



Scientific Drilling

North America - Onshore US - BP

Western - San Juan South

SEC 32-T32N-R10W

MARTINEZ GC

Wellbore #1

IN

30 045 33815

Design: ACTUAL

Standard Survey Report

19 July, 2006

Surface 1860/S. 1090/W
Intermed B/H 1903/B 756/W
Md 7323
TRd 7291

HOLD C104 FOR dev. survey to TID



B 10/6



Project: Western - San Juan South
 Site: SEC 32-T32N-R10W
 Well: MARTINEZ GC J 1M
 Wellbore: Wellbore #1
 Design: ACTUAL



SURVEY PROGRAM

Date: 2006-07-19T00:00:00 Validated: Yes Version:

Depth From	Depth To	Survey/Plan	Tool
273.00	2090.00		MWD ISCWSA
2400.00	7323.00		BLIND

LEGEND

— MARTINEZ GC J 1M, Wellbore #1, Plan #1 V0
 — ACTUAL

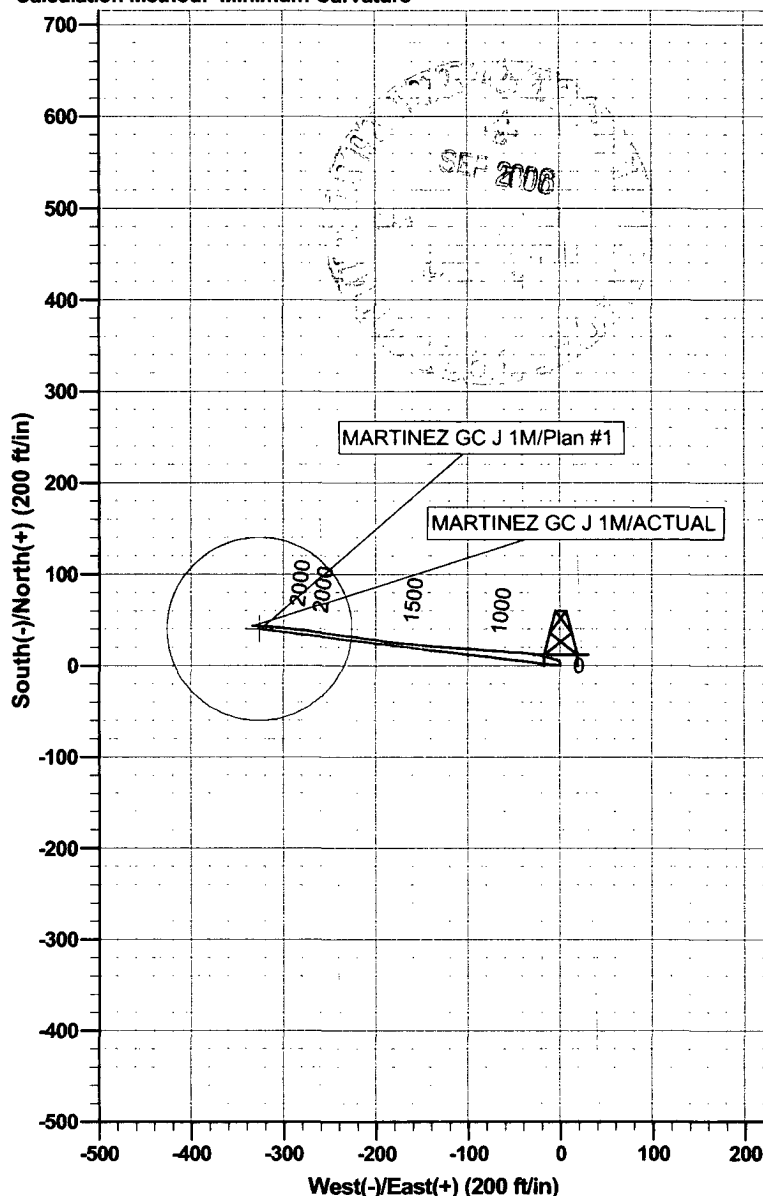
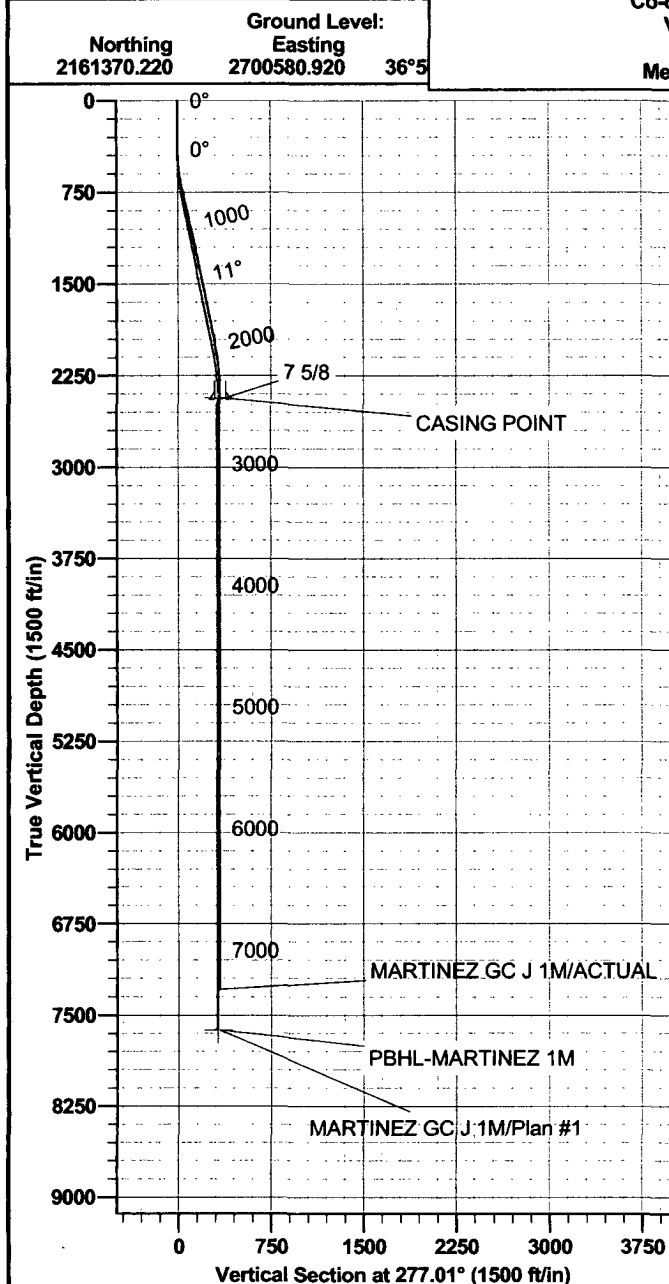
WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CASING POINT	2430.00	40.00	-325.00	2161410.217	2700255.947	36°56'23.13N	107°54'41.307W	
PBHL-MARTINEZ 1M	7620.00	40.00	-325.00	2161410.217	2700255.947	36°56'23.13N	107°54'41.307W	Circle (Radius: 100.00)

