COMMERCIAL IN CONFIDENCE

Annex D

Borelogs

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro Drill Start Date: 28/11/2013	bok, NSW tal Depth (rr	n): 8.8			Fina	l Wat	er Le	vel (m bo	gl): 4.315	ID: BA	_MW01
Drill Finish Date: 28/11/2013HoDrill Co: NumacCaDriller: Adrian JarvisCaDrill Method: NDD/PT/SFASur	le Diam. / W sing Type: I sing Diam. rface Comp ater Strike (r	Vidth (mr PVC (mm): 50 letion: M	onument		Elev Elev Eas	ation ation ting (I	(Grou (Case MGA)	und): 182 e): 183.2 : 307644): 64125	2.3 3 .322		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Silty Clay Brown, dry, firm, medium plasticity, no staining or odours Clay			- - -		DS	Y		0	BA_MW	/01_0.1	-
Grey and orange mottled, dry to moist, medium plasticity, no staining or odours. Clay as above with minor gravels			- - - - -					0			
			1 					0			
			_					0			
Shale Weathered, grey with brown, dry, laminated, friable dark grey laminations. Completely weathered between 2.5 - 2.65mbgl. Shale fragments (less weathered) from 2.65mbgl. Refusal with PT at 2.7mbgl	,		- - 2 - -		US	Y		4.5	BA_MW	01_1.75	-
								3.9			
			3 								
			-4 - - - -								
Clay Dark grey brown, moist, plastic, no odour, no			- - - - 5								

Log By: AM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M										ID: BA_N	ЛW01
Drill Start Date: 28/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (m): 8.8 Final Water Lev Hole Diam. / Width (mm): 150 Elevation (Grou Casing Type: PVC Elevation (Case Casing Diam. (mm): 50 Easting (MGA): Surface Completion: Monument Northing (MGA) Water Strike (m bgl): 7 8								2.3 3 .322		RM stralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - -								
			- - - - 6 -								
			- - -								
			- - 7 -								
			- - -								
			- 8 - -								
			-								
End of Log			- 9 - -								
			- - - -								
			_ 10								

Log By: AM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellb	-									ID: BA_I	MW02
Drill Finish Date: 3/12/2013HDrill Co: NumacCDriller: Wade MangerCDrill Method: NDD/PT/SFAS	Hole Diam. / Casing Type: Casing Diam. Surface Com	tal Depth (m): 10 Final Water Level (m bgl): - le Diam. / Width (mm): 200 Elevation (Ground): - sing Type: N/A Elevation (Case): 0 sing Diam. (mm): N/A Easting (MGA): 307356 rface Completion: Backfilled Northing (MGA): 6412598 ater Strike (m bgl): - Easting (MGA): 6412598									CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Clay Brown, soft, moist, high plasticity, homogeneous, odour, no staining, red-brown	no		- - -					0			
Clay Light brown with grey mottles					DS	N		0.2	BA_MW	/02_0.5	
Sandy Clay With gravel, light brown with grey mottle, moist, medium stiff, medium plasticity, homogeneous, n odour, no staining	0		- - 1					0			
Clayey Sand With gravel, light brown, moist, medium dense, fi sand with coarse sand to fine gravel, well sorted, rounded, no evidence of impact	ne		- - -					0.2			
Silty Clay Grey with minor brown mottling, moist, non-plasti odour, no staining, red ironstone/siltstone inclusio from 1.75mbgl and completely weathered, increa hardness with depth.	ons		_ _ 2 _		US	Y		2.9	BA_MW	/02_2.1	
Some crystalline quartz or similar precipitation observed at 3.8mbgl								1.4			
			- - 					1			
			- - -								
			- - - 4								
			- - -								
	HIHI!		- - - -5								

Log By: GP/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswat Site Name: Bayswater Power Station Site Address: New England Highway, Musw		ISW									ID: BA_N	/IW02
Drill Start Date: 3/12/2013 Drill Finish Date: 3/12/2013 Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA Hole Type: Soil Bore	Total De Hole Dia Casing T Casing D Surface (Water St	m. / W ⁻ ype: N Diam. (I Comple	idth (mm) I/A mm): N/A etion: Ba	L		Elev Elev East	ation ation ing (N	(Grou (Case /IGA)	vel (m bg und): - e): 0 : 307356): 641259			RM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Siltstone Grey, dry, hard becoming harder with depth		F		- - - - - - - - - - - - - - - - - - -								

Log By: GP/HC

Checked By:

Drill Co: Numac Casing Driller: Wade Manger Casing	epth (m iam. / W Type: I Diam.	/idth (mm)			Elev Elev East	ation ation ing (N	(Grou (Case //GA)	/el (m bg Ind): 174 e): 175.1 307568): 64127	2 3.713	ID: BA	
		n bgl): 3.5	Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)	(mqq) DIA	Sample		Australia Pty Ltd Remarks
Ground Surface Clayey Silt Brown, dry, low plasticity, no staining, no odour	HHH				DS	N		0	BA_MW	/03_0.1	-
Shale Weathered, layered with silty clay, brown, moist Shale Brown and grey, dry, laminated, completely			- - - - - -					0			
weathered in sections			- - - - - - 2 - -		US	Y		0.5 0.4 0.5	BA_MW	03_1.75	-
Shale Completely weathered from 3.0mbgl. Wet from 3.5m bgl, causing well to collapse to 5.0m bgl.			- - - - - - - - - - - - - - - - -					0.4			
			- - - - - - - - - - - - - - - - - - -								

Log By: AM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I Drill Start Date: 27/11/2013 Total De Drill Finish Date: 27/11/2013 Hole Dia Drill Co: Numac Casing Drill Co: Numac Casing	epth (m am. / W Type: F Diam. (/idth (mr PVC mm): 50			ID: BB_I						
Drill Method: NDD/PT/SFA Surface Hole Type: Monitoring Well Water S Lithology			Depth (m)	Recovery	Sample Type	Analysed	MGA (KPa)): 641285 (wdd) CId	8.197 Sample		ustralia Pty Ltd
Ground Surface Fill Sandy clay with some gravel, orange brown, moist, soft, non-plastic, no odour or staining			-		DS	N		0	BB_MW	/01_0.1	
Sandy Clay Dark grey to black, moist, soft, low plasticity, no odour or staining, high organic content			- - -					0.1			
Silty Clay Olive brown, moist, medium stiff, medium plasticity, no odour or staining, grey mottled orange brown from 1.5mbgl	HH H		- - - - - - - -					0			
	HHHH		- - - - - -					0			
	HH				US	N		0	BB_MW	/01_2.3	
Silty Clay Trace sand, orange brown mottled grey, wet, very soft, high plasticity, no odour, no staining	HHHH							0.1			
	A H H										
Sandy Clay Orange brown, wet, soft, non-plastic, no odour, no staining, coarse sand											
Gravelly Sandy Clay Grey mottled orange, moist, stiff, non-plastic, no odour, no staining, highly weathered sandstone								0			
End of Log			_								

Log By: SM

Checked By:

Drill Finish Date: 27/11/2013Hole DDrill Co: NumacCasingDriller: Wade MangerCasingDrill Method: NDD/PT/SFASurfac	o.: 0224193 ame: Project Symphony - Bayswater e: Bayswater Power Station ess: New England Highway, Muswellbrook, NSW Date: 27/11/2013 Total Depth (m): 9.2 Final Water Level (m bgl): 3.63 h Date: 27/11/2013 Hole Diam. / Width (mm): 150 Elevation (Ground): 172.85 Numac Casing Type: PVC Elevation (Case): 173.57 ade Manger Casing Diam. (mm): 50 Easting (MGA): 305776.788 nod: NDD/PT/SFA Surface Completion: Monument Northing (MGA): 6412842.754 e: Monitoring Well Water Strike (m bgl): 8											
	Symbol	Mell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		Remarks	
Ground Surface Sandy Clay Orange brown, moist, soft, non-plastic, no odour, no staining, rootlets to 0.3mbgl, weathered shale and sandstone boulders from 1.2mbgl Sandstone Orange and grey, well sorted, fine grained, soft, massive, highly weathered, silica rich			-0		DS	Ν		0 0 0 0 0 0 0 0	BB_MW	/02_0.1		

Log By: SM

Checked By:

Drill Co: Numac Casing	Depth (r Diam. / N g Type:	Vidth (mm) PVC): 150		Elev Elev	ation ation	(Grou (Cas	und): 17 e): 173. !	57	ID: BB	5
Drill Method: NDD/PT/SFA Surfac	e Comp	(mm): 50 bletion: Mo m bgl): 8	nument					: 30577(.): 64128	5.788 342.754		ERM Australia Pty Ltd
Lithology	Symbol	Mell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			-								
			- - - 6								
			-								
			- - - - -7					0			
			-								
			- - - - 8					0.1			
Sandy Clay Dark grey, wet, soft, low plasticity, no odour, no staining			-								
	/ /		- - - - 9		DS	N		0	BB_MW	102 9 0	-
End of Log								-			
			-								
			- - - 10								

Log By: SM

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Checked By:_

Drill Co: Numac Casing Driller: Wade Manger Casing Drill Method: NDD/PT/SFA Surface	epth (m am. / W Type: I Diam. Comp	/idth (mm PVC mm): 50 etion: Mc			Elev Elev Eas	/ation /ation ting (N	(Groi (Cas VGA)	vel (m bgl und): 192. e): 193.14 : 306070.): 641231	43 012) RM
Hole Type: Monitoring Well Water S	Strike (r	n bgl): 4	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		Remarks
Ground Surface Clay Red brown, moist, very soft, high plasticity, no odour,			_0					0.1			
Red brown, moist, very son, nigh plasticity, no odour, no staining								-		100.05	
Gravelly Clay Red brown, moist, soft, non-plastic, no odour, no		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			DS	Y		0	BB_MW	103_0.5	
staining, weathered sandstone pieces throughout			- 		DS	Y		0 -	BB_MW	/03_0.9	
Sandstone Grey with orange brown weathering, very fine to fine grained, well sorted, soft, highly weathered, massive, salt crystals at 3.5mbgl								0			
Siltstone					US	N		0	BB_MW	/03_3.6	
Grey, fine grained, dry, soft, well sorted, no odour, no staining Silty Clay Grey, wet, very soft, medium plasticity, no odour, no staining, completely weathered siltstone	HHHH										

Checked By:

Drill Method: NDD/PT/SFA Surface Completion: Monument Northing (MGA): 6412314.502	Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M Drill Start Date: 28/11/2013 Drill Finish Date: 28/11/2013	Iuswellbrook, NSW Total Depth Hole Diam. /	(m): 6 Width (mm)	: 125		Elev	ation	(Grou	vel (m bg ind): 192	2.43	ID: BB_	S
End of Log	Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing Diam Surface Com	n. (mm): 50 npletion: Mo	nument		Eas	ting (N	/IGA):	306070	.012		
End of Log	Lithology	Svmbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
End of Log Find o												
		H		-		US	Y			BB_MW	/03_5.9	
				- - - - - - - - - - - - - - - - - - -								

Log By: SM

Checked By:

lient: Macquarie Generation roject No.: 0224193 roject Name: Project Symphony - Bayswater ite Name: Bayswater Power Station ite Address: New England Highway, Muswellbrook	-									ID: BB_I	WW04
rill Finish Date: 28/11/2013 Hole I rill Co: Numac Casin riller: Wade Manger Casin rill Method: NDD/PT/SFA Surfac	Depth (m Diam. / W g Type: I g Diam. (ce Comp r Strike (n	/idth (mr PVC (mm): 50 letion: M	onument		Elev Elev Eas	/ation /ation ting (N	(Grou (Case MGA):	vel (m bgl ınd): 196. e): 197.11 : 306380.): 641249	3 832		SRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
rown, moist, soft, non-plastic, no odour, no staining		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0_ 2_					0			
Clayey Gravel		20 20 20 20 20 20 20 20 20 20 20 20 20 2	0_ a_		DS	N		0	BB_MW	/04_0.5	
arey, moist, dense, coarse grained, poorly sorted, ngular, siltstone fragments (cobble sized) nroughout		ି ଅନ୍ତି ଅ ଅନ୍ତି ଅନ୍ତି ଅନ୍ତ ସେହା ସେହା ସେହା ସେହା ସେହା ସେହା ସେହା ସେହା	v⊢ p⊢ p⊢ p⊢ p⊢ 1 p⊢ 1					0			
iltstone		5 5 5 5 5 5 5 5						0			
arey brown, dry, fine grained, highly weathered, soft, o odour, no staining. arey from 5.5m bgl								0			
			<u>3</u> 3					0			
			2-4 2-4 2					0			

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mu Drill Start Date: 28/11/2013 Drill Finish Date: 28/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Drill Co: Numac Drill Method: NDD/PT/SFA	Total Depth Hole Diam. Casing Typ Casing Dia Surface Co	h (m): 10 . / Width (mm be: PVC am. (mm): 50 ompletion: M o	onument		Elev Elev Easi	ation ation ing (N	(Grou (Case //GA):	vel (m bg und): 196 e): 197.1 : 306380.): 641249	.3 1 .832		
Hole Type: Monitoring Well		ke (m bgl): 7.	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		ustralia Pty Ltd Remarks
Sandy Clay Orange brown, mottled grey, moist to wet, Becoming hard and dry from 9.0m bgl					DS	Ν		0	BB_MV	/04_9.5	

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 27/11/2013 Total E	, NSW Depth (n	n): 3			Fina	I Wat	er Lev	vel (m bg	I): 0.93	ID: BB_	_MW05
Drill Finish Date: 27/11/2013Hole DDrill Co: NumacCasingDriller: Wade MangerCasingDrill Method: NDD/PT/SFASurface	Diam. / V g Type: I g Diam. e Comp	Vidth (mm			Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):	und): 164 e): 165.0 : 305643): 64130	.43 7 .819		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Sandy Clay Orange brown, mottled grey, moist, soft, low			-0		DS	Y		0	BB_MW	105 0 0	-
plasticity, no odour, no staining, wet from 1.0mbgl	/		-		00			0	U		-
			- - -		DS			0	BB_MW	/05_0.9	-
	/		1 _ _					-			-
	/		- - -								
			- - - -2					0.1			
	/		-								
			-		US	Y		_	BB_MW	/05_3.0	
End of Log			3 _					0			
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			4 								
			-								
			- - 								

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswell		W									ID: BC_	_MW01
Drill Finish Date: 12/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD/PT	Total Dept Hole Diam Casing Typ Casing Dia Surface Co Water Strik	ı. / Wi pe: am. (r omple	idth (mm mm): etion: Ba			Elev Elev Eas	vation vation ting (N	(Grou (Case //GA)	vel (m bo und): - e): 0 : 307342): 64132	2		ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface				0								
Concrete				F								
				L		DS	N	\square	0	BC_MW	/01 0 3	-
Clay Orange-brown	, , ,	=		F		03			U		101_0.3	4
Sandstone Orange-brown, large ironstone cobbles and bou very firm	ulders,			- - -								
				-		DS	Y		0	BC_MW	/01_1.0	
				L				\vdash				
				F								
				F		DS	Y	\square	0	BC_MW	/01 1.5	-
:		::::: 				23			0			
End of Log				_								
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				-								
				_								
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				-								
				-								
				L								
				-4								
				F								
				F								
				F								
				F								
				F								
				F								
				-5								

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro	ok, NSW									ID: BC_I	WW02
Drill Finish Date:13/11/2013HotDrill Co:NumacCa:Driller:Adrian JarvisCa:Drill Method:NDD/PT/AHSur	al Depth (m le Diam. / W sing Type: I sing Diam. face Comp ter Strike (r	Vidth (mn PVC (mm): N/ Iletion: Ba	A		Elev Elev Eas	vation vation ting (I	(Grou (Case MGA)	vel (m bgl und): - e): - : 307312): 641315			CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			0								
Concrete			ŀ								
0 lau			F		DS	N		0	BC_MW	/02_0.3	
Clay Orange-brown, slightly moist, medium plasticity, no stain, no odour								0			
			- 1 -					0			
Sandstone Weathered, clay inclusions, orange-brown, slighlty moist, very dense, no odour, no staining			-					0			
			- 2 - -					0			
			-		US	Y		0	BC_MW	/02_2.5	
Shale Weathered, grey-brown, dry, no stain, no odour			- - - - - 3 -					_			
			- - - -								
			- 4 - -								
			- - -								
			_ 5								

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M Drill Start Date: 7/11/2013					Eino	1 1/10+1	arla	vel (m bgl	<u>)</u>	ID: BC_I	wwo2
Drill Statt Date: 17/172013 Drill Finish Date: 13/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Soil Bore	Hole Diam. / Casing Type Casing Diam Surface Corr Water Strike	Width (mn : PVC n. (mm): N/ npletion: B	A		Elev Elev East	ation ation ting (N	(Grou (Case //GA):	und): -			CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - -								
			- - - - -6								
			- - -								
			- - - - 7								
			- - -								
			- - - - 8								
Chala			- - -								
ale ey, dry, no stain, no odour			- - - - 9								
			- - -								
			- - - - - 10								

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M Drill Start Date: 7/11/2013 Drill Finish Date: 13/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Soil Bore		Width (mm PVC . (mm): N/A pletion: Ba	۱.		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bg ind): - s): - 307312): 64131			MW02
Lithology	Symbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - -								
			- - - 11								
			- - -								
			- - 12 -								
			- - -								
			- - 								
			- - -								
			- 14 								
			- - - - -								

Log By: AM

Checked By:

Page 3 of 3

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo	k, NSW							vel (m bg		ID: BC_	MW03
Drill Finish Date: 12/11/2013 Hole Drill Co: Numac Casin Driller: Scott Jessup Casin Drill Method: NDD/PT Surfation	II Finish Date: 12/11/2013 Hole Diam. / Width (mm): 1 II Co: Numac Casing Type: N/A Iller: Scott Jessup Casing Diam. (mm): N/A II Method: NDD/PT Surface Completion: Backf										ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Gravelly Clay Orange-brown, fine to course subgranular gravels, dry, medium plasticity, no stain, no odour	 		0 		DS	Y		0	BC_MW	03_0.1	
			- - -					0			
			- - 1 -					0.1			
Sandstone Orange- brown, , dry, very dense, no odour	•_• •_• •_•		-					0			
Orange- brown, , dry, very dense, no odour			- - - -2		US	Y			BC_MW	03_2.0	
End of Log			- - - - - - - - - - - - - - - - - - -								

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswate Site Name: Bayswater Power Station Site Address: New England Highway, Muswe	llbrook, N						1147				ID: BC_I	MW04
Drill Start Date: 7/11/2013 Drill Finish Date: 12/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD/PT Hole Type: Soil Bore	Total Dep Hole Diar Casing Ty Casing D Surface C Water Str	m. / W ype: N iam. (i Compl	idth (mm I/A mm): N// etion: Ba	A		Elev Elev East	ation ation ting (N	(Grou (Case //GA)	vel (m bç und): - e): - : 307330 .): 64131)		CRM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface				-0								
Concrete				- -								
Fill Clay, orange-brown, slight moist, med plasticity odour, no staining, minor rocks	y, no			- - -		DS	N		0	BC_MV	V04_0.3	
				- - -								
				-								
Clay		<u> </u>		-		DS	Y			BC_MV	V04_1.6	
Orange- brown End of Log				- - 2 -								
				- - - -								
				-3								
				- - -								
				_ _ 4								
				-								
				- 								

Log By: AM

Checked By:

Project Name: Project Symphony - Bayswat Site Name: Bayswater Power Station Site Address: New England Highway, Musw		1								ID: BC_N	1W05
Drill Start Date: 6/11/2013 Drill Finish Date: 12/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Monitoring Well	Total Depth Hole Diam. / Casing Type Casing Dian Surface Con Water Strike	Width (mr e: N/A n. (mm): N/ npletion: B	A		Elev Elev East	ation (ation (ing (M	(Grou (Case IGA):	vel (m bg ind): - e): - 307394.): 64131 4	23		RM stralia Pty Ltd
Lithology	Swhol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Silty Clay Orange-brown, very dry at surface grading to moist, medium plasticity, no stain, no odour	slightly	H H H	-0 		DS	Y		0 0 0 0	BC_MW	05_0.1	
Sandstone Orange-brown, dry, very dense, no stain, no o Shale Grey, dry, no odour	odour		2 2 3 4 9		US	Y		0	BC_MW	05_1.8	

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, M										ID: BC_I	MW05
Drill Start Date: 6/11/2013 Drill Finish Date: 12/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Monitoring Well	Total Depth (Hole Diam. / Casing Type: Casing Diam Surface Com Water Strike	Width (mm N/A . (mm): N// pletion: B a		CRM ustralia Pty Ltd							
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			 11								
			 13								
			 14								
			15								
			17								
			18								
			19								
			20								

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M										ID: BC_I	MW05
Drill Start Date: 6/11/2013 Drill Finish Date: 12/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Monitoring Well	Total Depth (Hole Diam. / Casing Type Casing Diam Surface Com Water Strike	Width (mm : N/A . (mm): N// upletion: Ba	4		Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bg und): - e): - : 307394): 641314	.23		CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			 21								
			23								
			24								
			25								
			26 27 27 28								
			27								
			28 29 29								

Log By: AM

Checked By:

Page 3 of 3

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I Drill Start Date: 6/11/2013 Total De	epth (m							vel (m bg	I): -	ID: BC_	SB01
Drill Co: Numac Casing Driller: Wade Manger Casing	Type: N Diam. (Compl	mm): N/A letion: Ba	۱.		Elev East	ation ting (N	(Case //GA):	und): - e): - : 307340): 64132 4			ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Silty Clay Red-brown,dry, stiff, non plastic, no odour or staining	HH				DS	N		0	BC_SB	01_0.2	
			- - -					0			
	HHH!		- 1 -					0			
Sandstone Dry, very dense, tree roots, no odour or staining			- - -		— US —	- Y -		-0	BC_SB	01_1.6	
End of Log			- - 2 -								
			- - -								
			- - 3								
			- - -								
			_ _ 4								
			- - -								
			 - - -								

Log By: SM

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswate Site Name: Bayswater Power Station Site Address: New England Highway, Muswe		SW									ID: BC	_SB02
Drill Start Date: 6/11/2013 Drill Finish Date: 12/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD/PT Hole Type: Soil Bore	inish Date: 12/11/2013 Hole Diam. / Width (mm): 10 co: Numac Casing Type: N/A r: Scott Jessup Casing Diam. (mm): N/A Method: NDD/PT Surface Completion: Backfil Type: Soil Bore Water Strike (m bgl): -							(Groi (Cas VGA)	vel (m bç und): - e): - : 307373 .): 64133	ł		ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface				-0								
Silty Clay Red-brown,dry, hard, non plastic, no odour or staining		#		-		DS	Y		0.2	BC_SE	302_02	
-				_					0.2			
		Ħ		- -								
		Ħ		- 1 					0			
				_								
Condotono		\leq		_		DS	Y		0.1	BC_SE	302_1.5	-
Sandstone				_								
End of Log				-								
				_ 2								
				-								
				_								
				-								
				_								
				-								
				_								
				—3								
				_								
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				_								
				-								
				4 _								
				-								
				_								
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				-								
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				- —5								
				-								

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo						1147 -			- 0	ID: BC_	_SB03
Drill Finish Date: 12/11/2013HoleDrill Co: NumacCasirDriller: Scott JessupCasirDrill Method: NDD/PTSurfation	Depth (m Diam. / W ng Type: I ng Diam. ace Comp er Strike (r	/idth (mm \/A (mm): N/A letion: Ba	۱.		Elev Elev East	ration ration ting (N	(Grou (Case MGA)	vel (m by und): - e): - : 307449): 64135	9.198		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Clayey Silt Brown, dry, hard, low plastic, no staining, no odour			 		DS	N		0	BC_SB	03_0.1	
Shale Extremely weathered			_ _ _					0			
Shale Weathered, hard Shale Extremely weathered			- - 1					0			
Shale			- - -					0			
Weathered shale, shale, grey-orange, very dense, no odour, no sheen			- - -		US	Y		0	BC_SB	03_2.0	-
End of Log			- - - - - - - - - - - - - - - - - - -					5			
			- - - - - - - - 5								

Log By: AM

Checked By:

Sheekee By

Drill Finish Date: 12/11/2013 Hole	al Depth (m e Diam. / W	/idth (mm): 100		Elev	ation	(Grou	vel (m bự und): -	gl): -	ID: BC	
Driller: Wade Manger Cas Drill Method: NDD/PT Sur	sing Type: I sing Diam. (face Compl ter Strike (n	(mm): N// letion: Ba			East	ing (N		e): - : 307485 .): 64135			ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Clayey Silt Brown, low plasticity, hard, no odour, no staining			-0		DS	N		0	BC_SB	04_0.1	
Shale Weathered with layers of grey clay, orange/ grey layers, very dense, no odour, no staining			- - -					0			
			- - 1					0			
			- - -		DS	Y		0	BC_SB	04_1.5	-
End of Log			- - -2								
			- - -								
			-								
			- 3 								
			-								
			- - -								
			4 								
			- - -								
			- - - -5								

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro Drill Start Date: 9/12/2013	ook, NSW al Depth (m	n): 6			Fina	l Wat	erLe	vel (m bo	gl): 1.15	ID: BE_	MW01
Drill Finish Date:9/12/2013HotDrill Co:NumacCasDriller:Eric GrimaCasDrill Method:NDD/PT/AHSur	le Diam. / W sing Type: I sing Diam. (face Comp ter Strike (r	/idth (mm): PVC (mm): 50 letion: Mor			Elev Elev Easi	ration ration ting (N	(Grou (Case /IGA)	und): 164 e): 166.0 : 307590): 64143	4.91)5).742		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Clayey Gravel, dark grey, dry, fine to coarse, well sorted, sub angular, dense, no stain, no odour			0 - - -		DS	N		0.1	BE_MW	/01_0.1	
Siltstone Grey, dry, fine grained, no stain, no odour.			11223333								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, I		SW									ID: BE_N	1W01
Drill Start Date: 9/12/2013 Drill Finish Date: 9/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/AH Hole Type: Monitoring Well	Total Dep Hole Diar Casing Ty Casing D Surface C Water Str	m. / W ype: F iam. (Compl	/idth (mm) PVC (mm): 50 letion: Mo	nument		Elev Elev East	ation ation ting (N	(Grou (Case /IGA):	vel (m bgl ind): 164. e): 166.05 307590.): 641436	.91 5 742		RM stralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
End of Log		<u>(2)2)</u>		- - - -								
				- - -								
				- 7 - -								
				-								
				- 								
				- - -								
				- - -9 -								
				-								
				- - 10								

Log By: TC

Checked By:____

Drill Co: Numac Casing Driller: Wade Manger Casing	epth (m iam. / W Type: F Diam. (/idth (mm):			Elev Elev Eas	ration ration ting (N	(Grou (Case //GA)	vel (m bg und): 162 e): 163.5 : 307602): 64146	56 2.752	ID: BE_	MW02
Hole Type: Monitoring Well Water S	Strike (n loquús	n bgl): 5.5	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		Australia Pty Ltd Remarks
Ground Surface Fill Clayey sand, grey, moist, loose, fine to medium grained, no odour or staining, rootlets throughout Shale Grey, dry, fine grained, fractured			<u>-0</u> 		DS				BE_MW	/02_0.1	

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mu Drill Start Date: 15/11/2013			7.5			Fino	L Wet	orlo	uol (m.h.	gl): 2.29	ID: BE_	_MW02
Drill Finish Date: 18/11/2013 Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Hola Dept Hole Diam Casing Tyı Casing Dia Surface Co Water Strik	ı. / Wid pe: PV am. (m omplet	Ith (mm) / C nm): 50 tion: Mo	nument		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	ver (m b(und): 163 e): 163.5 : 307602): 64146	2.76 56 2.752		ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
				- - -								
				- - - 6								
				- - -								
				- - - -7								
				- - -								
End of Log				- - - 								
				- - -								
				- - - - -9								
				- - -								
				- - - 								

Log By: SM

Checked By:

Drill Finish Date: 29/11/2013Hole DDrill Co: NumacCasingDriller: Wade MangerCasingDrill Method: NDD/PT/SFASurface)epth (n iam. / V I Type: I I Diam. e Comp	vidth (m PVC (mm): 5) Ionument		Elev Elev Eas	ation ation ing (I	(Gro (Cas MGA)	evel (m bç und): 161 æ): 162.5 I: 307604 \): 64149	.63 1 .023		MW03 ERM Australia Pty Ltd
Lithology	Symbol	Mell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample		Remarks
Ground Surface Shale Extremely weathered, grey, brown, dense. Coal dust			-0		DS	N		0	BE_MW	/03_0.1	
on surface			-								-
			- - -					0			
Shale			-1					0			
Weathered, orange-brown											
								0.3			
			-2		US	N		0	BE_MW	/03_2.0	-
			-								
Siltstone Dark grey, dry, very fine, soft, no odour or staining, highly weathered											
ngny weathered								0.1			
			21 21 21 21 21 21 21 21 21 21 21 21 21 2								
			- - -4					0			
			_ _ 5					0.1			

Log By: AM/SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N		NSW									ID: BE_I	WW03
Drill Start Date: 8/11/2013 Drill Finish Date: 29/11/2013 Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing T Casing [am. / W Type: I Diam. (Comp	/idth (mm) PVC (mm): 50 letion: Mo			Elev Elev East	ation ation ing (N	(Grou (Case MGA)	vel (m bg und): 161 e): 162.5 : 307604): 64149	.63 1 .023		ERM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OI9	Sample	Details	Remarks
				- - - - - -								
End of Log				6 - - -					0			
				7 _ _ _								
				- - - - -								
				- - - -9								
				- - - 								

Log By: AM/SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N	NSW									ID: BE_	MW04
Drill Co: Numac Casing [*] Driller: Wade Manger Casing I	am. / Wi Type: P Diam. (r Comple	idth (mm) VC mm): 50 etion: Mo	: 125 nument		Elev Elev Eas	ration ration ting (N	(Groi (Cas //GA)	vel (m bo und): 159 e): 159.8 : 307374 .): 64151	9.27 7 .716		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Silty sand, dark brown, dry, loose, fine grained, well sorted, no odour or staining. Gravelly Clay Orange-brown, moist, stiff, non-plastic, no odour, or staining. Weathered shale fragments throughout	- + + + + + + + + + + + + + + + + +		0 					0.4 0.4			
			 		DS	Y		0.4	BE_MW	/04_1.0	
			- 2 		US	Y			BE_MW	/04_2.0	
Clay Light brown-orange with grey motling, dry, some plasticity, no odour or staining. (completely weathered shale)			- - - - - - - - - - - - - - - - - - -								

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N								ID: BE_I	MW04
Drill Start Date: 15/11/2013 Drill Finish Date: 15/11/2013 Drill Co: Numac Driller: Wade Manger Drill Method: NDD Hole Type: Monitoring Well	Total Depth (m): 8.9 Hole Diam. / Width (m Casing Type: PVC Casing Diam. (mm): 5 Surface Completion: I Water Strike (m bgl):	0 Monument		Elevatio Elevatio Easting	on (Gro on (Cas (MGA)	vel (m bg und): 159 e): 159.8 : 307374 .): 64151;).27 7 .716		CRM ustralia Pty Ltd
Lithology	Symbol	Depth (m)	Recovery	Sample Type	PPT (kPa)	PID (ppm)	Sample	Details	Remarks
		- - 6 -							
		- - - -							
End of Log		9 9							
		- - - -							
		- - 10							

Log By: SM

Checked By:

Drill Co: Numac Casing Driller: Wade Manger Casing	epth (m am. / W Type: P Diam. (Compl	idth (mm) VC mm): 50 etion: Mo			Elev Elev Eas	ation ation ting (N	(Grou (Case //GA)	vel (m bgl Ind): 159. e): 159.94 : 307334.): 641509	25 I 539		WW05
Lithology	Symbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		Remarks
Ground Surface Fill Silty sand, dark brown, moist, loose, fine, graded, well sorted, no odour or staining, Gravelly Clay Orange-brown, dry, stiff, non-plastic, no odour or staining. Weathered shale fragments throughout					DS DS US	Y		0.3 0.5 0.4	BE_MW BE_MW	105_1.5	
Clay Black, moist, soft, medium plasticity, organic odour Clay Brown with orange mottling, moist, plastic, no odour, no staining			4 								

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M										ID: BE_	_MW05
Drill Start Date: 15/11/2013 Drill Finish Date: 25/11/2013 Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (r Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (r	Vidth (mm PVC (mm): 50 Iletion: Mc			Elev Elev East	ation ation ing (N	(Grou (Case //GA)	und): 15 9 e): 159.9 : 30733 4	4		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - - 6								
			- - 7								
End of Log											
			- - 								
			- - -								
			- - -9 -								
			- - - -								
			_ _ 10								

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N	NSW									ID: BE_N	ЛW06	
Drill Co: Numac Casing ⁻ Driller: Wade Manger Casing I Drill Method: NDD/PT/SFA Surface	am. / W Type: P Diam. (I Comple	idth (mm) VC			Elev Elev East	ation ation ing (N	(Grou (Case IGA)	vel (m bgl) und): 159. e): 159.9 : 307255.4): 641501	29 106	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill			_0		DS	N		0.8	BE_MW	/06_0.1		
Silty sand, dark brown, dry, loose, fine grained, well sorted, no odour or staining. Trace coal dust at surface Gravelly Clay Orange-brown, moist, stiff, non-plastic, no odour or staining. Weathered shale fragments throughout			- - - -					0.9				
	- <u>-</u>		- 1 -					1.2				
			- - -					0.7				
			- 2 - - - -					0.2				
	<pre></pre>		- - - - - - - -					0.1				
			- - - - - - 4 - -					0.2				
Clay Grey, mottled dark grey, moist, stiff, low plasticity, organic odour Sandy Clay Orange-brown, mottled grey, moist, soft, low plastic,			- - - - - -5					0.1				

Log By: SM/TC/HC

Checked By:

Drill Finish Date: 25/11/2013 Hole I Drill Co: Numac Casin Driller: Wade Manger Casin Drill Method: NDD/PT/SFA Surface	Name: Project Symphony - Bayswater ne: Bayswater Power Station Irress: New England Highway, Muswellbrook, NSW t Date: 15/11/2013 Total Depth (m): 9 Final Water Level (m bgl): 3.62 sh Date: 25/11/2013 Hole Diam. / Width (mm): 125 Elevation (Ground): 159.29 Numac Casing Type: PVC Elevation (Case): 159.9 Vade Manger Casing Diam. (mm): 50 Easting (MGA): 307255.406 hod: NDD/PT/SFA Surface Completion: Monument Northing (MGA): 6415016.552 be: Monitoring Well Water Strike (m bgl): 7.5 E												
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
Silty Clay Grey-brown, moist, soft, meduim plasticity, no odour or staining			- - - - - - - - - - - - - - - - - - -		US	N		0.1	BE_MW	/06_6.0			

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N	ISW									ID: BE_I	MW07	
Drill Start Date:15/11/2013Total DeDrill Finish Date:25/11/2013Hole DiaDrill Co:NumacCasing TDriller:Adrian JarvisCasing DDrill Method:NDD/PT/AHSurface GHole Type:Monitoring WellWater St	ım. / Wi Type: P Diam. (r Comple	idth (mm PVC mm): 50 etion: Mc			Elev Elev Eas	vation vation ting (N	(Grou (Case MGA)	vel (m bgl und): 159. e): 159.9 : 307181.): 641494	3 968	ERM		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Topsoil, silty sand, dark brown			_0					17				
Fill Gravelly clay, orange-brown, dry, stiff, non-plastic, no odour or staining. Weathered shale fragments			-		DS	N		1.7	BE_MW	107.05		
throughout			- - - - - - - 1 -					1.7	55_1010			
			- - - - - - - - - - - 2					1.6				
			2 					0				
								0.1				
			- 4 					0.1				
			_ _ 5					0				

Log By: SM/TC/HC

Checked By:

Drill Finish Date: 25/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH		/idth (mm) PVC (mm): 50 letion: Moi			Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	/el (m bg ind): 159 ∋): 159.9 307181.): 641494	.3 968	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Clay Black, moist, soft, medium plasticity, organic od Clay Brown, mottled orange, moist, soft, medium pla no staining, no odour	stic,		- - - - - - - - - - - - - - - - - - -		US	Y		0	BE_MW	/07_6.0		
		-	-									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,										ID: BE_I	WW08	
Drill Finish Date: 22/11/2013Hole DDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PT/SFASurfac	Type: F Diam. (e Compl	/idth (mm PVC mm): 50	onument		Elev Elev Eas	vation vation ting (N	(Grou (Case /IGA)	vel (m bgl und): 159. e): 160.54 : 307089.): 641484	99 539	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			_0									
FIII Silty sand, dark brown, dry, medium dense, fine grained, well sorted, no odour or staining			-					0.1				
Clayey Gravel Orange-brown, dry, medium dense, medium to coarse, angular, poorly sorted, no odour or staining.			-		DS	N		0.2	BE_MW	/08_0.5		
eathered shale fragments throughout			- - 1 -					0				
			-					0.1				
Sandy Clay Grey, mottled orange and red, moist, soft, non- plastic, no staining or odour			- 2 					0				
								0				
								0				
								,				
			- - -5									

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mu		sw									ID: BE_	_MW08
Drill Start Date: 14/11/2013 Drill Finish Date: 22/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Dep Hole Diar Casing D Casing D Surface C Water Str	m. / W ype: F iam. (Compl	/idth (mm PVC (mm): 50 letion: Mc	nument		Elev Elev East	ation ation ing (N	(Groi (Cas //GA)	vel (m by und): 15 e): 160.5 : 307089 .): 64148	54 9.539		ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
		/		-		US	N		0	BE_MW	08_5.2	
		/		-								
		/		- 6 -								
		/		-								
End of Log		<u></u>	<u>d</u> ed	- 7 -								
				-								
				- - - 								
				-								
				- - -								
				- 9 -								
				- - -								
				- - - 10								

Log By: SM/TC

Checked By:

	epth (m am. / W	idth (mm): 125		Elev	ation	(Grou	vel (m bç und): -	jl): -	ID: BE_	5
	Diam. (Compl	mm): N/A etion: Ba			Eas		(IGA)	e): - : 306991 .): 64146			ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
Ground Surface Silty Clayey Gravel Orange, dry, fine to coarse sub angular/sub rounded			0 _ _		DS	N		0	BE_MW	/09_0.1	-
Shale Pale grey, very dense, slightly weathered with brown mottling @ 1 m bgl, some coarse crystalline grains.			-								
			- 		US	N		3.2	BE_MW	09_0.9	-
			- - -								
			- - 2 -								
Siltstone Dry, dark grey, weathered, no odour, no staining			-								
			- - 3 -								
Siltstone Slightly moist, light brown to grey, highly			- - -								
weathered/fractured, no odour, no staining			- 4 								
			- - -								
			_ —5								

Log By: HC/WG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Baysw Site Name: Bayswater Power Station Site Address: New England Highway, Mus Drill Start Date: 8/11/2013 Drill Start Date: 29/11/2013 Drill Finish Date: 29/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Soil Bore	wellbrook, N Total De Hole Dia Casing I Casing I	epth (m am. / W Type: N Diam. (Compl	′idth (mm I/A mm): N// etion: Ba	۱. ۱		Elev Elev East	ation ation ing (N	(Grou (Case //GA)	vel (m bgl und): - e): - : 306991): 641468		ID: BE_MW09		
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Siltstone Dry, predominately grey with some colouring odour, no staining.	g, no			- - - - - - - - - - - - - - - - -									
Siltstone Dry, grey, weathered, no odour, no staining				- - - - - - - - - - - - - - - - - - -									
				- - - - - - - - - - - - - - - - - - -									
				- - - - - - - - - - -									

Log By: HC/WG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa t Site Name: Bayswater Power Station Site Address: New England Highway, Musw		I								ID: BF_I	MW01
Drill Start Date: 3/12/2013 Drill Finish Date: 4/12/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth Hole Diam. / Casing Type Casing Dian Surface Con Water Strike	/ Width (n e: PVC n. (mm): t npletion:	50 Monument		Elev Elev Eas	/ation /ation ting (N	(Grou (Case //GA):	vel (m bg und): 137 e): 137.98 : 309174.): 641956	.26 3 324		CRM ustralia Pty Ltd
Lithology	lodmyS	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface		, ,	0								
Topsoil		\.\ \.\	_								
Fill Gravelly sand, brown, dry, moderately well compacted, no odour, no staining		×	-		DS	N		0.1	BF_MW0	1_0.4-0.5	
Clayey Sand Dark brown, dry, rare gravel, medium to find s some organic matter and rootlets	sand,		- - - -1		-						
Clay Orange brown, dry, slightly sandy, low plastic	ity		- 1 - - - -								
Sandstone Pale brown, dry, hard			- - - - 2		US	N		0.2	BF_MW0	1_1.8-1.9	
Clay Orange, dry, some fine sand, low plasticity, so siltstone gravel from 4.5 to 5.5mbgl, no odour staining			2 2 3								

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellb Drill Start Date: 3/12/2013	rook, NSW otal Depth (n	n): 14			Fina	Il Wat	er Lev	vel (m bgl): 9.545	ID: BF_N	ЛW01
Drill Finish Date: 4/12/2013 F Drill Co: Numac C Driller: Adrian Jarvis C Drill Method: NDD/PT/SFA/AH S	lole Diam. / V casing Type: casing Diam. curface Comp Vater Strike (r	Vidth (mm) PVC (mm): 50 pletion: Mo	nument		Elev Elev Easi	vation vation ting (N	(Grou (Case //GA):	and): 137. e): 137.98 309174.): 641956	.26 3 324		LRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
Sandstone Grey, dry, moderately weathered, becoming wet 12.5mbgl, wet at 13.0mbgl	at										

Log By: **JG**

Checked By:____

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, I	Muswellbrook, NS ¹								N. 0.545	ID: BF_N	лW01
Drill Start Date: 3/12/2013 Drill Finish Date: 4/12/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Casing Typ Casing Dia Surface Co	/ Width (mn	onument		Elev Elev Eas	vation vation ting (N	(Grou (Case MGA)	vel (m bg und): 137 e): 137.94 : 309174.): 641956	.26 8 .324		SRM ustralia Pty Ltd
Lithology	-	Symbol	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OI9	Sample	Details	Remarks
			- - - - - - - - - - - - - - - - - - -								
			- 								
End of Log			- 14 								
			- - - - -15								

Log By: **JG**

Checked By:

Page 3 of 3

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrod Drill Start Date: 3/12/2013	ok, NSW al Depth (m): 16			Fina	Wate	ar I ev	vel (m bgl): 12.68	ID: BF_N	NW02
Drill Finish Date:9/12/2013HoleDrill Co:NumacCasDriller:Adrian JarvisCasDrill Method:NDD/PT/SFA/AHSurt	Co: Numac Casing Type: PVC Elevation (Case): 139.37 er: Adrian Jarvis Casing Diam. (mm): 50 Easting (MGA): 309150.817 Method: NDD/PT/SFA/AH Surface Completion: Gatic Northing (MGA): 6419502.221 • Type: Monitoring Well Water Strike (m bgl): - 8										
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Bitumen Fill Gravelly sand, brown, dry, well compacted, poorly sorted, no odour, no staining Sandstone Conglomerate, pale orange to brown, hard, friable with poorly sorted fine to coarse grains			2					0.2			
Siltstone Grey, dry, hard, moderately to slightly weathered Sandstone											
Grey, possible moisture, moderately weathered, possible moisture at 9.8mbgl, water at 14.5mbgl (after 72 hours)			-9-10								

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Ba Site Name: Bayswater Power Station Site Address: New England Highway, I									ID: BF_N	лW02	
Drill Start Date: 3/12/2013 Drill Finish Date: 9/12/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	inish Date: 9/12/2013 Hole Diam. / Width (mm): 125 Elevation (Ground): 139.45 o: Numac Casing Type: PVC Elevation (Case): 139.37 e Adrian Jarvis Casing Diam. (mm): 50 Easting (MGA): 309150.817 hethod: NDD/PT/SFA/AH Surface Completion: Gatic Northing (MGA): 6419502.221 'ype: Monitoring Well Water Strike (m bgl): -										
Lithology	Symbol	Well	Ueptn (m) Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
End of Log			2								

Log By: **JG**

Checked By:

Jileckeu Dy.

