

COPYRIGHT NOTICE

This geotechnical log and its associated data (the Document) is licensed by the Queensland Department of Transport and Main Roads under the [Creative Commons Attribution 4.0 Licence](#) (CC BY 4.0). When reusing the Document, in whole or in part, please attribute the Department and author as follows: "*(c) State of Queensland (Department of Transport and Main Roads) 2020, licensed under the CC BY 4.0 Licence, prepared by Arup*". This licence does not apply to the Queensland Government logo or trademarks.

LIMITATION OF LIABILITY

The CC BY 4.0 Licence contains a comprehensive Disclaimer of Warranties and Limitation of Liability. In addition, please note that this Document was prepared for Departmental use only. Reuse of the Document by anyone for any other purpose could result in error and/or loss. You should obtain professional advice before making decisions based on the contents of the Document.

When reproducing any part of this Document, you must also reproduce this limitation of liability notice in addition to the italicised attribution statement above.

Retrieved from the Queensland Geotechnical Database <http://ggd.org.au/>

This log has been contributed to the Queensland Geotechnical Database with the permission of Arup.

CLIENT	DMR	LOGGED BY	ACS
PROJECT	IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA	CHECKED BY	
		DRILLED DATE	11-Jul-07 to 13-Jul-07
CONTRACTOR	Terratest	ANGLE	Vertical
DRILL MODEL	Edson 3000	BEARING	-
DRILLER	Brent Ormsby	HOLE DIAMETER	100mm ()
		GROUND LEVEL	RL 15.96m
		LOCATION	32575 E 151323 N
		ELEVATION DATUM	Australian Height Datum
		COORDINATE SYSTEM	Local Grid

DRILLING	STRATA				MATERIAL DESCRIPTION	CONDITION	OBSERVATION										
	SAMPLE, TEST, BIT, SUPPORT, ETC.	R.L.	DEPTH	GROUP SYMBOL			LEGEND	SOIL TYPE Plasticity / Grain Size, Colour, Minor Components	WATER/MOISTURE	CONSISTENCY							
										COHESIVE				NON COHESIVE			
	m	m					VS	S	LT	VST	H	VL	LD	MD	VD		
	15.76	0.20	SM	X	Silty SAND (SM) medium dense, fine to medium grained, dark brown with gravel medium to coarse grained, with grass rootlets.	D-M											FILL
			SC	X	SAND (SC) medium dense, medium to coarse grained, light brown with clay (CL).												FILL
	15.26	0.70	CH		Sandy CLAY (CH) stiff, fine to medium grained, mottled brown-red grey, with gravels fine to medium grained, sub-angular to sub-rounded.	D											COHES
	14.46	1.50	CH		CLAY (CH) very stiff, mottled red-grey, with ironstone inclusions (ironstone crumbles in hand to fine to medium grained gravel), and silt.												COHES
SPT at 1.69m N 12:30/75																	
	12.86	3.10	CL		CLAY (CL) very stiff, grey, with silt.												COHES
SPT at 3.21m N 4:30/120	12.80	3.16	CH		SAND, hard, fine grained, grey-white, (appears to be well cemented - possible medium strength sandstone band).												NONCO
	12.69	3.27	CH		CLAY (CH) very stiff, mottled red-grey.												COHES
	11.46	4.50	CH		CLAY (CH) stiff, purple, red-brown grey, with traces of ironstone gravel medium to coarse grained (ironstaining throughout).												COHES
SPT at 4.8m N 6:9,10																	
	9.67	6.29	CH		SAND, very dense, fine to medium grained, grey-brown, with clay and silt.												NONCO
SPT at 6.29m N 12:53/270	9.54	6.42	CH		CLAY (CH) firm to hard, purple, red-brown grey.												COHES
				 7.50m - 7.67m - ironstone gravel fine to medium grained												
SPT at 7.8m N 9:15,17				 7.62 70 Deg. ironstained joint												
				 7.72 becoming grey with light brown mottling. Tree rootlets present.												
	6.96	9.00	CL		CLAY (CL) firm to stiff, brown mottled light brown, red-brown grey.												COHES
SPT at 9.3m N 7:12,16	6.77	9.19	CH		CLAY (CH) very stiff, dark grey-black, with silt.												COHES

