

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_HUDSON 3E-26HZ PAD

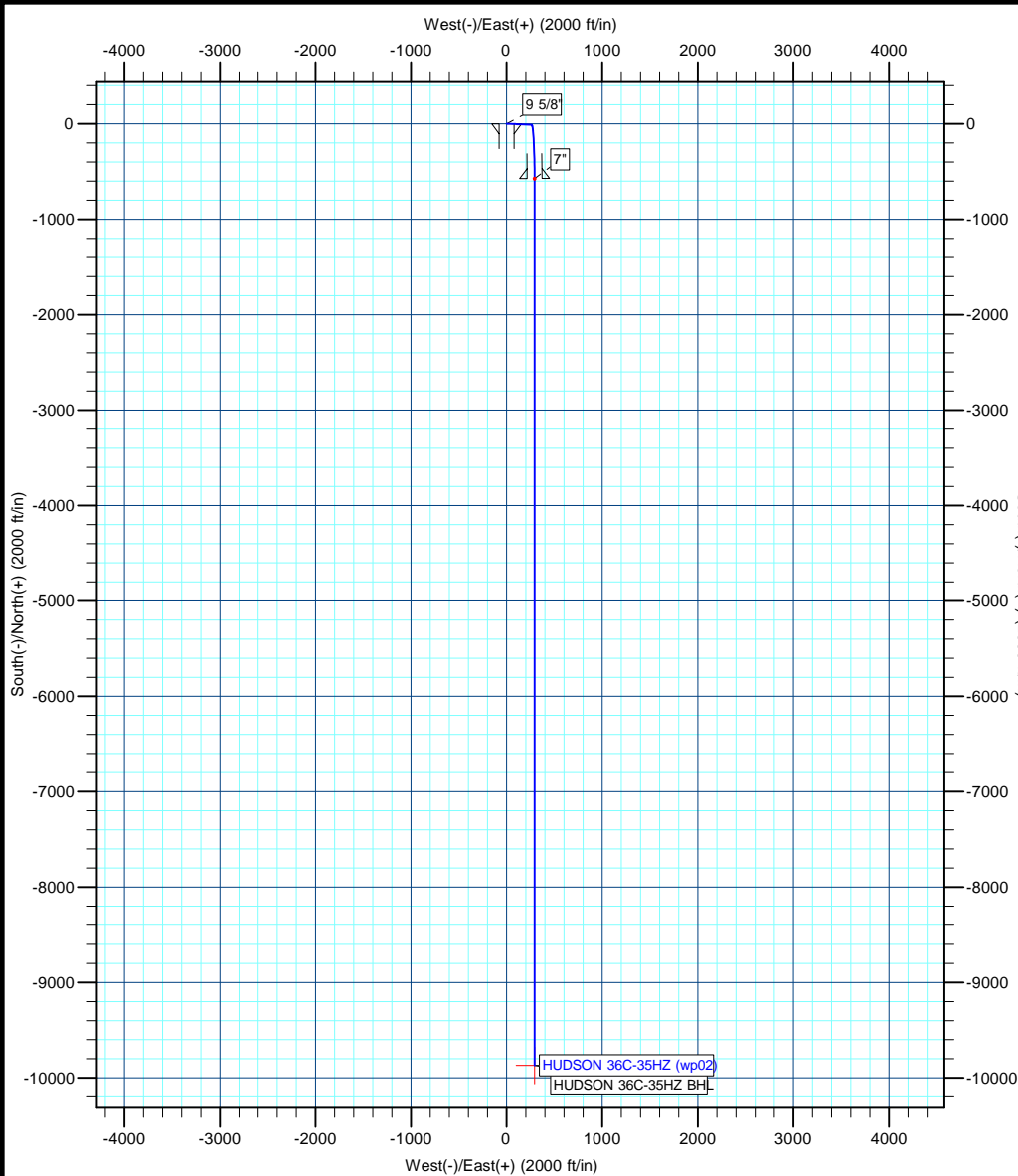
HUDSON 36C-35HZ

HUDSON 36C-35HZ

Plan: HUDSON 36C-35HZ (wp02)

