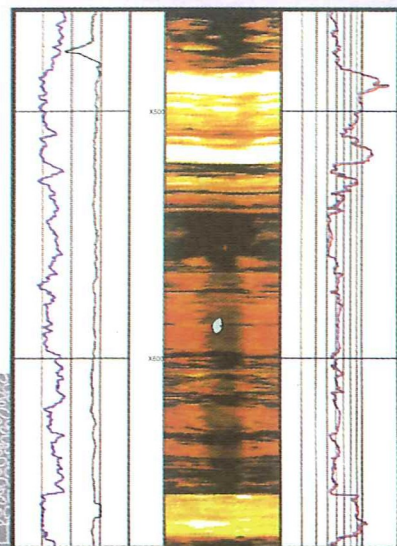


Petrotech Peruana S.A.

CENTRAL FILE
GEOSCIENCES

LO6-23

End of Well Report



Schlumberger

Anadrill



Schlumberger

**CENTRAL FILE
GEOSCIENCES**

**PETRO-TECH
PERUANA S.A.**



Petrotech Peruana S.A.

**CENTRAL FILE
GEOSCIENCES**

LO6-23

End of Well Report

**PETRO-TECH PERUANA S.A.
DRILLING & WORKOVER OPT
RECEIVED**

13 JUN 2001

TIME _____

SIGNATURE _____

**PETRO-TECH PERUANA S.A.
GERENCIA GEOCIENCIAS**

21 JUN, 2001

Firma: _____

RECIBIDO

GENERAL INFORMATION

CLIENT: Petro-Tech Peruana S.A.
WELL: LO6-23
AREA: Lobitos
OFFICIAL WELL NUMBER: Z-2B-24-079-D-LO6 (LO6-23)
WELL TYPE: Development
AFE NUMBER:

CLIENT DRILLING MANAGER: Guillermo Ruesta
CLIENT DRILLING ENGINEER: Rolando Rosas
CLIENT WELLSITE SUPERVISORS: Ricardo Gilabert / Franklin Cordova

CLIENT ADDRESS: Negritos, Peru
Tel: (74) 39-3105

FORMATIONS OF INTEREST: Basal Salina

COORDINATES:

<u>Surface:</u> N: 9508656.83 m E: 459054.520 m
<u>Target:</u> N: 9508016 m E: 458626 m

DRILLING CONTRACTOR: PEPESA
RIG: PEPESA Rig #48
DRAWWORKS: OIME 750
TRAVELING BLOCKS: Ideco Shorty / 265 Tons
MUD PUMP #1: Ideco T-1000
MUD PUMP #2: Ideco T-1000

ELEVATIONS: KB: 18'
MSL 70'
TVD Ref: KB 88' above MSL

SPUD DATE: 15-Apr-01
TD HOLE:

DRILLING FLUIDS CONTRACTOR: MI
DRILLING MUD TYPE: 12 1/4" Hole: Flo-Drill
8 1/2" Hole: Flo-Drill

CASING SHOES: 18" @ 597'
13 3/8" @ 1500'
9 5/8" @ 4438'

SCHLUMBERGER INFORMATION

PRODUCT LINE:

Reservoir Development (Anadrill)

TALARA ADDRESS:

Campamento Schlumberger
Zona Industrial
Talara Alta s/n
Tel: (74) 38-5700
Fax: (74) 38-2845

LIMA ADDRESS:

Av. Canaval y Moreyra 452
Piso 8
San Isidro, Lima 27, Peru
Tel: (01) 421-8055
Fax: (01) 421-9255

ANADRILL JOB NUMBER:

01013

SERVICES PROVIDED:

*Directional Supervision
*Slim-1 MWD
*PowerPak Motors
*Drilling Tools (NMDC's, subs,
float subs & valves, stabs,
short drill collars, X/O's, etc)
*Well planning & plots

FIELD SERVICE MANAGER (Talara):

Alejandro Martin
Cellular Ph. (074) 60-6030

DPC ENGINEER (Lima):

Juan Rodriguez
Office (01) 421-8055 (ext 817)

FIELD PERSONNEL:

Directional Driller:
Directional Driller:
MWD Engineer:
MWD Engineer:

J. Taylor / V. Montenegro
R. Torres / L. Tenorio
Pedro Mejia / G. Soto
M. Schaaf / C. Huapaya

SERVICE DATES:

Anadrill Personnel Arrive Location & Rig Up:
Pick Up Tools:
Slim 1 Below Rotary Table:
Kick-Off:
End of Curve:
Anadrill Released:
Anadrill Personnel Depart Location:

1-May-01
3-May-01
3-May-01
3-May-01
4-May-01
24-May-01
24-May-01

DIRECTIONAL SYNOPSIS**PLANNED WELL CONFIGURATION**

<u>TYPE OF WELL:</u>	Slant
<u>KICK-OFF POINT:</u>	1500'
<u>BUILD RATE / INCLINATION / AZIMUTH:</u>	4.0°/100' / 24.64° inc / 213.80° azi
<u>END OF CURVE DEPTH / DISPLACEMENT:</u>	2116' MD / 2097' TVD / 130' DISPL
<u>TARGET DEPTH / DISPLACEMENT:</u>	7873' MD / 7330' TVD / 2530' DISPL
<u>TD DEPTH / DISPLACEMENT:</u>	8720' MD / 8100' TVD / 2883' DISPL

SUMMARY LO6-23 DIRECTIONAL PLAN

After drilling vertical hole to 1450' MD and setting 13 3/8" casing, a 12 1/4" bit and steerable assembly would be picked up to drill the curve. Build rate was planned to be 4.0°/100' to an inclination of 25° at 214° azimuth. After finishing the curve, the tangent would be drilled in 12 1/4" and 8 1/2" holes while utilizing stabilized rotating assemblies to maintain the proper trajectory to hit the target. Depth for 9 5/8" casing was to be 5200' MD. A trip would be made at a point when it became impossible to miss the target and Anadrill MWD and NMDC's laid out. The hole would then be drilled blind to TD and surveys acquired either by a multi-shot or via wireline logs.

Prior to the start of the well the client requested that we stay closer to the planned line as per geologist's request. While this would require us to make 1 or 2 additional trips for assembly, we planned our job to accommodate this request.

SUMMARY OF LO6-23 DIRECTIONAL REALITY

Vertical hole was drilled to 1500' and 13 3/8" casing was set at that point. In order to clear the casing to escape magnetic interference, it was necessary to move kick-off point down to 1600'. First BHA had a malfunctioning pulser. No hole made that run. Upon arrival at bottom with second BHA, survey on bottom indicated that hole had walked to the NW in vertical hole. This gave us negative displacement which in combination with the lower kick-off point made it necessary to increase our build rate for the curve. Curve was built without problems with a build rate of 4.6°/100'. The motor was left in the hole in tangent section for an additional 500' to help maintain angle and stay closer to the line. When we pulled out of the hole we were leading the inclination by 3°. We also lead the azimuth by 3° to the right in anticipation of a strong left hand walk in 8 1/2" hole section similar to that in LO6-25. A stabilized rotating assembly was then run in the hole. A similar BHA in the 12 1/4" section in LO6-25 held azimuth and dropped inclination at 0.55°/100'. The BHA in this hole walked hard left and averaged only 0.19°/100' drop.

Two PDM corrections in 8 1/2" Hole were needed to correct walking left (- 2.00° / 100 ft approximately) and dropping formation tendencies

Conclusions & Recommendations

Conclusions:

1. Inclination corrections can be done in 12 1/4" Hole with Rotary BHAS's
2. Formation walking left tendencies was higher (2° / 100ft) than expected
3. Last PDM run was done to hit target near to its center as much we could keeping the well far from geological fault. We did +/- 10 ft to the center

Recommendations:

1. Keep PDM during correction run until to be impossible miss target

Survey Report - Standard

Report Date: 09-Jun-2001	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: Petro-Tech Peruana S.A.	Vertical Section Azimuth: 213.800°
Field: Lobitos	Vertical Section Origin: N 0.000 ft, E 0.000 ft
Structure / Slot: Platform LO6 (WGS84) / Slot #23	TVD Reference Datum: KB
Well: Well LO6-23	TVD Reference Elevation: 50.000 ft relative to MSL
Borehole: Borehole LO6-23	Sea Bed / Ground Level Elevation: 0.000 ft relative to MSL
UWI / API#:	Magnetic Declination: +1.516°
Survey Name / Date: LO6-23 MWD Survey / May 10, 2001	Total Field Strength: 28875.250 nT
Tort / AHD / DDI / ERD ratio: 103.371° / 3050.76 ft / 5.533 / 0.366	Magnetic Dip: 14.828°
Grid Coordinate System: UTM Zone 17S - WGS84, Meters	Declination Date: May 10, 2001
Location Lat / Long: S 4 26 42.554, W 81 22 8.641	Magnetic Declination Model: BGGM 2000
Location Grid N/E Y/X: N 9508656.830 m, E 459054.520 m	North Reference: True North
Grid Convergence Angle: +0.02860485°	Total Corr Mag North -> True North: +1.516°
Grid Scale Factor: 0.99962075	Local Coordinates Referenced To: Well Head

Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N-S (ft)	E-W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		42.0 M
13 3/8" shoe @ 1500'	1537.00	1.50	42.00	1536.82	-19.91	14.95	13.46	20.12	42.00	0.10	-148.8 M
	1681.00	5.60	211.20	1680.64	-14.75	10.34	11.08	15.15	46.99	4.92	2.9 G
	1745.00	9.60	212.40	1744.06	-6.29	3.16	6.60	7.32	64.45	6.25	10.1 G
	1837.00	14.60	215.90	1833.99	12.97	-12.72	-4.32	13.44	198.73	5.49	-3.1 G
	1901.00	17.40	215.40	1895.51	30.60	-27.06	-14.59	30.74	208.33	4.38	-56.9 G
	1962.00	18.70	209.60	1953.51	49.48	-43.00	-24.71	49.59	209.88	3.63	-51.5 G
	1993.00	19.70	206.00	1982.79	59.61	-52.02	-29.45	59.78	209.52	5.00	0.0 G
	2056.00	22.40	206.00	2041.58	82.03	-72.35	-39.37	82.37	208.55	4.29	37.8 G
	2119.00	25.30	211.10	2099.20	107.37	-94.68	-51.59	107.82	208.59	5.64	16.4 G
	2182.00	28.20	212.90	2155.45	135.71	-118.71	-66.63	136.13	209.31	4.78	25.5 G
	2245.00	28.40	213.10	2210.92	165.58	-143.76	-82.90	165.95	209.97	0.35	-102.3 G
	2338.00	28.30	212.10	2292.76	209.73	-180.96	-106.69	210.07	210.52	0.52	59.7 G
	2400.00	28.70	213.50	2347.25	239.30	-205.82	-122.72	239.63	210.80	1.26	75.2 G
	2463.00	29.00	215.70	2402.43	269.69	-230.84	-139.98	269.97	211.23	1.75	78.8 G
	2524.00	29.10	216.70	2455.76	299.29	-254.74	-157.47	299.48	211.72	0.81	-146.3 G
	2587.00	28.60	216.00	2510.94	329.66	-279.22	-175.49	329.79	212.15	0.96	-139.0 G
	2697.00	27.60	214.10	2607.98	381.45	-321.63	-205.25	381.54	212.55	1.22	-125.9 G
	2791.00	27.50	213.80	2691.32	424.92	-357.69	-229.53	425.00	212.69	0.18	180.0 G
	2949.00	26.70	213.80	2831.97	496.90	-417.50	-269.57	496.97	212.85	0.51	-127.1 G
	3106.00	26.40	212.90	2972.41	567.07	-476.12	-308.15	567.14	212.91	0.32	-99.2 G
	3263.00	26.30	211.40	3113.10	636.72	-535.11	-345.24	636.81	212.83	0.43	-132.4 G
	3421.00	26.10	210.90	3254.87	706.40	-594.81	-381.32	706.54	212.66	0.19	131.0 G
	3579.00	25.80	211.70	3396.94	775.48	-653.89	-417.24	775.66	212.54	0.29	-147.1 G
	3704.00	25.60	211.40	3509.57	829.64	-700.08	-445.60	829.86	212.48	0.19	-142.4 G
	3830.00	25.00	210.30	3623.49	883.42	-746.30	-473.22	883.69	212.38	0.60	152.6 G
	3988.00	24.60	210.80	3766.92	949.58	-803.38	-506.90	949.93	212.25	0.29	-168.6 G
	4113.00	23.80	210.40	3880.93	1000.74	-847.48	-532.99	1001.15	212.17	0.65	-161.0 G
	4270.00	22.90	209.60	4025.07	1062.83	-901.37	-564.10	1063.33	212.04	0.61	-171.5 G
	4426.00	21.20	208.90	4169.66	1121.21	-952.45	-592.73	1121.83	211.89	1.10	-169.6 G
	4581.00	19.90	208.20	4314.79	1175.39	-1000.24	-618.74	1176.15	211.74	0.85	180.0 G
	4739.00	18.50	208.20	4464.00	1227.10	-1046.03	-643.30	1228.01	211.59	0.89	174.9 G

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GEOSCIENCES

4896.00	16.30	208.90	4613.81	1273.85	-1087.28	-665.72	1274.89	211.39	0.52	65.0 G	
5036.30	15.60	208.20	4748.70	1312.24	-1121.14	-684.15	1313.40	211.39	0.52	0.0 G	
5099.33	15.70	208.20	4809.40	1329.16	-1136.12	-692.18	1330.37	211.35	0.16	0.0 G	
5162.10	16.10	208.20	4869.77	1346.27	-1151.28	-700.31	1347.54	211.31	0.64	-26.5 G	
5225.00	16.50	207.50	4930.14	1363.83	-1166.89	-708.55	1365.17	211.27	0.71	22.3 G	
5274.00	17.00	208.20	4977.06	1377.88	-1179.37	-715.15	1379.26	211.23	1.10	11.9 G	
5346.00	19.20	209.60	5045.49	1400.16	-1198.95	-725.97	1401.61	211.20	3.11	44.3 G	
5478.00	22.80	218.10	5168.73	1447.34	-1237.97	-752.49	1448.73	211.29	3.57	110.6 G	
5507.00	22.70	218.80	5195.48	1458.52	-1246.75	-759.46	1459.85	211.35	1.00	17.3 G	
5538.60	23.60	219.50	5224.53	1470.89	-1256.38	-767.31	1472.16	211.41	2.98	-110.7 G	
5597.00	23.30	217.40	5278.11	1494.05	-1274.58	-781.76	1495.23	211.52	1.52	72.9 G	
5629.00	23.40	218.20	5307.49	1506.70	-1284.60	-789.53	1507.83	211.58	1.04	-18.3 G	
5660.00	24.40	217.40	5335.83	1519.23	-1294.53	-797.23	1520.32	211.63	3.39	-9.1 G	
5723.00	26.63	216.60	5392.68	1546.32	-1316.20	-813.55	1547.34	211.72	3.58	22.7 G	
5753.00	27.63	217.50	5419.38	1559.98	-1327.12	-821.80	1560.96	211.77	3.60	58.9 G	
5799.00	27.80	218.10	5460.10	1581.32	-1344.02	-834.91	1582.24	211.85	0.71	180.0 G	
5862.00	27.30	218.10	5515.96	1610.38	-1366.95	-852.89	1611.20	211.96	0.79	180.0 G	
5957.00	27.20	218.10	5600.42	1653.75	-1401.18	-879.73	1654.46	212.12	0.11	-115.9 G	
6051.00	26.90	216.70	5684.13	1696.41	-1435.14	-905.69	1697.03	212.26	0.75	-119.4 G	
6145.00	26.70	215.90	5768.04	1738.75	-1469.29	-930.79	1739.31	212.35	0.44	-99.7 G	
6240.00	26.60	214.50	5852.95	1781.35	-1504.11	-955.35	1781.86	212.42	0.67	-108.4 G	
6335.00	26.40	213.10	5937.97	1823.73	-1539.33	-978.93	1824.24	212.45	0.69	-108.8 G	
6428.00	26.10	211.00	6021.38	1864.84	-1574.19	-1000.76	1865.36	212.45	1.05	90.0 G	
6459.00	26.10	211.10	6049.22	1878.47	-1585.87	-1007.79	1879.00	212.44	0.14	-90.0 G	
6490.00	26.10	210.30	6077.05	1892.08	-1597.60	-1014.75	1892.63	212.42	1.14	-90.0 G	
6516.00	26.10	209.60	6100.40	1903.50	-1607.51	-1020.46	1904.06	212.41	1.18	0.0 G	
6540.00	26.10	209.60	6121.96	1914.03	-1616.69	-1025.68	1914.60	212.39	0.00	0.0 G	
6572.00	26.20	209.60	6150.68	1928.09	-1628.95	-1032.64	1928.69	212.37	0.31	90.0 G	
6603.00	26.20	209.90	6178.50	1941.74	-1640.84	-1039.44	1942.36	212.35	0.43	-24.0 G	
6664.00	26.40	209.70	6233.18	1968.70	-1664.29	-1052.87	1969.36	212.32	0.36	-146.5 G	
6700.00	26.20	209.40	6265.45	1984.61	-1678.17	-1060.73	1985.30	212.30	0.67	-65.9 G	
6729.00	26.30	208.90	6291.46	1997.40	-1689.37	-1066.98	1998.10	212.28	0.84	83.0 G	
6791.00	26.60	213.20	6346.98	2024.96	-1713.01	-1081.22	2025.69	212.26	3.13	96.9 G	
6885.00	26.40	219.40	6431.12	2066.81	-1746.77	-1106.01	2067.48	212.34	2.95	-155.0 G	
6916.00	25.84	218.80	6458.95	2080.40	-1757.36	-1114.62	2081.04	212.39	2.00	0.0 G	
6979.00	26.30	218.80	6515.54	2107.98	-1778.94	-1131.97	2108.55	212.47	0.73	19.6 G	
7011.00	27.20	219.50	6544.12	2122.32	-1790.11	-1141.07	2122.86	212.51	2.98	58.4 G	
7043.00	27.40	220.20	6572.55	2136.92	-1801.38	-1150.47	2137.41	212.56	1.18	126.1 G	
7074.00	27.30	220.50	6600.09	2151.07	-1812.23	-1159.69	2151.53	212.62	0.55	-164.9 G	
7105.00	26.80	220.20	6627.70	2165.07	-1822.97	-1168.82	2165.50	212.67	1.67	122.8 G	
7136.00	26.60	220.90	6655.39	2178.90	-1833.56	-1177.87	2179.29	212.72	1.20	122.9 G	
7167.00	26.40	221.60	6683.14	2192.62	-1843.96	-1186.99	2192.97	212.77	1.20	134.4 G	
7198.00	26.10	222.30	6710.94	2206.19	-1854.16	-1196.16	2206.51	212.83	1.39	0.0 G	
7230.00	26.40	222.30	6739.64	2220.19	-1864.62	-1205.68	2220.47	212.89	0.94	38.4 G	
7262.00	26.80	223.00	6768.25	2234.35	-1875.16	-1215.39	2234.59	212.95	1.59	180.0 G	
7293.00	26.70	223.00	6795.93	2248.12	-1885.37	-1224.91	2248.33	213.01	0.32	-46.8 G	
7388.00	27.00	222.30	6880.69	2290.52	-1916.92	-1253.98	2290.65	213.19	0.46	-134.3 G	
7482.00	26.40	220.90	6964.67	2332.36	-1948.50	-1282.02	2332.43	213.34	0.92	-134.4 G	
7576.00	26.10	220.20	7048.98	2373.64	-1980.09	-1309.05	2373.68	213.47	0.46	-30.3 G	
7670.00	27.20	218.80	7132.99	2415.60	-2012.63	-1335.86	2415.61	213.57	1.35	-23.5 G	
7764.00	29.60	216.70	7215.67	2460.19	-2047.99	-1363.20	2460.20	213.65	2.77	-26.8 G	
7796.00	30.30	216.00	7243.40	2476.15	-2060.86	-1372.67	2476.16	213.67	2.44	-39.1 G	
Start Multishot Survey	7880.00	31.40	214.30	7315.51	2519.21	-2096.08	-1397.45	2519.21	213.69	1.67	176.8 G

**CENTRAL FILE
GEOSCIENCES**

7973.00	30.50	214.40	7395.27	2567.04	-2135.57	-1424.44	2567.04	213.70	0.97	-149.9 G
8068.00	29.90	213.70	7477.38	2614.82	-2175.16	-1451.20	2614.82	213.71	0.73	175.4 G
8162.00	28.70	213.90	7559.35	2660.82	-2213.39	-1476.79	2660.83	213.71	1.28	155.2 G
8256.00	26.50	216.20	7642.65	2704.35	-2249.05	-1501.77	2704.35	213.73	2.60	-164.1 G
8351.00	25.30	215.40	7728.11	2745.82	-2282.70	-1526.04	2745.82	213.76	1.32	-108.8 G
8445.00	24.90	212.40	7813.23	2785.68	-2315.78	-1548.28	2785.68	213.77	1.42	-174.2 G
8539.00	24.10	212.20	7898.77	2824.65	-2348.73	-1569.11	2824.65	213.75	0.86	-150.5 G
8633.00	23.20	210.90	7984.88	2862.33	-2380.86	-1588.85	2862.33	213.72	1.11	-143.0 G
8727.00	22.40	209.30	8071.53	2898.68	-2412.37	-1607.12	2898.68	213.67	1.08	-168.1 G
8822.00	21.70	208.90	8159.58	2934.22	-2443.53	-1624.47	2934.23	213.62	0.75	180.0 G
8916.00	21.20	208.90	8247.07	2968.47	-2473.62	-1641.08	2968.49	213.56	0.53	27.4 G
9010.00	21.70	209.60	8334.56	3002.73	-2503.61	-1657.88	3002.77	213.51	0.60	---

Survey Error Model: Wolff & deWardt 1.0000 sigma

Surveying Programme:

MD From (ft)	MD To (ft)	EQU Freq	Survey Tool Type
0.00	9010.00	Act-Stns	Anadrill MWD

Quality Control _____ Date Drawn: 11-Jun-2001
 Drawn by: _____ Juan Rodríguez L.
 Checked by: _____ Alejandro Martín
 Client OK: _____

Petro-Tech Peruana S.A.

