

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_DECHANT 28-36HZ PAD**

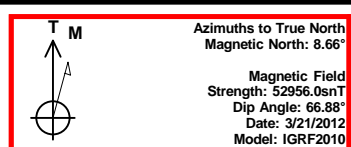
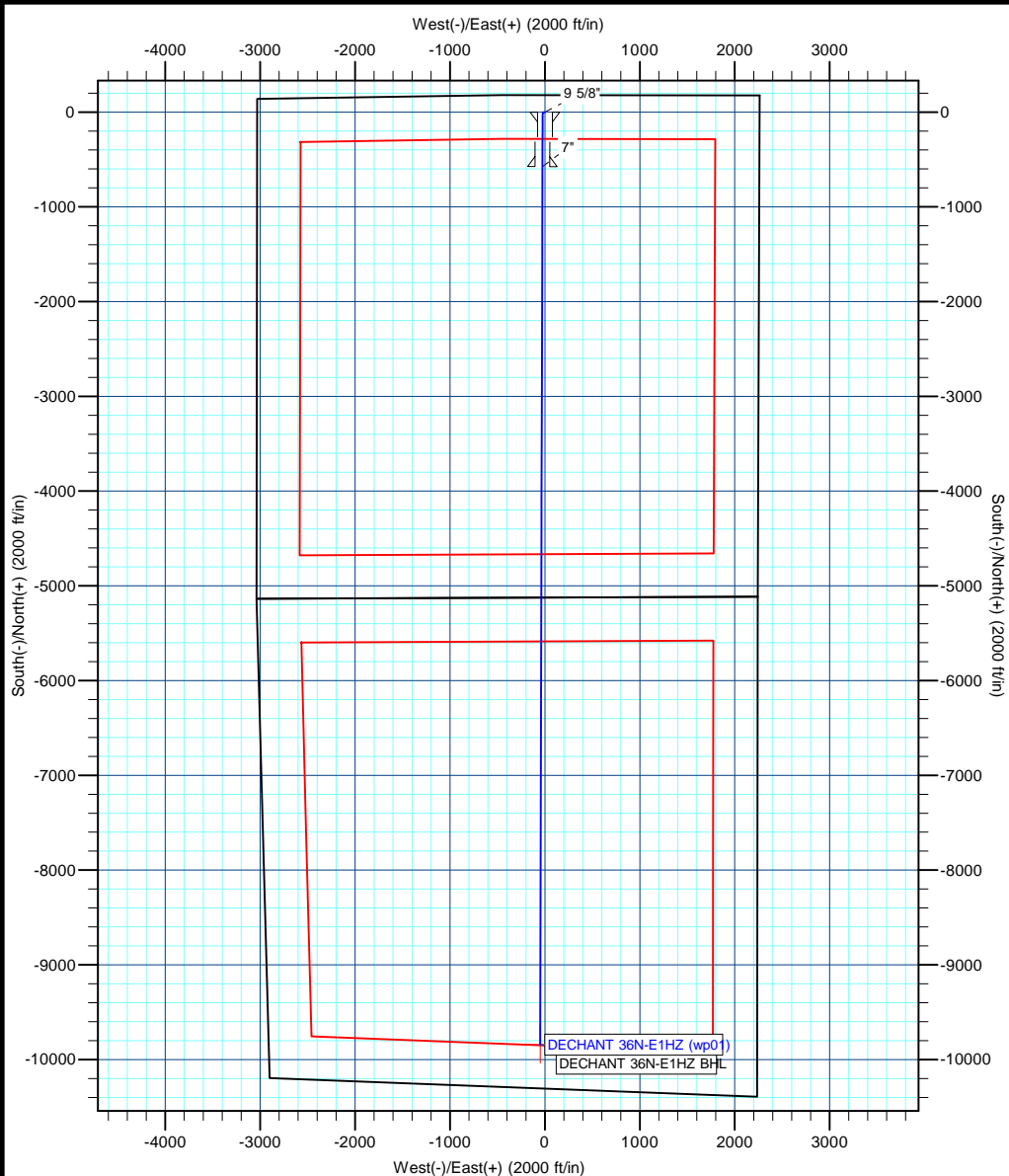
**DECHANT 36N-E1HZ**