Standard Planning Report

02 May, 2012



Azimuths to True North
 Magnetic North: 8.65°
 Magnetic Field Strength: 52904.5snT
 Dip Angle: 66.81°
 Date: 4/25/2012
 Model: IGRF2010



Project: COLORADO NORTHERN ZONE - 83
Site: WELD_HUDSON 3E-26HZ PAD
Well: HUDSON 36C-35HZ
Wellbore: HUDSON 36C-35HZ
Section:
SHL:
Design: HUDSON 36C-35HZ (wp02)
Latitude: 40.115859
Longitude: -104.633160
GL: 4910.00
KB: GL + RKB @ 4927.00ft

WELL DETAILS: HUDSON 36C-35HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	4910.00 Latitude	Longitude	Slot
0.00	0.00	1286236.45	3242431.91	40.115859	-104.633160	

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
1795.67	3.03	92.27	1795.53	-0.31	7.81	1.02	92.27	0.54
6622.57	3.03	92.27	6615.69	-10.41	262.64	0.00	0.00	18.18
7509.78	89.73	180.00	7181.00	-575.00	292.38	10.10	87.75	583.40
7511.46	89.71	180.00	7181.01	-576.69	292.38	1.00	180.00	585.09
16805.76	89.71	180.00	7228.00	-9870.86	292.38	0.00	0.00	9875.19

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

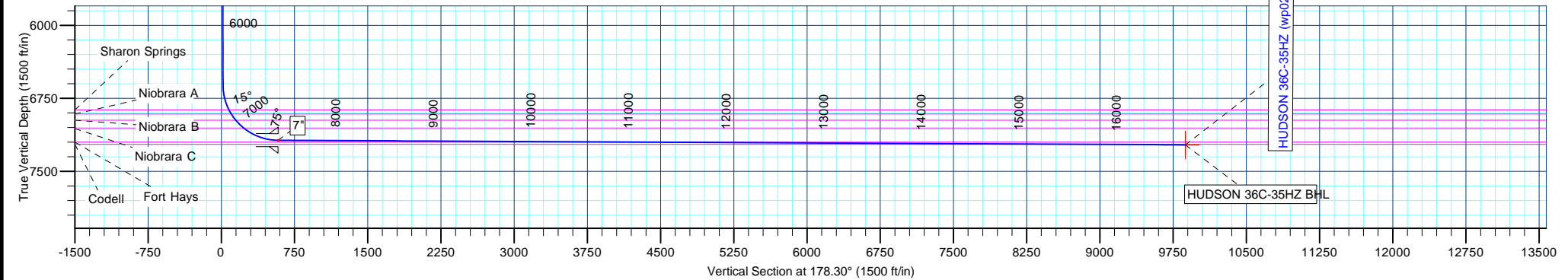
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
HUDSON 36C-35HZ BHL	7228.00	-9870.86	292.38	40.088762	-104.632115	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
768.00	768.00	Fox Hills
2859.00	2860.63	Parkman
4553.00	4556.99	Sussex
6868.00	6884.57	Sharon Springs
6910.00	6932.68	Niobrara A
6975.00	7012.68	Niobrara B
7060.00	7134.76	Niobrara C
7200.00	11267.75	Fort Hays
7223.00	15816.83	Codell

CASING DETAILS

TVD	MD	Name	Size
1300.00	1300.00	9 5/8"	9-5/8
7181.00	7509.78	7"	7



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Site WELD_HUDSON 3E-26HZ PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4927.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4927.00ft
Site:	WELD_HUDSON 3E-26HZ PAD	North Reference:	True
Well:	HUDSON 36C-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HUDSON 36C-35HZ		
Design:	HUDSON 36C-35HZ (wp02)		

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_HUDSON 3E-26HZ PAD				
Site Position:		Northing:	1,286,236.46 usft	Latitude:	40.115859
From:	Lat/Long	Easting:	3,242,431.91 usft	Longitude:	-104.633160
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.56 °

Well	HUDSON 36C-35HZ					
Well Position	+N/-S	0.00 ft	Northing:	1,286,236.45 usft	Latitude:	40.115859
	+E/-W	0.00 ft	Easting:	3,242,431.91 usft	Longitude:	-104.633160
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,910.00 ft

Wellbore	HUDSON 36C-35HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/25/2012	8.65	66.81	52,905

Design	HUDSON 36C-35HZ (wp02)				
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	178.30	

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	
1,795.67	3.03	92.27	1,795.53	-0.31	7.81	1.02	1.02	0.00	92.27	
6,622.57	3.03	92.27	6,615.69	-10.41	262.64	0.00	0.00	0.00	0.00	
7,509.78	89.73	180.00	7,181.00	-575.00	292.38	10.10	9.77	9.89	87.75	
7,511.46	89.71	180.00	7,181.01	-576.69	292.38	1.00	-1.00	0.00	180.00	
16,805.76	89.71	180.00	7,228.00	-9,870.86	292.38	0.00	0.00	0.00	0.00	HUDSON 36C-35HZ

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Site WELD_HUDSON 3E-26HZ PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4927.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4927.00ft
Site:	WELD_HUDSON 3E-26HZ PAD	North Reference:	True
Well:	HUDSON 36C-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HUDSON 36C-35HZ		
Design:	HUDSON 36C-35HZ (wp02)		

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	0.00
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
768.00	0.00	0.00	768.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills										
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
9 5/8"										
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
Start Build 1.02										
1,600.00	1.02	92.27	1,599.99	-0.04	0.89	0.06	1.02	1.02	1.02	0.00
1,700.00	2.05	92.27	1,699.96	-0.15	3.57	0.25	1.02	1.02	1.02	0.00
1,795.67	3.03	92.27	1,795.53	-0.31	7.81	0.54	1.02	1.02	1.02	0.00
Start 4826.90 hold at 1795.67 MD										
1,800.00	3.03	92.27	1,799.86	-0.32	8.04	0.56	0.00	0.00	0.00	0.00
1,900.00	3.03	92.27	1,899.72	-0.53	13.31	0.92	0.00	0.00	0.00	0.00
2,000.00	3.03	92.27	1,999.58	-0.74	18.59	1.29	0.00	0.00	0.00	0.00
2,100.00	3.03	92.27	2,099.44	-0.95	23.87	1.65	0.00	0.00	0.00	0.00
2,200.00	3.03	92.27	2,199.30	-1.16	29.15	2.02	0.00	0.00	0.00	0.00
2,300.00	3.03	92.27	2,299.16	-1.37	34.43	2.38	0.00	0.00	0.00	0.00
2,400.00	3.03	92.27	2,399.02	-1.58	39.71	2.75	0.00	0.00	0.00	0.00
2,500.00	3.03	92.27	2,498.88	-1.79	44.99	3.11	0.00	0.00	0.00	0.00
2,600.00	3.03	92.27	2,598.74	-2.00	50.27	3.48	0.00	0.00	0.00	0.00
2,700.00	3.03	92.27	2,698.60	-2.21	55.55	3.85	0.00	0.00	0.00	0.00
2,800.00	3.03	92.27	2,798.46	-2.41	60.83	4.21	0.00	0.00	0.00	0.00
2,860.63	3.03	92.27	2,859.00	-2.54	64.03	4.43	0.00	0.00	0.00	0.00
Parkman										
2,900.00	3.03	92.27	2,898.32	-2.62	66.11	4.58	0.00	0.00	0.00	0.00
3,000.00	3.03	92.27	2,998.18	-2.83	71.39	4.94	0.00	0.00	0.00	0.00
3,100.00	3.03	92.27	3,098.04	-3.04	76.67	5.31	0.00	0.00	0.00	0.00
3,200.00	3.03	92.27	3,197.90	-3.25	81.95	5.67	0.00	0.00	0.00	0.00
3,300.00	3.03	92.27	3,297.76	-3.46	87.23	6.04	0.00	0.00	0.00	0.00
3,400.00	3.03	92.27	3,397.62	-3.67	92.50	6.40	0.00	0.00	0.00	0.00
3,500.00	3.03	92.27	3,497.48	-3.88	97.78	6.77	0.00	0.00	0.00	0.00
3,600.00	3.03	92.27	3,597.34	-4.09	103.06	7.13	0.00	0.00	0.00	0.00
3,700.00	3.03	92.27	3,697.20	-4.30	108.34	7.50	0.00	0.00	0.00	0.00
3,800.00	3.03	92.27	3,797.06	-4.51	113.62	7.86	0.00	0.00	0.00	0.00
3,900.00	3.03	92.27	3,896.92	-4.72	118.90	8.23	0.00	0.00	0.00	0.00
4,000.00	3.03	92.27	3,996.78	-4.93	124.18	8.60	0.00	0.00	0.00	0.00
4,100.00	3.03	92.27	4,096.64	-5.13	129.46	8.96	0.00	0.00	0.00	0.00
4,200.00	3.03	92.27	4,196.50	-5.34	134.74	9.33	0.00	0.00	0.00	0.00
4,300.00	3.03	92.27	4,296.36	-5.55	140.02	9.69	0.00	0.00	0.00	0.00
4,400.00	3.03	92.27	4,396.22	-5.76	145.30	10.06	0.00	0.00	0.00	0.00
4,500.00	3.03	92.27	4,496.09	-5.97	150.58	10.42	0.00	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Site WELD_HUDSON 3E-26HZ PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4927.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4927.00ft
Site:	WELD_HUDSON 3E-26HZ PAD	North Reference:	True
Well:	HUDSON 36C-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HUDSON 36C-35HZ		
Design:	HUDSON 36C-35HZ (wp02)		

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)	
4,556.99	3.03	92.27	4,553.00	-6.09	153.59	10.63	0.00	0.00	0.00	
Sussex										
4,600.00	3.03	92.27	4,595.95	-6.18	155.86	10.79	0.00	0.00	0.00	
4,700.00	3.03	92.27	4,695.81	-6.39	161.14	11.15	0.00	0.00	0.00	
4,800.00	3.03	92.27	4,795.67	-6.60	166.42	11.52	0.00	0.00	0.00	
4,900.00	3.03	92.27	4,895.53	-6.81	171.69	11.88	0.00	0.00	0.00	
5,000.00	3.03	92.27	4,995.39	-7.02	176.97	12.25	0.00	0.00	0.00	
5,100.00	3.03	92.27	5,095.25	-7.23	182.25	12.62	0.00	0.00	0.00	
5,200.00	3.03	92.27	5,195.11	-7.44	187.53	12.98	0.00	0.00	0.00	
5,300.00	3.03	92.27	5,294.97	-7.65	192.81	13.35	0.00	0.00	0.00	
5,400.00	3.03	92.27	5,394.83	-7.85	198.09	13.71	0.00	0.00	0.00	
5,500.00	3.03	92.27	5,494.69	-8.06	203.37	14.08	0.00	0.00	0.00	
5,600.00	3.03	92.27	5,594.55	-8.27	208.65	14.44	0.00	0.00	0.00	
5,700.00	3.03	92.27	5,694.41	-8.48	213.93	14.81	0.00	0.00	0.00	
5,800.00	3.03	92.27	5,794.27	-8.69	219.21	15.17	0.00	0.00	0.00	
5,900.00	3.03	92.27	5,894.13	-8.90	224.49	15.54	0.00	0.00	0.00	
6,000.00	3.03	92.27	5,993.99	-9.11	229.77	15.90	0.00	0.00	0.00	
6,100.00	3.03	92.27	6,093.85	-9.32	235.05	16.27	0.00	0.00	0.00	
6,200.00	3.03	92.27	6,193.71	-9.53	240.33	16.64	0.00	0.00	0.00	
6,300.00	3.03	92.27	6,293.57	-9.74	245.61	17.00	0.00	0.00	0.00	
6,400.00	3.03	92.27	6,393.43	-9.95	250.89	17.37	0.00	0.00	0.00	
6,500.00	3.03	92.27	6,493.29	-10.16	256.16	17.73	0.00	0.00	0.00	
6,600.00	3.03	92.27	6,593.15	-10.37	261.44	18.10	0.00	0.00	0.00	
6,622.57	3.03	92.27	6,615.69	-10.41	262.64	18.18	0.00	0.00	0.00	
Start DLS 10.10 TFO 87.75										
6,700.00	8.49	159.28	6,692.76	-15.85	266.71	23.74	10.10	7.06	86.54	
6,800.00	18.28	170.81	6,789.94	-38.30	271.84	46.33	10.10	9.79	11.53	
6,884.57	26.74	173.99	6,868.00	-70.38	275.96	78.51	10.10	10.00	3.77	
Sharon Springs										
6,900.00	28.29	174.38	6,881.68	-77.47	276.68	85.62	10.10	10.03	2.50	
6,932.68	31.57	175.08	6,910.00	-93.70	278.17	101.89	10.10	10.04	2.15	
Niobrara A										
7,000.00	38.34	176.18	6,965.14	-132.14	281.08	140.40	10.10	10.06	1.64	
7,012.68	39.62	176.35	6,975.00	-140.10	281.60	148.37	10.10	10.06	1.35	
Niobrara B										
7,100.00	48.41	177.33	7,037.74	-200.62	284.90	208.96	10.10	10.07	1.11	
7,134.76	51.91	177.64	7,060.00	-227.28	286.07	235.64	10.10	10.08	0.91	
Niobrara C										
7,200.00	58.49	178.16	7,097.22	-280.79	288.02	289.19	10.10	10.08	0.79	
7,300.00	68.57	178.83	7,141.73	-370.16	290.36	378.59	10.10	10.08	0.67	
7,400.00	78.66	179.41	7,169.91	-465.96	291.82	474.39	10.10	10.08	0.58	
7,500.00	88.74	179.95	7,180.87	-565.23	292.38	573.63	10.10	10.09	0.54	
7,509.78	89.73	180.00	7,181.00	-575.00	292.38	583.40	10.10	10.08	0.53	
Start DLS 1.00 TFO 180.00 - 7"										
7,511.46	89.71	180.00	7,181.01	-576.69	292.38	585.09	1.00	-1.00	0.00	
Start 9294.29 hold at 7511.46 MD										
7,600.00	89.71	180.00	7,181.46	-665.22	292.38	673.58	0.00	0.00	0.00	
7,700.00	89.71	180.00	7,181.96	-765.22	292.38	773.54	0.00	0.00	0.00	
7,800.00	89.71	180.00	7,182.47	-865.22	292.38	873.49	0.00	0.00	0.00	
7,900.00	89.71	180.00	7,182.97	-965.22	292.38	973.45	0.00	0.00	0.00	
8,000.00	89.71	180.00	7,183.48	-1,065.22	292.38	1,073.40	0.00	0.00	0.00	
8,100.00	89.71	180.00	7,183.98	-1,165.22	292.38	1,173.36	0.00	0.00	0.00	
8,200.00	89.71	180.00	7,184.49	-1,265.22	292.38	1,273.31	0.00	0.00	0.00	

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Site WELD_HUDSON 3E-26HZ PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4927.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4927.00ft
Site:	WELD_HUDSON 3E-26HZ PAD	North Reference:	True
Well:	HUDSON 36C-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HUDSON 36C-35HZ		
Design:	HUDSON 36C-35HZ (wp02)		

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)	
8,300.00	89.71	180.00	7,185.00	-1,365.21	292.38	1,373.27	0.00	0.00	0.00	
8,400.00	89.71	180.00	7,185.50	-1,465.21	292.38	1,473.22	0.00	0.00	0.00	
8,500.00	89.71	180.00	7,186.01	-1,565.21	292.38	1,573.18	0.00	0.00	0.00	
8,600.00	89.71	180.00	7,186.51	-1,665.21	292.38	1,673.13	0.00	0.00	0.00	
8,700.00	89.71	180.00	7,187.02	-1,765.21	292.38	1,773.09	0.00	0.00	0.00	
8,800.00	89.71	180.00	7,187.52	-1,865.21	292.38	1,873.04	0.00	0.00	0.00	
8,900.00	89.71	180.00	7,188.03	-1,965.21	292.38	1,973.00	0.00	0.00	0.00	
9,000.00	89.71	180.00	7,188.53	-2,065.21	292.38	2,072.95	0.00	0.00	0.00	
9,100.00	89.71	180.00	7,189.04	-2,165.20	292.38	2,172.91	0.00	0.00	0.00	
9,200.00	89.71	180.00	7,189.55	-2,265.20	292.38	2,272.86	0.00	0.00	0.00	
9,300.00	89.71	180.00	7,190.05	-2,365.20	292.38	2,372.82	0.00	0.00	0.00	
9,400.00	89.71	180.00	7,190.56	-2,465.20	292.38	2,472.77	0.00	0.00	0.00	
9,500.00	89.71	180.00	7,191.06	-2,565.20	292.38	2,572.73	0.00	0.00	0.00	
9,600.00	89.71	180.00	7,191.57	-2,665.20	292.38	2,672.68	0.00	0.00	0.00	
9,700.00	89.71	180.00	7,192.07	-2,765.20	292.38	2,772.64	0.00	0.00	0.00	
9,800.00	89.71	180.00	7,192.58	-2,865.20	292.38	2,872.59	0.00	0.00	0.00	
9,900.00	89.71	180.00	7,193.08	-2,965.19	292.38	2,972.55	0.00	0.00	0.00	
10,000.00	89.71	180.00	7,193.59	-3,065.19	292.38	3,072.50	0.00	0.00	0.00	
10,100.00	89.71	180.00	7,194.10	-3,165.19	292.38	3,172.46	0.00	0.00	0.00	
10,200.00	89.71	180.00	7,194.60	-3,265.19	292.38	3,272.41	0.00	0.00	0.00	
10,300.00	89.71	180.00	7,195.11	-3,365.19	292.38	3,372.37	0.00	0.00	0.00	
10,400.00	89.71	180.00	7,195.61	-3,465.19	292.38	3,472.32	0.00	0.00	0.00	
10,500.00	89.71	180.00	7,196.12	-3,565.19	292.38	3,572.28	0.00	0.00	0.00	
10,600.00	89.71	180.00	7,196.62	-3,665.19	292.38	3,672.23	0.00	0.00	0.00	
10,700.00	89.71	180.00	7,197.13	-3,765.18	292.38	3,772.19	0.00	0.00	0.00	
10,800.00	89.71	180.00	7,197.64	-3,865.18	292.38	3,872.14	0.00	0.00	0.00	
10,900.00	89.71	180.00	7,198.14	-3,965.18	292.38	3,972.10	0.00	0.00	0.00	
11,000.00	89.71	180.00	7,198.65	-4,065.18	292.38	4,072.05	0.00	0.00	0.00	
11,100.00	89.71	180.00	7,199.15	-4,165.18	292.38	4,172.01	0.00	0.00	0.00	
11,200.00	89.71	180.00	7,199.66	-4,265.18	292.38	4,271.96	0.00	0.00	0.00	
11,267.75	89.71	180.00	7,200.00	-4,332.93	292.38	4,339.68	0.00	0.00	0.00	
Fort Hays										
11,300.00	89.71	180.00	7,200.16	-4,365.18	292.38	4,371.92	0.00	0.00	0.00	
11,400.00	89.71	180.00	7,200.67	-4,465.17	292.38	4,471.87	0.00	0.00	0.00	
11,500.00	89.71	180.00	7,201.17	-4,565.17	292.38	4,571.82	0.00	0.00	0.00	
11,600.00	89.71	180.00	7,201.68	-4,665.17	292.38	4,671.78	0.00	0.00	0.00	
11,700.00	89.71	180.00	7,202.19	-4,765.17	292.38	4,771.73	0.00	0.00	0.00	
11,800.00	89.71	180.00	7,202.69	-4,865.17	292.38	4,871.69	0.00	0.00	0.00	
11,900.00	89.71	180.00	7,203.20	-4,965.17	292.38	4,971.64	0.00	0.00	0.00	
12,000.00	89.71	180.00	7,203.70	-5,065.17	292.38	5,071.60	0.00	0.00	0.00	
12,100.00	89.71	180.00	7,204.21	-5,165.17	292.38	5,171.55	0.00	0.00	0.00	
12,200.00	89.71	180.00	7,204.71	-5,265.16	292.38	5,271.51	0.00	0.00	0.00	
12,300.00	89.71	180.00	7,205.22	-5,365.16	292.38	5,371.46	0.00	0.00	0.00	
12,400.00	89.71	180.00	7,205.72	-5,465.16	292.38	5,471.42	0.00	0.00	0.00	
12,500.00	89.71	180.00	7,206.23	-5,565.16	292.38	5,571.37	0.00	0.00	0.00	
12,600.00	89.71	180.00	7,206.74	-5,665.16	292.38	5,671.33	0.00	0.00	0.00	
12,700.00	89.71	180.00	7,207.24	-5,765.16	292.38	5,771.28	0.00	0.00	0.00	
12,800.00	89.71	180.00	7,207.75	-5,865.16	292.38	5,871.24	0.00	0.00	0.00	
12,900.00	89.71	180.00	7,208.25	-5,965.16	292.38	5,971.19	0.00	0.00	0.00	
13,000.00	89.71	180.00	7,208.76	-6,065.15	292.38	6,071.15	0.00	0.00	0.00	
13,100.00	89.71	180.00	7,209.26	-6,165.15	292.38	6,171.10	0.00	0.00	0.00	
13,200.00	89.71	180.00	7,209.77	-6,265.15	292.38	6,271.06	0.00	0.00	0.00	
13,300.00	89.71	180.00	7,210.28	-6,365.15	292.38	6,371.01	0.00	0.00	0.00	

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Site WELD_HUDSON 3E-26HZ PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4927.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4927.00ft
Site:	WELD_HUDSON 3E-26HZ PAD	North Reference:	True
Well:	HUDSON 36C-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HUDSON 36C-35HZ		
Design:	HUDSON 36C-35HZ (wp02)		

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)	
13,400.00	89.71	180.00	7,210.78	-6,465.15	292.38	6,470.97	0.00	0.00	0.00	
13,500.00	89.71	180.00	7,211.29	-6,565.15	292.38	6,570.92	0.00	0.00	0.00	
13,600.00	89.71	180.00	7,211.79	-6,665.15	292.38	6,670.88	0.00	0.00	0.00	
13,700.00	89.71	180.00	7,212.30	-6,765.15	292.38	6,770.83	0.00	0.00	0.00	
13,800.00	89.71	180.00	7,212.80	-6,865.14	292.38	6,870.79	0.00	0.00	0.00	
13,900.00	89.71	180.00	7,213.31	-6,965.14	292.38	6,970.74	0.00	0.00	0.00	
14,000.00	89.71	180.00	7,213.81	-7,065.14	292.38	7,070.70	0.00	0.00	0.00	
14,100.00	89.71	180.00	7,214.32	-7,165.14	292.38	7,170.65	0.00	0.00	0.00	
14,200.00	89.71	180.00	7,214.83	-7,265.14	292.38	7,270.61	0.00	0.00	0.00	
14,300.00	89.71	180.00	7,215.33	-7,365.14	292.38	7,370.56	0.00	0.00	0.00	
14,400.00	89.71	180.00	7,215.84	-7,465.14	292.38	7,470.52	0.00	0.00	0.00	
14,500.00	89.71	180.00	7,216.34	-7,565.14	292.38	7,570.47	0.00	0.00	0.00	
14,600.00	89.71	180.00	7,216.85	-7,665.13	292.38	7,670.43	0.00	0.00	0.00	
14,700.00	89.71	180.00	7,217.35	-7,765.13	292.38	7,770.38	0.00	0.00	0.00	
14,800.00	89.71	180.00	7,217.86	-7,865.13	292.38	7,870.34	0.00	0.00	0.00	
14,900.00	89.71	180.00	7,218.36	-7,965.13	292.38	7,970.29	0.00	0.00	0.00	
15,000.00	89.71	180.00	7,218.87	-8,065.13	292.38	8,070.25	0.00	0.00	0.00	
15,100.00	89.71	180.00	7,219.38	-8,165.13	292.38	8,170.20	0.00	0.00	0.00	
15,200.00	89.71	180.00	7,219.88	-8,265.13	292.38	8,270.16	0.00	0.00	0.00	
15,300.00	89.71	180.00	7,220.39	-8,365.13	292.38	8,370.11	0.00	0.00	0.00	
15,400.00	89.71	180.00	7,220.89	-8,465.12	292.38	8,470.07	0.00	0.00	0.00	
15,500.00	89.71	180.00	7,221.40	-8,565.12	292.38	8,570.02	0.00	0.00	0.00	
15,600.00	89.71	180.00	7,221.90	-8,665.12	292.38	8,669.98	0.00	0.00	0.00	
15,700.00	89.71	180.00	7,222.41	-8,765.12	292.38	8,769.93	0.00	0.00	0.00	
15,800.00	89.71	180.00	7,222.92	-8,865.12	292.38	8,869.88	0.00	0.00	0.00	
15,816.83	89.71	180.00	7,223.00	-8,881.95	292.38	8,886.70	0.00	0.00	0.00	
