

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_WARDELL 5 PAD

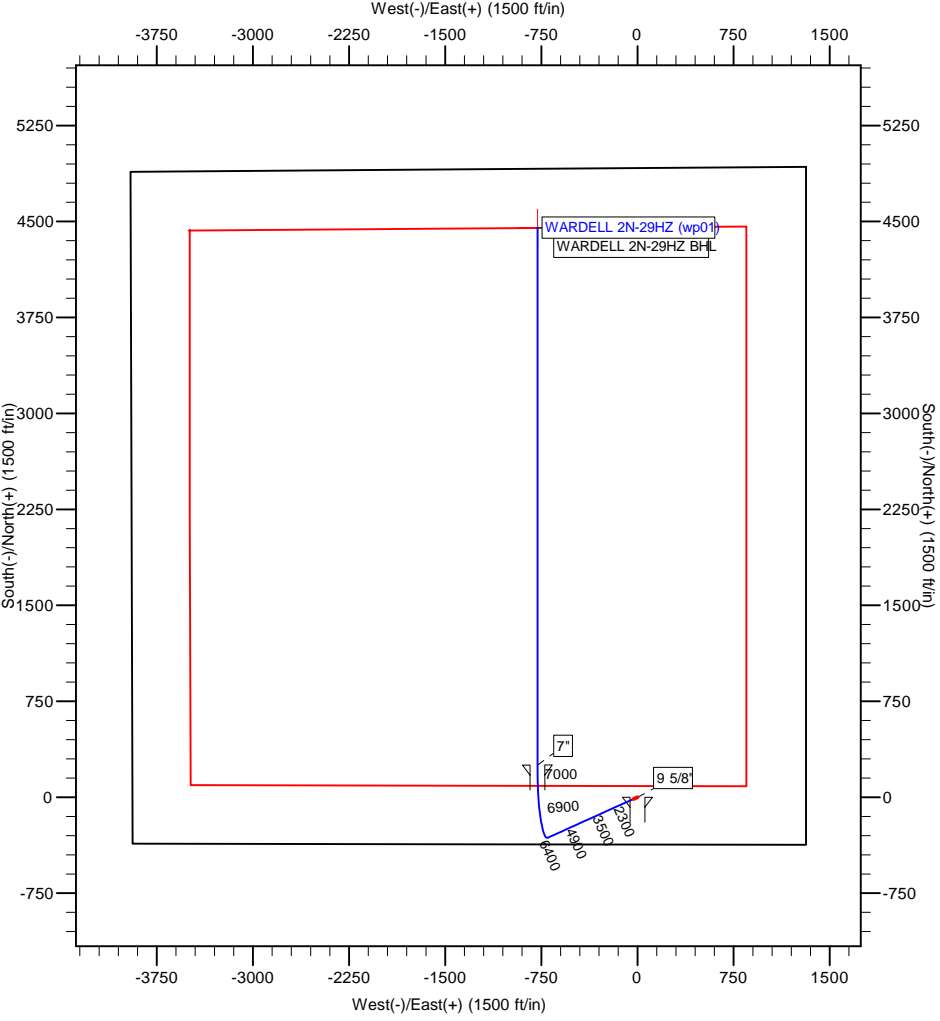
WARDELL 2N-29HZ

WARDELL 2N-29HZ

Plan: WARDELL 2N-29HZ (wp01)

Standard Planning Report

30 November, 2011



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Azimuths to True North
Magnetic North: 8.74°

Magnetic Field
Strength: 52981.4snT
Dip Angle: 66.88°
Date: 11/29/2011
Model: IGRF2010

Project: COLORADO NORTHERN ZONE - 83
Site: WELD WARDELL 5 PAD
Well: WARDELL 2N-29HZ
Wellbore: WARDELL 2N-29HZ
Section:
SHL:
Design: WARDELL 2N-29HZ (wp01)
Latitude: 40.190185
Longitude: -104.682622
GL: 4870.00
KB: GL + RKB @ 4887.00ft

WELL DETAILS: WARDELL 2N-29HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4870.00 Latitude	40.190185 Longitude	Slot
0.00	0.00	1313179.45	3228349.54			

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
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
1528.35	8.57	245.62	1526.76	-13.20	-29.11	2.00	245.62	-7.98
6458.98	8.57	245.62	6402.37	-316.41	-698.11	0.00	0.00	-191.35
7388.77	89.45	0.00	7005.00	250.00	-780.00	10.00	114.22	380.70
7391.26	89.43	0.01	7005.02	252.48	-780.00	1.00	147.82	383.14
11591.28	89.43	0.01	7047.00	4452.30	-779.03	0.00	0.00	4519.94

