



01786054

## ANADARKO PETROLEUM

Anadarko  
Petroleum Corporation

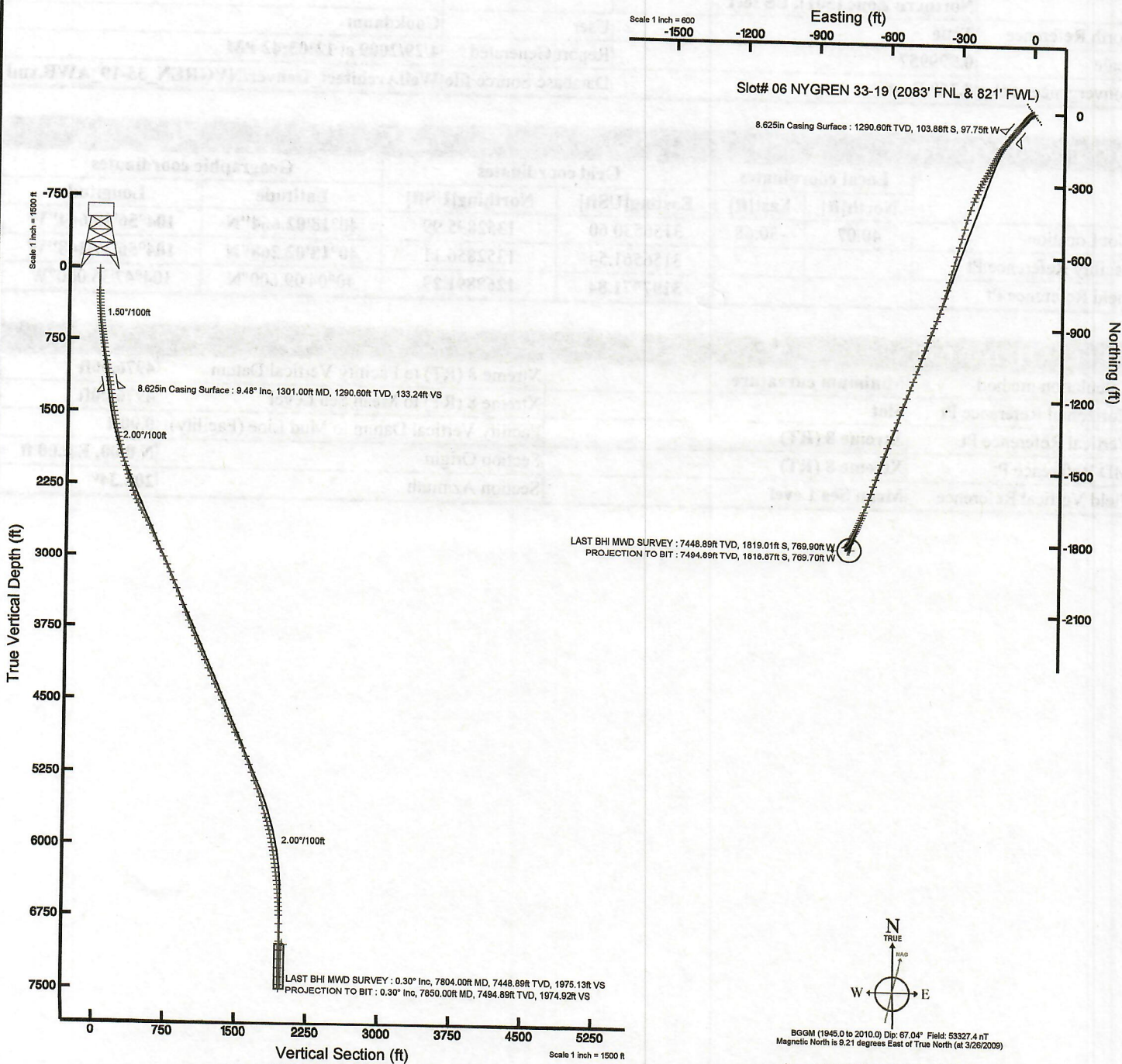
RECEIVED BAKER HUGHES

Location: COLORADO Slot: Slot# 06 NYGREN 33-19 (2083' FNL & 821' FWL)  
Field: WELD COUNTY (ANADARKO) Well: NYGREN 33-19  
Facility: SEC.19-T4N-R67W Wellbore: NYGREN 33-19 PWB

INTEQ  
JUN 18 2009COGCC  
XTREME 8

Plot reference wellpath is NYGREN 33-19 Rev-B.0

True vertical depths are referenced to Xtreme 8 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to Xtreme 8 (RT)	North Reference: True north
Xtreme 8 (RT) to Mean Sea Level: 4976 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.19-T4N-R67W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdanm on 4/29/2009





# Actual Wellpath Report

NYGREN 33-19 AWP

Page 1 of 8

**INTEQ**

## REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot# 06 NYGREN 33-19 (2083' FNL & 821' FWL)
Area	COLORADO	Well	NYGREN 33-19
Field	WELD COUNTY (ANADARKO)	Wellbore	NYGREN 33-19 AWB
Facility	SEC.19-T4N-R67W		

## 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	0.999957	Report Generated	4/29/2009 at 12:03:42 PM
Convergence at slot	0.36° East	Database/Source file	WellArchitect_Denver/NYGREN_33-19_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	40.07	-30.68	3156530.60	1352895.99	40°18'02.664"N	104°56'19.644"W
Facility Reference Pt			3156561.54	1352856.11	40°18'02.268"N	104°56'19.248"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

## WELLPATH DATUM

Calculation method	Minimum curvature	Xtreme 8 (RT) to Facility Vertical Datum	4976.00ft
Horizontal Reference Pt	Slot	Xtreme 8 (RT) to Mean Sea Level	4976.00ft
Vertical Reference Pt	Xtreme 8 (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Xtreme 8 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	202.34°



# Actual Wellpath Report

NYGREN 33-19 AWP

Page 2 of 8

## REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot# 06 NYGREN 33-19 (2083' FNL & 821' FWL)
Area	COLORADO	Well	NYGREN 33-19
Field	WELD COUNTY (ANADARKO)	Wellbore	NYGREN 33-19 AWB
Facility	SEC.19-T4N-R67W		

## WELLPATH DATA (130 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	260.600	0.00	0.00	0.00	0.00	0.00	
20.00	0.000	260.600	20.00	0.00	0.00	0.00	0.00	
247.00	2.300	260.600	246.94	2.40	-0.74	-4.49	1.01	
279.00	2.600	253.600	278.91	3.19	-1.05	-5.82	1.32	
310.00	2.900	247.200	309.87	4.18	-1.56	-7.22	1.38	
341.00	3.300	243.000	340.83	5.42	-2.27	-8.74	1.48	
372.00	3.700	238.400	371.77	6.90	-3.19	-10.39	1.58	
403.00	4.200	233.900	402.70	8.68	-4.39	-12.16	1.90	
434.00	4.700	233.200	433.60	10.74	-5.82	-14.09	1.62	
465.00	5.100	230.300	464.49	13.04	-7.46	-16.17	1.52	
496.00	5.500	226.100	495.36	15.62	-9.37	-18.30	1.80	
527.00	5.900	225.800	526.20	18.44	-11.51	-20.51	1.29	
558.00	6.400	224.000	557.03	21.51	-13.86	-22.85	1.73	
589.00	6.900	221.200	587.82	24.88	-16.51	-25.28	1.92	
621.00	7.400	221.900	619.57	28.64	-19.49	-27.92	1.59	
652.00	7.700	219.100	650.30	32.51	-22.58	-30.56	1.53	
683.00	8.000	218.700	681.01	36.57	-25.88	-33.22	0.98	
714.00	8.200	218.400	711.70	40.76	-29.30	-35.95	0.66	
745.00	8.200	219.400	742.38	45.00	-32.74	-38.72	0.46	
776.00	7.900	220.200	773.08	49.14	-36.07	-41.50	1.03	
807.00	8.100	221.900	803.78	53.23	-39.32	-44.33	1.00	
850.00	8.900	221.600	846.30	59.22	-44.07	-48.57	1.86	
895.00	9.400	219.400	890.73	66.02	-49.51	-53.21	1.36	
941.00	10.000	219.100	936.07	73.44	-55.51	-58.11	1.31	
986.00	10.000	219.800	980.39	80.90	-61.55	-63.08	0.27	
1032.00	10.300	220.200	1025.67	88.63	-67.76	-68.29	0.67	
1077.00	10.200	219.100	1069.95	96.27	-73.92	-73.40	0.49	
1122.00	10.200	219.400	1114.24	103.90	-80.09	-78.44	0.12	
1167.00	10.200	219.400	1158.53	111.52	-86.25	-83.50	0.00	
1213.00	9.700	218.700	1203.84	119.13	-92.42	-88.51	1.12	