**DECHANT 36N-E1HZ**

**Plan: DECHANT 36N-E1HZ (wp01)**

## **Standard Planning Report**

**21 March, 2012**



Project: COLORADO NORTHERN ZONE - 83  
Site: WELD DECHANT 28-36HZ PAD  
Well: DECHANT 36N-E1HZ  
Wellbore: DECHANT 36N-E1HZ  
Section:  
SHL:  
Design: DECHANT 36N-E1HZ (wp01)  
Latitude: 40.188394  
Longitude: -104.610912  
GL: 4808.00  
KB: GL + RKB @ 4825.00ft

#### WELL DETAILS: DECHANT 36N-E1HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	4808.00 Latitude	Longitude	Slot
0.00	0.00	1312719.82	3248388.95	40.188394	-104.610912	

#### 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
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00
911.81	0.24	263.25	911.81	0.00	-0.02	2.00	263.25	0.00
6337.38	0.24	263.25	6337.33	-2.63	-22.23	0.00	0.00	2.74
7236.51	89.94	180.14	6910.00	-575.00	-26.00	10.00	-83.11	575.13
7237.47	89.94	180.15	6910.00	-575.96	-26.00	1.00	112.13	576.08
6506.28	89.94	180.15	6920.00	-9844.73	-50.59	0.00	0.00	9844.86

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

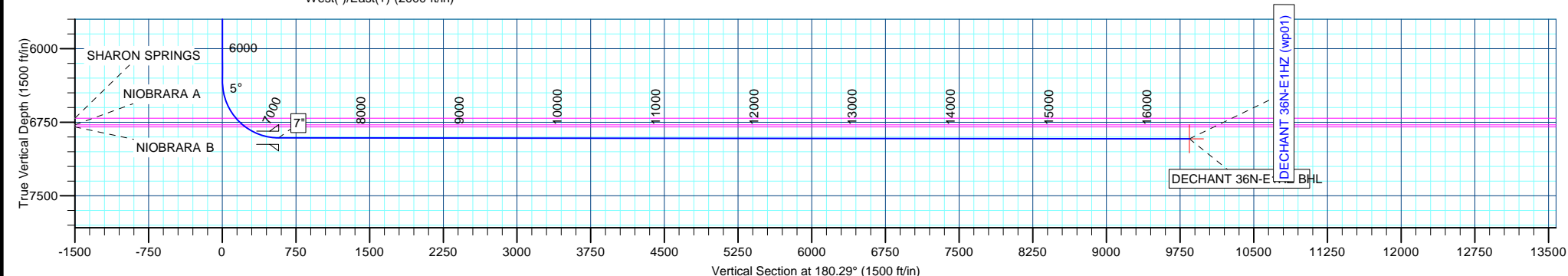
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
DECHANT 36N-E1HZ BHL	6920.00	-9844.73	-50.59	40.161369	-104.611093	Point

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3797.00	3797.02	PARKMAN
4367.00	4367.03	SUSSEX
6710.00	6743.21	SHARON SPRINGS
6778.00	6840.29	NIOBRARA A
6798.00	6872.73	NIOBRARA B

#### CASING DETAILS

TVD	MD	Name	Size
700.00	700.00	9 5/8"	9-5/8
6910.00	7236.51	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well DECHANT 36N-E1HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4825.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4825.00ft
<b>Site:</b>	WELD_DECHANT 28-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	DECHANT 36N-E1HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DECHANT 36N-E1HZ		
<b>Design:</b>	DECHANT 36N-E1HZ (wp01)		

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

<b>Site</b>	WELD_DECHANT 28-36HZ PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,312,719.83 usft	<b>Latitude:</b> 40.188394
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,248,388.95 usft	<b>Longitude:</b> -104.610912
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.57 °

