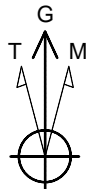


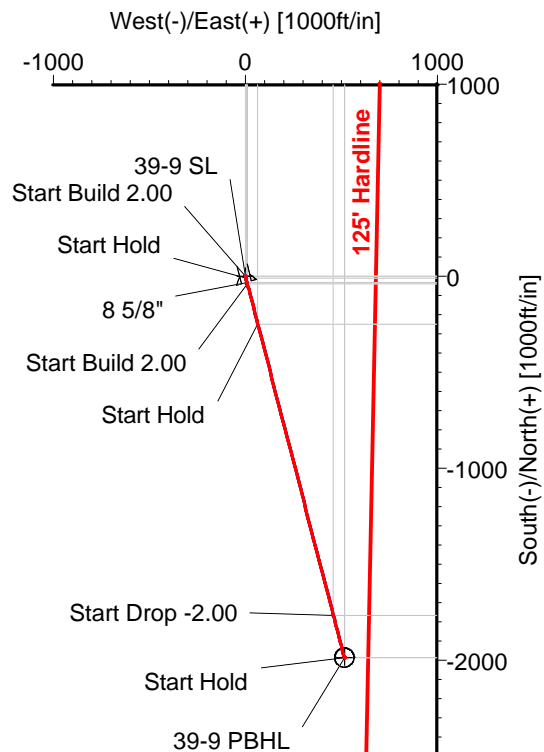
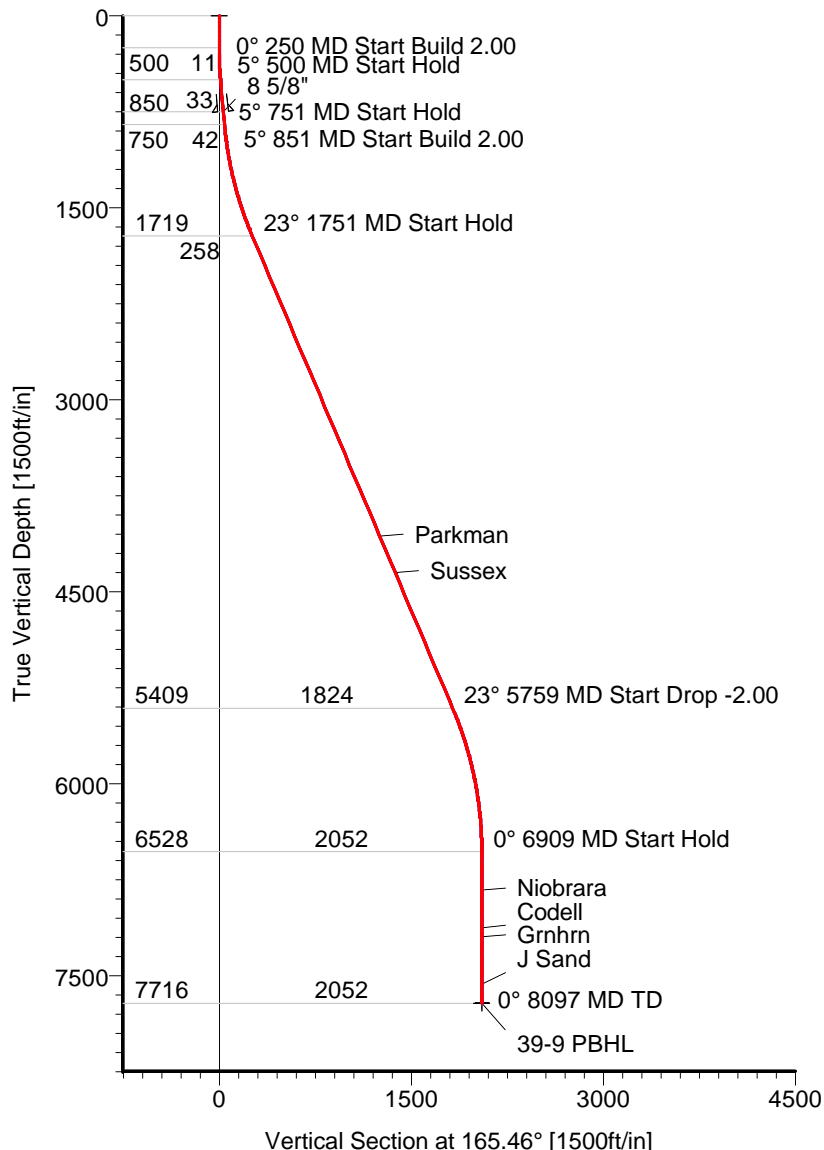
# ANADARKO PETROLEUM

Field: Weld County, CO  
Site: REI 8-9 Pad  
Well: 39-9  
Wellpath: Original Hole  
Plan: Plan #1



Azimuths to Grid North  
True North: -0.54°  
Magnetic North: 8.25°

Magnetic Field  
Strength: 53093nT  
Dip Angle: 66.94°  
Date: 07/05/2011  
Model: IGRF2010



## CASING DETAILS

No.	TVD	MD	Name	Size
1	750.00	751.27	8 5/8"	8.625

## FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	4066.00	4300.61	Parkman
2	4348.00	4606.96	Sussex
3	6828.00	7209.19	Niobrara
4	7126.00	7507.19	Codell
5	7194.00	7575.19	Grnhm
6	7566.00	7947.19	J Sand

## TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
39-9 SL	0.00	0.00	0.00	40°14'28.252N	104°39'41.452W	Point
39-9 PBHL	7716.00	-1986.31	515.17	40°14'08.576N	104°39'35.051W	Circle (Radius: 50)

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	165.46	0.00	0.00	0.00	0.00	0.00	0.00	
2	250.00	0.00	165.46	250.00	0.00	0.00	0.00	165.46	0.00	
3	500.00	5.00	165.46	499.68	-10.55	2.74	2.00	165.46	10.90	
4	751.27	5.00	165.46	750.00	-31.75	8.23	0.00	0.00	32.80	
5	851.27	5.00	165.46	849.62	-40.19	10.42	0.00	0.00	41.52	
6	1751.21	23.00	165.46	1719.24	-250.06	64.86	2.00	0.00	258.33	
7	5759.25	23.00	165.46	5408.69	-1765.89	458.01	0.00	0.00	1824.32	
8	6909.19	0.00	165.46	6528.00	-1986.31	515.17	2.00	180.00	2052.03	
9	8097.19	0.00	165.46	7716.00	-1986.31	515.17	0.00	0.00	2052.03	39-9 PBHL



# Allis-Chalmers Energy, Inc.

## Planning Report

<b>Company:</b> ANADARKO PETROLEUM <b>Field:</b> Weld County, CO <b>Site:</b> REI 8-9 Pad <b>Well:</b> 39-9 <b>Wellpath:</b> Original Hole	<b>Date:</b> 03/11/2011 <b>Co-ordinate(NE) Reference:</b> <b>Vertical (TVD) Reference:</b> <b>Section (VS) Reference:</b> <b>Plan:</b>	<b>Time:</b> 15:06:46 <b>Well:</b> 39-9, Grid North <b>4816'GL+13'KB</b> 4829.0 <b>Well (0.00N,0.00E,165.46Azi)</b> <b>Plan #1</b>	<b>Page:</b> 1
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<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
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<b>Site:</b> REI 8-9 Pad  <b>Site Position:</b> <b>From:</b> Geographic <b>Position Uncertainty:</b> 0.00 ft <b>Ground Level:</b> 4816.00 ft	<b>Northing:</b> 1331813.57 ft <b>Easting:</b> 3234093.02 ft  <b>Latitude:</b> 40 14 28.252 N <b>Longitude:</b> 104 39 41.245 W <b>North Reference:</b> Grid <b>Grid Convergence:</b> 0.54 deg
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<b>Well:</b> 39-9  <b>Well Position:</b> +N/-S -0.12 ft <b>+E/-W</b> -16.03 ft <b>Position Uncertainty:</b> 0.00 ft	<b>Slot Name:</b> 39-9  <b>Latitude:</b> 40 14 28.252 N <b>Longitude:</b> 104 39 41.452 W <b>Well Position:</b> +N/-S -0.12 ft <b>+E/-W</b> -16.03 ft <b>Position Uncertainty:</b> 0.00 ft
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<b>Wellpath:</b> Original Hole  <b>Current Datum:</b> 4816'GL+13'KB <b>Magnetic Data:</b> 07/05/2011 <b>Field Strength:</b> 53093 nT <b>Vertical Section:</b> Depth From (TVD) 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> 8.79 deg <b>Mag Dip Angle:</b> 66.94 deg <b>+N/-S</b> ft <b>+E/-W</b> ft <b>Direction</b> deg
0.00	0.00