Drill Finish Date: 9/12/2013 Hole Drill Co: Numac Casi	l Depth (m Diam. / W ng Type: F	/idth (mm) PVC	: 125		Elev Elev	ation ation	(Grou (Case	und): 138 e): 138.6	6	ID: BF_M	
Drill Method: NDD/PT/SFA/AH Surfa	ng Diam. (ace Compl er Strike (n	letion: Ga	tic			- · ·	,	: 309241): 64194			INIVI Istralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
Ground Surface Bitumen Fill Gravelly sand, orange, dry, well compacted, coarse grained with gravel up to cobble sized, suspected road base, no odour, no staining Sandstone Conglomerate, pale orange, dry, hard			0 1 2 3 4 5 6 7 8 9 10		DS	N		0.1	BF_MW0	3_0.4-0.5	

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, I										ID: BF_N	NW03	
Drill Start Date: 3/12/2013 Drill Finish Date: 9/12/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth (m Hole Diam. / W Casing Type: I Casing Diam. Surface Comp Water Strike (r	/idth (mm PVC (mm): 50 letion: Ga			Elev Elev Eas	vation vation ting (N	(Grou (Case MGA):	vel (m bgl ind): 138. e): 138.66 : 309241.): 641942	.79 6 557	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
			-11 -12 -13 -14 -15 -16 -17 -18 -19 									

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbr o										ID: BF_N	IW04
Drill Finish Date:9/12/2013HoDrill Co:NumacCaDriller:Adrian JarvisCaDrill Method:NDD/PT/AHSu	tal Depth (m le Diam. / W lsing Type: I lsing Diam. (rface Comp ater Strike (n	/idth (mm N/A (mm): N/A letion: Ba	4		Fina Elev Elev Easi Nort		ERM ERM Australia Pty Ltd				
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Sandstone			-0								
Conglomerate, orange, dry, hard, no odour, no staining, possible road base granite cobblestones					DS	N		0.1	BF_MW0	4_0.1-0.2	
Shale Pale grey, dry, hard, moderately weathered, becoming very hard at 8.0mbgl			- - - - - - - - - - - - - - - - - - -								
			- - - - - - - - - - - - - - - - - - -								

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswat Site Name: Bayswater Power Station Site Address: New England Highway, Muswa Drill Start Date: 3/12/2013 Drill Finish Date: 9/12/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Soil Bore		(m): 10 / Width (mr e: N/A n. (mm): N / npletion: B	/A ackfilled		Elev Elev Eas	ation ation ting (N	(Grou (Case //GA):	vel (m bgl und): - e): - : 309100): 641943			IW04 Stralia Pty Ltd
Lithology	Cumbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Dry at 10.0mbgl after 72 hours, well reinstated			- - - - - - - - - - - - - - - - - - -								

Log By: **JG**

Checked By:

	k, NSW Depth (m Diam. / W		a): 200					vel (m bgl und): 92.1		ID: BF_N	1W05
Drill Co: Numac Casin Drill Co: Numac Casin Driller: Adrian Jarvis Casin Drill Method: NDD/PT/SFA Surfa Hole Type: Monitoring Well Wate	e): 92.05 : 316247.										
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Gravelly sand, minor silts, dark brown, fine to coarse sands, medium to coarse gravels, poorly sorted, no odour, no staining			 					0.2			
Fill Reworked clay, brown with grey mottling, moist, plastic, some charcoal and shale gravel inclusions, no odour, no staining			-		DS	N		1.4	BF_MW	05_0.5	
			- 1 					0.2			
			- - - - - - - - - - - - - - - - - - -					0.5			
			- - 		US	N		0.2	BF_MW	05_3.0	
			- - - - - -					0.1			
Clay Gravelly brown, fine to soft, high plasticity, no odour, no staining, becoming gravelly at 6 to 6.5mbgl											

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mu										ID: BF_N	AW05
Drill Start Date: 6/12/2013 Drill Finish Date: 6/12/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	nish Date: 6/12/2013 Hole Diam. / Width (mm): 200 Elevation (Ground): 92.18 o: Numac Casing Type: PVC Elevation (Case): 92.05 Adrian Jarvis Casing Diam. (mm): 50 Easting (MGA): 316247.411 ethod: NDD/PT/SFA Surface Completion: Gatic Northing (MGA): 6411377.603 'ype: Monitoring Well Water Strike (m bgl): 9										
Lithology	Symbol	Meil	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Sandstone Pale brown to orange, dry, moderately to weathered, no odour, no staining	well		- - - - - - - - - - - - - - - - - - -								

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N	ISW									ID: BF_	MW06	
Drill Finish Date: 9/12/2013Hole DiaDrill Co: NumacCasing TDriller: Mick HopkinsCasing IDrill Method: NDD/PT/SFASurface	Il Finish Date: 9/12/2013 Hole Diam. / Width (Il Co: Numac Casing Type: N/A Iler: Mick Hopkins Casing Diam. (mm): Il Method: NDD/PT/SFA Surface Completion									ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			_0									
Asphalt Fill Sub-asphalt road base, gravelly sand, red brown, fine					DS	N		0.2	BF_MW	/06_0.2		
to coarse, poorly sorted, no odour, no staining Fill Reworked clay, brown with red and grey mottling, moist, plastic, gravel inclusions (up to cobble sized) throughout, no odour, no staining			- - - -					0.8				
Clay Natural, red brown, moist, highly plastic, no odour, no staining, becoming grey with light brown mottling from 1.3mbgl, lower gravel content from 4.0mbgl			- 1 - -					1.4				
			- - - - - - - - 2					0.6				
			-					0.9				
	\geq		-3		US	N		0.9	BF_MW	/06_3.0		
Clay Natural, red brown and grey mottled, dry, low plasticity, very stiff with some coarse red shale gravel and ironstone								0.6				
			-4 - - - -									
			- - 5									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro										ID: BF_N	лwо6
Drill Finish Date: 9/12/2013 Hol Drill Co: Numac Cas Driller: Mick Hopkins Cas Drill Method: NDD/PT/SFA Sur	al Depth (m): 10 Final Water Level (m bgl): - le Diam. / Width (mm): 150 Elevation (Ground): - sing Type: N/A Elevation (Case): - sing Diam. (mm): N/A Easting (MGA): 316183 rface Completion: Backfilled Northing (MGA): 6411386 ter Strike (m bgl): - 8									SRM ustralia Pty Ltd	
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - -								
			- - - - -6								
Sandstone Pale grey to brown, moderately weathered, no odou no staining, layer of softer clayey material at 7.8 to 8.2mbgl	ır,		- - - - -								
			- 7 - - -								
			- - - 								
Clay Gravelly clay, brown, white shale gravel, medium plasticity, firm			- - - -								
Sandstone Pale orange, moderately weathered, dry at 10.0mbg after 72 hours, well reinstated	1		- 9 - - -								
			 - - -								

Log By: HC/JG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BF_	MW07
Drill Finish Date: 6/12/2013Hole DDrill Co: NumacCasingDriller: Mick HopkinsCasingDrill Method: NDD/PT/SFA/AHSurface	I Finish Date: 6/12/2013 Hole Diam. / Width (mn I Co: Numac Casing Type: N/A Ier: Mick Hopkins Casing Diam. (mm): N/ I Method: NDD/PT/SFA/AH Surface Completion: Bi										ERM Lustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Silty sand, brown grey, dry, some coarse gravel (angular), no odour, no staining			- 0 		DS	N		0.7	BF_MW	07_0.15	
Fill Reworked clay, brown with red and grey mottling, moist, some plasticity, charcoal/coal fragments throughout, some shale gravel inclusions, no odour, no staining			- - - -								
Clay Natural, light brown, moist to dry, highly plastic, no odour, no staining			- 1 - -					1.6			
			- - - -					1			
			- -2 -			V		1 -		107.04	
Sandstone Pale grey with red bands, dry, moderately weathered, turning pale orange between 3.5 and 4.0mbgl, well					US	Y			BF_MA	V07_2.4	
dry after 72 hours, well reinstated			3 _ _ _								
			4 								
			_ _ _ 5								

Log By: HC/JG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, I										ID: BF_N	лw07		
Drill Start Date: 5/12/2013 Drill Finish Date: 6/12/2013 Drill Co: Numac Driller: Mick Hopkins Drill Method: NDD/PT/SFA/AH Hole Type: Soil Bore	Casing Type: Casing Diam. (Surface Comp	Diam. / Width (mm): 200 Elevation (Ground): - g Type: N/A Elevation (Case): - g Diam. (mm): N/A Easting (MGA): 316244 Northing (MGA): 6411349 Strike (m bgl): -									ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
			- - - -										
			- - 6 -										
			- - - -										
			- - -7 -										
			- - - -										
			- 										
			- - -										
			9 										
			- - - - -										

Log By: HC/JG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbre	ook, NSW									ID: BF_N	ЛW08
Drill Finish Date:12/12/2013HoDrill Co:NumacCaDriller:Scott JessupCaDrill Method:HA/PT/SFA/AHSu	tal Depth (m): 15 Final Water Level (m bgl): - ble Diam. / Width (mm): 150 Elevation (Ground): - asing Type: N/A Elevation (Case): - asing Diam. (mm): N/A Easting (MGA): 304961 urface Completion: Monument Northing (MGA): 6415302 ater Strike (m bgl): - •										CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample I	Details	Remarks
Ground Surface Silty Clay Silty clay with gravel, light brown, moist, soft, moderate plasticity, homogeneous, no odour, no staining, becoming stiff from 0.4mbgl	H H H		-		DS	N		0.1	BF_MW()8_0.2	
Silty Clay Grey with orange brown mottling, moist, medium s non plastic, friable, homogeneous, minor siltstone	tiff,		- - - - -1					0			
ion plastic, triable, homogeneous, minor siltstone ravel throughout, no odour, no staining	H H H		- - - -					0.1			
	TH H		- -2 - - -					0.1			
	HHH H		_ - - - - 3		US	N		0.2	BF_MW()8_2.6	
Siltstone Grey, dry, hard, weathered lenses throughout, son brown, no odour, no staining	ne	4	- - - - -								
			- - 4 - - -								
			- - - - 5								

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M									ID: BF_MW0	8	
Drill Start Date: 9/12/2013 Drill Finish Date: 12/12/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: HA/PT/SFA/AH Hole Type: Soil Bore	Total Depth (m Hole Diam. / W Casing Type: I Casing Diam. (Surface Comp Water Strike (n	/idth (mm \/A (mm): N/A letion: Mc	۱.		Elev Elev Eas	I Wate ration ration ting (N hing ((Grou (Case /IGA):		ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks	

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayse Site Name: Bayswater Power Station Site Address: New England Highway, Mu Drill Start Date: 9/12/2013 Drill Finish Date: 12/12/2013 Drill Co: Numac		pth (m) m. / W	idth (mm): 150		Elev		(Gro	vel (m bç und): - e): -	ji): -	ID: BF_N	5
Driller: Scott Jessup Drill Method: HA/PT/SFA/AH Hole Type: Soil Bore	Casing D Surface (Water St	Comple	etion: Mo						: 304961 \): 64153			RM Istralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Conglomerate Light grey with dark grey and green grey, or rounded to well rounded gravels included, no staining. Well dry at 15.0mbgl after 72 hours, well re		຺຺ຎຏຎຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬຬ										

Log By: GP

Checked By:

Page 3 of 3

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook										ID: BF_N	MW09
Drill Finish Date: 12/12/2013Hole EDrill Co: NumacCasingDriller: Justin CollierCasingDrill Method: HA/PT/SFA/AHSurface	g Type: g Diam.	Vidth (n PVC (mm): t oletion:	Monument		Elev Elev Eas	vation vation ting (N	(Gro (Cas (GA)	vel (m bg und): 223 e): 224.1 : 303943 .): 641528	.5 1 .88		CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Sandy Clay Sandy clay with gravel, brown, moist, soft, non plastic, homogeneous, no odour, no staining			-		DS	N		0.1	BF_MW	/09_0.2	
Clay Brown, moist, soft, high plasticity, homogeneous, no odour, no staining, becoming red brown from 0.6mbgl			- - - -					0			
			- 1 - -					0			
Sandy Clay Red brown, moist, stiff, non plastic, homogeneous,			- - - -					0.1			
no odour, no staining			-2					0.2			
Silty Sand Orange brown, moist, dense, fine grained, well	* * *										
sorted, homogeneous, no odour, no staining								0.1			
	× × ×										
	× × ×		4		US	Y		-	BF_MV	/09_3.9	
Siltstone											
Orange brown, dry, hard, weathered lenses throughout, becoming softer at 10.8mbgl, moist from 11.0mbgl			- - - -5								

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M									ID: BF_N	лW09
Drill Start Date: 9/12/2013 Drill Finish Date: 12/12/2013 Drill Co: Numac Driller: Justin Collier Drill Method: HA/PT/SFA/AH Hole Type: Soil Bore	Casing Type: PVC Casing Diam. (mm):	e Diam. / Width (mm): 125 Elevation (Ground): 223.5 sing Type: PVC Elevation (Case): 224.11 Easting (MGA): 303943.88 face Completion: Monument ter Strike (m bgl): 11 <u>8</u>							ERM Australia Pty Ltd	
Lithology	Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bar Site Name: Bayswater Power Station Site Address: New England Highway, I		v								ID: BF_N	1W09
Drill Start Date: 9/12/2013 Drill Finish Date: 12/12/2013 Drill Co: Numac Driller: Justin Collier Drill Method: HA/PT/SFA/AH Hole Type: Soil Bore	Total Depth Hole Diam. Casing Type Casing Dian Surface Cor Water Strike	/ Width (mm e: PVC m. (mm): 50 mpletion: Mo		Elev Elev Eas	vation vation ting (N	(Grou (Case /IGA):	vel (m bg und): 223 e): 224.11 : 303943.): 641528	.5 1 88	ERM Australia Pty Ltd		
Lithology	Sumhol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
			- - - - - - - - - - - - - - - - - - -								

Log By: GP

Checked By:

Page 3 of 3

Drill Finish Date: 13/12/2013 Hole D Drill Co: Numac Casing Driller: Justin Collier Casing	Depth (m liam. / W J Type: J Diam.	Vidth (mm			Elev Elev Eas	vation vation ting (I	(Grou (Case MGA)	vel (m bg Jnd): - e): 0 : 302990): 641526	I): -	: BF_MW10
Hole Type: Soil Bore Water	Strike (r	n bgl): -	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	S Remarks
Ground Surface Sandstone Weathered, brown, dry, dense, fine to coarse grained, well sorted, homogeneous, no odour, no staining Sandstone Brown, dry, hard, interlayered with weathered sandstones above, no odour, no staining					DS	N		0	BF_MW10_0.1	

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M									ID: BF_MW	/10		
Drill Start Date: 9/12/2013 Drill Finish Date: 13/12/2013 Drill Co: Numac Driller: Justin Collier Drill Method: HA/AH Hole Type: Soil Bore	Total Depth (m Hole Diam. / W Casing Type: Casing Diam. (Surface Compl Water Strike (n	'idth (mm mm): etion: Ba		Elevation (Case): 0 Easting (MGA): 302990 Northing (MGA): 6415264 ERM Australia								
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks		
			- - -									
			- - - 6									
			- - - -									
			- - - - -7									
			- - -									
			- - - 8									
			- - -									
			_ _ _ _ 9									
			_ _ _ _									
			- - - - 10									

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 9/12/2013 Total D): 10			Fina	al Wat	er Le	vel (m bgl	1): -	ID: BF_	MW11
		idth (mm): 150					und): -			
Drill Co: Numac Casing Driller: Justin Collier Casing		mm):				vation ting (N		e): U : 302054		F	ERM
		etion: Ba	ckfilled		Nor	thing (MGA): 64152 5	53		
Hole Type: Soil Bore Water S	strike (m	n bgl): -									ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			_0								
Silty Sand Brown, moist, loose, fine sand with some coarse gravel, moderately sorted, homogeneous, no odour, no staining	* *				DS	N		0.1	BF_MW	11_0.2	
Clayey Sand Brown, moist, loose, fine to medium coarse sand, well sorted, homogeneous, no odour, no staining			-					0			
Sandy Clay Sandy clay with gravel, dark brown, moist, soft, low plasticity, homogeneous, inclusions of extremely			- 1 -					0.1			
Weathered siltstone gravels, no odour, no staining Clayey Sand Red brown, moist, medium dense, fine grained, well			-					0.5			
Sorted, homogeneous, no odour, no staining Sandy Clay Red brown, soft, moist, low plasticity, homogeneous, no odour, no staining, plasticity increasing with depth			_ 2					0.7			
			-								
			- - 3 - -					0.6			
			4 		US	N		1.9	BF_MW	11_4.0	
			- - -								
			- - 5		US	N		1 -	BF_MW	11_5.0	

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Musw		I								ID: BF_N	WW11
Drill Start Date: 9/12/2013 Drill Finish Date: 13/12/2013 Drill Co: Numac Driller: Justin Collier Drill Method: HA/PT/SFA Hole Type: Soil Bore	Total Depth Hole Diam. / Casing Type Casing Dian Surface Cor Water Strike	/ Width (mr e: n. (mm): npletion: B			Elev Elev Eas	/ation /ation ting (N	(Grou (Case MGA)	vel (m bg und): - e): 0 : 302054 .): 641525			ERM ustralia Pty Ltd
Lithology	Svmhol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
		N N N									
			- - - - - - -								
		X	- - -7 - -								
Silty Sand Brown, moist, medium dense, fine grained, w sorted, homogeneous, no odour, no staining Gauged dry after 72 hours, well reinstated	rell		- - - - - - 8 - - -								
			- - - - - - - - - 9 -								
	****	· . × . · · »	- 10								

Log By: GP

Checked By:

rill Finish Date: 4/12/2013 rill Co: Numac rill Co: Numac rill Co: Numac rill Co: Numac rill Co: Numac rill Solution VD/PT ole Type: Soil Bore Lithology Lithology Lithology Lithology Lithology Jage Line Lithology Lithology Jage Line Lithology Jage Li	Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N Drill Start Date: 3/12/2013 Total De). 1 0			Eine	51 \M/o+	arla	vol (m ho	n)	ID: BF_	SB01
Ground Surface O O O Isphalt 0 0 Till Taxvely sand, brown, dry, well consolidated, poorly or staining. 0 Image: Surface 0 Image: Su	Drill Finish Date:4/12/2013Hole DiaDrill Co:NumacCasing TDriller:Adrian JarvisCasing TDrill Method:NDD/PTSurface	am. / W Type: N Diam. (Compl	′idth (mm I/A mm): N// etion: Ba	A Contraction		Elev Elev Eas	vation vation ting (N	(Grou (Case MGA)	und): - e): - : 309092			
Asphalt 0 0 Ill Indicated provin, dry, well consolidated, poorly or staining. 0 Ill DS N Ill DS N Ill Indicated proving dry proving the proving of the proving dry provetee dry proving dry proving dry prov	Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
III IIII IIIII IIIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Ground Surface Asphalt			_0								
Ill DS N 0 BF_SB01_0.4-0.5 Jask some sand and gravel, dry, firm, medium illasticity, no odour or staining. Cobbles at 0.8 to .2mbgl -1 0.1 0.1	Fill Gravelly sand, brown, dry, well consolidated, poorly			- -					0			
Jasticity, no odour or staining. Cobbles at 0.8 to	Fill			- - -		DS	N		0	BF_SB01	1_0.4-0.5	
End of Log	plasticity, no odour or staining. Cobbles at 0.8 to 1.2mbgl			- -								
End of Log				- -1					0.1			
End of Log				-								
End of Log				-								
		×		-		US	N		0.1	BF_SB	01_1.8	
				- - - - - -								

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I										D: BF_	SB02
Drill Co: Numac Casing Driller: Adrian Jarvis Casing	am. / W Type: N Diam. (Compl	/idth (mm I/A [mm): N/A letion: Ba	l		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bg und): - e): - : 309072): 64195	13		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Det	ails	Remarks
Ground Surface			_0								
Asphalt Fill Gravelly sand, some clay, dry, brown, well compacted, poorly sorted, no odour, no staining			- - -		DS	N		0.1	BF_SB02_0.1	1-0.2	
Clay Sandy, brown, soft becoming very stiff with depth, low plasticity, no odour, no staining, sandstone gravel from 1.1mbgl			- - -								
			1 _ _		— DS —	- N -		0	BF_SB02_	1.2	
End of Log			- - - - - - 2 - - -					-			
			- - - - - - 3								
			- 4 								
			- - - -								
			5								

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BF_	SB03
Drill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurface	am. / W Type: I Diam. (Compl	/idth (mm N/A (mm): N//			Elev Elev Eas	vation vation ting (N	(Groi (Cas VGA)	vel (m bg und): - e): - : 309202 .): 64195 1			ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (кРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface											
Asphalt Fill Clay, gravelly sand, brown, well compacted								0.1			
Fill Clay, some sand and rare gravel, brown, dry, firm, low plasticity, gravelly clay layer from 1.3 to 1.6mbgl, no odour, no staining			- - -		DS	N		0.2	BF_SB03	8_0.4-0.5	
			- 1 - - -					0.2			
Clay Brown, moist, firm, moderate plasticity			- - - - - 2 - - -					0.2			
Sandstone Orange and grey with some coarse sandy lenses, moderate plasticity, weathered, no odour, no staining											
			3 _ _ _ _		US	N		0.1	BF_SB	03_3.0	
End of Log			- - - - - - - - - - - - - - - - - - -								
			_ _ 5								

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N										ID: BF_9	SB04
Drill Co: Numac Casing ⁻ Driller: Adrian Jarvis Casing I	am. / W Type: N Diam. (Compl	/idth (mm I/A [mm): N// letion: Ba	4		Elev Elev Easi	ation ation ting (N	(Grou (Case //GA):	vel (m bo ind): - e): - 309274): 64194	Ļ		ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Asphalt Fill Sand, gravelly clay, dry, well consolidated, poorly sorted, no odour, no staining			- 0 - - -					0.1			
End of Log			-		— DS —	- N -	_	0.1	—— BF_SB04	4_0.4-0.5	
			1 								
			-								
			2 2								
			3								
			-								
			_ _ 4								
			—5								

Log By: **JG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook	, NSW									ID: BF_S	SB05
Drill Finish Date:9/12/2013Hole IDDrill Co:NumacCasingDriller:Mick HopkinsCasingDrill Method:NDD/PTSurface	Diam. / g Type g Diam xe Corr	. (mm): N	/A Backfilled		Elev Elev Eas	vation vation ting (I	(Groi (Cas VGA)	vel (m bg und): - e): - : 316201 .): 64114			CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Sandy gravel (road base), brown and red, dry, fine to coarse gravels, angular gravels, poorly sorted, no			0 					1.2			
Odour, no staining Fill Rework of sandy clay, brown with grey mottling, dry to moist, gravel inclusions (shale), no odour, no	/ 💥		-		DS	N		0.3	BF_SB	05_0.5	
staining			- - - - - - - - - - - - - - - -					0.4			
Clay Red brown, some gravel, dry, low plasticity, stiff, increasing red shale ironstone gravel from 3.0mbgl, no odour, no staining			-2 - - - - - - - -					0.8			
			- -3 - -		US	N		0.5	BF_SB	05_3.0	
End of Log			- - - - - - - - - - - - - - - - - -								

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BF_\$	SB06
Drill Finish Date:9/12/2013Hole DiDrill Co:NumacCasingDriller:Mick HopkinsCasingDrill Method:NDD/PTSurface	Type: N Diam. (/idth (mm I/A mm): N// etion: Ba	4		Elev Elev Eas	ation ation ting (N	(Groi (Cas //GA)	vel (m bg und): - e): - : 316211): 64113			CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill			0					0.1			
Gravelly sand, red brown with red, moist, fine to medium grained sand, poorly sorted, gravels are								0.1			
angular, coarse, no odour, no staining Fill Reworked clay, brown with grey and red mottling, moist, plastic, some gravels inclusions (cobble sized gravel, rounded), charcoal inclusions, no odour, no			- - -		DS	N		0.4	BF_SB	06_0.5	
Staining Clay Natural, red brown, moist, highly plastic, no odour, no staining, becoming grey with brown mottling from 1.4mbgl, some weathered shale gravel inclusions			- 1 -					0.1			
			- - -					0.5			
			2 _ _ _ _								
Clay Brown and grey mottled, dry, firm to stiff, low plasticity, shale and ironstone gravel bands at 3.0 to			-		US	N		0.5	BF_SB	06_2.7	
3.2mbgl, sandstone gravel at 3.3mbgl			- 					0.9			
End of Log			_								
			-4 - -								
			- - -								
			_ _ 5								

Log By: HC/JG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswel		SW									ID: BF_	_SB07
Drill Finish Date: 6/12/2013 Drill Co: Numac Driller: Mick Hopkins Drill Method: NDD/PT	Total Dep Hole Diar Casing Ty Casing D Surface C Water Str	m. / Wi ype: N iam. (r Comple	idth (mm) / A mm): N/A etion: Ba	L .		Elev Elev Eas	ation ation ing (N	(Grou (Case MGA):	vel (m bo und): - e): - : 316213): 64113	3		ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface				_0								
Asphalt Fill Sand, road base, dark grey, moist, fine to media grained, no odour, no staining, minor gravels Fill Sandy gravel, dark grey, moist to dry, coarse to cobbles, rounded and angular, river gravels/sha odour, no staining	/					DS	N		0.7	BF_SB	07_0.75	-
Fill Reworked clay, dark grey and brown, moist, pla \gravel inclusions, no odour, no staining	astic,			1 _ _					0.7			
Clay Natural, grey with brown mottling, moist, plastic odour, no staining, becoming brown with grey mottling from 1.4mbgl	, no			- - -		DS	N		1.4	BF_SB	07_1.5	-
Clay Orange and grey mottled, some sand, low plast moist, firm becoming stiff, increasing sand conte from 2.5mbgl				- -2 - - - -								
				- - 3		US	N		0.9	BF_SB	07_2.9	_
End of Log				- - -								
				- - -								
				4 								
				- - -								
				- - 5								

Log By: HC/JG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,										ID: BG	_MW01
Drill Co: Numac Casing Driller: Scott Jessup Casing Drill Method: NDD/PT/SFA Surface	am. / W Type: F Diam. (Compl	idth (mm	tic		Elev Elev Easi	ration ration ting (N	(Gro (Cas //GA)	vel (m bg und): 170 e): 170.0 : 307551 .): 64140	.15 3 .801		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			_0								
Fill Sandy clay with some gravel, brown, dry, stiff, non plastic, organic matter, rootlets throughout			-		DS	N		0.4	BG_MV	/01_0.2	-
Gravelly Clay Brown, moist, soft, low plasticity, no odour, no staining, sub rounded fine gravels throughout			- - - - - -								
Silty Clay Grey, moist, soft, medium plasticity, organic odour, no staining	HHHH										
Silty Clay Red brown with grey mottling, moist, firm to stiff, medium plasticity, organic odour, no staining			2 								
Gravelly Clay Red brown with grey mottling, sub rounded gravels											
Shale Extremely weathered bedrock			- - - - - - -		US	N		1.4	BG_MV	/01_3.8	
			- - 								

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N		1								ID: BG_	MW01	
Drill Start Date: 7/11/2013 Drill Finish Date: 14/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth Hole Diam. / Casing Type Casing Dian Surface Con Water Strike	' Width (mm e: PVC n. (mm): 50 npletion: Ga	ıtic		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bg und): 170 e): 170.03 : 307551): 64140).15 3 .801	ERM Australia Pty Ltd		
Lithology	Svmhol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Gravelly Clay Red brown, moist												
End of Log			 									
			- - - -7									
			- - - -									
			- 									
			- - - - - 9									
			- - -									
			_ _ _ 10									

Log By: SM/AM

Checked By:

Drill Start Date: 7/11/2013 Total De Drill Finish Date: 7/11/2013 Hole Dia Drill Co: Numac Casing ⁻ Driller: Scott Jessup Casing I Drill Method: NDD/PT/SFA Surface Hole Type: Monitoring Well Water S Lithology Ground Surface Concrete Good Condition, no staining Fill Sandy gravel, brown, moist, loose, fine to medium grained, poorly sorted, sub rounded, no odour, no staining Silty Clay Silty Clay Silty Clay with some gravel, grey mottled brown,	am. / W Type: F Diam. (Compl	ridth (mm PVC mm): 50 etion: Ga		Recovery	Elev Elev Eas	ration ration ting (N hing ((Grou (Case /IGA): MGA)	vel (m bgl) ind): 169. e): 169.78 307486.): 641407	92 783		RM stralia Pty Ltd
Ground Surface Concrete Good Condition, no staining Fill Sandy gravel, brown, moist, loose, fine to medium grained, poorly sorted, sub rounded, no odour, no staining Silty Clay	Symbol	Well	Depth (m)	Recovery	mple Type	/sed	a)	e			
Concrete Good Condition, no staining Fill Sandy gravel, brown, moist, loose, fine to medium grained, poorly sorted, sub rounded, no odour, no staining Silty Clay					Sa	Analysed	РРТ (кРа)	(mqq) Olq	Sample	Details	Remarks
Fill Sandy gravel, brown, moist, loose, fine to medium grained, poorly sorted, sub rounded, no odour, no staining Silty Clay			Ŭ								
Sandy gravel, brown, moist, loose, fine to medium grained, poorly sorted, sub rounded, no odour, no staining Silty Clay	\bigotimes		_		DS	N			BG_MW	02_0.2	
moist, soft, low plasticity, no odour, no staining, large shale boulders from 1.3mbgl Gravelly Silty Clay Grey mottled brown, dense, moist, no odour, no staining								1.3			
Clayey Silt Dark grey, low plasticity, soft, minor coarse gravels Gravelly Silty Clay Grey with orange brown mottling								1			

Log By: SM/AM

Checked By:

Drill Co: NumacCasingDriller: Scott JessupCasingDrill Method: NDD/PT/SFASurface	epth (m iam. / W Type: I Diam. (e Comp	/idth (mm) PVC (mm): 50 letion: Ga			Elev Elev Easi	ation ation ting (N	(Grou (Case //GA):	vel (m bgl Ind): 169. e): 169.78 307486.): 641407	.92 3 783		
Hole Type: Monitoring Well Water S	Symbol Symbol	n bgi): -	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		Remarks
Silty Clay Grey to dark grey, soft, very moist, high plasticity, organic odour, no staining Silty Clay	TH H H H		- - - - -								
Silty clay with weathered shale, grey with brown mottling, very moist, high plasticity, organic odour, no staining	H H		—6 - -		US	Y		1.3	BG_MW	/02_6.3	
			- - - - - - - - - - - - - - - - - - -								

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BG_	_MW03
Drill Co: NumacCasingDriller: Scott JessupCasingDrill Method: NDD/PT/SFASurface	iam. / W Type: I Diam. e Comp	/idth (mm)			Elev Elev Eas	vation vation ting (N	(Grou (Case //GA)	vel (m bg und): 170 e): 170.1 : 307471): 64141	.19 1 .044		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Sandy clay with some gravel, brown, dry, stiff, non- plastic, no odour, no staining, rootlets throughout Gravelly Clay Orange brown, moist, soft, non-plastic, no odour, no staining					DS	N		0.1	BG_MW	/03_0.2	
Gravelly Clay Orange brown, dry, medium plasticity, no odour, no staining Gravelly Clay Grey, soft, very moist to wet, high plasticity, no odour, no staining			 2		DS	N		0.1	BG_MW BG_MW		
Gravelly Clay Weathered bedrock, orange brown, dry, medium plasticity, firm								0.7			
End of Log		<u>, perdi (</u>	 5								

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,										ID: BG_I	WW04
Drill Co: NumacCasingDriller: Scott JessupCasingDrill Method: NDD/PT/SFASurface	am. / W Type: F Diam. (Compl	idth (mm	tic		Elev Elev Easi	ation ation ing (N	(Grou (Case //GA)	vel (m bgl und): 170. e): 170.24 : 307492. .): 641418	.38 I 543		SRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Sandy clay with some gravel, brown, dry, stiff, non- plastic, no odour, no staining, weathered shale pieces (reworked) and blue metal at 0.5mbgl			- 0 - - - -		DS	N		0.1	BG_MW	04_0.2	
Gravelly Clay Extremely weathered shale, moist, soft, non-plastic, no odour, no staining											
Clayey Gravel Grey brown, slightly moist, dense, angular quartz gravels and sub angular shale, fine to coarse gravel, no odour			-			N		14	PC MM	104 0 5	
Silty Clayey Gravel Dark grey, sub angular, coarse gravels (shale) Shale Extremely weathered, grey brown, dry, coarse shale gravels intermixed with silty clay, firm, no odour, no staining Shale Extremely weathered, dark grey with orange mottling, moist, low plasticity, occasional small roots					US	N		1.4	BG_MW	G.2-+∪	
Shale Extremely weathered, orange brown, firm, medium plasticity, moist, no odour, no staining			- - 4 					0.6			
End of Log		=.	 								
			_ 5								

Log By: SM/AM

Checked By:

Drill Finish Date: 7/11/2013Hole DDrill Co: NumacCasingDriller: Scott JessupCasingDrill Method: NDD/PT/SFASurface)epth (m iam. / W Type: I Diam. e Comp	Vidth (mm PVC (mm): 50 Iletion: Ga	atic		Elev Elev East	ation ation ting (N	(Grou (Case /IGA)	vel (m bg und): 170 e): 170.14 : 307536.): 641417	.31 1 809		S RM
Hole Type: Monitoring Well Water	Strike (r	n bgl): 3. 	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) Old	Sample		Australia Pty Ltd Remarks
Ground Surface Fill Silty sand with some gravel, dry, dense, fine to medium grained, poorly sorted, no odour, no staining Gravelly Clay Orange brown, moist, soft, non-plastic, no odour, no staining, shale fragments throughout			- 0 		DS	N		0.2	BG_MW	05_0.2	
Silty Clay Silty clay with extremely weathered shale, dark grey, moist, stiff, low plasticity, no odour, no staining, minor roots Gravelly Clay Brown orange, slightly moist, fine to medium sub angular poorly graded gravels, stiff medium plasticity clay, no odour, no staining Clay			2					2			
Orange brown with grey mottling, moist, medium plasticity, no odour, no staining Gravelly Clay Orange brown, very moist, high plasticity, coarse, sub	- - - - - - - - - - - - -										
angular gravel, no odour			4		US	N		2.6	BG_MW	05_3.5	

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		NSW									ID: BG_I	WW05	
Drill Start Date: 7/11/2013 Drill Finish Date: 7/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing Casing Surface	am. / W Type: I Diam. (Comp	vidth (mm)	lic		Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bg ind): 170 e): 170.14 : 307536.): 641417	.31 1 809	ERN		
Lithology			Mell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
End of Log				-									
				—6 - - - -									
				- - - 7 - - -									
				- - - - 8 -									
				- - - -									
				9 - - - - -									
				- - - 10									

Log By: SM/AM

Checked By:

enconce by.

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BG_	MW06
Drill Co: NumacCasingDriller: Scott JessupCasing	am. / W Type: F Diam. (Compl	/idth (mm PVC (mm): 50 letion: Ga			Elev Elev Eas	vation vation ting (N	(Grou (Case MGA):	vel (m bg und): 171 e): 171.55 : 307569.): 641412	.65 5 451		CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Silty sand with some gravel, dry, dense, fine to medium grained, poorly sorted, no odour, no staining			- 0 		DS	N		0.8	BG_MW	/06_0.2	
Clay Red brown, moist, medium stiff, low plasticity, rootlets throughout, grey mottled red from 1.1mbgl, rootlets throughout Gravelly Clay Gravelly Clay with weathered shale, grey clay with red brown coarse gravels, slightly moist, very firm, low plasticity, no odour, no staining											
			2		US	N		1.8	BG_MW	/06_3.0	
	- - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.8</td> <td></td> <td></td> <td></td>							1.8			
Clay Red brown, moist to very moist											

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Musv										ID: BG	_MW06
Drill Start Date: 7/11/2013 Drill Finish Date: 14/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (m Hole Diam. / W Casing Type: I Casing Diam. (Surface Comp Water Strike (n	/idth (mm) PVC (mm): 50 letion: Ga			Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bg und): 171 e): 171.5 : 307569): 64141;	5 .451		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Shale											
Bedrock, grey, dry, no odour, no staining End of Log			- - - - 6								
			- - 7 -								
			- 9 								
			_ 10								

Log By: SM/AM

Checked By:

Drill Finish Date: 14/11/2013 Hole Di Drill Co: Numac Casing	NSW epth (m): 5 am. / Widt Type: PV(Diam. (mr	h (mm): 1 C	00		Elev Elev	ation ation	(Grou (Case	vel (m bç ınd): 176 e): 176.0 307602	3	ID: BG	MW07
Drill Method: NDD/PT/SFA/AH Surface	Completi Strike (m b	on: Gatic	Depth (m)	Recovery		hing (): 64140 (wdd) CId		ERM A	LINIVI Australia Pty Ltd Remarks
Ground Surface Fill Sandy gravel (gravel road base), grey, dry, dense, fine to medium, angular, poorly sorted, no odour, no staining Fill Sandy gravel, orange brown, moist, medium dense, fine to medium Sandy Clay Sandy clay with some gravel, orange brown, moist,			0		DS	N		0	BG_MW	07_0.2	
non plastic, no odour, no staining Siltstone Siltstone with some clay, moist, orange brown, highly weathered, no odour, no staining, becoming light grey at 5.0mbgl			2		DS	N		0	BG_MW	07_1.6	
			3								
			4								

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, I		NSW									ID: BG_I	WW07	
Drill Start Date: 7/11/2013 Drill Finish Date: 14/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Casing ⁻ Casing I	am. / W Type: F Diam. (Compl	/idth (mm) PVC [mm): 50 letion: Ga			Elev Elev Eas	ation ation ting (N	(Grou (Case //GA)	vel (m bgl und): 176. e): 176.03 : 307602.): 641407	.11 3 182	ERM Australia Pty Ltd		
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
				-									
End of Log				-									
				—6 - -									
				-									
				- 7 -									
				- - - 8									
				-									
				—9 - -									
				- - -									
				- - —10									

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N	ISW									ID: BH_I	MW01
Drill Start Date: 8/11/2013Total DeDrill Finish Date: 21/11/2013Hole DiaDrill Co: NumacCasing TDriller: Wade MangerCasing DDrill Method: NDD/PT/SFASurfaceHole Type: Monitoring WellWater St	m. / W Type: P Diam. (i Comple	idth (mm VC mm): 50 etion: Ga			Elev Elev Eas	ation ation ing (N	(Grou (Case /IGA):	vel (m bg und): 180 e): 180.0 : 307374): 641379	.19 8 .583		ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Clayey Silt, brown, dry, no odours no staining /			_0		DS	N		0	BH_MW	/01_0.1	
Fill Silty Gravel, brown, dry, fine to coarse, sub rounded gravels, medium dense, no odours			- - -					0			
Fill Shale boulders, weathered, grey, dense Fill Gravelly clay, grey, mottled orang-brown, moist, medium-stiff, non-plastic, no odour or staining, weathered shale and sandstone fragments			 					0.1			
throughout			 2 					0.1			
			- - - - - - - - - - - - - - - - - - -					0.1			
Fill			 4 					0.1			
Silty clay, olive-brown, moist, soft, high plasticity, no odour or staining			-		US	Y		0.2	BH_MW	/01_4.5	
Clay Red-brown, mottled grey, moist, stiff, no odour or staining, fully weathered shale			- - - 								

Log By: AM/SM

Checked By:

Total Depth (m): 9 Hole Diam. / Width (mm): Casing Type: PVC Casing Diam. (mm): 50 Surface Completion: Gati Water Strike (m bgl): 7		Elevati Elevati Eastino Northir	tion (Grou tion (Case ig (MGA):	vel (m bgl): und): 180.1 a): 180.08 : 307374.50): 6413794	19	ERM Australia Pty Ltd Remarks
Symbol		Sample Type	Analysed PPT (kPa)	Q	Sample Details	Remarks
	-6			0		
	-7			0		

Log By: AM/SM

Checked By:

Drill Finish Date: 21/11/2013 Hole D	Depth (m	/idth (mi	n): 125		Elev	ation	(Grou	vel (m bç ınd): 180).3	ID: BH	
Driller: Wade Manger Casing Drill Method: NDD/PT/SFA Surfac	Diam. e Comp	(mm): 50 letion: G n bgl): 5	atic		Eas	ting (N	/GA)	: 307419): 64137	.737		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OI9	Sample	Details	Remarks
Ground Surface Fill Clayey Silt			 		DS	N		0	BH_MW	/02_0.1	
Fill Extremely weathered shale/gravels with silt intermixed, grey, dry, dense, no odour or stain			- - -		DS	Y		0	BH_MW	/02_0.5	
			- - - - - - - - -		DS	Y		1	BH_MW	/02_1.0	
			-					0.1			
			- 2 - - - - - - - - - - - - - - - - - -					0.1			
Fill Clay, dark grey, moist, very soft, high plasticity, no					US	Y		0.2	BH_MW	102_3.7	
odour or staining Gravelly Clay Orange-brown, moist, medium stiff, non-plastic, no odour or staining, highly weathered shale								0.1			
			5					0.1			

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook										ID: BH_I	WW02
Drill Finish Date: 21/11/2013Hole DDrill Co: NumacCasingDriller: Wade MangerCasingDrill Method: NDD/PT/SFASurface	g Type: g Diam. e Comp	Vidth (mm	atic		Elev Elev East	ration ration ting (N	(Groi (Cas VGA)	vel (m bg und): 180 e): 180.1 : 307419 .): 641374	.3 7 .737		CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
Silty Clay Grey-brown, moist to wet, soft, medium plasticity, no odour or staining	THHHH		- 		US	Y		0.1	BH_MV	V02_5.7	
	THHHHH		- - - - - - - - - - -					0			
	H H H							0.1			
End of Log			- - - -								
			- - - - 9								
			- - -								
			- - - 								

Log By: AM/SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N Drill Start Date: 7/11/2013 Total De Drill Start Date: 19/11/2013 Hole Dia Drill Co: Numac Casing T Driller: Wade Manger Casing D Drill Method: NDD/PT/SFA Surface Hole Type: Monitoring Well Water St	pth (m ım. / W Type: F Diam. (Compl	/idth (mm PVC (mm): 50 letion: Ga	tic		Elev Elev East	ration ration ting (N	(Gro (Cas //GA)	vel (m b; und): 179.8 e): 179.8 : 307503 (): 64136	36 3.506		_MW03
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Concrete Fill	~~~		- -								-
Gravels, orange-brown, sub rounded, coarse gravel,	$\sum_{i=1}^{i}$		-		DS	Y		0	BH_MW	03_0.3	-
Sandstone Extremely weathered sandstone/shale, orange and brown (clays), minor red iron stone gravel, no odour no staining. Red iron oxide mottles throughout								0.1			
no staining. Red fron oxide motiles throughout			- 1		DS	Y		0.1	BH_MW	03_1.0	
			- - - - - - - - - - - - - - - - - - -					0.1			
			- 4 					0.1			
			-		US	Y		0	BH_MW	03_4.5	-
			-								
			_ 5					0.1			

Log By: AM/SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Muse Drill Start Date: 7/11/2013 Drill Finish Date: 19/11/2013 Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA Hole Type: Monitoring Well		50 Gatic		Elevat Elevat Eastin	tion (Gro tion (Cas ıg (MGA)	vel (m bgl und): 179. e): 179.86 : 307503. \): 641363	96 506		AW03
Lithology	Symbol Weil	Depth (m)	Recovery	Sample Type	Analysed PPT (kPa)	PID (ppm)	Sample	Details	Remarks
Silty Clay Grey, wet, medium stiff, moderate plasticity, or staining. Completely weathered shale.						0.1			
		- - - - 10							

Log By: AM/SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BH_	_MW04
Drill Start Date:8/11/2013Total DuDrill Finish Date:19/11/2013Hole DiDrill Co:NumacCasingDriller:Wade MangerCasingDrill Method:NDD/PT/SFASurfaceHole Type:Monitoring WellWater Start	am. / W Type: P Diam. (I Comple	ridth (mr PVC mm): 50 etion: G	atic		Elev Elev East	ation ation ing (N	(Gro (Cas //GA)	vel (m b) und): 17 e): 179.8 : 307586 .): 64136	33 5.064		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Concrete			-0								
Acid etching in adjacent open drain evident, no			_		DS	Y		0.2	BH_MW	04_0.2	-
staining Fill Gravelly sand, red, moist, medium dense, fine to coarse, poorly sorted, no odour or staining	/		-					0.3			
Fill Silty clay with trace gravel, grey-brown mottled orange, moist, soft, low plasticity, no odour or staining, trace rootlets			- - - -1					0.2			
Fill Clayey gravel, brown moist, medium denese, fine to coarse, poorly sorted, subangular, no odour or staining			-					0.1			
Silty Clay Brown, moist, soft, medium plasticity, no odour or staining. Weathered shale pieces increasing with depth	TH H		- - 2					0.2			
	H H H		- - -								
	H		-								
	TH		- 		US	Y		0.1	BH_MW	04_3.0	-
Shale Brown, dry, very fine grained, soft, highly weathered, no odour or staining			-								
			_ _ 4					0.1			
			- - - - - 5					0.1			

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mu Drill Start Date: 8/11/2013 Drill Finish Date: 19/11/2013	Iswellbrook, NSW Total Depth (m): Hole Diam. / Wid	th (mm): 125		Eleva	ation (C	Level (m k Ground): 17	9.98	ID: BH_I	
Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing Type: PV Casing Diam. (m Surface Complet Water Strike (m b	m): 50 ion: Gatic		Easti	ng (MC	Case): 179 . GA): 30758 GA): 6413	6.064		LRM ustralia Pty Ltd
Lithology	Symbol	Well Depth (m)	Recovery	Sample Type	Analysed	PID (ppm)	Sample	e Details	Remarks
Clay Grey, mottled brown, moist, soft, medium no odour or staining, fully weathered shale	plasticity,					0.1			
		- - - - - - - - - - - 10							

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N	NSW									ID: BH_	_MW05	
Drill Co: Numac Casing [*] Driller: Adrian Jarvis Casing I	am. / W Type: F Diam. (Compl	ridth (mm PVC mm): 50 etion: Mc): 150 onument		Elev Elev Eas	vation vation ting (N	(Grou (Case VGA)	vel (m bg und): 180 e): 180.84 : 306821. .): 641407	.25 4 781	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Silty sand, brown, dry, dense, fine grained, moderately sorted, no odour or staining			0 _		DS	N		0	BH_MV	/05_0.2		
Clayey Gravel Orange-brown, dry, dense, medium to coarse, poorly sorted, subangular, no odour or staining. Shale pieces throughout								0.1				
	+ 0 1 + 0 1 + 0 1 + 0 1 + 0 1 + 0 1 + 0 1 + 0 1 + 0 1 + 0 +		- - - - -					0.1				
			- - - 2 					0				
Clay Black, mottled grey, moist, soft, medium, plastic,			- - - - - -					0				
Organic odour Sandy Clay Brown, mottled, orange, grey, moist, soft, non plastic, no stain no odour			- - - -					Ū				
			- - 4 - -					0				
			- - - - - - - 5					0				

Log By: SM/TC

Checked By:

Drill Finish Date: 19/11/2013HDrill Co: NumacCDriller: Adrian JarvisCDrill Method: NDD/PT/SFAS	otal De lole Dia asing T asing E urface	pth (m) m. / Wi ⁻ ype: P Diam. (r Comple	idth (mm VC nm): 50): 150 nument		Elev Elev Eas	ation ation ting (N	(Grou (Case /IGA):	vel (m bg und): 180 e): 180.8 : 306821): 64140	.25 4 .781		WW05
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
Clay Black, mottled grey, moist, soft, medium, plastic, organic odour Sandy Clay Brown, mottled red and grey, moist, soft, non plas no staining, no odour Shale Weathered shale, red brown, moist, friable no odo no staining						US	Y		0	BH_MW	/05_6.0	
End of Log				—10								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I	NSW									ID: BH_	_MW06
Drill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PT/SFASurface	am. / Wi Type: P Diam. (r Comple	idth (mm) VC	nument		Elev Elev Eas	ration ration ting (N	(Grou (Case //GA):	vel (m bo und): 180 e): 181.0 : 306773): 64140)2 3.017		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Silty sand, brown, dry, dense, fine grained, moderately sorted, no odour or staining			0 		DS	N		0.3	BH_MW	/06_0.2	
Fill Clayey gravel, grey-brown, moist, dense, fine to coarse, poorly sorted, subangular, no odour or staining. Shale boulders and cobbles throughout			- - - -					0.3			
			- 					0.3 0.2			
Sandy Clay Brown, mottled black, moist, soft, non plastic, no stain, no odour			- - - - 2 - - - - -								
clay Black, mottled grey, moist, soft, medium, plastic, organic odour Sandy Clay Grey, mottled red, moist, soft, non-plastic, no stain, no odour			- - - - - - - -								
Sandy Clay Grey, mottled brown, moist, soft, non-plastic, no stain no odour			- - - - - - - - - - - - - - - - - - -								
			- - 5		US	Y			BH_MW	/06_4.9	

Log By: SM/TC

Checked By:

Drill Finish Date:19/11/2013HDrill Co:NumacCDriller:Adrian JarvisCDrill Method:NDD/PT/SFAS	rook, NSW otal Depth (r lole Diam. / V casing Type: casing Diam. curface Comp Vater Strike (Vidth (mm PVC (mm): 50 pletion: Mo	nument		Elev Elev East	ation ation ing (N	(Grou (Case //GA)	vel (m bg und): 18(e): 181.0 : 306773): 64140)2 3.017	ID: BH_MW06		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Shale Weathered, brown, wet, friable, no stain no odour			- - - - - - - - - - - - - - - - - - -									

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro	ok, NSW									ID: BH_	MW07
Drill Finish Date:19/11/2013HolDrill Co:NumacCaseDriller:Adrian JarvisCaseDrill Method:NDD/PT/SFASur	al Depth (n e Diam. / V sing Type: I sing Diam. face Comp ter Strike (r	Vidth (mm PVC (mm): 50 Iletion: Ga			Elev Elev Easi	ation ation ting (N	(Grou (Case //GA)	vel (m bg und): 180 e): 179.9 : 306640): 64140).06 8 .867		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			0								
Concrete Good condition, no staining Fill			-		DS	N		0.2	BH_MW	/07_0.2	
Gravelly clay, brown, moist, soft, non-plastic, no odour or staining, weathered shale and iron stone gravel throughout			-		DS	Y		0.1	BH_MW	/07_0.5	
Shale Grey, dry, no stain, no odour					US	Y		-	BH_MW	/07_0.8	
End of Log			- 								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 8/11/2013 Total D	epth (m							vel (m bg		ID: BH_I	MW08	
Drill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFA/AHSurface	Type: F Diam. (e Compl	/idth (mm) PVC mm): 50 etion: Ga n bgl): 5.5	tic		Elev Eas	ation ting (N	(Cas /IGA)	und): 179 e): 179.82 : 306622. .): 641414	2 375	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Concrete			_0									
Acid etching evident on concrete surface adjacent			_		DS	Y		0.1	BH_MW	08 0.25		
Fill Gravelly sand, grey, dry, hard, coarse grained, poorly sorted, subangular, no odour or staining (compacted roadbase)	/		-					0.2	_			
Fill Gravelly clay, orange-brown, moist, stiff, non-plastic, no odour or staining			- - 1 -					0.1				
Sandstone Grey, dry. Potential hydrocarbon odour noted from 3.0m bgl. Wet from 5.5m bgl			- - - - - - - - - - - - - - - - - - -									
			3 3 					36.6				
								27.8				
			- - 5					16.6				

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Must Drill Start Date: 8/11/2013				Fina	al Wate	er Lev	vel (m bç	gl): 2.16	ID: BH_	MW08
Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Hole Diam. / Width (m Casing Type: PVC Casing Diam. (mm): 5 Surface Completion: (Water Strike (m bgl): 5	0 Gatic		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):	ind): 179 e): 179.8 306622): 64141).99 2 .375		ERM Lustralia Pty Ltd
Lithology	Symbol	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OI9	Sample	Details	Remarks
		- - 6					0			
End of Log		<u>-</u> - - -					0			
		- - - - 8								
		- - - - 9								
		- - -								
		- - - -10								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook									0.	ID: BH	_SB01	
Drill Finish Date: 20/11/2013Hole DDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurface	g Type: I g Diam. (/idth (mm N/A (mm): N/A letion: Ba	۱. ۱		Elev Elev Eas	vation vation ting (I	(Grou (Case MGA)	vel (m bg und): - e): - : 306681): 64141		ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Concrete Good condition, no staining			0 _ _		DS	N		0.3	BH_SB	01_0.2		
Fill Sandy clay with gravel, orange-brown, dry, stiff, non- plastic, no odour or staining, weathered shale fragments throughout			- - -					0.2				
			- - 1 -					0.3				
Shale Weathered Shale, red brown, dry, friable, no stain no odour			- - -		US	Y		0.2 0	BH_SB	01_1.7		
End of Log			- 2 -									
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			- - -									
			- - - 5									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Baysw Site Name: Bayswater Power Station Site Address: New England Highway, Mus										ID: BH_S	SB02	
Drill Start Date: 13/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT Hole Type: Soil Bore	Total Depth (m Hole Diam. / W Casing Type: N Casing Diam. (Surface Compl Water Strike (m	/idth (mm I/A [mm): N// letion: Ba	A		Elev Elev Eas	vation vation ting (N	(Grou (Case 1GA):	,		ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Concrete Good condition, no staining			0 					0.2				
Fill Sandy gravel, grey, dry, loose, fine grained, sorted, no odour or staining (road base)	poorly		- - -		DS	N		0.1	BH_SB	02_0.5		
Clayey gravel, brown, moist, dense, fine to o poorly sorted, subangular, no odour or stain pieces throughout Shale Grey, dry, fine grained End of Log	uing, shale											

Log By: SM/TC

Checked By:

Jileckeu Dy.

