

Site Specific Remedial Action Plan Haymarket, Sydney NSW

Appendix C Borehole Logs

Site Specific Remedial Action Plan Haymarket, Sydney NSW



Principal:

Sheet 1 of 3 GEOTLCOV24303AA Office Job No.:

Borehole No.

Date completed:

BH1

7.6.2011

Sydney Harbour Foreshore Authority 7.6.2011 Date started:

									ket, NSW			С	hecke	ed by:	SS	
	model 		mou	•		power S	scout -	I ruck	Easting:	slope:	-90°				. Surface:	3.75
	diame		rmo		100 m	ım		vial a	Northing	bearing:	N/A			datı	um:	AHD
ui	ŭ		IIIIa	11011			mate		ibstance				~	<u> </u>		
method	1 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle of colour, secondary and minor		moistire	condition	consistency/ density index	100 pocket 200 do penetro-300 pocket 400 meter		structure and ional observations
ADT		C	C	E+0.5ppm E+0ppm SPT 7,11,10 N*=21 E+0ppm	_3	- - 1 - -			FILL: BRICK PAVERS: 0.08m. FILL: SAND: Medium grained, bro roots, 0.02m. FILL: CONCRETE: Grey, 0.50m. FILL: SAND: Coarse grained, red. trace of clay and fine to medium sa gravel.			D D			FILL	т
AD.				SPT 1,1,2 N*=3 E+0ppm	1	2 2 - - 3		CL	FILL: Clayey SAND: Coarse grain- plasticity clay, with some medium g of shells, fibers and fine grained rou and brick gravel. Sandy CLAY: Low to medium play	grained sand, tra unded sandstor	race ne	M	F		POSSIBLY	FILL? — — — —
				SPT 3,2,1 N*=3	_0	4 5		SC	4.00m Band of red partially cement ironstone gravel. Clayey SAND: Medium to coarse gred, orange mottled, low to medium with some shells.	ed sand and		W	L		ESTUARIN	IE/ALLUVIUM
				SPT 1,2,4 N*=6	2	6		SP	SAND: Medium to coarse grained, with some clay and shells. SAND: Coarse grained, pale grey clay and shells.			_	L-MD		RESIDUAL	SÕIL
				SPT - 8/70mm N*=R	4	7			SANDSTONE: Extremely weathers grained, grey, red, brown, estimate strength, remoulds to a sand. Borehole BH1 continued as cored h	d to be low					WEATHER	ED BEDROCK
AS AD RR W CT HA DT B V T	hod	ai rc ki di bi V Ti by su	uger d iller/tri ashbo able to and au atube ank bi bit C bit	ore ool uger	M C pe	nter 10/1/9	n resista anging to refusal 8 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm d U ₆₃ undisturbed sample 63mm d D disturbed sample N standard penetration test (Sf N* SPT - sample recovered NC SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R	liameter soiliameter bases	p plasti	tion ified d			consiste VS S F St VSt H Fb VL L MD D VD	very soft soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense



Project:

GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

Sheet

BH10

1 of 4

LJG

Sydney Harbour Foreshore Authority 1.6.2011 Date started:

Principal: 10.6.2011 Date completed:

Boı	rehole	e Lo	catio	n: <i>Little</i>	e Pic	er St	reet,	Hayı	narket, NSW		(Checke	ed by:	SS	
drill	model	and	mou	nting: /	Ausro	c 4000	Truck		Easting: slope:	-90°			R.L	Surface:	3
	e diame				100 m	m				N/A			datı	ım:	AHD
dr	illing	info	rmat	tion			mate		ibstance				 		
method	5 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	apist	condition	consistency/ density index	100 a pocket 200 a penetro- 300 a meter		structure and ional observations
ADT		C	C	SPT 8/90mm N*=R SPT 3,2,3 N*=5	_111	1 1 2 3 3	4 4	SM SC SC	BRICK PAVERS: FILL: Gravelly SAND: Medium to coarse, brown, fine to medium angular gravel. CONCRETE: 0.20m FILL: Clayey SAND: Coarse grained, brown FILL: Sandy CLAY: Medium plasticity, red-brown/pale grey. 1.09m - With some asphalt gravel. FILL: Silty CLAY: Low to medium plasticity, grey, brown, trace of sand. FILL: CLAY: Medium to high plasticity, red, brown pale grey, orange mottled, with some fine gravel. Silty SAND: Medium to coarse grained, black, with some shells, trace of fine gravel. Clayey SAND: Coarse grained, brown, medium to high plasticity clay. Clayey SAND: Coarse grained, black, low plasticity clay.		D D W	VL		FILL 1m - Slight 1.09m - Str	odour, tar and asphalt. ong odour
WB			_	N*=0 SPT 4,5,7 N*=12	2	5 5 7		CH SC	CLAY: High plasticity, red brown, grey with some sand. Clayey SAND: Fine grained, pale grey, low plasticity clay. Sandy CLAY: Medium to high plasticity clay, pale			St MD	×	ĀLLŪVIŪM	T/SLOPE WASH ———
AS AD RR W CT HA DT B V T	thod shown I	ai w ca ha di bl V Ti by su	uger d iller/tri ashbo able to and au atube ank bi bit C bit	ore ool uger	M C pe 1	iter 10/1/9	n resista ranging to refusal 8 water l e shown	evel	U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter bas disturbed sample sys N standard penetration test (SPT)	ssification I descrip sed on unitem isture dry moist wet	tion ified o	classifica		Consister VS S F St VSt H Fb VL L MD D VD	ncy/density index very soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense



Project:

Sheet 2 of 4 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH10

LJG

Sydney Harbour Foreshore Authority 1.6.2011 Date started:

Principal: 10.6.2011 Date completed:

									Hayı	market, NSW			C	Checke	ed by:	SS	
				mou	Ü		4000	Truck		Easting:	slope:	-90°			R.L	Surface:	3
	dia			mo	tion	100 m	m	mot	rial a	Northing Ibstance	bearing:	N/A			dat	um:	AHD
method	1 2		support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle of colour, secondary and minor	characteristics components.	S,	moisture condition	consistency/ density index	200 x pocket 200 d penetro- 300 w meter		structure and onal observations
WB	12	3			SPT 6,7,9 N*=16	-	- - - - 9		CH	CLAY: High plasticity, red brown, coarse sand. (continued)	grey, with sor		W	VSt	**************************************		
					SPT 5,5,7	6	9 -		CH	CLAY: High plasticity, red, brown, orange mottled, trace of ironstone of sand.	gravel and fin	ie		St/VSt	×		
					N*=12	7	1 <u>0</u> - - -		SC	Clayey SAND: Coarse grained, g	ey, low to			MD		RESIDUAL	SOIL
						-8	11 -			Borehole BH10 continued as cored	hole						
						9	1 <u>2</u>										
						10	1 <u>3</u> -										
						11	1 <u>4</u> -										
						12	1 <u>5</u> - - -										
neti AS AD RR V CT HA	hod		rol wa ca ha	ger d	ool uger	M C pe 1	r		nil nce	notes, samples, tests U ₅₀ undisturbed sample 50mm d U ₆₃ undisturbed sample 63mm d D disturbed sample N standard penetration test (Sf N* SPT - sample recovered NC SPT with solid cone V vane shear (kPa)	iameter siameter b	classifica soil desc based on system moisture D dry M mo	ription unified o			consister VS S F St VSt H Fb	very soft soft firm stiff very stiff hard friable
3 /	show	n by	bla V I TC	ank bi oit bit fix			10/1/98			P pressuremeter Bs bulk sample E environmental sample R refusal	V V	W we Wp pla				VL L MD D VD	very loose loose medium dense dense very dense



Principal:

Sheet 1 of 3 GEOTLCOV24303AA Office Job No.:

Borehole No.

Date completed:

BH11

1.6.2011

Sydney Harbour Foreshore Authority 1.6.2011 Date started:

Bor	rehole	e Lo	catio	n: Sydi	пеу	Ente	rtain	men	t Centre, Haymarket, NSW		C	Checke	ed by:	SS	
drill	model	and	mou	nting: A	Ausro	4000	Truck		Easting: slope:	: -90°			R	.L. Surface:	2.9
	diame				00 m	m			Northing bearing	ng: N/A			da	atum:	AHD
dri	illing	into	rmat	ion			mate		ubstance				1		
method	5 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characte colour, secondary and minor compor		moisture condition	consistency/ density index	100 y pocket 200 y penetro-		structure and ional observations
ADV		С	C	D E+0ppm		-			FILL: SAND: Medium to coarse grained, p brown, with some quartz and shell fragmer		М			FILL	-
				E+0ppm D		_			FILL: SAND: Fine to coarse grained, dark black, with some fine to medium lithic grave sandstone.					0.70m dieti	- inct bitumen odour -
				E+1.1ppm	_2	1_			FILL: SANDSTONE BOULDER: Pale yellowhite	w and				0.80m SPT	171 moved from 1.0m to to sandstone boulder.
			•	SPT 13,5,3 N*=8	_1	- - 2			FILL: SAND: Fine to coarse grained, dark black, with some fine to medium lithic grave sandstone. 1.40m colour becoming brown	brown,					- - -
				E+0.3ppm		_		CL	Silty CLAY: Low plasticity, pale grey mottle		W	F		ALLUVIUN	
					0	_		SC	Clayey SAND: Fine to medium grained, da clay rich and sand rich layers throughout	rk grey,		MD			-
				U ₅₀		3_								3.00m disti	inct organic odour
				E+0.6ppm		_									-
					1	<u>4</u> 		СН	CLAY: High plasticity, dark grey, brown.			S-F			<u>-</u> - -
				SPT 3,4,10 N*=14	2	5 -		CL	Silty CLAY: Low plasticity, pale grey mottle orange iron stained, with some red clay porthroughout.			VSt	× × ×	RESIDUAL	SOIL
				SPT 7,8,9 N*=17	3	6 6			5.70m increased iron staining				*.		- - - -
					4	- - 7_									- - -
			3	SPT ,5,30/120mr N*=R	n 5	- - 8			SANDSTONE: Extremely weathered, medigrained, pale grey, white, estimated to be vistrength.					WEATHER	RED BEDROCK
AS AD RR W CT HA DT B V	shown I	au ro wa ca ha di bl V TO by sut	iger d ller/tri ashbo ible to and au atube ank bi bit	re ool uger	M C pe	mud casing netration 2 3 4 r ter 10/1/98	no resista anging to efusal 3 water l e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₈₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil description based or system moisture D dr M m W we Wp pl:	n unified o	classifica		consiste VS S F St VSt H Fb VL L MD D VD	ncy/density index very soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense



Project:

Sheet 2 of 3 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH11

RH

Sydney Harbour Foreshore Authority 1.6.2011 Date started:

Principal: 1.6.2011 Date completed:

					ney	Ente	rtair	men	t Centre, Haymarket, NSW		(Checke	ed by:	SS	
drill	mode	l and	mou	nting:	Ausro	4000	Truck		Easting: slope	e: -90°	•		R.L	Surface: 2	9
	diam				100 m	m	1		Northing bear	ing: N/A			dat	um: A	\HD
arı	illing ⊆	Into	rma	tion			mate	_	ubstance				4	1	
method	5 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle charact colour, secondary and minor compo	eristics, onents.	moisture condition	consistency/ density index	100 pocket 200 d penetro- 300 w meter	stru additiona	octure and al observations
	00000000	***				-			Borehole BH11 continued as cored hole						
					6	9									
					7	1 <u>0</u>									
					8	1 <u>1</u>									
					9	1 <u>2</u>									
					10	1 <u>3</u>									
					11	1 <u>4</u>									
					12	1 <u>5</u> - - -									
AS AD RR W CT HA DT B V	hod	a v ca h di bi V T by su	uger of the state	ore ool uger	M C pe	ter 10/1/98	n resista anging to efusal 3 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil des based d system moistur D d M n W w Wp p	cation syr scription on unified re lry noist vet lastic limit quid limit	classifica		consistency/ VS S F St VSt H Fb VL L MD D	density index very soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense



Sheet 1 of 3 GEOTLCOV24303AA Office Job No.:

Borehole No.

