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BAKER HUGHES

Anadarko
Petroleum Corporation

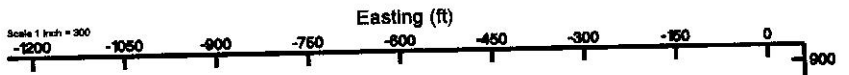
ANADARKO PETROLEUM

Location: COLORADO Slot: Slot #4 Williams 35-20 (692' FNL & 1948' FWL)
Field: WELD COUNTY (ANADARKO) Well: Williams 35-20
Facility: SEC.29-T2N-68W Wellbore: Williams 35-20 PWB

Plot reference wellpath is Williams 35-20 Rev A.0.	
True vertical depths are referenced to CADE 22 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to CADE 22 (RT)	North Reference: True north
CADE 22 (RT) to Mean Sea Level: 4925 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.29-T2N-68W): 0 feet	Depths are in feet
Coordinates are in feet referenced to slot	Created by: cookesteam on 4/8/2009

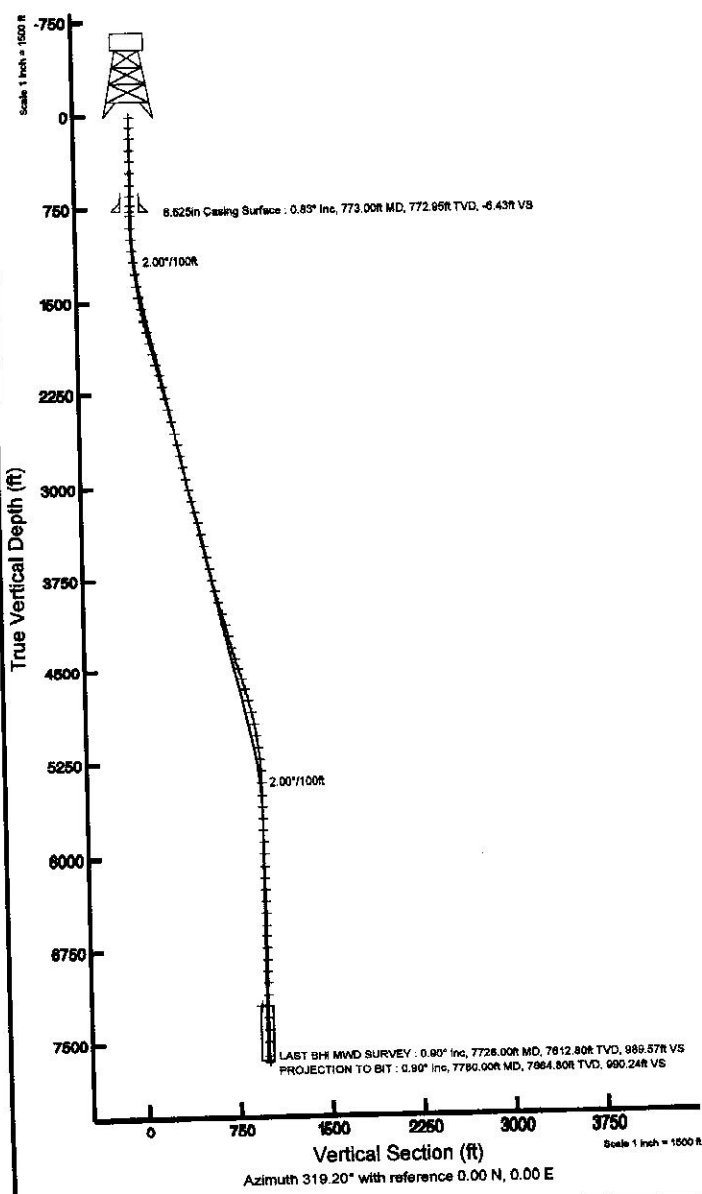
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123.28066

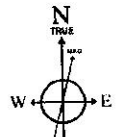


PROJECTION TO BIT : 7694.80R TVD, 746.07R N, 651.14R W
 LAST BHI MWD SURVEY : 7612.80R TVD, 746.87R N, 650.35R W

8.625m Casing Surface : 772.95R TVD, 6.69R S, 2.10R E
 Slot #4 Williams 35-20 (692' FNL & 1948' FWL)



