59	2,494.82	-370.69	2,517.33	0.00	0.00	0.00
10,100.00	90.22	0.33	7,158.20	2,594.81	-370.11	2,616.92	0.00	0.00	0.00
10,200.00	90.22	0.33	7,157.82	2,694.81	-369.53	2,716.50	0.00	0.00	0.00
10,300.00	90.22	0.33	7,157.44	2,794.81	-368.95	2,816.09	0.00	0.00	0.00
10,400.00	90.22	0.33	7,157.06	2,894.81	-368.37	2,915.67	0.00	0.00	0.00
10,500.00	90.22	0.33	7,156.67	2,994.80	-367.78	3,015.25	0.00	0.00	0.00
10,600.00	90.22	0.33	7,156.29	3,094.80	-367.20	3,114.84	0.00	0.00	0.00
10,700.00	90.22	0.33	7,155.91	3,194.80	-366.62	3,214.42	0.00	0.00	0.00
10,800.00	90.22	0.33	7,155.53	3,294.80	-366.04	3,314.01	0.00	0.00	0.00
10,900.00	90.22	0.33	7,155.14	3,394.79	-365.46	3,413.59	0.00	0.00	0.00
11,000.00	90.22	0.33	7,154.76	3,494.79	-364.88	3,513.17	0.00	0.00	0.00
11,100.00	90.22	0.33	7,154.38	3,594.79	-364.29	3,612.76	0.00	0.00	0.00
11,200.00	90.22	0.33	7,153.99	3,694.79	-363.71	3,712.34	0.00	0.00	0.00
11,300.00	90.22	0.33	7,153.61	3,794.78	-363.13	3,811.93	0.00	0.00	0.00
11,400.00	90.22	0.33	7,153.23	3,894.78	-362.55	3,911.51	0.00	0.00	0.00
11,500.00	90.22	0.33	7,152.85	3,994.78	-361.97	4,011.09	0.00	0.00	0.00
11,600.00	90.22	0.33	7,152.46	4,094.78	-361.39	4,110.68	0.00	0.00	0.00
11,700.00	90.22	0.33	7,152.08	4,194.77	-360.81	4,210.26	0.00	0.00	0.00
11,721.09	90.22	0.33	7,152.00	4,215.87	-360.68	4,231.27	0.00	0.00	0.00
TD at 11721.09 - USA Fed 27N East-36HZ BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
USA Fed 27N East-36H; - hit/miss target - Shape - Point	0.00	0.00	7,152.00	4,215.87	-360.68	1,312,250.96	3,218,008.53	40.187892	-104.719665

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
800.00	800.00	9 5/8"	9-5/8	12-1/4	
7,540.13	7,168.00	7"	7	8-3/4	

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well USA Fed 27N East-36HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 5002.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 5002.00ft
Site:	WELD_USA Fed 16-36HZ PAD	North Reference:	True
Well:	USA Fed 27N East-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	USA Fed 27N East-36HZ		
Design:	USA Fed 27N East-36HZ (wp01)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,278.05	3,265.00	Parkman				
4,438.97	4,416.00	Sussex				
7,163.12	7,050.00	Sharon Springs				
7,294.05	7,117.00	Niobrara A				
7,357.85	7,140.00	Niobrara B				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,500.00	1,500.00	0.00	0.00	Start Build 2.00	
1,874.67	1,873.60	-20.61	-13.19	Start 4699.99 hold at 1874.67 MD	
6,574.66	6,533.45	-536.88	-343.55	Start DLS 10.00 TFO 147.48	
7,540.46	7,168.00	35.33	-385.00	Start 4180.64 hold at 7540.46 MD	
11,721.09	7,152.00	4,215.87	-360.68	TD at 11721.09	