# Actual Wellpath Report

NYGREN 33-19 AWP

Page 3 of 8

**INTEQ**

## REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot# 06 NYGREN 33-19 (2083' FNL & 821' FWL)
Area	COLORADO	Well	NYGREN 33-19
Field	WELD COUNTY (ANADARKO)	Wellbore	NYGREN 33-19 AWB
Facility	SEC.19-T4N-R67W		

## WELLPATH DATA (130 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
1249.00	9.700	218.400	1239.32	124.95	-97.16	-92.29	0.14	
1343.00	9.300	221.200	1332.03	139.75	-109.09	-102.21	0.65	
1387.00	9.400	221.200	1375.45	146.52	-114.46	-106.92	0.23	
1432.00	9.400	220.900	1419.84	153.48	-120.01	-111.74	0.11	
1478.00	9.800	218.700	1465.20	160.79	-125.90	-116.65	1.18	
1523.00	10.400	219.400	1509.50	168.35	-132.03	-121.62	1.36	
1568.00	11.300	217.300	1553.70	176.50	-138.67	-126.87	2.18	
1613.00	11.100	214.200	1597.84	184.99	-145.76	-131.98	1.41	
1659.00	11.400	213.100	1642.96	193.79	-153.24	-136.95	0.80	
1702.00	11.900	210.700	1685.07	202.36	-160.61	-141.54	1.62	
1748.00	12.500	210.300	1730.03	211.98	-168.98	-146.47	1.32	
1791.00	13.000	209.600	1771.97	221.38	-177.21	-151.21	1.22	
1836.00	13.200	210.700	1815.80	231.49	-186.03	-156.33	0.71	
1881.00	13.400	210.000	1859.59	241.74	-194.96	-161.56	0.57	
1927.00	13.500	210.300	1904.33	252.34	-204.21	-166.93	0.27	
1970.00	14.200	208.200	1946.08	262.56	-213.19	-171.96	2.00	
2016.00	15.700	208.500	1990.52	274.36	-223.64	-177.59	3.27	
2059.00	16.700	207.800	2031.82	286.29	-234.21	-183.25	2.37	
2105.00	17.300	209.600	2075.81	299.66	-246.01	-189.71	1.73	
2150.00	17.400	208.900	2118.76	312.98	-257.72	-196.27	0.51	
2195.00	17.200	212.400	2161.72	326.22	-269.22	-203.09	2.35	
2241.00	17.400	211.400	2205.64	339.71	-280.84	-210.31	0.78	
2284.00	18.000	208.200	2246.61	352.66	-292.18	-216.80	2.66	
2329.00	19.200	205.000	2289.26	366.97	-305.02	-223.22	3.50	
2373.00	20.600	203.600	2330.63	381.94	-318.67	-229.37	3.36	
2419.00	21.600	202.200	2373.55	398.50	-333.92	-235.81	2.43	
2464.00	22.800	203.600	2415.21	415.50	-349.58	-242.43	2.91	
2509.00	24.500	201.500	2456.43	433.55	-366.25	-249.34	4.22	
2598.00	27.700	198.700	2536.35	472.65	-403.03	-262.74	3.85	
2687.00	29.000	196.600	2614.67	514.77	-443.30	-275.54	1.84	



# Actual Wellpath Report

NYGREN 33-19 AWP

Page 4 of 8

**INTEQ**

## REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot# 06 NYGREN 33-19 (2083' FNL & 821' FWL)
Area	COLORADO	Well	NYGREN 33-19
Field	WELD COUNTY (ANADARKO)	Wellbore	NYGREN 33-19 AWP
Facility	SEC.19-T4N-R67W		