<b>Plan:</b> Plan #1  <b>Principal:</b> Yes	<b>Date Composed:</b> 03/11/2011 <b>Version:</b> 1 <b>Tied-to:</b> From Surface
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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	165.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	165.46	250.00	0.00	0.00	0.00	0.00	0.00	165.46	
500.00	5.00	165.46	499.68	-10.55	2.74	2.00	2.00	0.00	165.46	
751.27	5.00	165.46	750.00	-31.75	8.23	0.00	0.00	0.00	0.00	
851.27	5.00	165.46	849.62	-40.19	10.42	0.00	0.00	0.00	0.00	
1751.21	23.00	165.46	1719.24	-250.06	64.86	2.00	2.00	0.00	0.00	
5759.25	23.00	165.46	5408.69	-1765.89	458.01	0.00	0.00	0.00	0.00	
6909.19	0.00	165.46	6528.00	-1986.31	515.17	2.00	-2.00	0.00	180.00	
8097.19	0.00	165.46	7716.00	-1986.31	515.17	0.00	0.00	0.00	0.00	39-9 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	165.46	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	1.00	165.46	300.00	-0.42	0.11	0.44	2.00	2.00	0.00	
400.00	3.00	165.46	399.93	-3.80	0.99	3.93	2.00	2.00	0.00	
500.00	5.00	165.46	499.68	-10.55	2.74	10.90	2.00	2.00	0.00	
600.00	5.00	165.46	599.30	-18.99	4.92	19.62	0.00	0.00	0.00	
700.00	5.00	165.46	698.92	-27.43	7.11	28.33	0.00	0.00	0.00	
751.27	5.00	165.46	750.00	-31.75	8.23	32.80	0.00	0.00	0.00	8 5/8"
800.00	5.00	165.46	798.54	-35.86	9.30	37.05	0.00	0.00	0.00	
851.27	5.00	165.46	849.62	-40.19	10.42	41.52	0.00	0.00	0.00	
900.00	5.97	165.46	898.12	-44.70	11.59	46.18	2.00	2.00	0.00	
1000.00	7.97	165.46	997.38	-56.45	14.64	58.32	2.00	2.00	0.00	
1100.00	9.97	165.46	1096.15	-71.55	18.56	73.92	2.00	2.00	0.00	
1200.00	11.97	165.46	1194.31	-89.98	23.34	92.95	2.00	2.00	0.00	

# Allis-Chalmers Energy, Inc.

## Planning Report

**Company:** ANADARKO PETROLEUM  
**Field:** Weld County, CO  
**Site:** REI 8-9 Pad  
**Well:** 39-9  
**Wellpath:** Original Hole

**Date:** 03/11/2011  
**Co-ordinate(NE) Reference:** Well: 39-9, Grid North  
**Vertical (TVD) Reference:** 4816'GL+13'KB 4829.0  
**Section (VS) Reference:** Well (0.00N,0.00E,165.46Azi)  
**Plan:** Plan #1

