Queensland Government
Department of Main Roads

ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/5-2009

BOREHOLE No BH050
SHEET 1 of 1
REFERENCE No H10601

PROJECT BRUCE HIGHWAY (COOROY - CURRA) SECTION A GEOTECHNICAL INVESTIGATION

LOCATION Cut 16 COORDINATES 483338.8 E; 7081186.9 N

PROJECT No FG5825 SURFACE R.L. 117.42m PLUNGE ____ DATE STARTED 14/8/09 GRID DATUM MGA94

JOB No 128/10A/901 HEIGHT DATUM AHD BEARING ____ DATE COMPLETED 14/8/09 DRILLER R & D Drilling

DEPTH (m)	R.L. (m)	AUGER / WASH BORING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (mm) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
0	117.42				**Clayey SILT (Colluvium)** Brown to grey, moist, firm, intermediate plasticity, traces of organics.									
				A			(CI-ML)					2,3,4 N=7		SPT
1														
	115.92													
				B	**PHYLLITE (XW)** Generally exhibits the engineering properties of pale brown, moist, very stiff to hard clayey SILT. Low to intermediate plasticity, rock fabric visible in parts.							6,10,11 N=21		SPT
2							XW							
				C								13,25,32 N>50		SPT
	114.42													
3			(0) 100 (0)		**PHYLLITE (MW)** Brown to grey-brown, fine grained. Weakly foliated, dipping at 60-70°. Defects close to medium spacing. Prominant defect sets dipping at 70° and along foliations. Defect surfaces clay infilled and iron stained.							Is(50) = 0.02MPa		o
4			100 (45)									Broken Zone Clay seam Is(50) = 0.68MPa		x
5			100 (73)									Is(50) = 0.11MPa Is(50) = 0.36MPa		o x
6							MW					Is(50) = 0.14MPa Is(50) = 1.15MPa		o x
7			100 (70)		**Detailed defect descriptions shown on Form GEOT533/8 attached.**									
8												Is(50) = 0.30MPa		x
			100 (63)									Sheared zone Is(50) = 0.07MPa Is(50) = 0.05MPa		x o
9												Disturbed zone, clay lined, brecciated phyllite, 60°		
10	107.42		100									Is(50) = 0.61MPa		x

Borehole terminated at 10m

REMARKS **Detailed defect descriptions are shown on Form GEOT533/8 attached.**

LOGGED BY AN

QLD_DMR_LIB_01.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY FG5825 BRUCE HWY COOROY-CURRA SECTION A BHS.GPJ DWG95012.GDW Datgel CPT Tool gINt Add-In 12/05/2010 10:31

Project: **Bruce Highway Upgrade (Cooroy – Curra) Section A**

Borehole No: **BH50**

Start Depth: 3.00m
Finish Depth: 10.00m
Project No: FG5825
H No: 10601

0 100 200 300 400 500 600mm

SCALE 1:5

F:GEOT043/1

GEOTECHNICAL BRANCH LABORATORY
Materials Services - Brisbane
35 Butterfield Street, HERSTON Q 4006
Phone: (07) 3115 3035 Fax: (07) 3115 3011

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DEFECT DESCRIPTIONS OF ENGINEERING BORELOGS

[CHARACTERISATION OF DEFECTS ARE IN ACCORDANCE WITH GEOTECHNIICAL TERMS AND SYMBOLS – FORM : GEOT 017/5 – 2009

BOREHOLE NO.:	BH 50
SHEET:	1 of 2
REFERENCE NO.:	H10601

PROJECT: Bruce Highway (Cooroy- Curra) Section A Geotechnical Investigation

LOCATION: Cut 16

PROJECT NO.:	FG5825	**SURFACE R.L.:**	117.42	**DRILLER:**	R & D Drilling
JOB NO.:	128/10A/901	**DATUM:**	MGA94	**DATE DRILLED:**	14/08/09