Date	4-May-01 to 05-May-01
Well	LO6-23
Borehole	LO6-23

BHA Comments:	Build curve @4.0°/100' to an inclination of 25° at 213.8' azimuth. Then drill 500' tangent section. Build 4.11°/100' average with 60% footage steered in curve and 35% footage for all run. In rotation mode this Bha drop inclination -0.11 to -1.40°/100' with a normal tendencie to walk to left hand. Bha #1 POH due to Slim-1 Failure.
----------------------	--

Bit Nozzles	
Count	Size (1/32")
5	16
2	18
	1.479
TFA (in2)	

Quality Control	
Created By:	L.T
Checked By:	J.T

Petro-Tech Peruana S.A.

Date	5-May-01 to 6-May-01
Well	LO6-23
Borehole	LO6-23

BHA Comments:	Purpose of this assembly is to drop angle slowly while rotating to 9 5/8" casing point.
This Bha show up drop tendency while drill through Rio Bravo Form. With BR = -0.23°/100' and TR = -0.48°/100'.	
POOH due to LROP. Last joint took 2.5 hr. to drill.	

Bit Nozzles	
Count	Size (1/32")
5	1
2	1
	1.47
TFA (in2)	

Quality Control	
Created By:	L.T
Checked By:	J.T

Petro-Tech Peruana S.A.

Date	6-May-01 to 7-May-01
Well	LO6-23
Borehole	LO6-23

BHA Comments:	Purpose of this assembly is to drop angle slowly while rotating to 9 5/8" casing point. Continue drop inclination from 25.6 to 22.9° and walk left hand from 211.4 to 209.6° with DLS average = 0.47°/100'
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Bit Nozzles	
Count	Size (1/32")
3	16
3	18
TFA (in2)	1.335

Quality Control	
Created By:	L.T
Checked By:	J.T

Petro-Tech Peruana S.A.

Item	Name	Vendor/ Model	Serial #	Fish. Neck OD (in)/ Length (ft)	OD (in)/ ID (in)	Max OD (in)	Bottom/ Top Connection	Length (ft)	Cum. Length (ft)
1	12 1/4" PDC Bit	HTC	402502		12 1/4	12 1/4		1.00	1.00
	New	BD 535					6 5/8 R P		
3	12 1/4" NB Stb	Anadrill	M25646	7 3/4	7 3/4	12 1/4	6 5/8 R B	5.44	6.44
				2.28	2 13/16		6 5/8 R B		
4	Float Sub w/ valve	Anadrill	14128-10		8	8	6 5/8 R P	2.58	9.02
					2 13/16		6 5/8 R B		
5	Pony NMDC	Anadrill	702045-1		7 11/16	7 11/16	6 5/8 R P	10.62	19.64
					2 13/16		6 5/8 R B		
6	12" WM Stb	Anadrill	UTD-028	8 1/16	8 1/16	12	6 5/8 R P	5.97	25.61
				2.54	2 13/16		6 5/8 R B		
7	UBHO	Anadrill	14128-1		8	8	6 5/8 R P	2.25	27.86
					2 13/16		6 5/8 R B		
8	NMDC	Anadrill	H872		7 15/16	7 15/16	6 5/8 R P	30.94	58.80
	w/ Slim-1				2 13/16		6 5/8 R B		
9	Pony NMDC	Anadrill	H876		7 13/16	7 13/16	6 5/8 R P	11.75	70.55
					2 13/16		6 5/8 R B		
10	12 1/4" Stb	Anadrill	TDO 103	7 15/16	7 15/16	12 1/4	6 5/8 R P	5.17	75.72
				1.88	2 7/8		6 5/8 R B		
11	NMDC	Anadrill	K-870		7 7/8	7 7/8	6 5/8 R P	29.26	104.98
					2 7/8		6 5/8 R B		
12	1 x 7 3/4" DC	Pepesa			7 13/16	7 13/16	6 5/8 R P	31.31	136.29
					2 7/8		6 5/8 R B		
13	X/O	Pepesa			7 21/32	7 21/32	6 5/8 R P	2.90	139.19
					2 15/16		4 1/2 XH B		
14	3 x 6 1/4" DC	Pepesa			6 1/4	6 1/4	4 1/2 XH P	89.69	228.88
					2 13/16		4 1/2 XH B		
15	X/O	Pepesa			6 1/4	6 1/4	4 1/2 XH P	1.60	230.48
					2 3/4		4 1/2 IF B		
16	6 x 5" HWDP	Pepesa			5	6 1/2	4 1/2 IF P	182.13	412.61
					3		4 1/2 IF B		
17	Hydraulic Jars	Houston Engineers	03376	6 1/2	6 1/2	6 1/2	4 1/2 IF P	32.14	444.75
		Hydrajar		2.52	2 3/4		4 1/2 IF B		
18	18 x 5" HWDP	Pepesa			5	6 1/2	4 1/2 IF P	545.38	990.13
					3		4 1/2 IF B		
					Total Weight (lbf)		67K	Total Lth.	989.96
					Below Jar (lbf)		38K		

[illegible]

Bit Nozzles	
Count	Size (1/32")
4	16
1	18
2	20
TFA (in2)	1.648

Quality Control	
Created By:	L.T
Checked By:	J.T

Petro-Tech Peruana S.A.

Date	9-May-01 to 10 May-01
Well	LO6-23
Borehole	LO6-23

Total Weight (lbf)		Total Lth.	978.79
Below Jar (lbf)			

POH to run 9 5/8" Casing.

[illegible]

Quality Control	
Created By:	L.T
Checked By:	V.M

Date	12-May-01 to 14-May-01
Well	LO6-23
Borehole	LO6-23

BHA Comments:	Build 2.00°/100' to 29° and turn from 208 to 222°
DLS average is 2.64°/100' . Built rate average is 2.02°/100' and TR average is 1.21°/100'	
Rock Bit together with high torque and low speed motor plus enough Web gave us a aggressive right walk tendency.	

[illegible]

Bit Nozzles	
Count	Size (1/32")
3	22
TFA (in2)	1.114

Quality Control	
Created By:	LT; RT
Checked By:	VM

Petro-Tech Peruana S.A.

Date	14-May-01 to 15-May-01
Well	LO6-23
Borehole	LO6-23

BHA Comments:	Hold & Drop angle slowly to target.
No enough room to evaluate. Lost 300 psi of pump pressure for no reason. POH to check every connection to find out wash out. No success.	

Bit Nozzles	
Count	Size (1/32")
4	16
2	18
TFA (in2)	1.282

Quality Control	
Created By:	VM / RT / LT
Checked By:	

Petro-Tech Peruana S.A.

Date	15-May-01 to 16-May-01
Well	LO6-23
Borehole	LO6-23

BHA Comments:	Hold & Drop angle slowly to target.
DOR _{average} = -0.34°/100' and TR = -1.32°/100' This was excellent but into San Cristobal formation the turn rate reach to 2.69°/100' so push out the target	
Decide POH to run steerable assembly due to hard geological issues. Bit came out in good shape.	

Bit Nozzles	
Count	Size (1/32")
1	15
5	16
TFA (in2)	1.155

Quality Control	
Created By:	VM / RT / LT
Checked By:	

Petro-Tech Peruana S.A.

Date	16-May-01 to 17-May-01
Well	LO6-23
Borehole	LO6-23

BHA Comments:	Hold inclination turn from 208 to 222°
PDC bit no help to turn the well. The effort to turn to right was compensate with walk left tendency while rotary. The azimuth hold 209°	
Several stall on the motor were observed and a lot of hanging up probably from second stabilizer. POH to run rock bit.	

Bit Nozzles	
Count	Size (1/32")
5	16
1	18
TFA (in2)	1.23

Quality Control	
Created By:	LT; RT
Checked By:	VM

Petro-Tech Peruana S.A.

Date	18-May-01 to 20-May-01
Well	LO6-23
Borehole	LO6-23

BHA Comments:	Hold inclination turn from 209° to 228°
Good correction. Turn the well from 208° to 222.3° and built the inclination from 26.3° to 27.4° with 25% slid from 567' footage.	
This correction guarantee us hit the center of the target. Suspect noise from the rock bit. Slim-1 not send good signal to GTF and surveys.	

Bit Nozzles	
Count	Size (1/32")
2	22
1	24
TFA (in2)	1.184

Quality Control	
Created By:	LT; RT
Checked By:	VM

Petro-Tech Peruana S.A.

Date	20-May-01 to 23-May-01
Well	LO6-23
Borehole	LO6-23

		Vendor/ Model	Serial #	Fish. Neck OD (in)/ Length (ft)	OD (in)/ ID (in)	Max OD (in)	Bottom/ Top Connection	Length (ft)	Cum. Length (ft)
Item	Name								
1	8 1/2" PDC Bit (3RR)	Hycalog DS110NSV	H47615		8 1/2	8 1/2		0.80	0.80
2	A675XP7850 Motor (1RR) w/ B.H= 1.50° Slv. Stab 8 3/8"	Anadrill	02188	6 3/4 1.33	6 3/4 2 7/8	8 3/8	4 1/2 R P 4 1/2 IF B	25.27	26.07
3	8 11/32" WM Stb	Anadrill	15485-3	6 3/4 2.62	6 3/4 2 13/16	8 3/8	4 1/2 IF P 4 1/2 IF B	6.11	32.18
4	X/O	Pepesa	n/a		6 1/2 2 15/16	6 1/2	4 1/2 IF P 4 1/2 XH B	1.47	33.65
5	Float Sub w/ Float Valve	Anadrill	771727		6 5/8 2 7/8	6 5/8	4 1/2 XH P 4 1/2 XH B	2.21	35.86
6	Pony NMDC	Anadrill	395-3		6 3/8 2 13/16	6 3/8	4 1/2 XH P 4 1/2 XH B	7.57	43.43
7	UBHO	Anadrill	14637-2		6 11/16 2 3/4	6 11/16	4 1/2 XH P 4 1/2 XH B	2.27	45.70
8	NMDC w/ Slim-1	Anadrill	7651		6 1/8 2 7/8	6 1/8	4 1/2 XH P 4 1/2 XH B	30.34	76.04
9	NMDC	Anadrill	10097		6 3/4 2 7/8	6 3/4	4 1/2 XH P 4 1/2 XH B	30.71	106.75
10	6 x 6 1/4" DC	Anadrill			6 1/2 2 7/8	6 1/2	4 1/2 XH P 4 1/2 XH B	182.50	289.25
11	X/O	Pepesa			6 5/16 2 1/2	6 5/16	4 1/2 XH P 4 1/2 IF B	1.60	290.85
12	6 x 5" HWDP	Pepesa			5 3	6 1/2	4 1/2 IF P 4 1/2 IF B	182.13	472.98
13	6 1/2" HE Jars	Houston Engineers Hydrajar	03336	6 5/16 2.52	6 1/2 2 3/4	6 1/2	4 1/2 IF P 4 1/2 IF B	32.14	505.12
14	18 x 5" HWDP	Pepesa			5 3	6 1/2	4 1/2 IF P 4 1/2 IF B	545.38	1050.50
					Total Weight (lb)		30,583	Total Lth.	1050.50
					Below Jar (lb)		50,234		

BHA Comments:	Hold inclination & azimuth to hit center of target
<u>RIH</u>	

Bit Nozzles	
Count	Size (1/32")
3	16
3	18
TFA (in2)	1.335

Quality Control	
Created By:	LT; RT
Checked By:	VM

BHA Data Sheet

Petro-Tech Peruana S.A.

Date	23-May-01 to XX-May-01
Well	LO6-23
Borehole	LO6-23

BHA Comments:	Hold angle to TD. All stabilizers are UG by client requirements in order to reduce rotary drilling torque

[illegible]

Bit Nozzles	
Count	Size (1/32")
3	24
TFA (in2)	1.325

Quality Control	
Created By:	VM / RT/ LT
Checked By:	

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MOTOR RUN SUMMARY**Job # 01013**

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:		
1	May-01	Talara	PCE	1	DD / MWD	Taylor & Tenorio	Steerable	03-May-01	4-May-01		
Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls				
Petro-Tech	Pepesa 48	LO6-23	1	A800XP	8"	02966	N/A				
Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination	
7:8	1.73°	Sleeve	12 1/8"	12 1/4"	1.5	0.0	0.0	1.5	N/A	N/A	
Depth In	Depth Out	Footage	Steering Ftg	Max DLS	GPM	WOB K lbs	RPM	PSI On Bottom	PSI Off Bottom		
1600'	1600'	0'	0'	N/A	700	N/A	N/A	N/A	1350		
Bit Make: Smith		Bit Type: RR S91PX		PDC bit		IADC Code: PDC		Nozzles: 5 x 16 / 2 x 18			
IADC CUTTING STRUCTURE :								TFA: 1.479			
Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals		Gauge	Other Characteristics				
							15% Wear				
Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(F°)	
FLO-DRILL	8.8	50	14	21	20000	10.6	380	2.0	0.10	N/A	
BHA: 12 1/4" bit		PP motor	12" stb	FS	pony NMDC	UBHO	NMDC	NMDC	1 x 7 3/4" DC	X/O	
3 x 6 1/4" DC		X/O	6 x 5" HW	jars	18 x 5" HW						
Radial Bearing Play				OK		Thrust Bearing Play				OK	
Objective: Build curve @ 4.0°/100' to 25° inclination at an azimuth of 214°. After curve we will continue drilling with assembly up to 500' in the tangent section.											
Results: Attempted to survey on bottom after running in hole. MWD not functioning properly. POH f/ MWD. No hole made this run.											
Formation: N/A											
Reason for Trip: MWD											
Problem or Failure Reported:				Failure: No		Category :		Type :			
No problems.											
R & M Diagnosis:											
Action Follow Up:											

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MOTOR RUN SUMMARY**Job # 01013**

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:		
2	May-01	Talara	PCE	2	DD / MWD	Taylor & Tenorio	Steerable	04-May-01	5-May-01		
Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls				
Petro-Tech	Pepesa 48	LO6-23	2	A800XP	8"	02966	2				
Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination	
7:8	1.73°	Sleeve	12 1/8"	12 1/4"	1.0	11.25	8.75	21.0	54.6/hr	29.1°	
Depth In	Depth Out	Footage	Steering Ftg	Max DLS	GPM	WOB K lbs	RPM	PSI On Bottom	PSI Off Bottom		
1600'	2692'	1092'	384'	6.2°	700	10-15K	50-60	1900	1600		
Bit Make: Smith		Bit Type: RR S91PX		PDC bit		IADC Code: PDC		Nozzles: 5 x 16 / 2 x 18			
IADC CUTTING STRUCTURE :								TFA: 1.479			
Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals		Gauge		Other Characteristics			
						In		20% wear			
Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(F°)	
FLO-DRILL	8.9	50	14	26	24000	10.0	200	4.0	0.20	105.5° F	
BHA:		12 1/4" bit	PP motor	12" stb	FS	pony NMDC	UBHO	NMDC	NMDC	1 x 7 3/4" DC	X/O
3 x 6 1/4" DC		X/O	6 x 5" HW	jars	18 x 5" HW						
Radial Bearing Play				OK		Thrust Bearing Play				OK	
Objective: Build curve @ 4.0°/100' to 25° inclination at an azimuth of 214°. After curve we will continue drilling with assembly up to 500' in the tangent section.											
Results: Built curve & drilled motor tangent section without problems. Motor drained fine at surface. Bearing turned smoothly.											
Formation: Talara, Chacra						Reason for Trip:					
Problem or Failure Reported:				Failure:		No		Category :		Type :	
No problems.											
R & M Diagnosis:											
Action Follow Up:											

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MOTOR RUN SUMMARY**Job # 01013**

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:		
3	May-01	Talara	PCE	7	DD / MWD	Montenegro, Torres & Tenorio	Steerable	12-May-01	14-May-01		
Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls				
Petro-Tech	Pepesa 48	LO6-23	3	A675XP	6 3/4"	01164	0				
Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination	
7:8	1.50°	Sleeve	8 3/8"	8 1/2"	1.5	15.60	6.90	24.0	22/hr	27.63°	
Depth In	Depth Out	Footage	Steering Ftg	Max DLS	GPM	WOB K lbs	RPM	PSI On Bottom	PSI Off Bottom		
5323'	5818	495'	117'	3.58°	500	25-30K	50-80	1600	1400		
Bit Make: HTC		Bit Type: New GT-M1		Rock bit		IADC Code: 116		Nozzles: 3 x 22/32"			
IADC CUTTING STRUCTURE :								TFA: 1.114			
Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals		Gauge	Other Characteristics				
3	3	WT	A	E		1/32"	20% wear				
Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(F°)	
FLO-DRILL	10.4	54	16	24	26000	10.0	280	11.0	0.30	98.9° F	
BHA:		8 1/2" bit	PP motor	XOS	FS	pony NMDC	UBHO	NMDC	NMDC	XOS	
6 x 6 1/4" DC		X/O	6 x 5" HW	jars	18 x 5" HW						
Radial Bearing Play				OK	Thrust Bearing Play				OK		
Objective: Build curve @ 2.0°/100' to 29° inclination at an azimuth of 222°.											
Results: Built curve without problems. Motor drained fine at surface. Bearing turned smoothly.											
Formation: Palegreda						Reason for Trip: Change out BHA					
Problem or Failure Reported:				Failure: No		Category :		Type :			
No problems.											
R & M Diagnosis:											
Action Follow Up:											

Schlumberger**Anadrill****MOTOR RUN SUMMARY****Job # 01013**C. L. FILE
GEOSCIENCES

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:
4	May-01	Talara	PCE	10	DD / MWD	Montenegro, Torres & Tenorio	Steerable	16-May-01	18-May-01

Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls
Petro-Tech	Pepesa 48	LO6-23	4	A675XP	6 3/4"	01164 (IRR)	50

Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination
7:8	1.150°	Sleeve	8 3/8"	8 1/2"	3.7	20.30	14.71	24.0	9.5'/hr	26.60°

Depth In	Depth Out	Footage	Steering Ftg	Max DLS	GPM	WOB K lbs	RPM	PSI On Bottom	PSI Off Bottom
6571'	6764'	193'	66'	0.84°	500	5-35K	80	1700	1600

Bit Make: HYC	Bit Type: IRR DS110NSV	PDC	IADC Code: 145	Nozzles: 5 X 16; 1 X 18/32"
IADC CUTTING STRUCTURE :				TFA: 1.231

Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals	Gauge	Other Characteristics
1	1	CT	N	X	1/16"	RR

Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(F°)
FLO-DRILL	10.9	52	16	27	26000	9.4	320	13.0	0.30	115.7° F

BHA:	8 1/2" bit	PP motor	XOS	FS	8 3/8" Stb	pony NMDC	UBHO	NMDC	NMDC
6 x 6 1/4" DC	X/O	6 x 5" HW	jars	18 x 5" HW					

Radial Bearing Play	0.25 mm	Thrust Bearing Play	OK
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Objective: Hold Inclination & turn the well from 208 to 222°**Results:** Turn the well with problems. Motor did not drain fine at surface. No mud pass through bearing section.**Formation:** San Cristobal**Reason for Trip:** Change out BHA**Problem or Failure Reported:****Failure:** No**Category :****Type :**

Several stall were observed. It no easily to slide, but it good to rotary. At surface a visual inspection show good rubber condition in the stator.

