**William C. Cromer Pty. Ltd.** Environmental, engineering and groundwater geologists

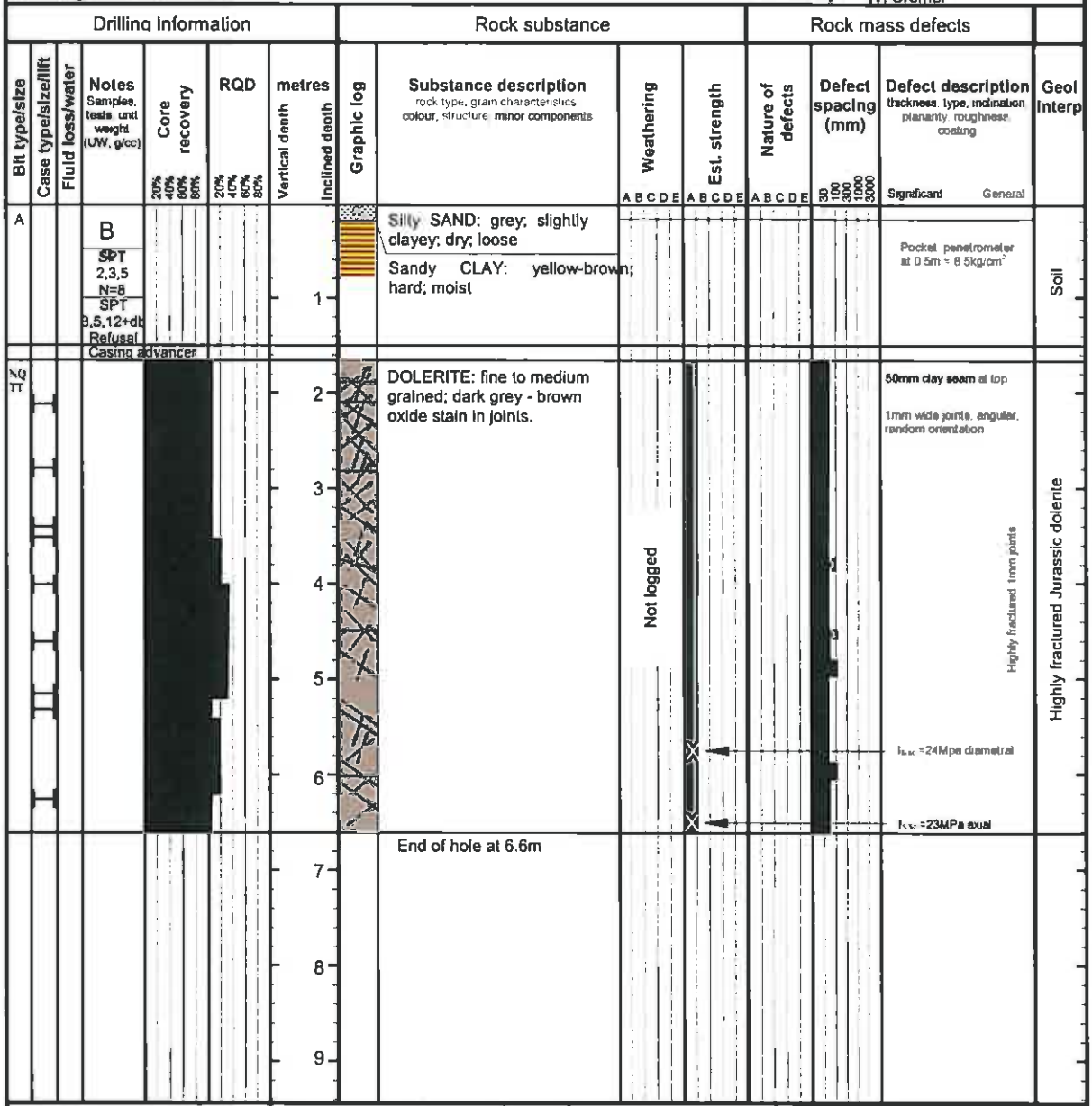
# Engineering log – Cored borehole

Incorporating the Unified Rock Classification System (URCS)

**DDH – SF1**
Sheet 1 of 1

**Project** HYDRO TASMANIA DUNGROVE SCHEME **Location** Southernfield Dam Site (SW embankment)

| | | | | | |
|---|---|---|---|---|---|
| **Coordinates** | 489850mE 5320049mN | **Drill type** | Hydra Power Scout | **Hole started** | 8 February 2008 |
| **Datum** | GDA94 | **Equipment** | 120mm hollow auger 0-1.5m<br>NQTT triple tube core drilling | **Hole finished** | 12 February 2008 |
| **RL** | Approx. 547.5m ASL | | | **Drilled by** | D. Roberts<br>KMR Drilling Pty. Ltd. |
| **Inclination** | 84° | **Drill fluid(s)** | Water | **Logged by** | D. Bear |
| **Bearing** | Not specified | | | **Checked by** | W. Cromer |




**Drilling**
T = Triple tube coring
B = Blades
R = Roller/Tricone
A = Auger
W = Wash boring
DT = Double tube coring
HAM = Rotary hammer

Case lift: Casing used; Barrel withdrawn
Fluid loss: No loss; 50% loss; 100% loss

RQD (Rock Quality Designation Index) The sum of the lengths of sound core pieces >100mm in a drilling run is divided by the total core run length. Expressed as %. Core length measured along centreline. Core drilling breaks not included

**Water** Level Inflow Outflow

Unit weight (UW, g/cc)
A = >2.55 B = 2.40-2.55 C = 2.25-2.40
D = 2.10-2.25 E = <2.10

| Strength Hammer impact test | Approx. point load strength index Is(50) MPa | Approx. UCS MPa |
|---|---|---|
| A = rebound (RQ) | >4 | >103 |
| B = pit (PQ) | 2-4 | 55-103 |
| C = dent (DQ) | 1-2 | 21-55 |
| D = crater (CQ) | 0.25-1 | 7-21 |
| E = moldable, friable (MQ) | <0.25 | <7 |

Note: X on log is test result. Otherwise, strength is visually estimated. US = Unconfined Compressive Strength

**Samples and Notes**
R = SPT penetration refusal
D = Disturbed sample
N = Standard Penetration Test
pp = Hand penetrometer test
SV = In-situ Shear Vane test
CS = Core Sample
Ux = Undisturbed tube sample (x mm diameter)
Nd = SPT and Disturbed Sample

**Weathering**
A = Micro fresh state (MFS)
B = Visually fresh state (VFS)
C = Stained state (STS)
D = Partly decomposed state (PDS)
E = Completely decomposed state (CDS)

**Soil consistency**
Fine grained soils
VS = Very Soft
S = Soft
F = Firm
St = Stiff
VSt = Very stiff
H = Hard

**Soil density index**
Coarse grained soils
Fb = Friable
VY = Very Loose
L = Loose
MD = Medium Dense
D = Dense
VD = Very Dense

**Defects**
Joint, Vein, Shear zone, Crush zone, Infill seam, EW seam
A = Solid random breaks (SRB)
B = Solid preferential breaks (SPB)
C = Solid latent breaks (SLB)
D = Non intersecting planes (2-D)
E = Intersecting open planes (3-D)

**Core loss**
Core loss (interval known)
Core loss (interval unknown) Loss is shown in Graphic log column at top of run

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