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
3.00-3.27	BZ-DI						
3.36	DI						
3.45	J	80	Pl	S	O	FeSt	Cl, <1mm
3.51	DI						
3.55	J	50	Pl	S	C	FeSt	Cl, <1mm
3.61-3.77	BZ-DI						
3.90	J	90	Un-St	SR	C	W	
3.97	J	60	Un	SR	C	W	
4.14	J	35	Pl	SR	C	W	Cl, 2mm
4.23-4.31	J	50	Pl	S	C	W, FeSt	Cl, 70mm
4.41	J	55	Pl	S	C		Cl, 2mm
4.44	J	70	Un	S	C	W	Cl, 2mm
4.57	J	80	Un	SR	C	FeSt	Cl, 1mm
4.70	J	60-70	Pl		C		Rehealed, Cl, 5-10mm
4.80	J	75	Pl	S	C	W	
5.01	J	40	Pl	S	C	FeSt, W	
5.06	J	80	Un	SR	C	FeSt, W	
5.19	J	55	St	SR	C	W	

Abbreviations *(as per F: GEOT 017/5 – 2009)*

ROUGHNESS		WALL ALTERATIONS		TYPE		OTHER	
R	Rough	FeSt	Iron Stained	J, Js	Joint, Joints	Cl	Clay Infill
Sr	Slightly Rough	W	Weathered	B	Bedding	CLy	Clayey
S	Smooth	Smn	Secondary Mineralisation	BP	Bedding Parting	Co	Coal Seam
SL	Slickensided	Cn	Clean	FP	Foliation Parting	Carb	Carbonaceous
PO	Polished	MnSt	Manganese Stained	LP	Lamination Parting	Sl	Sand Infill
PLANARITY		**APERTURE**		CLV	Cleavage	QZ	Quartz
Pl	Planar	C	Closed	Fr	Fracture	CA	Calcite
St	Stepped	O	Open	SZ	Sheared Zone	Chl	Chlorite
Un	Undulating	F	Filled	CZ	Crushed Zone	In	Incipient
Cu	Curved	T	Tight	BZ	Broken Zone	Int	Intersecting
Ir	Irregular			HFZ	Highly Fractured Zone	Lam (s)	Lamination (s)
				WS	Weathered Seam	Di	Drilling Induced
				Vn	Vein	H	Horizontal
						V	Vertical

NOTE: This sheet should be read in conjunction with appropriate Engineering Borelog. Defect angles were measured with respect to horizontal plane.

BOREHOLE NO.:	BH 50
SHEET:	2 of 2
REFERENCE NO.:	H10601

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
5.25	J	35	Pl	S	C	Iron Coating	
5.29	J	75	Pl	S	C	FeSt, MnSt	
5.86	J	30	Un	R	C	FeSt, W	
6.00	J	60	Un	R	O	W	
6.16	QZ	75	Pl		C		Rehealed 2mm wide
6.32	J	35	Pl	S	C	FeSt	Cl, <1mm
6.38	J	75	Un		C		Cl, 2-4mm
6.52	J	40	Pl	SR	C		Cl, 2mm
6.56	J	45	Pl		C		Rehealed
6.61	J	30	Pl	R	C		Cl, 2mm
6.62	J	25	Pl	R	C		Cl, 2mm
6.67	J	80	Un	S	C		Cl, 1mm
7.08-7.09	CZ	20	Pl	S	C		
7.30	J	40	Pl	S	C		Cl, 2-30mm
7.38	J	85	Pl	S	C	MnSt	
7.44	J	25	Pl	S	C	FeSt, MnSt	
7.93	J	60	Un	SR	C		
8.18	J	60	Un	S	C	W	Crushed rock in defect
8.29	J	50	Pl		C		Rehealed
8.36	J	60	Un	S	C	W	
8.38	J	15	Pl		C		Rehealed
8.85	J	40	Pl	R	C	FeSt, W	
9.03	DI						
9.19	J	60	Un	S	C		Cl, 2mm
9.32	J	55	Un		C		Cl, 10mm
9.37	J	35-40	Pl		C		Cl, 10mm
9.42	J	50	Pl		C		
9.50	J	70	Un-St	SR	C		
9.65	J	65	Pl		C		Cl, 15mm
9.73	J	50-80	Un	S	C		
9.78	J	20	Pl	SR	C		