**Page:** 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	13.97	165.46	1291.76	-111.71	28.97	115.40	2.00	2.00	0.00	
1400.00	15.97	165.46	1388.36	-136.72	35.46	141.24	2.00	2.00	0.00	
1500.00	17.97	165.46	1483.99	-164.98	42.79	170.44	2.00	2.00	0.00	
1600.00	19.97	165.46	1578.56	-196.45	50.95	202.95	2.00	2.00	0.00	
1700.00	21.97	165.46	1671.92	-231.10	59.94	238.74	2.00	2.00	0.00	
1751.21	23.00	165.46	1719.24	-250.06	64.86	258.33	2.00	2.00	0.00	
1800.00	23.00	165.46	1764.15	-268.51	69.64	277.39	0.00	0.00	0.00	
1900.00	23.00	165.46	1856.20	-306.33	79.45	316.46	0.00	0.00	0.00	
2000.00	23.00	165.46	1948.25	-344.15	89.26	355.53	0.00	0.00	0.00	
2100.00	23.00	165.46	2040.31	-381.97	99.07	394.60	0.00	0.00	0.00	
2200.00	23.00	165.46	2132.36	-419.79	108.88	433.68	0.00	0.00	0.00	
2300.00	23.00	165.46	2224.41	-457.61	118.69	472.75	0.00	0.00	0.00	
2400.00	23.00	165.46	2316.46	-495.43	128.49	511.82	0.00	0.00	0.00	
2500.00	23.00	165.46	2408.51	-533.25	138.30	550.89	0.00	0.00	0.00	
2600.00	23.00	165.46	2500.56	-571.07	148.11	589.96	0.00	0.00	0.00	
2700.00	23.00	165.46	2592.61	-608.88	157.92	629.03	0.00	0.00	0.00	
2800.00	23.00	165.46	2684.67	-646.70	167.73	668.10	0.00	0.00	0.00	
2900.00	23.00	165.46	2776.72	-684.52	177.54	707.17	0.00	0.00	0.00	
3000.00	23.00	165.46	2868.77	-722.34	187.35	746.24	0.00	0.00	0.00	
3100.00	23.00	165.46	2960.82	-760.16	197.16	785.32	0.00	0.00	0.00	
3200.00	23.00	165.46	3052.87	-797.98	206.97	824.39	0.00	0.00	0.00	
3300.00	23.00	165.46	3144.92	-835.80	216.78	863.46	0.00	0.00	0.00	
3400.00	23.00	165.46	3236.97	-873.62	226.59	902.53	0.00	0.00	0.00	
3500.00	23.00	165.46	3329.02	-911.44	236.39	941.60	0.00	0.00	0.00	
3600.00	23.00	165.46	3421.08	-949.26	246.20	980.67	0.00	0.00	0.00	
3700.00	23.00	165.46	3513.13	-987.08	256.01	1019.74	0.00	0.00	0.00	
3800.00	23.00	165.46	3605.18	-1024.90	265.82	1058.81	0.00	0.00	0.00	
3900.00	23.00	165.46	3697.23	-1062.72	275.63	1097.89	0.00	0.00	0.00	
4000.00	23.00	165.46	3789.28	-1100.54	285.44	1136.96	0.00	0.00	0.00	
4100.00	23.00	165.46	3881.33	-1138.36	295.25	1176.03	0.00	0.00	0.00	
4200.00	23.00	165.46	3973.38	-1176.18	305.06	1215.10	0.00	0.00	0.00	
4300.00	23.00	165.46	4065.43	-1214.00	314.87	1254.17	0.00	0.00	0.00	
4300.61	23.00	165.46	4066.00	-1214.23	314.93	1254.41	0.00	0.00	0.00	Parkman
4400.00	23.00	165.46	4157.49	-1251.82	324.68	1293.24	0.00	0.00	0.00	
4500.00	23.00	165.46	4249.54	-1289.64	334.48	1332.31	0.00	0.00	0.00	
4600.00	23.00	165.46	4341.59	-1327.46	344.29	1371.38	0.00	0.00	0.00	
4606.96	23.00	165.46	4348.00	-1330.10	344.98	1374.11	0.00	0.00	0.00	Sussex
4700.00	23.00	165.46	4433.64	-1365.28	354.10	1410.46	0.00	0.00	0.00	
4800.00	23.00	165.46	4525.69	-1403.10	363.91	1449.53	0.00	0.00	0.00	
4900.00	23.00	165.46	4617.74	-1440.92	373.72	1488.60	0.00	0.00	0.00	
5000.00	23.00	165.46	4709.79	-1478.74	383.53	1527.67	0.00	0.00	0.00	
5100.00	23.00	165.46	4801.85	-1516.56	393.34	1566.74	0.00	0.00	0.00	
5200.00	23.00	165.46	4893.90	-1554.38	403.15	1605.81	0.00	0.00	0.00	
5300.00	23.00	165.46	4985.95	-1592.20	412.96	1644.88	0.00	0.00	0.00	
5400.00	23.00	165.46	5078.00	-1630.02	422.77	1683.95	0.00	0.00	0.00	
5500.00	23.00	165.46	5170.05	-1667.84	432.58	1723.02	0.00	0.00	0.00	
5600.00	23.00	165.46	5262.10	-1705.66	442.38	1762.10	0.00	0.00	0.00	
5700.00	23.00	165.46	5354.15	-1743.48	452.19	1801.17	0.00	0.00	0.00	
5759.25	23.00	165.46	5408.69	-1765.89	458.01	1824.32	0.00	0.00	0.00	
5800.00	22.18	165.46	5446.32	-1781.04	461.94	1839.97	2.00	-2.00	0.00	
5900.00	20.18	165.46	5539.55	-1816.02	471.01	1876.11	2.00	-2.00	0.00	
6000.00	18.18	165.46	5634.00	-1847.82	479.26	1908.96	2.00	-2.00	0.00	
6100.00	16.18	165.46	5729.53	-1876.42	486.67	1938.51	2.00	-2.00	0.00	

