CORED DRILL HOLE LOG

HOLE NO : 324
FILE / JOB NO : J221
SHEET : 1 OF

PROJECT : ASTRA PROJECT
LOCATION : CUT BETWEEN SOMEWHERE AND SOME PLACE

POSITION : E: 473998.978, N: 6499916.818 (56 MGA94) SURFACE ELEVATION : 37.687 (AHD66) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson MOUNTING : Truck CONTRACTOR : Datgel DRILLER : A SMITH

DATE STARTED : 29/7/06 DATE COMPLETED : 30/7/06 DATE LOGGED : 30/7/06 LOGGED BY : AAA CHECKED BY :

CASING DIAMETER : HQ BARREL (Length) : 3.00 m BIT : IMPREG BIT CONDITION : GOOD

DRILLING | MATERIAL | FRACTURES

PROGRESS: DRILLING & CASING; WATER; (CORE LOSS RUN %) DRILL DEPTH; SAMPLES & FIELD TESTS; DEPTH (m); GRAPHIC LOG; DESCRIPTION — ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable); Weathering; ESTIMATED STRENGTH Is(50) ● - Axial ○ - Diametral (EL 0.03, VL 0.1, L 0.3, M 1, H 3, VH 10, EH); NATURAL FRACTURE (mm) (20, 40, 100, 300, 1000); VISUAL; ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other

START CORING AT 0.00m

Depth (m)	Description	Weathering	Additional data
0.0	CORE LOSS 0.53m (0.00-0.53) (FILL)		0.00: Several possible locations for core loss within drill run 0-1.2m.
0.53m	GRAVEL AND CLAYEY SAND (GW): Coarse to fine gravel. Some quartz. Coarse to fine sand.		0.53: POSSIBLE FILL
0.73m	SANDY CLAY (CL): Dark brown, low plasticity. with silt. Trace of gravel..		0.73: RESIDUAL
0.85m	SANDSTONE: grey and yellow brown, coarse to fine grained, Bands of colour. Variable weathering, possibly disturbed materials	MW - EW	0.85: BEDROCK
1.12m	SANDSTONE LITHIC: pale grey with orange brown, coarse with medium grained, and fine grains. Pockets, blotches and bands of colour. Possibly Tuffaceous.	MW	DL Run HQ casing from 0 to 0.9m. JT 90 - 75° Clay DIS 1 mm JT 15° Fe IR RF DB JT 50 - 65° MS DB, DIS, IR, S/RF JT 45° MS PR S/RF, DB JT 25° Clay PR 3-4mm 45° Fe PR RF DB, JTs 45 - 50° PR 15-20mm clay between 2 JTs SM 30° Clay JT 40° Clay PR 2-4mm Few vertical and sub-vertical JTs. Clay infilled 1-7mm (core disturbed, stock in splits) JT 5 - 12° DL, Partial clay 2-3mm JT 35° Clay PR 1-2mm 45 - 35° Clay PR 2 JTs, 2-4mm
3.0		MW	DL advance HQ casing from 0.9 to 2.4m JT 45° Clay PR 2 mm JT 40° Clay PR 1 mm 45° Clay PR 1 mm 2 JTs JT 70° Clay PR 1 mm sealed JT 70° Fe PR HB, MS JT 45° Clay PR 2-8mm JT 55° Clay DIS 35-10mm JT 45° Clay 1 mm sealed, IR JT 25° Clay IR 2-3mm JT 50° Clay PR 3-4mm
4.0	SANDSTONE /SANDY SILTSTONE: dark grey, [illegible]ained. Some carbonaceous laminae. Bedding predominantly at 35-40°; some closed fractures, majority Fe stained, at 20-70°. Occasional orange brown and cream bands.		JT 5 - 10° Clay IR 2-3mm JT 70° Clay DIS 1-3mm JT 70° Clay IR 1 mm JT 15° Clay 1 mm SM EW, 10-25mm 40° Clay PR 1 mm BPs
5.0			70 - 80° Clay DIS 1 mm 2JTs JT 35° Clay PR 1-2mm JT 40° Clay PR 1-2mm JT 45° Clay PR 6-8mm BP 35° Clay PR 2 mm JT 10° Clay IR 1 mm JT 70° Clay IR 1-3mm 35 - 45° CN DB, HBs, BPs DL
5.50m	SILTSTONE: dark grey, Bedding at 40-45°. Several closed fractures; majority Fe stained at 0-70°.	SW	
6.0		EW MW	JT 70° Clay DIS 1-2mm BP 45° Clay PR 3-4mm JT 65° PR 2 mm clayey, Fe
6.15m	CARBONACEOUS SILTSTONE: black		
6.30m	SILTSTONE: dark grey to grey. Slightly carbonaceous; few closed fractures.		
6.62m	SILTSTONE: grey, Bedding at 40-45°. Several closed fractures, majority Fe stained, at 10-70°.	EW SW	
6.94m	SILTSTONE AND SILTY SANDSTONE INTERBEDDED: grey to pale grey, Fine grained sand. Bedding at 30-35°. Some closed fractures, majority Fe stained, at 0-90°. Occasional orange brown pockets and bands. Bedding disturbed in places.		BP 35° PR 1 mm Fe, clayey BP 35° Fe PR RF DB JT 50° 1 mm clayey, Fe BP 35° Fe PR RF DB JT 35° PR 1 mm Fe, partial clay
7.66m	SILTY SANDSTONE: grey to pale grey, fine grained, Bedding at 35-45°. Some closed fractures, majority Fe stained, at all angles and some patches with several closed fractures.		JT 35° Fe PR RF DB JT 30° Clay PR 2-3mm
8.00m			

(CORE LOSS RUN %) DRILL DEPTH: 44% LOSS; 1.20; 0% LOSS; 2.27; 0% LOSS; 2.44; 0% LOSS; 3.90; 0% LOSS; 5.47; 0% LOSS; 6.62; 0% LOSS

WATER: 5-10% Polymer LOSS (NO CASING); 10% Polymer LOSS (CASING AT 0.9m); 0% Polymer LOSS (CASING AT 2.4m)

DRILLING & CASING: HQ Casing; HQ Casing; NMLC

SAMPLES & FIELD TESTS: Is(50) a=2.06 d=6.12 MPa; Is(50) a=1.25 d=1.56 MPa; Is(50) a=1.11 d=1.14 MPa; Is(50) a=3.18 d=3.36 MPa; Is(50) a=1.27 d=1.5 MPa; Is(50) d=4.64 MPa

See Explanatory Notes for details of abbreviations & basis of descriptions.