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BOOM (1948.0 to 2010.0) Dip: 85.68° Field: 53224.1 nT
 Magnetic North is 9.12 degrees East of True North (at 3/6/2009)

To correct azimuth from Magnetic to True add 9.12 degrees
 For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 9.12 = 99.12

REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot #4 Williams 35-20 (692' FNL & 1946' FWL)
Area	COLORADO	Well	Williams 35-20
Field	WELD COUNTY (ANADARKO)	Wellbore	Williams 35-20 AWB
Facility	SEC.29-T2N-68W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Cookdanm
Scale	0.99996	Report Generated	4/6/2009 at 2:46:35 PM
Convergence at slot	0.30° East	Database/Source file	WellArchitect_Denver/Williams_35-20_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	25.50	11.19	3131497.14	1285076.27	40°06'53.892"N	105°01'47.388"W
Facility Reference Pt			3131486.09	1285050.71	40°06'53.640"N	105°01'47.532"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	CADE 22 (RT) to Facility Vertical Datum	4925.00ft
Horizontal Reference Pt	Slot	CADE 22 (RT) to Mean Sea Level	4925.00ft
Vertical Reference Pt	CADE 22 (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	CADE 22 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	319.20°



Actual Wellpath Report

Williams 35-20 AWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot #4 Williams 35-20 (692' FNL & 1946' FWL)
Area	COLORADO	Well	Williams 35-20
Field	WELD COUNTY (ANADARKO)	Wellbore	Williams 35-20 AWB
Facility	SEC.29-T2N-68W		

WELLPATH DATA (85 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	149.400	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	149.400	15.00	0.00	0.00	0.00	0.00	
97.00	0.400	149.400	97.00	-0.28	-0.25	0.15	0.49	
188.00	0.400	160.300	188.00	-0.89	-0.82	0.41	0.08	
278.00	0.600	192.600	277.99	-1.46	-1.57	0.42	0.38	
371.00	0.400	184.900	370.99	-1.98	-2.37	0.28	0.23	
463.00	0.800	169.100	462.99	-2.76	-3.32	0.38	0.47	
556.00	1.000	78.200	555.98	-3.72	-3.80	1.29	1.39	
647.00	1.100	177.200	646.97	-4.79	-4.51	2.11	1.76	
726.00	1.000	187.000	725.95	-5.85	-5.95	2.07	0.26	
804.00	0.800	149.000	803.95	-6.85	-7.09	2.27	0.79	
899.00	0.700	297.400	898.94	-6.96	-7.39	2.09	1.52	
993.00	2.900	310.800	992.89	-4.08	-5.57	-0.22	2.37	
1088.00	4.800	311.800	1087.67	2.24	-1.35	-5.00	2.00	
1182.00	6.600	316.700	1181.20	11.54	5.20	-11.64	1.98	
1277.00	8.100	323.100	1275.42	23.67	14.53	-19.40	1.80	
1372.00	8.400	316.700	1369.44	37.28	24.93	-28.18	1.02	
1466.00	8.900	319.600	1462.37	51.41	35.46	-37.60	0.71	
1560.00	10.900	328.300	1554.97	67.46	48.56	-46.99	2.65	
1655.00	13.100	323.800	1647.89	87.07	64.90	-58.06	2.51	
1749.00	14.100	318.900	1739.26	109.14	82.12	-71.88	1.62	
1844.00	13.600	314.300	1831.50	131.84	98.64	-87.49	1.27	
1938.00	14.700	316.700	1922.65	154.76	115.04	-103.58	1.33	
2033.00	14.700	320.300	2014.54	178.86	133.09	-119.54	0.96	
2127.00	14.400	322.400	2105.53	202.45	151.53	-134.29	0.65	
2221.00	14.100	318.100	2196.64	225.57	169.31	-149.07	1.17	
2316.00	14.300	317.400	2288.73	248.87	186.56	-164.74	0.28	
2410.00	14.400	318.500	2379.80	272.16	203.86	-180.34	0.31	
2505.00	15.000	319.900	2471.69	296.26	222.11	-196.09	0.73	
2599.00	14.200	324.500	2562.66	319.91	240.80	-210.62	1.50	