Codell										
15,900.00	89.71	180.00	7,223.42	-8,965.12	292.38	8,969.84	0.00	0.00	0.00	
16,000.00	89.71	180.00	7,223.93	-9,065.12	292.38	9,069.79	0.00	0.00	0.00	
16,100.00	89.71	180.00	7,224.43	-9,165.11	292.38	9,169.75	0.00	0.00	0.00	
16,200.00	89.71	180.00	7,224.94	-9,265.11	292.38	9,269.70	0.00	0.00	0.00	
16,300.00	89.71	180.00	7,225.44	-9,365.11	292.38	9,369.66	0.00	0.00	0.00	
16,400.00	89.71	180.00	7,225.95	-9,465.11	292.38	9,469.61	0.00	0.00	0.00	
16,500.00	89.71	180.00	7,226.45	-9,565.11	292.38	9,569.57	0.00	0.00	0.00	
16,600.00	89.71	180.00	7,226.96	-9,665.11	292.38	9,669.52	0.00	0.00	0.00	
16,700.00	89.71	180.00	7,227.47	-9,765.11	292.38	9,769.48	0.00	0.00	0.00	
16,800.00	89.71	180.00	7,227.97	-9,865.11	292.38	9,869.43	0.00	0.00	0.00	
16,805.76	89.71	180.00	7,228.00	-9,870.86	292.38	9,875.19	0.00	0.00	0.00	
TD at 16805.76 - HUDSON 36C-35HZ BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
HUDSON 36C-35HZ BH	0.00	0.00	7,228.00	-9,870.86	292.38	1,276,368.95	3,242,820.77	40.088762	-104.632115	
- hit/miss target										
- Shape										
- plan hits target center										
- Point										

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Site WELD_HUDSON 3E-26HZ PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4927.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4927.00ft
Site:	WELD_HUDSON 3E-26HZ PAD	North Reference:	True
Well:	HUDSON 36C-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HUDSON 36C-35HZ		
Design:	HUDSON 36C-35HZ (wp02)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,300.00	1,300.00	9 5/8"	9-5/8	12-1/4	
7,509.78	7,181.00	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
768.00	768.00	Fox Hills			
2,860.63	2,859.00	Parkman			
4,556.99	4,553.00	Sussex			
6,884.57	6,868.00	Sharon Springs			
6,932.68	6,910.00	Niobrara A			
7,012.68	6,975.00	Niobrara B			
7,134.76	7,060.00	Niobrara C			
11,267.75	7,200.00	Fort Hays			
15,816.83	7,223.00	Codell			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,500.00	1,500.00	0.00	0.00	Start Build 1.02	
1,795.67	1,795.53	-0.31	7.81	Start 4826.90 hold at 1795.67 MD	
6,622.57	6,615.69	-10.41	262.64	Start DLS 10.10 TFO 87.75	
7,509.78	7,181.00	-575.00	292.38	Start DLS 1.00 TFO 180.00	
7,511.46	7,181.01	-576.69	292.38	Start 9294.29 hold at 7511.46 MD	
16,805.76	7,228.00	-9,870.86	292.38	TD at 16805.76	