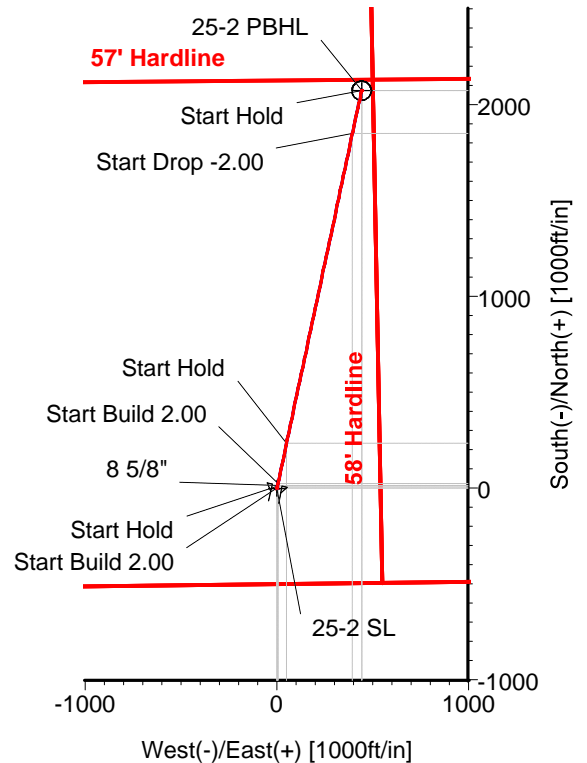
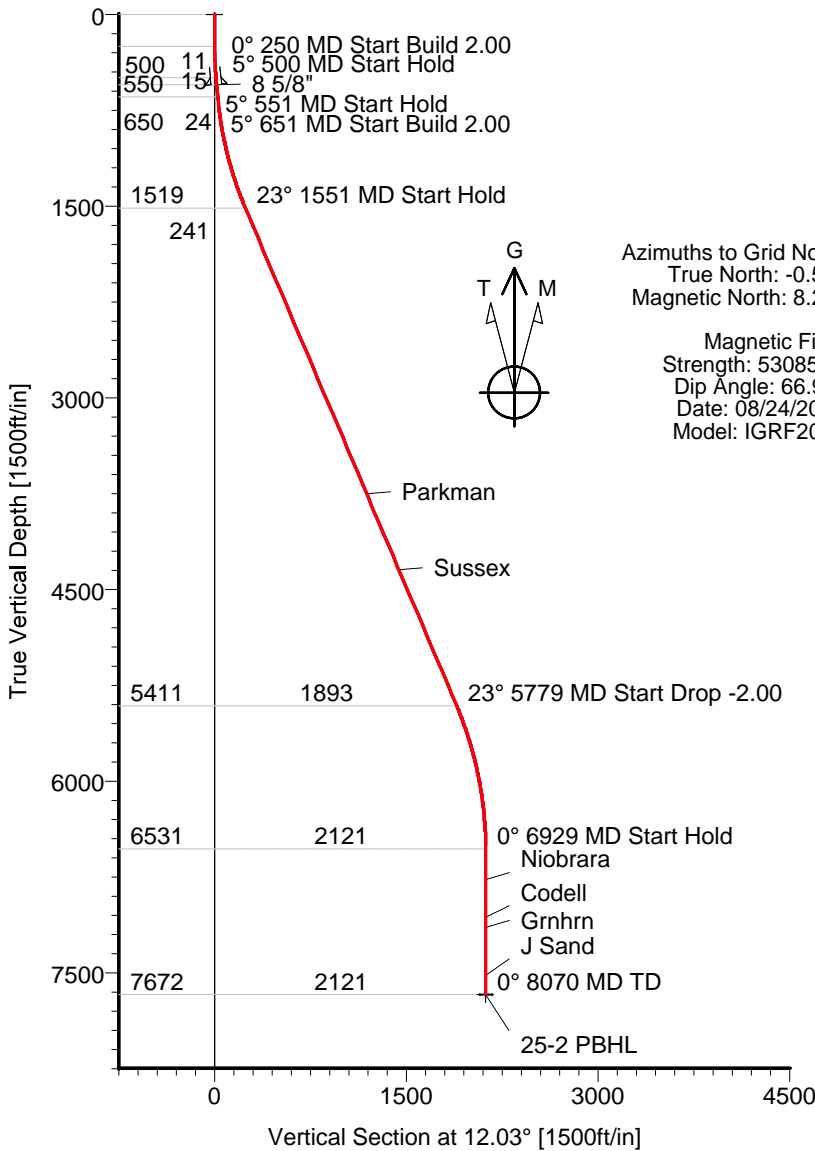