NOTES	Hole Diameter 100mm to 9.45m depth. (Solid Flight Augering to 9m. HW casing to 10.5m. Washboring with 100mm diameter tri-blade bit from 9m to 13.6m, 75mm diameter tri-blade bit from 21 to 24m. NMLC coring from 13.6m to 21m.)	JOB	86015
-------	--	-----	-------

gINT v8.1.013. Licensed to ARUP
 Project : \\168000086015\resmgr\geotechnics\gint\master_w2d\14.12.07.gip
 Library : \\168000086015\resmgr\geotechnics\gint\library\2_04.10.007.glb
 Log : 1.0.1 AUSTRALIA GENERAL BOREHOLE LOG (rev.12Dec07 checked AB/ACP Feb 2006)
 gINT output page 1 of 2. Made 22Jan08 10:49

CLIENT	DMR	LOGGED BY	ACS
PROJECT	IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA	CHECKED BY	
		DRILLED DATE	11-Jul-07 to 13-Jul-07
CONTRACTOR	Terratest	ANGLE	Vertical
DRILL MODEL	Edson 3000	BEARING	-
DRILLER	Brent Ormsby	HOLE DIAMETER	100mm ()
		GROUND LEVEL	RL 15.96m
		LOCATION	32575 E 151323 N
		ELEVATION DATUM	Australian Height Datum
		COORDINATE SYSTEM	Local Grid

DRILLING	STRATA		GROUP SYMBOL	LEGEND	MATERIAL DESCRIPTION	WATER / MOISTURE	CONDITION								OBSERVATION									
	SAMPLE, TEST, BIT, SUPPORT, ETC.	R.L.					DEPTH	CONSISTENCY								SOIL ORIGIN, STRUCTURE, ETC.								
		m					m	COHESIVE				NON COHESIVE												
												VS	S	F	ST	VST	H	VL	L	MD	D	VD		
			CH		CLAY (CH) very stiff, dark grey-black, with silt. <i>(continued)</i>																		COHES	
← SPT at 10.8m N 5;11,20		11																						
	3.96	12.00	CH		CLAY (CH) hard, grey, with silt and sand very fine grained, (some regions exhibit lower plasticity). 12.24 increase in pockets of sand, fine grained																		COHES	
← SPT at 12.21m N 25;31/110		13																						
		14			Borehole continued as a Cored Drillhole																			
← SPT at 13.55m N 30/100s		15																						
		16																						
		17																						
		18																						
		19																						

NOTES	Hole Diameter 100mm to 9.45m depth. (Solid Flight Augering to 9m. HW casing to 10.5m. Washboring with 100mm diameter tri-blade bit from 9m to 13.6m, 75mm diameter tri-blade bit from 21 to 24m. NMLC coring from 13.6m to 21m.)	JOB	86015
-------	--	-----	-------

gINT v8.1.013. Licensed to ARUP
 Project : j:\86000\86015\res\m\geotechnics\gint\master_w2d\14.12.07.gip
 Library : j:\86000\86015\res\m\geotechnics\gint\library\library_12 (04.10.007).gib
 Log : 1.0.1 AUSTRALIA GENERAL BOREHOLE LOG (rev 12Dec07 checked AB/ACP Feb 2006)
 gINT output page 2 of 2. Made 22Jan08 10:49

CLIENT DMR
PROJECT IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA

LOGGED BY ACS
CHECKED BY
DRILLED DATE 11-Jul-07 to 13-Jul-07

CONTRACTOR Terratest
DRILL MODEL Edson 3000
DRILLER Brent Ormsby
ANGLE Vertical
BEARING -
HOLE DIAMETER 100mm ()

GROUND LEVEL RL 15.96m
LOCATION 32575 E 151323 N
ELEVATION DATUM Australian Height Datum
COORDINATE SYSTEM Local Grid

DRILLING				STRATA		MATERIAL DESCRIPTION					DISCONTINUITIES			
TOR % (Drill rate)	SCR / (ROD)	FLUSH RETURN % (TYPE)	SAMPLES (CaCO ₃ , SPT, UCS, etc)	R.L.	DEPTH	ROCK TYPE Grain Size, Texture/Fabric, Colour, Minor Components	WEATHERING	ESTIMATED ROCK STRENGTH	Is 50 (MPa)	FREQUENCY (per m)	SPECIFIC		GENERAL DESCRIPTION	
				m	m						TYPE	ANGLE		THICKNESS (mm)
				2.36	13.60	Continued from Borehole CORE LOSS: 0.4m.								
				1.96	14.00	SANDSTONE, very fine to fine grained, massive, grey.	XWRS							
				1.23	14.73	MUDSTONE, massive, grey.								
				0.89	15.07	SANDSTONE, very fine to fine grained, massive, grey.								
				0.74	15.22	MUDSTONE, massive, black-grey.								
				0.12	15.84	SANDSTONE, very fine to fine grained, grey.								
				-0.74	16.70	CORE LOSS: 2.1m (probable sandstone washed out).								
				-2.84	18.80	SANDSTONE, very fine to fine grained, grey.	XWRS							
				-3.14	19.10	MUDSTONE, dark black-brown.	XW							
				-3.18	19.14	SANDSTONE, very fine to fine grained, grey.								
				-3.44	19.40	MUDSTONE, grey-black.								
				-3.74	19.70	SAND and GRAVEL (SP) very dense, coarse grained, grey-white, with quartz gravel fine to								
				-3.98	19.94									