# Allis-Chalmers Energy, Inc.

## Planning Report

**Company:** ANADARKO PETROLEUM  
**Field:** Weld County, CO  
**Site:** REI 8-9 Pad  
**Well:** 39-9  
**Wellpath:** Original Hole

**Date:** 03/11/2011  
**Co-ordinate(NE) Reference:** Well: 39-9, Grid North  
**Vertical (TVD) Reference:** 4816'GL+13'KB 4829.0  
**Section (VS) Reference:** Well (0.00N,0.00E,165.46Azi)  
**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	14.18	165.46	5826.03	-1901.77	493.25	1964.70	2.00	-2.00	0.00	
6300.00	12.18	165.46	5923.39	-1923.85	498.97	1987.50	2.00	-2.00	0.00	
6400.00	10.18	165.46	6021.49	-1942.62	503.84	2006.90	2.00	-2.00	0.00	
6500.00	8.18	165.46	6120.20	-1958.07	507.85	2022.86	2.00	-2.00	0.00	
6600.00	6.18	165.46	6219.41	-1970.17	510.99	2035.36	2.00	-2.00	0.00	
6700.00	4.18	165.46	6319.00	-1978.92	513.26	2044.40	2.00	-2.00	0.00	
6800.00	2.18	165.46	6418.84	-1984.29	514.65	2049.95	2.00	-2.00	0.00	
6909.19	0.00	165.46	6528.00	-1986.31	515.17	2052.03	2.00	-2.00	0.00	
7000.00	0.00	165.46	6618.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7100.00	0.00	165.46	6718.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7200.00	0.00	165.46	6818.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7209.19	0.00	165.46	6828.00	-1986.31	515.17	2052.03	0.00	0.00	0.00	Niobrara
7300.00	0.00	165.46	6918.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7400.00	0.00	165.46	7018.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7500.00	0.00	165.46	7118.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7507.19	0.00	165.46	7126.00	-1986.31	515.17	2052.03	0.00	0.00	0.00	Codell
7575.19	0.00	165.46	7194.00	-1986.31	515.17	2052.03	0.00	0.00	0.00	Grnhm
7600.00	0.00	165.46	7218.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7700.00	0.00	165.46	7318.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7800.00	0.00	165.46	7418.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7900.00	0.00	165.46	7518.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
7947.19	0.00	165.46	7566.00	-1986.31	515.17	2052.03	0.00	0.00	0.00	J Sand
8000.00	0.00	165.46	7618.81	-1986.31	515.17	2052.03	0.00	0.00	0.00	
8097.19	0.00	165.46	7716.00	-1986.31	515.17	2052.03	0.00	0.00	0.00	39-9 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		
39-9 SL		0.00	0.00	0.00	1331813.45	3234076.99	40	14	28.252 N	104	39	41.452 W
39-9 PBHL		7716.00	-1986.31	515.17	1329827.14	3234592.16	40	14	8.576 N	104	39	35.051 W
-Circle (Radius: 50)												
-Plan hit target												