# ANADARKO PETROLEUM

Field: Weld County, CO  
Site: Jepsen 14-2 Pad  
Well: 25-2  
Wellpath: Original Hole  
Plan: Plan #1



## CASING DETAILS

No.	TVD	MD	Name	Size
1	550.00	550.51	8 5/8"	8.625

## FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	3752.00	3976.03	Parkman
2	4347.00	4622.41	Sussex
3	6772.00	7169.98	Niobrara
4	7067.00	7464.98	Codell
5	7147.00	7544.98	Grnhn
6	7522.00	7919.98	J Sand

Ground Elevation = 4772'

## TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
25-2 SL	0.00	0.00	0.00	40°14'54.555N	104°37'55.851W	Point
25-2 PBHL	7672.00	2074.18	441.83	40°15'15.009N	104°37'49.890W	Circle (Radius: 50)

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	12.03	0.00	0.00	0.00	0.00	0.00	0.00	
2	250.00	0.00	12.03	250.00	0.00	0.00	0.00	12.03	0.00	
3	500.00	5.00	12.03	499.68	10.66	2.27	2.00	12.03	10.90	
4	550.51	5.00	12.03	550.00	14.97	3.19	0.00	0.00	15.30	
5	650.51	5.00	12.03	649.62	23.49	5.01	0.00	0.00	24.02	
6	1550.51	23.00	12.03	1519.30	235.57	50.18	2.00	0.00	240.85	
7	5778.81	23.00	12.03	5411.47	1851.44	394.39	0.00	0.00	1892.98	
8	6928.81	0.00	12.03	6530.83	2074.18	441.83	2.00	180.00	2120.72	
9	8069.98	0.00	12.03	7672.00	2074.18	441.83	0.00	0.00	2120.72	25-2 PBHL

Plan: Plan #1 (25-2/Original Hole)

Created By: Ivonne Gonzalez

Date: 05/13/2011

ALLIS CHALMERS DIRECTIONAL DRILLING SERVICES  
911 Regional Park Drive Houston, Texas 77060  
Phone: 713-934-9600 Fax: 713-934-9067



**DIRECTIONAL  
DRILLING SERVICES**

# Allis-Chalmers Energy, Inc.

## Planning Report

<b>Company:</b> ANADARKO PETROLEUM <b>Field:</b> Weld County, CO <b>Site:</b> Jepsen 14-2 Pad <b>Well:</b> 25-2 <b>Wellpath:</b> Original Hole	<b>Date:</b> 05/13/2011 <b>Co-ordinate(NE) Reference:</b> <b>Vertical (TVD) Reference:</b> <b>Section (VS) Reference:</b> <b>Plan:</b>	<b>Time:</b> 12:26:01 Well: 25-2, Grid North 4772'GL+15'KB 4787.0 Well (0.00N,0.00E,12.03Azi) Plan #1	<b>Page:</b> 1
------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------	----------------

<b>Field:</b> Weld County, CO	
<b>Map System:</b> US State Plane Coordinate System 1983 <b>Geo Datum:</b> GRS 1980 <b>Sys Datum:</b> Mean Sea Level	<b>Map Zone:</b> Colorado, Northern Zone <b>Coordinate System:</b> Well Centre <b>Geomagnetic Model:</b> IGRF2010

<b>Site:</b> Jepsen 14-2 Pad	
<b>Site Position:</b> <b>From:</b> Geographic <b>Position Uncertainty:</b> 0.00 ft <b>Ground Level:</b> 4772.00 ft	<b>Northing:</b> 1334521.81 ft <b>Easting:</b> 3242238.56 ft <b>Latitude:</b> 40 14 54.240 N <b>Longitude:</b> 104 37 55.866 W <b>North Reference:</b> Grid <b>Grid Convergence:</b> 0.56 deg

<b>Well:</b> 25-2	<b>Slot Name:</b> 25-2
<b>Well Position:</b> +N/-S    31.93 ft <b>Northing:</b> 1334553.74 ft <b>Latitude:</b> 40 14 54.555 N +E/-W    0.86 ft <b>Easting :</b> 3242239.42 ft <b>Longitude:</b> 104 37 55.851 W <b>Position Uncertainty:</b> 0.00 ft	