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N Drill Start Date: 18/11/2013 Total Dep Drill Start Date: 20/11/2013 Hole Dia Drill Co: Numac Casing T Driller: Adrian Jarvis Casing D Drill Method: NDD/PT Surface O Hole Type: Soil Bore Water St	pth (m m. / W Type: N Diam. (i Compl	idth (mm) I/A mm): N/A etion: Ba	L		Elev Elev East	ation ation ing (N	(Grou (Case /IGA)	vel (m bų ınd): - e): - : 306591): 64140	14	_SB03
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
Ground Surface Fill Silty sand, brown, dry, medium dense, fine grained, moderately sorted, no odour or staining, rootlets throughout Sandy Clay Red-brown, dry, medium stiff, non-plastic, no odour or staining			0 		DS	N		0.1 0.1	BH_SB03_0.2	-
or staining Shale Weathered, red, brown, dry, friable, no stain no odour Shale Grey, dry End of Log					- DS US	YY		0.1	BH_SB03_1.0 BH_SB03_1.1	

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, M Drill Start Date: 18/11/2013 Total De	epth (m							vel (m bi	gl): -	ID: BH	_SB04	
Drill Co: Numac Casing Driller: Adrian Jarvis Casing I	Type: N Diam. (Compl	mm): N/A etion: Ba			Elev East	ation ing (N	(Cas MGA)	und): - e): - : 306592 .): 64140		ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			-0									
FIII Silty Sand, grey, dry, loose, fine to medium, poorly sorted, no odour or staining			-					0.1			-	
Sandy Clay			_		DS	N			BH_SB		_	
Orange-brown, moist, soft, low plasticity, no odour or staining, Highly weathered shale pieces throughout.			_		DS	Y		0.2	BH_SB	04_0.5	-	
			_									
Shale			- 1									
Grey, dry, no stain, no odour			_									
End of Log			-									
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Log By: SM/TC

Checked By:

Drill Co: Numac Casing Driller: Adrian Jarvis Casing	epth (m am. / W Type: N Diam. (Compl	/idth (mm) \/A (mm): N/A letion: Ba			Elev Elev East	ation ation ing (I	(Groi (Cas (GA)	vel (m by und): - e): - : 307537): 64135	7		_SB05
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Clayey Silt			0		DS	N		0	BH_SB	05.01	
Brown, dry, hard, low plasticity, no odour, salt crust at surface adjacent to low area. Shale Extremely weathered, grey with orange staining								0		05_0.1	
			 1 					0			
Shale Siltstone, grey brown, dry, friable/fractured, becoming harder with depth			- - -		DS	Y		6.6	BH_SB	05_1.55	-
End of Log			- - - - - - - - - - - - - - - - - - -								

Log By: SM/HC

Checked By:

	bk, NSW Il Depth (n ∋ Diam. / V): 80					vel (m bg und): -	ıl): -	ID: BH_	SB06
Drill Co: NumacCasDriller: Wade MangerCasDrill Method: NDD/PTSurf	ing Type: l ing Diam. ace Comp er Strike (r	N/A (mm): N/A eletion: Ba	4		Elev Eas	ation ing (N	(Cas //GA)				ERM
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Concrete			0-0								
Good condition, no staining Fill					DS	N		0.1	BH_SB	06_0.25	
Gravelly sandy clay, red-brown, moist, soft, low plasticity, no odour or staining			-					0.1			
Gravelly Clay Grey, mottled orange, moist, low plasticity, no odour or staining		-	- - - -					0.2			
Shale	<u> </u>		-1								
Grey, moist, soft, highly weathered			_					0.4			
			-		US	Y		0.1	BH_SB	06_1.6	
End of Log			2 2 3								

Log By: SM

Checked By:

Drill Finish Date:28/11/2013Hole DDrill Co:NumacCasingDriller:Adrian JarvisCasing	bok, NSW tal Depth (m): 3.1 Final Water Level (m bgl): - ble Diam. / Width (mm): 85 Elevation (Ground): - using Type: N/A Elevation (Case): - using Diam. (mm): N/A Easting (MGA): 307553 Irface Completion: Backfilled Northing (MGA): 6413727 ater Strike (m bgl): -										SB07
			ackfilled		Nor	hing	(MGA): 641372	27		Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Concrete			-0								
Good condition, no staining			F		DS	N		0	BH_SE	807_0.2	
Fill Gravelly sand, red-brown, moist, loose, fine to			F								
Coarse, poorly sorted, no odour or staining Fill Gravelly clay, grey-brown mottled orange, moist, soft, non-plastic, no odour or staining								0			
			-1					0.1			
			-								
			- - - -					0			
			- - -2 - -								
Fill											
Reworked siltstone, black, dry, no odour, no staining	1		F					2.4			
Gravelly clay, brown with grey mottling, moist, gravel inclusions, shale, no odour, no staining								2.4			
End of Log			-								
			F								
			-								
			F								
			4								
			E								
			E								
			F								
			F								
			—5								

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo										ID: BH_	SB08
Drill Finish Date: 19/11/2013 Hole Drill Co: Numac Casi Driller: Wade Manger Casi Drill Method: NDD/PT Surfa	l Depth (m Diam. / W ng Type: I ng Diam. ace Comp er Strike (r	/idth (mn N/A (mm): N/ letion: Ba	A		Elev Elev Eas	vation vation ting (I	(Grou (Case (GA)	vel (m bg und): - e): - : 307602 .): 64137 4			ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			0								
Concrete			F								
Fill Clay, orange-brown, moist, high plasticity, minor			F		DS	N		0	BH_SB	08_0.3	
coarse to large gravels, subrounded, firm, no odour or staining			F		DS	Y		0	BH_SB	08_0.5	
			- - - -1					0			
			F								
								0.3			
Clay Grey, mottled orange-brown, moist, medium stiff, moderate plasticity, no odour or staining, Friable weathered shale throughout			- - -2 - -					0.1			
			- - - -								
	\geq		_3		US	Y		0.1	BH_SB	08_3.0	
			-								
End of Log			-								
			_ 4 _								
			- -								
			5			1					

Checked By:

Drill Finish Date: 20/11/2013Hole IDrill Co: NumacCasimDriller: Eric GrimaCasim	bk, NSW I Depth (m): 14.5 Final Water Level (m bgl): 7.82 Diam. / Width (mm): 150 Elevation (Ground): 179.94 Ing Type: PVC Elevation (Case): 179.83 Ing Diam. (mm): 50 Easting (MGA): 307382.151 ace Completion: Gatic Northing (MGA): 6414012.189 er Strike (m bgl): 8.7 Enter Strike (m bgl): 8.7										
					Nor	thing	(MGA): 641401	2.189	ERM A	ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Concrete Good condition, no staining			-0					0			
Fill Gravelly clay, brown, moist, soft, low plasticity, no odour or staining			-		DS	N		0.1	BI_MW	01_0.5	
Gravelly Clay Brown mottled, orange and grey, moist, soft, low plasticity, no odour or staining, weathered shal fragments throughout			- - - - - - -					0			
			- - - - - - - 2					0			
Gravelly Clay	++ 										
Grey brown, soft, moist, high plasticity, no odour or staining Sandstone			- 		US	Y		0.1	BI_MW	01_3.0	
Highly weathered, orange brown with red/brown gravels, very dense, cobbles, no odour or staining			-								
Sandstone Bedrock			- - - - - -					0			

Log By: SM/AM

Checked By:

checked by.

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Ba Site Name: Bayswater Power Station Site Address: New England Highway,										ID: BI_M	W01
Drill Start Date: 12/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (m Hole Diam. / W Casing Type: P Casing Diam. (Surface Compl Water Strike (m	idth (mm): PVC mm): 50 etion: Gat	ic		Elev Elev Eas	vation vation ting (N	(Grou (Case MGA):	vel (m bg ind): 179 e): 179.8: 307382.): 641401	.94 3 .151		STATES IN THE INFORMATION INTERVALUE INTERV
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Clay Dark brown			- - - - - - - - - - - - - - - - - - -								

Log By: SM/AM

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, I										ID: BI_M	W01
Drill Start Date: 12/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (Hole Diam. / Casing Type: Casing Diam Surface Com Water Strike	Width (mm : PVC . (mm): 50 pletion: Ga	tic		Elev Elev Eas	vation vation ting (N	(Grou (Case /IGA):	vel (m bg und): 179 e): 179.8 3 : 307382.): 641401	.94 3 .151		STATES IN THE STATES INTO A ST
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Gravelly Clay Red-brown, moist											
End of Log			- - -								
			_ 15								

Log By: SM/AM

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswell		W									ID: BI_I	MW02
Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT	Total Depth Hole Diam. Casing Typ Casing Dian Surface Co Water Strik	. / Width be: PVC .m. (mm) ompletion	(mm):): 50 n: Gat			Elev Elev Eas	ation ation ing (N	(Groi (Cas VGA)	vel (m bg und): 179 e): 179.8 : 307405 .): 64139	33 5.821		ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface				-0								
Good condition, no staining		\otimes		-		DS	N		0.2	BI_MW	02_0.2	
Fill Gravelly Clay, brown, moist, soft, non-plastic, no odour or staining	»			-					0.2			
Fill Silty Clay with some gravel, brown, moist, soft, r plasitc, no odour or staining, weathered shale fragments throughout	non-			- - - -1					0.1			
Fill				-								
Gravelly Clay, brown, mottled orange and grey, moist, soft, non-plastic, no odour or staining				-		DS	Y		0.2 0	BI_MW	02_1.5	-
				- - 2 -					0			
				- - - -								
				- - 3		US	Y		0.1	BI_MW	02_3.0	-
Fill Gravelly clay, orange-brown and red, coarse, gr to cobbles, moist, medium-dense, no odours	ravels			-								
Fill Silty Clay, dark brown, moist, medium plasticity, no odours	firm,			-								
Fill Gravelly clay, orange mottled pale grey, moist, r odours	no			- 4 -					0.2			
Fill Clayey gravel, brown, moist, dense to very dens	se			-								
Sandstone Weathered, moist, brown, very dense, no odour Sandstone	rs			- -								
Orange-brown, moist, very dense, no odours				- - 5								

Log By: SM/AM

Checked By:

Drill Start Date: 12/11/2013 Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT Hole Type: Monitoring Well Lithology	Total Depth (m): 10.3 Hole Diam. / Width (m Casing Type: PVC Casing Diam. (mm): 5 Surface Completion: (Water Strike (m bgl): 7	ım): 125 0 Gatic		Elev Elev	ation	(Grou	vel (m bgl ind): 179.			
Lithology	lool			Nort	ing (N	/GA):	e): 179.83 307405.4): 641395	821		RM Istralia Pty Ltd
	Symt Nell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks

Log By: SM/AM

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N Drill Start Date: 12/11/2013 Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT	Iuswellbrook, N Total Dep Hole Diar Casing T Casing D Surface C	pth (m) m. / W Type: P Diam. (i Comple	ridth (mm) PVC mm): 50 etion: Gat	tic		Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bo nd): 179 e): 179.8 307405): 64139	3 .821	S RM
Hole Type: Monitoring Well	Water St	Rike (m Symbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Remarks
End of Log											

Log By: SM/AM

Checked By:

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Drill Finish Date: 21/11/2013HoleDrill Co: NumacCasirDriller: Eric GrimaCasirDrill Method: NDD/PT/SFASurfa	k, NSW Depth (m Diam. / W Ig Type: I Ig Diam. (ce Comp r Strike (n	Vidth (mi PVC (mm): 50 letion: G) iatic		Elev Elev Eas	vation vation ting (N	(Gro (Cas //GA)	vel (m bg und): 180 e): 180 : 307447 .): 64139	.06		AW03
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Concrete Good condition, no staining			-								
Fill Sandy gravel, grey, moist, dense, fine to medium,			-		DS	Y		0.1	BI_MW0	03_0.25	
Fill Gravelly clay, grey, mottled orang-brown, moist, medium-stiff, low plasticity, no odour, or staining,					DS	N		0.1	BI_MW	03_0.6	
weathered shale pieces throughout			- 1 -					0.2			
			- - - - - - - - - - - - - - - - - - -					0.1 0.2			
Fill Gravelly clay, brown with grey mottling, moist, soft to firm, coarse angular gravels, no odour			- - -2 - -		US	Y		0.2	BI_MW	03_2.0	
			- - - - 3 - - - - - - -					0.3			
			_		US	Y		0.3	BI_MW	03_3.8	
			- 4 - - - - - - - - - - - - 5								

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N	luswellbrook, N										ID: BI_M	W03
Drill Start Date: 20/11/2013 Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total De Hole Dia Casing T Casing E Surface Water St	ım. / Wic Type: P\ Diam. (m Comple	dth (mm): /C nm): 50 tion: Gati	ic		Elev Elev Eas	vation vation ting (N	(Grou (Case MGA):	vel (m bg und): 180 e): 180 : 307447.): 641398	.06 614		RM astralia Pty Ltd
Lithology		× Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Clayey Gravel Weathered bedrock, moist, dense, fine t				- - - - - - - - - - - - - - - - - - -								

Log By: SM/AM

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N										ID: BI_I	MW03
Drill Start Date: 20/11/2013 Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Finish Date: 21/11/2013 Hole Diam. / Width (r Co: Numac Casing Type: PVC er: Eric Grima Casing Diam. (mm): I Method: NDD/PT/SFA Surface Completion: • Type: Monitoring Well Water Strike (m bgl):								ıl): 7.435 0.06 .614 82.628		ERM Australia Pty Ltd
Lithology	Symbol	well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - - -								
			- - - - 11 -								
			- - - - -								
End of Log			- 12 - - - -								
		-	- - - - -13								
		-	- - - -								
		-	- - - - 14 -								
		-	- - - -								
		-	- - 15								

Log By: SM/AM

Checked By:

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)epth (m							vel (m bg	I): -	ID: BJ_N	IW01
Drill Co: Numac Casing Driller: Adrian Jarvis Casing Drill Method: NDD/PT/AH Surface	Type: N Diam. (mm): N// etion: Ba	A		Elev Eas	ation ting (N	(Case MGA):	ınd): - ≥): - : 305326): 641373			RM Istralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			0								
Gravelly Clay Brown, dry, soft, non-plastic, fine to medium grained, sub angular gravel, no staining, no odour			-		DS	N		0	BJ_MW	01_0.2	
	*`_ 		-		DS	Y		0	BJ_MW	01_0.5	
Shale Weathered, red/brown, dry, friable, no staining, no odour											

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Baysw Site Name: Bayswater Power Station Site Address: New England Highway, Mus		ISW									ID: BJ_N	/W01
Drill Start Date: 5/11/2013 Drill Finish Date: 7/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Soil Bore	Total De Hole Dia Casing T Casing E Surface Water St	m. / W ⁻ ype: N Diam. (Compl	idth (mm I/A mm): N/A etion: Ba	L .		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):	vel (m bg und): - e): - : 305326): 64137			IRM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
				- - - -								
				- - 6 -								
				- - - -								
				- 7 7								
Shale Grey, dry, hard, no staining, no odour				- - -								
				-								
				—9 - - -								
				- - - - -								

Log By: TC

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BJ_N	лW02
Drill Finish Date: 7/11/2013 Hole Di Drill Co: Numac Casing Driller: Jeff Black Casing Drill Method: NDD/PT/SFA/AH Surface	Type: N Diam. ('idth (mm I/A mm): N// etion: Ba	A Contraction		Elev Elev Eas	ration ration ting (N	(Grou (Case //GA):	vel (m bgl ind): - e): - 305468): 641346			CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			_0								
Clayey Gravel Light brown, dry loose, fine to medium, well sorted, subrounded, no stain or odour (road base)	*_*_*		- - -		DS	Y		0	BJ_MW	02_0.2	
Sandy Clay Drange-brown, dry, medium stiff, non-plastic, no stain, no odour, trace gravel	* <u>*</u>		- - -					0			
	/ /		- 1 -					0			
			- - -								
			- - 2 -								
			- - -								
			- 					0			
			 - - -								
			4 					0			
Shale Neathered, red-brown, moist, friable, no stain, no odour			- - -		US	Y-			 BJ_MW	02 4.9	
						İ		0			

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		I								ID: BJ_	MW02
Drill Start Date: 4/11/2013 Drill Finish Date: 7/11/2013 Drill Co: Numac Driller: Jeff Black Drill Method: NDD/PT/SFA/AH Hole Type: Soil Bore	ate: 7/11/2013 Hole Diam. / Width (mm): 15 nac Casing Type: N/A Slack Casing Diam. (mm): N/A NDD/PT/SFA/AH Surface Completion: Backfil Soil Bore Water Strike (m bgl): -								ıl): - 69		ERM Australia Pty Ltd
Lithology	or the second	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - - -								
			_ _ _ 6 _					0			
			- - - -								
			- - -7 -					0			
			- - - -								
			- 					0			
			- - - -								
			- -9 - -					0			
			- - - - -					0			

Log By: TC

Checked By:

Page 2 of 3

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Must		SW									ID: BJ_N	ЛW02
Drill Start Date: 4/11/2013 Drill Finish Date: 7/11/2013 Drill Co: Numac Driller: Jeff Black Drill Method: NDD/PT/SFA/AH Hole Type: Soil Bore	Total Dep Hole Diarr Casing Ty Casing Di Surface C Water Stri	n. / Wi /pe: N am. (r comple	idth (mm / A mm): N/A etion: Ba	4		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bg und): - e): - : 305468): 64134			CRM ustralia Pty Ltd
Lithology	=	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
				- - - -								
				- - 					0			
				- - - -								
Shale Bedrock, grey, dry, har, no stain no odour									0			
				_ _ _ 13 _					0			
				- - - -								
				_ 14 _ _ _					0			
				_ _ _ _ _ _ 15					0			

Log By: TC

Checked By:

Page 3 of 3

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo l	k, NSW									ID: BJ_	MW03
Drill Finish Date:8/11/2013HoleDrill Co:NumacCasirDriller:Adrian JarvisCasirDrill Method:NDD/PTSurfa	Depth (m Diam. / W ng Type: N ng Diam. (ce Compl r Strike (m	/idth (mm I/A [mm): N/A letion: Ba	4		Elev Elev Eas	vation vation ting (I	(Groi (Cas (GA)	vel (m bg und): - e): - : 305695 .): 64132:			ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)	PID (ppm)	Sample	Details	Remarks
Ground Surface Sandy Clay Orange-brown, dry, medium, stiff, non-plastic, no stains, no odour, trace gravel			0		DS	N		0	BJ_MW	03_0.2	
Sandy Clay Orange-brown, moist soft, low plastic, no odour								0			
Orange-brown, moist son, low plastic, no odour	/		- - 1								
			-		DS US	Y		0	BJ_MW BJ_MW		
End of Log			- - 2 -								
			- - -								
			- - 3								
			-								
			_ _ _ 4								
			- - -								
			- - -								

Log By: TC

Checked By:

Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswelll Drill Start Date: 1/11/2013			: 1.2			Fina	Wat	erlev	vel (m bg		ID: BJ_I	WW04
Drill Finish Date: 8/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT	Hole Diam. Casing Typ Casing Dia Surface Co Water Strike	. / Wie be: N/ .m. (n omple	dth (mm) /A nm): N/A etion: Bac			Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	und): -	99		ERM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample De	tails	Remarks
Ground Surface Gravelly Clay Organge-brown, dry, medium dense, non-plastic stains, no odour, fine to coarse, subangular grav	c, no *: /el *:			0 		DS	N		0	BJ_MW04_	_0.2	
	4 		-	- - - -					0			
			-	_1 -		US	Y		0	BJ_MW04	_1.1	
				- - - - - - - - - - - - - - - - - - -								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellb	prook, NSW									ID: BJ_	MW05
Drill Finish Date:7/11/2013HDrill Co:NumacODriller:Adrian JarvisODrill Method:NDD/PT/AHS	Fotal Depth (m Hole Diam. / W Casing Type: N Casing Diam. (Surface Compl Water Strike (n	idth (mm I/A mm): N// etion: Ba	A		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA)	vel (m bgl und): - e): - : 305644 .): 641368			ERM Lustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface											
Gravelly Clay Brown, dry, medium stiff, non-plastic, no stains, r odour, medium sub angular gravel			-		DS	Y		0	BJ_MW	/05_0.2	
Shale Weathered shale, brown, dry, friable, no stain no odour			-					0			
			-								
			-								
Shale Grey, dry no stain no odour			2 2								
			-								
			- -								
			- 								
			-								
			-								
			- 4 -								
			- - -								
			-								
			_ 5								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Baysw Site Name: Bayswater Power Station Site Address: New England Highway, Mus		SW									ID: BJ_	MW05
Drill Start Date: 31/10/2013 Drill Finish Date: 7/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Soil Bore	ill Finish Date: 7/11/2013 Hole Diam. / Width (mm): 1! ill Co: Numac Casing Type: N/A iller: Adrian Jarvis Casing Diam. (mm): N/A ill Method: NDD/PT/AH Surface Completion: Backfi ole Type: Soil Bore Water Strike (m bgl): -								vel (m bo ind): - e): - : 305644): 64136			ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
				- - - -								
				- - - 6								
			- - - -	- - - -								
				- - - - -7								
				-								
				- - 8								
				- - - 9								
				-								
				- - 								

Log By: TC

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswat Site Name: Bayswater Power Station Site Address: New England Highway, Muswa Drill Start Date: 31/10/2013			· 15			Fina	I Wat	orlo	vel (m bç	۱ <u>۱</u> ۰۰ -	ID: BJ_I	WW05
Drill Finish Date: 7/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Soil Bore	Hole Diam Casing Ty Casing Dia Surface C Water Stri	n. / Wi /pe: N iam. (r Comple	idth (mm) //A mm): N/A etion: Ba	L .		Elev Elev East	ation ation ing (N	(Groi (Cas VGA)	und): -			CRM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
				- - - -								
				- - 11 								
Shale Brown, soft, clay inclusions, no stain, no odou	r			= - - -								
				- 								
Shale Grey, dry, hard, no staining, no odour				- - -								
				- 								
				- - - - 								
				- - - -								
				- - - - - <u>15</u>								

Log By: TC

Checked By:

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Drill Finish Date: 6/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT		h (m) . / Wi pe: N am. (r omple	dth (mm) /A nm): N/A etion: Bac			Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bg Jnd): - e): - : 305309): 641384			SB01
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
Ground Surface Gravelly Clay Brown, dry, medium stiff, non-plastic, no stains, odour, medium sub angular gravel	no					DS	N		0	BJ_SB	01_0.2	
Shale Weathered shale, brown, dry, friable, no stain n odour End of Log				- - - - - - - - - - - - - - - - - - -								

Log By: TC

Checked By:

Drill Co: Numac Casing ⁻ Driller: Adrian Jarvis Casing I	epth (m am. / W Type: N Diam. (Compl	idth (mm) I/A mm): N/A etion: Ba	L		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bç ınd): - ə): - : 305367): 64137	,		_SB02
Lithology	Symbol	Nell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		Remarks
Ground Surface Gravelly Clay Brown, dry, friable, non plastic, no stain, no odour					DS	N		0	BJ_SB	02_0.2	-
			- - - 1 -					0			
Sandy Clay Grey, mottled red, moist, medium stiff, low plastic, no stain, no odour, trace quartz gravel Shale Weathered Shale, brown, dry, friable, no stain, no odour			 		DS	Y		0	BJ_SB	02_1.6	-
End of Log			2 								
			- - - 3								
			-								
			- 4 								
			 5								

Log By: TC

Checked By:

Drill Finish Date: 6/11/2013HDrill Co: NumacCDriller: Adrian JarvisCDrill Method: NDD/PTS	rook, NSW otal Depth (lole Diam. / casing Type: casing Diam furface Com Vater Strike	Width (mn N/A . (mm): N/ pletion: B a	A		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bç ınd): - e): - : 305317): 64136		ID: BJ_SB03		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Gravelly Clay Brown, dry, medium stiff, non-plastic, no stains, no odour, trace rootlets	0		- 0 		DS	N		0	BJ_SB	03_0.2	-	
	0 		- - 1 - -					0				
Shale	· 		- - -		US	Y		0	BJ_SB	03_1.7		
Weathered shale, red-brown, dry, friable, no stain odour End of Log	h, no		2 3 3 									

Log By: TC

Checked By:

	al Depth (m							vel (m bg	ıl): -	ID: BJ_S	B04
Drill Co: Numac Cas Driller: Adrian Jarvis Cas Drill Method: NDD/PT Sur	e Diam. / V sing Type: I sing Diam. face Comp ter Strike (r	N/A (mm): N/A lletion: Ba	A Contraction		Elev Eas	vation ting (N	(Case MGA)	ind): - e): - : 305415): 64138			RM Istralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Shale Weathered shale, brown, dry, friable, no stain, no odour, trace rootlets			0 - - -		DS	N		0	BJ_SB(04_0.2	
			- - -		US	Y		0	BJ_SB	04_0.7	
			1 								

Log By: TC

Checked By:

Drill Finish Date: 6/11/2013 Hole D Drill Co: Numac Casing	Depth (m Diam. / W g Type: I	/idth (mm	Elev Elev	ation ation	(Grou (Cas	vel (m b; und): - e): - : 305478		ID: BJ_SB05			
Drill Method: NDD/PT Surfac		letion: Ba		Recovery): 64137 (wdd) Old		ERM Au	Istralia Pty Ltd Remarks
Ground Surface	S	>	-0		S	•	•	E			
Shale Weathered Shale, brown, dry, friable, no stain, no odour			-		DS	N		0	BJ_SB0	05_0.2	
			_		US	Y		0	BJ_SB0	05_0.4	

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellb	prook, NS	SW									ID: BJ_	SB06
Drill Finish Date: 4/11/2013HDrill Co: NumacODriller: Adrian JarvisODrill Method: NDD/PTS	Total Dep Hole Diam Casing Ty Casing Di Surface C Water Stri	n. / Wi /pe: N am. (r comple	idth (mm / A mm): N/A etion: Ba	ckfilled		Elev Elev Eas	ration ration ting (N	(Grou (Case MGA):	vel (m bg und): - e): - : 305571): 64136			ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface				0								
Gravelly Clay Grey, dry, stiff, non-plastic, no stain, no odour, medium rounded gravel (road base)	- - - - - - - - - - - - - 	·		-		DS	N		0	BJ_SB	06_0.2	-
Clayey Gravel Orange-brown, moist, medium dense, fine to me gravel, well sorted, sub angular, no stain, no odo	dium a	<u> </u>		- - -					0			
	- - - - - - - - - - - - 	*_• • • • • • •		- 1 -					0			
				- - -		DS	Y		0	BJ_SB	06_1.4	
Silty Sand Brown, wet, dense, very fine grained, well sorted odour or staining	×.	× × ×		- 2 -		US	Y		0.1	BJ_SB	06_2.0	
Clay Red, mottled brown, soft, high plasticity, no odou staining	Ir or			- - -								
						US	Y		0	BJ_SB	06_3.0	-
End of Log				- - - - - - - - - - - - - - - - - - -								

Checked By:

Drill Finish Date:6/11/2013Hole DDrill Co: NumacCasingDriller:Adrian JarvisCasingDrill Method:NDD/PTSurface)epth (m) iam. / W I Type: N I Diam. (I	idth (mm I/A mm): N/A etion: Ba	A Contraction		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bgl) Ind): - e): - : 305598): 641353		ID: BJ_SB07		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks	
Ground Surface Clayey Gravel Grey, dry, medium dense, fine to coarse gravel, well sorted, well rounded, no stains no odour	·				DS	N		0	BJ_SB	07_0.2		
Clayey Gravel Red-brown, moist, loose, fine to medium gravel, well sorted, angular, no stain no odour (weathered shale)			- - - - 1					0				
	** 		- - -		DS US	Y Y		0	BJ_SB BJ_SB			
End of Log			- 2 - 2 2 									

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrod Drill Start Date: 4/11/2013	ok, NSW al Depth (n	a): 2			Fina	L W/at	or Lo	vol (m ba		D: BJ_	SB08
Drill Finish Date: 6/11/2013HoleDrill Co: NumacCasDriller: Adrian JarvisCasDrill Method: NDD/PTSurf	a Depth (n e Diam. / V ing Type: I ing Diam. face Comp er Strike (n	Vidth (mn N/A (mm): N/ pletion: Ba	A		Elev Elev Eas	ration ration ting (N	(Grou (Case MGA)	vel (m bg und): - e): - : 305532): 641344	16		ERM Lustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Det	ails	Remarks
Ground Surface	* 6		0								
Gravelly Clay Orange-brown, dry, medium stiff, non-plastic, no stain, no odour, fine to medium sub angular gravel			-		DS	N		0	BJ_SB08_(0.2	
	· • • • • •	-	- - -					0			
			- 1 -					0			
	┿╵┥┝┥┝╵╡┥┝┝╵╡┥┝┝╵╡┥╸┝┝╵╡╸┝┥┝╵╡╸┝┥┝╵╡╸┝╸╵┥╸┝╸╎┥╸┝╸┤╸ ┝╵╴┥┝╵╶┥┍╸╵╡╸┝╵╶┥╸┝╵╶┥╸┝╵╶┥╸┝╵╶┥╸┝╵╶┥╸┝╵┤╸┝╸┝╸┥╸╸┝	-	- - - -					0			
			_ 2 _ _ _ _					0			
Clay			-		US	Y		0	BJ_SB08_2	2.7	
Organic matter, black, moist, soft, non-plastic, organ odour End of Log	ic		- - - - - - - - - - - - - - - - - - -					0			

Checked By:

Drill Co: Numac Casing Driller: Adrian Jarvis Casing Drill Method: NDD/PT Surface	epth (m am. / W Type: N Diam. (e Compl	/idth (mm \/A (mm): N// letion: Ba	A		Elev Elev East	ation ation ing (N	(Grou (Case //GA)	vel (m bo ınd): - e): - : 305532	2	ID: BJ_SB09		
Hole Type: Soil Bore Water S	Strike (n loquu S	n bgl): -	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample [Remarks	
Ground Surface Shale Weathered Shale, brown, dry friable, no stain, no odour			- 0 - -		DS	N Y		0	BJ_SB0 BJ_SB0			

Log By: TC

Checked By:

Drill Co: Numac Casing ⁻ Driller: Adrian Jarvis Casing I	epth (m am. / W Type: N Diam. (Compl	idth (mm) I/A mm): N/A etion: Ba			Elev Elev East	ation ation ting (N	(Grou (Case //GA):	vel (m bç ınd): - e): - 305665): 64135	. ERN				
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
Ground Surface Gravelly Clay Grey, dry, medium dense, non-plastic, no stains, no odour, fine to coarse rounded gravel			0 _ _ _ _		DS	N		0	BJ_SB	10_0.2			
Shale Weathered Shale, red, brown, dry, friable, no stain, no odour. End of Log			- - 		DS	Y		0	BJ_SB	10_1.0			
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			-										
			- - 5										

Log By: **TC**

Checked By:

Drill Co: Numac Casing ⁻ Driller: Adrian Jarvis Casing I	epth (m am. / W Type: N Diam. (Compl	′idth (mm I/A mm): N// etion: Ba	A		Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bǫ ınd): - >): - 305667): 64134	,	ID: BJ_SB11		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks	
Ground Surface Gravelly Clay Grey, dry, medium, dense, non-plastic, no stain, no odour, rounded and subangular gravel Shale Weathered shale, grey, dry, friable, no stain, no			- 0 		DS	N		0	BJ_SB	11_0.2		
odour End of Log												

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 4/11/2013 Total D	epth (m							vel (m bg	I): -	ID: BJ_	SB12
Drill Co: Numac Casing Driller: Adrian Jarvis Casing	Type: N Diam. (e Compl	mm): N/A letion: Ba	۱.		Elev Eas	ation ting (N	(Case //GA):	und): - e): - : 305648): 64133			ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Gravelly Clay	 		_0								
Orange-brown, dry, medium stiff, non-plastic, no stain, no odour, fine to coarse sub angular gravel			-		DS	N		0	BJ_SB	12_0.2	-
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	· · ·		_2 _								
			- - -		US	N		0	BJ_SB	12_2.4	
End of Log			_								
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Log By: **TC**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BJ_	SB13		
Drill Finish Date: 4/11/2013Hole DiDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurface	Total Depth (m): 3 Hole Diam. / Width (mm): 150 Casing Type: N/A Casing Diam. (mm): N/A Surface Completion: Backfilled Water Strike (m bgl): -							vel (m bç und): - e): - : 305794): 64135		ERM Australia Pty Ltd			
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
Ground Surface Gravelly Clay Dry, medium stiff, non-plastic, no stains, no odour, medium rounded gravel (road base)	*_•- •_•- *•		0 		DS	N		0	BJ_SB	13_0.2			
Gravelly Clay Brown, dry, soft, non-plastic, no stain, no odour, medium subangular gravel (weathered shale)			- - -					0					
			_ 1 _					0					
			- - -		DS	Y		0	BJ_SB	13_1.4			
			2 2 _					0					
			- - -										
	 *		- - - 3		— US —	- Y -		-0		13_3.0			
End of Log			- - -					-					
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			_ _ _ _										
			—5										

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook	c, NSW								ID: BJ	_SB14
Drill Finish Date: 6/11/2013Hole IIDrill Co: NumacCasinDriller: Adrian JarvisCasinDrill Method: NDD/PTSurface	g Type: I g Diam. (/idth (mm N/A (mm): N/A letion: Ba	A		Elev Elev Eas	ation ation ting (N	(Grou (Case MGA):	vel (m bç ınd): - e): - 305794): 64134	50	ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
Ground Surface	<u> </u>		-0							
Gravelly Clay Orange-brown, dry, medium stiff, non-plastic, no stains, no odour, sub angular gravel	الله المالية الم 1		-		DS	N		0	BJ_SB14_0.2	_
Stallis, no odour, sub angular graver			-					0		-
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			-		US	Y		0	BJ_SB14_2.9	-
End of Log			- 3					-		
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			F							
			F							
			-							
			- 							

Log By: TC

Checked By:

Drill Finish Date: 6/11/2013HoleDrill Co: NumacCasiDriller: Adrian JarvisCasiDrill Method: HA/NDD/PTSurf	ok, NSW al Depth (m e Diam. / W ing Type: t ing Diam. (ace Compl er Strike (n	/idth (mm N/A (mm): N/A letion: Ba	A Contraction		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bg Ind): - e): - : 305791): 641330		ID: BJ_SB15		
Lithology	Symbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample		Remarks	
Ground Surface Gravelly Clay Light brown, dry, medium stiff, non-plastic, no stain, no odour, fine to coarse sub rounded gravel (road base) trace concrete rubble					DS	N		0	BJ_SB	15_0.2		
Shale Weathered Shale, brown dry, friable, no stain, no odour End of Log												

Log By: TC

Checked By:

Drill Method: NDD/PT Hole Type: Soil Bore	Type: Soil Bore Water Strike (m bgl): -																			
Lithology		Symbol	Nell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		Remarks								
Ground Surface Gravelly Clay Brown, dry, soft, non-plastic, no stain, no odour medium subangular gravel, trace building rubb	ır, ble			0 _ 		DS	N		0	BJ_SB [.]	16_0.2									
Sandy Clay Light grey, moist, non-plastic, no stains, no odd trace gravel	our,	<u>•</u> • • • •		- - - -					0											
Shale Weathered shale boundary Sandy Clay Light grey mottled orange, dry, soft, non-plastic stain, no odour	c, no			1 _ _ _					0											
stain, no ouour				-		DS	Y		0	BJ_SB [.]	16_1.6									
End of Log				- - - - - - - - - - - - - - - - - - -																

Checked By:

Drill Finish Date: 4/11/2013Hole EDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurface	, NSW Depth (m) Diam. / W g Type: N g Diam. (i g Diam. (i se Comple Strike (m	idth (mm <u>)</u> I/A mm): N/A etion: Ba	L		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bgl) ınd): - ∋): - 305912): 641344		ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Gravelly Clay Clay, brown, dry, soft, non-plastic, no stains, no odour, medium, sub angular gravel, trace rootlets, trace building rubble			0 		DS	N		0	BJ_SB	17_0.2		
Sandy Clay Brown mottled red, moist, medium stiff, low plastic, no stains no odour, trace gravel	• 		- - - - - - -					0				
			-		DS US	Y Y		0	BJ_SB ⁻ BJ_SB ⁻			
End of Log			2 2 3 									

Log By: TC/SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook									ID: BJ	_SB18
Drill Finish Date: 4/11/2013Hole DDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurface	g Type: I g Diam.	/idth (mm N/A (mm): N/A letion: Ba	۱. ۱		Elev Elev Eas	ration ration ting (N	(Groi (Cas /IGA)	vel (m bg und): - e): - : 305910 .): 641330	J4	ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
Ground Surface Gravelly Clay Clay, orange-brown, dry, medium, stiff, non plastic, no stains, no odour, fine to coarse sub angular gravel			- - - -		DS	Y		0	BJ_SB18_0.2	
			- - - 1					0		
	לי ליון אין br>אין אין אין אין אין אין אין אין אין אין		- - - - -		DS	Y		0 0 -	BJ_SB18_1.5	-
			2 							
Sandy Clay Orange-brown, moist, soft, non-plastic, no odour, or staining			- - 3 -		US	Y		0	BJ_SB18_3.0	_
End of Log			-					0		
			_ 4 _ _ _							
			- - - - - -							

Log By: TC/SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW								ID: B	J_SB19
Drill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurface	iam. / W Type: I Diam. (Compl	/idth (mm	A Contraction		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA)	vel (m bg und): - e): - : 305959): 64133	37	ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
Ground Surface			0							
Gravelly Clay Orange-brown, dry medium dense, non plastic, no stains no odour, fine to coarse sub angular gravel					DS	Y		0	BJ_SB19_0.2	
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		- - -					0		
			- - 1							
	· · · ·		- - -		DS	Y		0	BJ_SB19_1.4	
Sandy Clay Trace gravel, orange-brown, moist, soft, non-plastic, no odour or staining			- - - 2					0.1		
			-							
Silty Sand Grey-brown, wet, medium-dense, very fine grained, well sorted, organic odour	* * *		- - - -3		US	Y		0	BJ_SB19_3.0	_
Sand Orange-brown, moist, soft, low plasticity, no odour or staining			- - - -					0	65_3619_3.0	_
End of Log			_							
			4 4 							
			- - -							
			_ _ 5							

Log By: TC/SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW								ID: BK	_MW01	
Drill Finish Date: 25/11/2013Hole DDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PT/SFASurface	Type: N Diam. (/idth (mm I/A mm): N// etion: Ba			Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bgl und): - e): - : 306901): 641497	o	ERM Australia Pty Ltd	
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks	
Ground Surface			_0								
Fill Silty gravel, brown, dry, dense, firm, medium to coarse sub-rounded gravel, no staining or odours, occasional cobbles sub-rounded, angular			-		DS	N		0	BK_MW01_0.1	_	
occasional cobbics sub rounded, angular			- - -					0			
Fill			- - -1					0			
Clayey gravel, orange-brown, dense/firlm, medium to coarse sub-rounded angular gravels, no staining or odour.			- - -								
			-					0			
			2 2					0			
			-								
			- - 3 -					0			
			- - -								
			- - - -4					0			
			- - -								
			-								
					US	Y		0	BK_MW01_5.0	1	

Log By: AM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, I		ISW									ID: BK_N	/W01	
Drill Start Date: 5/11/2013 Drill Finish Date: 25/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Soil Bore	Total De Hole Dia Casing T Casing E Surface Water St	m. / Wi ⁻ ype: N Diam. (r Comple	idth (mm I/A mm): N/A etion: Ba	۱.		Elev Elev East	ation ation ing (N	(Gro (Cas //GA)	vel (m bg und): - e): - : 306901 .): 641497		ERM Australia Pty Ltd		
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Gravel Fine to coarse, sub-rounded gravels				- - - - - - - - - - - - - - - - - - -									

Log By: AM/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I	NSW								1	D: BK_	MW02
Drill Co: Numac Casing Driller: Adrian Jarvis Casing	am. / W Type: N Diam. (Compl	lidth (mm I/A mm): N// etion: Ba	Å		Elev Elev Eas	ation ation ing (N	(Grou (Case //GA):	vel (m bg und): - e): - 306991): 641508	31		ERM Lustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Deta	ails	Remarks
Ground Surface Fill Silty Gravel, grey, brown, very dry, fine to coarse sub- rounded to sub-angular gravels and large			0 		DS	N		0	BK_MW02_0	0.1	
roots/cobbles			- - -					0			
			- - -					0			
Fill Sandy clay, brown, dry to moist, soft, non-plastic, no stain, no odour, trace gravel			- - - - - - -					0			
			- - -								
Sandy Clay Brown, mottled grey and red, moist, soft, non plastic, no stain no odour			- - -					0			
			3 					0			
			- - -4 - -					0			
			- - - - -5								

Log By: AM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M									ID: BI	K_MW02
Drill Start Date: 5/11/2013 Drill Finish Date: 25/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Soil Bore	Total Depth (r Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (Width (mm N/A (mm): N// pletion: Ba	4		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):	vel (m bg ind): - e): - 306991): 641508	B1	ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
					US	Y		0	BK_MW02_5.9	
			- 8 8 							

Log By: AM/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook	NSW									ID: BK_	_MW03	
Drill Finish Date: 25/11/2013Hole DDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PT/SFASurface) Type: N) Diam. (/idth (mm I/A mm): N// etion: Ba	4		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bg und): - e): - : 307071): 641522		ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Silty gravel, brown, dry, dense, fine to coarse gravels, poorly sorted, sub-angular to sub-rounded, no odours			 		DS	Y		0	BK_MW	/03_0.1		
or staining			- - -					0				
			_ 1 _					0				
Fill Sandy clay, brown, moist, soft, non plastic, no stain no odour, trace gravel			- - -					0				
			- 2 -					0				
Sandy Clay Grey, mottled red and orange, moist, soft, non plastic, no stain, no odour			- - - -									
			- 3 -					0				
			- - -									
			4 					0				
			_5									

Log By: AM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M									ID	: BK_MW03	
Drill Start Date: 6/11/2013 Drill Finish Date: 25/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Soil Bore	Total Depth (r Hole Diam. / \ Casing Type: Casing Diam. Surface Com Water Strike (Width (mm N/A (mm): N// pletion: Ba	A		Elev Elev East	ation ation ting (N	(Grou (Case //GA):	vel (m bg und): - e): - : 307071): 641522	ERM		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	s Remarks	
			- - -								
			_ _ _ 6		US	Y		0	BK_MW03_5.7	,	
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			7 								
		V.	- - -								
		V									
		V	- - -								
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		V	- - - -								
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Log By: AM/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo								vel (m bgl		ID: BK_I	WW04
Drill Finish Date: 15/11/2013 Hole Drill Co: Numac Casii Driller: Adrian Jarvis Casii Drill Method: NDD/PT/SFA/AH Surfa	Depth (m Diam. / W ng Type: I ng Diam. (ace Comp er Strike (n	/idth (mm N/A (mm): N/# letion: Ba	A		ERM ERM Australia Pty Ltd						
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Gravelly Clay Brown to orange, dry, very dense, low plasticity, no staining	;		- 0 		DS	Y		0	BK_MW	04_0.1	
Shale Weathered, dry, brown, dry, friable, no stain no odou	r		- - - - -		DS	Y		0	BK_MW	04_0.9	
Shale Grey, dry, no stain, no odour											

Log By: AM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		,								ID: BK_I	MW04
Drill Start Date: 15/11/2013 Drill Finish Date: 15/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth Hole Diam. / Casing Type Casing Dian Surface Con Water Strike	' Width (mm e: N/A n. (mm): N/ npletion: B a	A		Elev Elev East	ation ation ing (N	(Grou (Case (GA):	vel (m bg und): 166 e): 167.4 : 306882): 641519	.53 8 .693		CRM ustralia Pty Ltd
Lithology	od mod	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - -								
			- - 6 -								
			- - -								
			- - -7 - -								
			- 8 - - -								
			- - - - - 9								
			- - - - -								

Log By: AM/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N					Fina	L W/ot		vol (m ho	. D.	ID: BK	_SB01
Drill Start Date: 6/11/2013Total DepDrill Finish Date: 14/11/2013Hole DiaDrill Co: NumacCasing TDriller: Scott JessupCasing DDrill Method: NDD/PTSurface (CHole Type: Soil BoreWater St	m. / W ⁻ ype: N Diam. (Compl	/idth (mm I/A (mm): N/A letion: Ba			Elev Elev Eas	ation ation ing (N	(Grou (Case (GA)	vel (m bg und): - e): - : 306818): 64150			ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Gravelly, clay, shale pieces and river cobbles throughout, moist, stuff, non-plastic, no odour, no staining.			0 		DS	N		0	BK_SE	01_0.2	-
Shale Siltstone bedrock. End of Log			- - - 1								
			 2 								
			3 								
			_ _ _ 4								
			_ _ 5								

Log By: SM

Checked By:

Drill Co: Numac Casing Driller: Scott Jessup Casing	epth (m am. / W Type: N Diam. (Compl	idth (mm) I/A mm): N/A etion: Ba			Elev Elev East	ation ation ing (N	(Grou (Case MGA)	vel (m bç ınd): - e): - : 306817): 64151		ID: BK_SB02		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Sandy clay, brown, dry, stiff, non-plastic, no odour, no staining.			0 		DS	N		0	BK_SB	02_0.2		
Fill Clayey gravel, shale and river cobbles (conglomerate), moist, brown, dense, medium - coarse grained, poorly sorted, sub-angular cobbles.			- - - - - - 1					0.1 0				
End of Log												

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW								ID: B	K_SB03		
Drill Co: Numac Casing Driller: Scott Jessup Casing	iam. / W Type: N Diam. (e Compl	lidth (mm I/A mm): N/A etion: Ba	L .		Elev Elev East	ation ation ting (I	(Grou (Case MGA)	vel (m bg und): - e): - : 306901 .): 641506	53	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks		
Ground Surface			0									
Fill Clayey gravel, cobbles and shale fragments, brown, moist, medium density, medium - coarse grained, sub-angular gravel, poorly sorted, no odour, no					DS	N		0	BK_SB03_0.2			
staining.			- - -					0				
			- - 1					0				
Sandy Clay Red - brown, moist, medium - stiff, low plasticity, no odour, no staining.			-					0.1				
	/ /		-		US	N		0.1 1 -	BK_SB03_1.6			
			- 									
Shale Weathered bedrock, minor quartz gravel, pale grey			-					0.4				
with orange/brown mottling, very dense.	\square		- - 									
			-									
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			_ 4 _									
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			- - - 5									

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro										ID: BK_S	SB04	
Drill Finish Date:14/11/2013HoDrill Co:NumacCaDriller:Scott JessupCaDrill Method:NDD/PTSu	tal Depth (m le Diam. / W sing Type: I sing Diam. (rface Comp ater Strike (n	Vidth (mm N/A (mm): N/A letion: Ba	L		Elev Elev East	ation ation ing (N	(Grou (Case /IGA)	vel (m bgl und): - e): - : 306906): 641513		ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Sandy clay, red-brown, dry, stiff, non-plastic, no odour, no staining.			0 		DS	N		0	BK_SB	04_0.2		
Sandstone Weathered Sandstone Grey with red mottling, dry, hard.			- - - -					0.2				
End of Log			- - - - - - - - - - - - - - - - - - -									

Checked By:

Drill Co: Numac Casing ⁻ Driller: Scott Jessup Casing I	epth (m am. / W Type: N Diam. (Compl	/idth (mm) I/A mm): N/A etion: Ba			Elev Elev Eas	ation ation ting (N	(Grou (Case //GA):	vel (m bgl Ind): - e): - : 306969): 641514): -		SB05
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample De	tails	Remarks
Ground Surface Fill Clayey sand, traces of gravel, brown, dry, medium density, fine grained, poorly sorted, no odour, no staining.			0 		DS	N		0.1	BK_SB05	_0.2	
Fill Clayey gravel, brown, dry, dense, fine - coarse (150 mm boulders max), sub-angular, poorly sorted, no odour, no staining.								0.5			
Sandy Clay Orange/brown, moist, medium - stiff, non-plastic, no odour, no staining.			1 _ _ _					0.5			
Sandstone Extremely weathered bedrock, orange/brown, slightly moist, medium density Sandstone			- - -		US	N		0.6	BK_SB05	2.0	
Weathered bedrock, orange with grey mottling, , slightly moist, coarse angular gravels. End of Log			 					-0.5			
			3 								
			- - - -								
			4 								
			 5								

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellb Drill Start Date: 6/11/2013		N: 0 9			F ire -	1.10/0+	orte	(n) (m her	ID: BK	_SB06			
Drill Finish Date: 14/11/2013 H Drill Co: Numac C Driller: Scott Jessup C Drill Method: NDD/PT S	otal Depth (m lole Diam. / W asing Type: I asing Diam. urface Comp /ater Strike (r	/idth (mm N/A (mm): N/ <i>I</i> letion: Ba	4		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bgl ınd): - e): - : 306947): 641528	6 I	ERM Australia Pty Ltd			
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks			
Ground Surface Clayey Silt Brown/orange, very dry, very dense, no staining, sheen.	no H		- 0 		DS	N		0	BK_SB06_0.1	-			
Sandstone Bedrock, orange-brown-white, very dense.			- - -		DS	N		0.1	BK_SB06_0.6	-			
End of Log			1 										

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook	c, NSW									ID: BK_	_SB07	
Drill Finish Date: 14/11/2013Hole IDrill Co: NumacCasinDriller: Scott JessupCasinDrill Method: NDD/PTSurface	g Type: I g Diam.	/idth (mm N/A (mm): N// letion: Ba	A		Elev Elev East	ation ation ing (N	(Groi (Cas VGA)	vel (m bg und): - e): - : 306973 .): 64152		ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface	* 0		_0									
Gravelly Clay White/orange clays with fine - coarse gravels, dry at surface, slightly moist with depth, no odour, no	·		-		DS	N		0	BK_SB	07_0.1	-	
staining.	**_ **_ **_ **_		-					0				
			-									
	* _* _* *		1 - -					0				
			-					0				
Sandstone Highly weathered, bedrock, orange/white/pale grey,	•` 		_									
dense, no odour, no staining.			-2					0.1				
Sandstone Gravel layers, orange/brown, grey mottling, slightly moist, increasing density with depth.			- - - -									
			-		US	N		0.1	BK_SB	07 2 9	-	
End of Log			3					0.1	DI(0D	01_2.5		
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			—5									

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswell										ID: BL_	MW01		
Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA	Casing Type: Casing Diam. Surface Comp	Diam. / Width (mm): 125 Elevation (Ground): 180.32									ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)	PID (ppm)	Sample	Details	Remarks		
Ground Surface Fill Silty sand, dark brown, dry, loose, fine to mediur			0 					0.1					
grained, moderately sorted, no odour, no stainin rootlets throughout Fill Clayey gravel, moist, medium dense, fine to coa subangular, poorly sorted, no odour or staining.	/ 👹		-					0.2					
Neathered shale fragments throughout			- - 1					0.1					
			-		DS	N		0.1	BL_MV	/01_1.5	_		
Gravelly Clay Grey mottled orange, dry, stiff, non-plastic, no or or staining, highly weathered shale			- - - 2 -					0.1					
								_					
			—3 - - -		US	Y		0.1	BL_MV	/01_3.0			
								0.2					
	* * *		- —5					0.2					