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
751.27	750.00	8.625	9.875	8 5/8"

### Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
4300.61	4066.00	Parkman		0.00	0.00
4606.96	4348.00	Sussex		0.00	0.00
7209.19	6828.00	Niobrara		0.00	0.00
7507.19	7126.00	Codell		0.00	0.00
7575.19	7194.00	Grnhm		0.00	0.00
7947.19	7566.00	J Sand		0.00	0.00

# Allis-Chalmers Energy, Inc.

## Anticollision Report

<b>Company:</b> ANADARKO PETROLEUM	<b>Date:</b> 03/11/2011	<b>Time:</b> 15:07:12	<b>Page:</b> 1
<b>Field:</b> Weld County, CO			
<b>Reference Site:</b> REI 8-9 Pad	<b>Co-ordinate(NE) Reference:</b> Well: 39-9, Grid North		
<b>Reference Well:</b> 39-9	<b>Vertical (TVD) Reference:</b> 4816'GL+13'KB 4829.0		
<b>Reference Wellpath:</b> Original Hole	<b>Db:</b> Sybase		

**NO GLOBAL SCAN: Using user defined selection & scan criteria**  
**Interpolation Method:** MD **Interval:** 100.00 ft  
**Depth Range:** 0.00 to 8097.19 ft  
**Maximum Radius:** 500.00 ft

**Reference:** Plan: Plan #1  
**Error Model:** Systematic Ellipse  
**Scan Method:** Closest Approach 3D  
**Error Surface:** Ellipse

<b>Plan:</b> Plan #1	<b>Date Composed:</b> 03/11/2011
<b>Principal:</b> Yes	<b>Version:</b> 1
	<b>Tied-to:</b> From Surface

### Summary

<----- Offset Wellpath ----->			Reference	Offset	Ctr-Ctr	Edge	Separation	Warning
Site	Well	Wellpath	MD ft	MD ft	Distance ft	Distance ft	Factor	
REI 8-9 Pad	21-9	Original Hole V0 Plan:	200.00	200.00	32.01			No Offset Errors
REI 8-9 Pad	25-9	Original Hole V0 Plan:	200.00	200.00	16.00			No Offset Errors
REI 8-9 Pad	41-9	Original Hole V0 Plan:	200.00	200.00	16.03			No Offset Errors