Actual Wellpath Report

Williams 35-20 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot #4 Williams 35-20 (692' FNL & 1946' FWL)
Area	COLORADO	Well	Williams 35-20
Field	WELD COUNTY (ANADARKO)	Wellbore	Williams 35-20 AWB
Facility	SEC.29-T2N-68W		

WELLPATH DATA (85 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2693.00	12.500	326.000	2654.11	341.49	258.62	-223.00	1.85	
2788.00	12.200	326.000	2746.92	361.67	275.47	-234.37	0.32	
2882.00	12.800	323.100	2838.69	381.92	292.03	-246.17	0.92	
2976.00	14.100	319.600	2930.11	403.76	309.08	-259.85	1.63	
3070.00	13.900	315.300	3021.32	426.47	325.82	-275.21	1.13	
3165.00	13.500	315.700	3113.62	448.93	341.87	-290.98	0.43	
3259.00	14.100	316.000	3204.90	471.31	357.96	-306.60	0.64	
3353.00	14.200	311.800	3296.05	494.18	373.88	-323.15	1.10	
3448.00	13.500	318.900	3388.30	516.82	390.00	-339.12	1.93	
3542.00	12.900	315.000	3479.82	538.26	405.69	-353.76	1.14	
3636.00	12.900	318.800	3571.44	559.22	421.01	-368.09	0.90	
3731.00	12.400	326.900	3664.15	579.93	437.53	-380.64	1.94	
3825.00	12.900	324.100	3755.86	600.39	454.49	-392.31	0.84	
3920.00	14.600	323.800	3848.14	622.89	472.74	-405.60	1.79	
4014.00	16.400	324.500	3938.72	647.91	493.11	-420.30	1.93	
4109.00	17.100	322.000	4029.69	675.22	515.03	-436.69	1.06	
4203.00	14.800	320.600	4120.06	701.03	535.20	-452.82	2.48	
4299.00	13.700	322.000	4213.11	724.64	553.63	-467.60	1.20	
4393.00	15.200	322.000	4304.13	748.07	572.12	-482.04	1.60	
4487.00	16.300	321.600	4394.60	773.56	592.17	-497.83	1.18	
4582.00	16.200	322.700	4485.80	800.10	613.16	-514.14	0.34	
4676.00	15.600	318.500	4576.21	825.83	633.05	-530.46	1.38	
4771.00	15.500	319.200	4667.73	851.30	652.23	-547.22	0.22	
4865.00	14.800	315.300	4758.47	875.84	670.27	-563.87	1.32	
4960.00	13.900	319.200	4850.51	899.35	687.54	-579.86	1.39	
5055.00	11.200	323.800	4943.23	919.97	703.62	-592.77	3.03	
5149.00	9.100	322.000	5035.75	936.49	716.85	-602.74	2.26	
5244.00	7.000	318.800	5129.81	949.79	727.12	-611.18	2.26	
5338.00	4.700	317.100	5223.32	959.36	734.26	-617.57	2.45	
5433.00	3.100	322.400	5318.09	965.82	739.14	-621.79	1.72	

REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot #4 Williams 35-20 (692' FNL & 1946' FWL)
Area	COLORADO	Well	Williams 35-20
Field	WELD COUNTY (ANADARKO)	Wellbore	Williams 35-20 AWB
Facility	SEC.29-T2N-68W		