<b>Well</b>	DECHANT 36N-E1HZ			
<b>Well Position</b>	<b>+N/-S</b>	-0.01 ft	<b>Northing:</b>	1,312,719.82 usft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	3,248,388.95 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 4,808.00 ft

<b>Wellbore</b>	DECHANT 36N-E1HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/21/2012	8.66	66.88	52,956

<b>Design</b>	DECHANT 36N-E1HZ (wp01)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	180.29

<b>Plan Sections</b>										
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	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
911.81	0.24	263.25	911.81	0.00	-0.02	2.00	2.00	0.00	263.25	
6,337.38	0.24	263.25	6,337.33	-2.63	-22.23	0.00	0.00	0.00	0.00	
7,236.51	89.94	180.14	6,910.00	-575.00	-26.00	10.00	9.98	-9.24	-83.11	
7,237.47	89.94	180.15	6,910.00	-575.96	-26.00	1.00	-0.38	0.93	112.13	
16,506.28	89.94	180.15	6,920.00	-9,844.73	-50.59	0.00	0.00	0.00	0.00	DECHANT 36N-E1HZ

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well DECHANT 36N-E1HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4825.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4825.00ft
<b>Site:</b>	WELD_DECHANT 28-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	DECHANT 36N-E1HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DECHANT 36N-E1HZ		
<b>Design:</b>	DECHANT 36N-E1HZ (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
9 5/8"									
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
Start Build 2.00									
911.81	0.24	263.25	911.81	0.00	-0.02	0.00	2.00	2.00	0.00
Start 5425.57 hold at 911.81 MD									
1,000.00	0.24	263.25	1,000.00	-0.05	-0.39	0.05	0.00	0.00	0.00
1,100.00	0.24	263.25	1,100.00	-0.09	-0.79	0.10	0.00	0.00	0.00
1,200.00	0.24	263.25	1,200.00	-0.14	-1.20	0.15	0.00	0.00	0.00
1,300.00	0.24	263.25	1,300.00	-0.19	-1.61	0.20	0.00	0.00	0.00
1,400.00	0.24	263.25	1,400.00	-0.24	-2.02	0.25	0.00	0.00	0.00
1,500.00	0.24	263.25	1,500.00	-0.29	-2.43	0.30	0.00	0.00	0.00
1,600.00	0.24	263.25	1,599.99	-0.34	-2.84	0.35	0.00	0.00	0.00
1,700.00	0.24	263.25	1,699.99	-0.38	-3.25	0.40	0.00	0.00	0.00
1,800.00	0.24	263.25	1,799.99	-0.43	-3.66	0.45	0.00	0.00	0.00
1,900.00	0.24	263.25	1,899.99	-0.48	-4.07	0.50	0.00	0.00	0.00
2,000.00	0.24	263.25	1,999.99	-0.53	-4.48	0.55	0.00	0.00	0.00
2,100.00	0.24	263.25	2,099.99	-0.58	-4.89	0.60	0.00	0.00	0.00
2,200.00	0.24	263.25	2,199.99	-0.63	-5.30	0.65	0.00	0.00	0.00
2,300.00	0.24	263.25	2,299.99	-0.68	-5.71	0.70	0.00	0.00	0.00
2,400.00	0.24	263.25	2,399.99	-0.72	-6.11	0.76	0.00	0.00	0.00
2,500.00	0.24	263.25	2,499.99	-0.77	-6.52	0.81	0.00	0.00	0.00
2,600.00	0.24	263.25	2,599.99	-0.82	-6.93	0.86	0.00	0.00	0.00
2,700.00	0.24	263.25	2,699.98	-0.87	-7.34	0.91	0.00	0.00	0.00
2,800.00	0.24	263.25	2,799.98	-0.92	-7.75	0.96	0.00	0.00	0.00
2,900.00	0.24	263.25	2,899.98	-0.97	-8.16	1.01	0.00	0.00	0.00
3,000.00	0.24	263.25	2,999.98	-1.01	-8.57	1.06	0.00	0.00	0.00
3,100.00	0.24	263.25	3,099.98	-1.06	-8.98	1.11	0.00	0.00	0.00
3,200.00	0.24	263.25	3,199.98	-1.11	-9.39	1.16	0.00	0.00	0.00
3,300.00	0.24	263.25	3,299.98	-1.16	-9.80	1.21	0.00	0.00	0.00
3,400.00	0.24	263.25	3,399.98	-1.21	-10.21	1.26	0.00	0.00	0.00
3,500.00	0.24	263.25	3,499.98	-1.26	-10.62	1.31	0.00	0.00	0.00
3,600.00	0.24	263.25	3,599.98	-1.30	-11.03	1.36	0.00	0.00	0.00
3,700.00	0.24	263.25	3,699.98	-1.35	-11.44	1.41	0.00	0.00	0.00
3,797.02	0.24	263.25	3,797.00	-1.40	-11.83	1.46	0.00	0.00	0.00
PARKMAN									
3,800.00	0.24	263.25	3,799.98	-1.40	-11.84	1.46	0.00	0.00	0.00
3,900.00	0.24	263.25	3,899.97	-1.45	-12.25	1.51	0.00	0.00	0.00
4,000.00	0.24	263.25	3,999.97	-1.50	-12.66	1.56	0.00	0.00	0.00
4,100.00	0.24	263.25	4,099.97	-1.55	-13.07	1.61	0.00	0.00	0.00
4,200.00	0.24	263.25	4,199.97	-1.60	-13.48	1.66	0.00	0.00	0.00
4,300.00	0.24	263.25	4,299.97	-1.64	-13.89	1.72	0.00	0.00	0.00
4,367.03	0.24	263.25	4,367.00	-1.68	-14.17	1.75	0.00	0.00	0.00
SUSSEX									
4,400.00	0.24	263.25	4,399.97	-1.69	-14.30	1.77	0.00	0.00	0.00
4,500.00	0.24	263.25	4,499.97	-1.74	-14.71	1.82	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well DECHANT 36N-E1HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4825.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4825.00ft
<b>Site:</b>	WELD_DECHANT 28-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	DECHANT 36N-E1HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DECHANT 36N-E1HZ		
<b>Design:</b>	DECHANT 36N-E1HZ (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	0.24	263.25	4,599.97	-1.79	-15.12	1.87	0.00	0.00	0.00
4,700.00	0.24	263.25	4,699.97	-1.84	-15.53	1.92	0.00	0.00	0.00
4,800.00	0.24	263.25	4,799.97	-1.89	-15.94	1.97	0.00	0.00	0.00
4,900.00	0.24	263.25	4,899.97	-1.93	-16.35	2.02	0.00	0.00	0.00
5,000.00	0.24	263.25	4,999.97	-1.98	-16.76	2.07	0.00	0.00	0.00
5,100.00	0.24	263.25	5,099.96	-2.03	-17.17	2.12	0.00	0.00	0.00
5,200.00	0.24	263.25	5,199.96	-2.08	-17.57	2.17	0.00	0.00	0.00
5,300.00	0.24	263.25	5,299.96	-2.13	-17.98	2.22	0.00	0.00	0.00
5,400.00	0.24	263.25	5,399.96	-2.18	-18.39	2.27	0.00	0.00	0.00
5,500.00	0.24	263.25	5,499.96	-2.23	-18.80	2.32	0.00	0.00	0.00
5,600.00	0.24	263.25	5,599.96	-2.27	-19.21	2.37	0.00	0.00	0.00
5,700.00	0.24	263.25	5,699.96	-2.32	-19.62	2.42	0.00	0.00	0.00
5,800.00	0.24	263.25	5,799.96	-2.37	-20.03	2.47	0.00	0.00	0.00
5,900.00	0.24	263.25	5,899.96	-2.42	-20.44	2.52	0.00	0.00	0.00
6,000.00	0.24	263.25	5,999.96	-2.47	-20.85	2.57	0.00	0.00	0.00
6,100.00	0.24	263.25	6,099.96	-2.52	-21.26	2.62	0.00	0.00	0.00
6,200.00	0.24	263.25	6,199.96	-2.56	-21.67	2.68	0.00	0.00	0.00
6,300.00	0.24	263.25	6,299.95	-2.61	-22.08	2.73	0.00	0.00	0.00
6,337.38	0.24	263.25	6,337.33	-2.63	-22.23	2.74	0.00	0.00	0.00
Start DLS 10.00 TFO -83.11									
6,400.00	6.30	182.27	6,399.83	-6.08	-22.49	6.20	10.00	9.68	-129.31
6,500.00	16.29	180.94	6,497.77	-25.63	-22.94	25.75	10.00	10.00	-1.32
6,600.00	26.29	180.62	6,590.82	-61.90	-23.41	62.02	10.00	10.00	-0.33
6,700.00	36.29	180.46	6,676.17	-113.77	-23.89	113.89	10.00	10.00	-0.16
6,743.21	40.61	180.42	6,710.00	-140.63	-24.10	140.75	10.00	10.00	-0.11
SHARON SPRINGS									
6,800.00	46.29	180.37	6,751.21	-179.67	-24.36	179.79	10.00	10.00	-0.09
6,840.29	50.32	180.34	6,778.00	-209.75	-24.55	209.87	10.00	10.00	-0.07
NIOBRARA A									
6,872.73	53.56	180.32	6,798.00	-235.29	-24.69	235.41	10.00	10.00	-0.07
NIOBRARA B									
6,900.00	56.29	180.30	6,813.67	-257.60	-24.81	257.73	10.00	10.00	-0.06
7,000.00	66.29	180.25	6,861.64	-345.20	-25.23	345.32	10.00	10.00	-0.05
7,100.00	76.29	180.20	6,893.68	-439.79	-25.60	439.92	10.00	10.00	-0.05
7,200.00	86.29	180.16	6,908.80	-538.51	-25.90	538.64	10.00	10.00	-0.04
7,236.51	89.94	180.14	6,910.00	-575.00	-26.00	575.12	10.00	10.00	-0.04
Start DLS 1.00 TFO 112.13 - 7"									
7,237.47	89.94	180.15	6,910.00	-575.96	-26.00	576.08	0.99	-0.35	0.92
Start 9268.81 hold at 7237.47 MD									
7,300.00	89.94	180.15	6,910.07	-638.49	-26.17	638.61	0.00	0.00	0.00
7,400.00	89.94	180.15	6,910.18	-738.49	-26.43	738.61	0.00	0.00	0.00
7,500.00	89.94	180.15	6,910.28	-838.49	-26.70	838.61	0.00	0.00	0.00
7,600.00	89.94	180.15	6,910.39	-938.49	-26.96	938.61	0.00	0.00	0.00
7,700.00	89.94	180.15	6,910.50	-1,038.49	-27.23	1,038.61	0.00	0.00	0.00
7,800.00	89.94	180.15	6,910.61	-1,138.49	-27.49	1,138.61	0.00	0.00	0.00
7,900.00	89.94	180.15	6,910.72	-1,238.49	-27.76	1,238.61	0.00	0.00	0.00
8,000.00	89.94	180.15	6,910.82	-1,338.48	-28.03	1,338.61	0.00	0.00	0.00
8,100.00	89.94	180.15	6,910.93	-1,438.48	-28.29	1,438.61	0.00	0.00	0.00
8,200.00	89.94	180.15	6,911.04	-1,538.48	-28.56	1,538.61	0.00	0.00	0.00
8,300.00	89.94	180.15	6,911.15	-1,638.48	-28.82	1,638.61	0.00	0.00	0.00
8,400.00	89.94	180.15	6,911.26	-1,738.48	-29.09	1,738.61	0.00	0.00	0.00
8,500.00	89.94	180.15	6,911.36	-1,838.48	-29.35	1,838.61	0.00	0.00	0.00
8,600.00	89.94	180.15	6,911.47	-1,938.48	-29.62	1,938.61	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well DECHANT 36N-E1HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4825.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4825.00ft