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M									ID: BL_N	ЛW01
Drill Start Date: 14/11/2013 Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (n Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (n	5	Elev Elev Eas	vation (vation (ting (M	(Grou (Case IGA):	el (m bgľ nd): 180.): 180.16 307221. : 641368	ERM Australia Pty Ltd			
Lithology	Symbol		Ueptn (m) Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
End of Log		- - - - - -					-0.1			
		-								
		7 - - -								
		9 _ _ _ _								
		-10)							

Log By: SM

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrool Drill Start Date: 25/11/2013 Total	s, NSW Depth (m): 10			Fina	al Wat	er Le	vel (m bg	I):	ID: BL_N	лW02
Drill Finish Date: 4/12/2013HoleDrill Co: NumacCasirDriller: Adrian JarvisCasirDrill Method: NDD/PT/SFA/AHSurfa	mac Casing Type: PVC an Jarvis Casing Diam. (mm): 50 : NDD/PT/SFA/AH Surface Completion: Gatic Monitoring Well Water Strike (m bgl):						(Grou (Case //GA)	und): 180 e): 179.9(: 307144.): 641371	.04 6 .823	LRM ustralia Pty Ltd	
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Concrete Good condition, no staining Fill Sand, grey, moist, dense, medium to coarse, poorly sorted, no odour or staining. Stabilised sand road base Fill Gravelly clay, orange-brown, moist, soft, low plasticity, no odour or staining, sub angular shale and ironstone fragments throughout Shale Weathered, grey, moist, no stain, no odour Siltstone Grey, dry, no stain, no odour, fine grained.					DS	N		0.2	BL_MW	02_0.2	

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N	:: 0224193 me: Project Symphony - Bayswater :: Bayswater Power Station ss: New England Highway, Muswellbrook, NSW Date: 25/11/2013 Total Depth (m): 10 Final Water Level (m bgl): Date: 4/12/2013 Hole Diam. / Width (mm): 150 Elevation (Ground): 180.04												
Drill Start Date: 25/11/2013 Drill Finish Date: 4/12/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Hole Diam. / Wi Casing Type: P Casing Diam. (n Surface Comple	Inde Diam. / Width (mm): 150 Elevation (Ground): 180.04 Iteration Strain Stra									ERM ERM Australia Pty Ltd		
Lithology	Symbol	Meil	Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)	PID (ppm)	Sample	Details	Remarks		
			,										

Log By: SM/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BL_	MW03	
Drill Co: Numac Casing Driller: Adrian Jarvis Casing Drill Method: NDD/PT/SFA Surface	am. / W Type: I Diam. Comp	/idth (mm)			Elev Elev Eas	vation vation ting (N	(Grou (Case MGA):	vel (m bgl und): 180. e): 179.95 : 307099.): 641380	.04 5 829	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			_0									
Concrete Good condition, no staining			_			. .		Ļ				
Fill Gravelly clay, grey-brown mottled orange, moist, soft,			-		DS	N		0	BL_MW	03_0.25		
non-plastic, no odour or staining			-					0				
			- - 1 -					0				
								0				
			- 2 					0				
			- —3					0				
-			_									
Shale Weathered, grey, moist, no stain, no odour			- - - -		US	Y		0	BL_MW	/03_3.4		
End of Log			- - 4 -									
			-									
			- - -									
			-									
			—5									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW										ID: BL_I	MW04
Drill Start Date:25/11/2013Total DeDrill Finish Date:4/12/2013Hole DiDrill Co:NumacCasingDriller:Eric GrimaCasingDrill Method:NDD/PT/SFASurfaceHole Type:Monitoring WellWater Start	am. / W Type: I Diam. Comp	/idth (m PVC (mm): 5 letion: 0	50 Gatic			Elev Elev Easi	ration ration ting (N	(Grou (Case //GA):	vel (m bg und): 180 e): 179.9 : 307121): 64137).04 5 .004		CRM ustralia Pty Ltd
Lithology	Symbol	Well		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface				0								
Concrete Good condition, no staining			_						0.2			
Fill Gravelly Clay, orange-brown, moist, medium-stiff,			-			DS	N			BL_MW	04_0.25	
non-plastic, no odour or staining, sub angular shale pieces throughout									0.3			
				1					0.2			
Fill Siltstone, dry grey, dry, laminated						DS	N		0.2 0.9	BL_MW	04_1.55	
Fill Gravelly clay, brown with red mottling, moist, some plasticity, no odour, no staining, becoming dry with depth and occasional shale inclusions				-2					1.7			
						US	N		1.6	BL_MW	104 2 5	
				0		03			1.0		/04_2.0	
Siltstone Completely weathered and soft Shale				.3								
Dark grey, dry, hard, competent					_							
End of Log				4								
			F	5								

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswate Site Name: Bayswater Power Station Site Address: New England Highway, Muswe	ellbrook, NSW									ID: BL_	MW05	
Drill Start Date: 20/11/2013 Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth (Hole Diam. / Casing Type Casing Diam Surface Corr Water Strike	Width (mm : PVC n. (mm): 50 npletion: Ga			Elev Elev East	ation ation ing (N	(Grou (Case /IGA)	vel (m bç und): 180 e): 180.2 : 306797): 64138).31 4 .432			
Lithology	Svmbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill	X		-0		De	N		0		105 0 1		
Silty sand, grey-brown, moist, loose, fine grain well sorted, no odour or staining, rootlets throu Fill Gravelly clay, orange-brown, moist, medium s non-plastic, no odour or staining. Concrete blo 0.5 m bgl	ighout				DS	N		0 0 0.1	BL_MW	05_0.1		
								0.1				
			2 3					0				
Clay Organic material, dark grey, moist, soft, low pl organic odour	asticity,		 		US	Y		0	BL_MW	/05_3.4		
Shale Weathered, red-brown, dry, friable, no staining odour	g, no		- - - - - - 4 - -									
Shale Grey, dry, no odour			- - -									

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		,								ID: BL_	MW05	
Drill Start Date: 20/11/2013 Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth Hole Diam. / Casing Type Casing Dian Surface Con Water Strike	Width (mm) e: PVC n. (mm): 50 npletion: Gat			Elev Elev East	ation ation ting (N	(Grou (Case //GA):	vel (m bg und): 180 e): 180.2 : 306797): 64138).31 4 .432	ERM Australia Pty Ltd		
Lithology	Swhol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
			- - - -									
			- - - - -									
			- - - -									
End of Log			- - - -									
		-	- - - - - 8									
			- - - -									
			- - 9 -									
			- - - -									
			_ 10									

Log By: SM/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BL_	MW06
Drill Co: Numac Casing Driller: Adrian Jarvis Casing Drill Method: NDD/PT/SFA Surface	am. / W Type: I Diam. (Comp	/idth (mm	tic		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA)	vel (m bç und): 179 e): 179.9 : 306895): 64138).99 1 .563		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Concrete Good condition, no staining			-		D0			0.1		00.005	
Fill Gravelly clay, orange-brown, moist, soft, non-plastic, no odour, no staining, weathered shale fragments hroughout			-		DS	N		0.1 0.2	BL_MW	UU_U.20	
			- - 1 -					0.2			
			-					0.1			
			2 					0			
Shale Veathered, grey, moist, no stain, no odour			-					-			
			3 4		US	Y		0	BL_MW	/06_3.0	
End of Log			- - -								
			- - 								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N	ISW								ID: BL	_SB01
Drill Co: Numac Casing T Driller: Adrian Jarvis Casing I	im. / W Type: I Diam. (Compl	/idth (mm I/A (mm): N/A letion: Ba	۲ ۱		Fina Elev Elev East Nort	43	ERM ERM Australia Pty Ltd			
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
Ground Surface			0							
Concrete Good condition, no staining			-		DS	N		0.2	BL_SB01_0.25	_
Fill Gravelly sand, grey-brown, moist, medium dense,	XX		-		00			-	DL_0001_0.20	_
fine to coarse, poorly sorted, no odour or staining. Gravelly Clay Orange-brown, moist, soft, low plasticity, no odour or staining, completely weathered shale			- - - - 1					0.2		
			- - -							
			- 2 - - - - -					0		
	* 		-							_
Shale	Ē		3		US	Y		0	BL_SB01_2.9	
Weathered shale, grey, moist, no stain, no odour End of Log			- - - - - - - - - - - - - - - - - - -							

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook	a, NSW									ID: BL_	_SB02		
Drill Finish Date: 27/11/2013Hole IDrill Co: NumacCasinDriller: Adrian JarvisCasinDrill Method: NDD/PTSurface	Depth (m Diam. / W g Type: f g Diam. (ce Compl ^r Strike (n	/idth (mm \/A (mm): N// letion: B a	A		Elev Elev Eas	vation vation ting (f	(Groi (Cas (GA)	vel (m bg und): - e): - : 307175 .): 64137		ERM			
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
Ground Surface Concrete			-0										
Good condition, no staining								0.2					
Fill Gravelly clay, grey-brown, moist, medium-stiff, non- plastic, no odour or staining, shale and sandstone fragments throughout.			-		DS	N		0.2	BL_SB	02_0.5	-		
Fill Gravelly clay, light brown with orange, red and grey mottling, moist, plastic, no staining			- - - - -					0.2					
			_					0.1					
			-		US	Ν		1.9	BL_SB0)2_1.75	-		
			- -2 - - - -										
			-		US	Y		0.7	BL_SB	02_2.7	-		
End of Log			3 										

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N	ISW								ID: I	BL_SB03		
Drill Co: Numac Casing T Driller: Wade Manger Casing I	am. / W Type: N Diam. (I Comple	idth (mm I/A mm): N/A etion: Ba	۱. ۱		Elev Elev East	ration ration ting (N	(Grou (Case MGA):	vel (m bộ ind): - e): - 307260): 64137) 45	ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks		
Ground Surface Fill			0		DS	N		0	BL_SB03_0.1			
Silty sand, dark brown, dry, loose, fine to medium grained, moderately sorted, no odour or staining. Rootlets throughout			_					·				
Fill Gravelly clay, brown, moist, soft, low plasticity, no odour or staining			- - -					0.1				
Fill Gravelly clay, orange-brown, mottled gret, moist, soft, non-plastic, no odour, no staining. Weathered shale fragements throughout			- 1 - -					0.2				
			_ _ _					0				
Clay Fully weathered shale, grey with brown mottling, moist, ironstone gravels throughout (including red mottling), no odour			- - 2 -		US	Y		0.1	BL_SB03_2.0			
			- - - -					0.1				
			-									
Clay Becoming light grey with red mottling. Mica crystals			3 _ _ _		US	Y		0.1	BL_SB03_3.0			
End of Log			_					-0.1-				
			- - 4 - -									
			- - - - - 									

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbr	rook, N	ISW									ID: BL_S	SB04	
Drill Finish Date: 21/11/2013HeDrill Co: NumacCaDriller: Adrian JarvisCaDrill Method: NDD/PTSa	asing T asing E urface (ım. / W Type: N Diam. (I Comple	idth (mm	A		Elev Elev Eas	ation ation ing (N	(Gro (Cas (GA)	vel (m bg und): - e): - : 306818 \): 64139		ERM Australia Pty Ltd		
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Silty sand, grass, brown, moist, loose, fine grained	d,			0					0.1				
well sorted, no odour or staining, rootlets through Fill Gravelly clay, grey, mottled red-brown, moist, non plastic, no odour or staining. Weathered shale throughout	/			-		DS	N		0.1	BL_SB	04_0.5		
				- - 1 -					0.1				
				- - - -					0.1				
				2 					0				
						US	Y		0	BL_SB	04_2.9		
End of Log				- 3 - -									
				-									
				- - -4									
				- - -									
				- - -									
				_ 5									

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook ,	NSW									ID: BL_S	SB05	
Drill Finish Date: 21/11/2013Hole DDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurfac) Type: N) Diam. (/idth (mm I/A mm): N// etion: Ba			Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bg und): - e): - : 306920): 641388		ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			0									
Concrete Good condition, no staining			-					0				
Fill Sand with trace gravel, grey, moist, dense, coarse			F					U				
grained, poorly sorted, no odour, no staining. Gravel roadbase	/ 👹		F		DS	N		0.1	BL_SB	05_0.5		
Fill Gravelly clay, orange-brown, moist, soft, low plasticity, no odour or staining, weathered shale pieces throughout.			- - 1 - -					0.1				
			- - - - - - 2 - - - - - -					0				
			-									
			- 3		US	Y		0	BL_SB	05_2.9		
End of Log			- - - - - - - - - - - - - - - - - - -									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,										ID: BL_S	SB06		
Drill Co: Numac Casing Driller: Adrian Jarvis Casing	am. / W Type: N Diam. (Compl	'idth (mm I/A mm): N/A etion: Ba	۱. ۱		Elev Elev Eas	ation ation ting (N	(Grou (Case //GA)	vel (m bg und): - e): - : 306965): 64138		ERM			
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
Ground Surface Fill Sandy silt, dark brown, moist, fine grained, moderately sorted, no odour or staining			0 					0.1					
Fill Gravelly clay, grey-brown, moist, soft, low-plasticity			_ _ _		DS	N		0.2	BL_SB	06_0.5			
			- 					0.2					
			- - - -					0.1					
			- -2 - - - -					0					
Shale Weathered, grey, moist, no stain, no odour			- - -		US	Y		-	BL_SB	06_2.9			
clay Brown, moist, soft, medium plasticity, no odour or staining. End of Log								-0					

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I Drill Start Date: 25/11/2013 Total De). 3			Fina	Wat	orlo	vel (m bg		_SB07
Drill Finish Date:25/11/2013Hole DiaDrill Co:NumacCasingDriller:Adrian JarvisCasing	am. / W Type: N Diam. (Compl	′idth (mm I/A mm): N// etion: B a	,		Elev Elev East	ation ation ing (N	(Grou (Case MGA)	und): -	63	ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
Ground Surface			-0							
Concrete Good condition, no staining			-		DS	N		0.2	BL_SB07_0.25	_
Fill Gravelly clay, orange-brown, moist, medium stiff, non-plastic, no odour or staining, shale and ironstone pieces throughout			- - -		00			0.2	DL_0007_0.20	_
			- - 1 -					0.2		
			-					0.2		
			2 					0		
Shale Weathered shale, brown, moist, soft, no stain, no odour			-		US	Y		0	BL_SB07_2.9	_
End of Log			- - - - - - - - - - - - - - - - - - -							

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N										ID: BM_	MW01
Drill Co: Numac Casing [*] Driller: Eric Grima Casing I	am. / W Type: I Diam. (Compl	/idth (mm N/A (mm): N/A letion: Ba	L .		Elev Elev Eas	ration ration ting (N			I): -		ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Gravelly Sand With some silt, brown, medium dense, fine sand to cobbles, moderately sorted, homogeneous, no odour, no staining Siltstone					DS	N		0.3	BM_MV	V01_0.2	
Sinstone Extremely weathered, dark grey, dry, no odour, no staining Refusal on siltstone bedrock, consolidated but able to be crushed by hand to silt End of Log			- - - - - - - - - - - - - - - - - - -								
			- - - - - - 5								

Log By: GP

Checked By:

Drill Co: Numac Casing ⁻ Driller: Eric Grima Casing I	epth (m am. / W Type: N Diam. (idth (mm)			Elev Elev Eas		(Grou (Case //GA):): -	ID: BM_N	AW02
Hole Type: Soil Bore Water S			Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)	(mdd) Old	Sample		Istralia Pty Ltd Remarks
Ground Surface Silty Clay Brown, soft, moderate plasticity, homogeneous, grass roots included, no odour, no staining, weathered siltstone gravel inclusions, grey and minor red brown mottle, moist					DS	N		0.3	BM_MW	102.05	
Silty Clay Red brown, moist, soft, low plasticity, homogeneous, no odour, no staining, inclusions of plastic, foam, timber, gravels, concrete and sand, refusal due to rubble	#\#\#\		- - - - -		DS	Y		0.2	BM_MW		

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro	ok, NSW									ID: BM_	MW03
Drill Finish Date:6/12/2013HolDrill Co:NumacCasDriller:Eric GrimaCasDrill Method:NDD/SFASur	al Depth (n le Diam. / V sing Type: l sing Diam. face Comp ter Strike (r	Vidth (mn PVC (mm): 50 Iletion: M			Elev Elev East		(Groi (Cas VGA)	:	ıl): 0.78		ERM Lustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Silty Clay			0								
Brown, moist, soft, medium plasticity, homogeneous inclusions of grass roots throughout, no odour, no staining	s, r i		-		DS	N		0.1	BM_MV	/03_0.2	
Clay Orange brown, moist, soft, high plasticity, homogeneous, no odour, no staining								0.1			
Sandy Clay Sandy clay with gravel, orange brown with minor gr mottle, moist, medium stiff, medium plasticity, homogeneous, inclusions of weathered siltstone gravels, no odour, no staining	ey							0.1			
End of Log		<u>. </u>	_								
			-								
			-								
			4 								
			-								
			- - 5								

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BM_	MW04	
Drill Co: Numac Casing Driller: Justin Collier Casing	am. / W Type: N Diam. (Compl	/idth (mm I/A [mm): N/A letion: Ba	A		Elev Elev Eas		(Grou (Case //GA):): -	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface												
Clay Brown to orange, very stiff, high plasticity, no odour, no staining			-					0.5				
			- -		DS	N		1.5	BM_MV	V04_0.5		
			- - - -1					0.6				
Gravelly Clay Weathered bedrock, orange brown, high plasticity, no odour, no staining			-									
Gravelly Sand With some clay, brown, slightly moist, dense, fine sand to coarse gravel, moderately sorted, homogeneous, no odour, no staining			- - - - - - - - - - -					0.1				
			- - 									
			- - - -									
			4 _ _ _									
			- - - - - 5									

Log By: AM/GP/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N Drill Start Date: 4/12/2013 Drill Start Date: 6/12/2013 Drill Finish Date: 6/12/2013 Drill Co: Numac Driller: Justin Collier Drill Method: NDD/PT/SFA Hole Type: Soil Bore		pth (m ım. / W Гуре: N Diam. (i Compl	'idth (mm I/A mm): N// etion: Ba	۱.		Elev Elev Eas		(Grou (Case //GA)		I): -	ID: BM_MW04		
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Shale Weathered, brown, dry, no odour, no sta	aining.												

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 6/12/2013 Total D	epth (n		. 150					vel (m bg	l): 1.32	ID: BM	_MW05
Drill Co: Numac Casing Driller: Eric Grima Casing Drill Method: NDD/SFA Surface	Type: Diam. e Comp	Vidth (mm) PVC (mm): 50 Iletion: Mo m bgl): 1.4	nument		Elev East	ation ation ing (N hing ((Cas //GA)	:			ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Silty Clay Red brown, moist, medium stiff, low plasticity, homogeneous, grass roots included, no odour, no	H		0 _ _		DS	N		0.2	BM_MW	/05_0.2	-
clay Brown, moist, medium stiff, high plasticity, homogeneous, no odour, no staining, minor tree rootlets included, minor grey mottle from 0.75mbgl, red brown from 0.9mbgl			- - - - - - - - 1					0.2			
Sandy Clay Sandy clay with gravel, light brown with red brown mottle, moist, medium stiff, low plasticity, homogeneous, weathered siltstone gravel inclusions, no odour, no staining			- - - -		DS	N		0.1	BM_MW	/05_1.5	
			- 								
End of Log			- - -								
			- 4 - -								
			- - - - - - 5								

Checked By:

Drill Co: Numac Casing Driller: Justin Collier Casing	epth (m am. / W Type: N Diam. (Compl	idth (mm) I/A mm): N/A etion: Ba			Elev Elev East	ation ation ing (N			l): -	ID: BM_MW06		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample De	tails	Remarks	
Ground Surface Fill Silty Clay, brown, soft, high plasticity, no odour			0 		DS	N			BM_MW06	_0.1		
Fill Gravelly Clay, dense, moderate plasticity, no odour or staining. Large cobbles throughout. Steel, plastic and unconsolidated landfill material from 0.6m bgl.			- - - - - - - - - - - - - -									
End of Log												

Checked By:

Drill Finish Date: 6/12/2013 Hole [Depth (m Diam. / W	/idth (mn	n): 150		Elev	ation	(Grou	und): -	ıl): 5.395	ID: BM_	SB08/BM_MW07	
Driller: Justin Collier Casin Drill Method: NDD/PT/SFA Surfac	g Type: I g Diam. (æ Comp Strike (r	mm): 50 letion: M	onument		East	ation ing (N hing (/IGA)	:		ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks	
Ground Surface Fill Clay gravel, orange brown, dry, medium dense, fill from adjacent road								0.9				
non aujacent ioau			- - -		DS			1.2	BM_SE	308_0.5		
			- - - - - - 1 -					1.8				
Sandy Clay Sandy Clay with gravel, light brown, slightly moist, stiff, non-plastic, heterogeneous with fine sand to								0.2				
coarse gravel, poorly sorted, no odour, no staining			2					0.2				
								-				
Silty Clay Silty Clay with gravel, brown at 3.0 to 3.2mbgl, red with grey mottle at 3.2 to 3.4mbgl, low plasticity, stiff, weathered siltstone gravel inclusions, moist, no odour, no sheen	#(#(#)#		3		US			0.2	BM_SE	308_3.0		
	HHH							0.2				
	HH H				US			0.2	BM_SE	308_4.6		
	H		- - 5									

Log By: AM/GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		W									ID: BM_	_SB08/BM_MW07	
Drill Start Date: 4/12/2013 Drill Finish Date: 6/12/2013 Drill Co: Numac Driller: Justin Collier Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Dept Hole Diam Casing Ty Casing Dia Surface Co Water Stril	n. / Width pe: PVC am. (mm ompletio	(mm):): 50 n: Mon i			Elev Elev East	ation ation ting (N		und): - e): -	gl): 5.395	ERM Australia Pty Ltd		
Lithology		Symbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OI9	Sample	Details	Remarks	
End of Log			= <u>``</u> - - -	6									
			-										
			-	7									
			-										
			-	8									
			-										
				9									
			-	10									

Log By: AM/GP

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N Drill Start Date: 4/12/2013 Total De): 2 5			Fina	1 W/2+	orle	vel (m bg	D	ID: BM	_SB01	
Drill Finish Date:5/12/2013Hole DiaDrill Co:NumacCasing TDriller:Justin CollierCasing D	am. / W Type: N Diam. (Compl	/idth (mm \/A [mm): N// letion: Ba	4		Elev Elev Eas		(Groi (Cas VGA)	und): - e): - :		ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Silty gravel, brown, dense, steel valve from pipe (unattached), aluminium conduit at 0.4mbgl								0.1				
			- - - -		DS	N		0.8	BM_SB	01_0.5	1	
Shale Weathered, orange grey, dense, no staining, no odour			- 1 - -					0.2				
Silty Clay Silty clay with gravel, light brown at 1.5 to 1.7mbgl, red brown at 1.7 to 2.2mbgl, moist, medium stiff, low plasticity, homogeneous, no odour, no staining	HA/H		_ _ _ _		DS	N		0.1	BM_SB	01_1.5	-	
Coal Black, moist, extremely weathered	H		2 _ _ _					0.1			_	
Sand Red brown, moist, dense, fine, well sorted, no odour, no staining End of Log			- - - - - 3 -		US	Y		-0.1	BM_SB	01_2.5		
			- - -									
			- -4 - - -									
			- - - 5									

Log By: AM/GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswat Site Name: Bayswater Power Station Site Address: New England Highway, Musw Drill Start Date: 6/12/2013 Drill Finish Date: 6/12/2013		(m): 0.8	nm): 150					vel (m bç ınd): -)); -	ID: BM_	_SB01 (2)	
Drill Finish Date: 6/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD Hole Type: Soil Bore	Casing Type Casing Dian Surface Cor Water Strike	e: N/A n. (mm): npletion:	N/A Backfilled		Elev Eas	vation ting (N	(Case //GA)			ERM ERM Australia Pty Ltd		
Lithology	Sumhol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OI9	Sample	Details	Remarks	
Ground Surface Fill Gravelly Sand with clay, brown, medium dense to coarse, moderately sorted, heterogenous w inclusions of glass, plastic, concrete and foam odour or staining	vith 🔀		0 					0.2 0.1				
Fill with clay, brown, medium dense, fine to coars moderately sorted, heterogenous with inclusion glass, plastic, concrete and foam. No odour of staining End of Log	ons of				— DS —	- Y -		-0.1-	BM_SB0	1 (2)_0.8		

Log By: GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BM_	SB02
Drill Finish Date:5/12/2013Hole DDrill Co: NumacCasingDriller:Justin CollierCasingDrill Method:NDDSurface	Type: I Diam. (e Compl	/idth (mm	4		Fina Elev Elev Eas Nort): -	ERM Australia Pty Ltd				
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Clay Brown, firm, medium plasticity, no odour, no staining, iree roots			- -								
			-		DS	N			BM_SB	02_0.5	
Shale Bedrock, slightly weathered, brown, dry, hard, no odour, no staining			-					0.1			

Log By: AM/GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 4/12/2013 Total D): 1.7			Fina	l Wat	erlev	vel (m bg	D: -	ID: BM_	SB03
Drill Finish Date: 5/12/2013Hole DiDrill Co: NumacCasingDriller: Justin CollierCasing	am. / W Type: N Diam. (Compl	/idth (mm I/A [mm): N/A letion: Ba	۱.		Elev Elev Eas Nort	·,·	ERM ERM Australia Pty Ltd				
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Clay Sector Sec			_0								
Red brown, moist, medium plasticity, no odour, no staining			_					0.5			
					DS	N		0.6	BM_SB	303_0.5	
			- - 1 -					0.5			
Silty Clay Orange brown with grey mottle, minor red mottle at 1.65 to 1.7mbgl, moist, friable, homogeneous, no			- - -					0.1			
odour, no staining			- - -2 -								
			- - -								
			- - 3 -								
			- - -								
			- - 4								
			- - -								
			- - - 								

Log By: AM/GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 4/12/2013 Total D		i): 1.3			Fina	l Wat	er Le	vel (m bg		ID: BM_	_SB04
Drill Finish Date: 5/12/2013Hole DiDrill Co: NumacCasingDriller: Justin CollierCasing	am. / W Type: I Diam. (Compl	/idth (mm) \/A (mm): N/A letion: Ba	L		Elev Elev East		(Grou (Case //GA)	und): - e): - :			ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Shale Weathered, grey brown, moderate dense to very dense, slightly moist, grey seams from 1.0mbgl, colour change to brown at 1.3mbgl			0 _ _					0.5			
			- - -		DS	N		1	BM_SE	304_0.5	
			- 1 -					1			
End of Log			-					-0.1			
			- - 2 -								
			-								
			- - 								
			-								
			- - - 								
			- - -								
			- - -								
			_ 5								

Log By: AM/GP

Checked By:

NSW									ID: BM_	SB05		
am. / W Type: N Diam. (Compl	(idth (mm) I/A mm): N/A etion: Ba	L .		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):	und): - e): - :): -	ERM Australia Pty Ltd			
Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
		0 _ _					0.4					
		- - -		DS	N		0.8	BM_SB	05_0.5			
		- 1 -					0.6					
		- - -					0.1					
		- 2 -					-0.1					
		- - -										
		- - 3										
		-										
		- - - 4										
		- - -										
		- - -										
	epth (m am. / W Type: N Diam. (Compl trike (n	epth (m): 1.8 am. / Width (mm Type: N/A Diam. (mm): N/A Completion: Ba trike (m bgl): -	apth (m): 1.8 am. / Width (mm): 125 Type: N/A Diam. (mm): N/A Completion: Backfilled trike (m bgl): -	appth (m): 1.8 am. / Width (mm): 125 Type: N/A Diam. (mm): N/A Completion: Backfilled trike (m bgl): - I I I I I I I I I I I I I I I I I I	appth (m): 1.8 Final am. / Width (mm): 125 Elev Type: N/A Eas Completion: Backfilled Nor trike (m bgl): - Toolution: Backfilled Do B Toolution: Backfilled Do B Tool	epth (m): 1.8 Final Wat am. / Width (mm): 125 Elevation Type: N/A Elevation Diam. (mm): N/A Easting (N Completion: Backfilled trike (m bgl): -	appth (m): 1.8 Final Water Le am. / Width (mm): 125 Elevation (Grou Type: N/A Easting (MGA) Completion: Backfilled Northing (MGA) Completion: Backfilled Northing (MGA) Image: State of the state of	spth (m): 1.8 m. / Width (mm): 125 Type: IVA Completion: Backfilled trike (m bgl): - Toolu (mm): IVA Completion: Backfilled trike (m bgl): - Toolu (mm): IVA Completion: Backfilled IDS N 0.8 Completion: Backfilled IDS N 0.8 Completion: Backfilled IDS N 0.8 Completion: Completion: IDS N 0.8 IDS N 0.8 I	appt (m): 1.8 Final Water Level (m bgl): - am. / Width (mm): 125 Elevation (Ground): - Type: N/A Elevation (Case): - Diam. (mm): NA Easting (MGA): Completion: Backfilled Northing (MGA): Trike (m bgl): - Image: Apple (Ground): - Image: Apple (Ground): - Image: Apple (Ground): - Image: A	SSW ph(m): 1.8 m. /Width (mm): 125 Diam. (mm): NA		

Log By: AM/GP

Checked By:

Drill Co: NumacCasing Type: N/AElevation (Case): -Driller: Justin CollierCasing Diam. (mm): N/AEasting (MGA):Drill Method: NDD/PTSurface Completion: BackfilledNorthing (MGA):	Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 4/12/2013 Total Drill Finish Date: 5/12/2013 Hole Di	epth (m): 1.8 /idth (mm)	: 125					vel (m bậ und): -	gl): -	ID: BM	_SB06
Ground Surface O DS N O BM_SB06_0.1 Clay Brown, firm, high plasticity, no odour, no staining O DS N O BM_SB06_0.1 Shale Weathered shale O I I I I I Gravelly Sandy Clay Brown with gray motile, slightly moist, friable, homogeneous, no odour, no staining I I I I I Ind of Log I I I I I I I I	Drill Co: Numac Casing Driller: Justin Collier Casing Drill Method: NDD/PT Surface	Type: N Diam. (Compl	I/A mm): N/A etion: Ba			Elev East	ation ing (N	(Cas MGA)	e): - :			
Clay Brown, firm, high plasticity, no odour, no staining DS N 0 BM_SB06_0.1 Shale Weathered shale -1 -1 0 0.2 Gravelly Sandy Clay Brown with grey motile, slightly moist, friable, homogeneous, no odour, no staining -2 0.2 End of Log -2 -4 0.2	Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Weathered shale	Clay			0 		DS	N		0	BM_SE	306_0.1	
Gravelly Sandy Clay Brown with grey mottle, slightly moist, friable, homogeneous, no odour, no staining End of Log				- - 1 - - -								
End of Log	Brown with grey mottle, slightly moist, friable,			_								
									-0.2			

Log By: AM/GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,										ID: BM_	SB07	
Drill Finish Date: 5/12/2013Hole DDrill Co: NumacCasingDriller: Justin CollierCasingDrill Method: NDD/PTSurface) Type: N) Diam. (/idth (mm I/A [mm): N/A letion: Ba	۱.		Elev Elev Eas		(Grou (Case MGA):		ERM Australia Pty Ltd			
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			-0									
Clay Brown, high plasticity, stiff, no odour, no staining			- - -					1				
			- - -		DS	N		1.5	BM_SE	307_0.5		
			_									
Shale Highly weathered bedrock/shale, dense, brown, low plasticity			- 1 -					1.2				
Shale Weathered, grey brown, very dense, low plasticity			- - -									
Shale Extremely weathered, grey brown, no odour, no			-					0.1				
staining End of Log			- - 2									
			-									
			-									
			-									
			_									
			- - -									
			- - -									
			4 									
			_									
			- -									
			- - 5									

Log By: AM/GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro	ook, NSW									ID: BM_9	SB09	
Drill Finish Date: 5/12/2013HolDrill Co: NumacCa:Driller: Justin CollierCa:Drill Method: NDD/PTSui	al Depth (n le Diam. / V sing Type: I sing Diam. rface Comp tter Strike (r	Vidth (mm N/A (mm): N// pletion: B a	A		Elev Elev Eas		(Grou (Case //GA):	:): -	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			_0									
Clay Brown, high plasticity, stiff, no odour, no staining			-					0				
			- - -		DS	N		0.8	BM_SB	09_0.5		
Shale Neathered, orange brown, stiff, no odour, no staini	ng		- - 1 -					0.5				
Shale Extremely weathered, orange brown with grey mott rom 1.5 to 2.2 m bgl, brown with grey brown mottle)							0.2				
rom 2.2mbgl, moist, friable, homogeneous, no odo no staining	ur,		- 2 - -					0.2				
			- - - -					0.2				
			- 3					0.2				
End of Log			- - - - - - - - - - - - - - - - - - -									

Checked By:

Drill Finish Date: 28/11/2013Hole IDrill Co: NumacCasinDriller: Phil BrintonCasin	Depth (m Diam. / W Ig Type: I Ig Diam. (/idth (mm N/A (mm): N/A	l		Elev Elev East	ation ation ing (I	(Grou (Case MGA)	306966	;	ID: BN_	
	ce Compl r Strike (n loquís	letion: Ba n bgl): -	Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)): 64122 (wdd) CId	89 Sample		ustralia Pty Ltd Remarks
Ground Surface Topsoil			_0					-			
Grass	/		- -		DS	N		0	BN_MW	/01_0.2	
Silty sand with gravel, light brown, dry, very loose, moderately sorted, no odour, no staining			-					0			
Clayey Gravel Brown, medium dense, fine gravel with pebbles, poorly sorted, surrounded, no odour, no staining Bedrock, grey, dry, fine grained, no odour, no staining. Bore dry after 24 hours, well reinstated					DS	Y		0	BN_MW01	I_2MBGS	

Log By: **TA/WG**

Checked By:

roject Name: Project Symphony - E ite Name: Bayswater Power Station ite Address: New England Highway	1									ID: BN_	_MW01	
rill Start Date: 5/11/2013 rill Finish Date: 28/11/2013 rill Co: Numac riller: Phil Brinton rill Method: NDD/AH ole Type: Soil Bore	Total Depth (Hole Diam. / Casing Type Casing Diam Surface Com Water Strike	Width (mm : N/A 1. (mm): N// 1. pletion: B a	A		Elev Elev East	ation ation ing (N	(Groi (Cas VGA)	vel (m b(und): - e): - : 306966 (): 64122	5	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
					DS	Y			BN MW01	_10MBGS		

Log By: TA/WG

Checked By:

onecked by.

Drill Start Date:5/11/2013TotalDrill Finish Date:28/11/2013Hole IDrill Co:NumacCasinDriller:Phil BrintonCasinDrill Method:NDD/AHSurface	ect No.: 0224193 ect Name: Project Symphony - Bayswater Name: Bayswater Power Station Address: New England Highway, Muswellbrook, NSW Start Date: 5/11/2013 Total Depth (m): 10 Finish Date: 28/11/2013 Hole Diam. / Width (mm): 1 Co: Numac Casing Type: PVC er: Phil Brinton Casing Diam. (mm): 50 Method: NDD/AH Surface Completion: Gatio Type: Monitoring Well Water Strike (m bgl): -								gl): 9.9 2.54 1.062 187.34	ID: BN_MW02		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Gravelly Sand With some silt, grey, dry, very loose, medium coarse, moderately sorted, sub rounded, no odour, no staining Clayey Gravel Brown, moist, loose, coarse, moderately sorted, sub rounded, no odour, no staining Siltstone Grey, dry, fine grained, no odour, no staining					DS	N Y		0	BN_MW02			

Log By: **TA/WG**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, I		1								ID: BN_	_MW02	
Drill Start Date: 5/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Driller: Phil Brinton Drill Method: NDD/AH Hole Type: Monitoring Well	Total Depth Hole Diam. / Casing Type Casing Dian Surface Con Water Strike	/ Width (mm) e: PVC n. (mm): 50 npletion: Gat			Elev Elev East	ation ation ing (N	(Grou (Case /IGA)	vel (m by und): 19: e): - : 306994): 64122	2.54 1.062	ERM Australia Pty Ltd		
Lithology	Swmbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
			- - - - - - - - - - - - - - - - - - -									
			- - - 10		DS	Y		0	BN_MW02	2_10MBGS		

Log By: TA/WG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook										ID: BN_I	WW03		
Drill Finish Date: 5/12/2013HoleDrill Co: NumacCasinDriller: Eric GrimaCasinDrill Method: NDD/AHSurfa	Total Depth (m): 10.2 Final Water Level (m bgl): - Hole Diam. / Width (mm): 150 Elevation (Ground): 195.94 Casing Type: PVC Elevation (Case): - Casing Diam. (mm): 50 Easting (MGA): 306952.146 Surface Completion: Monument Northing (MGA): 6412310.659 Vater Strike (m bgl): - P										ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
Ground Surface Fill Topsoil, silty sand with trace gravel, brown, dry, very loose, moderately sorted, no odour, no staining			0 		DS	N		0	BN_MW	/03_0.2			
Siltstone Grey, dry, fine grained, no odour, no staining, hydrocarbon like odour from 7.5mbgl			- - - - - - - - - - - - - - - - - - -										

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N									ID: BN_I	MW03
Drill Start Date: 5/11/2016 Drill Finish Date: 5/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/AH Hole Type: Monitoring Well	Total Depth (m): 10 Hole Diam. / Width Casing Type: PVC Casing Diam. (mm Surface Completio Water Strike (m bg	(mm): 150): 50 n: Monument	t	Elev Elev Eas	/ation /ation ting (N	(Grou (Case MGA)	vel (m bg ind): 195 e): - : 306952): 64123	5.94 146		CRM ustralia Pty Ltd
Lithology		well Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks

Log By: SM/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BO_	_MW01
Drill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFA/AHSurface	am. / W Type: F Diam. (Compl	/idth (mm			Elev Elev East	ation ation ing (N	(Grou (Case //GA)	vel (m bg und): 179 e): 180.2 4 : 306661 .): 64120(.62 8 .359		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Silty Clay Red-brown, moist, soft, non-plastic	TH/H/H/		0 		DS	N			BO_MW	/01_0.1	
Siltstone Red-brown with light brown mottling, dry, hard, some laminations, no odour, no staining Siltstone Becoming harder with depth			- - - - - - - - - - - - - -		DS			-	BO_MW	/01_1.1	
Sandstone Brown, dry, fine to medium grain, no stain, no odour			2 2 3 3 3 3 								
Siltstone Grey, dry, fine grained, no stain, no odour.			- - - - - - - - - - - - - - - - - - -								

Log By: SM/HC/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N Drill Start Date: 28/11/2013					Fina	L Wet		vel (m bg	1): 0 6	ID: BO_I	WW01
Drill Finish Date: 5/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Hole Diam. Casing Type Casing Dian Surface Cor Water Strike	/ Width (mm) e: PVC n. (mm): 50 mpletion: Mo			Elev Elev Easi	ation ation ing (N	(Grou (Case /IGA)	und): 179 e): 180.20 : 306661): 641200	.62 8 .359		RM ustralia Pty Ltd
Lithology	Sumhol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - - - - - - - - - - - - - - - - - -								

Log By: SM/HC/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo					F	1 10/				ID: BO_	MW02
Drill Finish Date: 2/12/2013 Hole Drill Co: Numac Casin Driller: Wade Manger Casin Drill Method: HA/PT/SFA Surfation	ng Type: I ng Diam. (ice Comp	/idth (mm PVC	nument		Elev Elev East	ation ation ing (N	(Groi (Cas //GA)	vel (m bg und): 158 e): 159.0 : 306145 .): 64117	9.32 9 .427		ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (кРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Silty Clay Brown, moist, soft, high plasticity, no evidence of impact	HH		-		DS	Y		0.1	BO_MW	V02_0.2	
Silty Clay Becoming medium stiff	TH/H		-					0.1			
Silty Clay Weathered siltstone gravels, orange-brown	H H H		- 1 - -					0.1			
	HH		- - -		DS	N		0.4	BO_MW	V02_1.5	
Silty Clay Orange-brown with grey mottling	H H		_ 2 _					0.3			
Silty Clay Quartz like gravels	H/H/H										
	HHH		- 3 					0.2			
	HH/H/		-					-0.2			
End of Log			4 								
			- - - 5								

Checked By:

Drill Co: Numac Casing Driller: Wade Manger Casing Drill Method: NDD/PT/SFA Surface	epth (n iam. / V Type: I Diam.	vidth (mm)			Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bgl Ind): 153. e): 154.71 : 306138.): 641159	93 731		
Hole Type: Monitoring Well Water S	Strike (r	n bgl): 2.8	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		ustralia Pty Ltd Remarks
Ground Surface Silty Clay Orange-brown, mottled orange and grey, moist, very soft, moderate plasticity, no odour or staining.	HHHHH		- 0 - - - - - - -		DS	Y		0.1	BO_MW	/03_0.2	
Silty Clay Red-brown			- - - - - - - - - - - - - - - - - - -					0 0 0.2			
Silty Sandy Clay Light brown mottling, saturated, very soft, plastic, no odour, no staining, fine grained sand	H H H H A				US	N		0.4	BO_MW	/03_2.8	
Silty Clay Red-brown, brown mottling, moist, plastic, no odours, no staining	H/H/										
End of Log			-4 5					-0.1			

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro	ok, NSW									ID: BO_	MW04
Drill Finish Date: 2/12/2013HotDrill Co: NumacCa:Driller: Wade MangerCa:Drill Method: NDD/PT/SFASur	al Depth (n e Diam. / V sing Type: sing Diam. face Comp ter Strike (r	Vidth (mm PVC (mm): 50 pletion: Mo			Elev Elev Eas	vation vation ting (N	(Gro (Cas (GA)	vel (m bg und): 155 e): 156.2 : 306369 .): 64116	5.58 8 .213		CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
Ground Surface Silty clay			-0			-					
Red-brown, moist, soft, medium plasticity, no odour no staining	, #		-					0			
			-		DS	N		0.3	BO_MW	/04 0 5	
			-					0.0	DOMM		
	H		-								
	H		—1 -					0.1			
	Ĥ		-								
	Ħ		_					0			
	Ħ		-		US	N		0	BO_MW	04_1.75	
	Ħ		- 2		US	N		0.1	BO_MW	/04_2.0	
	Ħ		-					-			
	Ħ		-								
Silty clay Grey mottling and weathered siltstone gravels	H		-								
	Ħ		-								
	Ħ		—3 —					0.1			
	Ħ		-								
	Ħ		-								
			_								
End of Log			4			-		-0.3-			
5			-								
			-								
			-								
			-								
			5								

Log By: SM/GP

Checked By:

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ient: Macquarie Generation oject No.: 0224193 oject Name: Project Symphony - Bayswater te Name: Bayswater Power Station te Address: New England Highway, Muswellbroo	k, NSW	s): A E			F :	1 10/		vel (m bgl	\. 4 4	ID: BO_	MW05	
fill Finish Date: 3/12/2013 Hole fill Co: Numac Casi riller: Wade Manger Casi fill Method: HA/PT/SFA Surfa	Iole Diam. / Width (mm): 150 Elevation (Ground): 159.87 casing Type: PVC Elevation (Case): 160.69 casing Diam. (mm): 50 Easting (MGA): 306611.934 ourface Completion: Monument Northing (MGA): 6411591.959 vater Strike (m bgl): 2.5 Vater Strike (M bgl): 2.5								87) 934	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
iround Surface			_0									
rown with light brown mottling, moist, soft, plastic, o odour no staining, becoming brown with red- rown mottling from 05. becoming brown from 1.2 andy Clay /ith gravel, brown with red-brown and orange-brown ottling (some grey beyond 3m), moist, saturated eyond 2.5 m, soft, plastic, no odour, no staining, rown soft, plastic, no odour, no staining,			- - - - - - - - - - - - - - - - - - -		US	N		1.5 0.7 0.5 0.2	BO_MW(
ravels are weathered siltstone			-		US	N		0.2	B0_MW	05.05		
								0.2				
nd of Log												
			_									

Log By: HC/GP

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 26/11/2013 Total D		a): A			Eine	1 1/1/0+	orlo	vel (m bg	I): 0 055	ID: BP_	_MW01
Drill Finish Date: 26/11/2013Hole DiDrill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFASurface	am. / V Type: Diam. • Comp	Vidth (mm	atic		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	und): 169 e): 169 : 307345): 641424	.08		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Concrete Good condition, no staining			-		DS	N		0	BP_MW	1 0 25	-
Fill Gravelly sand (road base), red brown, moist, loose,			-		03			-		1_0.20	
fine to coarse, poorly sorted, no odour, no staining Gravelly Clay Grey brown mottled orange, moist, medium stiff, non-	***							0			
plastic, no odour, no staining, weathered shale fragments throughout, wet from 1.3mbgl			- 1 -					0			
								0			
								0			
Clay Clay with organic matter, dark brown, moist, soft, medium plastic, organic odour, no staining			- - - - - - -					0			
Sandy Clay Grey mottled orange, moist, soft, low plasticity, no odour, no staining											
	/				US	Y		0	BP_MW	01_3.5	
End of Log			<u>-</u> 4 - - - - -								
			- - - -5								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BP_I	WW02
Drill Finish Date: 21/11/2013Hole DDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PT/SFASurface	tal Depth (m): 8.2 Final Water Level (m bgl): 1.03 le Diam. / Width (mm): 150 Elevation (Ground): 169.3 sing Type: PVC Elevation (Case): 169.22 sing Diam. (mm): 50 Easting (MGA): 307346.595 rface Completion: Gatic Northing (MGA): 6414260.778 tter Strike (m bgl): 6.5 Eg										CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface	×××		-0								
Fill Sandy silt, black, dry, loose, very fine grained, well sorted, no odour, no staining			-		DS	Y		1.1	BP_MW	/02_0.2	
Fill Clayey gravel with some sand, pale brown, moist, medium stiff, no odour, no staining			-					0.3			
			- - 					0.2			
			- - 2 - -					0			
			- - - - - - - - - - -					0			
Clay Clay with organic material, black, moist, soft, non- plastic, organic odour Clay Grey, moist, soft, highly plastic, no odour, no staining			- - 					0			
Sandy Clay Grey mottled red and orange, moist, soft, non plastic, no odour, no staining			_ _ _ _ 5								

Log By: SM/TC

Checked By:

Diff Start Date: 1411/2013 Total Depth (m): 8.2 Final Water Level (m big): 1.03 Elevation (Gauch): 169.2 Elevation	Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mo		SW								ID: BP_I	WW02
Shale U V V 0 BP_MW02_6.0 Shale -6 US Y 0 BP_MW02_6.0 Shale -7 -7 -7 -7 -7 -7 -8 -7 -8 -8 -7 -7 -7 -7 -8 -8 -7 -7 -7 -7 -7 -7 -7 -8 -7 -7 -7 -7 -7 -7 -7 -7 -7 -7 -8 -7	Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA	Hole Dian Casing Ty Casing Di Surface C	n. / Width /pe: PVC iam. (mm completic	n (mm): 150 ; n): 50 pn: Gatic		Elev Elev Eas	vation vation ting (I	(Groi (Cas (GA)	und): 169 e): 169.2 : 307346	.3 2 .595		
Shale US Y 0 BP_MW02_6.0 Shale US Y 0 BP_MW02_6.0 6 US Y 0 BP_MW02_6.0 7 I I I I I 7 I I I I I I 8 I I I I I I I End of Log I	Lithology		Symbol	Well Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Shale Weathered, red brown, moist, soft, no odour, no staining									0			
Weathered, red brown, moist, soft, no odour, no staining Image: Constraint of the second				6		US	Y		0	BP_MW	/02_6.0	
End of Log	Weathered, red brown, moist, soft, no odd	pur, no										
End of Log				-8								
	End of Log			- - - -								
				_ - 9 _								

Log By: SM/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BP_	MW03
Drill Finish Date: 26/11/2013Hole DiDrill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFASurface	Fotal Depth (m): 4 Final Water Level (m bgl): 2.4 Hole Diam. / Width (mm): 150 Elevation (Ground): 169.18 Casing Type: PVC Elevation (Case): 169.08 Casing Diam. (mm): 50 Easting (MGA): 307332.78 Surface Completion: Gatic Northing (MGA): 6414248.15 Nater Strike (m bgl): 1.3 Image: Completion completicompletion completion completion completion com										ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			_0								
Concrete Good condition, no staining			-					0			
Fill Gravelly sand (road base), red brown, moist, loose, fine to coarse, poorly sorted, no odour, no staining					DS	N		0	BP_MW	03 0.5	
Fill Gravelly clay, grey mottled orange, moist, medium stiff, low plasticity, no odour, no staining			1 					0		_	
								0			
Clay Clay with organic matter, dark brown, moist, soft,			2					0			
medium plastic, organic odour, no staining Clay Brown, moist, soft, highly plastic, no odour, no staining											
Sandy Clay Grey mottled red and orange, moist, soft, low plasticity, no odour, no staining								0			
					US	Y		0	BP_MW	/03_3.5	
	/										
End of Log			- - -								
			- - -								
			- —5								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I	NSW									ID: BP_N	ЛW04
Drill Co: Numac Casing Driller: Adrian Jarvis Casing	am. / W Type: P Diam. (Compl	ridth (mm PVC mm): 50 etion: Mc): 150 onument		Elev Elev Eas	vation vation ting (N	(Grou (Case MGA)	vel (m bgl und): 169. e): 169.91 : 307321.): 641430	26 5593		RM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Sandy silt, black, dry, loose, fine grained, well sorted, no odour, no staining, coal dust and rootlets throughout								0.2			
Fill Sandy clay, orange brown, moist, soft, low plasticity, no odour, no staining			-		DS	Y		0.1	BP_MW	/04_0.5	
Gravelly Clay Brown mottled red, moist, soft, non-plastic, no odour, no staining, ironstone fragments throughout, wet from 2.6mbgl	יול וסו אר ליום אר ליו אר ליום אר ליום מיום אר ליום אר		1 2 2 2 2 2 3					0			
Shale Grey, dry, friable, no odour, no staining Shale Weathered, dark grey, moist, soft, organic odour, no staining			-4 					0			
Clay Dark grey mottled brown, moist, soft, low plasticity, organic odour, no staining, red brown and wet with			_ _ 5		US	Y		-	BP_MW	/04_5.0	

