

GEMDAS LOGGING REPORT NO. 41

COMPANY AMOCO Aust WELL Tilana No.1
 DATE 20 October 1985 TIME 0500 Hrs
 DEPTH 3463m (11363') LAST REPORT DEPTH 3449m: 11316 ft
 RIG OPERATIONS DRILL 12 1/4" HOLE THROUGH BASALT (VOLCANICS)
 REPORT BY D. NEW REPORT RECEIVED BY S. Maxwell (OPERATOR)

DRILLING REPORT

Bit No.: NB#18 Type: SMITH F3 Size: 12 1/4" Jets: 3x14
 On Bit: Footage: 7m (23') Hours: 2.2 HRS ROP: 3.2m/HR (10.4ft/HR) DB: 45-50 RPM: 90
 Pump Press: 2980 SPM: 117 Torque: 3-7.8 TBR: 12100 CP I: \$ 2700 CP B: \$ 4690

HYDRAULICS REPORT

Mud Density In: 9.5⁺ Mud Density Out: 9.6 ECD: 9.7 PV/YP: 30/28
 Gels: _____ Salinity: _____ PPM Cl Solids: _____ %
 Hole Volume: 1728 BBL Annular Volume: 1426 BBL Tubing Volume: 192 BBL Displaced Volume: 110 BBL
 Carbide Lag—Calculated Lag: 160 BBL 1357 STHS Flowrate: 595 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 44.7 FT/MIN Drillpipe Annular Vel (Open Hole): 116.6 FT/MIN
 Drill Collar Annular Vel (Open Hole): 169.5 FT/MIN Critical Vel: 507.9 FT/MIN
 Pressure Loss System: 1457 psi Pressure Loss Bit: 1523 psi % Pressure Loss: 51%
 Nozzle Vel: 423.3 FT/SEC Jet Impact Force: 1241 LBS HHP: 528.7 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.64-1.93 AVG 1.85. Flowline Temperature: 57°C
 Shale Density: — Shale Factor: —
 Background Gas: 1-2cc Max. Formation Gas: — @ — Trip Gas: 14cc @ 3456.5m
(0.28%)
 Other Gas: NIL
 Fill: NIL Tight Hole: UP TO 20 LBS DRAG ON TRIP OUT, NONE ON TRIP IN
 Cavings: Est %: MINOR Average Size: SMALL, BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 2.45 ppg Min. Estimated Fracture Pressure (Open Hole): 13 ppg
 Estimated Pore Pressure: 8.7 Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ AT SHOW
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ T.D Estimated Fracture Pressure at TD: 15 ppg

Comments: DRILL TO 3456.4m (11340') CIRCULATE BOTTOMS UP DROP SCRUBBY AND POOH. TEST STACK. RIM WITH NB#18, SMITH F3 AND DRILL AHEAD.
NOTE: JUNK SUB SAMPLES INDICATE THAT THE BASALT IS FRACTURED AND MAY CAUSE HOLE PROBLEMS.

SURFACE HP = 1034.5 HP SQ/IN AT BIT = 4.949.
CORRECTED HOLE VOLUME = 1889 BBL 15993 STHS
CORRECTED ANNULAR VOLUME = 1586 BBL 13434 STHS.