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# ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH052  
SHEET 1 of 1  
REFERENCE No H10621

PROJECT BRUCE HIGHWAY (COOROY - CURRA) SECTION A GEOTECHNICAL INVESTIGATION  
LOCATION Cut 18 COORDINATES 483048.8 E; 7080996.1 N  
PROJECT No FG5825 SURFACE R.L. 114.70m PLUNGE \_\_\_\_\_ DATE STARTED 17/8/09 GRID DATUM MGA94  
JOB No 128/10A/901 HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 17/8/09 DRILLER Geo Drill

DEPTH (m)	R.L. (m)	AUGER WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0	114.70												
1					A	<b>Clayey SILT</b> Mottled brown, moist, firm.  Intermediate plasticity; traces of plant material.		(CL-ML)				3,2,3 N=5	SPT
2	113.20				B	<b>PHYLLITE (XW)</b> Generally exhibits the engineering properties of pale grey to brown, moist, very stiff to hard, gravelly SILT.		XW				2,7,12 N=19	SPT
3	112.20				C	<b>PHYLLITE (HW)</b> Generally exhibits the engineering properties of grey, dry, hard, gravelly SILT.		HW				15,28,30/135 N>50	SPT
4	111.70		(0)	100		<b>PHYLLITE (MW)</b> Grey to brown-grey, fine grained.  Foliations generally dipping 20°-25°  Defects generally close to medium spacing. Defects typically dipping along foliation and at 70°. Defect surfaces iron stained and clay coated.						Is(50) = 0.17MPa	x
5			(0)	100								Is(50) = 0.12MPa	x
6			(9)	100								Is(50) = 0.21MPa	x
7				100								Is(50) = 0.19MPa	x
8				100								Is(50) = 0.23MPa	x
9				100								Is(50) = 0.48MPa	x
10	106.50			100								Is(50) = 0.65MPa	x
						Borehole terminated at 8.2m							

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

LOGGED BY  
AN

Project: **Bruce Highway Upgrade (Cooroy – Curra) Section A**  
Borehole No: **BH52**  
Start Depth: 3.00m  
Finish Depth: 8.15m  
Project No: FG5825  
H No: 10631



SCALE 1:5

F:GEOT043/1



## DEFECT DESCRIPTIONS OF ENGINEERING BORELOGS

[CHARACTERISATION OF DEFECTS ARE IN ACCORDANCE WITH  
ISRM SUGGESTED METHODS (1981)]

<b>BOREHOLE NO.:</b>	BH52
<b>SHEET:</b>	1 of 2
<b>REFERENCE NO.:</b>	H10631

<b>PROJECT:</b>	Bruce Highway (Cooroy – Curra) Section A Geotechnical Investigation					
<b>LOCATION:</b>	Cut 18					
<b>PROJECT NO.:</b>	FG5825	<b>SURFACE R.L.:</b>	114.7	<b>DRILLER:</b>	Geodrill	
<b>JOB NO.:</b>	128/10A/901	<b>DATUM:</b>	MGA94	<b>DATE DRILLED:</b>	17/08/09	

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
3.0-3.1	BZ						
3.2	J	20	PI	S	O	FeSt	
3.27	J	30	PI	S	O	Cn	
3.31	J	30	PI	S	O	Cn	
3.42	J	20	PI	SR	O	FeSt	
3.47	J	80	PI	SR	O	FeSt	100mm Thick
3.57	J	50	PI	SR	O	FeSt	
3.64	J	45	PI	S	O	FeSt	
3.64	J	90	PI	S	O	Cn	150mm Long
3.74	J	30	PI	S	O	Cn	
3.87	J	70	PI		C	CI	
4.0	J	40	PI		C		
4.04-4.5							Clay Seam
4.17	J	60	PI		C	CI	
4.28	J	40	PI		C	CI	
4.38	J	60	PI		C	CI	
4.46	J	30	Ir	R	O	FeSt	
4.5-4.55	WS						Clay Seam

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

ROUGHNESS		WALL ALTERATIONS		TYPE		OTHER	
R	Rough	FeSt	Iron Stained	J, Js	Joint, Joints	CI	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	SI	Sand Infill
PLANARITY		APERTURE		CLV	Cleavage	QZ	Quartz
PI	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.

<b>BOREHOLE NO.:</b>	BH52
<b>SHEET:</b>	1 of 2
<b>REFERENCE NO.:</b>	H10631

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
4.6	J	30	Pl	SR	O	FeSt	
4.84	J	50	Pl		C	Cl	
4.89	J	30	Pl		C		
4.93	J	30	Pl		C		
5.0	J	20	Pl		C		
5.02	J	30	Pl		C	Cl	
5.10	J	65	Pl		C	FeSt	
5.29	J	10	Pl	S	O	Cl	
5.31	J	10	Pl	S	O	FeSt	
5.4	J	20	Pl	S	O	FeSt	
5.5	J	20	Pl	S	O	FeSt	
5.57	J	20	Pl	S	O	FeSt	
5.68	J	20	Pl	S	O	FeSt	
5.8-5.94	WS						Gravely Clay Seam
5.98	J	10	Pl	S	O	FeSt	
6.00	J	15	Pl	S	O	FeSt	
6.04	J	10	Pl	S	O	FeSt	
6.21	J	20	Pl	R	O	MnSt	
6.28	J	10	Pl	SR	O	MnSt	
6.32	J	40	Pl	SR	O	MnSt	
6.42	J	20	Pl		C	MnSt	
6.46	J	20	Pl		C	MnSt	
6.66	J	10	Pl	SR	O	FeSt, Cl	
6.70	J	20	Pl	S	O	FeSt	
6.76	J	10	Pl	S	O	FeSt	
6.87	J	10	Pl	SR	O	MnSt	
7.00	J	20	Ir	R	O	MnSt	
7.10	J	30	Pl	SR	O	MnSt	
7.30	J	20	Pl	S	O	MnSt	
7.36	J	30	Pl	R	O	MnSt	
7.63	J	70	Pl	S	O	FeSt	150mm Long
7.80	J	65	Pl	SR	O	FeSt	
8.00	J	45	Ir	R	O	MnSt	
8.09	J	10	Pl	SR	O	MnSt	