R & M Diagnosis:**Action Follow Up:**

MOTOR RUN SUMMARY**Job # 01013**

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:
5	May-01	Talara	PCE	11	DD / MWD	Montenegro, Torres & Tenorio	Steerable	18-May-01	20-May-01

Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls
Petro-Tech	Pepesa 48	LO6-23	5	A675XP	6 3/4"	02188	3

Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination
7:8	1.50°	Sleeve	8 3/8"	8 1/2"	3.5	20.30	13.46	43.5	14.5'/hr	27.4°

Depth In	Depth Out	Footage	Steering Ftg	Max DLS	GPM	WOB K lbs	RPM	PSI On Bottom	PSI Off Bottom
6764'	7331'	567'	141'	3.13°	480	30-40K	60	2000	1800

Bit Make: HTC	Bit Type: GTM1	Tricone	IADC Code: 116	Nozzles: 2x22 / 1x24
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IADC CUTTING STRUCTURE :

Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals	Gauge	Other Characteristics
3	3	WT	A	E	1/16	Bit

Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(F°)
FLO-DRILL	11.0	51	17	27	28000	10.0	240	14.0	0.30	114° F

BHA:	8 1/2" bit	PP motor	8 11/32" Stb	XOS	FS	pony NMDC	UBHO	NMDC	NMDC
6 x 6 1/4" DC	X/O	6 x 5" HW	jars	18 x 5" HW					

Radial Bearing Play	3 mm	Thrust Bearing Play	OK
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Objective: Hold Inclination & turn the well from 209 to 228°**Results:**

Good performance according with Anadrill standards.

Formation:	San Cristobal	Reason for Trip: Poor ROP
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Problem or Failure Reported:	Failure:	No	Category :	Type :
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R & M Diagnosis:

Action Follow Up:

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MOTOR RUN SUMMARY**Job # 01013**

Report #	Month	Location	District	BHA #	Service	DD	Run Type	Date In:	Date Out:
6	May-01	Talara	PCE	12	DD / MWD	Montenegro, Torres & Tenorio	Steerable	20-May-01	23-May-01

Client	Rig	Well	Motor Run #	Motor Type	Size	S / N	# Stalls
Petro-Tech	Pepesa 48	LO6-23	6	A675XP	6 3/4"	02188	3

Stator Configuration	Bent Hsg Angle	Stabilizer Type	Stabilizer Gauge	Hole Size	Circulating Hours	Rotary Drlg Hours	Steering Drlg Hours	Total Hours	ROP ft/hr	Maximum Inclination
7:8	1.50°	Sleeve	8 3/8"	8 1/2"	6.0	43.92	3.91	53.8	11'/hr	30.30°

Depth In	Depth Out	Footage	Steering Ftg	Max DLS	GPM	WOB K lbs	RPM	PSI On Bottom	PSI Off Bottom
7331'	7865'	534'	24'	2.77°	430	30-40K	70	2100	1950

Bit Make: Hycalog	Bit Type: DS110NSV	PDC	IADC Code:	Nozzles: 3x16 / 3x18
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IADC CUTTING STRUCTURE :	TFA: 1.335
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Inner Rows	Outer Rows	Dull Characteristics	Location	Bearings / Seals	Gauge	Other Characteristics
2	2	CT	N	X	1/16	RR

Mud Type	Wt (lb/gal)	Viscosity	PV	YP	Chlorides	pH	Hardness	% Solids	% Sand	Slim Temp(F°)
FLO-DRILL	12.0	53	21	29	26000	10.5	80	18.0	0.30	114° F

BHA:	8 1/2" bit	PP motor	8 11/32" Stb	XOS	FS	pony NMDC	UBHO	NMDC	NMDC
6 x 6 1/4" DC	X/O	6 x 5" HW	jars	18 x 5" HW					

Radial Bearing Play	3 mm	Thrust Bearing Play	OK
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Objective: Hold Inclination & turn the well from 209 to 228°**Results:**

Good performance according with Anadrill standards.

Formation: San Cristobal	Reason for Trip: Poor ROP
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Problem or Failure Reported:	Failure: No	Category :	Type :
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R & M Diagnosis:**Action Follow Up:**

Schlumberger**Steerable Motor Slide Sheet for BHA #1 & 2****Job # 01013****Page 1****Well: LO6-23****Rig: Pepesa #48****Date In: 3 May 2001****Date Out: 5 May 2001****Customer: Petro-Tech Peruana****BHA #1:** 12 1/4" bit, 8" XP PP motor (1.73° ABH, 12 1/8" brg stb), 12" stb, FS, pony NMDC, UBHO, 2 x NMDC, 1 x 7 3/4" DC, X/O, 3 x 6 1/4" DC, X/O, 6 x 5" HWDP, jars, 18 x 5" HWDP

Depth From	Depth To	Course Length	Drill Mode	TFO	Drlg Hrs	Circ Hrs	Total Hrs	ROP ft/hr	WOB K lbs	Rot RPM	Torq Relative	Flow GPM	Pressure On Btm	Pressure Off Btm	Survey Depth	Incl °	Azim °	DLS °/100'	B/D Rate °/100'	L/R Rate °/100'
															1537	1.5	42.0			
			R			1.50	1.50													
1600	1625	25	S	180-215M	0.50		0.50	50.0	10-15			700	1500	1350						
1625	1636	11	R		0.15		0.15	73.3	15	50	150	700	1550	1350						
1636	1661	25	S	190-220M	0.25		0.25	100.0	13-17			700	1500	1350						
1661	1667	6	R		0.15		0.15	40.0	15-18	50	150	700	1500	1350						
1667	1686	19	S	200-230M	0.50		0.50	38.0	12-15			700	1550	1350	1681	5.6	211.2	4.92	2.85	117.50
1686	1697	11	R		0.25		0.25	44.0	20-25	50	200	700	1550	1400						
1697	1717	20	S	200-235M	0.25		0.25	80.0	12-15			700	1550	1400						
1717	1729	12	R		0.25		0.25	48.0	15-20	50	150	700	1650	1400						
1729	1749	20	S	200-225M	0.50		0.50	40.0	10-15			700	1500	1400						
1749	1760	11	R		0.25		0.25	44.0	15-25	50	200	700	1600	1400	1745	9.6	212.4	6.25	6.25	1.87
1760	1775	15	S	210-225M	0.25		0.25	60.0	10-12			700	1500	1400						
1775	1796	21	R		0.25		0.25	84.0	15-20	50	210	700	1650	1400						
1796	1811	15	S	210-235M	0.25		0.25	60.0	10-15			700	1550	1400						
1811	1828	17	R		0.25		0.25	68.0	15	50	200	700	1600	1400						
1828	1843	15	S	10-40R	0.25		0.25	60.0	10-12			700	1500	1400	1837	14.6	215.9	5.49	5.43	3.80
1843	1855	12	R		0.25		0.25	48.0	15-20	50	175	700	1600	1400						
1855	1870	15	S	30-40R	0.50		0.50	30.0	8-15			700	1550	1450						
1870	1885	15	R		0.25		0.25	60.0	15-18	50	200	700	1650	1450						
1885	1900	15	S	20-40R	0.50		0.50	30.0	10-20			700	1650	1500						
1900	1916	16	R		0.25		0.25	64.0	12-15	50	200	700	1600	1500	1901	17.4	215.4	4.38	4.37	-0.78
1916	1931	15	S	40L-20R	0.25		0.25	60.0	10-15			700	1650	1500						
1931	1948	17	R		0.25		0.25	68.0	14-16	50	175	700	1600	1500						
1948	1968	20	S	30L-30R	0.25		0.25	80.0	12-15			700	1600	1500	1962	18.7	209.6	3.63	2.13	-9.51
1968	1979	11	R		0.15		0.15	73.3	10-12	50	180	700	1600	1500						
1979	1995	16	S	HS-20R	0.25		0.25	64.0	10			700	1600	1500	1993	19.7	206.0	5.00	3.23	-11.61
1995	2011	16	R		0.25		0.25	64.0	12-14	50	200	700	1700	1600						
Tot Footage		411			7.45	1.50	8.95	55.17	SLIDING		Ft	Hrs	%	ROTARY		Ft	Hrs	Rev 1.3 M		
Tot Pumping Hrs		8.95	Tot Drlg Hrs			7.45	Circ Hrs		1.50		235	4.50	57.2			176	2.95	Avg ROP		55.2

CENTRAL FILE
GEOSCIENCES

BHA #1 & 2 (continued)					LO6-23					Job #01013										Page 2
Depth From	Depth To	Course Length	Drill Mode	TFO	Drlg Hrs	Circ Hrs	Total Hrs	ROP ft/hr	WOB K lbs	Rot RPM	Torq Relative	Flow GPM	Pressure On Btm	Pressure Off Btm	Survey Depth	Incl °	Azim °	DLS %/100'	B/D Rate %/100'	L/R Rate %/100'
2011	2031	20	S	25L-20R	0.50		0.50	40.0	10-12			700	1700	1600	2056	22.4	206.0	4.29	4.29	0.00
2031	2042	11	R		0.25		0.25	44.0	12-15	50	200	700	1700	1600						
2042	2062	20	S	30-70R	0.50		0.50	40.0	12-15			700	1700	1600						
2062	2073	11	R		0.25		0.25	44.0	12-15	50	200	700	1700	1600						
2073	2093	20	S	40-70R	0.50		0.50	40.0	10-14			700	1700	1600						
2093	2104	11	R		0.15		0.15	73.3	10-12	50	200	700	1700	1600						
2104	2123	19	S	40-70R	0.50		0.50	38.0	15-20			700	1750	1600	2119	25.3	211.1	5.64	4.60	8.10
2123	2135	12	R		0.25		0.25	48.0	15-18	50	200	700	1700	1600						
2135	2155	20	S	10-40R	0.75		0.75	26.7	10-15			700	1750	1600						
2155	2166	11	R		0.25		0.25	44.0	10-12	50	200	700	1700	1600						
2166	2181	15	S	20-40R	0.50	0.50	1.00	30.0	10-15			700	1750	1600	2182	28.2	212.9	4.78	4.60	2.86
2181	2386	205	R		3.50		3.50	58.6	10-20	50-60	200-230	700	1850	1600	2338	28.3	212.1			
2386	2411	25	S	50-80R	0.50		0.50	50.0	15			700	1750	1600	2400	28.7	213.5	1.26	0.65	2.26
2411	2479	68	R		1.00		1.00	68.0	10-15	50-60	250	700	1900	1600	2463	29.0	215.7	1.75	0.48	3.49
2479	2489	10	S	45-70R	0.50		0.50	20.0	15-25			700	1800	1600	2524	29.1	216.7	0.81	0.16	1.64
2489	2692	203	R		2.65		2.65	76.6	10-15	50-60	225	700	1900	1600	2587	28.6	216.0	0.96	-0.79	-1.11
			S			0.50	0.50								2697	27.6	214.1	1.22	-0.91	-1.73
			R																	
			S																	
			R																	
			S																	
			R																	
			S																	
			R																	
			S																	
			R																	
			S																	
			R																	
			S																	
			R																	
			S																	
Tot Footage		681			12.55	1.00	13.55	54.26	SLIDING		Ft	Hrs	%	ROTARY		Ft	Hrs	Rev 1.3 M		
Tot Pumping Hrs		13.55	Tot Drlg Hrs			12.55	Circ Hrs		1.00		149	4.25	21.9			532	8.30	Avg ROP		54.3

FILE
REFERENCES

BHA #1 & 2 TOTALS

Total Circulating & Drilling Hours	22.5
Total Circulating Hours	2.5
Total Drilling Hours	20.0
Total Footage	1092'
Total Steering Hours	8.75
Total Rotating Hours	11.25

ROP for Run	54.6'/hr
ROP Steering	44.1'/hr
ROP Rotating	62.9'/hr

Total Steering Footage	384'
Total Rotating Footage	708'

% Footage Steered for Run	35%
% Footage Steered in Curve	60%

SUMMARY OF RUN

BHA #1:

No hole made with this assembly. MWD was not functioning properly when we tested at shoe. Circulated 1.5 hrs while trying to get MWD to work.

BHA #2:

Purpose of this assembly was to build curve at 4°/100' to an inclination of 25° at 214° azimuth. Planned KOP was 1500', but since casing was set at that depth we had to kick-off at 1600' to get far enough away from the casing shoe to eliminate magnetic interference. Also, the well walked to the NW in the vertical hole section so we started with negative vertical section. Because of the above, it was necessary to build angle at a higher rate than planned. This was accomplished without problem and the curve built in good order. We then drilled approximately 500' of tangent section with the motor assembly. Since the client requested we stay close to the line, we did not build as much angle as we normally would have, so the additional footage with the motor in the tangent section was necessary to maintain angle to set ourselves up for the next run. POH @ 2692' to pick up stabilized rotating assembly.

Well: LO6-23

Rig: Pepesa #48

Date In: 12 May 2001

Date Out: 14 May 2001

Customer: Petro-Tech Peruana

BHA #7: 8 1/2" bit, 6 3/4" XP PP motor (1.50° ABH, 8 3/8" brg stb), X/O, FS, pony NMDC, UBHO, 2 x NMDC, 6 x 6 1/4" DC, X/O, 6 x 5" HWDP, jars, 18 x 5" HWDP

Depth From	Depth To	Course Length	Drill Mode	TFO	Drlg Hrs	Circ Hrs	Total Hrs	ROP ft/hr	WOB K lbs	Rot RPM	Torq Relative	Flow GPM	Pressure On Btm	Pressure Off Btm	Survey Depth	Incl °	Azim °	DLS °/100'	B/D Rate °/100'	L/R Rate °/100'
5323	5327	4	R		0.50		0.50	8.0	15	50	190	500	1300	1200						
5327	5347	20	S	40R	0.75		0.75	26.7	25			500	1400	1200	5346	19.2	209.6	3.11	3.06	1.94
5347	5363	16	R		0.70		0.70	22.9	20	50	190	500	1400	1200						
5363	5378	15	S	40R	0.60		0.60	25.0	25			500	1400	1200						
5378	5394	16	R		0.75		0.75	21.3	25	50	190	500	1400	1350	5478	22.8	218.1	3.57	2.73	6.44
5394	5409	15	S	30R	0.55		0.55	27.3	25			500	1400	1350						
5409	5434	25	R		1.50		1.50	16.7	28	80	190	500	1400	1300						
5434	5441	7	S	32R	0.50		0.50	14.0	25			500	1400	1250	5507	22.7	218.8	1.00	-0.34	2.41
5441	5560	119	R		5.00		5.00	23.8	25	80	200	500	1400	1300						
5560	5567	7	S	76L	1.05		1.05	6.7	30			500	1400	1300	5538	23.6	219.5	2.98	2.85	2.22
5567	5589	22	R		1.00		1.00	22.0	25	80	190	500	1500	1400						
5589	5599	10	S	HS-20R	0.70		0.70	14.3	30			500	1500	1400	5597	23.3	217.4	1.52	-0.51	-3.60
5599	5650	51	R		1.20		1.20	42.5	25	60	180	500	1500	1400						
5650	5660	10	S	20L - 20R	0.50		0.50	20.0	25			500	1550	1400	5629	23.4	218.2	1.04	0.31	2.50
5660	5679	19	R		1.00		1.00	19.0	25	60	175	500	1600	1400						
5679	5691	12	S	10L-20R	0.50		0.50	24.0	30			500	1500	1400	5660	24.4	217.4	3.39	3.23	-2.58
5691	5712	21	R		0.50		0.50	42.0	27	60	175	500	1600	1400						
5712	5723	11	S	20L-20R	0.75		0.75	14.7	30			500	1550	1450	5723	26.6	216.7	3.58	3.54	-1.19
5723	5765	42	R		1.70		1.70	24.7	25	60	175	500	1700	1500						
5765	5775	10	S	35R	1.00		1.00	10.0	25			500	1650	1500	5723	27.6	217.5	3.57	3.33	2.83
5775	5818	43	R		1.75	1.50	3.25	24.6	25	60	175	500	1600	1500						
			S																	
			R																	
			S																	
			R																	
			S																	
			R																	
Tot Footage		495			22.50	1.50	24.00	22.00	SLIDING		Ft	Hrs	%	ROTARY		Ft	Hrs	Rev 1.3 M		
Tot Pumping Hrs		24.00	Tot Drlg Hrs			22.50	Circ Hrs		1.50		117	6.90	23.6			378	15.60	Avg ROP		22.0

BHA #7 TOTALS

Total Circulating & Drilling Hours	24.0
Total Circulating Hours	1.5
Total Drilling Hours	22.5
Total Footage	495'
Total Steering Hours	6.90
Total Rotating Hours	15.60

ROP for Run	22'/hr
ROP Steering	16.9'/hr
ROP Rotating	24.3'/hr

Total Steering Footage	117'
Total Rotating Footage	378'

% Footage Steered for Run	24%
% Footage Steered in Curve	24%

SUMMARY OF RUN

BHA #7:

Purpose of this assembly was to build curve at 2°/100' to an inclination of 28° at 222° azimuth. Drilled following the plan. This Bha was very aggressive in the first 150' drilled, so the BUR and TUR were high to planned. Rock bit and enough WOB help to do that. After that we controller the right walk tendencies and slight built to accomplish the plan. This gave us enough room to high the target safety.

CENTRAL FILE
GEOSCIENCES

BHA #10 TOTALS

Total Circulating & Drilling Hours	24.0
Total Circulating Hours	3.7
Total Drilling Hours	20.3
Total Footage	193'
Total Steering Hours	14.71
Total Rotating Hours	5.58

ROP for Run	9.5'/hr
ROP Steering	4.48'/hr
ROP Rotating	22.75'/hr

Total Steering Footage	66'
Total Rotating Footage	127'

% Footage Steered for Run	34%
% Footage Steered in Curve	34%

SUMMARY OF RUN

BHA #10:

The merge of BH:1.15° plus PDC bit DS110NSV not helping us to turn the well. There are hard walk left tendency, because we were drilling close to fault. Probably this two factor compensate the slide in right hand direction and result an steady azimuth all time. This present azimuth push out from the left side of the target.