## WELLPATH DATA (130 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2776.00	27.800	194.500	2692.96	556.79	-484.07	-286.90	1.75	
2865.00	24.900	196.600	2772.71	596.01	-522.13	-297.45	3.42	
2954.00	25.400	195.500	2853.27	633.60	-558.48	-307.91	0.77	
3044.00	25.900	195.200	2934.40	672.27	-596.04	-318.22	0.57	
3135.00	24.000	195.200	3016.91	710.35	-633.09	-328.28	2.09	
3226.00	23.700	197.600	3100.14	746.94	-668.38	-338.66	1.12	
3314.00	23.500	195.900	3180.78	782.00	-702.11	-348.82	0.81	
3403.00	22.700	194.100	3262.64	816.63	-735.83	-357.86	1.20	
3494.00	22.700	195.200	3346.59	851.43	-769.81	-366.74	0.47	
3585.00	21.400	196.200	3430.94	885.36	-802.70	-375.98	1.49	
3675.00	21.400	197.700	3514.73	918.05	-834.11	-385.55	0.61	
3765.00	21.800	204.300	3598.42	951.13	-864.98	-397.42	2.73	
3854.00	21.900	202.600	3681.03	984.24	-895.37	-410.60	0.72	
3943.00	21.800	202.900	3763.64	1017.36	-925.92	-423.41	0.17	
4032.00	22.300	200.500	3846.13	1050.77	-956.96	-435.76	1.16	
4123.00	23.700	200.500	3929.89	1086.30	-990.26	-448.21	1.54	
4212.00	24.000	198.400	4011.29	1122.24	-1024.19	-460.19	1.01	
4302.00	22.700	198.000	4093.92	1157.82	-1058.07	-471.33	1.46	
4393.00	23.400	197.700	4177.66	1193.34	-1091.99	-482.25	0.78	
4483.00	23.100	202.200	4260.35	1228.81	-1125.36	-494.36	2.00	
4574.00	24.500	200.800	4343.61	1265.52	-1159.53	-507.80	1.66	
4663.00	25.500	200.500	4424.27	1303.12	-1194.73	-521.07	1.13	
4754.00	23.000	200.800	4507.24	1340.47	-1229.70	-534.24	2.75	
4844.00	22.800	199.800	4590.14	1375.47	-1262.55	-546.39	0.49	
4935.00	22.100	201.200	4674.25	1410.20	-1295.10	-558.55	0.97	
5024.00	25.100	200.800	4755.80	1445.82	-1328.36	-571.31	3.38	
5115.00	27.100	200.800	4837.51	1485.84	-1365.78	-585.53	2.20	
5204.00	26.100	201.200	4917.09	1525.68	-1402.99	-599.81	1.14	
5292.00	25.000	200.800	4996.48	1563.62	-1438.42	-613.41	1.27	
5383.00	22.500	200.100	5079.77	1600.25	-1472.75	-626.23	2.76	



# Actual Wellpath Report

NYGREN 33-19 AWP

Page 5 of 8

**INTEQ**

## REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot# 06 NYGREN 33-19 (2083' FNL & 821' FWL)
Area	COLORADO	Well	NYGREN 33-19
Field	WELD COUNTY (ANADARKO)	Wellbore	NYGREN 33-19 AWB
Facility	SEC.19-T4N-R67W		

## WELLPATH DATA (130 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5474.00	21.700	198.700	5164.08	1634.43	-1505.04	-637.61	1.05	
5563.00	19.900	198.400	5247.28	1665.97	-1535.00	-647.66	2.03	
5652.00	20.400	200.100	5330.83	1696.58	-1563.94	-657.77	0.87	
5743.00	19.100	198.400	5416.48	1727.28	-1592.96	-667.93	1.56	
5833.00	18.100	198.000	5501.78	1755.91	-1620.23	-676.89	1.12	
5924.00	18.200	198.000	5588.25	1784.18	-1647.19	-685.65	0.11	
6013.00	17.100	199.100	5673.06	1811.10	-1672.77	-694.23	1.29	
6057.00	16.200	201.200	5715.21	1823.70	-1684.61	-698.57	2.46	
6100.00	15.600	203.300	5756.57	1835.48	-1695.51	-703.02	1.93	
6145.00	15.600	202.600	5799.91	1847.58	-1706.66	-707.74	0.42	
6191.00	13.900	204.100	5844.39	1859.29	-1717.41	-712.37	3.79	
6236.00	12.500	204.700	5888.20	1869.55	-1726.77	-716.62	3.13	
6281.00	11.700	204.000	5932.20	1878.98	-1735.36	-720.51	1.81	
6325.00	10.800	203.300	5975.36	1887.56	-1743.22	-723.95	2.07	
6370.00	10.100	205.700	6019.61	1895.72	-1750.65	-727.33	1.83	
6415.00	9.300	208.900	6063.97	1903.27	-1757.39	-730.80	2.14	
6460.00	8.400	208.600	6108.43	1910.15	-1763.46	-734.13	2.00	
6506.00	8.500	206.400	6153.93	1916.88	-1769.46	-737.25	0.74	
6549.00	8.600	204.300	6196.46	1923.26	-1775.23	-739.99	0.76	
6595.00	8.100	202.200	6241.97	1929.94	-1781.37	-742.63	1.27	
6640.00	6.900	201.900	6286.58	1935.81	-1786.81	-744.83	2.67	
6686.00	6.900	207.100	6332.25	1941.33	-1791.83	-747.12	1.36	
6730.00	6.800	210.000	6375.94	1946.55	-1796.44	-749.63	0.82	
6776.00	5.700	210.300	6421.66	1951.51	-1800.77	-752.14	2.39	
6821.00	4.600	210.300	6466.48	1955.51	-1804.26	-754.18	2.44	
6866.00	4.800	211.400	6511.33	1959.15	-1807.43	-756.07	0.49	
6912.00	4.000	214.200	6557.19	1962.63	-1810.40	-757.98	1.80	
6957.00	3.400	217.700	6602.10	1965.45	-1812.75	-759.68	1.42	
7002.00	3.000	218.400	6647.03	1967.87	-1814.73	-761.22	0.89	
7047.00	2.400	224.000	6691.98	1969.87	-1816.33	-762.61	1.45	