<b>Site:</b> REI 8-9 Pad			
<b>Well:</b> 21-9			
<b>Wellpath:</b> Original Hole V0 Plan: Plan #1 V1	<b>Inter-Site Error:</b>	0.00	ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	269.57	-0.24	-32.01	32.01			No Data
100.00	100.00	100.00	100.00	0.00	0.00	269.57	-0.24	-32.01	32.01			No Offset Errors
200.00	200.00	200.00	200.00	0.00	0.00	269.57	-0.24	-32.01	32.01			No Offset Errors
300.00	300.00	299.49	299.49	0.00	0.00	105.18	-0.05	-32.39	32.51			No Offset Errors
400.00	399.93	398.18	398.12	0.00	0.00	112.57	1.45	-35.45	36.86			No Offset Errors
500.00	499.68	496.00	495.70	0.00	0.00	122.78	4.41	-41.48	46.85			No Offset Errors
600.00	599.30	593.61	592.82	0.00	0.00	130.70	8.69	-50.19	62.01			No Offset Errors
700.00	698.92	692.09	690.76	0.00	0.00	135.49	13.23	-59.43	78.40			No Offset Errors
800.00	798.54	790.57	788.70	0.00	0.00	138.61	17.77	-68.67	95.14			No Offset Errors
900.00	898.12	887.59	885.17	0.00	0.00	140.76	22.34	-77.97	112.62			No Offset Errors
1000.00	997.38	980.96	977.70	0.00	0.00	142.64	27.82	-89.13	135.12			No Offset Errors
1100.00	1096.15	1072.09	1067.58	0.00	0.00	144.27	34.45	-102.63	163.51			No Offset Errors
1200.00	1194.31	1160.56	1154.34	0.00	0.00	145.58	42.08	-118.18	197.65			No Offset Errors
1300.00	1291.76	1246.01	1237.58	0.00	0.00	146.57	50.58	-135.47	237.31			No Offset Errors
1400.00	1388.36	1328.11	1316.99	0.00	0.00	147.29	59.77	-154.18	282.25			No Offset Errors
1500.00	1483.99	1406.63	1392.34	0.00	0.00	147.76	69.49	-173.98	332.21			No Offset Errors
1600.00	1578.56	1481.37	1463.48	0.00	0.00	148.04	79.59	-194.54	386.92			No Offset Errors
1700.00	1671.92	1552.20	1530.33	0.00	0.00	148.13	89.91	-215.55	446.08			No Offset Errors

<b>Site:</b> REI 8-9 Pad			
<b>Well:</b> 25-9			
<b>Wellpath:</b> Original Hole V0 Plan: Plan #1 V1	<b>Inter-Site Error:</b>	0.00	ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	269.50	-0.14	-16.00	16.00			No Data
100.00	100.00	100.00	100.00	0.00	0.00	269.50	-0.14	-16.00	16.00			No Offset Errors
200.00	200.00	200.00	200.00	0.00	0.00	269.50	-0.14	-16.00	16.00			No Offset Errors
300.00	300.00	299.79	299.79	0.00	0.00	105.30	-0.20	-16.32	16.43			No Offset Errors
400.00	399.93	399.23	399.19	0.00	0.00	113.32	-0.69	-18.86	20.10			No Offset Errors
500.00	499.68	498.26	498.09	0.00	0.00	122.64	-1.66	-23.92	28.15			No Offset Errors
600.00	599.30	596.92	596.44	0.00	0.00	127.74	-3.11	-31.44	39.78			No Offset Errors
700.00	698.92	696.11	695.25	0.00	0.00	129.91	-4.74	-39.93	52.35			No Offset Errors
800.00	798.54	795.30	794.07	0.00	0.00	131.24	-6.37	-48.42	64.97			No Offset Errors
900.00	898.12	893.77	892.15	0.00	0.00	132.14	-8.04	-57.08	78.07			No Offset Errors
1000.00	997.38	990.64	988.41	0.00	0.00	133.13	-10.06	-67.63	94.87			No Offset Errors
1100.00	1096.15	1086.36	1083.24	0.00	0.00	134.12	-12.52	-80.40	115.95			No Offset Errors

# Allis-Chalmers Energy, Inc.

## Anticollision Report

<b>Company:</b> ANADARKO PETROLEUM	<b>Date:</b> 03/11/2011	<b>Time:</b> 15:07:12	<b>Page:</b> 2
<b>Field:</b> Weld County, CO			
<b>Reference Site:</b> REI 8-9 Pad	<b>Co-ordinate(NE) Reference:</b> Well: 39-9, Grid North		
<b>Reference Well:</b> 39-9	<b>Vertical (TVD) Reference:</b> 4816'GL+13'KB 4829.0		
<b>Reference Wellpath:</b> Original Hole	<b>Db:</b> Sybase		