Well: LO6-23

Rig: Pepesa #48

Date In: 18 May 2001

Date Out: 20 May 2001

Customer: Petro-Tech Peruana

BHA #11: 8 1/2" bit, 6 3/4" XP PP motor (1.50° ABH, 8 3/8" brg stb),Stb, X/O, FS, pony NMDC, UBHO, 2 x NMDC, 6 x 6 1/4" DC, X/O, 6 x 5" HWDP, jars, 18 x 5" HWDP

Depth From	Depth To	Course Length	Drill Mode	TFO	Drlg Hrs	Circ Hrs	Total Hrs	ROP ft/hr	WOB K lbs	Rot RPM	Torq Relative	Flow GPM	Pressure On Btm	Pressure Off Btm	Survey Depth	Incl °	Azim °	DLS °/100'	B/D Rate °/100'	L/R Rate °/100'
6764	6771	7	R		0.53	0.50	1.03	30.0	30	60	135	480	1800	17600	6729	26.3	208.9	0.84	0.34	-1.72
6771	6798	27	S	64R	2.38		2.38	11.3	30			480	1700	1750	6791	26.6	213.2	3.13	0.48	6.94
6798	6806	8	R		0.73		0.73	11.0	35	60	130	480	1800	1700	6885	26.4	219.4	2.95	-0.21	6.60
6806	6829	23	S	80R	1.40		1.40	16.4	35			480	1800	1700						
6829	6844	15	R		0.92		0.92	16.3	25	60	130	480	1750	1650	6916	25.8	218.8	2.00	-1.81	-1.94
6844	6855	11	S	90R	0.67	0.12	0.79	16.4	40			480	1800	1650	6979	26.3	218.8	0.73	0.73	
6855	6974	119	R		7.70		7.70	15.5	30	60	130	480	1750	1650	7011	27.2	219.5	2.98	2.81	2.19
6974	6986	12	S	20R	0.80		0.80	15.0	35			480	1700	1600	7043	27.4	220.2	1.18	0.63	2.19
6986	7002	16	R		0.97		0.97	16.5	30	60	130	480	1700	1600	7074	27.3	220.5	0.55	-0.32	0.97
7002	7018	16	S	40R	1.87		1.87	8.6	35			480	1700	1600						
7018	7038	20	R		1.30		1.30	15.4	40	60	130	480	1700	1600	7105	26.8	220.2	1.67	-1.61	-0.97
7038	7049	11	S	50R	1.00		1.00	11.0	42			480	2000	1800	7136	26.6	220.9	1.20	-0.65	2.26
7049	7133	84	R		4.08		4.08	20.6	40	60	130	480	1900	1800	7167	26.4	221.6	1.20	-0.65	2.26
7133	7143	10	S	45R	1.82		1.82	5.5	35			480	1950	1750	7198	26.1	222.3	1.39	-0.97	2.26
7143	7210	67	R		4.12	0.33	4.45	16.3	35	60	130	480	1900	1700	7230	26.4	222.3	0.94	0.94	
7210	7218	8	S	60R	0.97		0.97	8.2	30			480	1850	1750						
7218	7245	27	R		1.75		1.75	15.4	35	60	130	480	1850	1750						
7245	7253	8	S	30R	0.92		0.92	8.7	30			480	1850	1750						
7253	7268	15	R		0.75		0.75	20.0	35	60	135	480	1850	1750	7262	26.8	223.0	1.59	1.25	2.19
7268	7273	5	S	40R	0.67		0.67	7.5	30			480	1800	1600	7293	26.7	223.0	0.32	-0.32	
7273	7319	46	R		2.73		2.73	16.8	35	60	120	480	1900	1800						
7319	7326	7	S	???	0.73		0.73	9.6	35			480	1900	1800						
7326	7328	2	R		0.12		0.12	16.7	40	54	110	480	1900	1800						
7328	7331	3	S	???	0.23	3.39	3.62	13.0	35			480	1900	1800						
			R																	
			S																	
			R																	
Tot Footage		567			39.16	4.34	43.50	14.48	SLIDING		Ft	Hrs	%	ROTARY		Ft	Hrs	Rev 1.3 M		
Tot Pumping Hrs		43.50	Tot Drlg Hrs		39.16	Circ Hrs		4.34			141	13.46	24.9			426	25.70	Avg ROP		14.5

BHA #11 TOTALS

Total Circulating & Drilling Hours	43.5
Total Circulating Hours	3.5
Total Drilling Hours	20.3
Total Footage	567'
Total Steering Hours	13.46
Total Rotating Hours	25.70

ROP for Run	14.5'/hr
ROP Steering	10.47'/hr
ROP Rotating	16.57'/hr

Total Steering Footage	141'
Total Rotating Footage	426'

% Footage Steered for Run	25%
% Footage Steered in Curve	25%

SUMMARY OF RUN

BHA #11:

This Bha accomplished with the well in two way: first turn the well from 208.9 to 222.3 deg with Turn Rate average=2.3 deg/100ft. And build inclination from 26.3 to 27.4 deg with BUR = .83 deg/100ft. This well path hit the center of the target to Basal Salina Formation.

POH due to Slim-1 stop to send Gravity Tool Face and after that no more survey were taken. On surface pulser was changed and we noticed slight erosion onto this one Bit had 375,840 rev and upon 40hr of normal run.

Customer: Petro-Tech Peruana

BHA #11: 8 1/2" bit, 6 3/4" XP PP motor (1.50° ABH, 8 3/8" brg stb), Stb, X/O, FS, pony NMDC, UBHO, 2 x NMDC, 6 x 6 1/4" DC, X/O, 6 x 5" HWDP, jars, 18 x 5" HWDP

[illegible]

BHA #12 TOTALS

Total Circulating & Drilling Hours	53.8
Total Circulating Hours	6.0
Total Drilling Hours	47.8
Total Footage	524'
Total Steering Hours	3.91
Total Rotating Hours	43.92

ROP for Run	11'/hr
ROP Steering	6.13'/hr
ROP Rotating	11.38'/hr

Total Steering Footage	24'
Total Rotating Footage	500'

% Footage Steered for Run	5%
% Footage Steered in Curve	5%

SUMMARY OF RUN

BHA #12:

This Bha accomplished with the objective (hit very near to the center of the target). Few feet of slidings were needed to counteract BHA dropping tendencies while rotation POOH to run hold BHA without directional control

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report	Report #:	1	TD @ 2400 Hrs:	1500'
Rig:	Pepesa Rig #48	as of 2400 hrs.	Spud Date:	23-Apr	Ftg Last 24 Hrs:	N/A
Well:	LO6-23	Job #01013	Kick-off Date:	N/A	Total Footage:	N/A

BHA Run Data	BHA #	BHA #	Slim-1 Run Data		BHA #	BHA #
A800XP			Run #	Run #		
Bent Housing °			Daily Hours			
Motor Stb OD			Cumm Hours			
Drig Hrs			Tool Mode			
Circ Hrs			Pulser Config			
Cumm Drig Hrs			Assembly Part Code			
Cumm Circ Hrs			SMA			
Total PDM Hrs			SMC			
Depth In			SEA			
Depth Out			SMC			
Cumm Ftg			SBA			
PSI on / off			SGR			
Rotary Torque			SMC			
WOB			SSL			
RPM			Comments			
GPM						
Hook Load						
P/U Weight						
S/O Weight						
			Total Slim-1 Hours for Well:		Total	0.00
					Total	0.00

Properties for FLO-DRILL Mud in Pits			Bit# / BHA #		Resume for this Well	
Weight	Funnel Visc.	Plastic Visc.	Size		Anadrill P/U tools	N/A
8.6	55	10	Make		Engineer days	1
Yield Point	Water Loss	pH	Type		9 5/8" PDM hrs	0.00
17		9.00	Depth in		8" PDM hrs	0.00
Solids %	MBT	Gels	Depth out		6 3/4" PDM hrs	0.00
		6 / 9 / 12	Footage		GR S'by days	N/A
Sand %	Cl	Hardness Ca++	Hours		4 3/4" PDM hrs	0.00
			ROP / Avg.		GR Oper days	N/A
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles		Drilling Jar	
			T-B-G			
					Size & Type	
					Daily Rotation	
					Cumm Rotation	

Time Breakdown with Comments				Comments
Time	Hrs	Code		
0000-2400	24.00	S	WOC. Nipple down 21 1/4" diverter. Cut casing. Weld & test bradenhead. Nipple up 13 5/8" BOP.	
			ANADRILL PERSONNEL ARRIVE @ RIG THIS DATE. RIGGING UP MWD & CHECKING DRILLING EQUIP- MENT.	
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc	
Last Survey:				N/A
Next Operation:				Finish nipping up BOP. Drill out. P/U BHA #1.
Comments				
18" conductor set @ 597' 13 3/8" casing shoe @ 1500'				
ANADRILL PERSONNEL ARRIVE @ RIG THIS DATE				
Motors on Location				
8" PowerPak 7:8 XP #02966 (standing by)				
8" PowerPak 4:5 XP #01048 (standing by)				
Jars on Location				
6 1/2" Houston Engineers #03376 (standing by)				
6 1/2" Houston Engineers #03377 (standing by)				
Anadrill Personnel on Location				
DD				John Taylor
DD				Luis Tenorio
MWD Eng				Pedro Mejia
MWD Eng				Melissa Schaaf
Operator Representatives				
Ricardo Gilabert				

Anadrill

Client: Petro-Tech Peruana S.A.	Peru Morning Report	Report #: 2	TD @ 2400 Hrs: 1500'
Rig: Pepesa Rig #48	as of 2400 hrs.	Spud Date: 23-Apr	Ftg Last 24 Hrs: N/A
Well: LO6-23	Job #01013	Kick-off Date: N/A	Total Footage: N/A

BHA Run Data	BHA #	BHA #	Slim-1 Run Data		BHA #	BHA #
A800XP				Run #	Run #	
Bent Housing °			Daily Hours			
Motor Stb OD			Cumm Hours			
Drig Hrs			Tool Mode			
Circ Hrs			Pulser Config			
Cumm Drig Hrs			Assembly Part Code			
Cumm Circ Hrs			SMA			
Total PDM Hrs			SMC			
Depth In			SEA			
Depth Out			SMC			
Cumm Ftg			SBA			
PSI on / off			SGR			
Rotary Torque			SMC			
WOB			SSL			
RPM			Comments			
GPM						
Hook Load						
P/U Weight						
S/O Weight			Total Slim-1 Hours for Well:			
					Total	0.00
					Total	0.00

Properties for FLO-DRILL Mud			Bit# / BHA #		Resume for this Well	
Weight	Funnel Visc.	Plastic Visc.	Size		Anadrill P/U tools	N/A
8.7	50	14	Make		Engineer days	2
Yield Point	Water Loss	pH	Type		9 5/8" PDM hrs	0.00
20	7.4	10.80	Depth in		8" PDM hrs	0.00
Solids %	MBT	Gels	Depth out		6 3/4" PDM hrs	0.00
2.0	5.00	6 / 8 / 9	Footage		GR S'by days	N/A
Sand %	Cl	Hardness Ca++	Hours		4 3/4" PDM hrs	0.00
0.10	20,000	380	ROP / Avg.		GR Oper days	N/A
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles		Drilling Jar	
1 /	.60 / .80	N/A	T-B-G			
					Size & Type	
					Daily Rotation	
					Cumm Rotation	

Time Breakdown with Comments				Comments	
Time	Hrs	Code	Comments		
0000-1630	16.50	S	Finish nipping up 13 5/8" BOP. Test blind rams & choke manifold. (Change out leaking unions on C & K lines).	18" conductor set @ 597'	
1630-1830	2.00	S	M/U 60' pendelum assy & RIH to TOC @ 1450'.	13 3/8" casing shoe @ 1500'	
1830-1900	0.50	S	Test pipe rams & annular preventer.	Motors on Location	
1900-2130	2.50	S	Drill hard cement from 1450' to 1470'. Bit stops drilling.	8" PowerPak 7:8 XP #02966 (standing by)	
2130-2400	2.50	S	POH w/ pendelum assembly to check bit.	8" PowerPak 4:5 XP #01048 (standing by)	
				Jars on Location	
				6 1/2" Houston Engineers #03376 (standing by)	
				6 1/2" Houston Engineers #03377 (standing by)	
				Anadrill Personnel on Location	
				DD	John Taylor
				DD	Luis Tenorio
				MWD Eng	Pedro Mejia
				MWD Eng	Melissa Schaaf
				Operator Representatives	
				Ricardo Gilabert	
Last Survey: N/A					
Next Operation: Finish drilling out. P/U kick-off assy (BHA #1). Build curve.					

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report	Report #:	3	TD @ 2400 Hrs:	1600'
Rig:	Pepesa Rig #48	as of 2400 hrs.	Spud Date:	23-Apr	Ftg Last 24 Hrs:	N/A
Well:	LO6-23	Job #01013	Kick-off Date:	N/A	Total Footage:	N/A

BHA Run Data	BHA #1	BHA #	Slim-1 Run Data			BHA #1	BHA #
A800XP	#02966			Run #1	Run #	12 1/4" Bit	0.83
Bent Housing °	1.73°		Daily Hours	6.00		8" XP Motor	27.20
Motor Stb OD	12 1/8"		Cumm Hours	6.00		12" WM Stb	5.97
Drlg Hrs	0.00		Tool Mode	F12		Float Sub	2.58
Circ Hrs	1.50		Pulser Config	1239		Pony NMDC	10.62
Cumm Drlg Hrs	0.00		Assembly Part Code			UBHO	2.25
Cumm Circ Hrs	1.50		SMA	060		NMDC	30.94
Total PDM Hrs	1.50		SMC			NMDC	29.26
Depth In	1600'		SEA	275		1 x 7 3/4" DC	31.31
Depth Out			SMC			X/O	2.90
Cumm Ftg	0'		SBA	5636		3 x 6 1/4" DC	89.69
PSI on / off	1350		SGR			X/O	1.60
Rotary Torque	N/A		SMC			6 x 5" HWDP	182.13
WOB	N/A		SSL			HE Jars	32.14
RPM	N/A		Comments			18 x 5" HWDP	545.38
GPM	700						
Hook Load			Total Slim-1 Hours for Well: 6.0			Total	994.80
P/U Weight						Total	0.00
S/O Weight							

Properties for FLO-DRILL Mud			Bit# / BHA #	RR#1/BHA#1	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	12 1/4"	Anadrill P/U tools	3-May	Engineer days	3
8.8	50	14	Make	Smith	9 5/8" PDM hrs	0.00	Slim S'by days	2
Yield Point	Water Loss	pH	Type	S91PX	8" PDM hrs	1.50	Slim Oper days	1
21	7.4	10.60	Depth in	1600'	6 3/4" PDM hrs	0.00	GR S'by days	N/A
Solids %	MBT	Gels	Depth out		4 3/4" PDM hrs	0.00	GR Oper days	N/A
2.0	5.00	6 / 8 / 9	Footage	0'				
Sand %	Cl	Hardness Ca++	Hours	0.0	Drilling Jar			
0.10	20,000	380	ROP / Avg.	N/A	Size & Type	6 1/2" Houston Engineers Hydrarjar #03376		
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	5x16 / 2x18	Daily Rotation	0.00		
1 /	.60 / .80	N/A	T-B-G		Cumm Rotation	0.00		

Time Breakdown with Comments				Comments	
Time	Hrs	Code	Comments		
0000-0100	1.00	M	Finish POH w/ pendulum drill out assembly (cones on bit are leaking lubricant & loose).		18" conductor set @ 597'
0100-0300	2.00	M	Make up another RR bit and RIH with pendulum assembly.		13 3/8" casing shoe @ 1500'
0300-0330	0.50	M	Drill cement and shoe from 1470' to 1500'.		
0330-0500	1.50	M	Drill new formation from 1500' to 1600'.		Motors on Location
0500-0530	0.50	M	Circulate prior to POH w/ drill out pendulum assembly.		8" PowerPak 7:8 XP #02966 (in hole)
0530-0930	4.00	M	POH w/ drill out assembly. L/O bit & stb. L/O excess tubulars.		8" PowerPak 4:5 XP #01048 (standing by)
0930-1200	2.50	T	Pick up motor, bit & NMDC's for BHA #1. Configure motor bend and transfer bend up to UBHO. While pulling back to confirm the scribe line, the bit hung up in the bell nipple. The weld on the bottom flange of the bell nipple and the weld connecting the bell nipple to the flow line are torn loose.		Jars on Location
					6 1/2" Houston Engineers #03377 (standing by)
					6 1/2" Houston Engineers #03376 (in hole)
1200-1730	5.50	M	Re-weld bell nipple flange & flow line connection.		
1730-2100	3.50	T	Install Slim-1 & RIH w/ BHA #1 (pick up 10 joints of 5" HWDP).		
2100-2230	1.50	C	Attempt survey w/ MWD. Not working properly. Try many things to make the tool work. No luck. Decide to POH.		
2230-2400	1.50	T	POH w/ BHA #1 for MWD.		
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc		
Last Survey:				N/A	
Next Operation:				Finish POH w/ BHA #1. Check MWD. RIH & drill w/ BHA #2.	
Anadrill Personnel on Location				Operator Representatives	
DD				Franklin Cordova	
DD					
MWD Eng					
MWD Eng					

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report	Report #:	4	TD @ 2400 Hrs:	2318'
Rig:	Pepesa Rig #48	as of 2400 hrs.	Spud Date:	23-Apr	Ftg Last 24 Hrs:	718'
Well:	LO6-23	Job #01013	Kick-off Date:	4-May	Total Footage:	718'

BHA Run Data	BHA #1	BHA #2	Slim-1 Run Data			BHA #1		BHA #2	
A800XP	#02966	#02966		Run #1	Run #2	12 1/4" Bit	0.83	12 1/4" Bit	0.83
Bent Housing °	1.73°	1.73°	Daily Hours	1.00	21.75	8" XP Motor	27.20	8" XP Motor	27.20
Motor Stb OD	12 1/8"	12 1/8"	Cumm Hours	7.00	21.75	12" WM Stb	5.97	12" WM Stb	5.97
Drig Hrs	0.00	14.50	Tool Mode	F12	F8	Float Sub	2.58	Float Sub	2.58
Circ Hrs	0.00	0.50	Pulser Config	1239	1239	Pony NMDC	10.62	Pony NMDC	10.62
Cumm Drig Hrs	0.00	14.50	Assembly Part Code			UBHO	2.25	UBHO	2.25
Cumm Circ Hrs	1.50	0.50	SMA	060	359	NMDC	30.94	NMDC	30.94
Total PDM Hrs	1.50	15.00	SMC			NMDC	29.26	NMDC	29.26
Depth In	1600'	1600'	SEA	275	275	1 x 7 3/4" DC	31.31	1 x 7 3/4" DC	31.31
Depth Out	1600'		SMC			X/O	2.90	X/O	2.90
Cumm Ftg	0'	718'	SBA	5636	5636	3 x 6 1/4" DC	89.69	3 x 6 1/4" DC	89.69
PSI on / off	1350	1900 / 1600	SGR			X/O	1.60	X/O	1.60
Rotary Torque	N/A	225	SMC			6 x 5" HWDP	182.13	6 x 5" HWDP	182.13
WOB	N/A	10-15K	SSL			HE Jars	32.14	HE Jars	32.14
RPM	N/A	50-60	Comments			18 x 5" HWDP	545.38	18 x 5" HWDP	545.38
GPM	700	700	Pulse train was inverted when test tool @ shoe.			Total	994.80	Total	994.80
Hook Load		103K	Considered operating like this, but had difficulty decoding. Found reducer nut loose when POH.						
P/U Weight		108K	Total Slim-1 Hours for Well: 28.75						
S/O Weight		97K							

Properties for FLO-DRILL Mud			Bit# / BHA #	RR#1/BHA#1	RR#1/BHA#2	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	12 1/4"	12 1/4"	Anadrill P/U tools	3-May	Engineer days	4
8.9	50	14	Make	Smith	Smith	9 5/8" PDM hrs	0.00	Slim S'by days	2
Yield Point	Water Loss	pH	Type	S91PX	S91PX	8" PDM hrs	16.50	Slim Oper days	2
26	6.8	10.00	Depth in	1600'	1600'	6 3/4" PDM hrs	0.00	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	1600'		4 3/4" PDM hrs	0.00	GR Oper days	N/A
4.0	7.50	8 / 12 / 16	Footage	0'	718'				
Sand %	CI	Hardness Ca++	Hours	N/A	14.5	Drilling Jar			
0.20	24,000	200	ROP / Avg.	N/A	49.5/hr	Size & Type		6 1/2" Houston Engineers Hydrarjar #03376	
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	5x16 / 2x18	5x16 / 2x18	Daily Rotation		6.50	
1 /	.10 / .40	103.4° F	T-B-G	15% wear		Cumm Rotation		6.50	

Time Breakdown with Comments			
Time	Hrs	Code	Comments
0000-0130	1.50	T	Finish POH w/ BHA #1 for MWD. Find faulty pulser. Change same.
0130-0300	1.50	M	P/U tri-cone bit & RIH to 584'. Test Slim-OK.
0300-0630	3.50	T	Pull back & change bits. RIH w/ BHA #2.
0630-1030	4.00	D	Slide & rotate from 1600' to 1818'.
1030-1100	0.50	M	Surveying (2 times).
1100-2000	9.00	D	Slide & rotate from 1818' to 2192'.
2000-2030	0.50	C	Circulate prior to short trip.
2030-2130	1.00	T	Short trip to shoe.
2130-2230	1.00	D	Rotate from 2192' to 2255'.
2230-2330	1.00	M	Repair charging pump on MP #2.
2330-2400	0.50	D	Rotate from 2255' to 2318'.
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Last Survey: 2182' / 28.2° inc / 212.9° azi
Next Operation: Finish curve, drill in tangent w/ motor to 2700'. P/U stb rot assy & drill.