<b>Site:</b>	WELD_DECHANT 28-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	DECHANT 36N-E1HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DECHANT 36N-E1HZ		
<b>Design:</b>	DECHANT 36N-E1HZ (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	89.94	180.15	6,911.58	-2,038.48	-29.88	2,038.61	0.00	0.00	0.00
8,800.00	89.94	180.15	6,911.69	-2,138.48	-30.15	2,138.61	0.00	0.00	0.00
8,900.00	89.94	180.15	6,911.79	-2,238.48	-30.41	2,238.61	0.00	0.00	0.00
9,000.00	89.94	180.15	6,911.90	-2,338.48	-30.68	2,338.61	0.00	0.00	0.00
9,100.00	89.94	180.15	6,912.01	-2,438.48	-30.94	2,438.61	0.00	0.00	0.00
9,200.00	89.94	180.15	6,912.12	-2,538.48	-31.21	2,538.61	0.00	0.00	0.00
9,300.00	89.94	180.15	6,912.23	-2,638.48	-31.47	2,638.61	0.00	0.00	0.00
9,400.00	89.94	180.15	6,912.33	-2,738.48	-31.74	2,738.61	0.00	0.00	0.00
9,500.00	89.94	180.15	6,912.44	-2,838.48	-32.00	2,838.61	0.00	0.00	0.00
9,600.00	89.94	180.15	6,912.55	-2,938.48	-32.27	2,938.61	0.00	0.00	0.00
9,700.00	89.94	180.15	6,912.66	-3,038.48	-32.53	3,038.60	0.00	0.00	0.00
9,800.00	89.94	180.15	6,912.77	-3,138.48	-32.80	3,138.60	0.00	0.00	0.00
9,900.00	89.94	180.15	6,912.87	-3,238.48	-33.06	3,238.60	0.00	0.00	0.00
10,000.00	89.94	180.15	6,912.98	-3,338.48	-33.33	3,338.60	0.00	0.00	0.00
10,100.00	89.94	180.15	6,913.09	-3,438.48	-33.60	3,438.60	0.00	0.00	0.00
10,200.00	89.94	180.15	6,913.20	-3,538.48	-33.86	3,538.60	0.00	0.00	0.00
10,300.00	89.94	180.15	6,913.30	-3,638.48	-34.13	3,638.60	0.00	0.00	0.00
10,400.00	89.94	180.15	6,913.41	-3,738.48	-34.39	3,738.60	0.00	0.00	0.00
10,500.00	89.94	180.15	6,913.52	-3,838.47	-34.66	3,838.60	0.00	0.00	0.00
10,600.00	89.94	180.15	6,913.63	-3,938.47	-34.92	3,938.60	0.00	0.00	0.00
10,700.00	89.94	180.15	6,913.74	-4,038.47	-35.19	4,038.60	0.00	0.00	0.00
10,800.00	89.94	180.15	6,913.84	-4,138.47	-35.45	4,138.60	0.00	0.00	0.00
10,900.00	89.94	180.15	6,913.95	-4,238.47	-35.72	4,238.60	0.00	0.00	0.00
11,000.00	89.94	180.15	6,914.06	-4,338.47	-35.98	4,338.60	0.00	0.00	0.00
11,100.00	89.94	180.15	6,914.17	-4,438.47	-36.25	4,438.60	0.00	0.00	0.00
11,200.00	89.94	180.15	6,914.28	-4,538.47	-36.51	4,538.60	0.00	0.00	0.00
11,300.00	89.94	180.15	6,914.38	-4,638.47	-36.78	4,638.60	0.00	0.00	0.00
11,400.00	89.94	180.15	6,914.49	-4,738.47	-37.04	4,738.60	0.00	0.00	0.00
11,500.00	89.94	180.15	6,914.60	-4,838.47	-37.31	4,838.60	0.00	0.00	0.00
11,600.00	89.94	180.15	6,914.71	-4,938.47	-37.57	4,938.60	0.00	0.00	0.00
11,700.00	89.94	180.15	6,914.82	-5,038.47	-37.84	5,038.60	0.00	0.00	0.00
11,800.00	89.94	180.15	6,914.92	-5,138.47	-38.10	5,138.60	0.00	0.00	0.00