BH12

Sydney Harbour Foreshore Authority 10.6.2011 Date started:

Principal: 10.6.2011 Date completed:

OIE	ehole	Loc	catio	n: Sydi	<i>пеу</i>	Ente	rtair	men	t Centre, Haymarket, NSW		C	Checke	d by	:	SS
rill n	nodel	and	mou	nting: H	lydrap	ower S	Scout '	Truck	Easting: slope	: -90°				R.L.	. Surface: 2.8
	diame				00 mr	m			Northing beari	ng: N/A				datu	um: AHD
dril	ling i	info	rmat	ion			mate		ubstance						
DOLLAR	5 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characte colour, secondary and minor compo		moisture condition	consistency/ density index	100 pocket	a	structure and additional observations
		С	С	E+0ppm					FILL: Clayey SAND: Fine to medium grain	ned,	D		П	П	TOPSOIL/FILL
				E+0ppm	_2	- - - 1			FILL: CONCRETE: Pale grey (100mm) FILL: Sandy GRAVEL: Medium to coars dark grey.	e, grey to					FILL (Pavement?)
				E+0.7ppm		-			FILL: Silty SAND: Fine to medium graine grey to black, with some clay and fine rour	d, dark ded gravel.	М				FILL slight odour
	000000000000000000000000000000000000000			SPT 4,4,3 N*=7	_1	- - 2			FILL: Very low strength shale remoulding silty clay.		<wp< td=""><td></td><td></td><td></td><td></td></wp<>				
	000000000000000000000000000000000000000			E+0.8ppm		<u> </u>			FILL: Silty CLAY: High plasticity, red-bro orange-brown, with some sand.	vn mottled					
			•		_0	- 3			2.7m - With some fine to medium subangu ironstone gravel.	lar	>Wp				
				SPT 0,0,1 N*=1		<u>-</u> -		СН	3.4m - Band with some sand and shells (5 Silty CLAY: High plasticity, dark grey, wit bands of medium grained sand and some 3.4m - Band with some sand and shells.	h some		S/F	×		3.0m - SPT rods sunk 400mm under hammer weight ESTUARINE
			2011	U ₅₀	1	_ _ 4_			3.95m - With some fibres.				*		
			at 11am on 10/6/2011			- -			4.2m - Becoming grey.				×		
			√ 5.5m at 11am	SPT 2,2,4 N*=6	2	5		СН	4.7m - Becoming mottled red. Sandy CLAY: High plasticity, pale grey mand orange-brown, medium grained sand,	ottled red trace of silt.		St-VSt	××××		COLLUVIUM / SLOPE WASH
				SPT 2,4,8 N*=12	3	6							**	< >	*
					4	- <u>7</u> -		SP	SAND: Medium grained, pale grey mottle trace of clay.	d brown,	W	MD			RESIDUAL SOIL
			3	SPT ,11,30/60mr N*=R		- - 8			7.75m - Becoming yellow and red.	•		D			WEATHERED BEDROCK
th	od	au rol wa ca ha dia bla V	-	re ol ıger	M C per	t er 10/1/98	no resista anging to efusal 3 water e showr	level	Brutelso tarBb14st tests in ued as cored hole Uso undisturbed sample 50mm diameter Uso undisturbed sample 63mm diameter D disturbed sample 63mm diameter D standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample	soil description based or system moisture D dr M mr W we Wp pla	e y oist	classificat			consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense



Project:

Sheet 1 of 3 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH13

RC

Sydney Harbour Foreshore Authority 9.6.2011 Date started:

Principal: 9.6.2011 Date completed:

Irill model a				_		Scout 7		t Centre, Haymarket, NSW Easting: slope: -90°		Checke			Su rface: 3.15
ole diamet			_	100 m				Northing bearing: N/A					
drilling in		mat		100 111		mate	erial su	bstance			(datun	II: AND
tration	support	water	notes samples, tests, etc	RL	depth metres	aphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	200 A pocket 300 A penetro-	а	structure and additional observations
ADV	1		SPT 10,8,2 N*=10	_3	- - 1 - - - 2		CH	FILL: Rectangular, red-brown concrete pavers (50mm) overlying medium grained pale brown sand (50mm) FILL: Sandy GRAVEL: Medium to coarse, grey, fine to medium grained sand. FILL: Gravelly SAND: Fine to medium grained, brown, fine to coarse angular to subrounded gravel. FILL: SAND: Medium grained, pale brown. 1.8m - With some brown gravel. Silty CLAY: High plasticity, dark grey.	M W	Ø		F	PAVEMENT FILL STUARINE
	-	4 m at 12pm on 9/6/2011	SPT 1,1,1 N*=2 U ₅₀ SPT 3,6,6 N*=12	0	3 4		СП	Sity CLAT: Figit plasticity, dark grey.	>vvp	F/St	*		Bm - With sulfuric odour
		_	SPT 5,4,4 N*=8	2 3	5		CL	Sandy CLAY: Low plasticity, pale grey mottled, orange-brown, fine to medium grained sand with some fine to medium subangular ironstone gravel. 6.5m - Becoming red.		St-VSt	×	*	COLLUVIUM/SLOPE WASH
nethod S D RR V	roll wa cal hai dia		re ol ger	M C pe 1	ter)	notes, samples, tests U _{so} undisturbed sample 50mm diameter U _{ds} undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone Classific soil dest soil dest based or system moisture D dr	unified of				consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose



Principal:

Sheet 2 of 3 GEOTLCOV24303AA Office Job No.:

Borehole No.

Date completed:

BH13

9.6.2011

Sydney Harbour Foreshore Authority 9.6.2011 Date started:

Boı	reho	ole	Loc	catio	n: Sydi	ney	Ente	rtair	men	t Centre, Haymarket, NSW			Checke	ed by:	SS	
drill	mod	lel a	and	mou	nting: I	Hydra	power S	Scout ⁻	Γruck	Easting: slope	: -9	90°		R.L	Surface:	3.15
	e dia					100 m	m	<u> </u>		Northing bear	ng: N	I/A		dat	um:	AHD
dr	illin	_	nto	mat	ion			mate		ubstance		_	_	1	1	
method	12		support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle charact colour, secondary and minor compo	nents.	moisture condition	consistency/ density index	100 pocket 200 penetro- 300 penetro- 400 meter		structure and ional observations
ADV					SPT	5			CL	Sandy CLAY: Low plasticity, pale grey m orange-brown, fine to medium grained sar some fine to medium subangular ironstone (continued)	nd with	>Wp	St-VSt	*		
					4,5,3 N*=8	6	9_		SP	SAND: Medium to coarse grained, dark of grey, with some high plasticity clay.	rey to	W	L-MD		RESIDUA	SOIL?
							10								WEATHER	RED ROCK
NM				4	SPT R,30/140,R N*=R	7	10_			Borehole BH13 continued as cored hole					SPT hamr	ner bouncing
						8	1 <u>1</u>									
						9	1 <u>2</u>									
						10	1 <u>3</u>									
						11	1 <u>4</u> -									
						12	1 <u>5</u> -									
AS AD RR W CT HA DT B V T	thod	vn by	rol wa ca ha dia bla V	ger d ler/tri ashbo ble to and au atube ank bi bit bit bit	re ool uger	M C pe 1 wa	iter 10/1/98	n resista ranging to refusal 8 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil		d classifica		consiste VS S F St VSt H Fb VL L MD D VD	very/density index very soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense



Project:

GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

Sheet

BH14

1 of 2

RC

Sydney Harbour Foreshore Authority 17.6.2011 Date started:

Principal: 17.6.2011 Date completed:

Во	reho	le L	oca	tion: <i>Harl</i>	boui	r Stre	et, F	laym	arket, NSW		C	Checke	ed by:	SS	
drill	mode	el ar	id m	ounting:	Hydra	power S	Scout 7	Fruck	Easting: slope:	-90°			R.L	Surface:	3.3
	e dian				100 m	ım			Northing bearing	g: N/A			datı	ım:	AHD
dr	_	_	orm	nation			mate		ıbstance						
method	1 penetration	3	Support		RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteri colour, secondary and minor compone	ents.	moisture condition	consistency/ density index	100 pocket 200 pocket 300 pocket 400 meter	additio	tructure and onal observations
ADT				E+0.0ppm E+0.0ppm SPT 3,2,2 N*=4	1	- - 1 -			FILL: ASPHALT: Dark grey, medium to coagravel, overlying medium to coase, pale brown Sandy GRAVEL. Gravelly SAND: Fine to medium grained, by dark brown, fine to coarse gravel, with some cobbles (70mm), trace of silt.	wn. orown,	D			PAVEMENT	-
					_1				FILL: CONCRETE: Pale grey FILL: Gravelly SAND:		M				-
				SPT 1,0,0 N*=0	0	3 -		СН	Silty CLAY: High plasticity, dark grey, grey, medium grained sand. 3.5m - With some bands of sand.	, trace of	>Wp	VS }	*	ESTUARINE	-
				SPT 2,3,2 N*=5	_ 1 -	4 - - - 5		СН	Silty CLAY: High plasticity, red mottled pale	e grey. —		S/F	***	COLLUVIUM	M/SLOPE WASH
				SPT 3,3,5 N*=8	2	6 -		CH/SC	BANDS OF Silty CLAY/Clayey SAND: Clay grey and highly plastic. Sand is medium to digrained and dark grey.	y is dark coarse	>Wp/W	S/L		ESTŪARINE	Ē/ĀĽLŪVIŪM ——
				SPT R,20/90 N*=R	4	7			SANDSTONE: Medium to coarse grained, grey to white, remoulds to a sand. Borehole BH14 continued as cored hole	pale/				WEATHERE	ED BEDROCK
AS AD RR W CT HA DT B V T	show	n by :	auge roller wash cable hand diatu blant V bit TC b	e tool l auger be c bit	M C pee 1	mud casing netration 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	n resista anging to refusal 8 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered NC SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil desc based or system moisture D dr M me W we Wp pla	e y oist	classifica		consisten VS S F St VSt H Fb VL L MD D VD	cy/density index very soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense



Project:

GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

Sheet

BH15

1 of 3

LJG

Sydney Harbour Foreshore Authority 21.6.2011 Date started:

Principal: 21.6.2011 Date completed:

Borehole Location: Harbour Street Haymarket NSW 99 Checked by:

drill r	model	and	mou	ntina: A	Ausro	4000 T	Fruck		Easting:	slope:	-90°			F	R.L. Surface	e: 3.2
	diame			· ·	100 m				Northing	bearing:	N/A					
	lling i		rma		100 m		mate	rial er	ibstance	bearing:	IN/A			0	atum:	AHD
	<u> </u>	T				\vdash	mate		ibstarice					<u> </u>		
method	5 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	ma soil type: plasticity or colour, secondary a			moisture condition	consistency/ density index	200 y pocket 300 d penetro-		structure and dditional observations
ADT		С	С		_3	×			FILL: BITUMEN: 0.30m						FILL	
₹				E+0.3ppm SPT 8/160mm		1			FILL: CONCRETE: 0.101 FILL: Gravelly SAND: M dark grey, brown, fine gra sandstone, aggregate, tra 0.5m - Fine to medium gra 1.0m - Crushed orange br	edium to coarse gra ined gravel of brick, ce of clay. ained gravel, with so		D M				ur/ staining. PT refused on gravel
				N*=R	_1	2			1.50m - With some clay at trace of cobbles.	nd coarse sandstone	e gravel,					
				SPT 3,1,2 N*=3	_	3		SC CL	Clayey SAND: Medium to dark grey, high plasticity consisting CLAY: Low plasticity with some organic material	lay, trace of organic y, dark brown, dark	S.	M-W	MD F		ESTUA	RINE
			-		_0	3_4	/////	SC	Clayey SAND: Coarse gi trace of shells. CLAY: High plasticity, pa			W	L-MD St-VSt		ALLUV	IŪM — — — — — —
								СП	trace of sand. 3.5m - With some interbed		orown,		31-731			
						4		SC	Clayey SAND: Coarse of brown, low plasticity clay,	grained, dark grey, d	ark		MD			
				SPT 3,4,5 N*=9	1			CH	CLAY: High plasticity, pa		sand.		St		SLOPE	WASH
					2				5.20m - Pale grey, pale br			М			ALLUV	
				SPT 2,4,6 N*=10	3	6 - - - 7			5.80m - Pale grey, red, bri coarse sand and fine irons		of fine to				SLOPE	WASH
					4			CL	Sandy CLAY: Low to me mottled red, coarse sand.	edium plasticity, pale	brown		St		ALLUV	
				SPT 7,5,6				SC	Clayey SAND: Coarse gironstone gravel and burro	ows.		M	MD		RESID	ŪĀL SOIL
				N*=11	_	8	. /		7.8m - Pale brown, mottle	d black and red, trac		-41	ulu a ! -		<u> </u>	Internation in the contract of
neth AS AD RR V CT HA DT 3	shown t	a rc h d b V T	uger of biller/tri eashbot able to and and and lank billenk biller	ore ool uger	M C pee 1:	rai ref	o resistar nging to fusal water I shown		notes, samples, tests U ₅₀ undisturbed samp D disturbed sample N standard penetrat N* SPT - sample rec Nc SPT with solid cor V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sar R refusal	ion test (SPT) overed ie	W we	cription n unified of unified of unified of	classificat		S F St VSt H Fb VL L MD D	istency/density index very soft soft firm stiff very stiff hard friable very loose loose medium dense dense



GEOTLCOV24303AA Office Job No.: Sydney Harbour Foreshore Authority 21.6.2011 Date started:

Borehole No.

Sheet

BH15

2 of 3

Principal: 21.6.2011 Date completed:

Bor	eho	le L	ocati	on: <i>Harl</i>	oour	Stre	et, F	laym	arket, NSW			(Checke	d b	y:	SS		
drill	mod	el an	d mo	unting:	Ausro	c 4000	Truck		Easting:	slope:	-90°				R.L	Surface:	3.2	
		metei			100 m	m			Northing	bearing:	N/A				dat	tum:	AHD	
dri		_	orma	tion			mate	_	ıbstance		+					+		
method	1 Denetration	1.5	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle of colour, secondary and minor	characteristic components	CS, S.	moisture condition	consistency/ density index	k	300 p penetro-		structure and onal observations	
ADT		(5				SANDSTONE: Extremely weather grained, pale brown, pale grey, est low strength, remoulds to a sand.	ed, coarse imated to be						WEATHER	ED BEDROCK	-
						_			Borehole BH15 continued as cored	l hole	-			П	Ħ	TC Bit refus	sal at 8.50m	
					6	9 - -												-
					7	1 <u>0</u>												- -
					8	1 <u>1</u>												- - -
					9	1 <u>2</u>												- - -
					10	1 <u>3</u>												- - -
					11	1 <u>4</u> -												-
					12	1 <u>5</u>												- - -
met	hod				en.	_ _ 16_ pport			notes, samples, tests		classifica	ation sw	nhols an	d		consistor	ncy/density index	_
AS AD RR W CT HA DT B V T		n by s	auger roller/t washb cable hand a diatub blank V bit TC bit	ool auger e	M C pe 1	mud casing netration 2 3 4 r tter 10/1/98 on date	no resista anging to efusal 3 water e shown	level	U ₅₀ undisturbed sample 50mm d U ₆₃ undisturbed sample 63mm d D disturbed sample N standard penetration test (SI N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	diameter diameter PT)	soil desc based on system moisture D dry M mo W we Wp pla	ription unified o	classifica			VS S F St VSt H Fb VL L MD D VD	very soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense	



Project:

Engineering Log - Borenole Office Job No.: GEOTLCOV24303AA

Borehole No.

Logged by:

Sheet

BH16

1 of 6

LJG

Client: Sydney Harbour Foreshore Authority Date started: 20.6.2011

Principal: Date completed: 21.6.2011

Borehole Location: *Harbour Street, Haymarket, NSW*Checked by: SS

Sydney International Convention & Entertainment Centre

drill model and mounting: Hydrapower Scout Truck slope: R.L. Surface: 3.30 hole diameter: 100 mm bearing: 177.5° AHD datum: drilling information material substance pocket penetro-meter classification symbol consistency/ density index notes penetratic structure and material samples moisture condition additional observations graphic I method support tests, etc water kPa soil type: plasticity or particle characteristics, depth metre RI 200 300 400 400 123 colour, secondary and minor components. BRICK PAVERS: 0.06m F D FILL: Gravelly SAND: Fine to coarse, brown, dark 3 brown, fine to rounded gravel with some clay and trace of medium to coarse gravel, roots, glass, metal piping, concrete, bricks. 1 2 FILL: SAND: Medium to coarse grained, brown, AD with some clay and fine gravel. 2 W WB 3 CL/SC Sandy CLAY/Clayey SAND: Low plasticity clay, medium to coarse grained sand, grey, brown, with ESTUARINE some organic material. 0 CLAY: High plasticity, red, brown, grey, trace of SLOPE WASH 5 U₅₀ _-2 6 ALLUVIUM _-3 Sandy CLAY: High plasticity, grey, coarse sand. SAND: Coarse grained, grey, brown, trace of clay. support notes, samples, tests method classification symbols and consistency/density index undisturbed sample 50mm diameter AS auger screwing soil description M mud U_{50} VS very soft ΑD auger drilling* undisturbed sample 63mm diameter based on unified classification casing U_{63} soft RR W roller/tricone D disturbed sample firm enetration washbore Ν standard penetration test (SPT) St stiff ranging to refusal СТ cable tool SPT - sample recovered moisture VSt very stiff N' hand auge SPT with solid cone DT diatube V vane shear (kPa) М moist Fh friable В blank bit 10/1/98 water leve pressuremeter W wet VL very loose plastic limit V bit Bs bulk sample Wp loose on date shown TC bit environmental sample liquid limit MD medium dense *bit shown by suffix refusal dense ADT water outflow VD e.g. very dense



Sheet 2 of 6 GEOTLCOV24303AA Office Job No.:

Borehole No.

BH16

Sydney Harbour Foreshore Authority 20.6.2011 Date started:

Principal: 21.6.2011 Date completed:

3or	eh	ole	e L	oc	atic	n: <i>Hark</i>	oui	Stre	et, F	laym	arket, NSW		(Checke	ed by:	SS
drill	mo	del	ar	ıd r	nou	nting: I	-lydra	power S	Scout	Truck	Easting: slope:	-75	5°		R.L	Surface: 3.30
nole							100 m	m			Northing bearing	g: 177	7.5°		dat	um: AHD
dri		_	inf	or	mat	ion	_	_	mate		ubstance					
method		s penetration 2		noddns	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characte colour, secondary and minor compor	istics, ents.	moisture condition	consistency/ density index	100 x pocket 200 d penetro- 300 w meter	structure and additional observations
Q					С		5	- - - 9		SP SC	SAND: Coarse grained, grey, brown, trace (continued) Clayey SAND: Medium to coarse sand, pared, brown, high plasticity clay.	-	W			
							6			,						
		000000000000000000000000000000000000000					7	- - - 1 <u>1</u>		SP	SAND: Coarse grained, grey, pale grey, tr clay.	ace of	_			RESIDUAL SOIL
							8	- - 1 <u>2</u>								
							9	1 <u>3</u>								
					_	-	10	- - 14			SANDSTONE: Extremely weathered, coar grained, pale grey to red brown, estimated strength. Remoulds to a sand. 13.45m - Highly weathered. Borehole BH16 continued as cored hole					WEATHERED BEDROCK
							11	- - - 1 <u>5</u>								
Ot I	hod	•					12	16			notes, samples, tests	(lacrii	fication syl	mhole ar		consistancy/daneity inday
S D R / T IA		wn	by s	aug roll wa cat hai dia bla V b	ger d er/tri shbo ole to nd au tube nk bi nk bi bit bit	ol iger	M C pe 1	ter 10/1/98	no resista anging to efusal 3 water e shown	level	Notes, samples, tests Uso undisturbed sample 50mm diameter Uso undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil de based system moistu D M W Wp	escription on unified	classifica		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



Project:

Sheet 1 of 4 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH17

LJG

Sydney Harbour Foreshore Authority 16.6.2011 Date started:

Principal: 16.6.2011 Date completed:

Borehole Location: Harbour Street Haymarket NSW 99 Checked by:

	nodel					3000 T		,	Easting:	slope:	-90°		Checke			Surface: 2.2
			moul	•			IUUN		· ·	•						Surface: 3.2
	diame Iling i		rməf		100 m	^{III}	mate	rial e	Northing Ibstance	bearing	: N/A				datu	m: AHD
method	2 penetration	upport		notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	soil type: plasticit	material y or particle characteris	stics,	moisture condition	consistency/ density index	100 S pocket	a	structure and additional observations
ADT		C	C	SPT 6,7,4 N*=11	_3	1 -			grained, brown, grey, clay. FILL: SAND: Coarse	S: Brown, 0.08m / SAND: Medium to or fine gravel, medium plans or grained, grey, brown, e fine sandstone grave	asticity vellow.	D				FILL
200000000000000000000000000000000000000				SPT 2,0,0 N*=0	_1	3			FILL: Silty CLAY: Lo organic material, trace	ow plasticity, black, with e of sand and fine grave	n some el.	W				
				SPT 2,3,5 N*=8	1	4		СН	CLAY: High plasticity ironstone gravel.	r, red, brown, grey, trac	ce of fine	М	St-VSt	×	-	ALLUVIUM
				SPT 2,5,6 N*=11	2	5 6		СН	CLAY: High plasticity some coarse sand, tra and ironstone gravel.	r, grey, red, brown, yell ace of fine to medium s	ow, with andstone		St-VSt		* *	SLOPE WASH
				SPT 4,7,8 N*=15	3 4	7		CH	fine angular sandston	plasticity, brown, grey, e and ironstone gravel. r, pale grey, red brown	· · ·	W		*	-	ALLUVIUM — — — — —
meth AS AD RR W CT HA DT B bit s	nod	ai ro ca hi di bi V To y su	uger d iller/trid ashbo able to and au atube ank bi bit C bit	re ool uger	M C pe 1 wa	ra	resista nging to fusal water I shown		U ₆₃ undisturbed s D disturbed san	etration test (SPT) recovered d cone (Pa)	W we Wp pla	cription a unified of	classificat			consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



Sheet 2 of 4 GEOTLCOV24303AA Office Job No.:

Borehole No.

BH17

Sydney Harbour Foreshore Authority 16.6.2011 Date started:

Principal: 16.6.2011 Date completed:

Boı	reh	ole	Lo	catio	on: <i>Harl</i>	oour	Stre	et, F	laym	arket, NSW			C	Checke	d by:	SS	
drill	mo	del	and	mou	nting:	Edson	3000	Truck		Easting:	slope:	-90°			R.L	Surface:	3.2
hole						100 m	m			Northing	bearing:	N/A			dat	tum:	AHD
dr	_	_	nfo	rma	tion	1		mate		ubstance						1	
method		s penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	materia soil type: plasticity or part colour, secondary and m	icle characteristic	S, i.	moisture condition	consistency/ density index	200 A pocket 300 a penetro- 400 meter	addit	structure and ional observations
ADT			С	С		5	-		CH	CLAY: High plasticity, pale gr trace of sand. <i>(continued)</i> 8.10m - With some coarse san		ottled,	W	St-VSt			
					SPT 4,12,10 N*=22	6	9		SC	Clayey SAND: Coarse graine Sandy CLAY: High plasticity coarse sand.				MD St-VSt	*	RESIDUAL	
					SPT	7	1 <u>0</u>			CANDETONIC					*		
					4,16 \ N*=R	'	_ _ _			SANDSTONE: Extremely wer grained, pale grey, remoulds to 10.30m - Highly weathered. Borehole BH17 continued as of	o a sandy clay.					WEATHER	RED BEDROCK
						8	1 <u>1</u> - -										
						9	1 <u>2</u> -										
						10	1 <u>3</u>										
						11	1 <u>4</u>										
						12	1 <u>5</u>										
	thod									notes, samples, tests		classifica		nbols an			ncy/density index
AS AD RR V CT HA OT 3			at ro w ca ha di bl	uger of aller/tr ashbo able to and a atube ank b	ool uger	C pe 1	ter 10/1/9	n resista ranging to refusal 8 water	level	U ₅₀ undisturbed sample 50 U ₆₃ undisturbed sample 63 D disturbed sample N standard penetration te N* SPT - sample recovere Nc SPT with solid cone V vane shear (kPa) P pressuremeter	mm diameter :: st (SPT) d	soil descr based on system moisture D dry M moi	unified o	classificat	ion	VS S F St VSt H Fb VL	very soft soft firm stiff very stiff hard friable very loose
V T *bit e.g.		wn b	To y su	bit C bit ffix DT			water i		1	Bs bulk sample E environmental sample R refusal			stic limit iid limit			L MD D VD	loose medium dense dense very dense



Project:

Sheet 1 of 3 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH2

RH

Sydney Harbour Foreshore Authority 3.6.2011 Date started:

Principal: 3.6.2011 Date completed:

								yma	rket, NSW			Checke	ed by:	SS
	model		mou	J		c 4000	Truck		Easting: slope:				R.L	. Surface: 3.5
	e diame				100 m	ım			Northing bearin	g: N/A			datı	um: AHD
dr	illing i	into	rma	tion			mate		ubstance		1	i		
method	5 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle character colour, secondary and minor compon		moisture condition	consistency/ density index	100 pocket 200 pocket 300 pocket 400 meter	structure and additional observations
DT		С	С			-	0 0		ASPHALT CONCRETE		D			PAVEMENT
ADT				SPT 8,5,4 N*=9 E+1.0ppm	_3	1 1 - - 2			FILL: Sandy SILT: Low plasticity, pale bro to medium grained sand with some clay. FILC: Clayey SAND: Fine to coarse graine brown and black with red brown mottles, so brown sand pockets, fine to coarse grained sandstone and fine grained ironstone grave throughout, trace of glass and wire refuse.	ed, dark me pale	M			FILL
				SPT 4,3,3 N*=6	_1	3			2.5m - Increasing clay content.					
				SPT 1,1,0 N*=1	_0	<u>4</u>		SW	SAND: Fine to coarse grained, grey, trace			VL		ALLUVIUM Slight organic odour.
			•	SPT 1,2,3 N*=5	2	5 6		SC	Clayey SAND: Fine to medium to coarse of dark brown, low to medium plasticity clay. Clayey SAND: Fine to coarse grained, pall clay with some pockets of shells throughout	 e grey,	W	L-MD		5.7m - Distinct organic odour
	_		_	_	3	- - - 7_			SANDSTONE: Extremely weathered, med coarse grained, pale yellow and brown, esti be very low strength, remoulds to a sand.	ium to mated to				WEATHERED BEDROCK — -
	المالة المالة	3			4	8			Destribute PMS	alato-	notice -	mbels -		
AS AD RR W CT HA DT B V T	shown I	au w ca ha di bl V To y su	uger of ller/tri ashbo able to and and atube ank b bit C bit	ool uger	M C pe	nter 10/1/9	no resista ranging to refusal 8 water e shown	evel	BrutelsotarBplesctratisued as cored hole Uso undisturbed sample 50mm diameter Uso undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil des based o system moistur D di M m W w Wp pi	n unified o	classifica		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



Project:

Sheet 1 of 4 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH3

RH

Sydney Harbour Foreshore Authority 2.6.2011 Date started:

Principal: 2.6.2011 Date completed:

Boı	rehole	Lo	catio	on: Darl	ing	Drive	e, Ha	yma	ket, NSW			Checke	ed by:	SS	
drill	model	and	mou	nting: /	Ausro	4000	Truck		Easting: slope:	-90°			R.L	. Surface:	3.5
	diame				100 m	m			Northing bearing:	N/A			dat	um:	AHD
dr	illing i	info	rma	tion	1		mate		ıbstance						
method	1 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characterist colour, secondary and minor componen		moisture condition	consistency/ density index	100 pocket 200 d penetro- 300 pometer	addi	structure and tional observations
TO /		С	С			-	0 0		ASPHALT: 0.05m CONCRETE: 0.45m	/				PAVEMEN	NT
ADV				D	_3	-			FILL: Sandy SILT: Low plasticity, pale brown \grained sand, with some clay.	, fine _	М			FILL — —	
				SPT	_	1			FILL: Clayey SAND: Fine to medium grained brown, trace of pale brown sand pockets, fine coarse grained sandstone and fine grained in	to					
				9,6,8 N*=14	_2	_			gravel.						
				E+1.4ppm		2									
				E+0.4ppm		_									
				SPT 4,5,10	_1										
				N*=15	_	3_									
					_0	-									
					-	4_	$\otimes\!\!\!\otimes\!\!\!\!\otimes$	SW	SAND: Fine to coarse grained, with some low plasticity fines.	,		L		ALLUVIUN	<u>л</u>
				SPT 4,3,2 N*=5	-1	-									
						- -		SC	Clayey SAND: Fine grained, dark brown, clay	, — -					
			-			<u>5</u> _	/	SW	SAND: Medium to coarse grained, pale grey,	trace -	W	L-MD			
				SPT 5,4,3	2	-			of fines.			L-IVID			
				N*=7	-	6_									
					3	-									
						7		SC	Clayey SAND: Fine to coarse grained, pale g pale orange brown, with some silt.	 rey,	M			RESIDUA	L SOIL
				SPT 3,2,5 N*=7											
					4	-									
net	hod				su	8 pport			notes, samples, tests	classifica	ation syr	nbols an		consiste	ency/density index
AS AD RR		а		crewing* Irilling* cone	M C	mud casing netration		nil	U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample	soil desc based on system	cription			VS S F	very soft soft firm
N CT		W	ashbo able to	ore	ρε 1 Ξ	2 3 4	n no resista ranging to	nce	N standard penetration test (SPT) N* SPT - sample recovered	moisture	•			St VSt	stiff very stiff
AH TC		h	and av	uger	wa		efusal		Nc SPT with solid cone V vane shear (kPa)	D dr				H Fb	hard friable
B V		b	ank b			10/1/98	8 water e shown		P pressuremeter Bs bulk sample	W we				VL L	very loose loose
Т	shown b	T	C bit			wateri			E environmental sample R refusal		juid limit			MD D	medium dense dense
οιι e.g.			DT		حَا	water			i i i i i i i i i i i i i i i i i i i					VD	very dense



Project:

Sheet 2 of 4 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH3

RH

Sydney Harbour Foreshore Authority 2.6.2011 Date started:

Principal: 2.6.2011 Date completed:

Boi	reh	ole	Loc	atio	n: Darl	ing	Drive	e, Ha	ymaı	rket, NSW			(Checke	d by	/ :	SS	
drill	l mo	del a	and i	noun	nting: A	Ausro	c 4000	Truck		Easting:	slope:	-90°				R.L	Surface:	3.5
hole						100 m	m			Northing	bearing:	N/A				dat	um:	AHD
dr	_	_	nfor	mati	ion	1		mate		ubstance		+					+	
method		s perietration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particl colour, secondary and min	e characteristic or components	cs, s.	moisture condition	consistency/ density index	100 A pocket	a		structure and ional observations
ADV			С	С		5		/ 	SC	SANDSTONE: Extremely to high to coarse grained, pale orange b	nly weathered, f rown, estimated	fine d to be	М	L-MD			WEATHER	ED BEDROCK
						5 6 7 9	10 11 12 13 14 15			very low to low strength. Borehole BH3 continued as core		d to be						
	thod					12 _su	16_pport			notes, samples, tests		classifica	ation syr	nbols an	d			ncy/density index
AS AD RR W CT HA DT B V T *bit e.g.	shov	wn by	roll wa cal hai dia bla V b	ger dr er/tric shbor ole too nd au tube nk bit oit bit	cone re ol ger	C per 1 :	ter 10/1/98	n resista anging to efusal 3 water e shown	evel	U ₅₀ undisturbed sample 50mr U ₆₃ undisturbed sample 63mr D disturbed sample N standard penetration test N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	(SPT)		unified o		ion		VS S F St VSt H Fb VL L MD D VD	very soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense



Project:

GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

Sheet

BH4

1 of 4

RH

Sydney Harbour Foreshore Authority 6.6.2011 Date started:

Principal: 6.6.2011 Date completed:

Во	rehole	Lo	catio	n: Darl	ing	Drive	e, Ha	ymaı	ket, NSW		Checke	ed by:	SS
drill	model	and	mou	nting: A	Ausro	c 4000	Truck		Easting: slope: -90)°		R.L	. Surface: 3.3
	e diame				00 m	m			Northing bearing: N/.	Ą		datı	um: AHD
dr	illing i	nfo	rma	tion			mate		bstance	+			+
method	5 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	100 pocket 200 penetro- 300 meter	structure and additional observations
DT		С	С		_3	_	44		ASPHALT: CONCRETE:	/ D			PAVEMENT
ADV				SPT 4,5,6 N*=11	_2				FILL: SAND: Fine to medium grained, pale brown with some low plasticity fines, ironstone inclusions. FILL: Clayey SAND: Fine to medium grained, dark grey/dark brown, low plasticity, fines with a trace of light brown sand pockets and fine to medium grained sandstone and ironstone gravels.	M			FILL
				E+0ppm E+0.7ppm SPT	_1				2m - Band of partically cemented sand.				2.3m - Slight hydrocarbon odour.
			•	2,2,4 N*=6 E+0ppm	_0	3 - - - 4				W	_		
				SPT 8,8,5 N*=13	1	5		SC	4m - Band of red, partially cemented sand. Clayey SAND: Fine to medium grained, grey.	_	L		ALLUVIUM
				SPT 5,3,2 N*=5	3	6 -			Clayey SAND: Fine to coarse grained, pale grey, with some silt. Trace of bivalves and shell fragments in bands throughout layer.	_			5.7m - organic odour
				SPT 8,14,11 N*=25	4	7 7 - -			Clayey SAND: Fine to coarse grained, pale grey with red/orange brown mottles, with some silt and fine to medium grained sandstone gravels.	e	D		RESIDUAL SOIL
AS AD RR W CT HA DT B V T	shown b	au ro ca ha di bl V To y su	uger of ller/tri ashbo able to and and atube ank b bit C bit	ore ool uger	M C pe 1 wa	ter 10/1/98	no resistar anging to efusal 3 water I e shown		U ₅₀ undisturbed sample 50mm diameter undisturbed sample 63mm diameter b disturbed sample 63mm diameter b disturbed sample standard penetration test (SPT) soil de based system N standard penetration test (SPT) moist N° SPT - sample recovered moist N° SPT with solid cone D V vane shear (kPa) M P pressuremeter W Bs bulk sample Wp		classifica		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



Project:

Sheet 2 of 4 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH4

RH

Sydney Harbour Foreshore Authority 6.6.2011 Date started:

Principal: 6.6.2011 Date completed:

IoE	reh	nol	le l	Loc	atic	n: Darl	ing	Drive	e, Ha	yma	rket, NSW		(Checke	ed by:	SS	
drill	mo	ode	el a	nd	mou	nting:	Ausro	4000	Truck		Easting: slope	: -90°			R	L. Surface: 3.	3
nole							100 m	m			Northing beari	ng: N/A			da	atum: A	HD
dr	_	_	_	tor	mat	tion			mate		ubstance						
method		∾ penetration	- 1	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characte colour, secondary and minor compo	nents.	moisture condition	consistency/ density index	100 y pocket 300 by penetro-		cture and I observations
ADV				С	С		5	_			Clayey SAND: Fine to coarse grained, pa with red/orange brown mottles, with some to medium grained sandstone gravels.	le grey silt and fine	W	D		RESIDUAL SO	
NMC	-				-	-		_		SM	Silty SAND: Medium to coarse grained, p with orange brown mottles.	ale grey	М			WEATHERED	BEDROCK
Σ								9			Borehole BH4 continued as cored hole						
							6										
								-									
								10									
							7										
								-									
								1 <u>1</u> _									
							8	-									
								12_									
							9										
								-									
								13									
							40	'-									
							10	-									
								-									
								14									
							11	-									
								-									
								1 <u>5</u> _									
							12	-									
								_ 16									
R T A	tho	d		rol wa ca ha dia	ger d	ool uger	M C pe 1	mud casing netration 2 3 4 reter)	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter	soil des based o system moistur D di M m	n unified			consistency/c VS S F St VSt H Fb VL	lensity index very soft soft firm stiff very stiff hard friable very loose
		owr	n by	V I TC suf	bit fix		I -	on date water i	e showr nflow	1	Bs bulk sample E environmental sample R refusal	Wp p	lastic limit quid limit			L MD D VD	loose medium dense dense very dense



GEOTLCOV24303AA Office Job No.: Sydney Harbour Foreshore Authority

Borehole No.

Sheet

BH5

1 of 4

14.6.2011 Date started: Principal: 15.6.2011 Date completed:

Bore	ehole	Lo	catio	n: Lack	key .	Stree	et, Ha	ayma	rket, NSW		(Checke	ed by:	SS
drill r	nodel	and	mou	nting: /	Ausro	c 4000	Truck		Easting: slope	e: -90°	1		R.I	Surface: 2.4
	diame				100 m	m			Northing bear	ing: N/A			da	tum: AHD
arii	ling i ⊊	nio	rma	tion			mate		ubstance		1	,		
method	5 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle charact colour, secondary and minor compo		moisture condition	consistency/ density index	100 pocket 200 pocket 300 pocket 400 meter	
WB		С	►	SPT 8,4,4 N*=8 SPT 1,2,5 N*=7	_211			SM SC	FILL: SAND: Coarse sand, brown, trace 0.3m - Medium to coarse sand with some of gravel. 0.5m - Brown, yellow. FILL: Clayey SAND: Medium to coarse, mottled yellow, medium to high plasticity of some fine gravel. FILL: CLAY: Medium to high plasticity, pred brown, trace of fine rounded ironstone sand. (shale fill) 2.0m - Red brown mottled pale grey, grey 2.50m - With some fine shale gravels. FILL: Sandy CLAY: Low to medium plast grey, brown, corase sand, trace of gravel. Silty SAND: Coarse grained, black with shells. Clayey SAND: Coarse grained, brown, n plasticity clay, trace of shells and fine grav. Sandy CLAY: Low to medium plasticity, to dark grey, fine to medium sand, with so fiberous materials.	brown lay, with ale grey, gravel and ticity, pale some dark brown	M W	L S-F	2 2 4	ESTUARINE/ALLUVIUM ———
				SPT 2,1,2 N*=3 SPT 7,8,12 N*=20	3	5 - - - 6 - - 7		SC	Clayey SAND: Coarse grained, dark broblack, low plasticity clay, trace of fine grave CLAY: High plasticity, red brown, pale grironstone and sand. 7.20m - Yellow, brown mottled. 7.40m - Pale grey with some fine sand.	el.	>Wp	L VSt-H	× *	5.6m - Organic material in SPT sulphur odour SLOPE WASH
meth AS AD RR W CT HA DT B V T *bit s e.g.	hown b	au ro wa ca ha di bla V TO oy suf	uger d Iller/tri ashbo able to and au atube ank bi bit C bit	ore ool uger	M C per 1 :	iter 10/1/9	no resista ranging to refusal 8 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil des based o system moistur D di M m W w Wp pi	cation syn cription in unified of re ry noist ret lastic limit quid limit	classifica		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



GEOTLCOV24303AA Office Job No.:

Borehole No.

Sheet

BH5 2 of 4

Sydney Harbour Foreshore Authority 14.6.2011 Date started: Principal: 15.6.2011 Date completed:

	model					Stree 4000		ayma	Easting: slope:	-90°		Checke	ed by		Surface: 3.4
	modei e diame			· ·			TTUCK								. Surface: 2.4
	illing i				100 m	m	mate	erial su	Northing bearing:	N/A				datu	um: AHD
method	1 penetration	support		notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristi colour, secondary and minor component		moisture condition	consistency/ density index	100 pocket	Pa	structure and additional observations
WB		С		SPT 4,6,6 N*=12	6	9		CH CS	Sandy CLAY: Low to medium plasticity, pale medium sand, with some silt.	grey,	>Wp	VSt-H St	*		ALLUVIUM
				SPT 7,9,13 N*=22	8	1 <u>0</u>		CH	CLAY: High plasticity, dark grey, trace of silt.			VSt-H	> ×	\ \ \ * * *	
				SPT 4,3,2 N*=5	9	1 <u>2</u>		SC	Clayey SAND: Medium to coarse, brown, gre trace of gravel.		W	L-MD			ESTUARINE 11.50m - No sample recovered
				SPT 4,7,14 N*=21	11	1 <u>3</u> - - -			13.0m - Fine to coarse, dark grey, grey, trace organics.	of					
				SPT 3,5,9 N*=14	12	1 <u>4</u> - - 1 <u>5</u>		CL	Silty CLAY: Low plasticity, dark brown, black some organic material (wood) very light. Clayey SAND: Coarse grained, pale grey, da grey, low plasticity clay, trace of silt.		>Wp	St L-MD			
	hod					16 pport		m:11	notes, samples, tests			mbols an	d		WEATHERED BEDROCK consistency/density index
AS AD RR V CT HA OT B bit e.g.	shown t	a w c h d b V T oy su	uger oblier/trashboable to able to and a iatube lank b bit C bit	ool uger e	C pel 1 : selection was	ter 10/1/9	no resista ranging to refusal 8 water e shown	evel	U _{so} undisturbed sample 50mm diameter U _{so} undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	moisture D dr M m W w Wp pl	n unified e	classifica	tion		VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



3 of 4 Sheet

Borehole No.