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	Point
WARDELL 2N-29HZ BHL	7047.00	4452.30	-779.03	40.202407	-104.685411	Point	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3986.00	4015.34	PARKMAN
4569.00	4604.92	SUSSEX
6923.00	7082.49	SHARON SPRINGS
6955.00	7151.99	NIOBRARA A
6978.00	7216.83	NIOBRARA B

CASING DETAILS			
TVD	MD	Name	Size
900.00	900.00	9 5/8"	9-5/8
7005.00	7388.77	7"	7

WARDELL 2N-29HZ (wp01)

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well WARDELL 2N-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4887.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4887.00ft
Site:	WELD_WARDELL 5 PAD	North Reference:	True
Well:	WARDELL 2N-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	WARDELL 2N-29HZ		
Design:	WARDELL 2N-29HZ (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_WARDELL 5 PAD			
Site Position:		Northing:	1,313,179.46 usft	Latitude: 40.190185
From:	Lat/Long	Easting:	3,228,349.55 usft	Longitude: -104.682622
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.53 °

Well	WARDELL 2N-29HZ			
Well Position	+N/-S	-0.01 ft	Northing:	1,313,179.45 usft
	+E/-W	0.00 ft	Easting:	3,228,349.55 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 4,870.00 ft

Wellbore	WARDELL 2N-29HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/29/2011	8.74	66.88	52,981

Design	WARDELL 2N-29HZ (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	350.08

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	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,528.35	8.57	245.62	1,526.76	-13.20	-29.11	2.00	2.00	0.00	245.62	
6,458.98	8.57	245.62	6,402.37	-316.41	-698.11	0.00	0.00	0.00	0.00	
7,388.77	89.45	0.00	7,005.00	250.00	-780.00	10.00	8.70	12.30	114.22	
7,391.26	89.43	0.01	7,005.02	252.48	-780.00	1.00	-0.85	0.53	147.82	
11,591.28	89.43	0.01	7,047.00	4,452.30	-779.03	0.00	0.00	0.00	0.00	WARDELL 2N-29HZ I

Anadarko Petroleum Corp

Planning Report

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4887.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4887.00ft
Site:	WELD_WARDELL 5 PAD	North Reference:	True
Well:	WARDELL 2N-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	WARDELL 2N-29HZ		
Design:	WARDELL 2N-29HZ (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
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
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
Start Build 2.00									
1,200.00	2.00	245.62	1,199.98	-0.72	-1.59	-0.44	2.00	2.00	0.00
1,300.00	4.00	245.62	1,299.84	-2.88	-6.36	-1.74	2.00	2.00	0.00
1,400.00	6.00	245.62	1,399.45	-6.48	-14.29	-3.92	2.00	2.00	0.00
1,500.00	8.00	245.62	1,498.70	-11.51	-25.39	-6.96	2.00	2.00	0.00
1,528.35	8.57	245.62	1,526.76	-13.20	-29.11	-7.98	2.00	2.00	0.00
Start 4930.63 hold at 1528.35 MD									
1,600.00	8.57	245.62	1,597.61	-17.60	-38.84	-10.64	0.00	0.00	0.00
1,700.00	8.57	245.62	1,696.49	-23.75	-52.40	-14.36	0.00	0.00	0.00
1,800.00	8.57	245.62	1,795.37	-29.90	-65.97	-18.08	0.00	0.00	0.00
1,900.00	8.57	245.62	1,894.26	-36.05	-79.54	-21.80	0.00	0.00	0.00
2,000.00	8.57	245.62	1,993.14	-42.20	-93.11	-25.52	0.00	0.00	0.00
2,100.00	8.57	245.62	2,092.03	-48.35	-106.68	-29.24	0.00	0.00	0.00
2,200.00	8.57	245.62	2,190.91	-54.50	-120.24	-32.96	0.00	0.00	0.00
2,300.00	8.57	245.62	2,289.80	-60.65	-133.81	-36.68	0.00	0.00	0.00
2,400.00	8.57	245.62	2,388.68	-66.80	-147.38	-40.40	0.00	0.00	0.00
2,500.00	8.57	245.62	2,487.56	-72.95	-160.95	-44.12	0.00	0.00	0.00
2,600.00	8.57	245.62	2,586.45	-79.10	-174.52	-47.84	0.00	0.00	0.00
2,700.00	8.57	245.62	2,685.33	-85.25	-188.08	-51.55	0.00	0.00	0.00
2,800.00	8.57	245.62	2,784.22	-91.40	-201.65	-55.27	0.00	0.00	0.00
2,900.00	8.57	245.62	2,883.10	-97.55	-215.22	-58.99	0.00	0.00	0.00
3,000.00	8.57	245.62	2,981.99	-103.70	-228.79	-62.71	0.00	0.00	0.00
3,100.00	8.57	245.62	3,080.87	-109.85	-242.36	-66.43	0.00	0.00	0.00
3,200.00	8.57	245.62	3,179.75	-116.00	-255.93	-70.15	0.00	0.00	0.00
3,300.00	8.57	245.62	3,278.64	-122.14	-269.49	-73.87	0.00	0.00	0.00
3,400.00	8.57	245.62	3,377.52	-128.29	-283.06	-77.59	0.00	0.00	0.00
3,500.00	8.57	245.62	3,476.41	-134.44	-296.63	-81.31	0.00	0.00	0.00
3,600.00	8.57	245.62	3,575.29	-140.59	-310.20	-85.03	0.00	0.00	0.00
3,700.00	8.57	245.62	3,674.17	-146.74	-323.77	-88.74	0.00	0.00	0.00
3,800.00	8.57	245.62	3,773.06	-152.89	-337.33	-92.46	0.00	0.00	0.00
3,900.00	8.57	245.62	3,871.94	-159.04	-350.90	-96.18	0.00	0.00	0.00
4,000.00	8.57	245.62	3,970.83	-165.19	-364.47	-99.90	0.00	0.00	0.00
4,015.34	8.57	245.62	3,986.00	-166.14	-366.55	-100.47	0.00	0.00	0.00
PARKMAN									
4,100.00	8.57	245.62	4,069.71	-171.34	-378.04	-103.62	0.00	0.00	0.00
4,200.00	8.57	245.62	4,168.60	-177.49	-391.61	-107.34	0.00	0.00	0.00
4,300.00	8.57	245.62	4,267.48	-183.64	-405.18	-111.06	0.00	0.00	0.00
4,400.00	8.57	245.62	4,366.36	-189.79	-418.74	-114.78	0.00	0.00	0.00
4,500.00	8.57	245.62	4,465.25	-195.94	-432.31	-118.50	0.00	0.00	0.00
4,600.00	8.57	245.62	4,564.13	-202.09	-445.88	-122.22	0.00	0.00	0.00
4,604.92	8.57	245.62	4,569.00	-202.39	-446.55	-122.40	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well WARDELL 2N-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4887.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4887.00ft
Site:	WELD_WARDELL 5 PAD	North Reference:	True
Well:	WARDELL 2N-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	WARDELL 2N-29HZ		
Design:	WARDELL 2N-29HZ (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)
SUSSEX									
