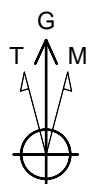


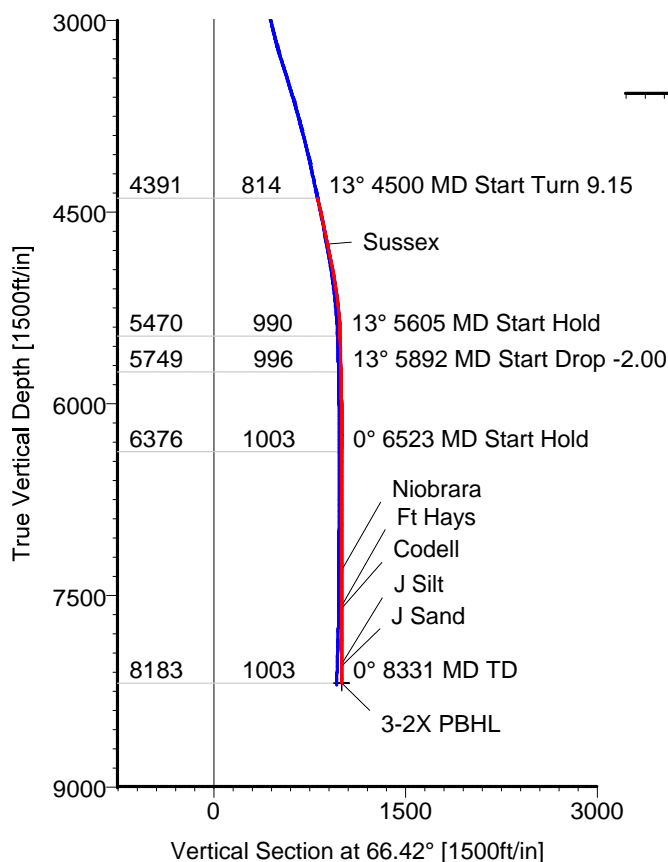
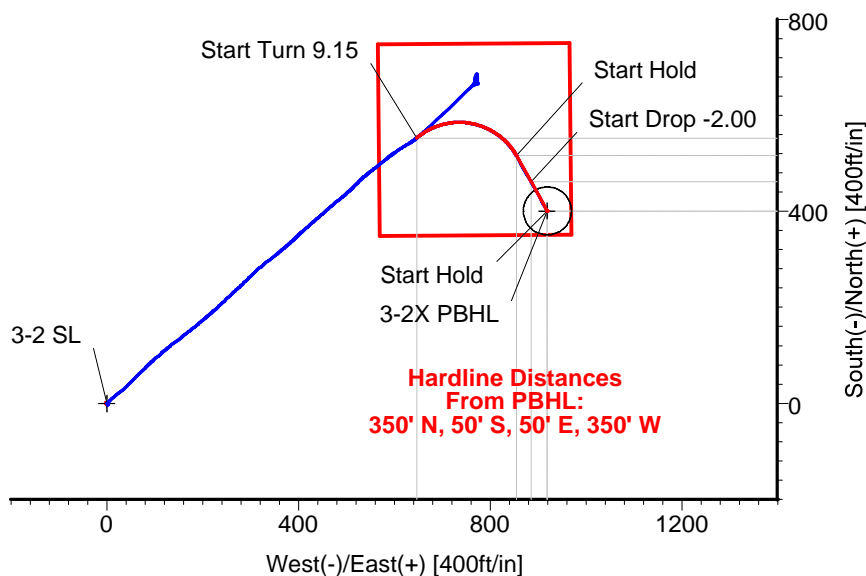
ANADARKO PETROLEUM

Field: Weld County, CO
Site: Jesser 18-2 Pad
Well: Brown 3-2
Wellpath: Brown 3-2X
Plan: Plan #2



Azimuths to Grid North
True North: -0.49°
Magnetic North: 8.42°

Magnetic Field
Strength: 53061nT
Dip Angle: 66.81°
Date: 12/07/2010
Model: IGRF2010



FORMATION TOP DETAILS

No.	TVDP	MDPath	Formation
1	4750.00	4867.80	Sussex
2	7302.00	7449.66	Niobrara
3	7580.00	7727.66	Ft Hays
4	7602.00	7749.66	Codell
5	8034.00	8181.66	J Silt
6	8048.00	8195.66	J Sand

LEGEND

- Brown 3-2 (Original Hole)
- Brown 3-2X
- Plan #2

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
3-2 SL	0.00	0.00	0.00	40°05'02.661N	104°44'57.839W	Point
3-2X PBHL	8183.00	401.22	919.22	40°05'06.549N	104°44'45.969W	Circle (Radius: 50)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	4500.00	12.63	49.53	4391.10	553.33	646.45	0.00	0.00	813.82	
2	5605.30	12.63	150.67	5469.67	516.25	854.59	2.00	90.00	989.75	
3	5892.05	12.63	150.67	5749.49	461.61	885.29	0.00	0.00	996.03	
4	6523.30	0.00	150.67	6375.64	401.22	919.22	2.00	180.00	1002.97	
5	8330.66	0.00	150.67	8183.00	401.22	919.22	0.00	0.00	1002.97	3-2X PBHL



Allis-Chalmers Energy, Inc.