WELL DETAILS: MART

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well MARTINEZ GC J 1M, Grid North
 Vertical (TVD) Reference: WELL @ 6107.00ft (Original Well Elev)
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: WELL @ 6107.00ft (Original Well Elev)
 Calculation Method: Minimum Curvature





Scientific Drilling Survey Report



Company:	North America - Onshore US - BP	Local Co-ordinate Reference:	Well MARTINEZ GC J 1M
Project:	Western - San Juan South	TVD Reference:	WELL @ 6107.00ft (Original Well Elev)
Site:	SEC 32-T32N-R10W	MD Reference:	WELL @ 6107.00ft (Original Well Elev)
Well:	MARTINEZ GC J 1M	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL	Database:	EDM - Houston - Production

Project	Western - San Juan South		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone	Using geodetic scale factor	

Site	SEC 32-T32N-R10W				
Site Position:		Northing:	2,161,370.220 ft	Latitude:	36° 56' 22.737" N
From:	Map	Easting:	2,700,580.920 ft	Longitude:	107° 54' 37.303" W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-0.05 °

Well	MARTINEZ GC J 1M					
Well Position	+N/-S	0.00 ft	Northing:	2,161,370.220 ft	Latitude:	36° 56' 22.737" N
	+E/-W	0.00 ft	Easting:	2,700,580.920 ft	Longitude:	107° 54' 37.303" W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,093.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2005	7/19/2006	10.61	63.76	51,340

Design	ACTUAL			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	277.010

Survey Program	Date	7/19/2006		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
273.00	2,090.00	MWD Survey (Wellbore #1)	MWD ISCWSA	MWD - Standard
2,400.00	7,323.00	PROJECTED SURVEY (Wellbore #1)	BLIND	Blind drilling