WELLPATH DATA (85 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5527.00	1.000	301.600	5412.03	969.14	741.59	-624.04	2.33	
5623.00	0.900	299.900	5508.02	970.65	742.40	-625.41	0.11	
5717.00	1.000	307.200	5602.00	972.15	743.27	-626.70	0.17	
5811.00	0.800	303.700	5695.99	973.58	744.13	-627.90	0.22	
5906.00	1.200	288.300	5790.98	975.07	744.81	-629.40	0.50	
6000.00	1.400	277.700	5884.95	976.78	745.27	-631.47	0.33	
6095.00	1.200	279.100	5979.93	978.41	745.58	-633.60	0.21	
6189.00	1.100	279.500	6073.91	979.86	745.89	-635.46	0.11	
6283.00	1.000	284.000	6167.89	981.22	746.23	-637.15	0.14	
6378.00	1.000	291.400	6262.88	982.63	746.74	-638.72	0.14	
6472.00	0.900	295.300	6356.87	984.03	747.35	-640.16	0.13	
6567.00	0.800	287.200	6451.86	985.28	747.87	-641.46	0.16	
6662.00	0.600	268.600	6546.85	986.16	748.05	-642.59	0.32	
6756.00	0.500	280.900	6640.85	986.79	748.12	-643.49	0.16	
6850.00	0.600	272.800	6734.84	987.45	748.22	-644.38	0.13	
6944.00	0.300	261.500	6828.84	987.92	748.21	-645.12	0.33	
7039.00	0.200	214.800	6923.84	988.01	748.03	-645.46	0.23	
7133.00	0.400	180.700	7017.84	987.73	747.57	-645.56	0.28	
7228.00	0.700	187.700	7112.83	987.09	746.66	-645.64	0.32	
→ 7322.00	0.500	276.000	7206.83	987.01	746.14	-646.12	0.90	
7417.00	0.500	251.300	7301.82	987.47	746.05	-646.93	0.23	
7511.00	0.600	266.500	7395.82	987.92	745.89	-647.81	0.19	
7606.00	0.600	258.900	7490.81	988.47	745.76	-648.79	0.08	
7728.00	0.900	284.000	7612.80	989.57	745.87	-650.35	0.36	LAST BHI MWD SURVEY
7780.00†	0.900	284.000	7664.80	990.24	746.07	-651.14	0.00	PROJECTION TO BIT

746.14

REFERENCE WELLPATH IDENTIFICATION			
Operator	ANADARKO PETROLEUM	Slot	Slot #4 Williams 35-20 (692' FNL & 1946' FWL)
Area	COLORADO	Well	Williams 35-20
Field	WELD COUNTY (ANADARKO)	Wellbore	Williams 35-20 AWB
Facility	SEC.29-T2N-68W		

HOLE & CASING SECTIONS Ref Wellbore: Williams 35-20 AWB Ref Wellpath: Williams 35-20 AWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
8.625in Casing Surface	15.00	773.00	758.00	15.00	772.95	0.00	0.00	-6.69	2.10

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
Williams 35-20 Geo Target 50' radius (50' FSL & 1310' FWL)		7203.00	737.99	-637.04	3130856.22	1285810.84	40°07'01.185"N	105°01'55.588"W	circle
Williams 35-20 Hardline (50' S of GT)		7203.00	687.99	-637.04	3130856.49	1285760.84	40°07'00.691"N	105°01'55.588"W	point

WELLPATH COMPOSITION Ref Wellbore: Williams 35-20 AWB Ref Wellpath: Williams 35-20 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	993.00	MTC (Collar, post-2000) (Standard)	BHI SURFACE MWD <97-993>	Williams 35-20 AWB
993.00	7728.00	MTC (Collar, post-2000) (Standard)	BHI PRODUCTION MWD <1088-7728>	Williams 35-20 AWB
7728.00	7780.00	Blind Drilling (std)	Projection to bit	Williams 35-20 AWB



Actual Wellpath Report

Williams 35-20 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANADARKO PETROLEUM	Slot	Slot #4 Williams 35-20 (692' FNL & 1946' FWL)
Area	COLORADO	Well	Williams 35-20
Field	WELD COUNTY (ANADARKO)	Wellbore	Williams 35-20 AWB
Facility	SEC.29-T2N-68W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7728.00	0.900	284.000	7612.80	LAST BHI MWD SURVEY
7780.00	0.900	284.000	7664.80	PROJECTION TO BIT