NOTES Hole Diameter 100mm to 9.45m depth. (Solid Flight Augering to 9m. HW casing to 10.5m. Washboring with 100mm diameter tri-blade bit from 9m to 13.6m, 75mm diameter tri-blade bit from 21 to 24m. NMLC coring from 13.6m to 21m.)

JOB
86015

gINT v8.1.013. Licensed to ARUP
 Project : \\8600086015\design\geotechnics\gint\master\w2d(14.12.07).gip
 Library : \\8600086015\design\geotechnics\gint\library\aus_library_12 (04.10.007).gib
 Log: 1.2.1 AUSTRALIA ROTARY CORE LOG (rev 22.Jan08 checked AB/ACP Feb 2006)
 gINT output page 1 of 2. Made 22.Jan08 10:47

CLIENT	DMR	LOGGED BY	ACS
PROJECT	IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA	CHECKED BY	
		DRILLED DATE	11-Jul-07 to 13-Jul-07
CONTRACTOR	Terratest	ANGLE	Vertical
DRILL MODEL	Edson 3000	BEARING	-
DRILLER	Brent Ormsby	HOLE DIAMETER	100mm ()
		GROUND LEVEL	RL 15.96m
		LOCATION	32575 E 151323 N
		ELEVATION DATUM	Australian Height Datum
		COORDINATE SYSTEM	Local Grid

DRILLING			STRATA		MATERIAL DESCRIPTION				DISCONTINUITIES				
TOR % (Drill rate)	SCR / (ROD)	FLUSH RETURN % (TYPE)	SAMPLING (CaCO ₃ , SPT, UCS, etc)	R.L.	DEPTH	ROCK TYPE Grain Size, Texture/Fabric, Colour, Minor Components	WEATHERING	ESTIMATED ROCK STRENGTH	Is 50 (MPa)	FREQUENCY (per m)	SPECIFIC		GENERAL DESCRIPTION
				m	m						TYPE	ANGLE	
0()	0(0)					medium grained, sub-angular to sub-rounded, (poorly cemented). CORE LOSS: 1.06m (probable sandstone washed out). (continued)							
			SPTL N 20:30/30	-5.04	21	MUDSTONE, massive, grey (inferred from drilling mud return; included grey sand, fine to medium grained).	xw						
		(Tuff polymer + water) 100 %		-8.04	24	SANDSTONE, massive, grey.	xw						
			N 21:30/120	-8.31	24.27								
					25	End of Borehole at 25.00m							
					26								
					27								
					28								
					29								

NOTES	Hole Diameter 100mm to 9.45m depth. (Solid Flight Augering to 9m. HW casing to 10.5m. Washboring with 100mm diameter tri-blade bit from 9m to 13.6m, 75mm diameter tri-blade bit from 21 to 24m. NMLC coring from 13.6m to 21m.)	JOB	86015
-------	--	-----	-------

gINT v8.1.013. Licensed to ARUP
 Project : \\8600086015\design\geotechnics\gint\master\w2d(14.12.07).gip
 Library : \\8600086015\design\geotechnics\gint\library\aus_library_12_04_10.007.glb
 Log: 1.2.1 AUSTRALIA ROTARY CORE LOG (rev 22Jan08 checked AB/ACP Feb 2006)
 gINT output page 2 of 2. Made 22Jan08 10:47

BOREHOLE PHOTOGRAPHS



PROJECT:	Ipswich Motorway and Centenary Highway Upgrade	CLIENT:	Department of Main Roads	PROJECT NUMBER:	86015
----------	--	---------	--------------------------	-----------------	-------

Hole: BH 212



Depth: 13.6m - 19m



Depth: 19m - 21m