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
273.00	0.780	2.180	272.99	1.86	0.07	0.16	0.29	0.29	0.00
335.00	0.770	5.560	334.99	2.69	0.13	0.20	0.08	-0.02	5.45
395.00	1.150	350.820	394.98	3.69	0.07	0.38	0.75	0.63	-24.57
456.00	2.250	298.590	455.95	4.87	-1.08	1.66	2.94	1.80	-85.62
518.00	4.400	290.230	517.85	6.27	-4.38	5.11	3.55	3.47	-13.48
579.00	6.880	288.270	578.55	8.23	-10.05	10.97	4.08	4.07	-3.21
640.00	9.670	283.870	638.90	10.60	-18.49	19.65	4.69	4.57	-7.21
702.00	11.520	277.260	699.85	12.63	-29.69	31.01	3.57	2.98	-10.66
762.00	11.850	274.070	758.60	13.83	-41.78	43.15	1.21	0.55	-5.32
823.00	12.590	274.060	818.22	14.74	-54.66	56.05	1.21	1.21	-0.02
884.00	12.250	275.010	877.79	15.78	-67.73	69.15	0.65	-0.56	1.56

Company: North America - Onshore US - BP
Project: Western - San Juan South
Site: SEC 32-T32N-R10W
Well: MARTINEZ GC J 1M
Wellbore: Wellbore #1
Design: ACTUAL

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well MARTINEZ GC J 1M
 WELL @ 6107.00ft (Original Well Elev)
 WELL @ 6107.00ft (Original Well Elev)
 Grid
 Minimum Curvature
 EDM - Houston - Production

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
946.00	12.510	275.120	938.35	16.95	-80.97	82.44	0.42	0.42	0.18
1,010.00	12.280	272.870	1,000.86	17.91	-94.68	96.15	0.84	-0.36	-3.52
1,074.00	12.190	274.440	1,063.41	18.77	-108.21	109.69	0.54	-0.14	2.45
1,137.00	12.350	274.470	1,124.97	19.81	-121.56	123.07	0.25	0.25	0.05
1,201.00	12.150	274.430	1,187.51	20.87	-135.10	136.63	0.31	-0.31	-0.06
1,264.00	12.270	274.940	1,249.09	21.96	-148.38	149.95	0.26	0.19	0.81
1,328.00	12.100	276.530	1,311.64	23.30	-161.82	163.45	0.59	-0.27	2.48
1,391.00	11.700	275.990	1,373.29	24.72	-174.73	176.44	0.66	-0.63	-0.86
1,454.00	11.470	277.200	1,435.01	26.17	-187.30	189.09	0.53	-0.37	1.92
1,517.00	11.400	277.960	1,496.76	27.82	-199.68	201.58	0.26	-0.11	1.21
1,580.00	11.340	277.580	1,558.52	29.50	-211.98	214.00	0.15	-0.10	-0.60
1,644.00	11.240	277.130	1,621.28	31.10	-224.41	226.53	0.21	-0.16	-0.70
1,708.00	11.360	278.290	1,684.04	32.79	-236.84	239.07	0.40	0.19	1.81
1,772.00	11.390	277.310	1,746.78	34.50	-249.34	251.69	0.31	0.05	-1.53
1,835.00	11.350	277.110	1,808.55	36.06	-261.66	264.11	0.09	-0.06	-0.32
1,899.00	11.380	277.110	1,871.29	37.62	-274.18	276.72	0.05	0.05	0.00
1,963.00	10.880	277.020	1,934.09	39.14	-286.44	289.07	0.78	-0.78	-0.14
2,027.00	10.180	277.180	1,997.01	40.58	-298.05	300.77	1.09	-1.09	0.25
2,090.00	9.300	274.200	2,059.10	41.65	-308.65	311.42	1.61	-1.40	-4.73
2,400.00	0.000	0.000	2,367.74	43.49	-333.68	336.50	3.00	-3.00	0.00
2,473.00	0.000	0.000	2,440.74	43.49	-333.68	336.50	0.00	0.00	0.00
7,323.00	0.000	0.000	7,290.74	43.49	-333.68	336.50	0.00	0.00	0.00

Targets
Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S ft	+E/-W ft	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
PBHL-MARTINEZ 1M	0.00	0.00	7,620.00	40.00	-325.00	2,161,410.217	2,700,255.947	36° 56' 23.130" N	107° 54' 41.307" W
- actual wellpath misses by 329.39ft at 7323.00ft MD (7290.74 TVD, 43.49 N, -333.68 E)									
- Circle (radius 100.00)									
CASING POINT	0.00	0.00	2,430.00	40.00	-325.00	2,161,410.217	2,700,255.947	36° 56' 23.130" N	107° 54' 41.307" W
- actual wellpath misses by 9.36ft at 2462.26ft MD (2430.00 TVD, 43.49 N, -333.68 E)									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,473.00	2,440.74	7 5/8	7.625	7.625

Checked By:

Approved By:

Date: