

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_WEICHEL 3 PAD

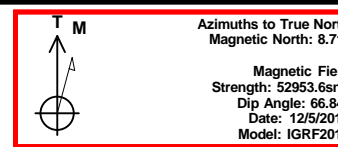
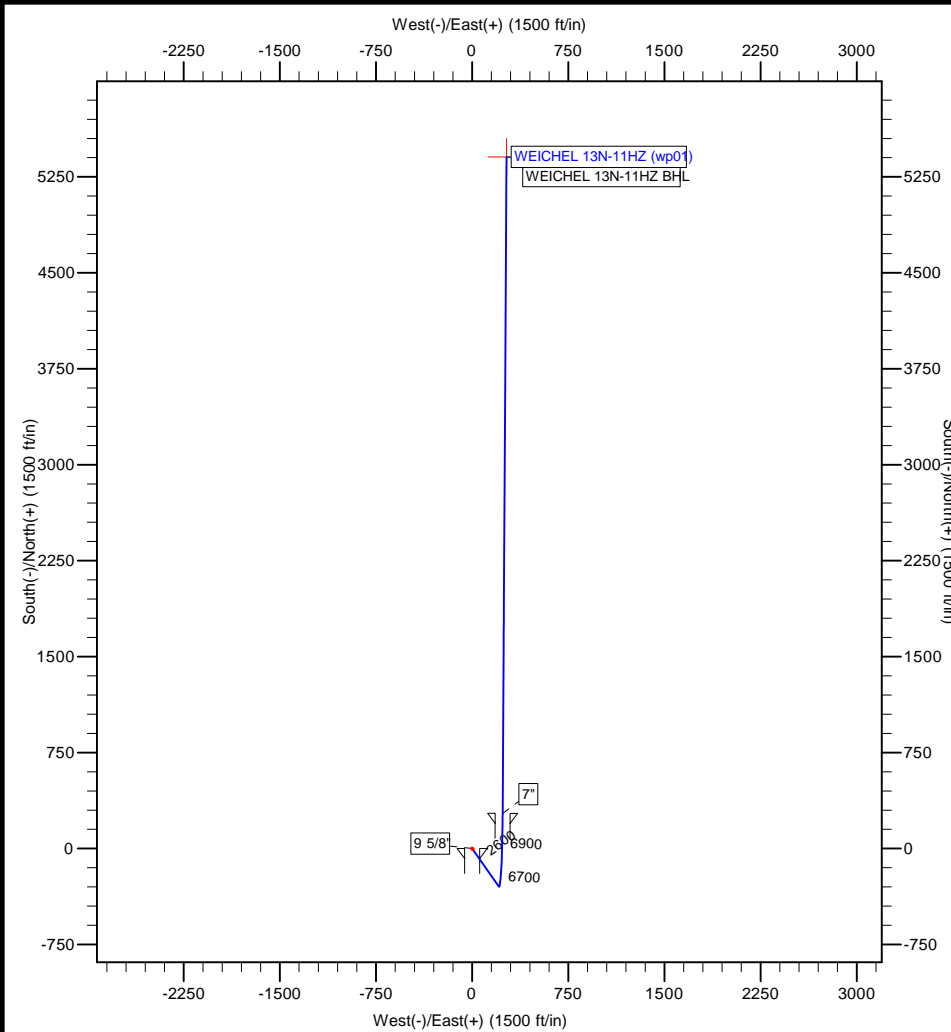
WEICHEL 13N-11H

WEICHEL 13N-11HZ

Plan: WEICHEL 13N-11HZ (wp01)

Standard Planning Report

05 December, 2011



Project: COLORADO NORTHERN ZONE - 83
Site: WELD WEICHEL 3 PAD
Well: WEICHEL 13N-11H
Wellbore: WEICHEL 13N-11HZ
Section:
SHL:
Design: WEICHEL 13N-11HZ (wp01)
Latitude: 40.132340
Longitude: -104.639432
GL: 4893.00
KB: GL + RKB @ 4910.00ft

WELL DETAILS: WEICHEL 13N-11H

+N/-S	+E/-W	Northing	Ground Level: Easting	4893.00 Latitude	40.132340 Longitude	Slot
0.00	0.00	1292222.77	3240619.59			

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
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00
1511.20	4.22	144.99	1511.01	-6.37	4.46	2.00	144.99	-6.14
6348.50	4.22	144.99	6335.17	-298.20	208.87	0.00	0.00	-287.48
7283.38	90.04	0.32	6942.00	274.00	238.00	10.00	-144.60	285.46
7285.29	90.04	0.34	6942.00	275.91	238.01	1.00	85.74	287.37
12415.77	90.04	0.34	6938.00	5406.30	268.37	0.00	0.00	5412.96

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

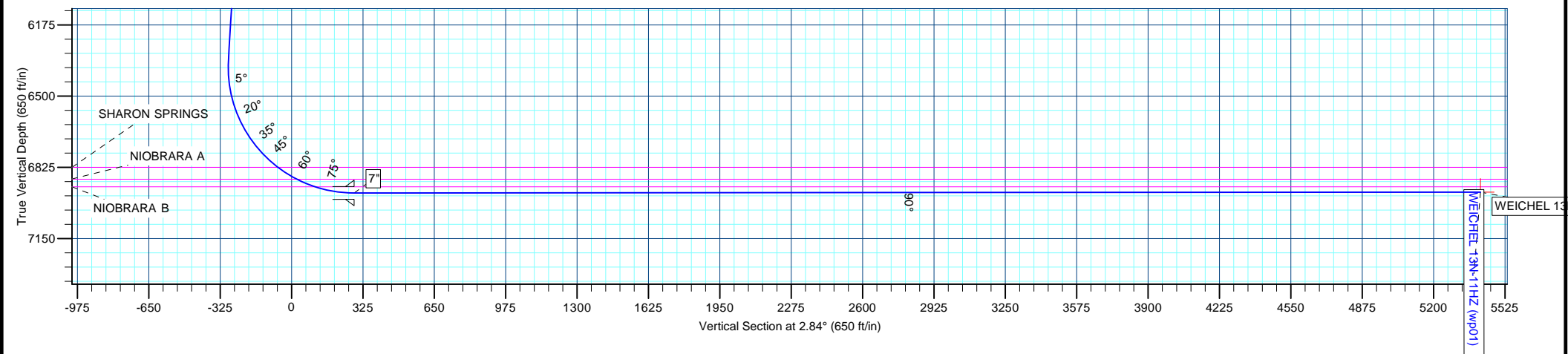
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
WEICHEL 13N-11HZ BHL	6938.00	5406.30	268.37	40.147181	-104.638472	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4025.00	4032.04	PARKMAN
4374.00	4381.99	SUSSEX
6825.00	6910.08	SHARON SPRINGS
6879.00	7011.61	NIOBRARA A
6914.00	7103.00	NIOBRARA B

CASING DETAILS

TVD	MD	Name	Size
900.00	900.00	9 5/8"	9-5/8
6942.00	7283.38	7"	7



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well WEICHEL 13N-11H
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4910.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4910.00ft
Site:	WELD_WEICHEL 3 PAD	North Reference:	True
Well:	WEICHEL 13N-11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WEICHEL 13N-11HZ		
Design:	WEICHEL 13N-11HZ (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_WEICHEL 3 PAD			
Site Position:		Northing:	1,292,398.97 usft	Latitude: 40.132701
From:	Lat/Long	Easting:	3,245,181.03 usft	Longitude: -104.623113
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.57 °

Well	WEICHEL 13N-11H			
Well Position	+N/-S	-131.09 ft	Northing:	1,292,222.77 usft
	+E/-W	-4,562.96 ft	Easting:	3,240,619.59 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Latitude: 40.132340
				Longitude: -104.639432
				Ground Level: 4,893.00 ft

Wellbore	WEICHEL 13N-11HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/5/2011	8.71	66.84	52,954

Design	WEICHEL 13N-11HZ (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	2.84

