

GEMDAS LOGGING REPORT NO. 51

COMPANY AMOCO AUST. WELL Tilana No.1
 DATE 1 Nov. 1985 (30-31 Oct) TIME 0500 Hrs
 DEPTH 3900.3m - 12796 ft LAST REPORT DEPTH 3900.3m / 12796'
 RIG OPERATIONS Reaming and circulating near 3900m.
 REPORT BY _____ REPORT RECEIVED BY S. Maxwell (OPERATOR)

DRILLING REPORT

Bit No.: 21 Type: Smith SVH Size: 12.25" Jets: 15, 15, 15
 On Bit: Footage: - Hours: - ROP: - WOB: - RPM: 100-110
 Pump Press: 2200 psi SPM: 104 Torque: To 7.5 TBR: - CP I: \$ - CP B: \$ -

HYDRAULICS REPORT

Mud Density In: 10.0 ppg Mud Density Out: 10.2 ppg ECD: 10.1-10.2 PV/YP: 23/13
 Gels: 3/14 Salinity: 2100 PPM Cl Solids: 8.4 %
 Hole Volume: 1937 bbl Annular Volume: 1604 bbl Tubing Volume: 218 bbl Displaced Volume: 115 bbl
 Carbide Lag—Calculated Lag: ≈ 900 stks. Flowrate: 515 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 39 ft/min Drillpipe Annular Vel (Open Hole): 101 ft/min
 Drill Collar Annular Vel (Open Hole): 147 " Critical Vel: 301 "
 Pressure Loss System: Calc: 2250 psi Pressure Loss Bit: 910 psi % Pressure Loss: 41
 Nozzel Vel: 319 ft/sec Jet Impact Force: 851 HHP: 273

PRESSURE PARAMETERS

Drilling Exponent: - Flowline Temperature: 59°C
 Shale Density: _____ Shale Factor: _____
 Background Gas: - Max. Formation Gas: - @ _____ Trip Gas: 2100v @ 3900.3m.
 Other Gas: Nil
 Fill: _____ Tight Hole: To 150 klbs
 Cavings: Est %: Minor, < 5% Average Size: Small, blocky.

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 11.9 ppg / 1.9 ppg Min. Estimated Fracture Pressure (Open Hole): 13 ppg
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ _____
 Max. Estimated Pore Pressure (Open Hole): 9.4 ppg @ 3570m. Estimated Fracture Pressure at TD: 216 ppg

Comments: Run wireline logs. Hole diameter 2850-3900m - 14";
Circ. at casing shoe, ream at 3402m, 3630m; and 3879-3900m.
Pipe stuck with bit at 3898m - work pipe and free pipe - circulate and
ream near 3900m - drag to 150 klbs when lifting up.
Some cavings to 50 & 13mm - none when hi-vis pill pumped.

Corrected Hole Vol: 2052 bbl / Corrected Annulus: 1719 bbl - 14560 stks
(Calc. Lag: 13580 stks)
Surface HHP: 661 - 2.32 / sq in of bit.