Comments	
18" conductor set @ 597'	
13 3/8" casing shoe @ 1500'	
Motors on Location	
8" PowerPak 7:8 XP #02966 (in hole)	
8" PowerPak 4:5 XP #01048 (standing by)	
Jars on Location	
6 1/2" Houston Engineers #03377 (standing by)	
6 1/2" Houston Engineers #03376 (in hole)	

Anadrill Personnel on Location	
DD	John Taylor
DD	Luis Tenorio
MWD Eng	Pedro Mejia
MWD Eng	Melissa Schaff
Operator Representatives	
Franklin Cordova	

Schlumberger

5 May 2001

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report	Report #:	5	TD @ 2400 Hrs:	3195'
Rig:	Pepesa Rig #48	as of 2400 hrs.	Spud Date:	23-Apr	Ftg Last 24 Hrs:	877'
Well:	LO6-23	Job #01013	Kick-off Date:	4-May	Total Footage:	1595'

BHA Run Data	BHA #2	BHA #3	Slim-1 Run Data			BHA #2		BHA #3	
A800XP	#02966	N/A		Run #2	Run #3	12 1/4" Bit	0.83	12 1/4" Bit	0.83
Bent Housing °	1.73°	N/A	Daily Hours	9.00	12.50	8" XP Motor	27.20	12 1/4" NB Stb	5.44
Motor Stb OD	12 1/8"	N/A	Cumm Hours	30.75	12.50	12" WM Stb	5.97	Float Sub	2.58
Drlg Hrs	5.50	7.50	Tool Mode	F8	F8	Float Sub	2.58	Pony NMDC	10.62
Circ Hrs	0.50	N/A	Pulser Config	1239	1202	Pony NMDC	10.62	12" WM Stb	5.97
Cumm Drlg Hrs	20.00	7.50	Assembly Part Code			UBHO	2.25	UBHO	2.25
Cumm Circ Hrs	1.00	N/A	SMA	359	359	NMDC	30.94	NMDC	30.94
Total PDM Hrs	21.00	N/A	SMC			NMDC	29.26	Pony NMDC	11.75
Depth In	1600'	2692'	SEA	275	275	1 x 7 3/4" DC	31.31	12 1/4" Stb	5.17
Depth Out	2692'		SMC			X/O	2.90	NMDC	29.26
Cumm Ftg	1092'	503'	SBA	5636	5636	3 x 6 1/4" DC	89.69	1 x 7 3/4" DC	31.31
PSI on / off	1900 / 1600	1550 / 1550	SGR			X/O	1.60	X/O	2.90
Rotary Torque	225-250	250	SMC			6 x 5" HWDP	182.13	3 x 6 1/4" DC	89.69
WOB	10-15K	18-20K	SSL			HE Jars	32.14	X/O	1.60
RPM	50-60	100-120	Comments			18 x 5" HWDP	545.38	6 x 5" HWDP	182.13
GPM	700	700						HE Jars	32.14
Hook Load		110K						18 x 5" HWDP	545.38
P/U Weight		130K							
S/O Weight		105K	Total Slim-1 Hours for Well: 50.25			Total	994.80	Total	989.96

Properties for FLO-DRILL Mud			Bit# / BHA #	RR#1/BHA#2	RR#1/BHA#3	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	12 1/4"	12 1/4"	Anadrill P/U tools	3-May	Engineer days	5
9.3	51	17	Make	Smith	Smith	9 5/8" PDM hrs	0.00	Slim S'by days	2
Yield Point	Water Loss	pH	Type	S91PX	S91PX	8" PDM hrs	22.50	Slim Oper days	3
25	6.6	9.40	Depth in	1600'	2692'	6 3/4" PDM hrs	0.00	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	2692'		4 3/4" PDM hrs	0.00	GR Oper days	N/A
5.0	15.00	8 / 14 / 17	Footage	1092'	503'				
Sand %	Cl	Hardness Ca++	Hours	20.0	7.5				
0.30	26,000	380	ROP / Avg.	54.6'/hr	67.1'/hr				
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	5x16 / 2x18	5x16 / 2x18				
1 /	.08 / .70	105.5° F	T-B-G	20% wear					

Time Breakdown with Comments			
Time	Hrs	Code	Comments
0000-0530	5.50	D	Slide & rotate from 2318' to 2692'.
0530-0600	0.50	C	Circulate prior to POH w/ BHA #2.
0600-0930	3.50	T	POH w/ BHA #2 @ end of curve & motor tangent section. L/O motor.
0930-1230	3.00	T	P/U stabilizers for BHA #3. RIH to 321'. Test Slim-OK.
1230-1330	1.00	T	RIH w/ BHA #3 to shoe.
1330-1500	1.50	M	Cut & slip drilling line.
1500-1600	1.00	T	Continue RIH w/ BHA #3 to 2647'.
1600-1630	0.50	M	W & R from 2647' to 2692'.
1630-2400	7.50	D	Rotate from 2692' to 3195'.
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Last Survey: 3106' / 26.4° inc / 212.9° azi
 Next Operation: Continue drilling 12 1/4" hole in tangent section.

Resume for this Well			
Anadrill P/U tools	3-May	Engineer days	5
9 5/8" PDM hrs	0.00	Slim S'by days	2
8" PDM hrs	22.50	Slim Oper days	3
6 3/4" PDM hrs	0.00	GR S'by days	N/A
4 3/4" PDM hrs	0.00	GR Oper days	N/A

Drilling Jar	
Size & Type	6 1/2" Houston Engineers Hydrarjar #03376
Daily Rotation	12.25
Cumm Rotation	18.75

Comments
18" conductor set @ 597'
13 3/8" casing shoe @ 1500'
Motors on Location
8" PowerPak 7:8 XP #02966 (dirty)
8" PowerPak 4:5 XP #01048 (standing by)
Jars on Location
6 1/2" Houston Engineers #03377 (standing by)
6 1/2" Houston Engineers #03376 (in hole)

Anadrill Personnel on Location	
DD	John Taylor
DD	Luis Tenorio
MWD Eng	Pedro Mejia
MWD Eng	Melissa Schaaf

Operator Representatives	
	Franklin Cordova

Anadrill

Last Survey:	3579' / 25.8° inc / 211.7° azi
Next Operation:	Continue drilling 12 1/4" hole in tangent section.

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Anadrill

Client: Petro-Tech Peruana S.A.

Rig: **Pepesa Rig #48**

Well: **LO6-23**

Peru Morning Report

as of 2400 hrs.

Job #01013

Report #: 7

 TD @ 2400 Hrs: | 4229 |

Spud Date: 23-Apr

Ftg Last 24 Hrs: 445

Kick-off Date: 4-May

Total Footage: 2629'

BHA Run Data	BHA #4	BHA #
A800XP	N/A	
Bent Housing °	N/A	
Motor Stb OD	N/A	
Drlg Hrs		
Circ Hrs	N/A	
Cumm Drlg Hrs	4.50	
Cumm Circ Hrs	N/A	
Total PDM Hrs	N/A	
Depth In	3635'	
Depth Out		
Cumm Ftg	149'	
PSI on / off	1700 / 1700	
Rotary Torque	250	
WOB	20K	
RPM	110	
GPM	700	
Hook Load		
P/U Weight		
S/O Weight		

Slim-1 Run Data		
	Run #4	Run #
Daily Hours	24.00	
Cumm Hours	31.75	
Tool Mode	F8	
Pulser Config	1202	
Assembly Part Code		
SMA	359	
SMC		
SEA	275	
SMC		
SBA	5636	
SGR		
SMC		
SSL		
Comments		
Total Slim-1 Hours for Well: 97.25		

BHA #4		BHA #
12 1/4" Bit	1.00	
12 1/4" NB Stb	5.44	
Float Sub	2.58	
Pony NMDC	10.62	
12" WM Stb	5.97	
UBHO	2.25	
NMDC	30.94	
Pony NMDC	11.75	
12 1/4" Stb	5.17	
NMDC	29.26	
1 x 7 3/4" DC	31.31	
X/O	2.90	
3 x 6 1/4" DC	89.69	
X/O	1.60	
6 x 5" HWDP	182.13	
HE Jars	32.14	
18 x 5" HWDP	545.38	
Total	990.13	Total 0.00

Properties for FLO-DRILL Mud		
Weight 9.5	Funnel Visc. 52	Plastic Visc. 17
Yield Point 26	Water Loss 6.0	pH 9.40
Solids % 6.0	MBT 17.50	Gels 8 / 15 / 18
Sand % 0.30	Cl 28,000	Hardness Ca++ 320
Cake 1/32" 1 /	PF / Mf .06 / .50	Slim Temp °F 104.9° F

Bit# / BHA #	RR#1/BHA#4	
Size	12 1/4"	
Make	Hycalog	
Type	DS69HF+GV	
Depth in	3635'	
Depth out		
Footage	149'	
Hours	4.5	
ROP / Avg.	33.1'/hr	
Nozzles	3x18 / 3x15	
T-B-G		

Resume for this Well			
Anadrill P/U tools	3-May	Engineer days	7
9 5/8" PDM hrs	0.00	Slim S'by days	2
8" PDM hrs	22.50	Slim Oper days	5
6 3/4" PDM hrs	0.00	GR S'by days	N/A
4 3/4" PDM hrs	0.00	GR Oper days	N/A

Drilling Jar	
Size & Type	6 1/2" Houston Engineers Hydrarar #03376
Daily Rotation	23.00
Cumm Rotation	56.25

Time Breakdown with Comments			
Time	Hrs	Code	Comments
0000-0330	3.50	D	Drill from 3784 to 3875'
0330-0400	0.50	M	Repair Pump # 2
0400-0600	2.00	D	Drill from 3875 to 3914'
0600-0630	0.50	M	Repair Pump # 1
0630-2400	17.50	D	Drill from 3914 to 4229'
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Last Survey:	3579' / 25.8° inc / 211.7° azi
Next Operation:	Continue drilling 12 1/4" hole in tangent section.

Comments

18" conductor set @ 597'
13 3/8" casing shoe @ 1500'

Motors on Location

8" PowerPak 7:8 XP #02966 (dirty)
8" PowerPak 4:5 XP #01048 (standing by)

Jars on Location

6 1/2" Houston Engineers #03377 (standing by)
6 1/2" Houston Engineers #03376 (in hole)

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Luis Tenorio
MWD Eng	Pedro Mejia
MWD Eng	Melissa Schaaf
Operator Representatives	
Franklin Cordova	

Schlumberger

8 May 2001

Anadrill

Client: **Petro-Tech Peruana S.A.**

Rig: **Pepesa Rig #48**

Well: **LO6-23**

Peru Morning Report

as of 2400 hrs.

Job #01013

Report #: **8** TD @ 2400 Hrs: **4750**

Spud Date: 23-Apr Ftg Last 24 Hrs: **521**

Kick-off Date: 4-May Total Footage: **3150'**

BHA Run Data	BHA #4	BHA #
A800XP	N/A	
Bent Housing °	N/A	
Motor Stb OD	N/A	
Drig Hrs		
Circ Hrs	N/A	
Cumm Drig Hrs	4.50	
Cumm Circ Hrs	N/A	
Total PDM Hrs	N/A	
Depth In	3635'	
Depth Out		
Cumm Ftg	149'	
PSI on / off	1700 / 1700	
Rotary Torque	250	
WOB	20K	
RPM	110	
GPM	700	
Hook Load		
P/U Weight		
S/O Weight		

Slim-1 Run Data		
	Run #4	Run #5
Daily Hours	4.00	19.00
Cumm Hours	32.00	19.00
Tool Mode	F8	
Pulser Config	1202	
Assembly Part Code		
SMA	359	
SMC		
SEA	275	
SMC		
SBA	5636	
SGR		
SMC		
SSL		
Comments		
Total Slim-1 Hours for Well: 120.25		

BHA #5	BHA #
12 1/4" Bit	1.00
12 1/4" NB Stb	5.44
Float Sub	2.58
Pony NMDC	10.62
12" WM Stb	5.97
UBHO	2.25
NMDC	30.94
Pony NMDC	11.75
12 1/4" Stb	5.17
NMDC	29.26
1 x 7 3/4" DC	31.31
X/O	2.90
3 x 6 1/4" DC	89.69
X/O	1.60
6 x 5" HWDP	182.13
HE Jars	32.14
18 x 5" HWDP	545.38
Total	990.13
Total	0.00

Properties for FLO-DRILL Mud		
Weight	Funnel Visc.	Plastic Visc.
9.8	53	19
Yield Point	Water Loss	pH
27	5.6	-
Solids %	MBT	Gels
8.0	17.50	8 / 17 / 22
Sand %	Cl	Hardness Ca++
0.40	26,000	240
Cake 1/32"	Pf / Mf	Slim Temp °F
1 /	.06 / .50	104.9° F

Bit# / BHA #	RR#1/BHA#4	BHA#5
Size	12 1/4"	12 1/4"
Make	Hycalog	HTC
Type	DS69HF+GV	BD 535
Depth in	3635'	4229
Depth out	4229	
Footage	594.0	
Hours	27.5	
ROP / Avg.	21.6/hr	
Nozzles	3x18 / 3x15	4X16/1X18/2/20
T-B-G		

Resume for this Well			
Anadrill P/U tools	3-May	Engineer days	8
9 5/8" PDM hrs	0.00	Slim S'by days	2
8" PDM hrs	22.50	Slim Oper days	6
6 3/4" PDM hrs	0.00	GR S'by days	N/A
4 3/4" PDM hrs	0.00	GR Oper days	N/A

Drilling Jar	
Size & Type	6 1/2" Houston Engineers Hydrarjar #03376
Daily Rotation	16.00
Cumm Rotation	72.25

Time Breakdown with Comments			
Time	Hrs	Code	Comments
0000-0030	0.50	C	Circ.
0030-0330	3.00	T	POH w/ Bha #4
0330-0430	1.00	M	P/U Bha #5, New Bir PDC BD 535
0430-0530	1.00	M	Test Slim-1 Tool.Change out washed pulser & centralizer.RIH to 300'
0530-0600	0.50	M	SHT O.K.
0600-0730	1.50	T	RIH w/ Bha #5
0730-0800	0.50	C	Wash down from 4179 to 4229'
0800-2400	16.00	D	Drill from 4229 to 4750'
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Comments	
18" conductor set @ 597'	
13 3/8" casing shoe @ 1500'	
Motors on Location	
8" PowerPak 7:8 XP #02966 (dirty)	
8" PowerPak 4:5 XP #01048 (standing by)	
Jars on Location	
6 1/2" Houston Engineers #03377 (standing by)	
6 1/2" Houston Engineers #03376 (in hole)	

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Luis Tenorio
MWD Eng	Pedro Mejia
MWD Eng	Melissa Schaaf
Operator Representatives	
Franklin Cordova	

Last Survey: 3579' / 25.8° inc / 211.7° azi

Next Operation: Continue drilling 12 1/4" hole in tangent section.

Anadrill

Client: Petro-Tech Peruana S.A.	Peru Morning Report	Report #: 9	TD @ 2400 Hrs: 5280
Rig: Pepesa Rig #48	as of 2400 hrs.	Spud Date: 23-Apr	Ftg Last 24 Hrs: 530
Well: LO6-23	Job #01013	Kick-off Date: 4-May	Total Footage: 3680'

BHA Run Data	BHA #4	BHA #	Slim-1 Run Data			BHA #5		BHA #6	
A800XP	N/A			Run #5	Run #6	12 1/4" Bit	1.00	12 1/4" Bit	1.00
Bent Housing °	N/A		Daily Hours	10.00	12.50	12 1/4" NB Stb	5.44	12 1/4" NB Stb	5.44
Motor Stb OD	N/A		Cumm Hours	29.00	12.50	Float Sub	2.58	Float Sub	2.58
Drig Hrs			Tool Mode	F8		Pony NMDC	10.62	Pony NMDC	10.62
Circ Hrs	N/A		Pulser Config	1202		12" WM Stb	5.97	12" WM Stb	5.97
Cumm Drig Hrs	4.50		Assembly Part Code			UBHO	2.25	UBHO	2.25
Cumm Circ Hrs	N/A		SMA	359		NMDC	30.94	NMDC	30.94
Total PDM Hrs	N/A		SEA	275		Pony NMDC	11.75	Pony NMDC	11.75
Depth In	3635'		SMC			12 1/4" Stb	5.17	12 1/4" Stb	5.17
Depth Out			SBA	5636		NMDC	29.26	NMDC	29.26
Cumm Ftg	149'		SGR			1 x 7 3/4" DC	31.31	1 x 7 3/4" DC	31.31
PSI on / off	1700 / 1700		SSC			X/O	2.90	X/O	2.90
Rotary Torque	250		Comments			3 x 6 1/4" DC	89.69	3 x 6 1/4" DC	89.69
WOB	20K					X/O	1.60	X/O	1.60
RPM	110					6 x 5" HWDP	182.13	6 x 5" HWDP	182.13
GPM	700					HE Jars	32.14	HE Jars	32.14
Hook Load						18 x 5" HWDP	545.38	18 x 5" HWDP	545.38
P/U Weight									
S/O Weight									
			Total Slim-1 Hours for Well: 142.75			Total	990.13	Total	990.13

Properties for FLO-DRILL Mud			Bit# / BHA #	BHA#5	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	12 1/4"	Anadrill P/U tools	3-May	Engineer days	9
9.8	53	19	Make	HTC	9 5/8" PDM hrs	0.00	Slim S'by days	2
Yield Point	Water Loss	pH	Type	BD 535	8" PDM hrs	22.50	Slim Oper days	7
27	5.6	-	Depth in	4229	6 3/4" PDM hrs	0.00	GR S'by days	N/A
Solids %	MBT	Gels	Depth out		4 3/4" PDM hrs	0.00	GR Oper days	N/A
8.0	17.50	8 / 17 / 22	Footage					
Sand %	Cl	Hardness Ca++	Hours					
0.40	26,000	240	ROP / Avg.					
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	4X16/1X18/2/20				
1 /	.06 / .50	104.9° F	T-B-G					

Time Breakdown with Comments				Comments
Time	Hrs	Code	Comments	
0000-0600	6.00	D	Drill from 4750 to 4998'	
0600-0700	1.00	C	Circ.	
0700-1000	3.00	T	POH w/ Bha #5, L/D Bit. Check out.	
1000-1230	2.50	M	P/U Bha # 6 w/ same bit.	
1230-1300	0.50	M	SHT O.K.	
1300-1500	2.00	T	RIH w/ Bha #6	
1500-1530	1.00	C	Wash down from 4729 to 4780'	
1530-1630	1.00	T	Cont. RIH to 4940. Wash Down from 4940 to 4998'	
1630-2400	7.50	D	Drill from 4998to 5280'	
	24.50		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc	
Last Survey:		3579' / 25.8° inc / 211.7° azi		
Next Operation:		Continue drilling 12 1/4" hole in tangent section.		

Comments
18" conductor set @ 597'
13 3/8" casing shoe @ 1500'
<u>Motors on Location</u>
8" PowerPak 7:8 XP #02966 (dirty)
8" PowerPak 4:5 XP #01048 (standing by)
<u>Jars on Location</u>
6 1/2" Houston Engineers #03377 (standing by)
6 1/2" Houston Engineers #03376 (in hole)

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Luis Tenorio
MWD Eng	Pedro Mejia/Guillermo Soriano
MWD Eng	Melissa Schaeffer
Operator Representatives	
Franklin Cordova	

Comments

18" conductor set @ 597'
13 3/8" casing shoe @ 1500'

Motors on Location

8" PowerPak 7:8 XP #02966 (dirty)
8" PowerPak 4:5 XP #01048 (standing by)

Jars on Location

6 1/2" Houston Engineers #03377 (standing by)
6 1/2" Houston Engineers #03376 (in hole)

Anadrill Personnel on Location

DD Vicente Montenegro
DD Luis Tenorio
MWD Eng Pedro Mejia/Guillermo Soto
MWD Eng Melissa Schaaf

Operator Representatives

Franklin Cordova

Anadrill

Client: Petro-Tech Peruana S.A.	Peru Morning Report	Report #: 10	TD @ 2400 Hrs: 5313
Rig: Pepesa Rig #48	as of 2400 hrs.	Spud Date: 23-Apr	Ftg Last 24 Hrs: 31
Well: LO6-23	Job #01013	Kick-off Date: 4-May	Total Footage: 3713'

BHA Run Data	BHA #6	BHA #	Slim-1 Run Data			BHA #6	BHA #
A800XP	N/A			Run #6	Run #7	12 1/4" Bit (1RR)	1.00
Bent Housing °	N/A		Daily Hours	12.50		12 1/4" NB Stb	5.44
Motor Stb OD	N/A		Cumm Hours	12.50		Float Sub	2.58
Drlg Hrs	N/A		Tool Mode	F8		Pony NMDC	10.62
Circ Hrs	N/A		Pulser Config	1202		12" WM Stb	5.97
Cumm Drlg Hrs	8.50		Assembly Part Code			UBHO	2.25
Cumm Circ Hrs	4.50		SMA	359		NMDC	30.94
Total PDM Hrs	N/A		SMC			Pony NMDC	11.75
Depth In	4998'		SEA	275		12 1/4" Stb	5.17
Depth Out	5313'		SMC			NMDC	29.26
Cumm Ftg	315'		SBA	5636		1 x 7 3/4" DC	31.31
PSI on / off	1600 / 1600		SGR			X/O	2.90
Rotary Torque	280		SMC			3 x 6 1/4" DC	89.69
WOB	25K		SSL			X/O	1.60
RPM	80		Comments			6 x 5" HWDP	182.13
GPM	650					HE Jars	32.14
Hook Load	140K					18 x 5" HWDP	545.38
P/U Weight	180K					Total	990.13
S/O Weight	120K		Total Slim-1 Hours for Well: 155.25			Total	0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	BHA#5	BHA#6	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	12 1/4"	12 1/4" (1RR)	Anadrill L/D tools	10-May	Engineer days	10
9.9	54	19	Make	HTC	HTC	9 5/8" PDM hrs	0.00	Slim S'by days	2
Yield Point	Water Loss	pH	Type	BD 535	BD 535	8" PDM hrs	22.50	Slim Oper days	8
28	5.4	9.80	Depth in	4229	4998	6 3/4" PDM hrs	0.00	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	4998	5313	4 3/4" PDM hrs	0.00	GR Oper days	N/A
8.0	22.50	8 / 17 / 23	Footage	769.0	315.0				
Sand %	Cl	Hardness Ca++	Hours	22.0	8.5				
0.40	27.000	380	ROP / Avg.	34.95	37.05				
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	4X16/1X18/2/20	4X16/1X18/2/20				
1 /	.08 / .50	120° F	T-B-G	5/6/CS/DX/1/16/W/BHA	5/6/CS/DX/1/16/W/TD				

Time Breakdown with Comments			
Time	Hrs	Code	Comments
0000-0100	1.00	D	Drill from 5280 to 5313'
0100-0200	1.00	C	Circ.
0200-0530	3.50	T	Short trip to 13 3/8" Csg.
0530-0800	2.50	M	RIH to 5231'
0800-0830	0.50	C	Reaming Down from 5231 to 5313'
0830-1030	2.00	C	Circ. & Pump Hi-Vis Pill
1030-1600	5.50	T	POH w/ Bha #6 L/D the same
1600-1630	0.50	M	R/U rig floor to run 9 5/8" Csg.
1630-2400	7.50	M	RIH w/ 9 5/8" Csg. To 4438', 95 singles.
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Last Survey: 5274' / 17.0° inc / 208.2° azi
Next Operation: Continue Rih 9 5/8" Csg.