4,700.00	8.57	245.62	4,663.02	-208.24	-459.45	-125.93	0.00	0.00	0.00
4,800.00	8.57	245.62	4,761.90	-214.39	-473.02	-129.65	0.00	0.00	0.00
4,900.00	8.57	245.62	4,860.79	-220.54	-486.58	-133.37	0.00	0.00	0.00
5,000.00	8.57	245.62	4,959.67	-226.69	-500.15	-137.09	0.00	0.00	0.00
5,100.00	8.57	245.62	5,058.55	-232.84	-513.72	-140.81	0.00	0.00	0.00
5,200.00	8.57	245.62	5,157.44	-238.99	-527.29	-144.53	0.00	0.00	0.00
5,300.00	8.57	245.62	5,256.32	-245.14	-540.86	-148.25	0.00	0.00	0.00
5,400.00	8.57	245.62	5,355.21	-251.29	-554.42	-151.97	0.00	0.00	0.00
5,500.00	8.57	245.62	5,454.09	-257.44	-567.99	-155.69	0.00	0.00	0.00
5,600.00	8.57	245.62	5,552.97	-263.59	-581.56	-159.41	0.00	0.00	0.00
5,700.00	8.57	245.62	5,651.86	-269.73	-595.13	-163.13	0.00	0.00	0.00
5,800.00	8.57	245.62	5,750.74	-275.88	-608.70	-166.84	0.00	0.00	0.00
5,900.00	8.57	245.62	5,849.63	-282.03	-622.27	-170.56	0.00	0.00	0.00
6,000.00	8.57	245.62	5,948.51	-288.18	-635.83	-174.28	0.00	0.00	0.00
6,100.00	8.57	245.62	6,047.40	-294.33	-649.40	-178.00	0.00	0.00	0.00
6,200.00	8.57	245.62	6,146.28	-300.48	-662.97	-181.72	0.00	0.00	0.00
6,300.00	8.57	245.62	6,245.16	-306.63	-676.54	-185.44	0.00	0.00	0.00
6,400.00	8.57	245.62	6,344.05	-312.78	-690.11	-189.16	0.00	0.00	0.00
6,458.98	8.57	245.62	6,402.37	-316.41	-698.11	-191.35	0.00	0.00	0.00
Start DLS 10.00 TFO 114.22									
6,500.00	7.83	274.23	6,442.99	-317.46	-703.68	-191.43	10.00	-1.80	69.76
6,600.00	13.11	324.01	6,541.47	-307.76	-717.17	-179.55	10.00	5.28	49.77
6,700.00	21.94	340.17	6,636.79	-280.94	-730.21	-150.88	10.00	8.83	16.16
6,800.00	31.45	347.12	6,726.05	-237.83	-742.39	-106.31	10.00	9.52	6.95
6,900.00	41.18	351.06	6,806.53	-179.72	-753.35	-47.19	10.00	9.73	3.94
7,000.00	51.00	353.70	6,875.81	-108.39	-762.76	24.69	10.00	9.82	2.64
7,082.49	59.14	355.37	6,923.00	-41.13	-769.14	92.05	10.00	9.86	2.03
SHARON SPRINGS									
7,100.00	60.87	355.69	6,931.76	-26.01	-770.32	107.15	10.00	9.88	1.81
7,151.99	66.00	356.58	6,955.00	20.37	-773.45	153.37	10.00	9.88	1.70
NIOBRARA A									
7,200.00	70.75	357.33	6,972.69	64.93	-775.81	197.67	10.00	9.89	1.57
7,216.83	72.42	357.59	6,978.00	80.87	-776.52	213.50	10.00	9.90	1.51
NIOBRAR B									
7,300.00	80.65	358.78	6,997.35	161.65	-779.07	293.51	10.00	9.90	1.44
7,388.77	89.45	360.00	7,005.00	250.00	-780.00	380.69	10.00	9.91	1.37
Start DLS 1.00 TFO 147.82 - 7"									
7,391.26	89.43	0.01	7,005.02	252.48	-780.00	383.14	0.99	-0.83	0.53
Start 4200.03 hold at 7391.26 MD									
7,400.00	89.43	0.01	7,005.11	261.23	-780.00	391.75	0.00	0.00	0.00
7,500.00	89.43	0.01	7,006.11	361.22	-779.97	490.25	0.00	0.00	0.00
7,600.00	89.43	0.01	7,007.11	461.22	-779.95	588.74	0.00	0.00	0.00
7,700.00	89.43	0.01	7,008.11	561.21	-779.93	687.24	0.00	0.00	0.00
7,800.00	89.43	0.01	7,009.11	661.21	-779.91	785.73	0.00	0.00	0.00
7,900.00	89.43	0.01	7,010.11	761.20	-779.88	884.23	0.00	0.00	0.00
8,000.00	89.43	0.01	7,011.11	861.20	-779.86	982.72	0.00	0.00	0.00
8,100.00	89.43	0.01	7,012.11	961.19	-779.84	1,081.21	0.00	0.00	0.00
8,200.00	89.43	0.01	7,013.11	1,061.19	-779.81	1,179.71	0.00	0.00	0.00
8,300.00	89.43	0.01	7,014.11	1,161.18	-779.79	1,278.20	0.00	0.00	0.00
8,400.00	89.43	0.01	7,015.11	1,261.18	-779.77	1,376.70	0.00	0.00	0.00
8,500.00	89.43	0.01	7,016.11	1,361.17	-779.74	1,475.19	0.00	0.00	0.00
8,600.00	89.43	0.01	7,017.10	1,461.17	-779.72	1,573.69	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4887.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4887.00ft
Site:	WELD_WARDELL 5 PAD	North Reference:	True
