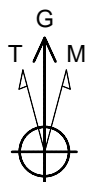


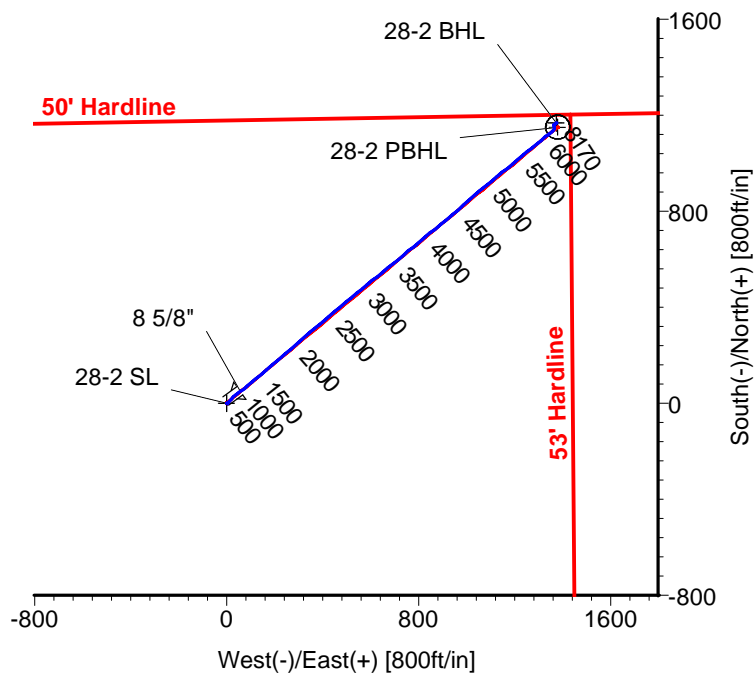
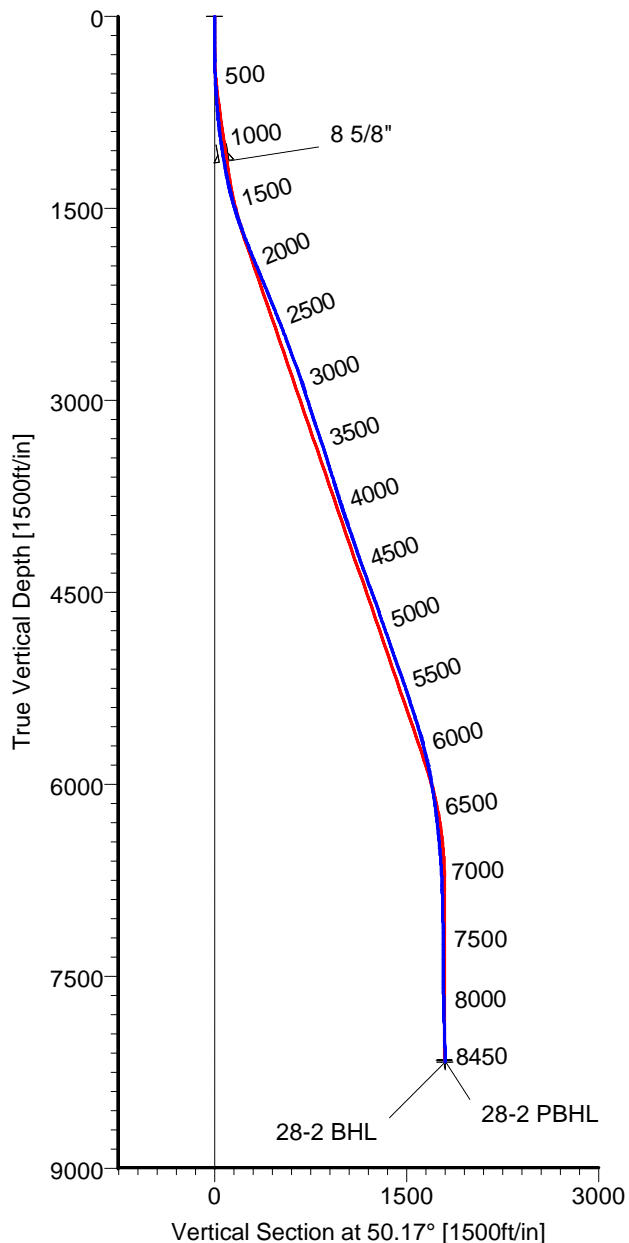
ANADARKO PETROLEUM