**Site:** REI 8-9 Pad  
**Well:** 25-9  
**Wellpath:** Original Hole V0 Plan: Plan #1 V1

**Inter-Site Error:** 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
1200.00	1194.31	1180.70	1176.36	0.00	0.00	134.99	-15.38	-95.27	141.27			No Offset Errors
1300.00	1291.76	1273.45	1267.51	0.00	0.00	135.70	-18.61	-112.09	170.75			No Offset Errors
1400.00	1388.36	1364.39	1356.46	0.00	0.00	136.24	-22.18	-130.69	204.30			No Offset Errors
1500.00	1483.99	1453.35	1443.01	0.00	0.00	136.62	-26.07	-150.88	241.84			No Offset Errors
1600.00	1578.56	1540.17	1526.98	0.00	0.00	136.87	-30.22	-172.49	283.23			No Offset Errors
1700.00	1671.92	1624.68	1608.23	0.00	0.00	136.99	-34.61	-195.33	328.37			No Offset Errors
1800.00	1764.15	1706.93	1686.79	0.00	0.00	137.32	-39.20	-219.24	376.85			No Offset Errors
1900.00	1856.20	1787.78	1763.49	0.00	0.00	137.72	-44.03	-244.36	426.90			No Offset Errors
2000.00	1948.25	1867.37	1838.45	0.00	0.00	137.86	-49.08	-270.64	478.17			No Offset Errors

**Site:** REI 8-9 Pad  
**Well:** 41-9  
**Wellpath:** Original Hole V0 Plan: Plan #1 V1

**Inter-Site Error:** 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
0.00	0.00	0.00	0.00	0.00	0.00	89.57	0.12	16.03	16.03			No Data
100.00	100.00	100.00	100.00	0.00	0.00	89.57	0.12	16.03	16.03			No Offset Errors
200.00	200.00	200.00	200.00	0.00	0.00	89.57	0.12	16.03	16.03			No Offset Errors
300.00	300.00	299.81	299.81	0.00	0.00	282.06	0.28	16.31	16.22			No Offset Errors
400.00	399.93	399.27	399.23	0.00	0.00	267.64	1.58	18.56	18.39			No Offset Errors
500.00	499.68	498.24	498.06	0.00	0.00	248.97	4.15	23.01	25.10			No Offset Errors
600.00	599.30	596.73	596.25	0.00	0.00	237.49	7.97	29.63	36.69			No Offset Errors
700.00	698.92	695.76	694.91	0.00	0.00	232.02	12.29	37.10	49.93			No Offset Errors
800.00	798.54	794.80	793.57	0.00	0.00	228.86	16.60	44.58	63.42			No Offset Errors
900.00	898.12	893.04	891.42	0.00	0.00	226.79	21.00	52.19	77.52			No Offset Errors
1000.00	997.38	989.43	987.21	0.00	0.00	224.90	26.33	61.43	95.63			No Offset Errors
1100.00	1096.15	1084.45	1081.36	0.00	0.00	223.21	32.77	72.58	118.41			No Offset Errors
1200.00	1194.31	1177.85	1173.55	0.00	0.00	221.84	40.24	85.51	145.78			No Offset Errors
1300.00	1291.76	1269.29	1263.53	0.00	0.00	220.41	49.10	99.10	177.69			No Offset Errors
1400.00	1388.36	1358.25	1350.92	0.00	0.00	218.68	59.78	111.95	214.16			No Offset Errors
1500.00	1483.99	1444.40	1435.31	0.00	0.00	216.93	72.06	124.05	255.26			No Offset Errors
1600.00	1578.56	1527.40	1516.41	0.00	0.00	215.29	85.68	135.37	300.97			No Offset Errors
1700.00	1671.92	1607.01	1593.93	0.00	0.00	213.83	100.39	145.91	351.22			No Offset Errors
1800.00	1764.15	1683.22	1667.88	0.00	0.00	212.25	115.97	155.72	405.59			No Offset Errors
1900.00	1856.20	1757.22	1739.42	0.00	0.00	210.65	132.51	164.96	462.09			No Offset Errors