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	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,511.20	4.22	144.99	1,511.01	-6.37	4.46	2.00	2.00	0.00	144.99	
6,348.50	4.22	144.99	6,335.17	-298.20	208.87	0.00	0.00	0.00	0.00	
7,283.38	90.04	0.32	6,942.00	274.00	238.00	10.00	9.18	-15.47	-144.60	
7,285.29	90.04	0.34	6,942.00	275.91	238.01	1.00	0.07	1.00	85.74	
12,415.77	90.04	0.34	6,938.00	5,406.30	268.37	0.00	0.00	0.00	0.00	WEICHEL 13N-11HZ

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well WEICHEL 13N-11H
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4910.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4910.00ft
Site:	WELD_WEICHEL 3 PAD	North Reference:	True
Well:	WEICHEL 13N-11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WEICHEL 13N-11HZ		
Design:	WEICHEL 13N-11HZ (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
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	2.00	144.99	1,399.98	-1.43	1.00	-1.38	2.00	2.00	0.00
1,500.00	4.00	144.99	1,499.84	-5.72	4.00	-5.51	2.00	2.00	0.00
1,511.20	4.22	144.99	1,511.01	-6.37	4.46	-6.14	2.00	2.00	0.00
1,600.00	4.22	144.99	1,599.57	-11.73	8.22	-11.31	0.00	0.00	0.00
1,700.00	4.22	144.99	1,699.30	-17.76	12.44	-17.13	0.00	0.00	0.00
1,800.00	4.22	144.99	1,799.02	-23.80	16.67	-22.94	0.00	0.00	0.00
1,900.00	4.22	144.99	1,898.75	-29.83	20.89	-28.76	0.00	0.00	0.00
2,000.00	4.22	144.99	1,998.48	-35.86	25.12	-34.57	0.00	0.00	0.00
2,100.00	4.22	144.99	2,098.21	-41.90	29.34	-40.39	0.00	0.00	0.00
2,200.00	4.22	144.99	2,197.94	-47.93	33.57	-46.20	0.00	0.00	0.00
2,300.00	4.22	144.99	2,297.67	-53.96	37.80	-52.02	0.00	0.00	0.00
2,400.00	4.22	144.99	2,397.39	-59.99	42.02	-57.84	0.00	0.00	0.00
2,500.00	4.22	144.99	2,497.12	-66.03	46.25	-63.65	0.00	0.00	0.00
2,600.00	4.22	144.99	2,596.85	-72.06	50.47	-69.47	0.00	0.00	0.00
2,700.00	4.22	144.99	2,696.58	-78.09	54.70	-75.28	0.00	0.00	0.00
2,800.00	4.22	144.99	2,796.31	-84.13	58.92	-81.10	0.00	0.00	0.00
2,900.00	4.22	144.99	2,896.04	-90.16	63.15	-86.92	0.00	0.00	0.00
3,000.00	4.22	144.99	2,995.76	-96.19	67.37	-92.73	0.00	0.00	0.00
3,100.00	4.22	144.99	3,095.49	-102.22	71.60	-98.55	0.00	0.00	0.00
3,200.00	4.22	144.99	3,195.22	-108.26	75.83	-104.36	0.00	0.00	0.00
3,300.00	4.22	144.99	3,294.95	-114.29	80.05	-110.18	0.00	0.00	0.00
3,400.00	4.22	144.99	3,394.68	-120.32	84.28	-116.00	0.00	0.00	0.00
3,500.00	4.22	144.99	3,494.41	-126.36	88.50	-121.81	0.00	0.00	0.00
3,600.00	4.22	144.99	3,594.14	-132.39	92.73	-127.63	0.00	0.00	0.00
3,700.00	4.22	144.99	3,693.86	-138.42	96.95	-133.44	0.00	0.00	0.00
3,800.00	4.22	144.99	3,793.59	-144.45	101.18	-139.26	0.00	0.00	0.00
3,900.00	4.22	144.99	3,893.32	-150.49	105.40	-145.08	0.00	0.00	0.00
4,000.00	4.22	144.99	3,993.05	-156.52	109.63	-150.89	0.00	0.00	0.00