Resume for this Well			
Anadrill L/D tools	10-May	Engineer days	10
9 5/8" PDM hrs	0.00	Slim S'by days	2
8" PDM hrs	22.50	Slim Oper days	8
6 3/4" PDM hrs	0.00	GR S'by days	N/A
4 3/4" PDM hrs	0.00	GR Oper days	N/A

Drilling Jar	
Size & Type	6 1/2" Houston Engineers Hydrajar #03376
Daily Rotation	1.00
Cumm Rotation	86.75

Comments	
18" conductor set @ 597'	
13 3/8" casing shoe @ 1500'	
Motors on Location	
8" PowerPak 7:8 XP #02966 (dirty)	
8" PowerPak 4:5 XP #01048 (standing by)	
Jars on Location	
6 1/2" Houston Engineers #03377 (standing by)	
6 1/2" Houston Engineers #03376 (in hole)	

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Luis Tenorio
MWD Eng	Guillermo Soto
MWD Eng	Melissa Schaaf
Operator Representatives	
Ricardo Gilabert	

Anadrill

Client:	Petro-Tech Peruana S.A.	<u>Peru Morning Report</u>	Report #:	11	TD @ 2400 Hrs:	5313	
Rig:	Pepesa Rig #48		as of 2400 hrs.	Spud Date:	23-Apr	Ftg Last 24 Hrs:	0
Well:	LO6-23		Job #01013	Kick-off Date:	4-May	Total Footage:	3713'

BHA Run Data	BHA #7	BHA #	Slim-1 Run Data			BHA #	BHA #
A800XP	N/A						
Bent Housing °	N/A		Daily Hours				
Motor Stb OD	N/A		Cumm Hours				
Drlg Hrs	N/A		Tool Mode				
Circ Hrs	N/A		Pulser Config				
Cumm Drlg Hrs	8.50		Assembly Part Code				
Cumm Circ Hrs	4.50		SMA				
Total PDM Hrs	N/A		SMC				
Depth In	4998'		SEA				
Depth Out	5313'		SMC				
Cumm Ftg	315'		SBA				
PSI on / off	1600 / 1600		SGR				
Rotary Torque	280		SMC				
WOB	25K		SSL				
RPM	80		Comments				
GPM	650						
Hook Load	140K						
P/U Weight	180K						
S/O Weight	120K		Total Slim-1 Hours for Well: 155.25			Total	0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	BHA#5	BHA#6	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	12 1/4"	12 1/4" (1RR)	Anadrill L/D tools	10-May	Engineer days	11
9.9	50	18	Make	HTC	HTC	9 5/8" PDM hrs	0.00	Slim S'by days	3
Yield Point	Water Loss	pH	Type	BD 535	BD 535	8" PDM hrs	22.50	Slim Oper days	8
22	5.6	9.80	Depth in	4229	4998	6 3/4" PDM hrs	0.00	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	4998	5313	4 3/4" PDM hrs	0.00	GR Oper days	N/A
8.0	22.50	7 / 12 / 17	Footage	769.0	315.0				
Sand %	Cl	Hardness Ca++	Hours	22.0	8.5				
0.30	25,000	320	ROP / Avg.	34.95	37.05				
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	4X16/1X18/2/20	4X16/1X18/2/20				
1 /	.05 / .35	0° F	T-B-G	5/6/CS/IX/116/W/BHA	5/6/CS/IX/116/W/TD				
						Drilling Jar			
						Size & Type			
						6 1/2" Houston Engineers Hydraraj #03376			
						Daily Rotation			
						1.00			
						Cumm Rotation			
						86.75			

Time Breakdown with Comments			
Time	Hrs	Code	Comments
0000-0130	1.50	T	Cont. RIH w/ 9 5/8" Csg. To 5313'
0130-0230	1.00	M	B.J. Cia. R/U Cement Lines
0230-0400	1.50	C	Circ.
0400-0430	0.50	C	Test cement lines
0430-0530	1.00	M	B.J. Cia. Repair Cement Head.
0530-0830	3.00	C	Cement Job
0830-2400	15.50	M	WOC, Cut 9 5/8" Csg, Nipple up Bop & Lines
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc
Last Survey: 5274' / 17.0° inc / 208.2° azi Next Operation: Test BOP & Drill. Cement			

Comments	
18" conductor set @ 597' 13 3/8" casing shoe @ 1500' 9 5/8" casing shoe @ 5313'	
<u>Motors on Location</u> 6 3/4" PowerPak 4:5 XP #02234 (standing by) 6 3/4" PowerPak 7:8 XP #01164 (standing by)	
<u>Jars on Location</u> 6 1/2" Houston Engineers #03595 (standing by) 6 1/2" Houston Engineers #03376 (standing by)	
Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Rodolfo Torres / Luis Tenorio
MWD Eng	Guillermo Soto
MWD Eng	Christian Huapaya
Operator Representatives Ricardo Gilabert	

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report as of 2400 hrs. Job #01013	Report #:	12	TD @ 2400 Hrs:	5323'
Rig:	Pepesa Rig #48		Spud Date:	23-Apr	Fig Last 24 Hrs:	10
Well:	LO6-23		Kick-off Date:	4-May	Total Footage:	3723'

BHA Run Data	BHA #7	BHA #	Slim-1 Run Data			BHA #7		BHA # 8	
				Run #6	Run #7				
A675XP	01164					8 1/2" Rock Bit	0.83		
Bent Housing °	1.50		Daily Hours		2.00	A675XP Motor	25.25		
Motor Stb OD	8 3/8"		Cumm Hours		2.00	X/O	1.47		
Drig Hrs	N/A		Tool Mode		1239	FS	2.21		
Circ Hrs	N/A		Pulser Config		F7	Pony NMDC	7.57		
Cumm Drig Hrs	0.00		Assembly Part Code			UBHO	2.27		
Cumm Circ Hrs	0.00		SMA		60	NMDC	30.34		
Total PDM Hrs	0.00		SMC			NMDC	30.71		
Depth In	5323'		SEA		275	3 x 6 1/4" DC	182.50		
Depth Out			SMC			X/O	1.60		
Cumm Ftg			SBA		5635	6 x 5" HWDP	182.13		
PSI on / off	1000		SGR			HE Jars	32.14		
Rotary Torque	280		SMC			18 x 5" HWDP	545.38		
WOB	25K		SSL						
RPM	80		Comments						
GPM	500								
Hook Load	145K								
P/U Weight	180K								
S/O Weight	120K								
			Total Slim-1 Hours for Well: 157.25			Total	1,044.40	Total	0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	10 / BHA#7		Resume for this Well			
Weight 9.5	Funnel Visc. 50	Plastic Visc. 14	Size Make	8 1/2" New HTC		Anadrill P/U tools	13-May	Engineer days	12
Yield Point 20	Water Loss 5.6	pH 11.00	Type Depth in	GT-M1 5323'		9 5/8" PDM hrs	0.00	Slim S'by days	3
Solids % 5.0	MBT 12.50	Gels 7 / 10 / 12	Depth out Footage			8" PDM hrs	22.50	Slim Oper days	9
Sand % 0.20	Cl 28,000	Hardness Ca++ 240	Hours ROP / Avg.			6 3/4" PDM hrs	0.00	GR S'by days	N/A
Cake 1/32" 1 /	Pf / Mf .40 / .80	Slim Temp °F 0° F	Nozzles T-B-G	3 X 22		4 3/4" PDM hrs	0.00	GR Oper days	N/A
						Drilling Jar			
						Size & Type	6 1/2" Houston Engineers Hydrarajar #03376		
						Daily Rotation	0.50		
						Cumm Rotation	87.25		

Time Breakdown with Comments			
Time	Hrs	Code	Comments
0000-0930	9.50	M	Nipple Up Bop, R/U lines & test the same.
0930-1330	4.00	T	P/U slick Bha to C/O cement. & RIH
1330-1600	2.50	C	C/O cement from 5214 to 5313'
1600-1630	0.50	D	Drill from 5313 to 5323'
1630-2000	3.50	T	POH
2000-2400	4.00	M	P/U Bha #7, w/ New Bit & Motor, Test Mud motor & Slim-1. O.K. Set Bend Housing from 0° to 1.5° & RIH
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc
Last Survey: 5274' / 17.0° inc / 208.2° azi Next Operation: Drill Palegreda Formation.			

Comments
18" conductor set @ 597'
13 3/8" casing shoe @ 1500'
9 5/8" casing shoe @ 5313'
<u>Motors on Location</u>
6 3/4" PowerPak 4:5 XP #02234 (standing by)
6 3/4" PowerPak 7:8 XP #01164 (in hole)
<u>Jars on Location</u>
6 1/2" Houston Engineers #03595 (standing by)
6 1/2" Houston Engineers #03376 (in hole)
<u>Anadrill Personnel on Location</u>
DD Vicente Montenegro
DD Rodolfo Torres / Luis Tenorio
MWD Eng Guillermo Soto
MWD Eng Christian Huapaya
<u>Operator Representatives</u>
Ricardo Gilabert

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report as of 2400 hrs. Job #01013	Report #:	13	TD @ 2400 Hrs:	5772'
Rig:	Pepesa Rig #48		Spud Date:	23-Apr	Ftg Last 24 Hrs:	449'
Well:	LO6-23		Kick-off Date:	4-May	Total Footage:	4172'

BHA Run Data	BHA #7	BHA #	Slim-1 Run Data			BHA #7		BHA # 8
				Run #6	Run #7			
A675XP	01164					8 1/2" Rock Bit	0.83	
Bent Housing °	1.50		Daily Hours		24.00	A675XP Motor	25.25	
Motor Stb OD	8 3/8"		Cumm Hours		26.00	X/O	1.47	
Drlg Hrs	21.50		Tool Mode		1239	FS	2.21	
Circ Hrs	0.00		Pulser Config		F7	Pony NMDC	7.57	
Cumm Drlg Hrs	21.50		Assembly Part Code			UBHO	2.27	
Cumm Circ Hrs	0.00		SMA		60	NMDC	30.34	
Total PDM Hrs	21.50		SMC			NMDC	30.71	
Depth In	5323'		SEA		275	3 x 6 1/4" DC	182.50	
Depth Out			SMC			X/O	1.60	
Cumm Flt			SBA		5635	6 x 5" HWDP	182.13	
PSI on / off	1300/1400		SGR			HE Jars	32.14	
Rotary Torque	190		SMC			18 x 5" HWDP	545.38	
WOB	25K		SSL					
RPM	80		Comments					
GPM	500							
Hook Load	145K							
P/U Weight	190K							
S/O Weight	120K							
			Total Slim-1 Hours for Well: 181.25			Total	1,044.40	Total 0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	10 / BHA#7	Resume for this Well			
Weight 10.2	Funnel Visc. 51	Plastic Visc. 15	Size Make Type Depth in Depth out Footage Hours ROP / Avg.	8 1/2" New HTC GT-M1 5323' 3 X 22	Anadrill P/U tools 9 5/8" PDM hrs 8" PDM hrs 6 3/4" PDM hrs 4 3/4" PDM hrs	13-May 0.00 22.50 21.50 0.00	Engineer days Slim S'by days Slim Oper days GR S'by days GR Oper days	13 3 10 N/A N/A
Yield Point 20	Water Loss 5.4	pH 10.50						
Solids % 9.0	MBT 12.50	Gels 8 / 10 / 13						
Sand % 0.25	CI 28,000	Hardness Ca++ 240						
Cake 1/32" 1 /	Pf / Mf .50 / .90	Slim Temp °F 112.50° F						
					Drilling Jar Size & Type 6 1/2" Houston Engineers Hydraraj #03376 Daily Rotation 13.50 Cumm Rotation 100.75			

Time Breakdown with Comments			
Time	Hrs	Code	Comments
0000-0230	2.50	T	Cont. RIH
0230-2400	21.50	D	Drill from 5323 to 5772'
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Last Survey:	5723' / 26.63° inc / 216.65° azi
Next Operation:	Drill Palegreda Formation and POH

Comments

18" conductor set @ 597'
13 3/8" casing shoe @ 1500'
9 5/8" casing shoe @ 5313'

Motors on Location

6 3/4" PowerPak 4:5 XP #02234 (standing by)
6 3/4" PowerPak 7:8 XP #01164 (in hole)

Jars on Location

6 1/2" Houston Engineers #03595 (standing by)
6 1/2" Houston Engineers #03376 (in hole)

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Rodolfo Torres / Luis Tenorio
MWD Eng	Guillermo Soto
MWD Eng	Christian Huapaya
Operator Representatives	
Ricardo Gilabert	

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report	Report #:	14	TD @ 2400 Hrs:	5818'
Rig:	Pepesa Rig #48	as of 2400 hrs.	Spud Date:	23-Apr	Ftg Last 24 Hrs:	46'
Well:	LO6-23	Job #01013	Kick-off Date:	4-May	Total Footage:	4218'

BHA Run Data	BHA #7	BHA #8	Slim-1 Run Data			BHA #7		BHA #8	
A675XP	01164			Run #7	Run #8	8 1/2" Rock Bit	0.83	8 1/2" PDC Bit	0.80
Bent Housing °	1.50		Daily Hours	8.50	14.00	A675XP Motor	25.25	8 1/2" NB Sth	5.50
Motor Stb OD	8 3/8"		Cumm Hours	34.50	14.00	X/O	1.47	FS	2.21
Drlg Hrs	2.00	1.00	Tool Mode	1239	1202	FS	2.21	Pony NMDC	10.35
Circ Hrs	1.00	1.50	Pulser Config	F7	F7	Pony NMDC	7.57	8 5/16" Sth	4.54
Cumm Drlg Hrs	23.50	1.00	Assembly Part Code			UBHO	2.27	UBHO	2.27
Cumm Circ Hrs	1.00	1.50	SMA	60	60	NMDC	30.34	NMDC	30.34
Total PDM Hrs	24.50		SEA	275	275	NMDC	30.71	Pony NMDC	7.57
Depth In	5323'	5818'	SMC			3 x 6 1/4" DC	182.50	8 1/2" Stab	5.17
Depth Out	5818'	5854'	SBA	5635	5635	X/O	1.60	NMDC	30.71
Cumm Ftg	495'	36'	SGR			6 x 5" HWDP	182.13	6 x 6 1/4" DC	182.50
PSI on / off	1550/1700	800	SSC			HE Jars	32.14	X/O	1.60
Rotary Torque	175	160	SSL			18 x 5" HWDP	545.38	6 x 5" HWDP	182.13
WOB	25K	15/18	Comments			HE Jars		18 x 5" HWDP	545.38
RPM	60	130							
GPM	500	500							
Hook Load	147	150							
P/U Weight	200	200							
S/O Weight	120K	120							
			Total Slim-1 Hours for Well: 203.75			Total	1,044.40	Total	1,043.35

Properties for FLO-DRILL Mud			Bit# / BHA #	10 / BHA#7	11 / BHA#8	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	8 1/2" New	8 1/2" New	Anadrill P/U tools	13-May	Engineer days	14
10.4	54	16	Make	HTC	HYC	9 5/8" PDM hrs	0.00	Slim S'by days	3
Yield Point	Water Loss	pH	Type	GT-M1	DS110NSV	8" PDM hrs	22.50	Slim Oper days	11
24	5.4	10.00	Depth in	5323'	5818'	6 3/4" PDM hrs	24.50	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	5818'	5854'	4 3/4" PDM hrs	0.00	GR Oper days	N/A
11.0	12.50	8 / 12 / 16	Footage	495'	36'				
Sand %	Cl	Hardness Ca++	Hours	23.5	1.0				
0.30	26,000	280	ROP / Avg.	21.06' /hr	36'/hr				
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	3 X 22	4x16; 2x18				
1 /	.25 / .70	98.90° F	T-B-G	13/WT/1/132/ER/BHA					

Time Breakdown with Comments				Comments	
Time	Hrs	Code	Comments		
0000-0200	2.00	D	Drill from 5772 to 5818'		18" conductor set @ 597'
0200-0300	1.00	C	Circ.		13 3/8" casing shoe @ 1500'
0300-0900	6.00	T	POH w/ Bha #7		9 5/8" casing shoe @ 5313'
0900-1130	2.50	M	P/U Bha #8, w/ New PDC.		
1130-1200	0.50	C	Test Slim-1 w/ 500 gpm; 400 psi; 122 spm; 1.6° Incl.		Motors on Location
1200-1730	5.50	T	RIH to 5272'		6 3/4" PowerPak 4:5 XP #02234 (standing by)
1730-1800	0.50	C	Wash down precautionary to bottom		6 3/4" PowerPak 7:8 XP #01164 (dirty)
1800-1830	0.50	D	Drill from 5818 to 5849'		Jars on Location
1830-1900	0.50	C	Take survey		6 1/2" Houston Engineers #03595 (in hole)
1900-1930	0.50	D	Drill from 5849 to 5854'		6 1/2" Houston Engineers #03376 (sent out)
1930-2000	0.50	C	Test MP #1 & 2, lost 300 psi pump pressure.		
2000-2400	4.00	T	POH w/ Bha #8.		
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc		
Last Survey:				5799' / 27.80° inc / 218.1° azi	
Next Operation:				RIH to find out wash pipe.	