Field: Weld County, CO
Site: Jesser 18-2 Pad
Well: 28-2
Wellpath: Original Hole



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

Magnetic Field
Strength: 53065nT
Dip Angle: 66.82°
Date: 11/23/2010
Model: IGRF2010



CASING DETAILS

No.	TVD	MD	Name	Size
1	1135.76	1140.00	8 5/8"	8.625

LEGEND

- 28-2,Original Hole,Plan #2
- Original Hole

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
28-2 SL	0.00	0.00	0.00	40°05'02.661N	104°44'57.967W	Point
28-2 PBHL	8156.00	1150.39	1379.27	40°05'13.914N	104°44'40.096W	Circle (Radius: 50)
28-2 BHL	8170.25	1167.47	1374.52	40°05'14.083N	104°44'40.155W	Point

Wellpath: (28-2/Original Hole)

Created By: Ivonne Gonzalez

Date: 12/09/2010

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.

Survey Report

Company: ANADARKO PETROLEUM Field: Weld County, CO Site: Jesser 18-2 Pad Well: 28-2 Wellpath: Original Hole	Date: 12/09/2010 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 08:41:28 Well: 28-2, Grid North 5144'GL+13'KB 5157.0 Well (0.00N,0.00E,50.17Azi) Minimum Curvature	Page: 1 Db: Adapti
------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------	-------------------------------------

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: From: Geographic Position Uncertainty: 0.00 ft Ground Level: 5144.00 ft	Northing: 1274364.19 ft Easting: 3210048.09 ft Latitude: 40 5 2.663 N Longitude: 104 44 57.581 W North Reference: Grid Grid Convergence: 0.49 deg
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Well: 28-2 Well Position: +N/-S -0.46 ft +E/-W -30.02 ft Position Uncertainty: 0.00 ft	Slot Name: 28-2 Latitude: 40 5 2.661 N Longitude: 104 44 57.967 W
--------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------

Wellpath: Original Hole Current Datum: 5144'GL+13'KB Magnetic Data: 11/23/2010 Field Strength: 53065 nT Vertical Section: Depth From (TVD) ft	Height 5157.00 ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 8.91 deg Mag Dip Angle: 66.82 deg Direction deg
0.00	0.00	0.00 50.17

Survey Program for Definitive Wellpath					
Date: 12/09/2010	Validated: No	Version: 1			
Actual From ft	To ft	Survey	Toolcode	Tool Name	
49.00	8405.00	Survey #1 (49.00-8405.00)	MWD	Std MWD	
8450.00	8450.00	Survey #2 (8450.00-8450.00)	Project	Projection	

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
49.00	0.50	130.20	49.00	-0.14	0.16	0.04	1.02	1.02	0.00	MWD
110.00	0.50	121.40	110.00	-0.45	0.59	0.17	0.13	0.00	-14.43	MWD
171.00	0.50	138.30	170.99	-0.79	1.00	0.26	0.24	0.00	27.70	MWD
231.00	0.70	156.60	230.99	-1.32	1.32	0.17	0.46	0.33	30.50	MWD
291.00	0.70	80.60	290.99	-1.59	1.82	0.38	1.44	0.00	-126.67	MWD
352.00	1.80	51.80	351.97	-0.94	2.95	1.66	2.02	1.80	-47.21	MWD
430.00	2.50	39.80	429.92	1.12	5.00	4.56	1.06	0.90	-15.38	MWD
521.00	2.80	43.40	520.82	4.26	7.79	8.72	0.38	0.33	3.96	MWD
611.00	4.40	42.00	610.64	8.43	11.62	14.32	1.78	1.78	-1.56	MWD
702.00	4.20	36.00	701.38	13.72	15.91	21.00	0.54	-0.22	-6.59	MWD
793.00	5.10	45.10	792.09	19.27	20.73	28.26	1.28	0.99	10.00	MWD
884.00	7.00	47.20	882.57	25.89	27.67	37.83	2.10	2.09	2.31	MWD
975.00	8.10	50.40	972.78	33.75	36.68	49.78	1.29	1.21	3.52	MWD
1065.00	9.20	52.20	1061.76	42.20	47.25	63.31	1.26	1.22	2.00	MWD
1095.00	9.30	53.20	1091.37	45.12	51.08	68.13	0.63	0.33	3.33	MWD
1149.00	9.70	54.30	1144.63	50.39	58.27	77.02	0.81	0.74	2.04	MWD
1239.00	10.70	54.30	1233.21	59.69	71.21	92.92	1.11	1.11	0.00	MWD
1330.00	12.30	50.00	1322.38	70.85	85.50	111.04	1.99	1.76	-4.73	MWD
1421.00	15.00	48.60	1410.80	84.87	101.76	132.51	2.99	2.97	-1.54	MWD
1512.00	16.50	51.80	1498.38	100.65	120.75	157.20	1.90	1.65	3.52	MWD
1602.00	18.70	47.20	1584.17	118.36	141.39	184.39	2.89	2.44	-5.11	MWD

Allis-Chalmers Energy, Inc.

Survey Report

Company: ANADARKO PETROLEUM	Date: 12/09/2010	Time: 08:41:28	Page: 2
Field: Weld County, CO	Co-ordinate(NE) Reference: Well: 28-2, Grid North		
Site: Jesser 18-2 Pad	Vertical (TVD) Reference: 5144'GL+13'KB 5157.0		
Well: 28-2	Section (VS) Reference: Well (0.00N,0.00E,50.17Azi)		
Wellpath: Original Hole	Survey Calculation Method: Minimum Curvature	Db: Adapti	