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N		,								ID: BP_N	NW04
Drill Start Date: 14/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth Hole Diam. / Casing Type Casing Diarr Surface Con Water Strike	Width (mm : PVC n. (mm): 50 npletion: Mc			Elev Elev East	ation (ation (ing (M	Grou Case IGA):	el (m bg nd): 169): 169.9 307321 : 641430	.26 1		RM stralia Pty Ltd
Lithology	Svmhol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA O	Sample	Details	Remarks
								0			
								0			
								0			
								-0			
End of Log			- - - -								
			- - -9 - -					0			
			- - - - - 10								

Checked By:

Drill Start Date: 14/11/2013Total IDrill Finish Date: 20/11/2013Hole IDrill Co: NumacCasingDriller: Adrian JarvisCasing	at No.: 0224193 at Name: Project Symphony - Bayswater lame: Bayswater Power Station ddress: New England Highway, Muswellbrook, NSW tart Date: 14/11/2013 Total Depth (m): 7 Final Water Level (m bgl): 1.945 inish Date: 20/11/2013 Hole Diam. / Width (mm): 150 Elevation (Ground): 169 to: Numac Casing Type: PVC c Adrian Jarvis Casing Diam. (mm): 50 lethod: NDD/PT/SFA Surface Completion: Monument Type: Monitoring Well Water Strike (m bgl): 5													
			Depth (m)	Recovery	Sample Type	Analysed	MGA (KPa)): 641429 (wdd) Old	3.3283 Sample	ERM A	LRM ustralia Pty Ltd Remarks			
Ground Surface Fill Sandy silt, black, moist, loose, very fine grained, well sorted, no odour, no staining, coal dust and rootlets throughout Fill Sandy gravel, grey, moist, dense, fine to coarse grained, poorly sorted, no odour, no staining, concrete piece at 0.4mbgl Gravelly Clay Brown mottled red, moist, soft, non-plastic, no odour, no staining, ironstone fragments throughout					DS	Y		0.2 0.3 0.2 0.2 0 0 0.1	BP_MW					

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswell		W									ID: BP_I	MW05
Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA	Total Dept Hole Diam Casing Typ Casing Dia Surface Co Water Strik	ı. / W pe: P am. (ı ompl	idth (mm) VC mm): 50 etion: Mo			Elev Elev East	ration ration ting (N	(Grou (Case //GA)	vel (m bg und): 169 e): 169.6 : 307346): 64142	7 .7488		CRM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Gravelly Clay Black, wet, soft, non-plastic, organic odour, fine medium sub rounded gravel												
	1-1 			6 		US	Y		0	BP_MW	/05_6.0	
End of Log	 - 	· • • • • • •		- - - - - -					0.1			
				- - - - - - 8 -								
				- - - -								
				9 _ _ _ _ _								
				- - - 10								

Log By: SM/TC

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BP_	_MW06
Drill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFASurface	am. / W Type: F Diam. (Compl	/idth (mn	atic		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA)	vel (m bg und): 169 e): 169.36 : 307316.): 641427	.47 5 389		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			0								
Concrete Cracked, no staining	XXX		-		DS	Y	\vdash	0.1	BP_MW	106 0.2	
Fill Sand, brown, moist, loose, medium to coarse, poorly			-		20	\vdash			2		
sorted, sub rounded, no odour, no staining Gravelly Clay Orange brown, moist, soft, medium plasticity, no odour, no staining			-					0.3			
			1 _					0.2			
			- - - -					0.2			
			- 2 - - -								
			- - - - - -								
Clay Clay with organic matter, dark brown, moist, soft, medium plastic, organic odour											
Clay Brown, moist, soft, highly plastic, no odour, no staining											
Sandy Clay Grey mottled red and orange, moist, soft, low plasticity, no odour, no staining											-
	/				US	Y		0	BP_MW	/06_4.0	
			- 5								

Log By: SM/TC

Checked By:

Drill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFASurface	epth (m iam. / W Type: I Diam. e Comp	/idth (mm)	tic		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	rel (m bg Ind): 169 2): 169.3 307316): 64142	6 .389	WW06 SRM Ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) UIA	Sample	Remarks
Shale Weathered, red brown, moist, no odour, no staining			- - - - - - - - - - - - - - - - - - -							
End of Log			- - - - - - - - - - - - - - - - - - -							
			 9							
			 10							

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I	NSW									ID: BQ	_MW01
Drill Start Date: 14/11/2013Total DeDrill Finish Date: 28/11/2013Hole DiaDrill Co: NumacCasingDriller: Phil BrintonCasingDrill Method: NDD/PT/SFA/AHSurfaceHole Type: Monitoring WellWater S	am. / W Type: P Diam. (I Comple	idth (mm VC mm): 50 etion: Ga			Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bg und): 189 e): 189.4 : 307649): 64135	.054		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface	×××		_0			N				/01 0 1	
Fill Gravelly sand, yellow/brown, dry, loose, medium	/		Ē		DS	N		0.1 0.2	BQ_MW BQ_MW		-
grained, poorly sorted, no odour, no staining. Rounded gravels (ironstone)	\bowtie		E,		00	11			ואואי_גיע	101_1.J	-
Fill Gravelly clay, orange/brown, moist, medium - stiff,			1 					0			
low plasticity, no odour, no staining.								0.1			
odour, no staining. Sandstone Weathered, orange/brown and pale grey, moist, medium - dense, low plasticity, no staining, no odour.	/		2								
Sandstone Very dense layer			3 								
			4 4								
Siltstone			5					0			
Weathered, dry, dark grey, siltstone with minor sand (5 %), no odour, no staining.											
			6 					0			
			7					0			
								0			
								_			
			9 					0			
			_ 10					0			

Log By: SM/WG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bar Site Name: Bayswater Power Station Site Address: New England Highway, I										ID: BQ_I	MW01
Drill Start Date: 14/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Driller: Phil Brinton Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth (n Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (n	Vidth (mm PVC (mm): 50 Iletion: Ga			Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bgl und): 189. e): 189.4 : 307649.): 641354	49 054		CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
								0			
			12					0			
			14					0			
	(E)E:		- 15					0			
			16 17					0			
			- 18					0			
			19 20					0			

Log By: SM/WG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswel										ID: BQ_I	MW01
Drill Start Date: 14/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Driller: Phil Brinton Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth Hole Diam. / Casing Type Casing Diam Surface Corr Water Strike	Width (m : PVC i. (mm): 5 inpletion: (0 Gatic		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bgl und): 189. e): 189.4 : 307649.): 641354	49 054		RM stralia Pty Ltd
Lithology	Svmbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			21					0			
Siltstone Weathered, dry, dark grey, no odour, no stainin	·=·-		22					0			
	g.		24 24 					0			
			25 25 					0			
			26 27 27					0			
			28 28 28					0			
			29 29 					0			
			 30					0			

Log By: SM/WG

Checked By:

Page 3 of 5

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Ba Site Name: Bayswater Power Station Site Address: New England Highway, I										ID: BQ_I	MW01
Drill Start Date: 14/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Driller: Phil Brinton Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth (Hole Diam. / Casing Type: Casing Diam Surface Com Water Strike	Width (mn : PVC . (mm): 50 pletion: G			Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bgl und): 189. e): 189.4 : 307649.): 641354	49 054		CRM ustralia Pty Ltd
Lithology	Symbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			31					0			
								0			
			 34 					0			
			35 35 36					0			
			37					0			
			38					0			
								0			

Log By: SM/WG

Checked By:

Page 4 of 5

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Ba Site Name: Bayswater Power Station Site Address: New England Highway, I										ID: BQ_I	WW01
Drill Start Date: 14/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Driller: Phil Brinton Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth (n Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (n	Vidth (mm) PVC (mm): 50 pletion: Gat			Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):	vel (m bgl und): 189. e): 189.4 : 307649.): 641354	49 054		STATES AND AND A STATES AND A S
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
			41					0			
								0			
			44					0			
			45					0			
			46 47					0			
			48					0			
								0			

Log By: SM/WG

Checked By:

Page 5 of 5

	a, NSW Depth (i Diam. / V			150					<i>v</i> el (m bg ınd): 148		ID: BQ	_MW02
Drill Co: NumacCasinDriller: Eric GrimaCasinDrill Method: NDD/PT/SFASurface	g Type: g Diam. ce Com Strike (PVC (mm):	50 Mon			Elev Eas	ation ting (I	(Case MGA)		.294		ERM Australia Pty Ltd
Lithology	Symbol	Well		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Sandy Silt	/			-0								
Brown, moist, soft, non-plastic, no odour, no staining Sandy Clay Brown mottled red brown, moist, medium stiff, low		-				DS	N		0	BQ_MW	02_0.2	-
plasticity, no odour, no staining		-							0			
		-		-1					0			
									0			
Clay Clay with weathered shale, grey mottled orange, moist, soft, non-plastic, no odour, no staining				-2								
				-4		US	Y		0	BQ_MW	02_3.8	
				-5								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		SW									ID: BQ	_MW02
Drill Start Date: 14/11/2013 Drill Finish Date: 2/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Dep Hole Diar Casing Ty Casing D Surface C Water Str	m. / W ype: F iam. (Compl	/idth (mm) PVC mm): 50 etion: Mo	nument		Elev Elev East	ation ation ting (N	(Grou (Case MGA):	vel (m bç und): 148 e): - : 308930): 64121	3.55).294		ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
	- - - - - - - - - - 			- - - -								
End of Log				-								
				—6 - -								
				-								
				- - -								
				—7 - -								
				- - -								
				-								
				—8 - -								
				-								
				-								
				9 								
				-								
				_ _ _								
				_ 10								

Log By: TC

Checked By:____

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo	k, NSW									ID: BQ_	MW03	
Drill Finish Date: 2/12/2013HoleDrill Co: NumacCasinDriller: Eric GrimaCasinDrill Method: NDD/PT/SFASurfation	Total Depth (m): 5.7Final Water Level (m bgl): 0.35Hole Diam. / Width (mm): 150Elevation (Ground): 158.11Casing Type: PVCElevation (Case): 158.820Casing Diam. (mm): 50Easting (MGA): 308672.001Surface Completion: MonumentNorthing (MGA): 6412351.436Water Strike (m bgl): 4.5E									ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)	PID (ppm)	Sample	Details	Remarks	
Ground Surface	×,		_0									
Sandy Silt Dark brown, dry, soft, non-plastic, no odour, no staining	× × × × × ×		_		DS	N		0	BQ_MW	/03_0.2		
Clay Brown, mottled red brown, moist, soft, medium plasticity, no odour, no staining			-					0				
			1					0				
Clay Clay with weathered shale, grey mottled orange, moist, soft, non-plastic, no odour, no staining								0				
			- - - - - - -					0				
			-		US	Y		0	BQ_MW	/03_4.5		
			- - 5					0				

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		ISW									ID: BQ_	_MW03
Drill Start Date: 14/11/2013 Drill Finish Date: 2/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing T Casing E Surface	ım. / W Type: F Diam. (Compl	/idth (mm) PVC	nument		Elev Elev East	ation ation ting (N	(Grou (Case //GA):	vel (m bç ınd): 158 e): 158.8 : 308672): 64123	20 .001		ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
End of Log				- - 6								
				- - -								
				- - 7								
				- - -								
				_ _ _								
				- - 8								
				-								
				- - -								
				_ 9 _								
				-								
				- - -								
				_ 10								

Log By: TC

Checked By:____

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo	k, NSW									ID: BQ_I	MW04
Drill Finish Date: 28/11/2013 Hole Drill Co: Numac Casi Driller: Eric Grima Casi Drill Method: NDD/SFA/AH Surfa	ng Type: I ng Diam. (Vidth (mm) PVC (mm): 50 letion: Mo			Elev Elev Eas	0	ERM Australia Pty Ltd				
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface	* ,		_0								
Sandy Silt Dark brown, moist, soft, non-plastic, no odour, no staining, rootlets			-		DS	N			BQ_MW	/04_0.2	
Sandy Clay]		-					0			
Dark brown, moist, medium stiff, non-plastic, no odour, no staining			- - -					0			
Shale Weathered, grey brown, dry, dense, friable, no odou no staining	.,		- - - - -					0			
			- - -					0			
			- - 2 -					0			
			- - -								
			- - 					0			
			- - -								
			- - - -					0			
			- - -					U			
Siltstone Grey, dry, fine grained, no odour, no staining, less dust from 8.0mbgl			_								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		W								ID: BQ_N	ЛW04
Drill Start Date: 14/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/SFA/AH Hole Type: Monitoring Well	Casing Typ Casing Dia Surface Co	. / Width (mm)			Eleva Eleva Easti	ition (ition (ng (N	(Grou (Case (GA):	vel (m bg und): 178 e): 179.3 : 308369): 64124	3.75 10 .491		RM stralia Pty Ltd
Lithology	-	Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			- - - - - - - - - - - - - - - - - - -								

Log By: TC

Checked By:

Drill Co: Numac Casing Driller: Eric Grima Casing	epth (m am. / W Type: F Diam. (Compl	idth (mm PVC mm): 50 etion: Mc): 150 nument		Elev Elev East	ation ation ing (N	(Gro (Cas (MGA)	vel (m bg und): 174 e): 175.4 : 308650 .): 64125	1.74 90).998		MW05 ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Sandy Silt Dark brown, moist, soft, non-plastic, no odour, no staining	/		0 _ _		DS	N		0	BQ_MW	/05_0.2	
Sandy Clay Dark brown, moist, medium stiff, non-plastic, no odour, no staining			-					0			
Shale Weathere, grey brown, dry, friable, no odour, no staining			 					0			
			-					0			
			- - 2 - -		US	Y		0	BQ_MW	/05_2.0	
			- - - - - - - - - - - - - -					0			
								0			
			- - 5					0			

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		I								ID: BQ	_MW05	
Drill Start Date: 14/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing Type Casing Dian Surface Cor	Piam. / Width (mm): 150 Elevation (Ground): 174.74 ng Type: PVC Elevation (Case): 175.490 ng Diam. (mm): 50 Easting (MGA): 308650.998 ace Completion: Monument Northing (MGA): 6412518.656 er Strike (m bgl): 6 8								ERM Australia Pty Ltd		
Lithology	Sumbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks	
Sandy Clay Brown, moist, soft, low plasticity, no odo staining			- - - - - - - - - - - - - - - - - - -					0				
End of Log			- - - - - - - - - - - - - - - - - - -									

Log By: TC

Checked By:

Drill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFASurface	epth (m am. / W Type: f Diam. (Compl	/idth (mm) N/A (mm): N/A letion: Ba			Elev Elev Eas	ration ration ting (N	er Lev (Grou (Case MGA): (MGA): -	ID: BQ_MW06		
Hole Type: Soil Bore Water S	loquistrike (n	n bgl): -	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks	
Ground Surface Sandy Clay Red brown, moist, soft, non-plastic, no odour, no staining			0 		DS	N		0	BQ_MW06_0.2		
Shale Weathered, grey brown, moist, friable, no odour, no staining, well dry at 10.0mbgl, well reinstated			- - - - - - 1					0			
								0			
			- 2 -		US	Y		0	BQ_MW06_2.0	_	
			- - - - - - 3								
			 4 								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M Drill Start Date: 14/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac	luswellbrook, NSW Total Depth (n Hole Diam. / V Casing Type: I	Vidth (mm N/A): -	ID: BQ_N	AW06						
Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Soil Bore	Casing Diam. Surface Comp Water Strike (r	letion: Ba						: 308960): 641255	4	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample D	etails	Remarks	
			-									
			_									
			6 6									
			- - -									
			-									
			7 									
			-									
			- - 8									
			-									
			-									
			_ 9 _									
			_ _ _									
			- - -									

Log By: TC

Checked By:

Drill Finish Date: 28/11/2013Hole DDrill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFASurface	tt Name: Project Symphony - Bayswater ame: Bayswater Power Station ddress: New England Highway, Muswellbrook, NSW tart Date: 14/11/2013 Total Depth (m): 10 Final Water Level (m bgl): 8.54 nish Date: 28/11/2013 Hole Diam. / Width (mm): 150 Elevation (Ground): 177 o: Numac Casing Type: PVC Elevation (Case): 177.740 Eric Grima Casing Diam. (mm): 50 Easting (MGA): 309050.058 ethod: NDD/PT/SFA Surface Completion: Monument Northing (MGA): 6412627.679 'ype: Monitoring Well Water Strike (m bgl): 8											
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Sandy Silt Dark brown, moist, soft, non-plastic, no odour, no staining Sandy Clay	× · · · · · · · · · · · · · · · · · · ·		 		DS	N		0	BQ_MW	/07_0.2		
Brown, moist, low plasticity, no odour, no staining	XXX		- - - 					0				
Shale Weathered, grey brown, mosit, friable, no odour, no staining			_									
			- - 2 -		US	Y		0	BQ_MW	/07_2.0		
			-									
			3 									
			_ _ _ 4 _									
			-									

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M Drill Start Date: 14/11/2013 Drill Finish Date: 28/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Dep Total Dep Hole Diar Casing T Casing D Surface (ISW pth (m): 10 m. / Width (r Type: PVC Diam. (mm): : Completion: rike (m bgl):	50 Monument		Elev Elev East	ation ation ing (N	(Grou (Case /IGA)	vel (m bg und): 177 e): 177.7 : 309050): 641262	, 40 .058		MW07 SRM Ustralia Pty Ltd
Lithology		Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Sandy Clay Grey mottled orange, wet, soft, medium p odour, no staining	plasticity, no		- - - - - - - - - - - - - - - - - - -								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 13/11/2013 Total D Drill Finish Date: 27/11/2013 Hole Di Drill Co: Numac Casing Driller: Eric Grima Casing Drill Method: NDD/PT/SFA Surface Hole Type: Monitoring Well Water S	epth (m am. / W Type: F Diam. (e Compl	/idth (mi PVC (mm): 50 letion: N) Ionument		Elev Elev Eas	vation vation ting (N	(Groi (Cas //GA)	vel (m bg und): 151 e): 152.30 : 309199.): 641291	.8 60 .504		MW08
Lithology	Symbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (кРа)	(mqq) Olq	Sample		Remarks
Ground Surface Gravelly Clay	- <u>-</u>		-0								
Brown, moist, stiff, non-plastic, no odour, no staining, rootlets throughout			-					0			
	**_ **_ **		-		DS	N		0.2	BQ_MW	V08_0.5	
Clay Darh brown, moist, medium stiff, low plasticity, trace ironstone gravel	NNN		- - - - - - - - - -					0.1			
Clay Brown, moist, stiff, high plasticity, no odour, no staining			- - - -					0.1			
			- - - 2 - -					0			
			- - - - - - 3								
Sandy Clay Grey mottled orange, moist, soft, low plasticity, no odour, no staining, wet from 4.5mbgl								_			
					US	Y		0	BQ_MW	/08_3.9	
			5								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M	uswellbrook, NS									ID: BQ_I	WW08
Drill Start Date: 13/11/2013 Drill Finish Date: 27/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depti Hole Diam. Casing Typ Casing Dia Surface Co Water Strik		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bg und): 151 e): 152.3 : 309199): 64129	.8 60 .504	ERM Australia Pty Ltd			
Lithology		Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
End of Log			- - - - - - - - - - - - - - - - - - -								
			- - - - - - - - - - - - - - - - - - -								

Log By: **TC**

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW								ID: BQ	_MW09		
Drill Co: Numac Casing Driller: Eric Grima Casing	am. / W Type: N Diam. (Compl	lidth (mm I/A mm): N/A etion: Ba	Å		Elev Elev Eas	vation vation ting (N	(Grou (Case MGA)	vel (m bç und): - e): - : 309240): 64133	35	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks		
Ground Surface Fill Reworked clay with silt, grey brown, dry, no odour, no staining rootlet inclusions, gravel inclusions					DS	Y		0.1	BQ_MW09_0.05	_		
increasing with depth Clay Natural, light brown, moist, plastic, no odour, no staining, becoming dark brown with depth			- - -		DS	N		0.1	BQ_MW09_0.5	-		
Shale Weathered, brown, dry, becoming laminated with depth, well dry at 4.0mbgl, well reinstated			- - - - - - - - - - - - - - - - - - -		DS	N		0.1	BQ_MW09_1.0			
			- - - - - - - - - - - - - - - - - - -									
End of Log			- - - - - - - - - - - 5									

Log By: HC/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I Drill Start Date: 13/11/2013 Total De Drill Start Date: 15/11/2013 Hole Dia Drill Co: Numac Casing Driller: Eric Grima Casing	epth (m am. / W Type: F Diam. (/idth (mi PVC [mm): 5 ()		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA)	vel (m bg und): 156 e): 156.82 308378.	31 20 315	ID: BQ_I	
Drill Method: NDD/PT/SFA Surface Hole Type: Monitoring Well Water S Lithology			Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)): 641380 (wdd) Old	6.143 Sample		Istralia Pty Ltd
Ground Surface Fill Reworked clay with gravel throughout, brown with red mottling, moist, plastic, no odour, no staining, fine to medium gravel (ironstone, shale etc.), increasing			0 		DS	Y		0.1	BQ_MW ⁻	10_0.05	
moisture at 1.0mbgl (level of adjacent drainage ditch)					DS	Y		0.2	BQ_MW	10_0.5	
Gravel Brown to grey, angular, fine to coarse gravels/shale, saturated, layered gravels								0.1			
Gravelly Clay Orange brown grading to grey at 3.2mbgl, moist, high plasticity, no odour, no staining			-3					0			
Gravel Shale, orange brown, grey, layered ironstone and shale					US	Y		0.1	BQ_MW	10_3.5	

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Ba Site Name: Bayswater Power Station Site Address: New England Highway, I Drill Start Date: 13/11/2013): 5,3			Fina	I Wat	er Lev	vel (m bg	I): O	ID: BQ_N	AW10	
Drill Finish Date: 15/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Hole Dia Casing T Casing I	am. / W Type: P Diam. (Compl	ridth (mm PVC mm): 50 etion: Ga			Elev Elev East	vation vation ting (N	(Grou (Case /IGA):	und): 156 e): 156.8 308378): 64138(.31 20 .315	ERM ERM Australia Pty Ltd		
Lithology		နိုင်္ပီလို Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
End of Log													

Log By: HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I										ID: BQ	_MW11	
Drill Finish Date: 27/11/2013Hole DiaDrill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFASurface	Depth (m): 5Final Water Level (m bgl): 1.92Diam. / Width (mm): 150Elevation (Ground): 127.92g Type: PVCElevation (Case): 128.640g Diam. (mm): 50Easting (MGA): 309895.578ce Completion: MonumentNorthing (MGA): 6412998.541Strike (m bgl): 3.5Strike (m bgl): 3.5									ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Silty Clay Topsoil, light brown, dry, minor plasticity, no odour,	Ħ		-0		DS	Y		0.1	BQ_MW	/11_0.1		
Clay Grey brown, moist, plastic, no odour, no staining, becoming brown with red mottling from 0.5mbgl, increasing plasticity with depth, wet from 3.5mbgl			- - - -					0.1				
			- - - 1 -					0.1				
			- - - -					0.1				
			- -2 - - -					0				
			- - - - - - -					0				
			- - - - - -		US	Y		0	BQ_MW	11_3.8	-	
			- - - -									
			- - -5									

Log By: HC/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BQ_	_MW12		
Drill Finish Date: 27/11/2013Hole DiDrill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/SFASurface	al Depth (m): 8.9 Final Water Level (m bgl) b Diam. / Width (mm): 150 Elevation (Ground): - ing Type: N/A Elevation (Case): - ing Diam. (mm): N/A Easting (MGA): 309850 ace Completion: Backfilled Northing (MGA): 6412808 er Strike (m bgl): - Easting (MGA)									ERM			
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
Ground Surface Sandy Clay Red brown, moist, soft, non-plastic, no odour, no			-0		DS	N		0		110.00			
staining, medium stiff from 0.5mbgl			-		60	N		0	BQ_MW	112_V.2			
			- - - 1					0					
Clayey Sand Brown, moist, medium dense, fine to medium grained, well sorted, no odour, no staining, dry at 8.9mbgl, well reinstated	/		-					0					
			- - - 2										
			_ - -										
	/		- - -										
	/		3 										
			- - -										
			- 4 -										
			- - -										
			_ _ 5										

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M					ID: BQ_	MW12
Drill Start Date: 14/11/2013 Drill Finish Date: 27/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/SFA Hole Type: Soil Bore	Total Depth (m): 8 Hole Diam. / Widt Casing Type: N/A Casing Diam. (mr Surface Completi Water Strike (m b	h (mm): 150 n): N/A on: Backfilled	Elev Elev Eas	al Water Level (m b vation (Ground): - vation (Case): - tting (MGA): 30985 thing (MGA): 6412	0 808	ERM Lustralia Pty Ltd
Lithology	Symbol	Well Depth (m)	Recovery Sample Type	Analysed PPT (kPa) PID (ppm)	Sample Details	Remarks
		- - -				
		- - - - - 6				
		-				
		- - - - - 7				
		-				
		- - - - - 8				
End of Log		9 _ _ _ _				

Log By: **TC**

Checked By:

onconce by.

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook										ID: BQ_	MW13	
Drill Finish Date: 27/11/2013Hole IDrill Co: NumacCasinDriller: Eric GrimaCasinDrill Method: NDD/PT/SFASurface	g Type: P g Diam. (ce Compl	idth (mm) VC	nument		Elev Elev Eas	vation vation ting (N	(Grou (Case VGA)	vel (m bg und): 173 e): 174.4 : 308942): 64137	.51 30 .362	ERM		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks	
Ground Surface Fill Sandy clay with trace gravel (topsoil), grey brown, mosit, non-plastic, no odour, no staining Gravelly Clay Red brown, moist, medium stiff, low plasticity, no odour, no staining			- 1 		DS	N		0.1	BQ_MW	/13_0.2		
Silty Clay Dry, pale grey mottled orange, soft, low plasticity, no odour, no staining, wet from 4.3mbgl			- - - - - - - - 2 - - -		US	Y		0	BQ_MW	/13_1.8		
	HHHHHH		- - - - - - - - - - - - - - -									
			- - - - - - - - - - - - - - - - -									

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		SW									ID: BQ_I	WW13	
Drill Start Date: 13/11/2013 Drill Finish Date: 27/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Dep Hole Dian Casing Ty Casing Di Surface C Water Stri	n. / Wi /pe: P am. (r comple	idth (mm VC mm): 50 etion: Mo	nument		Elev Elev Easi	ation ation ing (N	(Grou (Case //GA):	vel (m bg ind): 173 e): 174.4 308942): 64137	3.51 30 .362	ERM Australia Pty Ltd		
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
		141414											
End of Log				- 6 									
				- - - 7 -									
				- - 9 									

Log By: SM/TC

Checked By:

	tal Depth (m							vel (m bg		ID: BQ_	MW14		
Drill Co: NumacCaDriller: Eric GrimaCaDrill Method: NDD/PTSu	sing Type: I sing Diam. rface Comp	Diam. / Width (mm): 150Elevation (Ground): 141.38ng Type: PVCElevation (Case): 141.910ng Diam. (mm): 50Easting (MGA): 308529.086ace Completion: MonumentNorthing (MGA): 6414183.085er Strike (m bgl): 1.5Northing (MGA): 6414183.085									ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks		
Ground Surface Sandy Silt Dark brown, moist, soft, non-plastic, no odour or			-0										
staining Sandy Clay Grey mottled brown, moist, soft, low plasticity, no odour or staining. Trace gravels increasing with depth. Wet from 1.5m bgl			- - - -		DS	Y		0	BQ_MW	/14_0.2			
			- 1 - -					0					
			- - - - - - - 2 -					0					
			-		US	Y		0	BQ_MW	/14_2.4			
End of Log			- - - - - - - - - - - - - - - - - - -										

Log By: TC

Checked By:

Drill Co: NumacCasingDriller: Matt MoroneyCasingDrill Method: NDD/AHSurface	epth (m am. / W Type: F Diam. (Compl	idth (mm) VC			Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bg Ind): 104 e): 105.5(: 315228.): 641156	.96 5 068	ID: BR_MW01		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Fill Gravel consistency, predominantly siltstone with coal fragments, dark grey, dense. Siltstone Weathered, dark grey, moist. Coal Black, slightly moist.			-1					0				
Siltstone Weathered, dark grey, dry. Sandstone Weathered, grey, dry, medium grained with a degree of fines			6 7 8 9									

Log By: WG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M										ID: BR_I	WW01	
Drill Start Date: 21/11/2013 Drill Finish Date: 22/11/2013 Drill Co: Numac Driller: Matt Moroney Drill Method: NDD/AH Hole Type: Monitoring Well	Total Depth (m Hole Diam. / W Casing Type: F Casing Diam. (Surface Comp Water Strike (n	/idth (mm PVC (mm): 50 letion: Mc	onument		Elev Elev East	vation vation ting (N	(Grou (Case MGA):	vel (m bgl ind): 104. e): 105.56 315228.): 641156	96 ; 068	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)	PID (ppm)	Sample	Details	Remarks	
Siltstone Weathered, dark grey, dry.			-11 -12 -13 -14 -15 -16 -17 -18 -19 -20									

Log By: WG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayse Site Name: Bayswater Power Station Site Address: New England Highway, Mu Drill Start Date: 21/11/2013 Drill Start Date: 22/11/2013 Drill Finish Date: 22/11/2013 Drill Co: Numac Driller: Matt Moroney Drill Method: NDD/AH	Total De Hole Dia Casing I Casing I	epth (m) am. / Wi Type: P ' Diam. (r	idth (mm VC nm): 50			Elev Elev Eas	ration ration ting (N	(Groi (Cas VGA)	und): 10 e): 105.4 : 315228	56	ID: BR	
Hole Type: Monitoring Well	Water Si				Recovery	Sample Type	Analysed		PID (ppm)	Sample		Australia Pty Ltd Remarks
Coal Black, grey, dry.	h some	FYER FYER FXER FXER FXER FXER FXER FXER FXER FX		-21 -22 -23 -24 -25 -26 -27 -28 -29 -29 -30		DS	Y		0	BR_MW0	1_25MBG	

Log By: WG

Checked By:

Page 3 of 6

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellt	prook, NSW									ID: BR_I	MW01
Drill Finish Date: 22/11/2013HDrill Co: NumacODriller: Matt MoroneyODrill Method: NDD/AHS	Finish Date: 22/11/2013 Hole Diam. / Width (mm Co: Numac Casing Type: PVC er: Matt Moroney Casing Diam. (mm): 50 Method: NDD/AH Surface Completion: Mo Type: Monitoring Well Water Strike (m bgl): 50							vel (m bg und): 104 e): 105.56 : 315228): 641156	6 .068		CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Sandstone Weathered, dark grey, dry, medium grained with some fines Coal Thin band, black, dry. Siltstone Weathered, dark grey, dry.											
			39 39 40								

Log By: WG

Checked By:____

Page 4 of 6

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswate Site Name: Bayswater Power Station Site Address: New England Highway, Muswel Drill Start Date: 21/11/2013	Ilbrook, NSV	ı (m): 52							I): 29.02	ID: BR_N	AW01
Drill Finish Date: 22/11/2013 Drill Co: Numac Driller: Matt Moroney Drill Method: NDD/AH Hole Type: Monitoring Well	Hole Diam. Casing Type Casing Diar Surface Cor Water Strike	e: PVC m. (mm): mpletion:	50 Monument		Elev Eas	ation ting (N	(Case MGA):	ind): 104 e): 105.56 315228.): 641156	6 .068		RM ustralia Pty Ltd
Lithology	Cimbol Cimbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Sandstone Slightly weathered, grey, dry, poorly sorted with degree of fines	1 high		-41 -42 -43 -44 -44 -45 								
Sinstone Weathered, dark grey, dry. Sandstone Slightly weathered, grey, dry, poorly sorted with	n hiah										
Sandstone Slightly weathered, grey, moist, poorly sorted with high degree of fines			49		DS	Y		-	BR_MW01	_49MBGS	

Log By: WG

Checked By:

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oject Name: Project Symphony - Bayswater ie Name: Bayswater Power Station ie Address: New England Highway, Muswellbroc	ok, NSW									ID: BR_N	NW01	
ill Finish Date: 22/11/2013Holeill Co: NumacCasiiller: Matt MoroneyCasiill Method: NDD/AHSurfation	ng Type: ng Diam. ace Comp	Vidth (mm	onument		Elev Elev Easi	vation vation ting (N	(Grou (Case MGA):	vel (m bgl und): 104. e): 105.56 : 315228.): 641156	.96 3 068	ERM		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
andstone lightly weathered, grey, wet, poorly sorted with high egree of fines			51									
nd of Log	<u></u>		1 <u>-</u> 52 									
			53									
			54									
			55									
			56									
			57									

Log By: WG

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 19/11/2013 Total D). 32 6			Eine		orlo	vel (m bgl).	ID: BR_N	MW05
Drill Finish Date: 20/11/2013 Hole Di Drill Co: Numac Casing Driller: Matt Moroney Casing	am. / W Type: P Diam. (Compl	'idth (mm PVC mm): 50 etion: Me	,		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):): 66.23 (10): 65.5 (2): 66.23 (2): 640659 (2): 640659	2 222		SRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Silty clay (30%) and coarse gravel (70%) with large rock fragments (20 cm max). Mine spoil. Fill Siltstone rock chips (90%) with varying degrees of weathering, silty clay (10%). Mine spoil.			0 					0			
Sandstone Lithic, weathered, light grey, dry, fine grained, poorly sorted.			9 9 10								

Log By: WG

Checked By:____

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswate Site Name: Bayswater Power Station Site Address: New England Highway, Muswe Drill Start Date: 19/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Matt Moroney Drill Method: NDD/AH Hole Type: Monitoring Well		/idth (mn PVC (mm): 50 letion: M	1		Elev Elev East	ration ration ting (N	(Grou (Case MGA)	vel (m bç ınd): 65. e): 66.23 : 317776): 64065	52 5.222		MW05 ERM Custralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Sandstone Lithic, weathered, light grey, slightly moist, fine grained, poorly sorted.			11								
Coal Black, slightly moist, soft.			14 		DS	Y			BR_MW	05_14.0	
Siltstone Weathered, dark grey, dry.			15 								
Sandstone Lithic wacke, weathered, grey, dry, fine grained poorly sorted.			16 17 18 19 20								

Log By: WG

Checked By:____

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N		ISW									ID: BR_I	WW05
Drill Start Date: 19/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Matt Moroney Drill Method: NDD/AH Hole Type: Monitoring Well	Total De Hole Dia Casing I Casing I Surface Water S	am. / Wie Type: P\ Diam. (n Comple	dth (mm VC nm): 50 etion: Mo			Elev Elev Eas	ration ration ting (N	(Grou (Case MGA)	vel (m bg ind): 65. e): 66.23 : 317776): 640659	52 .222		LRM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Coal Black, dry. Siltstone Weathered, dark grey, dry.				21 22 23 24 25 26 26 27 28 27 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20								

Log By: WG

Checked By:____

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook										ID: BR_	_MW05	
Drill Finish Date: 20/11/2013Hole IDrill Co: NumacCasinDriller: Matt MoroneyCasinDrill Method: NDD/AHSurface	g Type: I g Diam.	Vidth (mm PVC (mm): 50 letion: Mc			Elev Elev Eas	vation vation ting (N	(Grou (Case MGA)	vel (m bg und): 65. e): 66.23 : 317776): 64065	52 .222	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks	
Coal Black, slightly moist.	ТК Ж.Т.К.Т.К. Ж.Т.К.Т.К.Т.К.Т.К.Т.К.Т. Т.К.Т.К.Т.К.Т.К.				DS	Y		-	BR_MW	05_31.0		
Sandstone Lithic wacke, slightly weathered, grey, dry, fine grained, poorly sorted.												
End of Log			-33									
			-35									
			-36									
			37									

Log By: WG

Checked By:

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	Depth (m)								I): 20.814	ID: BR_N	иwo6
Drill Co: NumacCasingDriller: Phil BrintonCasingDrill Method: NDD/AHSurface	Diam. / W g Type: P g Diam. (i se Comple Strike (m	WC mm): 50 etion: Mo	onument		Elev East	ation ing (N	(Case //GA)	und): 79.7 e): 80.39 : 316944.): 640945	609		IRM
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Mine spoil, clayey silt and gravel with large siltstone rock fragments (30 cm diameter max), light grey, slightly moist.			0 1								
Fill Mine spoil, clayey silt with rock fragments consisting of siltstone, lithic wacke sandstone and minor coal, light to dark grey, slightly moist.			2 3 4 5 6 7 8 9 10 10								

Log By: WG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Ba Site Name: Bayswater Power Station Site Address: New England Highway,		NSW									ID: BR_N	AW06
Drill Start Date: 25/11/2013 Drill Finish Date: 26/11/2013 Drill Co: Numac Driller: Phil Brinton Drill Method: NDD/AH Hole Type: Monitoring Well	Hole D Casing Casing Surfac	Depth (m) liam. / Wi J Type: P J Diam. (r e Comple Strike (m	idth (mm VC mm): 50 etion: Mc	onument		Elev Elev Eas	vation vation ting (I	(Grou (Case MGA):	vel (m bg ind): 79.7 e): 80.39 316944.): 640945	.609		RM stralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Fill Mine spoil, clayey silt with rock fragme of siltstone, lithic wacke sandstone and light to dark grey, moist. Sandstone Lithic wacke, weathered, light grey, we	d minor coal,			11 12 13 14 15 16 17 18		DS	Y			BR_MW06		

Log By: WG

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswell		N									ID: BR	MW09	
Drill Finish Date: 26/11/2013 Drill Co: Numac O Drill Co: Phil Brinton O Drill Method: NDD/AH	Total Depth Hole Diam. Casing Typ Casing Diar Surface Col Water Strike	/Widtl e:N/A m. (mn mpletio	h (mm) n): N/A on: Bac			Elev Elev East	ration ration ting (N	(Grou (Case //GA):	vel (m bo ind): - e): - : 315671): 64096		ERM Australia Pty Ltd		
Lithology		symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Mine spoil, dense gravel and rock fragments consisting of siltstone and sandstone (30 cm ma diameter), minor clay silt, grey, slightly moist. Fill Mine spoil, siltstone and sandstone dust and chi dry.						DS	Y			BR_MW09	_2-3MBGS		
End of Log				- - - - - - - - - - - - - - - - - - -									

Log By: WG

Checked By:

Drill Co: Numac Casing Driller: Matt Moroney Casing	epth (m) am. / Wi Type: N Diam. (r Comple	idth (mm / A mm): N/A etion: Ba	A Contraction		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bgl und): - =): - : 317167): 640809			AW11 S R M S S S S S S S S S S S S S
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Mine spoil, moist, dark brown, dense, silty clay (40%) and coarse gravel (60%) with large rock fragments up to 30cm. Fill Mine spoil, rock chips consisting of fine grained sand with high fines content and siltstone (60%) with silty clay, weathered, light grey, slightly moist.								0			
No Recovery No recovery between 4.0 and 9.5m bgl due to pore space and advancing PVC Casing. Borehole abandoned at 9.5m bgl due to collapsing mine spoil.								0			

Log By: WG

Checked By:

Lithology Image: Constraint of the second	Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mu Drill Start Date: 20/11/2013 Drill Finish Date: 26/11/2013 Drill Co: Numac Driller: Matt Moroney Drill Method: NDD/AH Hole Type: Soil Bore	swellbrook, NSW Total Depth (m Hole Diam. / W Casing Type: 1 Casing Diam. (Vidth (mm): 125 N/A (mm): N/A letion: Backfilled	Eleva Eleva Eastii	Water Level (m b ation (Ground): - ation (Case): - ng (MGA): 31716 ing (MGA): 6408 (gl): - 7 D93	_MW11 Solution ERM Australia Pty Ltd
-7 -7 -8 -8 	Lithology	Symbol	Well Depth (m)	Recovery Sample Type	Analysed PPT (kPa) PID (ppm)	Sample Details	Remarks
DS Y BR_MW11_9MBGS							
BR_MW11_9MBGS			- - - 6 -				
BR_MW11_9MBGS							
- DS Y BR_MW11_9MBGS			- - -7 -				
- DS Y BR_MW11_9MBGS							
			- 				_
				DS	Y	BR_MW11_9MBGS	
			- 9 - -				
End of Log	End of Log						

Log By: WG

Checked By:

Drill Finish Date: 13/11/2013 Hole	k, NSW Depth (n Diam. / V ng Type: I	vidth (mm	ı): 150		Elev	ation		vel (m bg Ind): -	l): -	ID: BS_		
Driller: Adrian Jarvis Casir Drill Method: NDD/PT/SFA/AH Surfa	ng Diam. Ice Comp r Strike (r	(mm): N// letion: Ba			Eas	ting (N	MGA)	302368): 640537		ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Sandy Clay Brown, moist, medium dense, non-plastic, no staining, no odour, rootlets					DS	N		0	BS_MV	V01_0.2		
			- - - - - -					0				
Clayey Gravel Brown, moist, dense, fine to coarse, well sorted, sub angular, no stain, no odour Clayey Sand Grey, moist, loose, fine to coarse, well sorted, no stain, no odour								0				
Sandy Clay Grey mottled brown, dry, soft, friable, non-plastic, no stain, no odour			2 2 					0				
Clayey Gravel Light brown, dry, dense, fine to coarse, well sorted,			- - - - 		US	N		0	BS_MV	V01_2.7		
sub angular, no stain, no odour			- - - -									
			- - - -									
			- - - - - - 5									

Log By: TC

Checked By:

	rook, NSW otal Depth (rr): 150					<i>v</i> el (m bgl ınd): -	I): -	ID: BS_N	/W01
Drill Co: NumacCDriller: Adrian JarvisCDrill Method: NDD/PT/SFA/AHS	Casing Type: I Casing Diam. Gurface Comp Vater Strike (r	N/A (mm): N/A letion: Ba	4		Elev East	ation ing (N	(Case //GA):				RM Istralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample D	Petails	Remarks
Sandy Clay Brown, moist, soft, non-plastic, no stain no odour			- - - - - - - - - - - - - - - - - - -								
Shale Weathered, grey-brown, dry, friable, no stain, no odour.											