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Rodolfo Torres / Luis Tenorio
MWD Eng	Guillermo Soto
MWD Eng	Christian Huapaya
Operator Representatives	
	Ricardo Gilabert

Anadrill

Client: Petro-Tech Peruana S.A.	Peru Morning Report	Report #: 15	TD @ 2400 Hrs: 6321
Rig: Pepesa Rig #48	as of 2400 hrs.	Spud Date: 23-Apr	Ftg Last 24 Hrs: 503'
Well: LO6-23	Job #01013	Kick-off Date: 4-May	Total Footage: 4721'

BHA Run Data	BHA #9	BHA #8	Slim-1 Run Data			BHA #9		BHA #
A675XP				Run #8	Run #9	8 1/2" PDC Bit	0.80	
Bent Housing °			Daily Hours	3.50	20.50	8 1/2" NB Stb	5.50	
Motor Stb OD			Cumm Hours	17.50	20.50	FS	2.21	
Drig Hrs	12.50		Tool Mode	1202	1202	Pony NMDC	10.35	
Circ Hrs	0.50		Pulser Config	F7	F7	8 5/16" Stb	4.54	
Cumm Drig Hrs	12.50		Assembly Part Code			UBHO	2.27	
Cumm Circ Hrs	0.50		SMA	60	60	NMDC	30.34	
Total PDM Hrs			SEA	275	275	Pony NMDC	7.57	
Depth In			SMC			8 1/2" Stab	5.17	
Depth Out			SBA	5635	5635	NMDC	30.71	
Cumm Ftg			SGR			6 x 6 1/4" DC	182.50	
PSI on / off	800		SSC			X/O	1.60	
Rotary Torque	160		Comments			6 x 5" HWDP	182.13	
WOB	15					HE Jars	32.28	
RPM	130					18 x 5" HWDP	545.38	
GPM	500							
Hook Load	150K							
P/U Weight	190K							
S/O Weight	120K							
			Total Slim-1 Hours for Well: 227.75			Total	1,043.35	Total 0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	11 / BHA#9	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	8 1/2" (1RR)	Anadrill P/U tools	13-May	Engineer days	15
10.9	50	17	Make	HYC	9 5/8" PDM hrs	0.00	Slim S'by days	3
Yield Point	Water Loss	pH	Type	DS110NSV	8" PDM hrs	22.50	Slim Oper days	12
16	5.2	9.60	Depth in	5854'	6 3/4" PDM hrs	24.50	GR S'by days	N/A
Solids %	MBT	Gels	Depth out		4 3/4" PDM hrs	0.00	GR Oper days	N/A
13.0	15.00	8 / 12 / 16	Footage					
Sand %	Cl	Hardness Ca++	Hours		Drilling Jar			
0.30	26,000	240	ROP / Avg.		Size & Type	6 1/2" Houston Engineers Hydrarjar #03595		
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	1x15; 5x16	Daily Rotation	12.50		
1 /	.05 / .25	110	T-B-G		Cumm Rotation	13.50		

Time Breakdown with Comments				Comments	
Time	Hrs	Code	Comments		
0000-0330	3.50	T	Cont. POH		18" conductor set @ 597'
0330-0400	0.50	M	Change out jets on the bit: 5x16; 1x15		13 3/8" casing shoe @ 1500'
0400-0630	2.50	T	M/U Bha#9, check every conection on the BHA to 497' O.K.		9 5/8" casing shoe @ 5313'
0630-1100	4.50	T	RIH to 1608' Test w/ 498gpm; 122spm; 900psi; O.K.		
		C	@ 2545' test w/ 494gpm; 121spm; 950psi; O.K.		<u>Motors on Location</u>
		C	@ 3487' test w/ 490gpm; 120spm; 1025psi; O.K.		6 3/4" PowerPak 4:5 XP #02234 (standing by)
		C	@ 4430' test w/ 490gpm; 120spm; 1150psi; O.K.		6 3/4" PowerPak 7:8 XP #01164 (dirty)
		C	@ 5275' test w/ 490gpm; 120spm; 1200psi; O.K.		<u>Jars on Location</u>
		C	Cont. RIH to 5854'		6 1/2" Houston Engineers #03595 (in hole)
1100-12:30	1.50	D	Drill from 5854 to 5943'		6 1/2" Houston Engineers #03378 (standing by)
12:30-13:00	0.50	C	Survey		
13:00-24:00	11.00	D	Drill from 5943 to 6321'		
					<u>Anadrill Personnel on Location</u>
					DD Vicente Montenegro
					DD Rodolfo Torres / Luis Tenorio
					MWD Eng Guillermo Soto
					MWD Eng Christian Huapaya
					<u>Operator Representatives</u>
					Ricardo Gilabert
Last Survey: 5862' / 27.30° inc / 218.1° azi					
Next Operation: Drilling ahead					

Schlumberger

16 May 2001

Anadrill

Client: Petro-Tech Peruana S.A.	Peru Morning Report	Report #: 16	TD @ 2400 Hrs: 6571'
Rig: Pepesa Rig #48	as of 2400 hrs.	Spud Date: 23-Apr	Ftg Last 24 Hrs: 250'
Well: LO6-23	Job #01013	Kick-off Date: 4-May	Total Footage: 4971'

BHA Run Data	BHA #9	BHA #10	Slim-1 Run Data			BHA #9		BHA #10	
A675XP		01164		Run # 9	Run # 10	8 1/2" PDC Bit	0.80	8 1/2" PDC Bit	0.80
Bent Housing °		1.50	Daily Hours	15.50	6.50	8 1/2" NB Stb	5.50	A675XP Motor	25.25
Motor Stb OD		8 3/8"	Cumm Hours	36.00	6.50	FS	2.21	X/O	1.47
Drig Hrs	5.50	0.00	Tool Mode	1202	1239	Pony NMDC	10.35	FS	2.21
Circ Hrs	2.00	0.00	Pulser Config	F8	F8	8 5/16" Stb	4.54	8 3/8" Stab	5.17
Cumm Drig Hrs	18.00	0.00	Assembly Part Code			UBHO	2.27	Pony NMDC	7.57
Cumm Circ Hrs	2.50	0.00	SMA	359		NMDC	30.34	UBHO	2.27
Total PDM Hrs		0.00	SMC			Pony NMDC	7.57	NMDC	30.34
Depth In		6572'	SEA	275		8 1/2" Stab	5.17	NMDC	30.71
Depth Out			SMC			NMDC	30.71	6 x 6 1/4" DC	182.50
Cumm Ftg			SBA	5635		6 x 6 1/4" DC	182.50	X/O	1.60
PSI on / off	1600		SGR			X/O	1.60	6 x 5" HWDP	182.13
Rotary Torque	160		SMC			6 x 5" HWDP	182.13	HE Jars	32.14
WOB	15		SSL			HE Jars	32.28	18 x 5" HWDP	545.38
RPM	130		Comments			18 x 5" HWDP	545.38		
GPM	500								
Hook Load	150K								
P/U Weight	205K								
S/O Weight	120K								
			Total Slim-1 Hours for Well: 249.75			Total	1,043.35	Total	1,049.54

Properties for FLO-DRILL Mud			Bit# / BHA #	11 / BHA#9	11 / BHA#10	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	8 1/2" (1RR)	8 1/2" (2RR)	Anadrill P/U tools	13-May	Engineer days	16
10.9	52	17	Make	HYC	HYC	9 5/8" PDM hrs	0.00	Slim S'by days	3
Yield Point	Water Loss	pH	Type	DS110NSV	DS110NSV	8" PDM hrs	22.50	Slim Oper days	13
27	5.2	9.40	Depth in	5854'	6572'	6 3/4" PDM hrs	24.50	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	6571'		4 3/4" PDM hrs	0.00	GR Oper days	N/A
13.0	15.00	8 / 13 / 16	Footage	717'					
Sand %	Cl	Hardness Ca++	Hours	18.0					
0.30	27,000	240	ROP / Avg.	39.83					
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	1x15; 5x16	5X16; 1X28				
1 /	.05 / .25	109.6	T-B-G	00WCTN/X/I/RR					

Time Breakdown with Comments			
Time	Hrs	Code	Comments
00:00-01:00	1.00	C	Circ.
01:00-02:00	1.00	T	Short Trip to 5831'
02:00-07:30	5.50	D	Drill from 6321' to 6571'
07:30-08:30	1.00	C	Circ. Pump Hi-Vis- Pill
08:30-10:30	2.00	T	POH w/ Bha#9 to 4085'
10:30-12:00	1.50	M	R/S
12:00-15:00	3.00	T	Cont. POH
15:00-16:00	1.00	M	L/D Bha #9
16:00-21:30	5.50	M	P/U Bha #10, w/ Mud Motor & Slim. Test 550psi; 95spm; 385gpm
		T	RIH to 9 5/8" Csg. Shoe
21:30-22:30	1.00	M	Slip & Cut 90' drilling line
22:30-24:00	1.50	T	Fill pipe and cont. RIH to bottom
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Last Survey: 5862' / 27.30° inc / 218.1° azi
Next Operation: Drilling ahead

Resume for this Well			
Anadrill P/U tools	13-May	Engineer days	16
9 5/8" PDM hrs	0.00	Slim S'by days	3
8" PDM hrs	22.50	Slim Oper days	13
6 3/4" PDM hrs	24.50	GR S'by days	N/A
4 3/4" PDM hrs	0.00	GR Oper days	N/A
Drilling Jar			
Size & Type	6 1/2" Houston Engineers Hydrarjar #03595		
Daily Rotation	5.50		
Cumm Rotation	19.00		

Comments	
18" conductor set @ 597'	
13 3/8" casing shoe @ 1500'	
9 5/8" casing shoe @ 5313'	
Motors on Location	
6 3/4" PowerPak 4:5 XP #02234 (standing by)	
6 3/4" PowerPak 7:8 XP #01164 (in hole)	
Jars on Location	
6 1/2" Houston Engineers #03595 (in hole)	
6 1/2" Houston Engineers #03378 (standing by)	

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Rodolfo Torres / Luis Tenorio
MWD Eng	Guillermo Soto
MWD Eng	Christian Huapaya
Operator Representatives	
Ricardo Gilabert	

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report	Report #:	17	TD @ 2400 Hrs:	6571'
Rig:	Pepesa Rig #48	as of 2400 hrs.	Spud Date:	23-Apr	Ftg Last 24 Hrs:	250'
Well:	LO6-23	Job #01013	Kick-off Date:	4-May	Total Footage:	4971'

BHA Run Data	BHA #9	BHA #10	Slim-1 Run Data			BHA #9		BHA #10	
A675XP		01164		Run #10		8 1/2" PDC Bit	0.80	8 1/2" PDC Bit	0.80
Bent Housing °		1.50	Daily Hours	24.00		8 1/2" NB Stb	5.50	A675XP Motor	25.25
Motor Stb OD		8 3/8"	Cumm Hours	30.50		FS	2.21	X/O	1.47
Drig Hrs		23.00	Tool Mode	1239		Pony NMDC	10.35	FS	2.21
Circ Hrs		1.00	Pulser Config	F7		8 5/16" Stb	4.54	8 3/8" Stab	5.17
Cumm Drig Hrs		23.00	Assembly Part Code			UBHO	2.27	Pony NMDC	7.57
Cumm Circ Hrs		1.00	SMA	359		NMDC	30.34	UBHO	2.27
Total PDM Hrs		24.00	SMC			Pony NMDC	7.57	NMDC	30.34
Depth In		6571'	SEA	275		8 1/2" Stab	5.17	NMDC	30.71
Depth Out		6764'	SMC			NMDC	30.71	6 x 6 1/4" DC	182.50
Cumm Ftg		193'	SBA	5635		6 x 6 1/4" DC	182.50	X/O	1.60
PSI on / off		1600 / 1650	SGR			X/O	1.60	6 x 5" HWDP	182.13
Rotary Torque		140	SMC			6 x 5" HWDP	182.13	HE Jars	32.14
WOB		5 / 35	SSL			HE Jars	32.28	18 x 5" HWDP	545.38
RPM		80	Comments			18 x 5" HWDP	545.38		
GPM		500							
Hook Load		155K							
P/U Weight		220K							
S/O Weight		122K							
			Total Slim-1 Hours for Well: 273.75			Total	1,043.35	Total	1,049.54

Properties for FLO-DRILL Mud			Bit# / BHA #	11 / BHA#9	11 / BHA#10	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	8 1/2" (1RR)	8 1/2" (2RR)	Anadrill P/U tools	13-May	Engineer days	17
10.9	52	16	Make	HYC	HYC	9 5/8" PDM hrs	0.00	Slim S'by days	3
Yield Point	Water Loss	pH	Type	DS110NSV	DS110NSV	8" PDM hrs	22.50	Slim Oper days	14
27	5.4	9.40	Depth in	5854'	6571'	6 3/4" PDM hrs	48.50	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	6571'	6764'	4 3/4" PDM hrs	0.00	GR Oper days	N/A
13.0	16.00	8 / 14 / 17	Footage	717'	193'				
Sand %	Cl	Hardness Ca++	Hours	18.0	23.0				
0.30	26,000	320	ROP / Avg.	39.83	8.39				
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	1x15; 5x16	5X16; 1X28				
1 /	.05 / .35	115.7	T-B-G	00/CT/NX/RR	1/1CT/NX/1/16/RR				

Time Breakdown with Comments				Comments	
Time	Hrs	Code			
00:00-00:30	0.50	C		Reaming Down precautionary to Bottom.	
00:30-23:30	23.00	D		Drill from 6571' to 6764'	
23:30-24:00	0.50	C		Circ. Pump Hi-Vis- Pill	
	24.00			Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc	
Last Survey:				6700' / 26.60° inc / 209.4° azi	
Next Operation:				Drilling ahead	

Comments			
18" conductor set @ 597'			
13 3/8" casing shoe @ 1500'			
9 5/8" casing shoe @ 5313'			
<u>Motors on Location</u>			
6 3/4" PowerPak 4:5 XP #02234 (standing by)			
6 3/4" PowerPak 7:8 XP #01164 (in hole)			
<u>Jars on Location</u>			
6 1/2" Houston Engineers #03595 (in hole)			
6 1/2" Houston Engineers #03378 (standing by)			

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Rodolfo Torres / Luis Tenorio
MWD Eng	Guillermo Soto
MWD Eng	Christian Huapaya
Operator Representatives	
Franklin Cordova	

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report as of 2400 hrs. Job #01013	Report #:	18	TD @ 2400 Hrs:	6853'
Rig:	Pepesa Rig #48		Spud Date:	23-Apr	Ftg Last 24 Hrs:	282'
Well:	LO6-23		Kick-off Date:	4-May	Total Footage:	5253'

BHA Run Data	BHA #10	BHA #11	Slim-1 Run Data			BHA #10		BHA #11	
				Run #10	Run #11				
A675XP	01164	02188	Daily Hours	5.50	16.50	8 1/2" PDC Bit	0.80	8 1/2" Rock Bit	0.83
Bent Housing °	1.15	1.50	Cumm Hours	36.00	16.50	A675XP Motor	25.25	A675XP Motor	25.27
Motor Stb OD	8 3/8"	8 3/8"	Tool Mode	1239	1239	X/O	1.47	8 11/32" Stab	6.11
Drig Hrs	0.00	8.00	Pulser Config	F7	F7	FS	2.21	X/O	1.47
Circ Hrs	0.00	1.00	Assembly Part Code			8 3/8" Stab	5.17	FS	2.21
Cumm Drig Hrs	23.00	8.00	SMA	359	60	Pony NMDC	7.57	Pony NMDC	7.57
Cumm Circ Hrs	1.00	1.00	SMC			UBHO	2.27	UBHO	2.27
Total PDM Hrs	24.00	9.00	SEA	275	275	NMDC	30.34	NMDC	30.34
Depth In	6571'	6764'	SMC			NMDC	30.71	NMDC	30.71
Depth Out	6764'		SBA	5635	5635	6 x 6 1/4" DC	182.50	6 x 6 1/4" DC	182.50
Cumm Flg	193'		SGR			X/O	1.60	X/O	1.60
PSI on / off	1600 / 1650	1650 / 1800	SMC			6 x 5" HWDP	182.13	6 x 5" HWDP	182.13
Rotary Torque	140	130	SSL			HE Jars	32.14	HE Jars	32.14
WOB	5 / 35	35 / 40	Comments			18 x 5" HWDP	545.38	18 x 5" HWDP	545.38
RPM	80	60							
GPM	500	500							
Hook Load	155K	165K							
P/U Weight	220K	225K							
S/O Weight	122K	125K	Total Slim-1 Hours for Well: 295.75						
						Total	1,049.54	Total	1,050.53

Properties for FLO-DRILL Mud			Bit# / BHA #	11 / BHA#10	12 / BHA#11	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	8 1/2" (2RR)	8 1/2" (N)	Anadrill P/U tools	13-May	Engineer days	18
10.9	51	17	Make	HYC	HTC	9 5/8" PDM hrs	0.00	Slim S'by days	3
Yield Point	Water Loss	pH	Type	DS110NSV	GT-M1	8" PDM hrs	22.50	Slim Oper days	15
27	5.2	9.40	Depth in	6571'	6764'	6 3/4" PDM hrs	57.50	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	6764'		4 3/4" PDM hrs	0.00	GR Oper days	N/A
13.5	17.50	8 / 15 / 18	Footage	193'					
Sand %	Cl	Hardness Ca++	Hours	23.0		Drilling Jar			
0.30	27,000	240	ROP / Avg.	8.39		Size & Type	6 1/2" Houston Engineers Hydrarjar #03595		
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	5X16; 1X28		Daily Rotation	10.00		
1 /	.05 / .35	117	T-B-G	11/CTNSX11/6RR		Cumm Rotation	44.00		

Time Breakdown with Comments			
Time	Hrs	Code	Comments
00:00-05:30	5.50	T	POH w/ Bha#10
05:30-07:30	2.00	M	L/D Bha#10, Change out Motor & Bit, RH to 137'
07:30-10:00	2.50	M	P/U Bha#11. Test Mud Motor & Slim-1. No success. Change out pulser of Slim-1 Test w/ 850psi; 121 spm; 494 gpm; 0.3 Incl. O.K.
10:00-11:00	1.00	M	Set Bend Housing on Motor to 1.50 deg.
11:00-14:30	3.50	T	RIH to 9 5/8" Csg Shoe to 5313'
14:30-15:00	0.50	C	Break circ.
15:00-15:30	0.50	T	Cont. RIH to 6714'
15:30-16:00	0.50	C	Reaming down precautionary to Bottom
16:00-24:00	8.00	D	Drill from 6764' to 6853'
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Comments 18" conductor set @ 597' 13 3/8" casing shoe @ 1500' 9 5/8" casing shoe @ 5313' <u>Motors on Location</u> 6 3/4" PowerPak 4:5 XP #02234 (standing by) 6 3/4" PowerPak 7:8 XP #01164 (in hole) <u>Jars on Location</u> 6 1/2" Houston Engineers #03595 (in hole) 6 1/2" Houston Engineers #03378 (standing by)	
Anadrill Personnel on Location DD Vicente Montenegro DD Rodolfo Torres / Luis Tenorio MWD Eng Guillermo Soto MWD Eng Christian Huapaya	
Operator Representatives Franklin Cordova	

Last Survey: Next Operation:	6700' / 26.60° inc / 209.4° azi Drilling ahead
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Anadrill

Client:	Petro-Tech Peruana S.A.	<u>Peru Morning Report</u>	Report #:	19	TD @ 2400 Hrs:	7210'	
Rig:	Pepesa Rig #48		as of 2400 hrs.	Spud Date:	23-Apr	Fig Last 24 Hrs:	357'
Well:	LO6-23		Job #01013	Kick-off Date:	4-May	Total Footage:	5610'

BHA Run Data	BHA #11	BHA #	Slim-1 Run Data			BHA #11		BHA #	
A675XP	02188			Run #11		8 1/2" Rock Bit	0.83		
Bent Housing °	1.50		Daily Hours	24.00		A675XP Motor	25.27		
Motor Stb OD	8 3/8"		Cumm Hours	40.50		8 11/32" Stab	6.11		
Drlg Hrs	22.50		Tool Mode	1239		X/O	1.47		
Circ Hrs	1.00		Pulser Config	F7		FS	2.21		
Cumm Drlg Hrs	30.50		Assembly Part Code			Pony NMDC	7.57		
Cumm Circ Hrs	2.00		SMA	60		UBHO	2.27		
Total PDM Hrs	32.50		SMC			NMDC	30.34		
Depth In	6764'		SEA	275		NMDC	30.71		
Depth Out			SMC			6 x 6 1/4" DC	182.50		
Cumm Ftg			SBA	5635		X/O	1.60		
PSI on / off	1750 / 1950		SGR			6 x 5" HWDP	182.13		
Rotary Torque	130		SMC			HE Jars	32.14		
WOB	35 / 40		SSL			18 x 5" HWDP	545.38		
RPM	60		Comments						
GPM	500								
Hook Load	180K								
P/U Weight	260K								
S/O Weight	145K								
			Total Slim-1 Hours for Well: 319.75			Total	1,050.53	Total	0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	11 / BHA#10	12 / BHA#11	Resume for this Well			
Weight 10.9	Funnel Visc. 52	Plastic Visc. 17	Size	8 1/2" (2RR)	8 1/2" (N)	Anadrill P/U tools	13-May	Engineer days	19
Yield Point 28	Water Loss 5.2	pH 10.00	Make	HYC	HTC	9 5/8" PDM hrs	0.00	Slim S'by days	3
Solids % 14.0	MBT 17.50	Gels 8 / 15 / 19	Type	DS110NSV	GT-M1	8" PDM hrs	22.50	Slim Oper days	16
			Depth in	6571'	6764'	6 3/4" PDM hrs	81.00	GR S'by days	N/A
			Depth out	6764'		4 3/4" PDM hrs	0.00	GR Oper days	N/A
			Footage	193'					
Sand % 0.30	Cl 28,000	Hardness Ca++ 240	Hours	23.0		Drilling Jar 6 1/2" Houston Engineers Hydrarajar #03595			
			ROP / Avg.	8.39					
Cake 1/32" 1 /	Pf / Mf .08 / .40	Slim Temp °F 113	Nozzles	5X16; 1X28					
			T-B-G	11/1CTN/DX/11/6/RR		Size & Type			
						Daily Rotation	10.50		
						Cumm Rotation	54.50		