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
1693.00	20.90	48.60	1669.78	139.01	164.27	215.19	2.47	2.42	1.54	MWD
1784.00	21.80	50.40	1754.54	160.51	189.46	248.31	1.22	0.99	1.98	MWD
1875.00	22.20	50.40	1838.91	182.24	215.73	282.40	0.44	0.44	0.00	MWD
1966.00	23.10	49.70	1922.89	204.75	242.59	317.44	1.03	0.99	-0.77	MWD
2057.00	22.30	48.60	2006.84	227.71	269.16	352.55	1.00	-0.88	-1.21	MWD
2148.00	23.20	49.00	2090.76	250.89	295.64	387.73	1.00	0.99	0.44	MWD
2239.00	22.30	47.90	2174.68	274.22	321.98	422.90	1.09	-0.99	-1.21	MWD
2329.00	21.50	49.30	2258.19	296.43	347.15	456.46	1.06	-0.89	1.56	MWD
2420.00	22.30	50.40	2342.62	318.31	373.10	490.40	0.99	0.88	1.21	MWD
2511.00	21.30	50.70	2427.11	339.78	399.19	524.19	1.11	-1.10	0.33	MWD
2602.00	20.90	50.40	2512.01	360.60	424.49	556.95	0.46	-0.44	-0.33	MWD
2693.00	19.90	48.30	2597.30	381.25	448.56	588.66	1.36	-1.10	-2.31	MWD
2783.00	19.90	51.10	2681.93	401.05	471.91	619.29	1.06	0.00	3.11	MWD
2874.00	19.90	51.80	2767.50	420.36	496.14	650.25	0.26	0.00	0.77	MWD
2965.00	19.20	49.00	2853.25	439.75	519.60	680.69	1.29	-0.77	-3.08	MWD
3056.00	16.90	50.00	2939.77	458.07	541.03	708.89	2.55	-2.53	1.10	MWD
3147.00	17.40	50.70	3026.72	475.19	561.69	735.72	0.59	0.55	0.77	MWD
3237.00	18.30	49.00	3112.39	492.99	582.77	763.30	1.16	1.00	-1.89	MWD
3329.00	19.00	53.20	3199.56	511.44	605.66	792.70	1.65	0.76	4.57	MWD
3419.00	19.00	51.80	3284.66	529.27	628.91	821.98	0.51	0.00	-1.56	MWD
3510.00	17.90	51.40	3370.98	547.16	651.48	850.76	1.22	-1.21	-0.44	MWD
3601.00	16.90	50.00	3457.82	564.39	672.54	877.97	1.19	-1.10	-1.54	MWD
3692.00	17.40	52.20	3544.77	581.23	693.43	904.80	0.90	0.55	2.42	MWD
3783.00	17.60	51.10	3631.56	598.21	714.88	932.15	0.42	0.22	-1.21	MWD
3874.00	17.40	44.80	3718.35	616.50	735.18	959.46	2.09	-0.22	-6.92	MWD
3964.00	16.90	51.40	3804.36	634.21	754.89	985.94	2.23	-0.56	7.33	MWD
4055.00	19.00	55.30	3890.93	650.90	777.41	1013.92	2.66	2.31	4.29	MWD
4146.00	19.70	48.30	3976.80	669.54	801.04	1044.01	2.66	0.77	-7.69	MWD
4237.00	19.00	47.90	4062.66	689.68	823.49	1074.14	0.78	-0.77	-0.44	MWD
4328.00	18.70	53.20	4148.79	708.35	846.16	1103.51	1.91	-0.33	5.82	MWD
4418.00	19.20	49.70	4233.91	726.56	869.00	1132.72	1.38	0.56	-3.89	MWD
4509.00	20.10	49.70	4319.61	746.35	892.34	1163.32	0.99	0.99	0.00	MWD
4600.00	19.90	51.40	4405.12	766.13	916.37	1194.44	0.68	-0.22	1.87	MWD
4690.00	20.90	50.00	4489.48	786.01	940.64	1225.81	1.24	1.11	-1.56	MWD
4781.00	19.90	49.00	4574.77	806.60	964.76	1257.52	1.16	-1.10	-1.10	MWD
4872.00	18.80	48.30	4660.63	826.52	987.40	1287.66	1.24	-1.21	-0.77	MWD
4962.00	19.20	48.30	4745.72	846.01	1009.27	1316.95	0.44	0.44	0.00	MWD
5053.00	19.00	47.60	4831.71	865.95	1031.38	1346.70	0.33	-0.22	-0.77	MWD
5144.00	19.00	51.10	4917.76	885.24	1053.85	1376.31	1.25	0.00	3.85	MWD
5235.00	19.70	52.50	5003.62	903.88	1077.55	1406.45	0.92	0.77	1.54	MWD
5326.00	20.10	49.30	5089.19	923.42	1101.57	1437.41	1.27	0.44	-3.52	MWD
5417.00	18.80	49.30	5174.99	943.17	1124.55	1467.71	1.43	-1.43	0.00	MWD
5507.00	19.00	51.80	5260.14	961.69	1147.05	1496.85	0.93	0.22	2.78	MWD
5598.00	17.40	52.20	5346.59	979.19	1169.45	1525.26	1.76	-1.76	0.44	MWD
5689.00	18.30	49.70	5433.21	996.77	1191.10	1553.14	1.30	0.99	-2.75	MWD
5780.00	17.60	49.70	5519.78	1014.91	1212.48	1581.19	0.77	-0.77	0.00	MWD
5871.00	16.50	50.40	5606.78	1032.05	1232.93	1607.87	1.23	-1.21	0.77	MWD
5962.00	14.30	52.20	5694.50	1047.18	1251.77	1632.03	2.47	-2.42	1.98	MWD
6052.00	13.70	50.00	5781.83	1060.84	1268.72	1653.79	0.89	-0.67	-2.44	MWD
6143.00	11.80	52.50	5870.58	1073.43	1284.36	1673.87	2.17	-2.09	2.75	MWD
6234.00	9.90	50.70	5959.95	1084.05	1297.80	1690.99	2.12	-2.09	-1.98	MWD
6325.00	9.20	47.60	6049.69	1093.91	1309.22	1706.08	0.95	-0.77	-3.41	MWD
6416.00	8.60	49.30	6139.60	1103.25	1319.75	1720.15	0.72	-0.66	1.87	MWD

Allis-Chalmers Energy, Inc.