Log By: TC

Checked By:

Drill Co: Numac Casing Driller: Adrian Jarvis Casing	epth (m am. / W Type: I Diam. (Compl	/idth (mm N/A (mm): N/A letion: Ba	۰ ۱		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bg ınd): - e): - : 302371): 640536		ID: BS_SB01		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			_0									
Silt Black, moist, medium dense, non plastic, no stains, no odour, rootlets			_		DS	Y		0	BS_SB	01_0.2		
			-					0				
Sandy Clay Brown, moist, soft, non-plastic, no stains, no odour, trace organic matter			_ _ 1					0				
Clayey Gravel Grey, moist, loose, fine to coarse, well sorted, no stain, no odour			- - -									
Clayey Gravel Brown, moist, dense, fine to coarse, well sorted, sub angular, no stain, no odour			- - -					0				
Sandy Clay Grey, mottled brown, dry, soft, friable, non-plastic, no stain, no odour			- - 2 - - -					0				
			-		US	Y		0	BS_SB	01_2.6		
End of Log			- - - - - - - - - - - - - - - - - - -									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N						1147 -			0.	ID: BS_	_SB02	
Drill Co: Numac Casing T Driller: Adrian Jarvis Casing E	m. / W Type: I Diam. (Compl	/idth (mm N/A (mm): N/A letion: Ba	L.		Elev Elev Eas	ation ation ing (N	(Grou (Case //GA):	vel (m bg Ind): - e): - 302401): 640538		ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface	<u> </u>		_0								-	
Gravelly Clay Light brown, dry, medium dense, non-plastic, no			-		DS	Ν		0	BS_SB	02_0.2		
Stains, no odour, fine to medium rounded gravel (road base) Sandy Clay Grey mottled brown, moist, soft, low plastic, friable, no stains, no odour.			- - -					0				
	/		- 1 - -					0				
			- - -					0				
	/		- 2 					0				
Sandy Clay Pink Sandy Clay			-									
Grey mottled brown Sandy Clay Sandy Clay	/		- - - -		US	N		0	BS_SB	02_2.8		
Pink End of Log			-									
			4 4 									
			- - - - - - - 5									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook	, NSW									ID: BT_N	1W01
Drill Start Date:11/11/2013TotalDrill Finish Date:12/11/2013Hole IDrill Co:NumacCasinDriller:Adrian JarvisCasinDrill Method:NDD/PT/SFA/AHSurface	Depth (m Diam. / W g Type: F g Diam. (/idth (mr PVC mm): 50 etion: M			Elev Elev Eas	vation vation ting (N	(Grou (Case VGA)	vel (m bg und): 91.9 e): 92.62 : 303125.): 640599)1 66		RM stralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface	8		-0								
Sandy Silt Dark brown, dry, medium stiff, no stain, no odour, trace rootlets					DS	N		0	BT_MW	01_0.2	
	× × × × × ×		-					0			
Sandy Clay Brown, mottled light grey, medium dense, non plastic, no stains, no odour			- 1 - -					0			
Shale			 					0			
Weathered, grey, dry, friable, no stain, no odour			- -2 - - -								
Sandy Clay Brown, mottled light grey, medium stiff, non plastic, no stains, no odour			-		DS			0	BT_MW	01_2.6	
			- 3 -								
Shale Weathered, grey, dry, friable, no stain, no odour			-								
Sandy Clay Light brown, dry, medium stiff, friable, non-plastic, no stain, no odour			-								
			4 _								
			-								
			- - - 5								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mu										ID: BT_N	/ W01	
Drill Start Date: 11/11/2013 Drill Finish Date: 12/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Total Depth (m Hole Diam. / W Casing Type: I Casing Diam. Surface Comp Water Strike (r	Vidth (mm) PVC (mm): 50 pletion: Mo t			Elev Elev East	ation ation ting (N	(Grou (Case //GA):	vel (m bgl ind): 91.9 e): 92.62 : 303125.): 640599	66	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Sandstone Orange-grey, dry, no stain, no odour Shale Weathered, brown, dry, no stain, no odou	r											

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, I		ISW								ID: BT_M	W01	
Drill Start Date: 11/11/2013 Drill Finish Date: 12/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Hole Dia Casing T Casing E Surface	pth (m): 15 m. / Width (Type: PVC Diam. (mm): Completion trike (m bgl)	50 : Monument	:	Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):	vel (m bg und): 91.9 e): 92.62 : 303125.): 640599	91 .66	ERM ERM Australia Pty Ltd		
Lithology		Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks	
Sandstone Orange, dry, stain, no odour												
Shale Grey, dry, no stain, no odour		0 ° ° °	- - - - - - - - - - - - - - - - - - -									
Sandstone Brown, dry, no stain, no odour Shale Grey, dry, no stain, no odour			0 0 0 0 0 0 0 0 0 0 0 0 0 0									
Sandstone Brown, dry, no stain, no odour Shale Grey, dry, no odour												

Log By: TC

Checked By:

Page 3 of 3

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW								ID: BT	_SB01
Drill Co: Numac Casing Driller: Adrian Jarvis Casing	am. / W Type: I Diam. (Comp	/idth (mm N/A (mm): N// letion: Ba	A		Fina Elev Elev East Nort	45	ERM Australia Pty Ltd			
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
Ground Surface Silt Gravel inclusions, brown, dry, fine to coarse gravels and boulders, no staining or odour			- 0 - - - - -		DS	N		0	BT_\$B01_0.1	
Silty Clay White-brown, slightly moist, firm, non-plastic, no staining, no odour, minor coarse gravel			- - - - - - - - - -		DS	N		0	BT_\$B01_1.5	
Shale Weathered, light grey, dry, friable, no stain, no odour sandy clay Grey, mottled brown, dry, medium stiff, friable, non- plastic, no stain, no odour Shale Weathered, grey, dry, friable, no stain, no odour			2 		US	Y		0	BT_SB01_2.9	_
End of Log			- 3 							

Log By: AM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswell		SW									ID: BT_	_SB02
Drill Finish Date: 11/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT	Total Dep Hole Dian Casing T Casing D Surface (Water Str	m. / W ype: N Jiam. (I Comple	lidth (mm I/A mm): N// etion: Ba	A Contraction		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bç und): - e): - : 303127): 64060			ERM Australia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Gravelly Clay, pale grey, dense, low-plasticity, fi medium gravels, no staining, no odour	ne to			0 		DS	N		0	BT_SB	02_0.1	_
Gravelly Clay White-brown, slightly moist, dense, low plasticity to coarse gravels, no staining, no odour	/, fine	୦୲ଡ଼୕ୖ୲୰୲୶ଡ଼ୖ୲ୗଡ଼୲ଡ଼୕ୖ୲୰ଡ଼୲ଡ଼୕ୖ୲୰ଡ଼୲ଡ଼ୖ୕ ୰ୢୗ୰ୗୄ୰ୗଡ଼ୗ୕ଡ଼ୗୄଡ଼ୗ୕ଡ଼ୗୄ୰ୗଡ଼ୗ୕୰ୗୄଡ଼		- - - - - - - 1 -					0			
Shale Weathered, light grey, dry, friable, no stain, no o	odour			- - - - - - - - - - - - - - - -					0			
Sandy Clay Grey, mottled brown, moist, medium stiff, non-pl on stain, no odour	lastic, /			-		US	N		-	BT_SB		-
Shale Weathered shale, grey, dry, friable, no stain, no				- 3						1_00	02_2.0	-
Adour End of Log				- - - - - - - - - - - - - - - - - - -								

Log By: AM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook	c, NSW									ID: BU_	MW01
Drill Finish Date: 27/11/2013Hole IDrill Co: NumacCasinDriller: Adrian JarvisCasinDrill Method: NDD/PT/SFA/AHSurface	Depth (m Diam. / W g Type: F g Diam. (ce Compl r Strike (n	ridth (mr PVC mm): 50 etion: G)		Ele [.] Ele [.] Eas	vation vation ting (I	(Grou (Case MGA)	vel (m bç und): 179 e): 179.7 : 307624): 64138	9.85 3 .798		ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
Ground Surface Concrete			- 0								
Good condition, no staining Fill Gravelly clay, orange-brown, mottled grey, moist, medium stiff, non-plastic, no odour or staining, trace			-		DS	Y		0		 V01_0.5	
subrounded river gravels. Weathered shale fragments throughout			- - - - - - - - 1 -					-			
								0.1			
								0			
Gravelly Clay Red-brown with grey mottling, dry to moist, gravels, shale, medium to coarse, angular, some plasticity			- - - - - - 2 -		US	Y		2 1.2	BU_MW	/01_1.75	
	, , , , , , , , , , , , , , , , , , ,		- - -					0.9			
			- - 		US	Y		1.5	BU MV	V01_3.0	
Gravelly Clay Slight increase in moisture and silt content			- - - -					-			
Gravelly Clay Increase in plasticity			_ _ 4 _ _					1.8			
Gravelly Clay Moist to dry			- - -								
	·		- —5					2.1			

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		,								ID: BU_N	NW01
Drill Start Date: 26/11/2013 Drill Finish Date: 27/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Casing Type Casing Dian	Width (mm): e: PVC n. (mm): 50 npletion: Gati		Elev Elev East	vation vation ting (N	(Groi (Cas //GA)	vel (m bg und): 179 e): 179.7 3 : 307624. .): 64138 8	.85 3 798	ERM Australia Pty Ltd		
Lithology	Symbol Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
Gravelly Clay Gravelly Clay Slight increase in moisture	특히하는 적허하는 적허하는 적허하는 적허하는 적허하는 적허하는 적허하는 적허										

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,										ID: BU_	_MW02	
Drill Co: Numac Casing Driller: Adrian Jarvis Casing	am. / W Type: F Diam. (Compl	/idth (mn PVC mm): 50 etion: M			Elev Elev Eas	vation vation ting (N	(Gro (Cas (GA)	vel (m bo und): 179 e): 180.4 : 307630 .): 64138	9.75 3).441	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Gravelly clay, orange-brown, mottled grey, moist, soft, non-plastic, no ordour or staining, sandstone boulders throughout,								0.1				
			- - - - -		DS	Y		0	BU_MW	02_0.5	-	
Gravelly Clay Orange-brown, mottled grey, moist, medium stiff, low plasticity, no odour or staining			- - -1 - -					0				
			-					0.1				
			- -2 - - -					1.8				
O hali	*_*_*		-		US	Y		1.5	BU_MW	02_2.5	-	
Shale Dry, Shale fragments throughout, completely weathered, dry, minor gravel			- 3 - -					1.5				
			-									
			4 _ _		US	Y		1.8	BU_MW	02_4.0		
Shale Slightly more plastic												
			_ 5					1				

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Baysw Site Name: Bayswater Power Station Site Address: New England Highway, Mus		w								ID: BU_N	лW02
Drill Start Date: 26/11/2013 Drill Finish Date: 27/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Casing Typ Casing Dia Surface Co	/ Width (mn			Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bg und): 179 e): 180.4 3 : 307630.): 641385	.75 3 441		RM stralia Pty Ltd
Lithology	-	Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Red-brown (completely weathered) red-brown grey mottling	wn with										

Log By: SM/HC

Checked By:

Drill Finish Date: 27/11/2013 Hole Drill Co: Numac Cas Driller: Adrian Jarvis Cas Drill Method: NDD/PT/SFA/AH Surf	ok, NSW al Depth (n e Diam. / V sing Type: sing Diam. face Comp ter Strike (n	Vidth (mr PVC (mm): 50 oletion: M	onument		Elev Elev Eas	ration ration ting (N	(Gro (Cas //GA)	vel (m bg und): 179 e): 180.4 : 307642 .): 64138	9 .358		MW03
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Gravelly Clay Gravelly clay, grey-brown, mottled orange, mosit, medium-stiff, non-plastic, no odoour or staining, weathered shale fragments throughout			- 0 		DS	Y		0	BU_MW	/03_0.5	
			- - - 					0			
Gravelly Clay Light brown with grey mottling, dry, ironstone gravel angular), medium grained, no odour, no staining, completely weathered	S		- - - - - - - - - - - - - - - - - - -					1.2			
					US	Y		0.5	BU_MW	/03_2.5	
								1 2.1			
			- - - - - -		US	Y		1	BU_MW	03_4.0	
			- - - - - - - - -					1.2			

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - B Site Name: Bayswater Power Station Site Address: New England Highway Drill Start Date: 26/11/2013 Drill Finish Date: 27/11/2013 Drill Co: Numac	n , Muswellbrook, NS Total Depi	th (m): 10 n. / Width (mm	ı): 200		Elev	ation	(Gro	vel (m bç und): 179 e): 180.4		ID: BU_N	
Driller: Adrian Jarvis Drill Method: NDD/PT/SFA/AH Jole Type: Monitoring Well	Casing Dia Surface C	am. (mm): 50 ompletion: Mo ke (m bgl): 9			East	ing (N	/GA)	: 307642 .): 64138	.358		RM Istralia Pty Ltd
Lithology		Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Shale Fully (Completely) weathered								1.5			

Log By: SM/HC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BU_	SB01	
Drill Co: Numac Casing Driller: Adrian Jarvis Casing	am. / W Type: N Diam. (Compl	/idth (mm I/A [mm): N/# letion: Ba	A		Elev Elev Eas	ation ation ting (N	(Grou (Case //GA)	vel (m bgl und): - e): - : 307624 .): 641387		ERM ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			-0									
Concrete Good condition, no staining			F					0.1				
Fill Gravelly Clay, orange-brown, mottled red, moist, soft, low plasticity, no odour, no staining			-		DS	Y		0	BU_SB	01_0.5		
Silty Clay Orange-brown, mottled grey, moist, soft, non-plastic, no odour or staining, completely weathered shale.	H/H/H		- - 1 - -					0.2				
			- - - -					0				
			2 		US	Y		7.3	BU_SB	01_2.0		
	HAI		- - -					2				
End of Log			3		— US —	- Y -			BU_SB	01_3.0		
			- - - - - - - - - - - - - - - - - - -									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BU_S	SB02
Drill Finish Date: 27/11/2013Hole DDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurface	Type: N Diam. (/idth (mm I/A mm): N// etion: B a	,		Elev Elev Eas	vation vation ting (I	(Grou (Case //GA)	vel (m bg und): 0 e): - : 307610): 641384			CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Concrete Good condition, no staining	XXX		-		DS	Y		0	BU_SB0	02_0.25	
Fill Gravelly clay, orange-brown, mottled red, moist, soft,			-					0.1			
low plasticity, no odour or staining, weathered shale throughout			-		DS	N		0.1	BU_SB	02_0.5	
			- - - -1					0			
			-								
Silty Clay Trace gravel, orange-brown mottled grey, moist, soft, non-plastic, no odour or staining. Completely weathered shale	HIH H		- - -		US	Y		3.4	BU_SB	02_1.6	
	HHH/		- - -2 -					2			
	H		-								
	H		F		US	Y		2	BU_SB	02_2.5	
	H H		-					1.5			
End of Log			-3								
			-								
			E								
			E								
			4								
			F.								
			F								
			F								
			F								
			- —5								

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N	NSW									ID: BV_N	NW01
Drill Start Date:25/11/2013Total DeDrill Finish Date:26/11/2013Hole DiaDrill Co:NumacCasing IDriller:Adrian JarvisCasing IDrill Method:NDD/PT/SFASurfaceHole Type:Monitoring WellWater S	am. / W Type: P Diam. (Compl	idth (mm VC mm): 50 etion: Ga			Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bg und): 180 e): 180.0 : 306779): 64142).16 4 .836		RM stralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Silty sand, dark brown, moist, medium dense, fine grained, moderately sorted, no odour, no staining Fill Clayey gravel, brown, moist, fine to coarse, poorly sorted, no odour or staining, Concrete, sandstone and shale fragments throughout Sandy Clay Grey, mottled red and orange, moist, soft, non plastic, no stain, no odour					DS	N			BV_MW	/01_0.1	
Clay With organic matter, dark brown, moist, soft, low plasticity, organic odour, no staining											
Clay Brown, moist, soft, highly plastic, no stain, no odour. Becoming red-brown with depth, increased moisture content from 6.8m bgl			- - - - - - 5		US	N		-	BV_MW	/01 5.0	

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M										ID: BV_I	WW01
Drill Start Date: 25/11/2013 Drill Finish Date: 26/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (r Hole Diam. / N Casing Type: Casing Diam. Surface Comp Water Strike (Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):	vel (m bgl Ind): 180. e): 180.04 : 306779.): 641422	.16 4 836	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)		• Details	Remarks
								_			
			- - - 6								
			-								
			- - - -								
			7 								
End of Log											
			- - -								
			- -9 - -								
			- - - -								
			_ 10								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo										BV_MW02
Drill Finish Date: 19/11/2013 Hole Drill Co: Numac Casin Driller: Adrian Jarvis Casin Drill Method: NDD/PT/SFA Surfa	Depth (n Diam. / V ng Type: ng Diam. ace Comp er Strike (n	Vidth (mn N/A (mm): N/ oletion: Ba	A		Elev Elev Eas	/ation /ation ting (N	(Grou (Case VGA)	vel (m bç und): - e): - : 306976): 64141	54	ERM M Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	s Remarks
Ground Surface Clayey Silt			-0		DS	N		0.1	BV_MW02_0.1	
Brown, dry, low plasticity, grass on surface, no staining, no odour Fill Silty Gravel, brown, dry, medium dense, sub angular coarse, gravel, no staining, no odour, minor quartz and mudstone	/				05			0.1	BV_MW02_0.1	
Clayey Gravel Pale brown, weathered sandstone, dry, dense, no staining, no odour, coarse gravel		<pre></pre>	- - - - -					0.1		
Sandy Clay Brown mottled red and grey, moist, soft, non-plastic, no odour, no staining			- - - - - 2					0		
			-							
	/		_ 3					-		
					US	N		0	BV_MW02_3.1	
			- - 4		US	N		0	BV_MW02_4.0	
								-		
			5					0		

Log By: AM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mu	swellbrook, N										ID: BV_N	NW02
Drill Start Date: 11/11/2013 Drill Finish Date: 19/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Soil Bore	Total De Hole Dia Casing I Casing I Surface Water Si	m. / W Type: N Diam. (Compl	lidth (mm I/A mm): N// etion: Ba	4		Elev Elev East	ation ation ing (N	(Groi (Cas //GA)	vel (m bg und): - e): - : 306976 .): 64141			RM Istralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
				- - -								
		///		- - - 6					0			
Shale Red brown, dry, friable, no stain, no odour				- - -								
				- - - - -7								
				- - -								
				- - - 								
				- - -								
				_ _ _ 9								
				- - -								
				- - - - -								

Log By: AM/TC

Checked By:

Jileckeu Dy.

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswell		W									ID: BV_	MW03
Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH	Total Depth Hole Diam. Casing Typ Casing Dia Surface Co Water Strik	. / Wid be: N// m. (m omplet	lth (mm A ım): N// tion: Ba	A Contraction		Elev Elev Eas	/ation /ation ting (N	(Grou (Case MGA)	vel (m bgl und): - e): - : 307128 .): 641407			ERM Lustralia Pty Ltd
Lithology	-	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Concrete				-0								
Fill Clay, orange-brown, moist, occasional coarse				- - -		DS	N		0.1	BV_MW	/03_0.3	
gravels, no odour, no staining Fill Clay, red-brown, occasional large shale gravel				- - -					0			
				1 - - -					0.1			
Fill Clay, brown, moist, medium plasticity, no stainin odour	ng no			- - - -					0.5			
				2 - - -					0.4			
Fill Clay, dark brown to black, High plasticity, moist, organic odour, possible staining Fill	/````			_ _ _ _		US	N		0.4	BV_MW	/03_2.5	
Clay, orange-brown to brown, slightly moist, no odour, no staining Fill Clayey Gravel, red-brown, dry, low plasticity				- 3 					0.4			
Shale				- - -					0.5			
Bedrock				- 4 - -								
				- - -								
				_ 5								

Log By: AM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M										ID: BV_N	WW03
Drill Start Date: 11/11/2013 Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/AH Hole Type: Soil Bore	Total Depth (m): 10 Final Water Level (m Hole Diam. / Width (mm): 100 Elevation (Ground): - Casing Type: N/A Elevation (Case): - Casing Diam. (mm): N/A Easting (MGA): 3071 Surface Completion: Backfilled Northing (MGA): 641 Water Strike (m bgl): - Easting (MGA): 641										CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
			- - - -								
			_ _ 6 								
			- - -								
			- - -7 -								
			- - - -								
			- 8 								
			- - - -								
			9 _ _ _ _								
			- - - - -								

Log By: AM/TC

Checked By:

Drill Finish Date: 20/11/2013HoDrill Co: NumacCaDriller: Eric GrimaCaDrill Method: NDD/PT/SFASu	bok, NSW tal Depth (m le Diam. / W sing Type: I sing Diam. (rface Comp ater Strike (n	/idth (mm PVC (mm): 50 letion: Ga	atic		Elev Elev Eas	vation vation ting (N	(Groi (Cas VGA)	vel (m bg und): 180 e): 180.13 : 307290.): 641403	3 334	ID: BV_MW04			
Lithology	Symbol	Kell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample		Remarks		
Ground Surface Fill Clayey Silty, brown, slightly moist, low plasticity, firr no staining, no odour Fill Clayey Gravel, grey to brown, dry, dense, shale gravels, angular, poorly sorted, no odours, no	n, /		- 0 		DS	N		0	BV_MW	/04_0.5			
staining			- - - - - - - -					0					
Fill Gravel, dry grey, shale, very dense			- - - - 2 -		US	N		0	BV_MW	/04_2.0			
 Fill Gravelly Clay, dark grey, highly plastic, moist, no odour, no staining Fill Clay, pale brown to orange, moist, medium to high plasticity, no staining, no odour 			_ _ _ _ 3 _					0.5					
Fill Clay, dry brown to grey, moist, high plasticity			-										
Fill Clay, orange brown Silty clay Dark brown, high plasticity, moist, root zones			4 					0.5 0.4					
throughout Shale And Sandstone			- - - 5					0.4					

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M										ID: BV_	MW04
Drill Start Date: 11/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (Hole Diam. / Casing Type Casing Diam Surface Com Water Strike	Width (mm : PVC . (mm): 50 .pletion: Ga	atic		Elev Elev East	ation ation ting (N	(Groi (Cas (GA)	vel (m bg und): 180 e): 180.1 : 307290 .): 64140	3).334		ERM ustralia Pty Ltd
Lithology	Svmbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N									ID: BV_I	WWO4	
Drill Start Date: 11/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing Type: PVC Casing Diam. (mm): Surface Completion:	Hole Diam. / Width (mm): 125					vel (m bo und): 180 e): 180.1 : 307290 .): 64140	3 .334		ERM Australia Pty Ltd	
Lithology	Symbol	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
		- - - 11									
End of Log		<u> </u>									
		- 									
		- 									
		- - - - - -									

Log By: AM

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N										V_MW05
Drill Start Date: 11/11/2013Total DeDrill Finish Date: 20/11/2013Hole DiaDrill Co: NumacCasing TDriller: Eric GrimaCasing DDrill Method: NDD/PT/SFASurfaceHole Type: Soil BoreWater Si	im. / W Type: N Diam. (i Comple	idth (mm I/A mm): N/A etion: Ba	A		Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bgl ind): - e): - : 307267): 641407	78	ERM I Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
Ground Surface Fill Clayey Silt, brown, dry, low plasticity, no odour, no /			-0		DS	N		0		
staining Fill Clayey Gravel, brown to grey, dry, dense, shale gravels, no staining, no odour			- - -		00			0	BV_MW05_0.2	_
			- - 1 -					0.5		
			- - - -					0		
			_ 2 _ _					0.2		
Fill Gravelly Clay, grey-brown, slightly moist, rewored fill, no odour, no staining			- - - -							
Silty Clay Dark brown to black, moist, high plasticity, old root zone, no staining, no odour			3 _ _		US	N		1.8	BV_MW05_3.0	
Clay Orange brown mottled brown, soft			-							
Clay Extremely weathered sandstone, red to brown, firm, minor sandstone gravels			-					0.3		
Sandstone Orange-brown, very dense			- -4 - - -							
			- - - 5							

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Ba Site Name: Bayswater Power Station Site Address: New England Highway, I		W								ID: BV_I	AW05
Drill Start Date: 11/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Soil Bore	Total Dept Hole Diam Casing Ty Casing Dia Surface Co Water Strik	n. / Width (pe: N/A am. (mm): ompletion	mm): 125 N/A : Backfilled		Elev Elev Eas	vation vation ting (N	(Grou (Case //GA):	vel (m bgl und): - e): - : 307267): 641407			RM ustralia Pty Ltd
Lithology		Symbol Wall	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample D	Details	Remarks
Clay Moist, grey			- - 6 - -								
			- - - - - - 7 -								
Sandstone Very hard, dense, dry											
			- 8 - - -								
			_ _ _ 9 _								
			- - - - -								
			- 								

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bays Site Name: Bayswater Power Station Site Address: New England Highway, Mi	uswellbrook, NSW									V_MW05
Drill Start Date: 11/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Soil Bore	Total Depth (r Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (Vidth (mm N/A (mm): N/A pletion: Ba	l		Elev Elev East	ation ation ting (N	(Grou (Case //GA):	vel (m bç und): - e): - : 307267): 64140	78	ERM I Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
			- - - -							
			- 11 - -							
			- - - - - - 12 -							
End of Log			- - -							
			- 							
			- - - - -14							
			- - - -							
			- - 							

Log By: AM

Checked By:

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Drill Finish Date:20/11/2013HoleDrill Co:NumacCasirDriller:Eric GrimaCasirDrill Method:NDD/PT/SFASurfa	Depth (m Diam. / W g Type: I g Diam. ce Comp	Vidth (mm PVC (mm): 50 letion: Ga	atic		Elev Elev Eas	vation vation ting (N	(Groi (Cas //GA)	vel (m bg und): 180 e): 180.1 : 307299): 64140	1 .034		
Hole Type: Monitoring Well Wate	loqmy	n bgl): 11	Depth (m)	Recovery	Sample Type	Analysed	РРТ (кРа)	(mqq) DIA	Sample		Remarks
Ground Surface Fill Clay, brown, dry, low plasticity, firm, no odours, no staining Fill Clayey Gravel, brown, medium dense, poorly sorted,	/		- - - -		DS	N		0.2	BV_MW	/06_0.5	
sub angular, coarse, no staining, no odour			- - - - - - - -					0			
			-					0.2			
			2 2 		US	N		0.3	BV_MW	/06_2.0	
Fill Clayey Gravel, reworked shale, moist to wet (percheo water), coarse gravels, no odour, no staining			_3 _ _ _ _ _ _					0.2			
Fill			4 4 					0.2			
Clay, moist, high plasticity, firm, no staining, no odour Silty Clay Dark brown to black, moist, high plasticity, old root zone	14/H		- - - - - - 5					0.3			

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Musw Drill Start Date: 11/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA	Total Dep Total Dep Hole Diar Casing T Casing D	oth (m): 11. 7 m. / Width (r	mm): 125 50		Elev Elev East	ation ation ing (N	(Grou (Case //GA)	vel (m bg und): 180 e): 180.1 : 307299.): 641403	.2 1 .034		
Hole Type: Monitoring Well	Water Str	Symbol Well	(m) r	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA		ERM Au	Remarks
Shale And Sandstone, highly weathered with iron s on fractures, slightly moist on fracture lines Shale	taining	Ħ									
And Siltstone, red to brown iron staining Shale Grey brown, very dense, no staining								0.2			

Log By: AM

Checked By:

yswater Muswellbrook, NSV	N								ID: BV_	MW06	
Hole Diam. Casing Typ Casing Diar Surface Col	/ Width (mr e: PVC m. (mm): 50 mpletion: G	atic		Elev Elev East	ation ation ing (N	(Grou (Case //GA)	und): 180 e): 180.1 : 307299).2 1 .034	ERM		
Sumbol	Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks	
		- - - - - - - - - - - - - - - - - - -									
		- - 13 - -									
		- - - - - - - - - 14									
	Muswellbrook, NSV Total Depth Hole Diam. Casing Typ Casing Dia Surface Co Water Strik	Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mr Casing Type: PVC Casing Diam. (mm): 50 Surface Completion: G Water Strike (m bgl): 1	Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Casing Diam. (mm): 50 Surface Completion: Gatic Water Strike (m bgl): 11 Image: Strike (m bgl): 11 <td>Muswellbrook, NSW</td> <td>Muswellbrook, NSW Total Depth (m): 11.7 Fina Hole Diam. / Width (mm): 125 Elev Casing Diam. (mm): 50 East Surface Completion: Gatic Nort Water Strike (m bgl): 11 Image: Strike (m bgl) <td< td=""><td>Muswellbrook, NSW Total Depth (m): 11.7 Final Wat Hole Diam. / Width (mm): 125 Elevation Casing Type: PVC Elevation Surface Completion: Gatic Northing (Water Strike (m bgl): 11 Image: Strike (Image: Strike (Image:</td><td>Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Casing Diam. (mm): 50 Surface Completion: Gatic Water Strike (m bg): 11 Final Water Le Elevation (Casi Casing MGA) Water Strike (m bg): 11 Image: Completion of the transmission of transmissing transmission of transmi</td><td>Museellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Final Water Level (m bg Elevation (Ground): 180 Elevation (Case): 180.1 Easting (MGA): 307299 Northing (MGA): 64140 Water Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image:</td><td>Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Casing Diam. (mm): 50 Surface Completion: Gatic Water Strike (m bg): 11 Total Depth (m): 12 Total Depth (m): 13 Total Depth (m): 12 Total De</td><td>Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Surface Completion: Gatic Water Strike (m bgi): 11 Total Depth (mm): 50 Surface Completion: Gatic Water Strike (m bgi): 11 Total Depth (mm): 125 Casing MGAN: 6414054.304 Total Dept</td></td<></td>	Muswellbrook, NSW	Muswellbrook, NSW Total Depth (m): 11.7 Fina Hole Diam. / Width (mm): 125 Elev Casing Diam. (mm): 50 East Surface Completion: Gatic Nort Water Strike (m bgl): 11 Image: Strike (m bgl) Image: Strike (m bgl) <td< td=""><td>Muswellbrook, NSW Total Depth (m): 11.7 Final Wat Hole Diam. / Width (mm): 125 Elevation Casing Type: PVC Elevation Surface Completion: Gatic Northing (Water Strike (m bgl): 11 Image: Strike (Image: Strike (Image:</td><td>Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Casing Diam. (mm): 50 Surface Completion: Gatic Water Strike (m bg): 11 Final Water Le Elevation (Casi Casing MGA) Water Strike (m bg): 11 Image: Completion of the transmission of transmissing transmission of transmi</td><td>Museellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Final Water Level (m bg Elevation (Ground): 180 Elevation (Case): 180.1 Easting (MGA): 307299 Northing (MGA): 64140 Water Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image:</td><td>Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Casing Diam. (mm): 50 Surface Completion: Gatic Water Strike (m bg): 11 Total Depth (m): 12 Total Depth (m): 13 Total Depth (m): 12 Total De</td><td>Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Surface Completion: Gatic Water Strike (m bgi): 11 Total Depth (mm): 50 Surface Completion: Gatic Water Strike (m bgi): 11 Total Depth (mm): 125 Casing MGAN: 6414054.304 Total Dept</td></td<>	Muswellbrook, NSW Total Depth (m): 11.7 Final Wat Hole Diam. / Width (mm): 125 Elevation Casing Type: PVC Elevation Surface Completion: Gatic Northing (Water Strike (m bgl): 11 Image: Strike (Image: Strike (Image:	Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Casing Diam. (mm): 50 Surface Completion: Gatic Water Strike (m bg): 11 Final Water Le Elevation (Casi Casing MGA) Water Strike (m bg): 11 Image: Completion of the transmission of transmissing transmission of transmi	Museellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Final Water Level (m bg Elevation (Ground): 180 Elevation (Case): 180.1 Easting (MGA): 307299 Northing (MGA): 64140 Water Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image: Strike (m bg!): 11 Image:	Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Casing Diam. (mm): 50 Surface Completion: Gatic Water Strike (m bg): 11 Total Depth (m): 12 Total Depth (m): 13 Total Depth (m): 12 Total De	Muswellbrook, NSW Total Depth (m): 11.7 Hole Diam. / Width (mm): 125 Casing Type: PVC Surface Completion: Gatic Water Strike (m bgi): 11 Total Depth (mm): 50 Surface Completion: Gatic Water Strike (m bgi): 11 Total Depth (mm): 125 Casing MGAN: 6414054.304 Total Dept	

Log By: AM

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswate Site Name: Bayswater Power Station Site Address: New England Highway, Muswe										ID: BV_N	NW07	
Drill Start Date: 13/11/2013 Drill Finish Date: 20/11/2013 Drill Co: Numac Driller: Adrian Jarvis Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (r Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (Width (mm) PVC (mm): 50 pletion: Gat	tic		Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bg und): 179 e): 179.9 : 306708): 64138	.97 .012	ERM		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface Fill Topsoil, clay (reworked), brown, dry, minor gra inclusions, no odour, no staining Shale Brown, light grey, dry, hard, laminated, some weathering, no odour, no staining. Wet from 1.6m bgl	avel				DS	N		0	BV_MW	107_0.1		
Shale Grey, wet.			- 3 - - -									
End of Log			4 4 4 4 4 4 4 4 4 4 4 5									

Log By: HC/TC

Checked By:

-

	epth (m am. / W Type: F Diam. (e Compl	ridth (mn PVC mm): 50 etion: G	atic		Elev Elev East	ation ation ing (N	(Grou (Case //GA)	vel (m bo ınd): 180 e): 180.0 : 307432): 64138	95 2.851		ERM
Hole Type: Monitoring Well Water S	Strike (m loqui S	n bgl): 9.	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mdd) OIA	Sample		Australia Pty Ltd
Ground Surface Fill Gravelly sandy clay, moist, medium stiff, non-plastic, no odour or staining, Weathered shale and ironstone throughout			- 0 		DS	N		0	BV_MW	/08_0.2	-
Fill Grey with shale cobbles Fill Gravelly clay, dark brown to brown with orange mottles, fine to coarse gravels and cobbles			- - - - - - -					0.2			
			- - - - - - - 2					0.2 0.2			
			- - - - - - - - 3 -					0.2			
			- - - - - - - - - - - -					0.2			
			- - - - - -		US	N		0.2	BV_MW	/08_5.0	

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Musw Drill Start Date: 12/11/2013	vellbrook, l	NSW epth (m): 12			Fina	al Wat	er Le	vel (m bgl	I): 5.485	ID: BV_I	иwoв	
Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Hole Dia Casing Casing Surface	am. / Width (Type: PVC Diam. (mm): Completion: Strike (m bgl)	50 Gatic		Elev Elev Eas	vation vation ting (N	(Groi (Cas MGA)	und): 180.05 e): 180.05 : 307432.): 641386	.16 5 851	ERM		
Lithology		Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)		e Details	Remarks	
Sandstone Orange-brown, moist, medium plasticity, firm Silty Clay Orange-brown, moist to very moist, soft, high plasticity, minor gravel, no odour												
clay Brown, dry, minor gravel, medium dense, no	odour		_ _ 10									

Log By: SM/AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswat Site Name: Bayswater Power Station Site Address: New England Highway, Musw									ID: BV_I	MW08
Drill Start Date: 12/11/2013 Drill Finish Date: 21/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (m): 1 Hole Diam. / Widtl Casing Type: PVC Casing Diam. (mn Surface Completic Water Strike (m by	h (mm): 125 C n): 50 on: Gatic		Elev Elev East	vation vation ting (N	(Groi (Cas VGA)	vel (m bg und): 180 e): 180.0 : 307432 .): 64138	5 .851		CRM ustralia Pty Ltd
Lithology	Symbol	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Silty Clay Orange-brown, saturated, high plasticity, soft, odour, no staining	no ####################################									
End of Log		- - - - - - - -								
		- - - 								
		- - - - - - - - 14								
		- - 15								

Log By: SM/AM

Checked By:

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Drill Finish Date: 22/11/2013Hole DDrill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFASurfac	, NSW Depth (m Diam. / W g Type: P g Diam. (e Compl Strike (m	idth (mm PVC mm): 50 etion: Ga			Elev Elev Eas	vation vation ting (N	(Grou (Case VGA)	vel (m bgl und): 179. e): 179.79 : 307532.(): 641383	91 012		MW09 CRM Ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	e Details	Remarks
Ground Surface Concrete			-0								
Gravel Road base, red-brown, wet, no odour, no staining	202 202		_					0.1			
Fill Clayey Gravel, grey-brown, moist, fine-coarse			_		DS	N		0.1	BV_MV	V09_0.5	
gravels/shale, medium-dense, no odour, no staining			- - - - - -					0.1			
								0.1			
			2		US	N		0.2	BV_MV	V09_2.0	
								0.1			
			4					0.1			

Log By: AM

Checked By:

Project No.: 0224193 Project Name: Project Symphony - Bar Site Name: Bayswater Power Station Site Address: New England Highway, I Drill Start Date: 11/11/2013 Drill Finish Date: 22/11/2013 Drill Co: Numac Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well				Elev Elev Eas	ation ation ing (N	(Grou (Case /IGA):	vel (m bg Ind): 179 e): 179.79 : 307532.): 641383	.91 9 012		S RM ustralia Pty Ltd
Lithology	Symbol	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Clayey Gravel Very dense, layer of bedrock		6 								
Clayey Gravel Very moist										
Silty Clay Brown, wet, soft, no odour										

Log By: AM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N		NSW									ID: BV_N	/ W09
Drill Start Date: 11/11/2013 Drill Finish Date: 22/11/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing Casing Surface	am. / W Type: I Diam. (Comp	Vidth (mm			Elev Elev Eas	vation vation ting (N	(Grou (Case MGA):	vel (m bg und): 179 e): 179.79 : 307532.): 641383	.91) 012		RM stralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
End of Log		H		- - -								
				- - 								
				-								
				- - - 12								
				- - -								
				- - - 								
				- - -								
				- - - 14								
				- - - -								
				- - - - 15								

Log By: AM

Checked By:

Page 3 of 3

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I Drill Start Date: 12/11/2013 Total De): 8.5			Fina	Wat	er Le	vel (m b	gl): 1.57	ID: BV_	_MW10
Drill Finish Date: 22/11/2013Hole DiaDrill Co: NumacCasingDriller: Scott JessupCasingDrill Method: NDD/PT/SFASurface	am. / W Type: F Diam. (Compl	idth (mm	itic		Elev Elev East	ation ation ing (N	(Groi (Cas //GA)	und): 17 e): 177.6 : 307629 .): 64138	7.79 54 9.466		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Fill Gravel (road base), hard, compacted, blue metal, limestone and bitumen throughout Fill Sandy gravel, pale yellow, dry, dense, fine to coarse, poorly sorted, no odour or staining. Crushed limestone road base			-		DS	N		0.1 0.3	BV_MW	'10_0.1	
Gravelly Clay Brown mottled orange and grey, moist, soft, low plasticity, no odour or staining, weathered shale fragments throughout			- 					0.2			
Clay Grey mottled orange-brown, stiff, high plasticity, no			-					0.1			
odour or staining (weathered shale)			- 2 - - -					0.1			
			- 					0			
Shale Highly weathered, orange-brown, fine grained, soft, fractured, very fine grained,			- - 4 					0			
			_ 5		US	Ν		0.1	BV_MW	10_4.9	

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Musw Drill Start Date: 12/11/2013 Drill Finish Date: 22/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	vellbrook, I Total De Hole Dia Casing Casing I Surface	epth (m am. / W Type: I Diam. (Comp	/idth (mm	ıtic		Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bg ınd): 177 e): 177.64 : 307629.): 641381	.79 4 .466		MW10 SCRM ERM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) Olq	Sample	Details	Remarks
Silty Clay Grey-brown, moist, soft, medium plasticity, n no staining, completely weathered shale.	o odour,			- - - - - - - - - - - - - - - - - - -								
-				- - - - - - - - - - - - - - - - - -								

Log By: SM

Checked By:

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	epth (m							vel (m bg		ID: BV_I	MW11
Drill Co: NumacCasingDriller: Wade MangerCasingDrill Method: NDD/SFASurface	Type: I Diam. (e Comp	/idth (mm) PVC (mm): 50 letion: Ga n bgl): 1.5	tic		Elev East	ation ing (N	(Cas /IGA)	und): 180 e): 179.94 : 307287. .): 641355	3 991		ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill	*		_0		DS	N		0	BV_MW	11 0 1	
Silty clay, brown, moist, some plasticity, no odour, no staining Fill Reworked clay with crushed shale and sandstone gravel inclusions throughout, brown to light brown, moist to dry			-					0.1			
Fill Gravelly sand, dark grey, moist to dry, some minor clays, dense, no odour, no staining			- - - - -					0.2			
			- - -		US	N		0.1	BV_MW	11_1.7	
Gravelly Clay Grey mottled red-brown, wet, soft, medium plasticity, no odour, no staining			- - - - - - - -								
			- 3 					0.1			
			-		US	N		-	BV_MW	11_4.0	
End of Log		<u></u>						-0.3			

Log By: HC/SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook	k, NSW									ID: BV_	_MW12
Drill Finish Date:19/11/2013HoleDrill Co:NumacCasinDriller:Wade MangerCasinDrill Method:NDD/PT/SFASurfation	g Type: I g Diam. ce Comp	vidth (mn	atic		Elev Elev Eas	vation vation ting (N	(Groi (Cas VGA)	vel (m bç und): 180 e): 180.0 : 307352): 64135).12 3 .94		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Silty sand, dark brown, moist, medium dense, fine grained, moderately sorted, no odour, no staining,			- 0					0.1			
rootlets throughout Fill Gravelly Clay, brown, mottled orange and grey, moist, soft, non-plastic, no odour or staining			-		DS	N		0.2	BV_MW	12_0.5	
			- - 					0.1			
								0.1			
Clay Olive-brown, moist, soft, high plasticity, no odour or staining			-2					0			
Shale Grey, mottled orange-brown, completely weathered (gravelly clay), moist, soft, low plasticity, no odour, no staining			3					0.1			
			4		US	N		0.1	BV_MW	/12_4.0	
			· · · · · · · · ·								
			- - -5					0.1			

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N		w								ID: BV_	MW12
Drill Start Date: 12/11/2013 Drill Finish Date: 19/11/2013 Drill Co: Numac Driller: Wade Manger Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing Typ Casing Dia Surface Co	/ Width (mm)		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bg ind): 180 e): 180.0 307352): 64135).12 3 .94		ERM Lustralia Pty Ltd	
Lithology	-	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			-								
End of Log			- 6 - - -					-0			
			- - - - - -7								
			- - - -								
			- - - 								
			- -								
			-								
			- —10								

Log By: SM

Checked By:

Diff Sint Dai: 2511/2013 Diff Find Dai: 2611/2013 Diff Find Dai:	Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrod	ok, NSW									ID: BV_N	AW13
Ground Surface 0 0 0 0 Fill Gravely City, brown, moist, soft, low patiently, no odour, or staining. 0 0 0.2 Image: Discription of the stain	Drill Finish Date: 26/11/2013 Hole Drill Co: Numac Casi Driller: Scott Jessup Casi Drill Method: NDD/PT/SFA Surf	Diam. / W ng Type: F ng Diam. (ace Comp	/idth (mm PVC (mm): 50 letion: Ga	tic		Elev Elev Eas	/ation /ation ting (N	(Grou (Case /IGA):	und): 180. e): 180.18 : 307330.6	26 673		
Fill 0.2 Gravely CBy, brown, moist, soft, low plasticity, no oddur or staining. Weathered shale fragments inhoughout 0.2 DS N 0.1	Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample	Details	Remarks
Citay Units Carlor of Laboratory in the address of the fragments in the uphone in the				_0				_	0.2			
Clay Mark Inter, dark brown, moist, soft, low Clay 0.1 Clay 0.1	odour or staining. Weathered shale fragments			-					0.2			
Clay With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining				-		DS	N		0.2	BV_MW	/13_0.5	
Clay With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining				-								
Clay With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining				1 					0.2			
Clay With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining				-					0.3			
Clay 0.1 With organic matter, dark brown, moist, soft, low 0.1 Image: Clay 0.1				-					0.3			
Clay With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining				_ 2					0			
Clay With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining												
Clay With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining				- - 3					0.1			
Clay With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining												
With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining Clay				_ _ 4 					0.1			
	With organic matter, dark brown, moist, soft, low			- - -								
	Clay Brown, moist, soft, highly plastic, no stain, no odour.											

Log By: SM/TV

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswate Site Name: Bayswater Power Station Site Address: New England Highway, Muswe	ellbrook, N										ID: BV_I	WW13
Drill Start Date: 25/11/2013 Drill Finish Date: 26/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Casing T Casing [Surface	ım. / W Type: I Diam. (Comp	/idth (mm PVC	itic		Elev Elev East	vation vation ting (N	(Groi (Cas VGA)	vel (m bg und): 180 e): 180.1 : 307330): 64136	.26 8 .673		CRM ustralia Pty Ltd
Lithology		Symbol	Mell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Sandy Clay Red mottled brown, moist, soft, low plasticity, stain, no odour Sandy Clay Grey mottled red, wet	no											
						US	N		0	BV_MV	/13_6.0	
				- - - - - 7 -								
End of Log				- - - - - 8 -								
				9 _ _ _ _ _ _								
				_ _ 10								

Log By: SM/TV

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BV_S	SB01
Drill Finish Date: 19/11/2013Hole DiDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurface	Type: N Diam. (/idth (mm \/A [mm): N// letion: Ba	4		Elev Elev Eas	ation ation ting (N	(Grou (Case //GA)	vel (m bgl und): - e): - : 306827): 641415			CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill			0								
Clay with some shale gravel, brown, moist, moderate plasticity, gravel is medium grained, angular, no odour, no staining			-					0			
odour, no staining			-		DS	N		0	BV_SB	01_0.5	
			-								
Clay			- 1					0			
Natural, brown mottled red and grey, moist, moderate plasticity, no odour, no staining			-								
			E					0			
			-								
			- -2								
			F								
			_								
			- 3		US	Y			BV_SB	01_2.9	
End of Log											
			-								
			-								
			-4								
			F								
			F								
			-								
			- - -5								

Log By: HC/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbroo	k, NSW								ID): BV_S	B02
Drill Finish Date:19/11/2013HoleDrill Co:NumacCasinDriller:Adrian JarvisCasinDrill Method:NDD/PTSurfation	ng Type: ng Diam.	Vidth (mn N/A (mm): N/ oletion: Ba	A		Elev Elev Eas	ation ation ting (I	(Gro (Cas (MGA)	vel (m bg und): - e): - : 306877 .): 64141 8	87		RM stralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Detail	ls	Remarks
Ground Surface Fill Clay, brown mottled red, moist, plastic, some rootlet inclusions, no odour, no staining. Angular to coarse			- 0 - -		DS	N		0.1	BV_SB02_0.7	1	
grained ironstone gravel inclusions from 0.4 m bgl			- - -		DS	N		0.1	BV_SB02_0.9	5	
			- - 1 -					0.1			
			- - - -					0.3			
Shale Grey, dry, no stain, no odour			- 2 -					0			
Sandy Clay Brown mottled red and grey, moist, soft, non-plastic, no stain, no odour			-		US	N		0	BV_SB02_2.5	5	
Shale Grey, dry, friable, no stain, no odour End of Log			- - - - - - - - - - - - - - - - - - -								

Log By: HC/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N Drill Start Date: 11/11/2013 Total De Drill Finish Date: 19/11/2013 Hole Dia Drill Co: Numac Casing T DrillMethod: NDD/PT Surface Hole Type: Soil Bore Water St	pth (m m. / W Type: N Diam. (Compl	idth (mm) I/A mm): N/A etion: Ba			Elev Elev East	ation ation ing (N	(Groi (Cas VGA)	vel (m bç und): - e): - : 306703): 64142	66	_SB03
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample Details	Remarks
Ground Surface Fill Topsoil, silty clay with fine to medium grained gravel, dark brown, moist, no odour, no staining Fill Reworked clay with ironstone gravels, brown, moist to dry, gravel is angular, fine to coarse, no odour, no staining Shale Weathered, brown, dry to moist, more compact with					DS	N		0.1	BV_SB03_0.1	
depth, no odour, no staining End of Log			-1 -1 -1 -1 -1 -2 -2 -2 -2 -3 -1 -3 -1		DS	Y			BV_SB03_1.1	

Log By: HC/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BV_S	SB04
Drill Co: Numac Casing Driller: Eric Grima Casing	am. / W Type: N Diam. (Compl	idth (mm I/A mm): N// etion: B a			Elev Elev Eas	vation vation ting (N	(Grou (Case MGA)	vel (m bg und): - e): - : 307096): 64141			CRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface			-0								
Clayey Silt Brown, dry, low plasticity, firm to dense, no staining, \no odour			F		DS	N		0	BV_SB	04_0.1	
Fill Clayey gravel, orange-brown, dry, coarse to cobbled, angular, no staining, no odour			- - - -					0			
			- - 1 -					0			
Fill Gravelly clay, orange-brown, intermixed with pale grey, dry, medium plasticity, dense, reworked natural,								0.3			
no staining, no odour			2 2		US	N		0.2	BV_SB0	04_2.0	
			3 					0.5			
End of Log			4 								
			- - - - - - - -								

Checked By:

Del San Due: 2011/2013 Del Finis Due: 2011/2013 Del C: Numee Del Finis Due: 2011/2013 Del Finis Due: 2	Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,	NSW									ID: BV_	_SB05
Ground Surface O Image: Concrete Good condition, no staining Good condition, no staining Fill 0.1 Gravely day, grey-brown, moist, soft, non-plastic, no odour or staining, shale fragments throughout DS N 0.2 BV_SB05_0.5 0.1 0.1 -1 DS N 0.1 -2 0 0.1 -2 0 0.1	Drill Finish Date: 25/11/2013Hole DDrill Co: NumacCasingDriller: Adrian JarvisCasingDrill Method: NDD/PTSurfac	iam. / W J Type: N J Diam. (e Compl	/idth (mm \/A [mm): N// letion: Ba	4		Elev Elev Eas	ation ation ting (N	(Grou (Case MGA)	und): - e): - : 307032			
Concrete Good condition, no staining 0 0 0.1 Fill Gravely day, grey-brown, moist, soft, non-plastic, no odour or staining, shale fragments throughout 0.1 0.2 BV_SB05_0.5 -1 DS N 0.2 BV_SB05_0.5 -1 DS N 0.1 -2 US Y 0 Shale Weathered, grey, moist, no stain, no odour -1 End of Log -1 -1 -1	Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Good condition, no staining Image: Condition of the staining shale fragments throughout Image: Condition of the staining shale fragments the staining shale fragments throughout				_0								
Fill Gravely clay, grey-brown, moist, soft, non-plastic, no odour or staining, shale fragments throughout 0.1 0.1 DS N 0.2 BV_SB05_0.5 -1 0.1 0.1 -2 0 0.1 -2 0 0.1 -2 0 0 -2 0 0 -2 0 0 -1 0 0 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -3 US Y 0 BV_SB05_2.9 -1 -1				E								
odour or staining, shale fragments throughout DS N 0.2 BV_SB05_0.5 -1 0.1 0.1 0.1 -2 0 0.1 -2 0 0.1 -2 0 0.1 -2 0 0.1 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -2 0 0 -3 US Y 0 Weathered, grey, moist, no stain, no odour -1 -1 -1 -3 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4	Fill			F					0.1			
Shale US Y 0 BVeathered, grey, moist, no stain, no odour Image: Constraint of Log Image: Constraint of Log	odour or staining, shale fragments throughout			F		DS	N		0.2	BV_SE	805_0.5	
Shale US Y 0 BVeathered, grey, moist, no stain, no odour Image: Constraint of Log Image: Constraint of Log				-					-			
Shale US Y 0 BVeathered, grey, moist, no stain, no odour Image: Constraint of Log Image: Constraint of Log				-								
Shale Weathered, grey, moist, no stain, no odour End of Log				1 -					0.1			
Shale Weathered, grey, moist, no stain, no odour End of Log				-								
Shale Weathered, grey, moist, no stain, no odour End of Log				F								
Shale US Y 0 BV_SB05_2.9 Weathered, grey, moist, no stain, no odour Image: Constraint of Log Image: Constraint of Log Image: Constraint of Log				-					0.1			
Shale US Y 0 BV_SB05_2.9 Weathered, grey, moist, no stain, no odour Image: Constraint of Log Image: Constraint of Log Image: Constraint of Log				F								
Shale US Y 0 BV_SB05_2.9 Weathered, grey, moist, no stain, no odour Image: Constraint of Log Image: Constraint of Log Image: Constraint of Log				-					0			
Shale Weathered, grey, moist, no stain, no odour End of Log				-					0			
Shale Weathered, grey, moist, no stain, no odour End of Log				-								
Shale Weathered, grey, moist, no stain, no odour End of Log				-								
Shale Weathered, grey, moist, no stain, no odour End of Log				F								
Shale Weathered, grey, moist, no stain, no odour End of Log				-			V		-			-
End of Log		Æ		3		05	Y		0	RA ^{-2E}	005_2.9	
		/		F								
	End of Log			F								
				-								
				F								
				-								
				-4								
				F								
				F								
				F								
				F								
				-								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswel		SW									ID: BV_	SB06	
Drill Finish Date: 25/11/2013 Drill Co: Numac	Total Dept Hole Diam Casing Ty Casing Dia Surface C Water Stril	n. / Wi rpe: N am. (r omple	idth (mm <u>)</u> I/A mm): N/A etion: Ba	L		Elev Elev East	ation ation ing (N	(Grou (Case //GA):	vel (m bç und): - e): - : 307207): 64136		ERM ERM Australia Pty Ltd		
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface				0									
Fill Silty sand, brown, moist, medium dense, fine gr moderately sorted, no odour or staining	rained,					DS	N		0	BV_SB	06_0.2		
Fill Clayey gravel, brown, moist, dense, fine to coar poorly sorted, rounded (river gravels), no odour staining. Concrete piece at 0.4 m bgl	rse, r, no			-					0.2				
	×			- —1					0.1				
Fill Gravelly clay, brown, moist, soft, low plasticity, r odour or staining	no			- - -					0.1				
Shale Weathered, brown, moist, soft, friable, no odour staining	r, no			_					0.2				
				- 2 -					0				
				-									
				-		US	Y		-	BV_SB	06_2.9		
End of Log				_ 3					-0				
				-									
				_									
				-									
				_ 4									
				- 4									
				-									
				_									
				-									
				_									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook	k, NSW									ID: BV_	_SB07	
Drill Finish Date: 26/11/2013Hole IDrill Co: NumacCasinDriller: Adrian JarvisCasinDrill Method: NDD/PTSurface	g Type: I g Diam.	Vidth (mm N/A (mm): N/A letion: Ba	4		Elev Elev Eas	ration ration ting (N	(Grou (Case MGA)	vel (m by und): - e): - : 307309): 64136	9	ERM Australia Pty Ltd		
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks	
Ground Surface			-0									
Concrete Good condition, no staining			- -		DS	N			BV_SB0	7 0.25	-	
Fill Gravelly sand, red-brown, moist, loose, medium to			-		00					1_0.20		
coarse, poorly sorted, no odour, no staining Fill Gravelly clay, grey-brown, moist, soft, low-plasticity, no odour, no staining, weathered shale and ironstone gravel throughout			- - - - - - - - - - - - - - - - - - -									
Clay With organic matter, dark brown, moist, soft, low plasticity, no odour, no staining	Æ							0				
Clay Brown, moist, soft, high plasticity, no odour, no staining			-									
Sandy Clay Red mottled grey, moist, soft, low plasticity, no odour, no staining			- - -		DS			0	BV_SB	07_2.9	-	
End of Log			- - - - - - - - - - - - - - - - - - -									

Checked By:

	Depth (m							vel (m bç	gl): -	ID: BV_	SB08
Drill Co: NumacCasingDriller: Scott JessupCasingDrill Method: NDD/PTSurface	Diam. / W g Type: N g Diam. (œ Compl Strike (m	I/A (mm): N// letion: Ba			Elev Eas	ation ting (N	(Cas MGA)	und): - e): - : 307725): 64138			ERM Australia Pty Ltd
Lithology	Symbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	(mqq) OIA	Sample		Remarks
Ground Surface Fill Gravelly sand, brown, moist, medium dense, fine to			- 0 		DS	N		0.1	BV_SB	08_0.1	-
coarse, poorly sorted, no odour, no staining Gravelly Clay Red-brown, dry, hard, non-plastic, no odour, no staining, river cobbles to 0.5 m bgl			- - -					0.2			
Silty clay Red-brown, dry, hard, non-plastic, no odour, no staining	HHH!		- - 1					0.1			
Sandstone Extremely weathered, orange with pale grey mottling			- - - -					0.1			
			- - -2 -		US	N		0	BV_SB	08_2.0	
Sandstone Increasing clay content (pale grey), slightly moist,			- - -								
dense, no staining, no odour Sandstone Orange-brown, slightly moist, very dense, fine sand, no odours no staining			- 3 - -					0			
			-								
End of Log			- 4 - -					0			
			- - -								
			_ 5								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, N Drill Start Date: 12/11/2013 Total De Drill Start Date: 20/11/2013 Hole Dia Drill Co: Numac Casing T Driller: Eric Grima Casing T Drill Method: NDD/PT Surface	pth (m ım. / W Гуре: N Diam. (idth (mm I/A mm): N//	A Contraction		Elev Elev Eas	ration ration ting (N	(Grou (Case MGA):	vel (m bç ınd): - e): - 307358): 64140		ID: BV_S	SB09
Lithology			Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)	(wdd) OId		ERM A	ustralia Pty Ltd Remarks
Ground Surface Fill		-	-0		DS	N		0.2	BV SR	309_0.1	
Silty sand, brown, dry, loose, fine grained, moderate to well sorted, no odour, no staining. Rootlets to 0.3 m bgl Fill Gravelly clay, brown, dry, stiff, non-plastic, no odour, no staining, rootlets, weathered shale and ironstone fragments throughout, larger cobbles from 0.7 m bgl (to 60 mm)			- - - - -					0.2			
								0.1 0.1			
			- - 2 - -		US	N		0.1	BV_SB	309_2.0	
Fill Gravel, grey, dry, coarse, angular Fill Clay, orange-brown, mottled red-brown, slightly moist, no odour, large cobbles of shale			- - - - - -					0			
			- - - -					Ū			
End of Log	***		4 					_0			
			_ _ _ 5								

Log By: SM

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook,										ID: BX_I	WW01
Drill Finish Date: 5/12/2013 Hole D)epth (m iam. / W I Type: P	idth (mn	n): 150		Elev	ation	(Grou	vel (m bộ und): 19 9 e): 200.1			
Drill Method: NDD/PT/SFA/AH Surfac	l Diam. (e Compl Strike (m	etion: M	onument					: 306527 .): 64135			LRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Sandy Clay Red-brown, moist, medium stiff, non-plastic, no odour, no staining								0			
Shale Fine grained, well sorted, highly weathered, soft, grey with orange-brown weathering evident			- - - - -		DS	N		0.1	BX_MW	/01_0.5	
Sandy Clay Grey, mottled orange, moist, non-plastic, no stain no odour, trace gravel			- 1 - - -					0.1			
Sandy Clay Brown, dry, non-plastic, no stain, no odour			- - - - - 2								
			- - - -								
			- 3 - - -								
			- - - - -								
			- - - - -5								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Musw	ellbrook, NS									ID: BX_N	NW01
Drill Start Date: 26/11/2013 Drill Finish Date: 5/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA/AH Hole Type: Monitoring Well	Hole Dian Casing Ty Casing Di Surface C	iam. (mm):	50 Monument		Elev Elev East	ation ation ing (N	(Grou (Case /IGA)	vel (m bg und): 199 e): 200.1 : 306527): 64135	9 .736		RM astralia Pty Ltd
Lithology		Symbol Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Shale Weathered, brown, dry, no stain, no odour											
Siltstone Grey, dry, fine grained, no stain, no odour.			-6 - - - - - - - - - - - - - - - - - -								
Sandstone Brown, dry											
Siltstone Grey, dry											
			 10								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbro	ook, NSW									ID: BX_I	MW02
Drill Finish Date: 6/12/2013HoDrill Co: NumacCaDriller: Eric GrimaCaDrill Method: NDD/PT/AHSu	tal Depth (m le Diam. / W sing Type: I sing Diam. (rface Compl ater Strike (n	/idth (mm \/A (mm): N// letion: B a	A		Elev Elev Eas	vation vation ting (N	(Grou (Case MGA):	vel (m bgl ind): - e): - : 306661): 641331			ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface											
Sandy Clay Red-brown, moist, soft, low-plasticity, no odour or staining			- - -					0			
			-		DS	N		0	BX_MW	/02_0.5	
Shale Weathered, brown, dry, no stain, no odour			- - - - - - -								
			- - - - - 2 -								
			- - - -								
			3 _ _ _ _ _								
			- - - - - - -								
			- - - -								
Siltstone Grey, dry, fine grained, no odour			- - -5								

Log By: SM/TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bar Site Name: Bayswater Power Station Site Address: New England Highway, I										ID: BX_N	ЛW02
Drill Start Date: 26/11/2013 Drill Finish Date: 6/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/AH Hole Type: Soil Bore	Total Depth (m): Hole Diam. / Wio Casing Type: N/ Casing Diam. (r Surface Comple Water Strike (m	dth (mm) A nm): N/A tion: Bac			Elev Elev East	ation ation ing (N	(Grou (Case //GA)	vel (m bgl und): - e): - : 306661): 641331			STATES IN THE INFORMATION INTERVALUE INTERVALU
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
		-	- - -								
		-	- - - - 6								
		-	- - - -								
		-	- - - -								
		-	7 - - -								
		-	-								
		-									
		-	- - -								
		-	- 9 - -								
		-	-								
		-	- - - 10								

Log By: SM/TC

Checked By:

enconed by.

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I Drill Start Date: 14/11/2013 Total De		n): 6			Fina	ıl Wat	er Le	vel (m bg	I): 3.79	ID: BX_	_MW03
Drill Co: NumacCasingDriller: Eric GrimaCasingDrill Method: NDD/PT/SFASurface	Type: F Diam. (Compl	/idth (mm) PVC (mm): 50 letion: Mo n bgl): 4.5	nument		Elev Eas	vation ting (N	(Cas MGA)	und): 192 e): 193.20 : 306958): 641344	6 .184		ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Sandy Silt Dark brown, moist, soft, no stain, no odour Sandy Clay Dark brown, soft, non-plastic, no stain, no odour,			0 		DS	N		0	BX_MW	/03_0.2	
trace gravel Gravelly Clay Brown, moist, soft, non-plastic, no stain, no odour, fine to medium gravel			- - - - - - 1 - -					0			
Clay With weathered shale, grey-brown, dry, soft, non- plastic, no stain, no odour			- - - - - - - 2		US	N		0	BX_MW	/03_2.0	
			 5								

Log By: TC

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, M		SW									ID: BX_N	AW03
Drill Start Date: 14/11/2013 Drill Finish Date: 4/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	iinish Date: 4/12/2013 Hole Diam. / Width (mm): 150 Co: Numac Casing Type: PVC r: Eric Grima Casing Diam. (mm): 50 Method: NDD/PT/SFA Surface Completion: Monume					Elev Elev Eas	ation ation ting (N	(Grou (Case //GA):	vel (m bg ind): 192 e): 193.2 : 306958): 64134 4	.67 6 .184		RM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
End of Log		2		- - -								
				- - -								
				- - - -7								
				- - -								
				- - -								
				- 								
				- - -								
				- - - 9								
				-								
				- - -								
				- - 10								

Log By: TC

Checked By:____

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Baysw Site Name: Bayswater Power Station Site Address: New England Highway, Mus										ID: BX_N	NW04			
Drill Start Date: 26/11/2013 Drill Finish Date: 26/11/2013 Drill Co: Numac Driller: Scott Jessup Drill Method: NDD Hole Type: Soil Bore	Total Depth (n Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (n	Vidth (mm N/A (mm): N/A pletion: Ba	4		Elev Elev East	ation ation ing (N	(Grou (Case 1GA):	vel (m bgl und): - ∋): - : 306738): 641361		mple Details MW04_0.15				
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks			
Ground Surface Bitumen Cood condition, no staining			-0		DS	N	=		BY MM	04.0.15				
Good condition, no staining. Fill Gravelly sand, pale grey, dry, loose, fine to	/ 💥		-					0.1	DA_WW					
Fill Siltstone boulder, dark grey, hard. End of Log														

Log By: SM

Checked By:

Page 1 of 1

Drill Co: NumacCasing TDriller: Scott JessupCasing E	pth (m im. / W Type: N Diam. (i Compl	idth (mm) I/A mm): N/A etion: Ba			Elev Elev East	ation ation ing (N	(Grou (Case MGA):	vel (m bg und): - e): - 303482): 640722		ID: BY_MW11		
Lithology	Symbol	Nell	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		Remarks	
Ground Surface Silty Sand Gravel, brown, moist, medium density, fine grained sand - pebbles, mud sorted homogenous, no odour, no staining. Sandy Clay Gravel with weathered siltstone gravel inclusions, brown, moist, low plasticity, homogenous, no odour, no staining.					DS	N		0.1	BY_MW	(11_0.2		
End of Log			-1 -1									

Checked By:

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, Drill Start Date: 9/12/2013 Total Date Drill Finish Date: 10/12/2013 Hole Di Drill Co: Numac Casing	epth (m am. / W	/idth (m	m): 150		Elev	ation	(Grou	vel (m bg und): 128 e): 128.7 :	.09	ID: BY_I	
Driller: Eric Grima Casing	Diam. Comp	(mm): 50 letion: N	lonument		Eas	ting (I	VGA)	: 304071.): 640788	6		ERM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	PPT (kPa)	PID (ppm)	Sample	Details	Remarks
Ground Surface	×		-0								
Silty Sand With gravel, brown, dry, medium dense, fine, sand- pebbles, moderately sorted homogenous, no odour,	× × × × × × × ×		-		DS	N		0.1	BY_MW	/12_0.2	
no staining Sandy Clay Brown, moist, stiff, moderately plastic, homogeneous, no odour, no staining								0.1			
Silty Clay Grey with red-brown mottling, moist, very stiff, low- plasticity, homogeneous	HH		- - 1 -					0.1			
Shale	H H		-					0			
Red-brown, moist, no stain, no odour			- 2 - -					0			
			- - - -								
			3 					0			
			_ _ _ 4					0			
			-5					0			

Log By: GP/TC

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bay Site Name: Bayswater Power Station Site Address: New England Highway, N								ID: BY_	MW12
Drill Start Date: 9/12/2013 Drill Finish Date: 10/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: HA/SFA Hole Type: Monitoring Well	Total Depth (m): Hole Diam. / Wid Casing Type: PV Casing Diam. (m Surface Complet Water Strike (m b	th (mm): 150 C m): 50 ion: Monument		Elevation Elevation Easting	on (Grou on (Cas (MGA)	vel (m bg und): 128 e): 128.7 : 304071 .): 64078	3.09 3 .6		ERM Lustralia Pty Ltd
Lithology	Symbol	Well Depth (m)	Recovery	Sample Type	PPT (kPa)	PID (ppm)	Sample	Details	Remarks
				DS N		0	BY_MW	/12_8.0	
End of Log									
		_ _ _ 10							

Log By: GP/TC

Checked By:

Page 2 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswellbrook, I Drill Start Date: 12/12/2013 Total De): 1.5			Fina	IWat	erLe	vel (m b	 gl): -	ID: BY_	_MW18
Drill Co: NumacCasingDriller: Scott JessupCasingDrill Method: NDDSurface	Co: Numac Casing Type: N/A er: Scott Jessup Casing Diam. (mm): N/A Method: NDD Surface Completion: Backfill					ation ing (I	(Cas MGA)	und): - e): - : 309842): 64122			ERM Australia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Fill Road base, clayey gravel, light brown, dry, dense,			0		DS	Y			BY_MW	/18 0.2	
fine to coarse, well sorted, no odour, no staining.			 					0 0			
Fill Sandy clay with gravel, grey, moist, soft, non plastic, no odour, no staining.			- 					0			
End of Log			- - - - - - - - - - - - - - - - - - -								
			- - - - - - - - - - - - 5		US	Y			BY_MW	/18_5.0	

Log By: TC

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswater Site Name: Bayswater Power Station Site Address: New England Highway, Muswell		ISW									ID: BY_	MW20
Drill Finish Date: 3/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA/AH	Finish Date: 3/12/2013 Hole Diam. / Width (mm) Co: Numac Casing Type: N/A er: Eric Grima Casing Diam. (mm): N/A Method: NDD/PT/SFA/AH Surface Completion: Bar • Type: Soil Bore Water Strike (m bgl): -					Elev Elev Eas	vation vation ting (I	(Grou (Case MGA):	vel (m bg ind): - e): - 308873): 64141			ERM Lustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
Ground Surface Sandy Silt		* <u>···</u> *		_0								
Brown, dry, medium stiff, non-plastic, no stain, n odour	0			-		DS	N		0	BY_MW	20_0.2	
Sandy Clay Brown, dry, medium stiff, low plasticity, no stain, odour	no			- - -					0			
		/		- 					0			
Shale Grey, brown, dry, friable, no stain, no odour				- - -								
				_								
				_2 -		US	N		0	BY_MW	20_2.0	
				- - -								
				-								
				- - 3								
				-								
				- - -								
				_								
				4								
				– –								
				_								
				_5								

Log By: TC

Checked By:

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Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Musw Drill Start Date: 14/11/2013 Drill Finish Date: 3/12/2013		oth (m)): 150					vel (m bg und): -	l): -	ID: BY_I	WW20
Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA/AH Hole Type: Soil Bore	Casing Ty Casing Di Surface C Water Str	ype: N iam. (i Comple	I/A mm): N// etion: Ba	4		Elev East	ation ting (N	(Cas //GA)				LRM ustralia Pty Ltd
Lithology		Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
				- - - -								
				- - - - 6								
				- - - -								
				- - - - -7								
Siltstone				- - -								
Grey, dry, fine grained, no stain, no odour.				- - - 								
				- - -								
				- - - - 9								
				- - - -								
				- - - - 10								

Log By: TC

Checked By:

Page **2 of 2**

Drill Finish Date: 4/12/2013HDrill Co: NumacODriller: Eric GrimaODrill Method: NDD/PT/SFAS	Total De Hole Dia Casing T Casing D	pth (m m. / W ype: F Diam. (Compl	ridth (mm PVC mm): 50 etion: Mc): 150 pnument		Elev Elev East	ation ation ting (N	(Grou (Case //GA)	vel (m bç und): 14 ə): 145.9 : 308231): 64146	9 .435		MW21 MW21 ERM ERM
Lithology		Symbol		Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample		Remarks
Ground Surface Sandy Silt Brown, moist, soft, no stain, no odour		*		 		DS	N		0	BY_MW	/21_0.2	
Sandy Clay Red-brown, moist, stiff, non-plastic, no stain, no odour. Grey mottled brown, soft at 1.2 m bgl		/ / /		- - -					0			
				- - - - - - - - - -					0			
		/ /		-								
		/ /		- - 2 -					0			
		/ /		-		US	N		0	BY_MW	/21_2.5	
				- - - -3								
				-								
		/ /		-								
		/ /		4 _ _								
		/ /		- - -								
				- - 5								

Log By: **TC**

Checked By:

Page 1 of 2

Client: Macquarie Generation Project No.: 0224193 Project Name: Project Symphony - Bayswa Site Name: Bayswater Power Station Site Address: New England Highway, Musw	ellbrook, NSW									ID: BY_I	MW21
Drill Start Date: 14/11/2013 Drill Finish Date: 4/12/2013 Drill Co: Numac Driller: Eric Grima Drill Method: NDD/PT/SFA Hole Type: Monitoring Well	Total Depth (r Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (Vidth (mm PVC (mm): 50 pletion: Mc			Elev Elev East	ation ation ing (N	(Grou (Case /IGA):	vel (m bg und): 145 e): 145.99 : 308231.): 641461	.12 9 .435		LRM ustralia Pty Ltd
Lithology	Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
			-								
			-								
Sandy Clay Brown, dry, non-plastic, no stain, no odour											
			- - - -7								
			- - 								
			- - -								
Shale Weathered, brown, dry, no stain, no odour			- - 9 -								
			- - -								
			- - - 10								

Log By: TC

Checked By:

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									ID: BY_	MW32
Start Date: 12/12/2013 Total Depth (m): 1.5 Finish Date: 12/12/2013 Hole Diam. / Width (mm): 150 Co: Numac Casing Type: N/A er: Scott Jessup Casing Diam. (mm): N/A Method: NDD Surface Completion: Backfill er Type: Soil Bore Water Strike (m bgl): -					ration ration ting (N	(Grou (Case MGA):	und): - e): - : 309778			ERM Australia Pty Ltd
Symbol	Well	Depth (m)	Recovery	Sample Type	Analysed	РРТ (КРа)	PID (ppm)	Sample	Details	Remarks
×		0								
× ×		-		DS	N		0	BY_MW	/32_0.2	
J.		- - -					0			
		- - 1 -					0.1			
		_		US	Y		-	BY MW3	2 1.5-1.8	
		-					-0			
		- - - - - - - - - - - - - - - - - - -								
		- - - - - - - - - - - - - - - - - - -								
	Hole Diam. / V Casing Type: Casing Diam. Surface Comp Water Strike (r	Total Depth (m): 1.5 Hole Diam. / Width (mm Casing Type: N/A Casing Diam. (mm): N// Surface Completion: Ba Water Strike (m bgl): -	Total Depth (m): 1.5 Hole Diam. / Width (mm): 150 Casing Type: N/A Casing Diam. (mm): N/A Surface Completion: Backfill Water Strike (m bgl): -	Total Depth (m): 1.5 Hole Diam. / Width (mm): 150 Casing Type: N/A Casing Diam. (mm): N/A Surface Completion: Backfill Water Strike (m bgl): -	Total Depth (m): 1.5 Fina Hole Diam. / Width (mm): 150 Elev Casing Type: N/A East Surface Completion: Backfill Nort Water Strike (m bgl): -	Total Depth (m): 1.5 Hole Diam. / Width (mm): 150 Casing Type: N/A Casing Diam. (mm): N/A Surface Completion: Backfill Water Strike (m bgl): -	Total Depth (m): 1.5 Hole Diam. / Width (mm): 150 Casing Type: N/A Casing Diam. (mm): N/A Surface Completion: Backfill Water Strike (m bgl): -	Total Depth (m): 1.5 Hole Diam. / Width (mm): 150 Casing Type: N/A Casing Diam. (mm): N/A Surface Completion: Backfill Water Strike (m bgl): -	Total Depth (m): 1.5 Final Water Level (m bgl): - Hole Diam. / Width (mm): 150 Elevation (Ground): - Casing Type: N/A Easting (MGA): 309778 Surface Completion: Backfill Northing (MGA): 6413823 Water Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Image: Strike (m bgl): - Ima	brook, NSW Total Depth (m): 1.5 Total Depth (m): 1.5 Casing Type: NA Casing Type: NA Casing Type: NA Surface Completion: Backfill Water Strike (m bgl): -

Log By: TC

Checked By:

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COMMERCIAL IN CONFIDENCE

Annex E

Field Documentation





Air-Met Scientific Pty Ltd 1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	1	
Connectors	Condition	✓	
Tape Check	Cleaned	✓ ✓	
Connectors	Checked for cuts	✓ ✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: Sophie Boler

Calibration date:

24/10/2013

Next calibration due:

23/12/2013

24/10/13





25/10/13

1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	1	
Probe	Cleaned/Decon.	1	
	Operation	✓	
Connectors	Condition	✓	
		1	
Tape Check	Cleaned	1	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	 ✓ 	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by:Sophie BolerCalibration date:25/10/2013Next calibration due:24/12/2013

Instrument	Interface Meter (50M)
Serial No.	122 009747-1



1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	 ✓ 	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	1	
		1	
Tape Check	Cleaned	1	
	Checked for cuts	✓	
		4	
Instrument Test	At surface level		

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by:SB.Sophie BolerCalibration date:26/11/2013

Next calibration due:

25/01/2014

26/11/13

Instrument PhoCheck Tiger Serial No. T-105859



Air-Met Scientific Pty Ltd 1300 137 067

Item	Test	Pass			Comments	S	
Battery	Charge Condition	1					
	Fuses	1					
	Capacity	1					
	Recharge OK?	✓					
Switch/keypad	Operation	1					
Display	Intensity	1					
	Operation	1					
	(segments)						
Grill Filter	Condition	✓					
	Seal	1					
Pump	Operation	1					
	Filter	1					
	Flow	1			-		
	Valves, Diaphragm	1	1945				
PCB	Condition	✓	· ********				
Connectors	Condition	✓					
Sensor	PID	✓	10.6 ev				
Alarms	Beeper	✓	Low	High	TWA	STEL	
	Settings	✓	50ppm	100ppm			
Software	Version	1					
Data logger	Operation	1					
Download	Operation	✓					
Other tests:							

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
PID Lamp		100ppm Isobutylene	NIST	SY21	100.6ppm

Calibrated by: Joanna Wong Calibration date: 25/10/2013 Next calibration due: 24/11/2013

Instrument P Serial No. T

PhoCheck Tiger T-105517



Air-Met Scientific Pty Ltd 1300 137 067

ltem	Test	Pass			Comments	S	
Battery	Charge Condition	1					
	Fuses	✓					
	Capacity	1					
	Recharge OK?	1					
Switch/keypad	Operation	1					
Display	Intensity	1					
	Operation	1					
	(segments)						
Grill Filter	Condition	1					
	Seal	✓					
Pump	Operation	1					
	Filter	1					
	Flow	1					
	Valves, Diaphragm	1				,	
PCB	Condition	✓					
Connectors	Condition	✓					
Sensor	PID	✓	10.6 ev				
Alarms	Beeper	✓	Low	High	TWA	STEL	
Alarino	Settings	✓	50ppm	100ppm			
Software	Version	✓					
Data logger	Operation	✓					
Download	Operation	✓					
Other tests:							

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor S	Serial no	Calibration gas and	Certified	Gas bottle No	Instrument Reading
		concentration			
PID Lamp		100ppm Isobutyléne	NIST	SY21	100.3ppm
Calibrated by:		hushal	_Joanna Wo	ng	
Calibration date:	i	25/10/2013			
Next calibration of	lue:	24/11/2013			

Instrument PhoCheck Tiger Serial No. T-105901



Air-Met Scientific Pty Ltd 1300 137 067

ltem	Test	Pass			Comments	S	
Battery	Charge Condition	1					
	Fuses	✓					
	Capacity	1					
	Recharge OK?	1					
Switch/keypad	Operation	1					
Display	Intensity	✓					
	Operation	1					
	(segments)						
Grill Filter	Condition	✓					
	Seal	1					
Pump	Operation	✓					
	Filter	1					
	Flow	√		· · · · · · · · · · · ·			
	Valves, Diaphragm	1					
PCB	Condition	✓					
Connectors	Condition	✓					
Sensor	PID	✓	10.6 ev				
						Lanni	
Alarms	Beeper	✓	Low	High	TWA	STEL	
	Settings	✓	50ppm	100ppm			
Software	Version	✓					
Data logger	Operation	✓					
Download	Operation						
Other tests:							

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

4/11/2013

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
PID Lamp			NIST	SY21	100.5ppm
		<u> </u>			

Calibrated by: Sphie Boler

Calibration date:

Next calibration due: 4/12/2013



Project Name :	Boys water	Project Staff :	A. Moren's
Project No :	0224193	Date :	5-11-13
Photo-ionisation Dete	ctor		
Make/Model No: Serial Number:]	
Calibration Gas			
Calibration Gas:	100 Isobotylene]	
PID Calibration			
Zero Calibration			
PID Reading:	100 0]	
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100 100		

Certification

Checked By:	A. MózRis			
Signature:	Al	Date:	5-11-13	



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Environmental Resources Management Australia Pty Ltd

PID Calibration Certificate

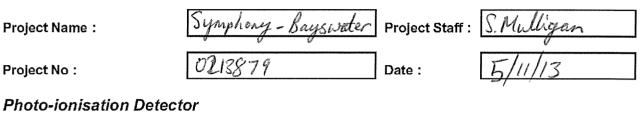


Photo-ionisation Detector

Make/Model No:

The .	frockeck	Tiger
T-1	05517	0

Serial Number:

Calibration Gas

Calibration Gas:

sobutalene

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

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100.0	
(00.0	

Certification

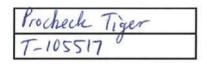
Checked By:	Stephen	Mulligan		
Signature:	A.	WS	Date:	5/11/13
	v			



Project Name :	Symphony - Bay	sucted Project Staff	: S. Mulligan
Project No :	0213879	Date :	6/11/13

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:

1sobutylene

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

100-0	
100-0	

0-0

Certification

Stephen Mulligar	~]	
the les	Date:	6/11/13	
	Stephen Mulligar	lax dos	



(0)

Project Name :



Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas:

sobutyline

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

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	0

0.0

Certification

Checked By:	- WOREN MORR	5	
Signature:	K~	Date:	6/11/13



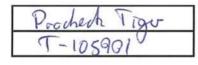
Project Name :



Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:

80 60 ene

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

D-0

Desired PID Reading:

Actual PID Reading:

100	
100	

Certification

cked By:	ANDREN MOMPANS] ,	1
Signature:	M	Date:	7/11	13



Project Name :	Symphony - Bayswater	Project Staff :	S. Mulligan	
Project No :	0224193	Date :	7/11/13	
Photo-ionisation Dete	ctor			
Make/Model No: Serial Number:	Procheck Tiger T-105517]		
Calibration Gas				
Calibration Gas:	Isobutylene]		
PID Calibration				
Zero Calibration				
PID Reading:	0-0			
Span Calibration		i		
Desired PID Reading: Actual PID Reading:	100.0			
Actual in Reading.	- A-* < *	I		

Certification

cked By:	S. Mulligan		
Signature:	the liz	Date:	7/11/12



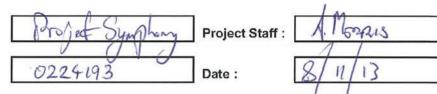
Project Name :	Symphony - Bayswater	Project Staff :	S. Mulligan
Project No :	0224193	Date :	8/11/13
Photo-ionisation Detec	tor		
Make/Model No: Serial Number:	Procheck Tiger T. 105517		
Calibration Gas			
Calibration Gas:	Isobutylene		
PID Calibration			
Zero Calibration			
PID Reading:	0.0		
Span Calibration			
Desired PID Reading:	100.0		
Actual PID Reading:	100.0		

Certification

Stephen Mulligan]
As liz	Date:	8/11/13
	the lis	Date:



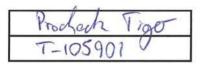
Project Name :



Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:

36 bubylene

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

1	DD	
	100	

0-0

Certification

ANDREW M	orris]
Ah	Date:	18/11/13
	ANDREW M	AA

InstrumentMinirae 3000Serial No.592-001359



Air-Met Scientific Pty Ltd 1300 137 067

ltem	Test	Pass			Comments		
Battery	Charge Condition	1					
#	Fuses	1					
	Capacity	1					
	Recharge OK?	✓					
Switch/keypad	Operation	1					
Display	Intensity	1					
	Operation	1					
	(segments)	· · · ·	11-11-11-11-11-11-11-11-11-11-11-11-11-				
Grill Filter	Condition	1					
	Seal	1					
Pump	Operation	1					
	Filter	1					
	Flow	1					
	Valves, Diaphragm	1					
PCB	Condition	✓					
Connectors	Condition	1					
Sensor	PID	1	10.6 ev				
Alarms	Beeper	✓	Low	High	TWA	STEL	
	Settings	✓	50ppm	100ppm	10ppm	25ppm	
Software	Version	✓					
Data logger	Operation	✓					
Download	Operation	✓					
Other tests:							

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
PID Lamp		100ppm Isobutylene	NIST	SY21	100.0ppm
Calibrated by:		AR,	_Anne Rutlic	łge	
Calibration date	ə:	8/11/2013			
Next calibration	n due:	7/05/2014			



Project Name :	Project Symphony - begwate Project Staff:	S. Mulligan	
Project No :	6224193 Date :	11/11/13	
Photo-ionisation Detec	tor		
Make/Model No: Serial Number:	Procheck Tiger T-105517		
Calibration Gas			
Calibration Gas:	Isobutylene		
PID Calibration			
Zero Calibration			
PID Reading:	0.0		
Span Calibration			
Desired PID Reading:	100-0		
Actual PID Reading:	100.0		
		÷	

Certification

ecked By:	Stephen Mulligan]
Signature:	the his	Date:	11/11/13
	+ +		



MORRIS Project Staff : Project Name : Dharu Project No : 24192 Date :

Photo-ionisation Detector

Po	o Check	Tig	ĸ	
1	-1059	01		

Calibration Gas

Make/Model No: Serial Number:

Calibration Gas:

lsobutu

PID Calibration

Zero Calibration

Span Calibration

PID Reading:

D.O

Desired PID Reading:

Actual PID Reading:

100	
100	

Certification

Checked By:	A-Morris		
Signature:	the	Date:	n/11/13
			/ /



Project Name :	Symphony-Bayswater	Project Staff :	S. Mulligan	
Project No :	0224193	Date :	12/11/13	
Photo-ionisation Detec	ctor			
Make/Model No: Serial Number:	Procheck Tiger T-105517			
Calibration Gas				
Calibration Gas:	Isobutylene			
PID Calibration				
Zero Calibration				
PID Reading:	0.0			

Desired PID Reading:

Span Calibration

Actual PID Reading:

100-0	
100.0	

Certification

ecked By:	Stephen Mulligan]
Signature:	St his	Date:	12/11/13



Environmental Resources Management Australia Pty Ltd

PID Calibration Certificate

Project Name :



Project No :

Photo-ionisation Detector

ProChed Figer	
T-105901	

Calibration Gas

Make/Model No: Serial Number:

Calibration Gas:

Isobut lene

PID Calibration

Zero Calibration

PID Reading:

0-0

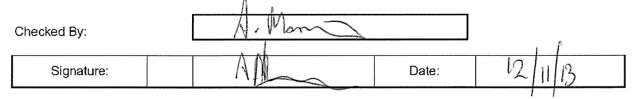
Span Calibration

Desired PID Reading:

Actual PID Reading:

100	
100	

Certification





Project Name :	Symphony-Bayswoter	Project Staff :	S. Mulligan
Project No :	0224193	Date :	13/11/13
Photo-ionisation Dete	ctor		
Make/Model No: Serial Number:	Procheck Tiger T-105517]	
Calibration Gas			
Calibration Gas:	Isobutylene]	
PID Calibration			
Zero Calibration			
PID Reading:	0:0]	
Span Calibration	140.0	1	
Desired PID Reading: Actual PID Reading:	100-0 100-0		
Actual FID Reading.		1	

Certification

hecked By:	Stephen Mulligan]	
Signature:	At his	Date:	13/11/13	
_2018	Dol - my		1.2/10	-

Instrument **PhoCheck Tiger** Serial No. T-106368



Air-Met Scientific Pty Ltd 1300 137 067

ltem	Test	Pass			Comment	S	
Battery	Charge Condition	1					
	Fuses	1					
	Capacity	1					
	Recharge OK?	✓					
Switch/keypad	Operation	1					
Display	Intensity	1					
······································	Operation	1					
	(segments)						
Grill Filter	Condition	1					
	Seal	✓					
Pump	Operation	1					
	Filter	1					
	Flow	1					
	Valves, Diaphragm	✓					
РСВ	Condition	✓					
Connectors	Condition	✓					
Sensor	PID	✓	10.6 ev				
Alarms	Beeper	1	Low	High	TWA	STEL	
	Settings	✓	50ppm	100ppm			
Software	Version	✓					
Data logger	Operation	1					
Download	Operation	1					
Other tests:							

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
PID Lamp		100ppm Isobutylene	NIST	SY21	99.7ppm

Calibrated by: AR Anne Rutlidge

Calibration date: 13/11/2013 13/12/2013

Next calibration due:

Instrument	PhoCheck Tiger Select
Serial No.	T-106085



Air-Met Scientific Pty Ltd 1300 137 067

Item	Test	Pass			Comment	S	
Battery	Charge Condition	1					
	Fuses	✓					
	Capacity	1					
	Recharge OK?	1					
Switch/keypad	Operation	1					
Display	Intensity	1					
	Operation	1					
	(segments)						
Grill Filter	Condition	1					
	Seal	1					
Pump	Operation	1					
	Filter	1					
	Flow	✓					
	Valves, Diaphragm	1					
РСВ	Condition	1					
Connectors	Condition	1					
Sensor	PID	✓	10.0 ev				
Alarms	Beeper	√	Low	High	TWA	STEL	
	Settings	1	50ppm	100ppm			
Software	Version	✓					
Data logger	Operation	✓					
Download	Operation	✓					
Other tests:							

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

13/12/2013

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and	Certified	Gas bottle No	Instrument Reading
PID Lamp		concentration 100ppm	NIST	SY21	100.0ppm

Calibrated by: AR Anne Rutlidge

Calibration date: 13/11/2013

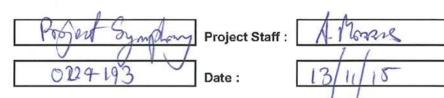
Next calibration due:



Environmental Resources Management Australia Pty Ltd

PID Calibration Certificate

Project Name :



Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:



PID Calibration

Zero Calibration

PID Reading:

Span Calibration

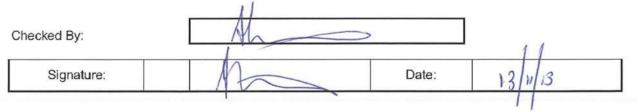
Desired PID Reading:

Actual PID Reading:

100	
100	

0.0

Certification





Project Name :



Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:

sobutylene

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

100.0	
100.0	

0.0

Certification

igan	
- Date:	14/11/13
r	P Dato.



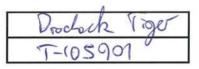
Project Name :



Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:

15050 lene

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

100	
100	

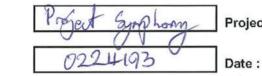
0.0

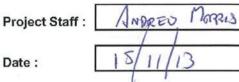
Certification

Checked By:	A. Moorns]	
Signature:	A	Date:	14/11/13	



Project Name :

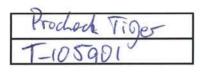




Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:

lsobut 10 2

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

100	
100	

0:0

Certification

Checked By:	A Morris]	
Signature:	M	Date:	15/1/13	



PID Calibration Certificate

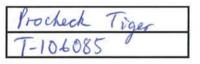
Project Name :

Symphony-Bayswat	Project Staff :	S. Mulligan
022.4197	Date :	Istulia

Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:

flene

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

100.0	
100.0	

0.0

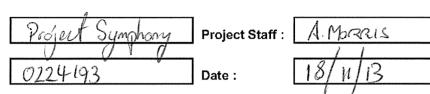
Certification

Stephen Mulligas		1
Stil hig	Date:	15/11/13
	Step hig	and a-



PID Calibration Certificate

Project Name :



Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:

Pro G	och T	ides
T-10	5901	0

Calibration Gas

1 sobutylene

0.0

PID Calibration

Calibration Gas:

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

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Certification

Checked By:	A. Mozzis	~		4	
Signature:	At	Date:	18/	u/13	

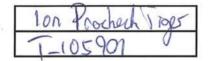


PID Calibration Certificate

Project Name :	2 ⁴ - 2 ¹¹	Bayswelt Proj Symphs	Project Staff :	A. Morris
Project No :		0224193	Date :	19-11-2013

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:

1 Sobuty leve

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading: Actual PID Reading:

100	
100	

0.0

Certification

hecked By:	A. MORRIS		
Signature:	M	Date:	19/11/13
			11



Project Name :	Symphony Bayswater Project Staff	S. Mulligan
Project No :	0224193 Date :	19/11/13
Photo-ionisation Dete	ctor	
Make/Model No: Serial Number:	Procheck Tiger T-105517	
Calibration Gas		
Calibration Gas:	Isoborbylene	
PID Calibration		
Zero Calibration		
PID Reading:	0-0	
Span Calibration		
Desired PID Reading:	0.001	
Actual PID Reading:	100-0	

Certification

ked By:	Stephen Mulligan		J
Signature:	the life	Date:	19/11/13



Project Name :	Symphony	Project Staff :	Tom
Project No :	0224193	Date :	19/11/13
Photo-ionisation Dete	ctor		
Make/Model No: Serial Number:	Tiger 105859]	
Calibration Gas			
Calibration Gas:	Isoba tylene]	
PID Calibration			
Zero Calibration			
PID Reading:	Q - 0]	
Span Calibration		1	
Desired PID Reading:	108.0		
Actual PID Reading:	100.0		

Certification

Checked By:	TC		
Signature:	Ű	Date:	19/11/13



PID Calibration Certificate

Project Name :

Project No:

Project Symphony Project Staff : 0224193 Date :

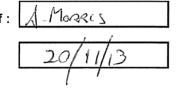


Photo-ionisation Detector

Make/Model No: Serial Number:

Pro Check Tiger
+-105961

Calibration Gas

Calibration Gas:

lene 8560

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

100	
IOD	

0-0

Certification

Checked By:	A. Maris			
Signature:	Ah	Date:	20/11/13	
North 1011				



PID Calibration Certificate

Project Name :	Symphony Bayswater	Project Staff :	S. Mulligan
Project No :	0224193	Date :	20/11/13
Photo-ionisation Detect	tor		
Make/Model No: Serial Number:	Procheck Tiger T-105517		
Calibration Gas			
Calibration Gas:	Isobutylene		
PID Calibration			
Zero Calibration			
PID Reading:	0-0		
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100-0		

Certification

Signature:	Date:	20/	11	113



Project Name:	Symphony	Project Staff :	Tom
Project No :	0224193	Date :	20/11/13
Photo-ionisation Detect	tor		
Make/Model No: Serial Number:	Tiger 105859		
Calibration Gas			
Calibration Gas:	Isobuty lene		
PID Calibration			
Zero Calibration			
PID Reading:	0.0		
Span Calibration	P	I	
Desired PID Reading:	100.0		
Actual PID Reading:	100-0		

Certification

Checked By:	TL		
Signature:	E .	Date:	20/11/13



Project Name :	Symphony Bayswater	Project Staff :	S. Mulligan
Project No :	0224193	Date :	21/11/13
Photo-ionisation Detec	ctor		
Make/Model No: Serial Number:	Procheck Tiger T-105517		
Calibration Gas			
Calibration Gas:	Isobutylene		
PID Calibration			
Zero Calibration			
PID Reading:	0.0		
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100-0 100-0		

Certification

Checked By:	Stephen Mulligan]	
Signature:	the by	Date:	21/11/13	



PID Calibration Certificate

Project Name :



Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:

P	nd	hech	Tiger]
<	T-	1059	01	

Calibration Gas

Calibration Gas:

N

PID Calibration

Zero Calibration

PID Reading:

0.0

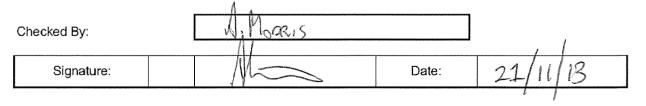
Span Calibration

Desired PID Reading:

Actual PID Reading:

100	
1017	

Certification





Project Name :	Symphony	Project Staff :	Tom
Project No :	0224193	Date :	21/11/13
Photo-ionisation Detec	tor		
Make/Model No: Serial Number:	Tiger 105859		
Calibration Gas			
Calibration Gas:	150 by ty lene]	
PID Calibration			
Zero Calibration			
PID Reading:	0.0		
Span Calibration			
Desired PID Reading:	100.0		
Actual PID Reading:	100.0		

Certification

Checked By:	TZ		
Signature:	1. E	Date:	21/11/13



PID Calibration Certificate

Project Name :	Symphony Baysuits	Project Staff :	Wijnand Gens
Project No :	0224193	Date :	21/11/2013
Photo-ionisation D	etector		/ /
Make/Model No:	Mir Rue 3000	1	

Serial Number:

Calibration Gas

Calibration Gas:

Sobula lync

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

100	pour	
90	1	
18	phine	

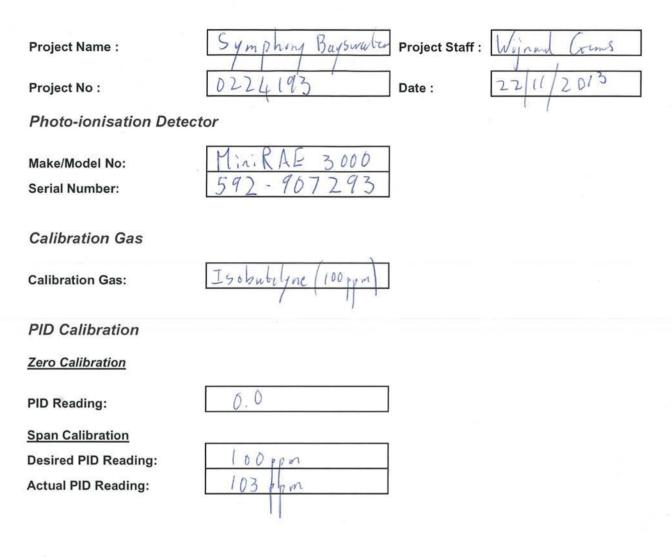
0.0

Certification

Checked By:	Wijned Gims	
Signature:	Date:	



PID Calibration Certificate



Certification

ecked By:	Wijnand tre.	rmS]	/
Signature:	11-S	Date:	22	11/2013



PID Calibration Certificate

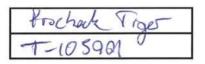




Project No :

Photo-ionisation Detector

Make/Model No: Serial Number:



Calibration Gas

Calibration Gas:

30 butakene

0.0

()(

INC

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

Ce	rtifica	ation
00	1 111100	111011

ecked By:	A ANDREN M	overs]
Signature:	M	Date:	22/11/13



Project Name :	Symphony - Bayswater Project Staff: S. Mulligam
Project No :	0224193 Date: 22/11/13
Photo-ionisation Dete	ector
Make/Model No: Serial Number:	Procheck Tiger T-105517
Calibration Gas	
Calibration Gas:	Isobuctylene
PID Calibration	
Zero Calibration	
PID Reading:	<i>D</i> -D
Span Calibration Desired PID Reading: Actual PID Reading:	100-D 160-0

Certification

Stephen Mulligan		
the life	Date:	22/11/13
	Stephen Mulligan	



Project Name :	Symphony Bayswater	Project Staff :	S. Mulligan
Project No :	0224193	Date :	25/11/13
Photo-ionisation Dete	ctor		
Make/Model No: Serial Number:	Procheck Tiger T-105517		
Calibration Gas			
Calibration Gas:	Isobutylene		
PID Calibration			
Zero Calibration			
PID Reading:	0.0		
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100.0		

Certification

Stephen Mulligan		
the log	Date:	25/11/13
	LAN RASS	LAN 650 Date:



Project Name :	MACCIEN PROTECT SYMPHONY Project Staff: HC
Project No :	022493 Date: 25/11/13
Photo-ionisation Dete	ctor
Make/Model No: Serial Number:	-592-001359 MiniRae 3000 592-001359
Calibration Gas	
Calibration Gas:	Isobutylone
PID Calibration	
Zero Calibration	
PID Reading:	0.0 800
Span Calibration	
Desired PID Reading:	100.0 pp-
Actual PID Reading:	100.00pm

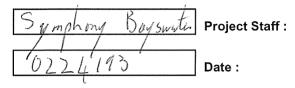
Certification

ed By:	H. CAMPBIEL		-
Signature:	WARD	Date:	25/11/13



PID Calibration Certificate

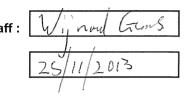
Project Name :



3000

95

 γ



Project No :

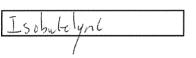
Photo-ionisation Detector

Make/Model No:

Serial Number:

Calibration Gas

Calibration Gas:



ンド

101

59) -

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

<0.1 pm
100 ppm
100 pam

Certification

Checked By:	Wijnan Grenns		, /
Signature:		Date:	25/11/2013



Project Name :	Symphony Bayswater	Project Staff :	S.Mulliga	in	
Project No :	07224193	Date :	26/11/13		
Photo-ionisation Dete	ctor				
Make/Model No: Serial Number:	Procheck Tiger T-105517				
Calibration Gas					
Calibration Gas:	150 butylene				
PID Calibration					
Zero Calibration					
PID Reading:	0 · 0	l)			
Span Calibration Desired PID Reading: Actual PID Reading:	100.0 100.0				

Certification

necked By:	Stephen Mulligan]
Signature:	It his	Date:	26/11/13
			1

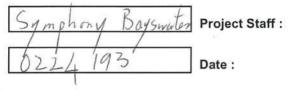


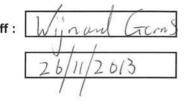
592

2 D.1

PID Calibration Certificate

Project Name :





Project No :

Photo-ionisation Detector

Make/Model No:

Serial Number:

Calibration Gas

Calibration Gas:

sobubelyne

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

100 ppm	
100 hm	

Certification

			/
Signature:		Date:	26/11/201
	16		1-0/11/200



Project Name :	Project Symptony	Project Staff :	HC
Project No:	0224193	Date :	26-11-13
Photo-ionisation Detec	ctor		
Make/Model No: Serial Number:	Mini Rae 3000 592-001 359		
Calibration Gas			
Calibration Gas:	Isobritgena		
PID Calibration			
Zero Calibration			
PID Reading:	0.0 pm		
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100 pp-		

Certification

ecked By:	H. CANGSELL		
Signature:	Mm	Date:	26-11-13



Project Name :	Symphony-Bayswater Project Staff: S. Mulligan	
Project No :	0224193 Date: 27/11/13	
Photo-ionisation Det	ector	
Make/Model No: Serial Number:	Prochede Tiger T-105517	
Calibration Gas		
Calibration Gas:	1 sobutylene	
PID Calibration		
Zero Calibration		
PID Reading:	0-0	
Span Calibration		
Desired PID Reading:	100.0	
Actual PID Reading:	100.0	

Certification

Checked By:	At lif]
Signature:	Stephen Mulligan	Date:	27/11/13
Signature:	Stephen Mulligan	Date:	27/11/13



Project Name :	MACCEN PROTECT SWITHIN Project Staff: HC
Project No :	0224193 Date: 27-11-13
Photo-ionisation De	tector
Make/Model No: Serial Number:	MiniRae 3000 592-001359
Calibration Gas	
Calibration Gas:	Bobritglene
PID Calibration	
Zero Calibration	- A
PID Reading:	0.0 ppm
Span Calibration	
Desired PID Reading:	(00, 0 gon-
Actual PID Reading:	101.0 ppm

Certification

Checked By:	Hanvel Camp	oll]
Signature:	M	Date:	27-11-13



Project Name :	Macgon Bayourater Pro	ject Staff : H⊂
Project No :	0224193 Dat	e: 28-11-13
Photo-ionisation Dete	ector	
Make/Model No: Serial Number:	MiniRoc 3000 592-001359	
Calibration Gas		
Calibration Gas:	150bystylene	
PID Calibration		
Zero Calibration		
PID Reading:	O, Oppna	
Span Calibration	·	
Desired PID Reading: Actual PID Reading:	100,0pp~ 100,0pp	

Certification

Checked By:	H. CAMPBELL		
Signature:	Mm	Date:	28-11-13



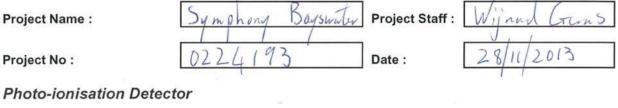
Project Name :	Symphony Bayswater	Project Staff :	S. Mulligan
Project No :	0224193	Date :	28/11/13
Photo-ionisation Dete	ctor		
Make/Model No: Serial Number:	Procheck Tiger T-105517],	
Calibration Gas			
Calibration Gas:	Isobutylene]	
PID Calibration			
Zero Calibration			
PID Reading:	6.0]	
Span Calibration			
Desired PID Reading:	100.0		
Actual PID Reading:	100.0		

Certification

cked By:	Stephen Mulligan]
Signature:	the log	Date:	28/11/13



PID Calibration Certificate



Make/Model No:

Serial Number:

Calibration Gas

Calibration Gas:

soloutelyne

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

PPM

m

00

0

Certification	

	- Fill X		
Signature:		Date:	28/11/201



Project Name :	Macgon Bayavater	Project Staff :	AC	
Project No :	0224193	Date :	29-11-13	
Photo-ionisation Detec	tor			
Make/Model No: Serial Number:	Mini Rale 2000 592-001359			
Calibration Gas				
Calibration Gas:	Bobytylene		*	
PID Calibration				
Zero Calibration				
PID Reading:	O. Oppm			
Span Calibration	A 931			
Desired PID Reading: Actual PID Reading:	100,0 ppm			

Certification

Checked By:	HOAMSH CAMP	BRU]
Signature:	app	Date:	29-11-13

Instrument PhoC Serial No. T-105

PhoCheck Tiger T-105431



Air-Met Scientific Pty Ltd 1300 137 067

Item	Test	Pass			Comment	s	
Battery	Charge Condition	1					
	Fuses	1					
	Capacity	✓					
	Recharge OK?	✓					
Switch/keypad	Operation	✓					
Display	Intensity	1					
	Operation	✓					
	(segments)						
Grill Filter	Condition	✓					
	Seal	1					
Pump	Operation	✓					
	Filter	1					
	Flow	√					
	Valves, Diaphragm	✓					
PCB	Condition	✓					
Connectors	Condition	✓					
Sensor	PID	✓	10.6 ev				
Alarms	Beeper	✓	Low	High	TWA	STEL	
	Settings	1	50ppm	100ppm	N/A	N/A	
Software	Version	✓					
Data logger	Operation	√					
Download	Operation	✓					
Other tests:							

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
PID Lamp		100ppm Isobutylene	NIST	SY21	100.6ppm
Calibrated by:	AR		_Anne Rutlic	lge	
Calibration date:		3/12/2013			
Next calibration	due:	2/01/2014			



Project Name :	Margen Baysmate	Project Staff :	HC
Project No :	0224193	Date :	2-12-13
Photo-ionisation Deteo	ctor		
Make/Model No: Serial Number:	Minikae 300 592 00/359		
Calibration Gas			
Calibration Gas:	Isobytylene]	
PID Calibration			
Zero Calibration			
PID Reading:	0.000]	
Span Calibration		1	
Desired PID Reading:	100.0pm		
Actual PID Reading:	99.9 pp		
		¥1	

Certification

ed By:	H. CANABELL		1
Signature:	mm	Date:	2-12-13



Project Name :	Symphony - Bayswater	Project Staff :	Cavin Powell
Project No :	0224193	Date :	31213
Photo-ionisation Deteo	ctor		
Make/Model No: Serial Number:	Mini RAE 3000 592 001359		
Calibration Gas			
Calibration Gas:	Isobutytene		
PID Calibration			
Zero Calibration			
PID Reading:	0-0ppm		
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100ppm 100-0ppm		

Certification

Checked By:		92				,
Signature:	•	ahull	Date:	3	12	13



PID Calibration Certificate

Project Name :	Project Symplay
27.2	0 01 7
Project No :	0224183

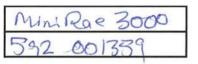
Project Staff :

HC/AM	
4-12-12	
4-12-13	

Photo-ionisation Detector

Make/Model No:

Serial Number:



Calibration Gas

Calibration Gas:

lone

PID Calibration

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

00.0

0

Certification

	1/12		
ignature:	Unio	Date:	4-12-12



PID Calibration Certificate

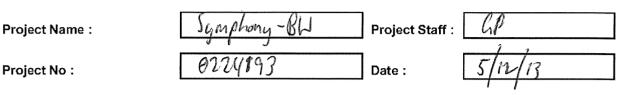


Photo-ionisation Detector

Make/Model No:

Serial Number:

Pho	Check	TIGER
T-1	05901	

Calibration Gas

lsobn lene.

PID Calibration

Calibration Gas:

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading: Actual PID Reading: 100 ppm 100.0ppm

Certification

The above detector has been calibrated in accordance with the manufacturers specifications.

Checked	By:	

Signature:

GP			
	1	11	
Le Mull	Date:	5/12/13	



PID Calibration Certificate

Project Name :	Symphony	Project Staff :	CP
Project No:	0124193	Date :	5/12/13
Photo-ionisation Detect	or		•

Make/Model No: Serial Number:

Mini RAE 3000	
592 001359	

Calibration Gas

	50	bu	1-1	len
ĺ				

PID Calibration

Calibration Gas:

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

<u> </u>	
19-11-	em
v = v p	l) m
10	

100pp	M	
100.2	ppm	

Certification

The above detector has been calibrated in accordance with the manufacturers specifications.

Signature:

an					
lethull !!!	Date:	5/	12/	13]



Project Name :	Symphony - Raysweter	Project Staff :	CP
Project No :	0224193	Date :	6/12/13
Photo-ionisation Dete	ector		
Make/Model No: Serial Number:	Pho Check TIGER T185961		
Calibration Gas			
Calibration Gas:	Iso builty Lene		
PID Calibration			
Zero Calibration			
PID Reading:	0.0ppm		
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100.ppn 100-0ppn		

Certification

The above detector has been calibrated in accordance with the manufacturers specifications.

Checked By:

Signature:

ĠP			
Mull	6	112/13	



Project Name :	Project Symptomy	Project Staff :	HC /NH	
Project No :	0224193	Date :	9-12-13	
Photo-ionisation Detect	tor			
Make/Model No: Serial Number:	MUNIRALE 30000 592-601359			
Calibration Gas				
Calibration Gas:	Isobytyleno.			
PID Calibration				
Zero Calibration				
PID Reading:	0,0 ppm			
Span Calibration Desired PID Reading: Actual PID Reading:	100.00000 100.0000			

Certification

ed By:	Allevelor 9000	TOULA	1
Signature:	KANNA	Date:	9-12-13



Environmental Resources Management Australia Pty Ltd

PID Calibration Certificate

Project Name :	Symphony - Bayswater	Project Staff :	GP
Project No :	0724193	Date :	9 12/13
Photo-ionisation Dete	ctor		
Make/Model No: Serial Number:	Pho Check TIGER TIOS901		
Calibration Gas			
Calibration Gas:	Isobutytine]	
PID Calibration			
Zero Calibration			
PID Reading:	0.0ppm]	
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100ррт 100-0ррт		

Certification

The above detector has been calibrated in accordance with the manufacturers specifications.

Checked By:

Signature:

GP				
I Mentel	Date:	9/	12/	13

1

Instrument PhoCheck Tiger Serial No. T-105524



Air-Met Scientific Pty Ltd 1300 137 067

ltem	Test	Pass			Comment	S	
Battery	Charge Condition	1					
	Fuses	1					
	Capacity	1					
	Recharge OK?	1					
Switch/keypad	Operation	1					
Display	Intensity	1					
	Operation	✓					
	(segments)						
Grill Filter	Condition	1					
	Seal	1					
Pump	Operation	1					
	Filter	1					
	Flow	1					
	Valves, Diaphragm	1					
PCB	Condition	✓					
Connectors	Condition	1					
Sensor	PID	 ✓ 	10.6 ev				
Alarms	Beeper		Low	High	TWA	STEL	
- Iumo	Settings	1	50ppm	100ppm			
Software	Version	1					
Data logger	Operation	1					
Download	Operation	1					
Other tests:							

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor S	Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
PID Lamp		100ppm Isobutylene	NIST	SY21	100.6ppm
Calibrated by:	- A	, .	_Jacob Arnott		
Calibration date:	U	10/12/2013			
Next calibration d	lue:	9/01/2014			



Project Name :	Symphony-Bayswater	Project Staff :	Canin Powell
Project No :	0224193	Date :	10/12/13
Photo-ionisation Detec	ctor		
Make/Model No: Serial Number:	Pho Check TIGER T-105901		
Calibration Gas			
Calibration Gas:	Isobutylene]	
PID Calibration			
Zero Calibration			
PID Reading:	0-0ppm		
Span Calibration			
Desired PID Reading:	100 ppm		
Actual PID Reading:	100.1 ppm		
	* ¥		

Certification

Checked By:	CrP		
Signature:	Shull	Date:	10/12/13



Project Name :	Symphony - Bayswaler Project Staff: GP	
Project No :	0224193 Date: 11/12/13	
Photo-ionisation Dete	ctor	
Make/Model No: Serial Number:	Pho Check TIGER T-185901	
Calibration Gas		
Calibration Gas:	Isobuty lene	
PID Calibration		
Zero Calibration		
PID Reading:	O. O wijom	
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100 ppm 100 · 1 ppm	

Certification

Checked By:			
Signature:	Collevell	Date:	11/12/13



Project Name:	Symphony - Bayewater	Project Staff :	C'6
Project No :	0224193	Date :	12/12/13
Photo-ionisation Dete	ctor		
Make/Model No: Serial Number:	Photheck TIGER T-105901]	
Calibration Gas			
Calibration Gas:	IsobutyLeve]	
PID Calibration			
Zero Calibration			
PID Reading:	0.0ppm]	
<u>Span Calibration</u> Desired PID Reading: Actual PID Reading:	100ppm 100·1ppm		

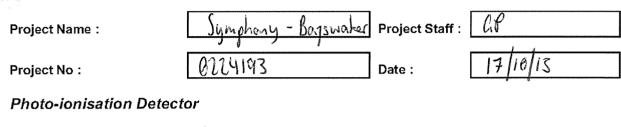
Certification

Checked By:	GP		1	
Signature:	lethen ell	Date:	12/12/13	



Environmental Resources Management Australia Pty Ltd

PID Calibration Certificate



Pho	Check	TIGER
Τ-	105901	

Calibration Gas

Make/Model No: Serial Number:

Isobutilene

ann

PID Calibration

Calibration Gas:

Zero Calibration

PID Reading:

Span Calibration

Desired PID Reading:

Actual PID Reading:

Certification	

Checked By:	GP			
Signature:	[Mmell	Date:	17/12/13	



							Job In	formatic	on			
Date:	6/12/	13						Time:	arrive	07:2	5	depart
Projec	t Name:	Sym	phon	1				Projec	t Number:	0224	193	
Site Lo	ocation:	saysi	vater					Samp	er: N	H		
Well IC	BA-	MWC	1					Weath	ier: F"	ne wi	ndy	
							Equ	ipment			-	-
Water	quality equ	uipment c	lescription	· A	1A			Inte	erface prot	be number:	SYZ	3954
	g equipme e cirlce)	ent:	Bailer typ Pump typ		Plastic Peristal	tic (Teflon Subme	rsible	Micro-p	urge	Amazon	Other:
					Well C	auging	and Pu	rge Volu	me Calci	ulations		
Casing	J Diameter		25r	nm 50	man 1	00mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V
	rsion Facto in factor L/m)	or	0.9	98 1	.96	7.85	31.4	49.1	70.7	125.7	196.3	= Pr x r x h V = volume in litres
Total V 9,5	Vell Depth	(-) Wate (-) <u>5-3</u>	er level (=) 365 m (=)	4.1	<u>95 m</u>		rsion Fact	tor (=) Lit	res per 1 \	Vell Volum	e	P = 3.14159 r = radius in cm h = height of water column in cm
Depth	to product:		m				s:		1000	ified with E	V	Ν
						Wat	ter Qual	ity Parar	neters			
Beginn	ing purge	time: ()	17:45		Ending	purge tim						
Litres	Time	PH	Temp °C	Cond mS/cm	DO	Redo				C	omments	
20	07:50			m5/cm	mg/L	mV	<10ci		7, very t	whid, no	o odour	Actively recharging as pumping
40	07:55								zbove.			
60	08:00								above			
80	08:05								above			
100	08:05									turbia	1. Activ	dy rechanging as pumping
1						-						
		*pH, tei	mp, cond re	adings not	necessarj	/ if well is _[ourged dry	Exam	ple Comm			budy / turbid / very turbid / no odour / bur / strong odour / drawdown depth
10	0		Vell Volum mount of wa		sampling			Sample	time	-	_ Conta	ainers used
		mL/min				Did field	d parame	ters stabili	se? Y	N NA	Was the	e well dry purged? Y
							Field Q	C Check	s			
Was pr	e-cleaning	sampling	g equipme	nt used fo	r these s	amples?			YN			
Was pr	e-cleaning	sampling	g equipme	nt properl	y protect	ed from o	contamina	ation?	Y N			
	ocumentatio								Y N N	A		64
	ir bubbles				<u>E</u> .			2	Y N N	A		
	mple for m			rior to pre	servatio	ns?		0	Y N N			
	ite sample		1?					-	Y N	1000444014	ate sample	
	e blank coll					-			YN	Rinsa	te blank ID	



							Job In	ormatio	n			
Date:	5/12/1-	3						Time:	arrive	16:30	2	depart
Project	Name:	Symph	ony					Project	Number:	022410	73	
Site Loc	0	answ	1					Sample		1		
Well ID:	BA-M	120-	3					Weath	er: Ouer	cast, u	nindy	1
							Equ	ipment		2)]
Water q	uality equi	pment de	scription:					Inte	rface prob	e number:		
Purging (please	equipmen cirlce)		Bailer type: Pump type:		astic eristaltic		Teflon Submei	sible	Micro-pu	irge a	Amazon	Other:
				٧	Well Gau	ging a	nd Pu	ge Volu	me Calcu	lations		
Casing	Diameter		25mr	m 50m	m 100m	nm 1:	25mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
	sion Factor factor L/m)	•	0.98	1.96	6 7.8	5	31.4	49.1	70.7	125.7	196.3	V = volume in litres P = 3.14159
Total Wo	ell Depth(<u>130</u> m((-) Water (-) <u>1-160</u>	level (=) 2_m (=) V	4.77	umn └m imn (x) Ci 燓_m(x)	onversi	on Fact	or (=) Lit	res per 1 V 9-35	Vell Volum	e L	r = radius in cm h = height of water column in cm
Depth to	o product:				roduct Thic					ified with B	V	N
						Wate	r Quali	ty Paran	neters			
Beginni	ng purge ti	me:		E	Ending purg			,				
Litres	Time		Temp °C	Cond	DO F	Redox	Drawdo		10000	c	omments	
20	1:12			mS/cm	mg/L	mV	<10cr		mothe	le ven	furbe	2. No odow, Well acho
11	15:25							Ac	above	às ple	nping	
60	16:40											
-	16:45							Beco	above min di	earer a	after 6	5L. No odow
80	16:50							Cle	ar afk	1 80C.	No oc	5L. No odow down. Actualy rehaging
90	16:55								Develo	-	ACCOL COLORS	0.00
									-	f		
								-				
								-		1.000		
		*pH, ten	np, cond rea	dings not ne	ecessary if v	well is pu	l Irged dry	Exam	ple Comm	ents: clear slight	/ slightly clo t odour / od	oudy / turbid / very turbid / no odour / Jour / strong odour / drawdown depth
90	2		ell Volume		ampling			Sample	time	-	Cont	ainers used
	/	Flow ra			D	id field	parame	ters stabili	se? Y	N MA	Was th	e well dry purged?
			15				Field G	C Check	s			
Was pre	e-cleaning	sampling	equipmen	t used for	these sam	nples?			YN			
Was pre	e-cleaning	sampling	equipmen	t properly	protected	from co	ontamin	ation?	Y N			
Was do	cumentatio	on of equ	ipment con	nducted?					Y N N	IA		8
Were a	ir bubbles	present ir	n vials at tir	me of colle	ection?			Γ	Y N N	IA		
Was sa	mple for m	ietals field	d filtered pr	rior to pres	servations?	?		Γ	Y N N	IA		
Duplica	te sample	collected	?					Γ	Y N	Dupli	cate samp	le ID
Rinsate	blank coll	ected?							Y N	Rinsa	ate blank II	
Froundwater - we	I sampling data form	uedr										11/04



				i single		Job In	formatio	n			
Date:		,2	9.11.13	>			Time:	arrive	1050	5	depart 1130
Project	Name:	64	= 57 m	phon			Projec	t Number:			
Site Loc	ation:	3ª	yswah	-/	J		Sampl	er:	3.4		
Well ID:	BB	MW	01				Weath	er: R	ain		
				以上 的新		Equ	ipment				
Water q	uality equ	ipment de	escription:				Inte	erface prob	e number:	NS	~ 2754 30m
Purging (please	equipme cirlce)		Bailer type: Pump type:	Plast Peris		Teflon Subme	rsible	Місго-рі	ırge	Amazon	Other: Mansoon
				We	I Gaugin	g and Pu	rge Volu	me Calcu	ulations		
Casing I	Diameter	ġ.	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V
Convers (volume in	ion Facto factor L/m)	or	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	= Pr x r x h V = volume in litres
	Bll Depth 3 ∞ m product:		level (=) W m (=) Wa m	ter Column		1	tor (=) Liti (=) m	100.00 =0	Vell Volum		P = 3.14159 r = radius in cm h = height of water column in cm
Doptille	product	NAGUNG.	wat tanan	1512 1 1 1 1					111025		
Desimi			11		a set of the set of the	ater Qual	ity Paran	neters			
	ng purge t		1100		ng purge ti		1115				
Litres	Time	PH		ond D S/cm mg	영상은 이 여러분들을				L.	omments	
							1,5	61 51	rown	Very	turbid to
						_	Fc	rbid	N	10 0	dar
							_	6	dry	Q.A	15
		10-4							U	-	17
							_			-1	8
							_				
								_			
						-	Framr	le Comme	nts: clear	slightly clo	udy / turbid / very turbid / no odour /
	-	*pH, ten	np, cond reading	gs not neces	sary if well is	s purged dry			slight	odour / odo	bur / strong odour / drawdown depth
ĺ	8		ell Volume nount of water p	prior to samp	ing		Sample	time		_ Conta	ainers used
	-	Flow ra mL/minu			Did fie	ld paramet	ers stabilis	se? Y	N NA	Was the	well dry purged? Y N
	Mills.					Field Q	C Check	s			
Was pre-	-cleaning	sampling	equipment us	sed for thes	e samples	?	N	(N			
Was pre-	-cleaning	sampling	equipment pr	operly prot	ected from	contamina	ition?	N	_		
Was doc	umentatio	on of equi	pment condu	cted?			N	N NA	Ą		
Were air	bubbles	present in	vials at time	of collection	1?		N	/ N N/	A		
Was sam	ple for m	etals field	filtered prior	to preserva	tions?		N	N NA	A		
Duplicate	e sample	collected	?)	/ N	Duplic	ate sample	e ID
	olank coll						١	′ N	Rinsat	e blank ID	
oundwater - well s	ampling data form.	cdr		- ec - 5							11/04



· 新闻					ne. Pro		Job In	formatio	n			
Date:		2	2/11/	13				Time:	arrive	12	10	depart 1755
Project	Name:		Samph	10~5				Projec	t Number:	63		
Site Loc	cation:	6.	gsuate	1				Sampl	er:	5.	Gra.	nt Marine -
Well ID:	M.	BB-	mwoi	2				Weath	er:	hain	ē.	6 18
20015			anti-				Equ	ipment				
Water q	uality equ	ipment d	escription:					Inte	erface prot	be number:	N	15W 4754 30M
Purging (please	equipme cirlce)		Bailer type Pump type		Plastic Peristalti	c	Teflon Subme	rsible	Micro-p	urge	Amazon	Other: Monsoon
					Well G	auging	and Pu	rge Volu	me Calc	ulations		
Casing	Diameter)	25m	m 50r	mm 10	0mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V
	sion Factor	or	0.98	8 1.	30 7	7.85	31.4	49.1	70.7	125.7	196.3	= Pr x r x h V = volume in litres
Total We	ell Depth	(-) Wate (-) <u> </u>	r level (=) m (=)			Conver	sion Fac	tor (=) Lit (=)	res per 1 V	Vell Volum	e L	P = 3.14159 r = radius in cm h = height of water column in cm
Depth to	product:									ified with E		
Sec. 1997					18 all of	Wat	er Qual	ity Paran	neters		国 、新用	
Beginnir	ng purge t	ime:			Ending p	Constant of the	ender versteller vers			10.22 - 201 ⁻ - 21		
Litres	Time	PH	Temp °C	Cond	DO	Redo		wn		C	comments	
				mS/cm	mg/L	mV	<10ci		1	. /	0	
							_	+1	rbid	brow	in h	rater - NO D L
							_	Od	our		-	2.4
								_	an	\bigcirc	S	OL
					_							
							-					
			-				-			1.4		
								-				
								_				
							-					
		*pH, ter	np, cond rea	dings not r	ecessary	if well is p	burged dry	Exam	ole Comm			oudy / turbid / very turbid / no odour / our / strong odour / drawdown depth
3	D		ell Volume		••			Sample	time	- 0		ainers used
		Actual an Flow ra mL/min		er prior to		Did field	parame	ters stabili		N NA		e well dry purged? Y N
1000				正式直ち	1. 20138	pill som		C Check				
Was pre	-cleaning	sampling	equipmen	t used for	these sa	amples?			r N			
	-		equipmen				ontamina	-	r N			
(1) 		· · · · · · · · · · · · · · · · · · ·	ipment con	0 8 8				-		A		1
			n vials at tin		ection?					-		
			d filtered pri			s?		-		_		
	e sample					-515		-			ate sample	e ID
ll Land Land	blank coll									-58 2010 - 50	te blank ID	
	sampling data form	64-55-54 J		_						i unodi		11/04



							Job In	formatic	on	33.3	Non-M	
Date:	5/12	113						Time:	arrive	13:5	T	depart 14:35
Project	Name:	Syn	nohon	1				Projec	t Number	0224	193	
Site Loo	cation:	Dansin	1 1	/				Samp	ler: N	H		
Well ID:	- 6B_1	nxio	3					Weath	ier: DVD	rast i	undy	
			S. Mark			N INTER	Equ	ipment			-Sala Ala	现在方法:" <u>有</u> 些"
Water q	luality equ	ipment d	escription:	1	VA			Inte	erface pro	be number	: 54D	\$ 3954
Purging (please	equipmer cirlce)		Bailer type Pump type		Plastic Peristal	tic	Teflon Subme	rsible	Micro-p	urge	Amazon	Other:
West State					Well C	Gauging	g and Pu	rge Volu	me Calc	ulations		
Casing	Diameter		25n	nm 50	mm 1	00mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V
	sion Facto	r	0.9	98 11	.96	7.85	31.4	49.1	70.7	125.7	196.3	= Pr x r x h V = volume in litres
Total W	ell Depth 35_m	(-) Wate (-) <u>5-11</u>	r level (=)	_1.9.	<u>)</u> m		rsion Fact N	tor (=) Lit (=)	res per 1 3º 76	Well Volum	e _L	P = 3.14159 r = radius in cm h = height of water column in cm
Depth to	o product:		m		Product	Thicknes	ss:	<u> </u>	Ve	rified with E	Bailer:	NA NA
						Wa	ter Qual	ity Parar	neters			
Beginnii	ng purge t	ime:			Ending	purge tin	ne:			1		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redo mV				C	Comments	
20	14:05			morem	mg/L	inv	STOCI	brow	n to blac	k, Very	turbid.	No odow. well actual
10	14:10							bow	1 to Bla	us pita	pl Jeco	No odour well actual oming clearer after 352
40	14:15							Mon	du to c	lear N	o ocha	r well achiely rechange
60	14.15				-	-	_	0.00	-	1 1	1	
		_						_	1/	evelope	ë.	
						1						
						1						
		*pH, ten	np, cond rea	adings not	necessarj	/ if well is	purged dry	Exam	ole Comm			oudy / turbid / very turbid / no odour / our / strong odour / drawdown depth
Go			ell Volum		sampling			Sample	time	-	_ Conta	ainers used
		Flow ra	te				d paramet	ers stabili	se?Y	N NA	Was the	e well dry purged?
							Field Q	C Check	S			
Was pre	-cleaning	sampling	equipmer	nt used fo	r these s	amples?		,	Y N			A.
Was pre	-cleaning	sampling	equipmer	nt properl	y protect	ed from	contamina	ition?	Y N	_		
Was doo	cumentatio	on of equi	ipment cor	nducted?					Y N N	A		
Were air	bubbles p	oresent ir	n vials at ti	me of col	lection?				Y N N	A		
Was san	nple for m	etals field	d filtered p	rior to pre	servatio	ns?			Y N N	A		
Duplicat	e sample (collected	?					`	Y N	Duplic	ate sample	e ID
Rinsate	blank colle	ected?						,	r N	Rinsat	te blank ID	
ndwater - well :	sampling data form.	odr				_			20051		and the officer of the second s	11/04



				PT 2 A		YOR		Job In	formatio	n			unite d'annual annual
Date:		2	9.11	.17					Time:	arrive	125	5	depart
Project	Name:	*	Sym	shon	5				Projec	t Number:	ţē		
Site Loo	ation:		De	insu	nte	1			Sampl	er:	J-	hra	nt
Well ID:		BB	MWC	34					Weath	er:	\$ 9	Rain	1
() a (s) (Equ	ipment				
Water q	uality equ	uipment o	descript	tion:					Inte	erface prot	pe number:	N	SW 4254 30m
Purging (please	equipme cirlce)	nt:	Bailer Pump			astic eristalti	c	Teflon Subme	rsible	Micro-p	urge	Amazon	Other: Mon Soon
					٧	Well G	auging	and Pu	rge Volu	me Calci	ulations		
Casing	Diameter			25mm	50m	m 10)0mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V
	sion Factor factor L/m)	or		0.98	1.96		7.85	31.4	49.1	70.7	125.7	196.3	$= \Pr \mathbf{x} \mathbf{r} \mathbf{x} \mathbf{h}$ V = volume in litres
Total We	ell Depth 2°∫ m	(-) Wate (-)	r level m	(=)	5	m	Conve	rsion Fact	tor (=) Lit _ (=)	res peŋ1 \	Vell Volum	e /	P = 3.14159 r = radius in cm h = height of water column in cm $1 \cdot P + \alpha_i \bar{i}$
Depth to	product:	·		m	Pr	roduct T	hicknes	is: _/	m	Ver	ified with E	ailer: Y	
							Wa	ter Qual	ity Paran	neters			
Beginnir	ng purge	time:			E	nding p	ourge tin	ne:					
Litres	Time	PH	Temp		ond S/cm	DO mg/L	Redo mV	X Drawdo <10ci			c	omments	
		1							TU	rbid c	lark	gan	water to
									(lovd	y ho	ster.	Potenial
									G	1 51	otches	1.	n first TOL
										ofc	vater	- ,	No odour
										1	4		
										Good	1 rei	chare	je
												0	
								_					
								_	_		_		
		⁺pH, te	mp, con	d reading	is not ne	cessary	if well is	purged dry	Exam	ole Comme	ents: clear / slight	odour / odo	oudy / turbid / very turbid / no odour / our / strong odour / drawdown depth
10	0	Total V Actual a		lume of water p	rior to sa	ampling			Sample	time		_ Conta	ainers used
		Flow r mL/mir		82		3.5	Did fiel	d paramel	ers stabili	se?Y	N NA	Was the	e well dry purged? Y N
								Field Q	C Check	s			
Was pre	-cleaning	samplin	g equip	ment us	ed for t	hese sa	amples?			r N			
Was pre	-cleaning	samplin	g equip	ment pro	operly p	protecte	d from	contamina	ition?	r N			
Was doo	umentati	on of equ	uipment	t conduc	ted?					r n n	A		
Were air	bubbles	present i	in vials	at time o	of collec	ction?				r n n	A		
Was san	nple for m	netals fiel	ld filtere	ed prior t	o prese	ervation	s?			r n n	A		
Duplicat	e sample	collected	1?						Y	r N	Duplic	ate sample	e ID
Rinsate	blank coll	ected?				2			`	(N	Rinsat	e blank ID	
oundwater - well	sampling data form	i.cdr					(÷)						11/04



	Wel	Der	dop	men	F -		Job In	formatio	n			
Date:	5/12/1	3	١					Time:	arrive	12:1	5.	depart 13:10
Project	Name:	Sym	phon	n				Projec	t Number	: 022	+193	
Site Lo	cation:	Daysi	wat	1				Sampl	er: N.	H		
Well ID	: BB_	Mil	55					Weath	er: Fin	i win	dy	
							Equ	ipment			1	
Water	quality equ	ipment c	lescriptio	on:	NA			Inte	erface pro	be number:	SYD	3954
Purging (please	g equipmer cirlce)	nt:	Bailer ty Pump ty		Plas Peris	tic staltic	Teflon Subme	rsible	Micro-p	ourge	Amazon	Other:
					We	II Gaugin	g and Pu	rge Volu	me Calc	ulations		
Casing	Diameter		2	5mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
	sion Facto	r		0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	V = volume in litres P = 3,14159
Total W	ell Depth	(-) Wate (-) <u>(*</u> 5	er level (<u>645</u> m ((=) _2	365	in _ m n (x) Conve n (x)	ersion Fact	tor (=) Lit	res per 1	Well Volum	e	r = radius in cm h = height of water column in cm
Depth t	o product:		m			uct Thickne					V	NA.
					10.101	Wa	ater Qual	itv Parar	neters			
Beginni	ing purge t	ime:			End	ing purge ti				1		
Litres	Time	PH	Temp	C Co		1	DX Drawdo	wn		0	comments	
.0	.0.0			mS/	cm m	g/L mV	/ <10ci	m	h là	1 11	1.	ward dry after 131
13	12:20			_				A116	ved t	recha	vere l	unged dry after 132.
19	12:25				_			Alla	red to	Tcharge	Laev In	ged dy after another 6 t.
25	12:28	_			_			Allon	the to	echange	un dea	geo and approved
35	12:34			_				Urow	affilia	anothy)IDL:	Allow Allow Allow Another Id.
45	12:39				_			Clean	Deve	oped.	inger chi)
				-				-	<u> </u>	_	<i></i>	
					_							
							_			140		
											-	
		*pH, te	mp, cond	readings	not nece:	ssary if well is	s purged dry	Exam	ple Comm			oudy / turbid / very turbid / no odour / our / strong odour / drawdown depth
1.0	$\langle \rangle$	Total V	Vell Volu	ıme								
4	2	Actual a	ate	water pri	or to samp		ld parame	Sample		N NA		ainers used
		ni c /110	1010					C Check				
Was pre	e-cleaning	sampline	g equipn	nent use	d for the	se samples	- Grocente	the constants	Y N		1000	
	Ť					tected from		-	Y N			
<u>.</u>	cumentatio	201.05		18 - 18 10 - 180				-		A		
	r bubbles j	enterner de				on?		E.		A		
	mple for m								· / / · · · ·	IA		
	te sample			1	3			-	YN		cate sample	e ID
), 6. Stratt 1999	blank colle							-	YN	15. 11.12.12.12	te blank ID	
10000000000000000	I sampling data form.	1103030325										11/04



							Job Ir	nformatio	n			
Date:	Wito	11/21	13					Time:	arrive	11:05		depart 11:35
Project	t Name: 📢	siza	UB	3 Sur	neho	ny		Projec	t Number:	0224	493	
Site Lo	t Name: {	aysi	bk	ir	/	/		Sampl	er: N.t	ť		
Well ID	BC_	Muic	5					Weath	er: Fin	1.		
							Eq	uipment				
Water	quality equ	uipment d	escript	tion:	NA	-		Inte	erface prob	e number:	BU!	
Purging (please	g equipme e cirlce)	nt:	Bailer Pump	19.1 1	Plas Peri	stic staltic	Teflon	ersible	Micro-pu	rge /	Amazon	Other:
		1		自然的	W	ell Gaugir	ng and Pu	urge Volu	me Calcu	lations		
Casing	Diameter			25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
	rsion Factor in factor L/m)	or		0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres P = 3.14159
TotaLW	Vell Depth ジャタマン	(-) m (-)	Water 15	r level • 375 Wate	m er Colum	(=) Water ((=)5 n(> 5 m (>	Column 505 () Convers	m sion Factor	(=) Litres	per 1 Well 0-39	Volume L	r = radius in cm h = height of water column in cm
Dopth	to product	-	-			duct Thickne						NA
Deptint	to product	Howard	Sec tra		110			-				······································
	- 00425				-	Protection wash	The state of the s	lity Paran	neters	Dura	alaka Dan	
122	ing purge		1:15		_	ding purge t	-	Dedau	Barriel and			th (mbtoc):
Litres	i Tin	ne	PH	Temp		Cond nS/cm	DO mg/L	Redox mV	Drawdown <10cm	1000	omments	
INNA	A 11:1	25								fland.	2to Cle	ar. No odar. Pump strug again when large capacity p
				-								
				_						1		
		•pH, te	np, con	nd reading	s not nece	essary if well	is purged dr	y Exam	ple Comme	nts: clear / slight	slightly clo odour / odo	udy / turbid / very turbid / no odour / pur / strong odour / drawdown depth
1		Total V	Vell Vo	lume			is purged dr	<i>y</i>		nts: clear / slight	odour / odo	udy / turbid / very turbid / no odour / bur / strong odour / drawdown depth
		Total V	Vell Vo mount c			npling		<i>y</i>	time	nts: clear / slight	odour / odo _ Conta	our / strong odour / drawdown depth
		Total V Actual a	Vell Vo mount c	lume		npling	eld parame	Sample	se? Y	slight	odour / odo _ Conta	ainers used
Was pro	re-cleaned	Total V Actual a Flow r mL/mir	Vell Vo mount c ate ute	of water pr	rior to san	npling	eld parame Field (Sample eters stabili	se? Y	slight	odour / odo _ Conta	ainers used
		Total V Actual a Flow r mL/mir sampling	Vell Vo mount c ate ute equip	of water pr	rior to san	npling Did fi	eld parame Field (Sample Sample eters stabili	se? Y	slight	odour / odo _ Conta	ainers used
Was pro		Total V Actual a Flow r mL/mir sampling	Vell Vo mount o ate ute equip g equip	olume of water pr ment use	rior to san	Did fi	eld parame Field (Sample eters stabili QC Check	time se? Y (s Y N	slight	odour / odo _ Conta	ainers used
Was pro	e-cleaning	Total V Actual a Flow r mL/mir sampling sampling	Vell Vo mount o ate uute equip g equip	of water pro-	rior to san	Did fi Did fi ese samples otected from	eld parame Field (Sample eters stabili QC Check nation?	e time se? Y xs Y N Y N	slight	odour / odo _ Conta	ainers used
Was pro Was do Were a	e-cleaning	Total V Actual a Flow r mL/mir sampling sampling sampling present i	Vell Vo mount of ate ute equip g equip ipment n vials	of water pro- of water pro- ment use oment pro- t conduc at time c	ed for the operly pr ted?	Did fi Did fi ese samples otected from	eld parame Field (Sample eters stabili QC Check nation?	time	slight	odour / odo _ Conta	ainers used
Was pro Was do Were a Was sa	re-cleaning ocumentat iir bubbles	Total V Actual a Flow r mL/mir sampling sampling sampling present present	Vell Vo mount o ate ute equip g equip ipmen n vials d filtere	of water pro- of water pro- ment use oment pro- t conduc at time c	ed for the operly pr ted?	Did fi Did fi ese samples otected from	eld parame Field (Sample eters stabili QC Check	e time se? Y Y N Y N Y N Y N N/ Y N N/	Slight	odour / odo _ Conta	wur / strong odour / drawdown depth iners used well dry purged? Y Ň



E Million		TERN R				Job In	formatio	on			
Date: //	0/12/13	,					Time:	arrive	12:00	2	depart
Project Nan	me: OU	Sympt	iony				Projec	ct Number	0224	193	
Site Locatio	on: Bay	swah	1				Samp	ler: No	H		
Well ID:	SE MW	101					Weath	ner: Fim	, hot	NIN	hy
and the second		and R.		3		Equ	ipment				
Water qualit	ity equipmer	nt descrip	tion:	N	A		Int	erface pro	be number:	SUI	3954
Purging equ (please cirlo			type: type:		istic ristaltic	Teflon Subme	rsible	Micro-p	urge	Amazon	Other:
			30	N	/ell Gaugi	ng and Pu	rge Volu	ime Calc	ulations		
Casing Diar	meter		25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V
Conversion (volume in facto			0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	= Pr x r x h V = volume in litres
Total Well D	Depth	(-) Wate	Wate	5 m er Colun 4996	(=) Water (=) <u>4</u> nn (Column <u>F*96</u> x) Convers (x)	m ion Factor	(=) Litre	s.per 1 Wel 7 • 72 3	I Volume	P = 3.14159 r = radius in cm h = height of water column in cm
Depth to pro	oduct:	/			oduct Thickn		-		rified with E	V	NA.
1	Sales (1997)			*	N	Vater Qual	ity Para	meters	ada ha	1 E Market	
Beginning p	ourge time:	12:0	5	Er	nding purge				Pump	Intake Dep	th (mbtoc):
Litres	Time	PH	Temp		Cond	DO	Redox	Drawdow		omments	it installed yet!
23	12:10		-		mS/cm	mg/L	mV	<10cm	apent	o black	Arbid hearing cleaver
	12:10		-						agenti	d dry a	
30	12:35		-							begining f	Gordy beloge after 25G. 61
50	[2:3]		-						at	2	
									0	5 Wel	yolynes removed.
			-	_					Ve	relope	d.
									-		
			-						-		
	*pH	, temp, coi	nd reading	s not nec	essary if well	is purged dry	Exam	ple Comm			udy / turbid / very turbid / no odour / our / strong odour / drawdown depth
60		al Well Vo					Carral				
-	Flow	al amount v rate minute	of water p	rior to sar		ield parame	Sample ters stabil		N NA		well dry purged?
	sa nga k		d al nastr	NILS		Field C	C Chec	ks	in all the second		
Was pre-cle	aned sampl	ling equip	oment use	ed for th	ese sample	s?		Y N			
Was pre-cle	aning samp	ling equi	oment pro	operly p	rotected from	m contamina	ation?	Y N			
pie 010		equipmer	nt conduc	ted?				YNN	IA		
	entation of e	a d'aula cona c					H		_		
Was docum Were air but			at time o	of collec	tion?		8	YNN	IA		
Was docum Were air bul	bbles prese	nt in vials									
Was docum	bbles prese e for metals	nt in vials field filter							IA	ate sample	∋ID



SALE FOR						Job li	nformatic	on						
Date:	10/12	113					Time:	Time: arrive 12:55 depart						
Project N	lame: S	mpho	ing				Projec	Project Number: 0224193						
Site Loca	ition: Ba	yswat	ter				Samp	ler: N.I	1	1				
Well ID:	BE_M	1002					Weath	ner: Fin	c hot	INING	dy			
						Eq	uipment		1000					
Water qu	ality equip	ment descri	iption:	NF	9		Inte	erface prob	e number:	54	03954			
Purging e (please c	equipment: irlce)		er type: np type:	Plas Peri	stic istaltic	Teflon	~	Micro-pu	ırge	Amazon	Other:			
and the second		Al a secol		W	ell Gaug	ing and Pu	urge Volu	ime Calci	lations	×				
Casing D	iameter		25mm	50mm	100mn	n 125mm	150mm	200mm	250mm	300mm	Volume of water in well / V			
Conversi	on Factor		0.49	A.96	7.85	12.3	17.7	31.4	49.1	70.7	<pre>- = Pr x r x h V = volume in litres</pre>			
Total Wel	I Depth ちちつ	(-) Wa _m (-)		m	(=) Water (=) in	(x) Convers	.m sion Factor 96	(=) Litres	per 1 Wel	l Volume L	P = 3.14159 r = radius in cm h = height of water column in cm			
Depth to	product: _	/	m			ness:			ified with E	X	NA			
	Sale and				1	Nater Qua	lity Parar	meters						
Beginning	g purge tim	ie:		End	ding purge	time:			Pump	Intake Dep	oth (mbtoc):			
Litres	res Time PH Temp °C			Cond nS/cm	DO mg/L	Redox	edox Drawdown mV <10cm		* No monument, installed yet;					
20	13:05				ilo/cili	ilig/L		Toom	black	, vary to	201. Allowed to rechper			
25	13:15								potenti	afoilg	206 Allowed the purget wat algonals on surface of purget wat ther 52. Dry. Not rechargen			
30	13:30	<u></u>							iem le	uichly	- Purged dy again.			
50	10.2								Slow	s recha	inge any again			
									devi	ioped	~ 3.5 well volumes			
		_									2			
_		_	_											
_		-	_	_			_							
		*pH, temp, c	ond reading	as not nece	essary if we	ll is purged dr	v Exam	ple Comm			oudy / turbid / very turbid / no odour /			
		Total Well V	Volume		0	<i>a</i> a s			signi		our / strong odour / drawdown depth			
	— í	Actual amour Flow rate		rior to sam		field parame	Sample		N NA		ainers used			
		nL/minute			Did					was the				
		r				DECT DOCUMENTS	QC Check				R			
		mpling equ						Y N						
San Analon (McContract					otected fro	om contamin		Y N						
		of equipme						Y N N	_					
		esent in via					1	Y N N						
000000000000000000000000000000000000000	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	als field filte	ered prior	to preser	vations?		-	Y N N						
	sample co							Y N		ate sample				
	lank collect	ted?						Y N	Rinsa	te blank ID	11/04			



STATES OF						Job Ir	nformatic	on	Sault					
Date:	10 12	B					Time:	arrive	13:3	5	depart			
Project N	lame:	Symph	long				Projec	Project Number: 0224193						
Site Loca	ition:	enswah	r				Samp	Ier: N. F	1 .					
Well ID:	BE_1	1203					Weath	ner: Fire	, hot	, Wind	dy			
						Equ	uipment		1					
Water qua	ality equip	ment descri	ption: 🖊	VA			Inte	erface prob	e number:	54]	3954			
Purging e (please ci			er type: p type:	Plast Peris	tic staltic	Teflon	ersible	Micro-pu	urge	Amazon	Other:			
			and total	We	II Gaugi	ing and Pu	urge Volu	ime Calcu	lations					
Casing Di	iameter		25mm	50mm	100mm	n 125mm	150mm	200mm	250mm	300mm	Volume of water in well / V			
Conversio	on Factor	S	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres			
Total Well	35	(-) Wat _ m (-)	Water	m (Column 4:07	nm	(x) Convers (x)9			per 1 Wel	V	P = 3.14159 $r = radius in cm$ $h = height of water column in cm$			
Depth to p	product: _			PIOO	uct Thicki	ness:	<u> </u>	ver	nied with E	aller.				
STREET					Contract of the	Water Qua	lity Parar	meters						
	eginning purge time: 13:4 Ending purge time:						245 (200)			Pump Intake Depth (mbtoc):				
Litres	Time	PH	Temp		ond S/cm	DO mg/L	Redox mV	Drawdown <10cm	C	omments				
16	12:40	5							black	1Very t	the IBL Allowed to recharge			
.20	13:50	5							ag al	inged dry after 16L. Allowed to n bore Jurged dry after another 40 and prepared dry after another 40				
24	14.0	5							as al		ecominy cloudy to clear.			
28	14:15								PULLARA	dh at	the another fl another 4L.			
											dures removed.			
									Deal	ged				
									/					
											×			
		*pH, temp, co	ond readings	not neces	ssary if wel	ll is purged dry	Exam	ple Commo	ents: clear slight	/ slightly clo odour / ode	oudy / turbid / very turbid / no odour / our / strong odour / drawdown depth			
28		Total Well V					Sample	e time	-	Cont	ainers used			
		Actual amoun Flow rate mL/minute	t or water pric	or to samp		field parame	1720-024-2 8 7840		N NA		e well dry purged?			
	No je N		Contraction of			Field C	C Check	ks						
Was pre-c	cleaned sa	ampling equi	ipment used	for thes	se sample	es?	19	Y N			-			
Was pre-c	cleaning s	ampling equ	ipment prop	perly pro	tected fro	m contamin	ation?	Y N						
Was docu	mentatior	n of equipme	ent conducte	ed?				Y N N	A					
Were air t	oubbles pr	esent in vial	ls at time of	collectio	on?			Y N N	A					
	nle for me	tals field filte	ered prior to	preserv	ations?			Y N N	A					
Was samp	pie ioi ine							Y N Duplicate sample ID						
Was samp Duplicate							1	Y N	 Duplic	ate sample	e ID			



				(2003-00) a t		Job In	formatio	n	nin Alan				
Date:			26.1	1.13			Time: arrive 1405 depart 1440						
Project	Name:		Sympt	hons			Projec	t Number:					
Site Loc	ation:	Ba	rswate	er S			Sampl	er:	J.L.	ront	100		
Well ID:	B	E-1	1W04				Weath	er:	ine				
and some						Equ	ipment			W. Bank	· · · · · · · · · · · · · · · · · · ·		
Water q	uality equ	ipment d	escription:	0.500	Sector Sec		Inte	erface prob	e number:	NSL	v 4254 Jon		
Purging (please	equipmer cirlce)		Bailer type: Pump type:	Plast Peris	ic taltic	Teflon Subme		Місго-рі		Amazon	Other: Man Scon		
				We	II Gaugin	g and Pu	rge Volu	me Calcu	lations				
Casing I	Diameter		25mm	i 50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V		
	sion Facto	r	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	V = volume in litres P = 3.14159		
6.8	product:			Vater Colum <u> 2 - 7 0</u> ater Column <u> 2. r</u> Prod	(x) Conve n (x)		1				r = radius in cm h = height of water column in cm		
No.		1.24.3			Wa	ter Quali	ity Parar	neters	1462.3	1			
Beginnir	ng purge t	ime:		Endi	ng purge tir	ne:							
Litres	Time	PH		T 27 2 2 3 7 4 4 4 5 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	90 Redo g/L mV	Drawdo 10cr			c	omments			
							1	lery	turb,	1	biown to		
	4							Lurb	A	brow	in		
				_			_	No	od	ar			
							,	1 1	,				
							C	1000	rul	1019	l 702		
								for	ker				
						_	_						
		*pH, ter	mp, cond readi	ngs not neces	sary if well is	purged dry	Exam	ple Comme			oudy / turbid / very turbid / no odour / our / strong odour / drawdown depth		
70	2		Vell Volume				Sample	time		Cont	ainers used		
70		Actual a Flow ra mL/min		r prior to samp		ld paramet			N NA		e well dry purged?		
					Non-section						··· ·		
Was pro	cleaning	complies	aquinment :	used for the	ee complee	11011-00128216	C Check	Sector Carlos					
			g equipment (-	Y N Y N					
74 	5		g equipment p	이 것 않으는	lected from	contamina	-						
			ipment condu		n2								
			n vials at time				-	2 5.89 1.6.8					
			d filtered prio	to preserva	auons?		-	Y N N		ato comel			
	e sample blank colle		L403					Y N Duplicate sample ID Y N Rinsate blank ID					
roundwater - well s								YN	RIIISa		11/04		



Date:		26.11.1					Time:	arrive	132	S	depart		
Project Na	ime:	Syn	no honc)		Projec	Project Number:						
Site Locat	ion:	0	Buysn	inter		Sampl	ler:	J-	him	F			
Well ID:	BE	- MW	105			Weath	ier: /-	ine		5 F			
	Project Name: Symphony Project Number: Site Location: Buyswater Sampler: Johan F Well ID: BE-MWOS Weather: Fine Equipment												
Water qua	lity equip	ment desc	cription:				Inte	erface prob	e number:	NSU	N 4254 301		
Purging ed	uipment:	Ba	ailer type:	Plast	ic	Teflon					1011		
(please cir			imp type:			Subme	rsible	Micro-pu	irge .	Amazon	Other: Mon 5007		
				We	II Gaugin	g and Pu	rge Volu	me Calcu	lations				
Casing Dia	ameter		25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / = Pr x r x h		
Conversion (volume in fac			0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	V = volume in litres P = 3.14159		
Depth to p		6.135	wel (=) Wa _m (=) Wa 	er Column	n (x) Conv n (x)	ersion Fac			Vell Volum	V	r = radius in cm h = height of water column		
						ater Qual					l.		
Beginning	purge tim	ne: 13	225	Endi	ng purge ti		55			210221020			
	Time			ond D		OX Drawdo	wn		с	omments			
							Ve	my L.	hid	- 1/5L	it brown - No		
						-		lor	din	Ŵ	~ 102		
								00	1	11	~ 116		
									1	1/	- 122		
							5	low	rech.				
		-		ш.						7			
		*pH, temp,	cond reading	gs not neces	sary if well i	s purged dry	Exam	ple Comme	ents: clear / slight	/ slightly clo odour / odo	oudy / turbid / very turbid / no od our / strong odour / drawdown d		
12		Total Well Actual amou	I Volume unt of water p	prior to samp	ling		Sample	time		_ Conta	ainers used		
	F	Flow rate mL/minute				eld parame	ters stabili	se? Y	N NA	Was the	e well dry purged? Y N		
estente de la		and all				Field Q	C Check	s		1991V			
A CONTRACTOR OF A CONTRACTOR O	eaning sa	ampling ed	quipment us	sed for the	se samples	?		Y N	and the second second				
Was pre-cl		ampling ed	quipment pr	operly prot	tected from	contamina	ation?	Y N					
	eaning sa	-					-	Y N N	4				
		of equipn							-				
Was pre-cl Was docur	mentation		ials at time	of collectio	n?			Y N N/	A				
Was pre-cl Was docur	mentation ubbles pre	esent in vi	ials at time				-	Y N N/ Y N N/	-				
Was pre-cl Was docun Were air bu	nentation ubbles pre	esent in vi als field fi	ials at time						4	ate sample	e ID		



Job Information
Date: 25.14.13 Time: arrive 1415 depart 1450
Project Name: 5 m phony Project Number:
Site Location: Sampler: J-L
Well ID: BE MWOG Weather: OVERCAST
Equipment
Water quality equipment description: Interface probe number: MSW 4254 30m
Purging equipment: Bailer type: Plastic Teflon (please cirlce) Pump type: Peristaltic Submersible Micro-purge Amazon Other: Mon J Corr
Well Gauging and Purge Volume Calculations
Casing Diameter 25mm 50mm 100mm 125mm 150mm 200mm 250mm 300mm Volume of water in well / V
Conversion Factor (volume in factor L/m) 0.98 7.85 31.4 49.1 70.7 125.7 196.3 V = volume in litres P = 3,14159
Total Well Depth (-) Water level (=) Water Column 4 + 5 + 0 m (=) $5 + 476$ m 4 + 5 + 0 m (=) $5 + 476$ m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume
() Y N
Depth to product: m Product Thickness: m Verified with Bailer:
Water Quality Parameters
Beginning purge time: 1440
Litres Time PH Temp °C Cond DO Redox Drawdown Comments mS/cm mg/L mV <10cm
Turbid light brown No odar
dry Q -30L
less turbed,
Sirghty cloudy /brown
Ay & ~450
*pH, temp, cond readings not necessary if well is purged dry *pH, temp, cond readings not necessary if well is purged dry
4 Sample time Containers used
Containers used Containers used Flow rate mL/minute Did field parameters stabilise? Y N NA Was the well dry purged? Y N
Field QC Checks
Was pre-cleaning sampling equipment used for these samples? Y N
Was pre-cleaning sampling equipment properly protected from contamination?
Was documentation of equipment conducted? Y N NA
Were air bubbles present in vials at time of collection? Y N NA
Was sample for metals field filtered prior to preservations? Y N NA
Duplicate sample collected? Y N Duplicate sample ID
Rinsate blank collected? Y N Rinsate blank ID Groundwater-well sampling data form.cdr