Well:	WARDELL 2N-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	WARDELL 2N-29HZ		
Design:	WARDELL 2N-29HZ (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	89.43	0.01	7,018.10	1,561.16	-779.70	1,672.18	0.00	0.00	0.00
8,800.00	89.43	0.01	7,019.10	1,661.16	-779.67	1,770.68	0.00	0.00	0.00
8,900.00	89.43	0.01	7,020.10	1,761.15	-779.65	1,869.17	0.00	0.00	0.00
9,000.00	89.43	0.01	7,021.10	1,861.15	-779.63	1,967.67	0.00	0.00	0.00
9,100.00	89.43	0.01	7,022.10	1,961.14	-779.61	2,066.16	0.00	0.00	0.00
9,200.00	89.43	0.01	7,023.10	2,061.14	-779.58	2,164.66	0.00	0.00	0.00
9,300.00	89.43	0.01	7,024.10	2,161.13	-779.56	2,263.15	0.00	0.00	0.00
9,400.00	89.43	0.01	7,025.10	2,261.13	-779.54	2,361.64	0.00	0.00	0.00
9,500.00	89.43	0.01	7,026.10	2,361.12	-779.51	2,460.14	0.00	0.00	0.00
9,600.00	89.43	0.01	7,027.10	2,461.12	-779.49	2,558.63	0.00	0.00	0.00
9,700.00	89.43	0.01	7,028.10	2,561.11	-779.47	2,657.13	0.00	0.00	0.00
9,800.00	89.43	0.01	7,029.10	2,661.11	-779.44	2,755.62	0.00	0.00	0.00
9,900.00	89.43	0.01	7,030.10	2,761.10	-779.42	2,854.12	0.00	0.00	0.00
10,000.00	89.43	0.01	7,031.10	2,861.10	-779.40	2,952.61	0.00	0.00	0.00
10,100.00	89.43	0.01	7,032.10	2,961.09	-779.37	3,051.11	0.00	0.00	0.00
10,200.00	89.43	0.01	7,033.10	3,061.09	-779.35	3,149.60	0.00	0.00	0.00
10,300.00	89.43	0.01	7,034.09	3,161.08	-779.33	3,248.10	0.00	0.00	0.00
10,400.00	89.43	0.01	7,035.09	3,261.08	-779.31	3,346.59	0.00	0.00	0.00
10,500.00	89.43	0.01	7,036.09	3,361.07	-779.28	3,445.09	0.00	0.00	0.00
10,600.00	89.43	0.01	7,037.09	3,461.07	-779.26	3,543.58	0.00	0.00	0.00
10,700.00	89.43	0.01	7,038.09	3,561.06	-779.24	3,642.07	0.00	0.00	0.00
10,800.00	89.43	0.01	7,039.09	3,661.06	-779.21	3,740.57	0.00	0.00	0.00
10,900.00	89.43	0.01	7,040.09	3,761.05	-779.19	3,839.06	0.00	0.00	0.00
11,000.00	89.43	0.01	7,041.09	3,861.05	-779.17	3,937.56	0.00	0.00	0.00
11,100.00	89.43	0.01	7,042.09	3,961.04	-779.14	4,036.05	0.00	0.00	0.00
11,200.00	89.43	0.01	7,043.09	4,061.04	-779.12	4,134.55	0.00	0.00	0.00
11,300.00	89.43	0.01	7,044.09	4,161.03	-779.10	4,233.04	0.00	0.00	0.00
11,400.00	89.43	0.01	7,045.09	4,261.03	-779.08	4,331.54	0.00	0.00	0.00
11,500.00	89.43	0.01	7,046.09	4,361.02	-779.05	4,430.03	0.00	0.00	0.00
11,591.28	89.43	0.01	7,047.00	4,452.30	-779.03	4,519.94	0.00	0.00	0.00
TD at 11591.28 - WARDELL 2N-29HZ BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
WARDELL 2N-29HZ BH	0.00	0.00	7,047.00	4,452.30	-779.03	1,317,624.37	3,227,529.51	40.202407	-104.685411
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
900.00	900.00	9 5/8"	9-5/8	12-1/4	
7,388.77	7,005.00	7"	7	8-3/4	

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well WARDELL 2N-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4887.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4887.00ft
Site:	WELD_WARDELL 5 PAD	North Reference:	True
Well:	WARDELL 2N-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	WARDELL 2N-29HZ		
Design:	WARDELL 2N-29HZ (wp01)		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,015.34	3,986.00	PARKMAN		0.00	
4,604.92	4,569.00	SUSSEX		0.00	
7,082.49	6,923.00	SHARON SPRINGS		0.00	
7,151.99	6,955.00	NIOBRARA A		0.00	
7,216.83	6,978.00	NIOBRAR B		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,100.00	1,100.00	0.00	0.00	Start Build 2.00	
1,528.35	1,526.76	-13.20	-29.11	Start 4930.63 hold at 1528.35 MD	
6,458.98	6,402.37	-316.41	-698.11	Start DLS 10.00 TFO 114.22	
7,388.77	7,005.00	250.00	-780.00	Start DLS 1.00 TFO 147.82	
7,391.26	7,005.02	252.48	-780.00	Start 4200.03 hold at 7391.26 MD	
11,591.28	7,047.00	4,452.30	-779.03	TD at 11591.28	