GEOTLCOV24303AA Office Job No.:

BH5

Sydney Harbour Foreshore Authority 14.6.2011 Date started:

Principal: 15.6.2011 Date completed:

Boı	re	hol	e L	oc	atio	n: <i>Lacl</i>	rey	Stree	et, Ha	ayma	nrket, NSW			Checke	ed b	y:	SS	
drill	l m	ode	l ar	nd r	noui	nting:	Ausro	4000	Truck		Easting: slope:	-9	0°			R.I	Surface:	2.4
		liam					100 m	m			Northing bearing	g: N	/A			da	tum:	AHD
dr	illi	_	int	or	mat	ion			mate		ubstance			1			1	
method	1	S penetration	3	noddns	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteri colour, secondary and minor compone	istics, ents.	moisture condition	consistency/ density index	kl	300 penetro-		ructure and nal observations
WB											SANDSTONE: Extremely weathered, pale of brown, coarse grained, estimated to be very	grey, low						
>							14 15	1 <u>7</u>			brown, coarse grained, estimated to be very strength, remoulds to SAND. (continued) Borehole BH5 continued as cored hole	low						
							17	1 <u>9</u>										
							18	2 <u>1</u>										
							20	22										
met AS AD RR W CT HA DT B V T *bit e.g.	sh	own	by:	roll was cat har dia bla V b	ger d er/trionshbo ble to ble to tube nk bi bit bit	ol iger	M C pe 1	ter 10/1/98	n resista anging to efusal 3 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil d		classifica			consistence VS S F St VSt H Fb VL L MD D VD	very soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense



Project:

Sheet 1 of 4 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH6

LJG

Sydney Harbour Foreshore Authority 9.6.2011 Date started:

Principal: 9.6.2011 Date completed: Sydney International Convention & Entertainment Centre

Bor	ehol	e Lo	ocatio	on: Bac l	k of	Hou	se of	Syd	ney Entertainment Centre		C	Checke	ed by:	SS	
drill ı	mode	el an	d mou	inting:	Ausro	c 4000	Truck		Easting: slope	: -90°			R.L	Surface:	2.6
	diam				100 m	m			Northing bearing	ng: N/A			dat	um:	AHD
dri	_	info	orma	tion	1		mate		ubstance		-			.	
method	1 penetration	3	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characte colour, secondary and minor compor		moisture condition	consistency/ density index	100 pocket 200 pocket 300 popenetro- 400 meter		structure and ional observations
ADT		C	C	E+0ppm	2				FILL: GRAVEL: 0.02m thick FILL: GRAVEL: Medium to coarse, subar subrounded, black, grey, trace of sand and FILL: CONCRETE: 0.08m		D			PAVEMEN	T
DT			QC	06,QCÓ7+0	pm	1_			FILL: GRAVEL: Medium to coarse angula subangular, grey/brown, trace of fine grave FILL: CONCRETE: 0.16m FILL: GRAVEL: Medium to coarse, angul	el and sand./	D D			FILL — —	
ADT				SPT 2,3,3 N*=6	_1	- -			subrounded, trace of fine gravel and cobble FILL: SANDSTONE BOULDER: Coarse gyellow/orange, rounded. FILL: CLAY: High plasticity, red brown, pagrey mottled, trace of fine gravel, ironstone	esj grained, / ale grey,	<wp< td=""><td></td><td></td><td></td><td></td></wp<>				
			•	E+0.4ppm		<u>2</u> - -			(shale fill) 1.80m - Grey, with some fine shale angular	r gravel.	М				
				E+0ppm SPT	_0	3			FILL: SAND: Coarse grained, grey/brown silt and rubber.	ı, trace of	W				
				5,2,2 N*=4	1	- - - 4									
M				E+0ppm	2	- -		SC CL	Clayey SAND: Coarse grained, brown, gr plasticity clay. Sandy CLAY: Low plasticity, brown, black sand, trace of silt.	1		F		ESTUARIN	<u>E</u> — — — — —
				0,2,3 N*=5		5		CL	CLAY: Low to medium red, brown, with so sand.	ome fine					
				E+0ppm	3	<u>6</u>		СН	Sandy CLAY: High plasticity, red, brown, medium to coarse sand.			St		ALLUVIUM	
				SPT 5,3,5	4	- -		SC	Clayey SAND: Coarse grained, pale grey red-brown, medium plasticity clay. Sandy CLAY: Low to medium plasticity, p	oale grey.		St	×		
				0,5,5 N*=8		7		CH	CLAY: High plasticity, red-brown, pale gremicaceous.	;y,		VSt		SLOPE WA	ЛО П
					5	- - 8		CL-CH	Sandy CLAY: Medium to high plasticity, g grey, coarse sand.					ALLUVIUM	
Meth AS AD RR W CT HA DT B V	shown	i i	auger of older/trivashbot cable to cabl	ore ool uger	M C pe	ter 10/1/98	no resista anging to efusal 8 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal		ription unified o	classifica		consisted VS S F F St VSt H Fb VL L MD D	very soft soft soft firm stiff very stiff hard friable very loose loose medium dense dense



Project:

ngineering Log - Borenole Office Job No.: GEOTLCOV24303AA

Borehole No.

Logged by:

Sheet

BH62 of 4

LJG

Client: Sydney Harbour Foreshore Authority Date started: 9.6.2011

Principal: Date completed: **9.6.2011**

Bor	ehole	e Lo	catio	on: Bac	k of	Hou	se of	Syd	ney Entertainment Centre		(Checke	ed by:	SS
drill ı	mode	l and	mou	nting:	Ausro	4000	Truck		Easting: slope:	-90°			R.	L. Surface: 2.6
	diam		rm-		100 m	m	pact.	rial -	Northing bearing:	N/A			da	atum: AHD
arı	lling _	Into	rma	tion			mate		ubstance			v	<u> </u>	
method	benetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristi colour, secondary and minor component		moisture condition	consistency/ density index	100 pocket 200 a penetro- 400 meter	
≯		С	С	U ₅₀		-		CL-CH	Sandy CLAY: Medium to high plasticity, grey, grey, coarse sand. (continued)	, pale	W	VSt		
				SPT 0,4,5 N*=9	6	9		SC	Clayey SAND: Medium to coarse grained, grapale grey. CLAY: High plasticity, red-brown, pale grey, compared to the coarse grained and graph grey, coarse grained and graph grey, coarse grained graph			MD VSt-H		SLOPE WASH
				SPT 5,6,9 N*=15	7	1 <u>0</u>		OH	trace of coarse sand and fine grained.	леу,		VOI-II	*	X X
				SPT 5,6,7	8	- - 1 <u>1</u> -		CH	Silty CLAY: High plasticity, dark grey, brown, micaeous.	black,		VSt-H	*	ALLÜVIÜM
				N*=13	9 10	1 <u>2</u>		SP	SAND: Coarse grained, grey, dark grey, with clay.	some		MD	*	
				5,8,10 N*=18	11	1 <u>3</u> - -								
				SPT 0,5,7 N*=12	12	1 <u>4</u> - - 1 <u>5</u>			14m - Dark grey, black, trace of organics.					
			_	SPT - 9,R	13	_ _ _			At 15m - Wtih some silt and organic material. SANDSTONE: Extremely weathered, coarse grained, black, dark grey, estimated low streng	— — — ·				RESIDUAL SOIL? WEATHERED BEDROCK
Ť				N*≡R		16			some organic matter.	/			+	
meth AS AD RR W CT HA DT B V T *bit s	hod	a re o h d b V T by su	uger of the state	ore ool uger	M C pe	mud casing netration 2 3 4 reter 10/1/98	n resista anging to efusal 3 water e shown	evel	Brotes charibbles crastia ued as cored hole U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample 63mm diameter N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	W we	cription or unified of	classificat		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



Sheet 1 of 6

Borehole No.

Office Job No.: **GEOTLCOV24303AA**

BH7

Client: Sydney Harbour Foreshore Authority Date started: 15.6.2011

Principal: Date completed: 17.6.2011

Project: Sydney International Convention & Entertainment Centre Logged by: RC

Borehole Location: Back of House of Sydney Entertainment Centre Checked by: SS

or	ehole	Lo	cati	on: Bac	k of	Hou	se of	Syd	ney Entertainment Centre			Checke	ed by:	SS
	model		mou	ınting: I	lydrap	oower S	Scout 7	ruck	Easting: slope:	-60°			R.L	Surface: 2.6
	diame		pp		100 mi	m		wiel -	Northing bearing	: 213.	.5°		dat	um: AHD
	penetration	support		notes samples, tests, etc	DI	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteric colour, secondary and minor compone		moisture condition	consistency/ density index	200 x pocket 200 d penetro- 300 w meter	structure and additional observations
	123	C	_		IXL	metres), XXXX		FILL: ASPHALT: (70mm thickness) overlying	ng	D		5 8 8 4	PAVEMENT
				D	_2	- - - 1_			sandy gravel; mediùm to coarse grained, bro \grey. FILL: Gravelly SAND: Fine to medium grai brown, fine to coarse gravel, trace of clay.	. ,				FILL
				D	_1				FILL: Gravelly CLAY: Low plasticity, brown brown.	, orange	<wp< td=""><td></td><td></td><td></td></wp<>			
			>	D	_0	3 - - - - 4		CL	Silty CLAY: Low plasticity, dark grey, grey, white shells. SAND: Medium grained, grey, with some of		W	S		TESTUARINE TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL TOT
		С	<u> </u>	U ₅₀	1	5		CH	SILTY CLAY: High plasticity, grey, trace of and plant fibres with some sandy bands.	shells	>Wp	F	×	
					2 3	6								
		С	C		4	7			6.5m - Becoming brown mottled pale grey.					
S O R T A T	hod shown b	ai ro ca hi di bi V To y su	uger of all and a latube lank be lank	ool uger e	M C per 1 2 wat	ter 10/1/9	no resistar anging to refusal 8 water I e shown	evel	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil des based or system moistur D dr M m W w Wp pl	n unified o	classifica		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



Sheet 2 of 6 GEOTLCOV24303AA Office Job No.:

Borehole No.

BH7

Sydney Harbour Foreshore Authority 15.6.2011 Date started:

Principal: 17.6.2011 Date completed:

									ney Entertainment Centre			Checke		SS
				· ·	•	power S	Scout	ruck	Easting: slope:		60°		R.I	L. Surface: 2.6
	diam				100 m	ım		wial a	Northing bearing that area	ig: 2	13.5°		da	tum: AHD
arı	illing _	Im	Orm	ation	1		mate		ubstance		-		1	1
method	5 penetration	troucin	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characte colour, secondary and minor compor		moisture condition	consistency/ density index	100 pocket 200 penetro- 300 meter	
Y Y M		C		C		_		CH CH	CLAY: High plasticity, red brown, orange	brown	- >Wp	F		SLOPE WASH
Λ					5	9			pale grey, with some fine grained sand.					
				1	6	1 <u>0</u>		SC	Clayey SAND: Medium to coarse grained with bands of clay.	grey,				ALLUVIUM
					7	1 <u>1</u>								
					8	1 <u>2</u>								
				D	9	1 <u>3</u>								
					10	1 <u>4</u>								
					11	- - - 16			SANDSTONE: Medium to coarse grained grey to white, extremely weathered to highly weathered.	у •				WEATHERED BEDROCK
S D R T A T	shown	bys	augeroller wash cable hand diatul blank V bit TC bi	tool auger be bit	M C pe	ater 10/1/9	n resista anging to refusal 8 water l e shown	evel	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil		classifica		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



Sheet 3 of 6 GEOTLCOV24303AA Office Job No.:

Borehole No.