4,032.04	4.22	144.99	4,025.00	-158.45	110.98	-152.76	0.00	0.00	0.00
PARKMAN									
4,100.00	4.22	144.99	4,092.78	-162.55	113.86	-156.71	0.00	0.00	0.00
4,200.00	4.22	144.99	4,192.51	-168.59	118.08	-162.52	0.00	0.00	0.00
4,300.00	4.22	144.99	4,292.23	-174.62	122.31	-168.34	0.00	0.00	0.00
4,381.99	4.22	144.99	4,374.00	-179.56	125.77	-173.11	0.00	0.00	0.00
SUSSEX									
4,400.00	4.22	144.99	4,391.96	-180.65	126.53	-174.16	0.00	0.00	0.00
4,500.00	4.22	144.99	4,491.69	-186.68	130.76	-179.97	0.00	0.00	0.00
4,600.00	4.22	144.99	4,591.42	-192.72	134.98	-185.79	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well WEICHEL 13N-11H
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4910.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4910.00ft
Site:	WELD_WEICHEL 3 PAD	North Reference:	True
Well:	WEICHEL 13N-11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WEICHEL 13N-11HZ		
Design:	WEICHEL 13N-11HZ (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)
4,700.00	4.22	144.99	4,691.15	-198.75	139.21	-191.60	0.00	0.00	0.00
4,800.00	4.22	144.99	4,790.88	-204.78	143.43	-197.42	0.00	0.00	0.00
4,900.00	4.22	144.99	4,890.60	-210.82	147.66	-203.24	0.00	0.00	0.00
5,000.00	4.22	144.99	4,990.33	-216.85	151.89	-209.05	0.00	0.00	0.00
5,100.00	4.22	144.99	5,090.06	-222.88	156.11	-214.87	0.00	0.00	0.00
5,200.00	4.22	144.99	5,189.79	-228.91	160.34	-220.68	0.00	0.00	0.00
5,300.00	4.22	144.99	5,289.52	-234.95	164.56	-226.50	0.00	0.00	0.00
5,400.00	4.22	144.99	5,389.25	-240.98	168.79	-232.32	0.00	0.00	0.00
5,500.00	4.22	144.99	5,488.97	-247.01	173.01	-238.13	0.00	0.00	0.00
5,600.00	4.22	144.99	5,588.70	-253.05	177.24	-243.95	0.00	0.00	0.00
5,700.00	4.22	144.99	5,688.43	-259.08	181.46	-249.76	0.00	0.00	0.00
5,800.00	4.22	144.99	5,788.16	-265.11	185.69	-255.58	0.00	0.00	0.00
5,900.00	4.22	144.99	5,887.89	-271.14	189.92	-261.40	0.00	0.00	0.00
6,000.00	4.22	144.99	5,987.62	-277.18	194.14	-267.21	0.00	0.00	0.00
6,100.00	4.22	144.99	6,087.34	-283.21	198.37	-273.03	0.00	0.00	0.00
6,200.00	4.22	144.99	6,187.07	-289.24	202.59	-278.84	0.00	0.00	0.00
6,300.00	4.22	144.99	6,286.80	-295.28	206.82	-284.66	0.00	0.00	0.00
6,348.50	4.22	144.99	6,335.17	-298.20	208.87	-287.48	0.00	0.00	0.00
6,400.00	2.98	55.42	6,386.60	-299.00	211.06	-288.16	10.00	-2.41	-173.92
6,500.00	11.95	11.96	6,485.70	-287.36	215.36	-276.33	10.00	8.97	-43.46
6,600.00	21.84	6.44	6,581.27	-258.67	219.60	-247.47	10.00	9.88	-5.52
6,700.00	31.79	4.27	6,670.41	-213.81	223.66	-202.46	10.00	9.95	-2.17
6,800.00	41.76	3.06	6,750.41	-154.14	227.41	-142.67	10.00	9.97	-1.21
6,900.00	51.75	2.25	6,818.83	-81.46	230.74	-69.92	10.00	9.98	-0.81
6,910.08	52.75	2.18	6,825.00	-73.50	231.05	-61.96	10.00	9.99	-0.68
SHARON SPRINGS									