<b>Wellpath:</b> Original Hole  <b>Current Datum:</b> 4772'GL+15'KB <b>Magnetic Data:</b> 08/24/2011 <b>Field Strength:</b> 53085 nT <b>Vertical Section:</b> Depth From (TVD) ft	<b>Height</b> 4787.00 ft	<b>Drilled From:</b> Surface <b>Tie-on Depth:</b> 0.00 ft <b>Above System Datum:</b> Mean Sea Level <b>Declination:</b> 8.76 deg <b>Mag Dip Angle:</b> 66.94 deg <b>+E/-W</b> ft <b>Direction</b> deg
0.00	0.00	0.00      12.03

<b>Plan:</b> Plan #1  <b>Principal:</b> Yes	<b>Date Composed:</b> 05/06/2011 <b>Version:</b> 1 <b>Tied-to:</b> From Surface
---------------------------------------------------	---------------------------------------------------------------------------------------

Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	12.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	12.03	250.00	0.00	0.00	0.00	0.00	0.00	12.03	
500.00	5.00	12.03	499.68	10.66	2.27	2.00	2.00	0.00	12.03	
550.51	5.00	12.03	550.00	14.97	3.19	0.00	0.00	0.00	0.00	
650.51	5.00	12.03	649.62	23.49	5.01	0.00	0.00	0.00	0.00	
1550.51	23.00	12.03	1519.30	235.57	50.18	2.00	2.00	0.00	0.00	
5778.81	23.00	12.03	5411.47	1851.44	394.39	0.00	0.00	0.00	0.00	
6928.81	0.00	12.03	6530.83	2074.18	441.83	2.00	-2.00	0.00	180.00	
8069.98	0.00	12.03	7672.00	2074.18	441.83	0.00	0.00	0.00	0.00	25-2 PBHL

Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
250.00	0.00	12.03	250.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
300.00	1.00	12.03	300.00	0.43	0.09	0.44	2.00	2.00	0.00	MWD
400.00	3.00	12.03	399.93	3.84	0.82	3.93	2.00	2.00	0.00	MWD
500.00	5.00	12.03	499.68	10.66	2.27	10.90	2.00	2.00	0.00	MWD
550.51	5.00	12.03	550.00	14.97	3.19	15.30	0.00	0.00	0.00	8 5/8"
600.00	5.00	12.03	599.30	19.19	4.09	19.62	0.00	0.00	0.00	MWD
650.51	5.00	12.03	649.62	23.49	5.01	24.02	0.00	0.00	-0.01	MWD
700.00	5.99	12.03	698.88	28.13	5.99	28.76	2.00	2.00	0.00	MWD
800.00	7.99	12.03	798.13	40.03	8.53	40.93	2.00	2.00	0.00	MWD
900.00	9.99	12.03	896.90	55.31	11.78	56.55	2.00	2.00	0.00	MWD
1000.00	11.99	12.03	995.06	73.95	15.75	75.61	2.00	2.00	0.00	MWD
1100.00	13.99	12.03	1092.50	95.94	20.44	98.09	2.00	2.00	0.00	MWD
1200.00	15.99	12.03	1189.09	121.23	25.83	123.95	2.00	2.00	0.00	MWD

# Allis-Chalmers Energy, Inc.

## Planning Report

<b>Company:</b> ANADARKO PETROLEUM <b>Field:</b> Weld County, CO <b>Site:</b> Jepsen 14-2 Pad <b>Well:</b> 25-2 <b>Wellpath:</b> Original Hole	<b>Date:</b> 05/13/2011 <b>Co-ordinate(NE) Reference:</b> <b>Vertical (TVD) Reference:</b> <b>Section (VS) Reference:</b> <b>Plan:</b>	<b>Time:</b> 12:26:01 Well: 25-2, Grid North 4772'GL+15'KB 4787.0 Well (0.00N,0.00E,12.03Azi) Plan #1	<b>Page:</b> 2
------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------	----------------

### Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1300.00	17.99	12.03	1284.72	149.81	31.91	153.17	2.00	2.00	0.00	MWD
1400.00	19.99	12.03	1379.27	181.64	38.69	185.71	2.00	2.00	0.00	MWD
1500.00	21.99	12.03	1472.63	216.67	46.16	221.53	2.00	2.00	0.00	MWD
1550.51	23.00	12.03	1519.30	235.57	50.18	240.85	2.00	2.00	0.00	MWD
1600.00	23.00	12.03	1564.86	254.48	54.21	260.19	0.00	0.00	0.00	MWD
1700.00	23.00	12.03	1656.91	292.70	62.35	299.27	0.00	0.00	0.00	MWD
1800.00	23.00	12.03	1748.96	330.91	70.49	338.34	0.00	0.00	0.00	MWD
1900.00	23.00	12.03	1841.01	369.13	78.63	377.41	0.00	0.00	0.00	MWD
2000.00	23.00	12.03	1933.06	407.35	86.77	416.48	0.00	0.00	0.00	MWD
2100.00	23.00	12.03	2025.11	445.56	94.91	455.56	0.00	0.00	0.00	MWD
2200.00	23.00	12.03	2117.16	483.78	103.05	494.63	0.00	0.00	0.00	MWD
2300.00	23.00	12.03	2209.21	521.99	111.19	533.70	0.00	0.00	0.00	MWD
2400.00	23.00	12.03	2301.26	560.21	119.33	572.78	0.00	0.00	0.00	MWD
2500.00	23.00	12.03	2393.31	598.42	127.47	611.85	0.00	0.00	0.00	MWD
2600.00	23.00	12.03	2485.36	636.64	135.62	650.92	0.00	0.00	0.00	MWD
2700.00	23.00	12.03	2577.41	674.85	143.76	690.00	0.00	0.00	0.00	MWD
2800.00	23.00	12.03	2669.46	713.07	151.90	729.07	0.00	0.00	0.00	MWD
2900.00	23.00	12.03	2761.51	751.29	160.04	768.14	0.00	0.00	0.00	MWD
3000.00	23.00	12.03	2853.56	789.50	168.18	807.22	0.00	0.00	0.00	MWD
3100.00	23.00	12.03	2945.61	827.72	176.32	846.29	0.00	0.00	0.00	MWD
3200.00	23.00	12.03	3037.66	865.93	184.46	885.36	0.00	0.00	0.00	MWD
3300.00	23.00	12.03	3129.71	904.15	192.60	924.44	0.00	0.00	0.00	MWD
3400.00	23.00	12.03	3221.76	942.36	200.74	963.51	0.00	0.00	0.00	MWD
3500.00	23.00	12.03	3313.81	980.58	208.88	1002.58	0.00	0.00	0.00	MWD
3600.00	23.00	12.03	3405.86	1018.80	217.02	1041.65	0.00	0.00	0.00	MWD
3700.00	23.00	12.03	3497.92	1057.01	225.16	1080.73	0.00	0.00	0.00	MWD
3800.00	23.00	12.03	3589.97	1095.23	233.30	1119.80	0.00	0.00	0.00	MWD
3900.00	23.00	12.03	3682.02	1133.44	241.44	1158.87	0.00	0.00	0.00	MWD
3976.03	23.00	12.03	3752.00	1162.50	247.63	1188.58	0.00	0.00	0.00	Parkman
4000.00	23.00	12.03	3774.07	1171.66	249.58	1197.95	0.00	0.00	0.00	MWD
4100.00	23.00	12.03	3866.12	1209.87	257.72	1237.02	0.00	0.00	0.00	MWD
4200.00	23.00	12.03	3958.17	1248.09	265.86	1276.09	0.00	0.00	0.00	MWD
4300.00	23.00	12.03	4050.22	1286.31	274.00	1315.17	0.00	0.00	0.00	MWD
4400.00	23.00	12.03	4142.27	1324.52	282.15	1354.24	0.00	0.00	0.00	MWD
4500.00	23.00	12.03	4234.32	1362.74	290.29	1393.31	0.00	0.00	0.00	MWD
4600.00	23.00	12.03	4326.37	1400.95	298.43	1432.39	0.00	0.00	0.00	MWD
4622.41	23.00	12.03	4347.00	1409.52	300.25	1441.14	0.00	0.00	0.00	Sussex
4700.00	23.00	12.03	4418.42	1439.17	306.57	1471.46	0.00	0.00	0.00	MWD
4800.00	23.00	12.03	4510.47	1477.38	314.71	1510.53	0.00	0.00	0.00	MWD
4900.00	23.00	12.03	4602.52	1515.60	322.85	1549.60	0.00	0.00	0.00	MWD
5000.00	23.00	12.03	4694.57	1553.82	330.99	1588.68	0.00	0.00	0.00	MWD
5100.00	23.00	12.03	4786.62	1592.03	339.13	1627.75	0.00	0.00	0.00	MWD
5200.00	23.00	12.03	4878.67	1630.25	347.27	1666.82	0.00	0.00	0.00	MWD
5300.00	23.00	12.03	4970.72	1668.46	355.41	1705.90	0.00	0.00	0.00	MWD
5400.00	23.00	12.03	5062.77	1706.68	363.55	1744.97	0.00	0.00	0.00	MWD
5500.00	23.00	12.03	5154.82	1744.89	371.69	1784.04	0.00	0.00	0.00	MWD
5600.00	23.00	12.03	5246.87	1783.11	379.83	1823.12	0.00	0.00	0.00	MWD
5700.00	23.00	12.03	5338.93	1821.33	387.97	1862.19	0.00	0.00	0.00	MWD
5778.81	23.00	12.03	5411.47	1851.44	394.39	1892.98	0.00	0.00	0.00	MWD
5800.00	22.58	12.03	5431.01	1859.47	396.10	1901.19	2.00	-2.00	0.00	MWD
5900.00	20.58	12.03	5523.99	1895.44	403.76	1937.96	2.00	-2.00	0.00	MWD
6000.00	18.58	12.03	5618.21	1928.21	410.74	1971.47	2.00	-2.00	0.00	MWD
6100.00	16.58	12.03	5713.54	1957.74	417.03	2001.66	2.00	-2.00	0.00	MWD