BH7

Sydney Harbour Foreshore Authority 15.6.2011 Date started:

Principal: 17.6.2011 Date completed:

	model					nou:			ney Entertainment Centre Easting: slope		-60°	Checke		R.L. Surfac	ce: 2.6
	diame		54		1901a _l 100 m				Northing bearing		213.5°				
	lling		rma		100 111	1	mate	erial su	ubstance	ig. z	213.3		C	latum:	AHD
nome	2 penetration	upport		notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characte		moisture condition	consistency/ density index	100 200 A pocket 300 B penetro-		structure and additional observations
1111		С	C	-		_			SANDSTONE: Medium to coarse grained grey to white, extremely weathered to high weathered. (continued)	, pale ly					
1	85850688								Borehole BH7 continued as cored hole						
					12	1 <u>7</u> -									
					13	- 1 <u>8</u>									
					14	- - 1 <u>9</u>									
					14	- - - 2 <u>0</u>									
					15	- - -									
					16	2 <u>1</u> - - -									
						2 <u>2</u> -									
					17	2 <u>3</u>									
	nod					24 pport			notes, samples, tests		ssification sy	mbols an	nd		nsistency/density index
S R T A T	shown I	ai w ca ha di bl V Ti by su	uger of aller/tri ashbo able to and and atube ank b bit C bit	ore ool uger	C per 1 : Iss.	ter 10/1/98	no resista anging to efusal 3 water e shown	level	U ₅₀ undisturbed sample 50mm diameter U ₆₃ ample 63mm diameter D disturbed sample 63mm diameter N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	base syst	description ed on unified item isture dry moist wet plastic limit liquid limit		tion	VS S F St VSt H Fb VL L MD	hard friable very loose loose



Sheet 1 of 1 GEOTLCOV24303AA Office Job No.:

Borehole No.

BH8

Sydney Harbour Foreshore Authority 14.6.2011 Date started:

Principal: 14.6.2011 Date completed:

										ney Entertainment Centre		(Checke	d by	:	SS
lrill ı	mode	el a	nd r	nour	nting: H	-lydra	power S	Scout 7	ruck	Easting: slope:	-90°				R.L	Surface: 2.5
	dian					100 m	m			Northing bearing	ng: N/A				dat	um: AHD
drı	lling	_	tor	mat	ion	1		mate		ubstance						
method	u penetration	- 1	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characte colour, secondary and minor compor		moisture condition	consistency/ density index	100 pocket	a	structure and additional observations
ADI			С	С	-	_2	-			FILL: ASPHALT: Dark grey, 70mm thickn overlying sands gravel: medium grained, grained. FILL: SAND: Fine to medium grained, darwith some clay and fine gravel. FILL: ASPHALT: Dark grey.	rey, fine	D M				PAVEMENT
NMLC			-	◄		_1	<u>1</u> - -			FILL: CONCRETE: Pale grey to grey. 1m - With some dark grey gravel aggregate VOID:	and steel.	D				1m - TC Bit Refusal
			ı	-		_0	<u>2</u> - -									
							3									
						1	-			Borehole BH8 terminated at 3m						BH8 was terminated at 3m, due obstructions.
						2	<u>4</u> - -									
							5 -									
						3										
						4	- - -									
						5	<u>7</u> -									
							- - 8									
S D R I T A T	hod		roll was cab har dia bla V b	ger di er/trid shbor ole to nd au tube nk bir bit	re ol iger	M C pe 1	ter 10/1/98	no resista anging to efusal 8 water l e shown	evel	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil desibased or system moisture D dr M m W w Wp pl	e ry oist	classifica			consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense



Project:

Sheet 1 of 1 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

BH9

RC

Sydney Harbour Foreshore Authority 15.6.2011 Date started:

Principal: 15.6.2011 Date completed:

Bor	reh	ole	Lo	atic	n: Bac l	k of	Hou	se of	Syd	ney Entertainment Centre			Checke	ed by:	SS	
drill	mo	odel	and	mou	nting: H	lydra	power S	Scout 7	Truck	Easting: slope	: -90°			R.L	. Surface:	2.75
		ame				100 m	m			Northing beari	ng: N/A			datı	ım:	AHD
dri	_	_	nfo	ma	tion			mate		ubstance						
method		S penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characte colour, secondary and minor compo	nents.	moisture condition	consistency/ density index	100 pocket 200 penetro- 300 penetro- 400 meter	additi	structure and ional observations
ADT				Not Observed	E+0.0ppm	_2				FILL: ASPHALT: Dark grey, grey, (70mm overlying sandy gravel, medium, brown, difilL: SAND: Medium to coarse grained, with some fine to coarse sandstone gravel 0.60m - Becoming brown, with some coarsigravel.	ark grey/ yellow,	D			FILL PREVIOUS	
						_1	1 - - 2 -			FILL: ASPHALT: Grey. FILL: CONCRETE: Pale grey. Borehole BH9 terminated at 0.85m						erminated at shallow to obstructions after apts.
						_0	3 3									
						1	4									
						2	<u>5</u>									
						3	6									
						4 5	7 7 -									
AS AD RR W CT HA DT B			ro wa ca ha dia bla V	ger d ler/tri ashbo ble to and au atube ank bi bit bit bit	ool uger	M C pee 1 wa	iter 10/1/9	no resista ranging to refusal 8 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₅₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	W we Wp pla	cription n unified of	classifica		consister VS S F St VSt H Fb VL L MD D VD	ncy/density index very soft soft firm stiff very stiff hard friable very loose loose medium dense dense very dense



Principal:

Sheet 1 of 1 GEOTLCOV24303AA Office Job No.:

Borehole No.

Date completed:

EB1

10.6.2011

Sydney Harbour Foreshore Authority 10.6.2011 Date started:

						_		rtair	men	t Centre, Haymarket, NSW			Checke	ed by:	
drill	mod	el a	ınd ı	mou	nting:	Truck	<			Easting: slo	pe: -90°			R.L	Surface:
	diar					mm					aring:			dati	um: AHD
arı	_	_	itor	ma	tion			mate	_	ıbstance				ı.	
method	noiteation		support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle chara colour, secondary and minor com	cteristics, ponents.	moisture condition	consistency/ density index	100 pocket 200 d penetro- 300 meter	structure and additional observations
					E+0.0ppm		_	0 0		ASPHALT Gravelly SAND: Medium to coarse grain	ned arev to	D/M			50mm Asphalt. FILL.
					E+0.0ppm		0. <u>5</u>			brown, fine to medium grained gravel.	eu, grey to				
					E+0.0ppm		1. <u>0</u>			Sandy CLAY: Low plasticity, red to brow medium grained.	n, fine to	D/M			Sandstone flecks.
					E+2.7ppm		1. <u>5</u>			Sandy CLAY: Low plasticity, dark brown fine to medium grained.	to brown,	M			Mild organic odour.
					E+0.6ppm		2. <u>0</u>			Sandy CLAY: Medium plasticity, grey to grained.	brown, fine	M			Residual clays.
							2. <u>5</u> - - 3.0								
		Ш			E+0.0ppm										
							-			Borehole EB1 terminated at 3.1m					
							-								
							3. <u>5</u>								
							-								
							-								
							4.0				_				
AS AD RR V CT HA OT B	hod	n by	rol wa cal ha dia bla V t	ger d ler/tri shbo ble to nd au tube ank b bit bit	ool uger	M C pe 1	mud casing netration 2 3 4 reter 10/1/98	n resista anging to efusal 3 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm diamet U ₆₃ undisturbed sample 63mm diamet D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	er soil des based o system moistur D di M m W w Wp pi	n unified o			consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense



Project:

Sheet 1 of 1 GEOTLCOV24303AA Office Job No.:

Borehole No.

Logged by:

EB2

AN

Sydney Harbour Foreshore Authority 10.6.2011 Date started:

Principal: 10.6.2011 Date completed:

						_		rtair	men	Centre, Haymarket, NSW		C	Checke	d by:	
				mou	inting:	Truck	<			Easting: slope:	-90°			R.L	Surface:
hole				rne c		mm		mc =/	sula! s:	Northing bearing	:			dat	um: AHD
arı		_	110	rma	tion			mate		bstance				<u> </u>	
method	12		support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characters colour, secondary and minor compone	stics, nts.	moisture condition	consistency/ density index	100 pocket 200 pocket 300 popenetro- 400 meter	structure and additional observations
					E+0.0ppm			0 0		ASPHALT GRAVEL: Road base, grey.		D	S		50mm Asphalt.
					E+0.0ppm E+0.3ppm					GRAVEL: Road base, grey. Sandy CLAY: Low plasticity, dark brown to b fine grained.	lack,	М	Ø		Porcelain flecks, broken bricks.
										Sandy CLAY: Low to medium plasticity, grey grained.	, fine	М	S		Residual.
				~	E+0.0ppm		2			Sandy CLAY: Medium plasticity, red mottled fine grained.	brown,	M	F		
					E+0.0ppm		3_			Sandy CLAY: Low plasticity, brown, red to of fine to medium grained.	ange,	W	F		
					E+0.0ppm		<u>4</u> - -			Silty SAND: Fine to medium grained, grey to	brown.	W	F		Sediments, organic odour.
					E		5 6			Sandy CLAY: Medium to high plasticity, yell brown, medium to coarse grained. Trace of c grained, angular gravel (siltstone flecks).		M	St		Residual clays.
					E		0			Developed FDO to version at and at Con-					
							7			Borehole EB2 terminated at 6m					
meti	hod	<u> </u>	I		<u> </u>	su	8 pport		<u> </u>	notes, samples, tests	classifica	ition syr	nbols an	<u> </u>	consistency/density index
AS AD RR W CT HA DT B V T *bit s			ro wa ca ha di bla V T(y sur	uger of ller/tr ashbe able to and a atube ank b bit C bit	ool uger e	M C pe	mud casing netration 2 3 4 reter 10/1/98	n resista ranging to refusal 8 water e shown	level	U ₅₀ undisturbed sample 50mm diameter U ₅₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered NC SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	soil descr based on system moisture D dry M mo W wet Wp plas	ription unified o			VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



Sheet 1 of 1 GEOTLCOV24303AA Office Job No.:

Borehole No.