Time Breakdown with Comments			
Time	Hrs	Code	Comments
00:00-17:00	17.00	D	Drill from 6853' to 7122'
17:00-18:30	1.50	M	Repair Mud Pump #1 & 2, POH 4 stds.
18:30-24:00	5.50	D	Drill from 7122' to 7210'
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc
Last Survey: 7198' / 26.10° inc / 222.3° azi Next Operation: Drilling ahead			

Comments
18" conductor set @ 597' 13 3/8" casing shoe @ 1500' 9 5/8" casing shoe @ 5313'
<u>Motors on Location</u> 6 3/4" PowerPak 4:5 XP #02234 (standing by) 6 3/4" PowerPak 7:8 XP #02188 (in hole)
<u>Jars on Location</u> 6 1/2" Houston Engineers #03595 (in hole) 6 1/2" Houston Engineers #03378 (standing by)
<u>Anadrill Personnel on Location</u> DD Vicente Montenegro DD Rodolfo Torres / Luis Tenorio MWD Eng Guillermo Soto MWD Eng Christian Huapaya
<u>Operator Representatives</u> Franklin Cordova

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report	Report #:	20	TD @ 2400 Hrs:	7331'
Rig:	Pepesa Rig #48	as of 2400 hrs.	Spud Date:	23-Apr	Fig Last 24 Hrs:	121'
Well:	LO6-23	Job #01013	Kick-off Date:	4-May	Total Footage:	5731'

BHA Run Data	BHA #11	BHA #12	Slim-1 Run Data			BHA #11		BHA #12	
A675XP	02188	02188		Run #11	Run #12	8 1/2" Rock Bit	0.83	8 1/2" PDC Bit	0.80
Bent Housing °	1.50	1.50	Daily Hours	16.75	6.50	A675XP Motor	25.27	A675XP Motor (1RI)	25.27
Motor Stb OD	8 3/8"	8 3/8"	Cumm Hours	57.25	6.50	8 11/32" Stab	6.11	8 11/32" Stab	6.11
Drig Hrs	9.50	0.00	Tool Mode	1239	1239	X/O	1.47	X/O	1.47
Circ Hrs	1.50	0.00	Pulser Config	F7	F7	FS	2.21	FS	2.21
Cumm Drig Hrs	40.00	0.00	Assembly Part Code			Pony NMDC	7.57	Pony NMDC	7.57
Cumm Circ Hrs	3.50	0.00	SMA	60	359	UBHO	2.27	UBHO	2.27
Total PDM Hrs	43.50	0.00	SMC			NMDC	30.34	NMDC	30.34
Depth In	6764'	7331'	SEA	275	275	NMDC	30.71	NMDC	30.71
Depth Out	7331'		SMC			6 x 6 1/4" DC	182.50	6 x 6 1/4" DC	182.50
Cumm Ftg	567'		SBA	5635	5389	X/O	1.60	X/O	1.60
PSI on / off	1800 / 1900		SGR			6 x 5" HWDP	182.13	6 x 5" HWDP	182.13
Rotary Torque	110		SMC			HE Jars	32.14	HE Jars	32.14
WOB	35 / 40		SSL			18 x 5" HWDP	545.38	18 x 5" HWDP	545.38
RPM	60		Comments						
GPM	480								
Hook Load	180K								
P/U Weight	260K								
S/O Weight	145K		Total Slim-1 Hours for Well: 343			Total		Total	
						1,050.53		1,050.50	

Properties for FLO-DRILL Mud			Bit# / BHA #	11 / BHA#10	12 / BHA#11	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	8 1/2" (2RR)	8 1/2" (N)	Anadrill P/U tools	13-May	Engineer days	20
11.0	51	17	Make	HYC	HTC	9 5/8" PDM hrs	0.00	Slim S'by days	3
Yield Point	Water Loss	pH	Type	DS110NSV	GT-M1	8" PDM hrs	22.50	Slim Oper days	17
27	5.2	10.00	Depth in	6571'	6764'	6 3/4" PDM hrs	92.00	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	6764'	7331'	4 3/4" PDM hrs	0.00	GR Oper days	N/A
14.0	17.50	8 / 15 / 19	Footage	193'	567'				
Sand %	Cl	Hardness Ca++	Hours	23.0	42.0				
0.30	28,000	240	ROP / Avg.	8.39	13.50				
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	5X16; 1X28	2x22; 1x24				
1 /	.09 / .50	113.4	T-B-G	11/CT/NS/11/16/RR	3/3/WT/11/16/EBIT				
						Drilling Jar			
						Size & Type	6 1/2" Houston Engineers Hydrarjar #03595		
						Daily Rotation	5.35		
						Cumm Rotation	59.85		

Time Breakdown with Comments			
Time	Hrs	Code	Comments
00:00-09:30	9.50	D	Drill from 7210' to 7331'
09:30-10:00	0.50	C	Try to slide. No GTF and then no survey.
10:00-11:00	1.00	C	Circ.
11:00-16:30	5.50	T	POH w/ Bha #11
16:30-17:30	1.00	M	P/U Bha #12, w/ PDC Bit (3RR), Test Motor & MWD O.K.
17:30-22:00	4.50	T	RIH to 9 5/8" Csg. Shoe.
22:00-22:30	0.50	C	Fill pipe & test MWD Tool O.K.
22:30-24:00	1.50	T	Cont. RIH to Bottom
	24.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc

Last Survey: 7262' / 26.80° inc / 223° azi
Next Operation: Drilling ahead

Comments	
18" conductor set @ 597'	
13 3/8" casing shoe @ 1500'	
9 5/8" casing shoe @ 5313'	
Motors on Location	
6 3/4" PowerPak 4:5 XP #02234 (standing by)	
6 3/4" PowerPak 7:8 XP #02188 (in hole)	
Jars on Location	
6 1/2" Houston Engineers #03595 (in hole)	
6 1/2" Houston Engineers #03378 (standing by)	

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Rodolfo Torres / Luis Tenorio
MWD Eng	Guillermo Soto
MWD Eng	Christian Huapaya
Operator Representatives	
Franklin Cordova	

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report	Report #:	21	TD @ 2400 Hrs:	7614'
Rig:	Pepesa Rig #48	as of 2400 hrs.	Spud Date:	23-Apr	Ftg Last 24 Hrs:	283'
Well:	LO6-23	Job #01013	Kick-off Date:	4-May	Total Footage:	6014'

BHA Run Data	BHA #12	BHA #	Slim-1 Run Data			BHA #12	BHA #
A675XP	02188			Run #12		8 1/2" PDC Bit	0.80
Bent Housing °	1.50		Daily Hours	24.00		A675XP Motor	25.27
Motor Stb OD	8 3/8"		Cumm Hours	30.50		8 11/32" Stab	6.11
Drig Hrs	22.00		Tool Mode	1239		X/O	1.47
Circ Hrs	2.00		Pulser Config	F7		FS	2.21
Cumm Drig Hrs	22.00		Assembly Part Code			Pony NMDC	7.57
Cumm Circ Hrs	2.00		SMA	359		UBHO	2.27
Total PDM Hrs	24.00		SMC			NMDC	30.34
Depth In	7331'		SEA	275		NMDC	30.71
Depth Out			SMC			6 x 6 1/4" DC	182.50
Cumm Ftg			SBA	5389		X/O	1.60
PSI on / off	1800 / 2000		SGR			6 x 5" HWDP	182.13
Rotary Torque	100		SMC			HE Jars	32.14
WOB	35 / 45		SSL			18 x 5" HWDP	545.38
RPM	70		Comments				
GPM	430						
Hook Load	195K						
P/U Weight	290K						
S/O Weight	155K						
			Total Slim-1 Hours for Well: 367			Total	1,050.50
						Total	0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	13 / BHA#12	?? / BHA#	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	8 1/2" (3R)		Anadrill P/U tools	13-May	Engineer days	21
11.0	52	19	Make	HYC		9 5/8" PDM hrs	0.00	Slim S'by days	3
Yield Point	Water Loss	pH	Type	DS110NVS		8" PDM hrs	22.50	Slim Oper days	18
28	5.6	10.20	Depth in	7331'		6 3/4" PDM hrs	116.00	GR S'by days	N/A
Solids %	MBT	Gels	Depth out			4 3/4" PDM hrs	0.00	GR Oper days	N/A
14.0	19.00	9 / 18 / 24	Footage						
Sand %	Cl	Hardness Ca++	Hours						
0.30	28,000	320	ROP / Avg.						
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	3X16; 3X18					
1 /	.10 / .85	114	T-B-G						
						Drilling Jar			
						Size & Type		6 1/2" Houston Engineers Hydrajar #03595	
						Daily Rotation		22.00	
						Cumm Rotation		81.85	

Anadrill

Client: **Petro-Tech Peruana S.A.**
Rig: **Pepesa Rig #48**
Well: **LO6-23**

Peru Morning Report

as of 2400 hrs.

Job #01013

Report #: **22** TD @ 2400 Hrs: **7771'**
Spud Date: 23-Apr Ftg Last 24 Hrs: **157'**
Kick-off Date: 4-May Total Footage: **6171'**

BHA Run Data	BHA #12	BHA #
A675XP	02188	
Bent Housing °	1.50	
Motor Stb OD	8 3/8"	
Drlg Hrs	20.00	
Circ Hrs	3.50	
Cumm Drlg Hrs	42.00	
Cumm Circ Hrs	5.50	
Total PDM Hrs	47.50	
Depth In	7331'	
Depth Out		
Cumm Ftg		
PSI on / off	1800 / 2000	
Rotary Torque	100	
WOB	35 / 45	
RPM	70	
GPM	430	
Hook Load	195K	
P/U Weight	290K	
S/O Weight	155K	

Slim-1 Run Data		
	Run #12	
Daily Hours	24.00	
Cumm Hours	54.50	
Tool Mode	1239	
Pulser Config	F7	
Assembly Part Code		
SMA	359	
SMC		
SEA	275	
SMC		
SBA	5389	
SGR		
SMC		
SSL		
Comments		
Total Slim-1 Hours for Well: 391		

BHA #12	BHA #
8 1/2" PDC Bit	0.80
A675XP Motor	25.27
8 11/32" Stab	6.11
X/O	1.47
FS	2.21
Pony NMDC	7.57
UBHO	2.27
NMDC	30.34
NMDC	30.71
6 x 6 1/4" DC	182.50
X/O	1.60
6 x 5" HWDP	182.13
HE Jars	32.14
18 x 5" HWDP	545.38
Total	1,050.50
Total	0.00

Properties for FLO-DRILL Mud		
Weight	Funnel Visc.	Plastic Visc.
11.4	53	20
Yield Point	Water Loss	pH
28	5.6	10.50
Solids %	MBT	Gels
16.0	20.00	10 / 18 / 28
Sand %	Cl	Hardness Ca++
0.25	27,000	80
Cake 1/32"	Pf / Mf	Slim Temp °F
1 /	.35 / 1.15	114.2

Bit# / BHA #	13 / BHA#12	?? / BHA#
Size	8 1/2" (3R)	
Make	HYC	
Type	DS110NVS	
Depth in	7331'	
Depth out		
Footage		
Hours		
ROP / Avg.		
Nozzles	3X16; 3X18	
T-B-G		

Resume for this Well			
Anadrill P/U tools	13-May	Engineer days	22
9 5/8" PDM hrs	0.00	Slim S'by days	3
8" PDM hrs	22.50	Slim Oper days	19
6 3/4" PDM hrs	139.50	GR S'by days	N/A
4 3/4" PDM hrs	0.00	GR Oper days	N/A

Drilling Jar	
Size & Type	6 1/2" Houston Engineers Hydrajar #03595
Daily Rotation	18.00
Cumm Rotation	99.85

Time Breakdown with Comments			
Time	Hrs	Code	Comments
00:00-03:30	3.50	C	Cont. on repair mud pump #2
03:30-04:00	0.50	T	RIH to 7614'
04:00-24:00	20.00	D	Drill from 7614' to 7771'
	24.00		
Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc			

Comments	
18" conductor set @ 597'	
13 3/8" casing shoe @ 1500'	
9 5/8" casing shoe @ 5313'	
Motors on Location	
6 3/4" PowerPak 4:5 XP #02234 (standing by)	
6 3/4" PowerPak 7:8 XP #02188 (in hole)	
Jars on Location	
6 1/2" Houston Engineers #03595 (in hole)	
6 1/2" Houston Engineers #03378 (standing by)	

Anadrill Personnel on Location	
DD	Vicente Montenegro
DD	Rodolfo Torres / Luis Tenorio
MWD Eng	Guillermo Soto
MWD Eng	Christian Huapaya
Operator Representatives	
Franklin Cordova	

Last Survey: 7670' / 27.20° inc / 218.8° azi
Next Operation: Drilling ahead

Anadrill

Client: Petro-Tech Peruana S.A.	Peru Morning Report	Report #: 23	TD @ 2400 Hrs: 7865'
Rig: Pepesa Rig #48	as of 2400 hrs.	Spud Date: 23-Apr	Ftg Last 24 Hrs: 94'
Well: LO6-23	Job #01013	Kick-off Date: 4-May	Total Footage: 6265'

BHA Run Data	BHA #12	BHA #	Slim-1 Run Data			BHA #12		BHA #
A675XP	02188			Run #12		8 1/2" PDC Bit	0.80	
Bent Housing °	1.50		Daily Hours	24.00		A675XP Motor	25.27	
Motor Stb OD	8 3/8"		Cumm Hours	78.50		8 11/32" Stab	6.11	
Drig Hrs	11.50		Tool Mode	1239		X/O	1.47	
Circ Hrs	4.00		Pulser Config	F7		FS	2.21	
Cumm Drig Hrs	53.50		Assembly Part Code			Pony NMDC	7.57	
Cumm Circ Hrs	4.00		SMA	359		UBHO	2.27	
Total PDM Hrs	57.50		SMC			NMDC	30.34	
Depth In	7331'		SEA	275		NMDC	30.71	
Depth Out	7865'		SMC			6 x 6 1/4" DC	182.50	
Cumm Ftg	534'		SBA	5389		X/O	1.60	
PSI on / off	1900 / 2100		SGR			6 x 5" HWDP	182.13	
Rotary Torque	100		SMC			HE Jars	32.14	
WOB	30		SSL			18 x 5" HWDP	545.38	
RPM	70		Comments					
GPM	425							
Hook Load	195K							
P/U Weight	290K							
S/O Weight	155K							
			Total Slim-1 Hours for Well: 415			Total	1,050.50	Total 0.00

Properties for FLO-DRILL Mud			Bit# / BHA #	13 / BHA#12	?? / BHA#	Resume for this Well			
Weight	Funnel Visc.	Plastic Visc.	Size	8 1/2" (3R)		Anadrill P/U tools	13-May	Engineer days	23
11.4	53	20	Make	HYC		9 5/8" PDM hrs	0.00	Slim S'by days	3
Yield Point	Water Loss	pH	Type	DS110NVS		8" PDM hrs	22.50	Slim Oper days	20
28	5.6	10.50	Depth in	7331'		6 3/4" PDM hrs	155.00	GR S'by days	N/A
Solids %	MBT	Gels	Depth out	7865'		4 3/4" PDM hrs	0.00	GR Oper days	N/A
16.0	20.00	10 / 18 / 28	Footage	534'					
Sand %	Cl	Hardness Ca++	Hours						
0.25	27,000	80	ROP / Avg.						
Cake 1/32"	Pf / Mf	Slim Temp °F	Nozzles	3X16; 3X18					
1 /	.35 / 1.15	114.2	T-B-G						

Anadrill

Client:	Petro-Tech Peruana S.A.	Peru Morning Report as of 2400 hrs. Job #01013	Report #:	24	TD @ 2400 Hrs:
Rig:	Pepesa Rig #48		Spud Date:	23-Apr	Ftg Last 24 Hrs:
Well:	LO6-23		Kick-off Date:	4-May	Total Footage:

BHA Run Data	BHA #12	BHA #	Slim-1 Run Data			BHA #12		BHA # 13	
A675XP	02188			Run #12		8 1/2" PDC Bit	0.80	8 1/2" Tricone Bit	0.85
Bent Housing °	1.50		Daily Hours	1.00		A675XP Motor	25.27	8 3/8" NB Stb	4.92
Motor Stb OD	8 3/8"		Cumm Hours	79.50		8 11/32" Stab	6.11	FS	2.21
Drlg Hrs	11.50		Tool Mode	1239		X/O	1.47	Pony NMDC	10.35
Circ Hrs	4.00		Pulser Config	F7		FS	2.21	Pony DC	4.98
Cumm Drlg Hrs	53.50		Assembly Part Code			Pony NMDC	7.57	8 1/4" Stb	5.63
Cumm Circ Hrs	4.00		SMA	359		UBHO	2.27	DC	27.68
Total PDM Hrs	57.50		SMC			NMDC	30.34	8 5/16" Stab	4.54
Depth In	7331'		SEA	275		NMDC	30.71	7 x 6 1/4" DC	213.62
Depth Out	7865'		SMC			6 x 6 1/4" DC	182.50	X/O	1.60
Cumm Ftg	534'		SBA	5389		X/O	1.60	6 x 5" HWDP	182.13
PSI on / off	1900 / 2100		SGR			6 x 5" HWDP	182.13	HE Jars	32.28
Rotary Torque	100		SMC			HE Jars	32.14	18 x 5" HWDP	545.38
WOB	30		SSL			18 x 5" HWDP	545.38		
RPM	70		Comments						
GPM	425								
Hook Load	191K								
P/U Weight	320K								
S/O Weight	140K		Total Slim-1 Hours for Well: 416			Total	1,050.50	Total	1,036.17

Properties for FLO-DRILL Mud			Bit# / BHA #	13 / BHA#12	14 / BHA# 13	Resume for this Well			
Weight 12.0	Funnel Visc. 53	Plastic Visc. 21	Size	8 1/2" (3R)	8 1/2"	Anadrill P/U tools	13-May	Engineer days	24
Yield Point 29	Water Loss 5.6	pH 10.50	Make	HYC	Reed	9 5/8" PDM hrs	0.00	Slim S'by days	3
Solids % 18.0	MBT 20.00	Gels 12 / 20 / 28	Type	DS110NVS	HP51 AKPR	8" PDM hrs	22.50	Slim Oper days	21
			Depth in	7331'	7865'	6 3/4" PDM hrs	155.00	GR S'by days	N/A
			Depth out	7865'		4 3/4" PDM hrs	0.00	GR Oper days	N/A
			Footage	534'					
Sand % 0.30	Cl 26,000	Hardness Ca++ 80	Hours			Drilling Jar			
			ROP / Avg.			6 1/2" Houston Engineers Hydrarajar #03595			
Cake 1/32" 1 /	Pf / Mf .25 / 1.20	Slim Temp °F 115	Nozzles	3X16; 3X18	3x24	Size & Type			
			T-B-G			Daily Rotation		11.50	
						Cumm Rotation		111.50	

Time Breakdown with Comments			
Time	Hrs	Code	Comments
00:00-02:00	2.00	T	POOH & L/D Anadrill tools
02:00-04:00	2.00	T	M/U BHA NO. 13 Anadrill released today
	4.00		Codes: D=Drilling / T=Trip / C=Circ / S=Stand-by / M=Misc
Last Survey: 7796' / 30.3° inc / 216° azi Next Operation: Drilling ahead without directional control			

Comments
18" conductor set @ 597' 13 3/8" casing shoe @ 1500' 9 5/8" casing shoe @ 5313'
<u>Motors on Location</u> 6 3/4" PowerPak 4:5 XP #02234 (standing by) 6 3/4" PowerPak 7:8 XP #02188 (in hole)
<u>Jars on Location</u> 6 1/2" Houston Engineers #03595 (in hole) 6 1/2" Houston Engineers #03378 (standing by)
<u>Anadrill Personnel on Location</u> DD Vicente Montenegro DD Rodolfo Torres / Luis Tenorio MWD Eng Guillermo Soto MWD Eng Christian Huapaya
<u>Operator Representatives</u> Franklin Cordova