7,000.00	61.73	1.64	6,873.61	2.00	233.55	13.58	10.00	9.99	-0.61
7,011.61	62.89	1.57	6,879.00	12.28	233.84	23.86	10.00	9.99	-0.54
NIOBRARA A									
7,100.00	71.72	1.13	6,913.07	93.72	235.75	105.30	10.00	9.99	-0.50
7,103.00	72.02	1.12	6,914.00	96.57	235.81	108.15	10.00	9.99	-0.47
NIOBRARA B									
7,200.00	81.71	0.68	6,936.01	190.91	237.28	202.44	10.00	9.99	-0.45
7,283.38	90.04	0.32	6,942.00	274.00	238.00	285.46	10.00	9.99	-0.43
7"									
7,285.29	90.04	0.34	6,942.00	275.91	238.01	287.37	1.00	0.08	1.00
7,300.00	90.04	0.34	6,941.99	290.62	238.10	302.07	0.00	0.00	0.00
7,400.00	90.04	0.34	6,941.91	390.62	238.69	401.97	0.00	0.00	0.00
7,500.00	90.04	0.34	6,941.83	490.62	239.28	501.88	0.00	0.00	0.00
7,600.00	90.04	0.34	6,941.75	590.61	239.87	601.78	0.00	0.00	0.00
7,700.00	90.04	0.34	6,941.68	690.61	240.46	701.68	0.00	0.00	0.00
7,800.00	90.04	0.34	6,941.60	790.61	241.06	801.59	0.00	0.00	0.00
7,900.00	90.04	0.34	6,941.52	890.61	241.65	901.49	0.00	0.00	0.00
8,000.00	90.04	0.34	6,941.44	990.61	242.24	1,001.40	0.00	0.00	0.00
8,100.00	90.04	0.34	6,941.36	1,090.61	242.83	1,101.30	0.00	0.00	0.00
8,200.00	90.04	0.34	6,941.29	1,190.60	243.42	1,201.21	0.00	0.00	0.00
8,300.00	90.04	0.34	6,941.21	1,290.60	244.01	1,301.11	0.00	0.00	0.00
8,400.00	90.04	0.34	6,941.13	1,390.60	244.61	1,401.02	0.00	0.00	0.00
8,500.00	90.04	0.34	6,941.05	1,490.60	245.20	1,500.92	0.00	0.00	0.00
8,600.00	90.04	0.34	6,940.97	1,590.60	245.79	1,600.83	0.00	0.00	0.00
8,700.00	90.04	0.34	6,940.90	1,690.59	246.38	1,700.73	0.00	0.00	0.00
8,800.00	90.04	0.34	6,940.82	1,790.59	246.97	1,800.64	0.00	0.00	0.00
8,900.00	90.04	0.34	6,940.74	1,890.59	247.57	1,900.54	0.00	0.00	0.00
9,000.00	90.04	0.34	6,940.66	1,990.59	248.16	2,000.44	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well WEICHEL 13N-11H
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4910.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4910.00ft
Site:	WELD_WEICHEL 3 PAD	North Reference:	True
Well:	WEICHEL 13N-11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WEICHEL 13N-11HZ		
Design:	WEICHEL 13N-11HZ (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)
9,100.00	90.04	0.34	6,940.58	2,090.59	248.75	2,100.35	0.00	0.00	0.00
9,200.00	90.04	0.34	6,940.51	2,190.59	249.34	2,200.25	0.00	0.00	0.00
9,300.00	90.04	0.34	6,940.43	2,290.58	249.93	2,300.16	0.00	0.00	0.00
9,400.00	90.04	0.34	6,940.35	2,390.58	250.52	2,400.06	0.00	0.00	0.00
9,500.00	90.04	0.34	6,940.27	2,490.58	251.12	2,499.97	0.00	0.00	0.00
9,600.00	90.04	0.34	6,940.19	2,590.58	251.71	2,599.87	0.00	0.00	0.00
9,700.00	90.04	0.34	6,940.12	2,690.58	252.30	2,699.78	0.00	0.00	0.00
9,800.00	90.04	0.34	6,940.04	2,790.57	252.89	2,799.68	0.00	0.00	0.00
9,900.00	90.04	0.34	6,939.96	2,890.57	253.48	2,899.59	0.00	0.00	0.00
