



GEMDAS LOGGING REPORT NO. 3

COMPANY AMOCO AUSTRALIA. WELL TILANA-1
 DATE 12th SEPT '85 TIME 0500hrs
 DEPTH 1320.3m (4332') LAST REPORT DEPTH 1070.4m (3512')
 RIG OPERATIONS DRILLING.
 REPORT BY J. STRAUTINS REPORT RECEIVED BY S. MAXWELL (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 4 Type: SMITH F2 Size: 12 1/4" Jets: 11, 3x13
 On Bit: Footage: 92' Hours: 3.6 hrs. ROP: Avg 25 ft/hr. WOB: 19-21 RPM: 100
 Pump Press: 2750 psi SPM: 148 Torque: 1.8 kftlb TBR: 21,900 CP I: \$ 628 CP B: \$ 946

HYDRAULICS REPORT

Mud Density In: 9.0 ppg Mud Density Out: 9.0 ppg ECD: 9.2 ppg PV/YP: 8/22
 Gels: 10/20 Salinity: 14,000 PPM Cl Solids: 6 %
 Hole Volume: 893 bbl Annular Volume: 768 bbl Tubing Volume: 69 bbl Displaced Volume: 56 bbl
 Carbide Lag—Calculated Lag: +350 stks. Avg 13" Flowrate: 732 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 55 ft/min Drillpipe Annular Vel (Open Hole): 143 ~~200~~ ft/min
 Drill Collar Annular Vel (Open Hole): 300 ft/min Critical Vel: 466 ft/min
 Pressure Loss System: 840. psi Pressure Loss Bit: 1910 psi % Pressure Loss: 69 %
 Nozzel Vel: 488 ft/sec Jet Impact Force: 1662 lbs HHP: 816 hp.

PRESSURE PARAMETERS

Drilling Exponent: 1.23 @ 32 ft/hr. Flowline Temperature: 39.4°C
 Shale Density: _____ Shale Factor: _____
 Background Gas: 3-5 v. Max. Formation Gas: 190 @ 1165m / 3822' Trip Gas: 32v @ 4240'
 Other Gas: _____
 Fill: _____ Tight Hole: 3241-3686' ; 4160-4240'
 Cavings: Est %: 20% Average Size: 3x4x6 mm³

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.98 / 10.98 Min. Estimated Fracture Pressure (Open Hole): 15.3 ppg @ shoe
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @ -
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ TD Estimated Fracture Pressure at TD: 19 ppg

Comments: DRILL AT 80-200 ft/hr to 1139.3m (3738'). ROP THEN INCREASED TO 400-800 FT/HR THROUGH SANDSTONE / CLAYSTONE. LITHOLOGY CHANGE TO VOLCANICS AT 1249.6m (4100'). DRILL TO 1292.3m (4240'). CIRCULATE RETURNS, DROP SURVEY (1/4") & POOH DUE TO LOW ROP. 14 B4 G 1/8". TIGHT HOLE IN ONE SPOT ONLY ON TRIP OUT @ ≈ 640m (2100').
RIH w/ NB 4. BRIDGE @ 987.9m (3241'). REAM/WASH TO 1123.4m (3686'). RIH. REAM/WASH. 1267.9- TD (4160-TD).
DRILL AHEAD.