11,900.00	89.94	180.15	6,915.03	-5,238.47	-38.37	5,238.60	0.00	0.00	0.00
12,000.00	89.94	180.15	6,915.14	-5,338.47	-38.64	5,338.60	0.00	0.00	0.00
12,100.00	89.94	180.15	6,915.25	-5,438.47	-38.90	5,438.60	0.00	0.00	0.00
12,200.00	89.94	180.15	6,915.35	-5,538.47	-39.17	5,538.60	0.00	0.00	0.00
12,300.00	89.94	180.15	6,915.46	-5,638.47	-39.43	5,638.60	0.00	0.00	0.00
12,400.00	89.94	180.15	6,915.57	-5,738.47	-39.70	5,738.60	0.00	0.00	0.00
12,500.00	89.94	180.15	6,915.68	-5,838.47	-39.96	5,838.59	0.00	0.00	0.00
12,600.00	89.94	180.15	6,915.79	-5,938.47	-40.23	5,938.59	0.00	0.00	0.00
12,700.00	89.94	180.15	6,915.89	-6,038.47	-40.49	6,038.59	0.00	0.00	0.00
12,800.00	89.94	180.15	6,916.00	-6,138.47	-40.76	6,138.59	0.00	0.00	0.00
12,900.00	89.94	180.15	6,916.11	-6,238.46	-41.02	6,238.59	0.00	0.00	0.00
13,000.00	89.94	180.15	6,916.22	-6,338.46	-41.29	6,338.59	0.00	0.00	0.00
13,100.00	89.94	180.15	6,916.33	-6,438.46	-41.55	6,438.59	0.00	0.00	0.00
13,200.00	89.94	180.15	6,916.43	-6,538.46	-41.82	6,538.59	0.00	0.00	0.00
13,300.00	89.94	180.15	6,916.54	-6,638.46	-42.08	6,638.59	0.00	0.00	0.00
13,400.00	89.94	180.15	6,916.65	-6,738.46	-42.35	6,738.59	0.00	0.00	0.00
13,500.00	89.94	180.15	6,916.76	-6,838.46	-42.61	6,838.59	0.00	0.00	0.00
13,600.00	89.94	180.15	6,916.86	-6,938.46	-42.88	6,938.59	0.00	0.00	0.00
13,700.00	89.94	180.15	6,916.97	-7,038.46	-43.14	7,038.59	0.00	0.00	0.00
13,800.00	89.94	180.15	6,917.08	-7,138.46	-43.41	7,138.59	0.00	0.00	0.00
13,900.00	89.94	180.15	6,917.19	-7,238.46	-43.67	7,238.59	0.00	0.00	0.00
14,000.00	89.94	180.15	6,917.30	-7,338.46	-43.94	7,338.59	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well DECHANT 36N-E1HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4825.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4825.00ft
<b>Site:</b>	WELD_DECHANT 28-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	DECHANT 36N-E1HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DECHANT 36N-E1HZ		
<b>Design:</b>	DECHANT 36N-E1HZ (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)	
14,100.00	89.94	180.15	6,917.40	-7,438.46	-44.21	7,438.59	0.00	0.00	0.00	
14,200.00	89.94	180.15	6,917.51	-7,538.46	-44.47	7,538.59	0.00	0.00	0.00	
14,300.00	89.94	180.15	6,917.62	-7,638.46	-44.74	7,638.59	0.00	0.00	0.00	
14,400.00	89.94	180.15	6,917.73	-7,738.46	-45.00	7,738.59	0.00	0.00	0.00	
14,500.00	89.94	180.15	6,917.84	-7,838.46	-45.27	7,838.59	0.00	0.00	0.00	
14,600.00	89.94	180.15	6,917.94	-7,938.46	-45.53	7,938.59	0.00	0.00	0.00	
14,700.00	89.94	180.15	6,918.05	-8,038.46	-45.80	8,038.59	0.00	0.00	0.00	
14,800.00	89.94	180.15	6,918.16	-8,138.46	-46.06	8,138.59	0.00	0.00	0.00	