# Actual Wellpath Report

NYGREN 33-19 AWP

Page 6 of 8

INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot# 06 NYGREN 33-19 (2083' FNL & 821' FWL)
Area	COLORADO	Well	NYGREN 33-19
Field	WELD COUNTY (ANADARKO)	Wellbore	NYGREN 33-19 AWP
Facility	SEC.19-T4N-R67W		

## WELLPATH DATA (130 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
7092.00	1.800	233.500	6736.95	1971.35	-1817.43	-763.83	1.54	
7183.00	1.300	245.100	6827.91	1973.34	-1818.71	-765.92	0.65	
7271.00	0.800	264.400	6915.90	1974.36	-1819.19	-767.43	0.69	
7362.00	0.600	264.800	7006.89	1974.87	-1819.30	-768.54	0.22	
7452.00	0.400	272.900	7096.89	1975.20	-1819.32	-769.32	0.24	
7543.00	0.200	301.700	7187.89	1975.28	-1819.22	-769.78	0.27	
7633.00	0.100	271.800	7277.89	1975.28	-1819.14	-769.99	0.14	
7724.00	0.000	283.100	7368.89	1975.31	-1819.14	-770.07	0.11	
7804.00	0.300	53.500	7448.89	1975.13	-1819.01	-769.90	0.37	LAST BHI MWD SURVEY
7850.00†	0.300	53.500	7494.89	1974.92	-1818.87	-769.70	0.00	PROJECTION TO BIT

## HOLE & CASING SECTIONS Ref Wellbore: NYGREN 33-19 AWP Ref Wellpath: NYGREN 33-19 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]
12.25in Open Hole	20.00	1301.00	1281.00	20.00	1290.60	0.00	0.00	-103.88	-97.75
8.625in Casing Surface	20.00	1301.00	1281.00	20.00	1290.60	0.00	0.00	-103.88	-97.75
7.875in Open Hole	1301.00	7850.00	6549.00	1290.60	7494.89	-103.88	-97.75	-1818.87	-769.70

1819, 769



# Actual Wellpath Report

NYGREN 33-19 AWP

Page 7 of 8

INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	ANADARKO PETROLEUM	Slot	Slot# 06 NYGREN 33-19 (2083' FNL & 821' FWL)
Area	COLORADO	Well	NYGREN 33-19
Field	WELD COUNTY (ANADARKO)	Wellbore	NYGREN 33-19 AWB
Facility	SEC.19-T4N-R67W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
NYGREN 33-19 GEO TARGET 50' radius (1345' FSL & 70' FWL)		7036.00	-1832.45	-753.17	3155789.08	1351058.89	40°17'44.556"N	104°56'29.364"W	circle
NYGREN 33-19 HARDLINE (70' W of GT)		7036.00	-1832.45	-823.17	3155719.08	1351058.45	40°17'44.556"N	104°56'30.267"W	point

## WELLPATH COMPOSITION

Ref Wellbore: NYGREN 33-19 AWB

Ref Wellpath: NYGREN 33-19 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
20.00	986.00	MTC (Collar, post-2000) (Standard)	SURFACE BHI MWD <247-986>	NYGREN 33-19 AWB
986.00	7804.00	MTC (Collar, post-2000) (Standard)	PRODUCTION BHI MWD <1032-7804>	NYGREN 33-19 AWB
7804.00	7850.00	Blind Drilling (std)	Projection to bit	NYGREN 33-19 AWB





**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANADARKO PETROLEUM	Slot	Slot# 06 NYGREN 33-19 (2083' FNL & 821' FWL)
Area	COLORADO	Well	NYGREN 33-19
Field	WELD COUNTY (ANADARKO)	Wellbore	NYGREN 33-19 AWP
Facility	SEC.19-T4N-R67W		

**WELLPATH COMMENTS**

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7804.00	0.300	53.500	7448.89	LAST BHI MWD SURVEY
7850.00	0.300	53.500	7494.89	PROJECTION TO BIT