10,000.00	90.04	0.34	6,939.88	2,990.57	254.07	2,999.49	0.00	0.00	0.00
10,100.00	90.04	0.34	6,939.80	3,090.57	254.67	3,099.39	0.00	0.00	0.00
10,200.00	90.04	0.34	6,939.73	3,190.57	255.26	3,199.30	0.00	0.00	0.00
10,300.00	90.04	0.34	6,939.65	3,290.57	255.85	3,299.20	0.00	0.00	0.00
10,400.00	90.04	0.34	6,939.57	3,390.56	256.44	3,399.11	0.00	0.00	0.00
10,500.00	90.04	0.34	6,939.49	3,490.56	257.03	3,499.01	0.00	0.00	0.00
10,600.00	90.04	0.34	6,939.42	3,590.56	257.62	3,598.92	0.00	0.00	0.00
10,700.00	90.04	0.34	6,939.34	3,690.56	258.22	3,698.82	0.00	0.00	0.00
10,800.00	90.04	0.34	6,939.26	3,790.56	258.81	3,798.73	0.00	0.00	0.00
10,900.00	90.04	0.34	6,939.18	3,890.56	259.40	3,898.63	0.00	0.00	0.00
11,000.00	90.04	0.34	6,939.10	3,990.55	259.99	3,998.54	0.00	0.00	0.00
11,100.00	90.04	0.34	6,939.03	4,090.55	260.58	4,098.44	0.00	0.00	0.00
11,200.00	90.04	0.34	6,938.95	4,190.55	261.17	4,198.35	0.00	0.00	0.00
11,300.00	90.04	0.34	6,938.87	4,290.55	261.77	4,298.25	0.00	0.00	0.00
11,400.00	90.04	0.34	6,938.79	4,390.55	262.36	4,398.15	0.00	0.00	0.00
11,500.00	90.04	0.34	6,938.71	4,490.54	262.95	4,498.06	0.00	0.00	0.00
11,600.00	90.04	0.34	6,938.64	4,590.54	263.54	4,597.96	0.00	0.00	0.00
11,700.00	90.04	0.34	6,938.56	4,690.54	264.13	4,697.87	0.00	0.00	0.00
11,800.00	90.04	0.34	6,938.48	4,790.54	264.72	4,797.77	0.00	0.00	0.00
11,900.00	90.04	0.34	6,938.40	4,890.54	265.32	4,897.68	0.00	0.00	0.00
12,000.00	90.04	0.34	6,938.32	4,990.54	265.91	4,997.58	0.00	0.00	0.00
12,100.00	90.04	0.34	6,938.25	5,090.53	266.50	5,097.49	0.00	0.00	0.00
12,200.00	90.04	0.34	6,938.17	5,190.53	267.09	5,197.39	0.00	0.00	0.00
12,300.00	90.04	0.34	6,938.09	5,290.53	267.68	5,297.30	0.00	0.00	0.00
12,400.00	90.04	0.34	6,938.01	5,390.53	268.27	5,397.20	0.00	0.00	0.00
12,415.77	90.04	0.34	6,938.00	5,406.30	268.37	5,412.96	0.00	0.00	0.00
WEICHEL 13N-11HZ BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
WEICHEL 13N-11HZ Bf - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	6,938.00	5,406.30	268.37	1,297,631.40	3,240,835.48	40.147181	-104.638472

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well WEICHEL 13N-11H
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4910.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4910.00ft
Site:	WELD_WEICHEL 3 PAD	North Reference:	True
Well:	WEICHEL 13N-11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WEICHEL 13N-11HZ		
Design:	WEICHEL 13N-11HZ (wp01)		

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	
7,283.38	6,942.00	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,032.04	4,025.00	PARKMAN		0.00	
4,381.99	4,374.00	SUSSEX		0.00	
6,910.08	6,825.00	SHARON SPRINGS		0.00	
7,011.61	6,879.00	NIOBRARA A		0.00	
7,103.00	6,914.00	NIOBRARA B		0.00	