Survey Report

Company: ANADARKO PETROLEUM Field: Weld County, CO Site: Jesser 18-2 Pad Well: 28-2 Wellpath: Original Hole	Date: 12/09/2010 Co-ordinate(NE) Reference: Well: 28-2, Grid North Vertical (TVD) Reference: 5144'GL+13'KB 5157.0 Section (VS) Reference: Well (0.00N,0.00E,50.17Azi) Survey Calculation Method: Minimum Curvature Db: Adapti
------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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
6506.00	7.00	50.70	6228.76	1111.12	1329.10	1732.36	1.79	-1.78	1.56	MWD
6597.00	5.80	60.90	6319.19	1116.87	1337.41	1742.43	1.81	-1.32	11.21	MWD
6688.00	5.60	52.50	6409.75	1121.80	1344.95	1751.38	0.94	-0.22	-9.23	MWD
6778.00	5.30	46.90	6499.34	1127.32	1351.47	1759.92	0.68	-0.33	-6.22	MWD
6869.00	4.20	45.80	6590.03	1132.51	1356.93	1767.44	1.21	-1.21	-1.21	MWD
6960.00	3.00	40.90	6680.84	1136.64	1360.87	1773.11	1.36	-1.32	-5.38	MWD
7050.00	2.30	30.40	6770.75	1139.97	1363.33	1777.13	0.94	-0.78	-11.67	MWD
7141.00	1.90	13.10	6861.69	1143.02	1364.60	1780.06	0.82	-0.44	-19.01	MWD
7231.00	1.90	355.60	6951.64	1145.96	1364.82	1782.11	0.64	0.00	-19.44	MWD
7322.00	2.30	2.20	7042.58	1149.29	1364.77	1784.21	0.51	0.44	7.25	MWD
7414.00	1.20	11.40	7134.53	1152.08	1365.03	1786.19	1.23	-1.20	10.00	MWD
7550.00	1.40	302.80	7270.51	1154.37	1363.92	1786.81	1.08	0.15	-50.44	MWD
7685.00	1.20	329.50	7405.47	1156.48	1361.82	1786.55	0.47	-0.15	19.78	MWD
7822.00	1.20	33.50	7542.45	1158.92	1361.88	1788.15	0.93	0.00	46.72	MWD
7958.00	1.10	59.20	7678.42	1160.77	1363.79	1790.81	0.38	-0.07	18.90	MWD
8094.00	1.20	58.80	7814.39	1162.18	1366.13	1793.50	0.07	0.07	-0.29	MWD
8230.00	1.60	58.50	7950.35	1163.91	1368.96	1796.79	0.29	0.29	-0.22	MWD
8405.00	1.80	56.70	8125.28	1166.69	1373.34	1801.94	0.12	0.11	-1.03	MWD
8435.74	1.80	56.70	8156.00	1167.22	1374.15	1802.90	0.00	0.00	0.00	28-2 PBHL
8450.00	1.80	56.70	8170.25	1167.47	1374.52	1803.34	0.00	0.00	0.00	28-2 BHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->		
								Deg	Min	Sec	Deg	Min	Sec
28-2 SL			0.00	0.00	0.00	1274363.73	3210018.07	40	5	2.661 N	104	44	57.967 W
28-2 PBHL			8156.00	1150.39	1379.27	1275514.12	3211397.34	40	5	13.914 N	104	44	40.096 W
-Circle (Radius: 50)													
28-2 BHL			8170.25	1167.47	1374.52	1275531.20	3211392.59	40	5	14.083 N	104	44	40.155 W