14,900.00	89.94	180.15	6,918.27	-8,238.46	-46.33	8,238.59	0.00	0.00	0.00	
15,000.00	89.94	180.15	6,918.38	-8,338.46	-46.59	8,338.59	0.00	0.00	0.00	
15,100.00	89.94	180.15	6,918.48	-8,438.46	-46.86	8,438.59	0.00	0.00	0.00	
15,200.00	89.94	180.15	6,918.59	-8,538.46	-47.12	8,538.58	0.00	0.00	0.00	
15,300.00	89.94	180.15	6,918.70	-8,638.46	-47.39	8,638.58	0.00	0.00	0.00	
15,400.00	89.94	180.15	6,918.81	-8,738.45	-47.65	8,738.58	0.00	0.00	0.00	
15,500.00	89.94	180.15	6,918.91	-8,838.45	-47.92	8,838.58	0.00	0.00	0.00	
15,600.00	89.94	180.15	6,919.02	-8,938.45	-48.18	8,938.58	0.00	0.00	0.00	
15,700.00	89.94	180.15	6,919.13	-9,038.45	-48.45	9,038.58	0.00	0.00	0.00	
15,800.00	89.94	180.15	6,919.24	-9,138.45	-48.71	9,138.58	0.00	0.00	0.00	
15,900.00	89.94	180.15	6,919.35	-9,238.45	-48.98	9,238.58	0.00	0.00	0.00	
16,000.00	89.94	180.15	6,919.45	-9,338.45	-49.25	9,338.58	0.00	0.00	0.00	
16,100.00	89.94	180.15	6,919.56	-9,438.45	-49.51	9,438.58	0.00	0.00	0.00	
16,200.00	89.94	180.15	6,919.67	-9,538.45	-49.78	9,538.58	0.00	0.00	0.00	
16,300.00	89.94	180.15	6,919.78	-9,638.45	-50.04	9,638.58	0.00	0.00	0.00	
16,400.00	89.94	180.15	6,919.89	-9,738.45	-50.31	9,738.58	0.00	0.00	0.00	
16,500.00	89.94	180.15	6,919.99	-9,838.45	-50.57	9,838.58	0.00	0.00	0.00	
16,506.28	89.94	180.15	6,920.00	-9,844.73	-50.59	9,844.86	0.00	0.00	0.00	
TD at 16506.28 - DECHANT 36N-E1HZ BHL										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
DECHANT 36N-E1HZ B	0.00	0.00	6,920.00	-9,844.73	-50.59	1,302,875.10	3,248,437.07	40.161369	-104.611093
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
700.00	700.00	9 5/8"	9-5/8	12-1/4	
7,236.51	6,910.00	7"	7	8-3/4	

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well DECHANT 36N-E1HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4825.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4825.00ft
<b>Site:</b>	WELD_DECHANT 28-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	DECHANT 36N-E1HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DECHANT 36N-E1HZ		
<b>Design:</b>	DECHANT 36N-E1HZ (wp01)		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,797.02	3,797.00	PARKMAN		0.00	
4,367.03	4,367.00	SUSSEX		0.00	
6,743.21	6,710.00	SHARON SPRINGS		0.00	
6,840.29	6,778.00	NIOBRARA A		0.00	
6,872.73	6,798.00	NIOBRARA B		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
900.00	900.00	0.00	0.00	Start Build 2.00	
911.81	911.81	0.00	-0.02	Start 5425.57 hold at 911.81 MD	
6,337.38	6,337.33	-2.63	-22.23	Start DLS 10.00 TFO -83.11	
7,236.51	6,910.00	-575.00	-26.00	Start DLS 1.00 TFO 112.13	
7,237.47	6,910.00	-575.96	-26.00	Start 9268.81 hold at 7237.47 MD	
16,506.28	6,920.00	-9,844.73	-50.59	TD at 16506.28	