# Allis-Chalmers Energy, Inc.

## Planning Report

**Company:** ANADARKO PETROLEUM  
**Field:** Weld County, CO  
**Site:** Jepsen 14-2 Pad  
**Well:** 25-2  
**Wellpath:** Original Hole

**Date:** 05/13/2011  
**Co-ordinate(NE) Reference:** Well: 25-2, Grid North  
**Vertical (TVD) Reference:** 4772'GL+15'KB 4787.0  
**Section (VS) Reference:** Well (0.00N,0.00E,12.03Azi)  
**Plan:** Plan #1

**Page:** 3

### Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6200.00	14.58	12.03	5809.86	1984.00	422.62	2028.51	2.00	-2.00	0.00	MWD
6300.00	12.58	12.03	5907.06	2006.96	427.51	2051.99	2.00	-2.00	0.00	MWD
6400.00	10.58	12.03	6005.02	2026.58	431.70	2072.05	2.00	-2.00	0.00	MWD
6500.00	8.58	12.03	6103.62	2042.85	435.16	2088.69	2.00	-2.00	0.00	MWD
6600.00	6.58	12.03	6202.74	2055.75	437.91	2101.87	2.00	-2.00	0.00	MWD
6700.00	4.58	12.03	6302.27	2065.25	439.93	2111.59	2.00	-2.00	0.00	MWD
6800.00	2.58	12.03	6402.07	2071.35	441.23	2117.82	2.00	-2.00	0.00	MWD
6900.00	0.58	12.03	6502.02	2074.04	441.80	2120.58	2.00	-2.00	0.00	MWD
6928.81	0.00	12.03	6530.83	2074.18	441.83	2120.72	2.00	-2.00	0.00	MWD
7000.00	0.00	12.03	6602.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7100.00	0.00	12.03	6702.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7169.98	0.00	12.03	6772.00	2074.18	441.83	2120.72	0.00	0.00	0.00	Niobrara
7200.00	0.00	12.03	6802.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7300.00	0.00	12.03	6902.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7400.00	0.00	12.03	7002.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7464.98	0.00	12.03	7067.00	2074.18	441.83	2120.72	0.00	0.00	0.00	Codell
7500.00	0.00	12.03	7102.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7544.98	0.00	12.03	7147.00	2074.18	441.83	2120.72	0.00	0.00	0.00	Grnhm
7600.00	0.00	12.03	7202.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7700.00	0.00	12.03	7302.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7800.00	0.00	12.03	7402.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7900.00	0.00	12.03	7502.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
7919.98	0.00	12.03	7522.00	2074.18	441.83	2120.72	0.00	0.00	0.00	J Sand
8000.00	0.00	12.03	7602.02	2074.18	441.83	2120.72	0.00	0.00	0.00	MWD
8069.98	0.00	12.03	7672.00	2074.18	441.83	2120.72	0.00	0.00	0.00	25-2 PBHL

### Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
25-2 SL			0.00	0.00	0.00	1334553.74	3242239.42	40	14	54.555 N	104	37	55.851 W
25-2 PBHL			7672.00	2074.18	441.83	1336627.93	3242681.25	40	15	15.009 N	104	37	49.890 W
-Circle (Radius: 50)													
-Plan hit target													

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
550.51	550.00	8.625	9.875	8 5/8"

### Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
3976.03	3752.00	Parkman		0.00	0.00
4622.41	4347.00	Sussex		0.00	0.00
7169.98	6772.00	Niobrara		0.00	0.00
7464.98	7067.00	Codell		0.00	0.00
7544.98	7147.00	Grnhm		0.00	0.00
7919.98	7522.00	J Sand		0.00	0.00