Planning Report

Company: ANADARKO PETROLEUM Field: Weld County, CO Site: Jesser 18-2 Pad Well: Brown 3-2 Wellpath: Brown 3-2X	Date: 12/08/2010 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Plan:	Time: 11:16:51 Well: Brown 3-2, Grid North 5144'GL+13'KB 5157.0 Well (0.00N,0.00E,66.42Azi) Plan #2	Page: 1
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Field: Weld County, CO	
Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level	Map Zone: Colorado, Northern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010

Site: Jesser 18-2 Pad			
Centered on Jesser 21-2			
Site Position:	Northing: 1274364.19 ft	Latitude: 40 5 2.663 N	
From: Geographic	Easting: 3210048.09 ft	Longitude: 104 44 57.581 W	
Position Uncertainty: 0.00 ft		North Reference: Grid	
Ground Level: 5144.00 ft		Grid Convergence: 0.49 deg	

Well: Brown 3-2	Slot Name: 3-2
Well Position: +N/-S -0.33 ft	Latitude: 40 5 2.661 N
+E/-W -20.06 ft	Longitude: 104 44 57.839 W
Position Uncertainty: 0.00 ft	

Wellpath: Brown 3-2X	Drilled From: Original Hole
Current Datum: 5144'GL+13'KB	Tie-on Depth: 4500.00 ft
Magnetic Data: 12/07/2010	Above System Datum: Mean Sea Level
Field Strength: 53061 nT	Declination: 8.90 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 66.81 deg
ft	+E/-W ft
	Direction deg
0.00	0.00
0.00	66.42

Plan: Plan #2	Date Composed: 12/07/2010
Principal: Yes	Version: 1
	Tied-to: From: Definitive Path

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
4500.00	12.63	49.53	4391.10	553.33	646.45	0.00	0.00	0.00	0.00	
5605.30	12.63	150.67	5469.67	516.25	854.59	2.00	0.00	9.15	90.00	
5892.05	12.63	150.67	5749.49	461.61	885.29	0.00	0.00	0.00	0.00	
6523.30	0.00	150.67	6375.64	401.22	919.22	2.00	-2.00	0.00	180.00	
8330.66	0.00	150.67	8183.00	401.22	919.22	0.00	0.00	0.00	0.00	3-2X 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
4500.00	12.63	49.53	4391.10	553.33	646.45	813.82	0.00	0.00	0.00	
4600.00	12.63	58.68	4488.68	566.13	664.14	835.15	2.00	0.00	9.15	
4700.00	12.63	67.83	4586.26	575.95	683.64	856.95	2.00	0.00	9.15	
4800.00	12.63	76.98	4683.84	582.55	704.45	878.67	2.00	0.00	9.15	
4867.80	12.64	83.18	4750.00	585.10	719.03	893.05	2.00	0.03	9.14	Sussex
4900.00	12.63	86.13	4781.43	585.76	726.05	899.74	2.00	-0.06	9.16	
5000.00	12.63	95.28	4879.01	585.49	747.88	919.64	2.00	0.00	9.15	
5100.00	12.63	104.43	4976.59	581.75	769.39	937.86	2.00	0.00	9.15	
5200.00	12.63	113.58	5074.17	574.64	790.03	953.94	2.00	0.00	9.15	
5300.00	12.63	122.73	5171.75	564.33	809.28	967.46	2.00	0.00	9.15	
5400.00	12.63	131.88	5269.34	551.10	826.65	978.08	2.00	0.00	9.15	
5500.00	12.63	141.03	5366.92	535.27	841.69	985.53	2.00	0.00	9.15	
5605.30	12.63	150.67	5469.67	516.25	854.59	989.75	2.00	0.00	9.15	
5700.00	12.63	150.67	5562.08	498.20	864.73	991.82	0.00	0.00	0.00	
5800.00	12.63	150.67	5659.66	479.15	875.44	994.01	0.00	0.00	0.00	
5892.05	12.63	150.67	5749.49	461.61	885.29	996.03	0.00	0.00	0.00	