EB3

Sydney Harbour Foreshore Authority 10.6.2011 Date started:

Principal: 10.6.2011 Date completed: Sydney International Convention & Entertainment Centre AN Project: Logged by:

ill r	nodel :	and	mou	nting:	Truck	(Easting:	slope: -90)°		F	R.L. Surface:
	diame				mm				Northing	bearing:			d	latum: AHD
lril	ling i	nfo	rma	tion			mate	erial su	ıbstance					
0	5 penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle ch		moisture condition	consistency/ density index	100 pocket 200 pocket 300 pocket	
T				E+0.0ppm			0 0		ASPHALT	areined brewn	D	L		50mm Asphalt.
				E+0.1ppm E+0.0ppm		_ _ _ 1_			Sandy GRAVEL: Medium to coarse to red, fine grained sand. Trace of a grained gravel.					FILL, 5% glass and brick fragments.
						_	。。。 /////		Sandy CLAY: Medium plasticity, gre	v. fine grained.	M	F		Residual.
				E+3.7ppm						-		•		Mild hydrocarbon odour.
				E+2.6ppm		- - -			SAND: Fine grained, yellow to brown		M	F		
						3			SAND: Fine grained, grey to brown.		M/W	F		
			-	E+7.6ppm		_ _ _								Mild hydrocarbon odour.
				E+1.1ppm		<u>4</u> - -			Sandy CLAY: Medium plasticity, yell fine grained.	ow to brown,	W	St		Residual clays.
				E+0.0ppm		5 5 -			Sandy CLAY: Medium to high plastimottled grey, fine grained.	sity, yellow	M	St		
				E+0.0ppm	-	<u>6</u>			Borehole EB3 terminated at 6.1m					
						- -								
						<u>7</u> –								
						_								
						8								
S D R T A	hod	a w c h d b V T	uger of bler/trashbot able to and a iatube lank bit C bit	ore ool uger	M C pee 1:	ter 10/1/9	no resista anging to efusal 8 water e shown	level	notes, samples, tests U ₅₀ undisturbed sample 50mm dia D disturbed sample 63mm dia D disturbed sample N standard penetration test (SP' N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	meter soil de based system (T) moistu D W W W P I		classifica		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense



Project No: GEOTLCOV24303AC Infrastructure NSW Date started: 17.4.2012

Borehole No.

Logged by:

Sheet

NBH23

1 of 1

Principal: 24.4.2012 Date completed: Project: SICEEP JW

Borehole Location: See Figure 2

Bor	eho	le L	.002	atio	n: See	Fig	ure 3	1							Checke	ed by:	D	S	
drill	mode	el ar	nd m	nour	nting:	XP60	Ute			Easting:	333727	slope	-90	0°		R	R.L. Surfac	e: 2.7	
	dian					100 m	m			Northing	6249937	bearir	ng: N/	Ά		d	atum:	AHE)
arı	lling	-	rorr	nat	ion	_		mate	_	ubstance							1		
method	v penetration		support	water	notes samples, tests, etc		depth metres	graphic log	classification symbol		e: plasticity or p	erial particle characte ad minor compor		moisture	consistency/ density index	200 a pocket 300 a penetro-			ure and bservations
DT		П	N				_			FILL: Red E	Brick (0.08m)	ned, pale brown	mottled	D M			PAVEN	MENT	
				-	Е	-	-	\bowtie		\yellow-brow	n, with some sl	hell fragments	motued	D			CONC	RETE SLA	В
HA					-	_2	1			FILL: Sandy dark grey, fi	y GRAVEL: Fi	ne grained, suba grained sand		_/ M			FILL No Ode	our, PID = (0.4ppm
		П								FILL: Claye mottled red-	y SAND: Fine brown	grained, pale br	own,						
ADT					SPT 3,2,4 N*=6	_1				orange-brov	vn, pale grey, tr	ty, dark grey, mo race fine grained ar sandstone gra	sand, and	<wp< td=""><td></td><td></td><td>No Odd</td><td>our, PID = (</td><td>).8ppm</td></wp<>			No Odd	our, PID = ().8ppm
						2	-	\bowtie								0			
			•	-		_0	3_		CL	Sandy CLA black, fine g	Y: Low plastici rained sand	ity, dark grey, mo	ottled	>Wp	VS	× ×	ALLUV	IŪM — —	
					SPT 1,0,1 N*=1		;= ;=										No Odd	our, PID = 0).3ppm
						1	-			Borehole NE	3H23 terminate	d at 3.45m							
							4												
							1-												
						2	-												
							5												
							=												
						20													
						3													
							6												
							_												
						-4										Ш			
							7												
							7												
]												
						-5	-		-										
						- dr	8												
netho	od	r v	auge auge oller vash cable	r dril /tricc bore tool	ne	M i	port mud casing etration 3 4	N o resistan- nging to fusal	21.00	U ₆₃ und D dist N star N* SP*	disturbed sample disturbed sample durbed sample dard penetration T - sample recove	63mm diameter test (SPT)	soil des based o system moistur				VS S F St VSt	sof firn stif ver	y soft t n f y stiff
T		C	liatul	эе	J1	wate	er			V van	T with solid cone e shear (kPa)		M m	ry noist			H Fb	har fria	ble
! !		V	lank bit				10/1/98 on date		vel	Bs bull	ssuremeter sample		Wp p	et lastic limit			VL L	ver loo	y loose se
	own l	by su		t		THE CO.	water in			E env	ironmental sampl Isal	le	W _L lie	quid limit			MD D		dium dense
g.		Α	DT			-	water ou	utflow									VD		y dense



Client: Infrastructure NSW Project No: GEOTLCOV24303AC

24.4.2012

Borehole No.

Sheet

NBH24

1 of 1

Client: Infrastructure NSW

Date started: 24.4.2012

Principal: Date completed: 24.4.2012

Project: SICEEP Logged by: JW

Borehole Location: See Figure 3 Checked by: DS

drill m				nting:		ck 3000		(Easting:	333604	slope:	-90°		Checke	Ju D	2001	DS L. Surface:	3.9
hole o	diam	eter:			100 m	nm			Northing	6249930	bearing	N/A					tum:	AHD
drill	ling	info	rma	tion			mate	erial s	ubstance									,
method	5 penetration	support	water	notes samples tests, et	24.1	depth metres	graphic log	classification symbol			erial article characteris d minor componer		moisture condition	consistency/ density index	200 A pocket	Pa		structure and tional observations
Η		N		E	7					3rick (0.08m)			D		П	П	PAVEMEN	NT .
ADT			•	Е	3				race fine to gravel FILL: Grave grey, mottle sand and fir FILL: CLAY orange-brow	elly Sandy CLA'd dark brown, fine to medium gr High plasticity wn, dark grey, tr	um grained, pale d, subangular sar Y: Low plasticity, ne to medium grained, subangular y, pale grey, mottle ace fine grained s y plasticity, dark gr plasticity, dark gr	dark ned gravel ed and	M <wp< td=""><td></td><td></td><td></td><td>FILL No Odour,</td><td>PID = 1.9ppm</td></wp<>				FILL No Odour,	PID = 1.9ppm
				SPT 5/20,_,_ N*=R		2		CL	mottled red- subangular FILL: Claye subangular, clay, with so gravel	brown, medium gravel y GRAVEL: Fir dark grey, mott me medium to d	to coarse grained ne to medium grai led black, low plas coarse grained sa grey, mottled blad	ned, sticity ndstone	W >Wp	VS			No Odour,	PID = 6.9ppm
				SPT 0,0,1 N*=1	_1	3		CL	trace of orga	anics Y: Low plasticit	y, dark grey, mott th some shell frag				C < < <			dour, PID = 18.2ppm
					_0	4			Borehole NE	3H24 terminated	I at 3.45m							
					2	6												
method AS AD RR W CT HA DT B	d d	roll was cab har dia blas V b TC	ger dri er/tric shboro le too nd aug tube nk bit it bit	one e I	M C pen 1 2	ra re	resistano nging to fusal water le shown	ce	U ₆₃ und D dist N star N* SP' Nc SP' V van P pre Bs bull E env	es, tests disturbed sample 6 turbed sample 6 turbed sample fendard penetration T - sample recove T with solid cone the shear (kPa) ssuremeter k sample vironmental sample	63mm diameter test (SPT) red		ription unified cl				consisten VS S F St VSt H Fb VL L MD D	very soft soft firm stiff very stiff hard friable very loose loose medium dense dense



Borehole No. NBH25

Sheet

1 of 1

Engineering Log - Piezometer Infrastructure NSW

Project No: Date started: GEOTLCOV24303AC 18.4.2012

Principal:

Date completed:

18.4.2012

Logged by:

JW

DS

SICEEP Project: Borehole Location: See Figure 3

Checked by:

drill	mode	el & r	noun	ting: XP60	Jte			East	ting: 3	323628 slope	e: -90°		R.I	L. Surface: 3.3
	diam	10000000		100						5249852 beari	ng: N/A		da	tum: AHD
method	b benefication	linnort		notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particl colour, secondary and min	e characteristics, or components.	moisture condition	consistency/ density index	structure and additional observations
ТО					A A	,	-4			CONCRETE: (0.4m) with 10mm	n reinforcement	D		CONCRETE SLAB
АОТ НА				E			1	> .		FILL: Sandy CLAY: Low plastic grained sand, trace fine to mediu subangular gravel FILL: Clayey SAND: Fine grain	ım grained, ed, dark grey, with	_ / M		FILL No Odour, Dup 2 + Dup 2a, PID = 8.3ppm
Α .				SPT 12/120,_, N*=R		_2	2			some fine to medium grained, su gravel 2m - Becoming dark grey, mottle	7			No Odour, PID = 5.9ppm
				SPT 4,2,10/80 N*=R		_0	3 - 4			FILL: Gravelly Sandy CLAY: Higrey, fine to medium grained, and medium grained sand		<wp< td=""><td></td><td>No Odour, PID = 1.2ppm</td></wp<>		No Odour, PID = 1.2ppm
			_	SPT 11,13,7 N*=20		1	5		СН	Sandy CLAY: High plasticity, da grained sand	rk grey/grey, fine	>Wp	F-St	No Odour, PID = 4.5ppm ALLUVIUM
				SPT 2,2,3 N*=5		3	6						St	No Odour, PID = 1.0ppm
				SPT 4,7,11 N*=18		_4	-			7.5m - Becoming dark grey/grey, yellow-brown	mottled			No Odour, PID = 1.0ppm
methor AS AD RR W CT DT B V T TBX *bit sh e.g.	od nown b	au rol wa ca dia bla VI TO	ger di ler/trid shboi ble to atube ank bit bit bex fix	re ol	→ on d	ion no resi ranging refusal /98 wate ate sho	g to I er level wn	D N N* No P Bs R E PIII WS PZ AL		Aptresh detterminated at 7.95m undisturbed sample 50mm diameter disturbed sample 50mm diameter disturbed sample standard penetration test (SPT) SPT - sample recovered SPT with solid cone pressure meter bulk sample refusal environmental sample PID measurement water sample piezometer air lift test	classification syn soil description be unified classification moisture D dry W M moist W W Well details betonite sand slotted PVC	ased on on system wet p plastic liquid l		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



Sheet

Borehole No.

NBH26

1 of 1

Project No:

GEOTLCOV24303AC

Client:

Infrastructure NSW

Date started:

24.4.2012

Principal: Project:

SICEEP

Date completed: Logged by:

ACM

24.4.2012

_				on: See								Checke	ed b	y:	DS
			mo	unting:		rill Trac	K		Easting: slope:	-90°				R.	L. Surface: 3.3
	diam				100 m	nm			Northing bearing	N/A				da	atum: AHD
dri		info	rma	ition	_	+	mate		ıbstance				_		-
method	n penetration	support		notes samples tests, etc	:	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteris colour, secondary and minor componer		moisture condition	consistency/ density index	kl	300 a penetro-	
ADT		N	rvec			_			ASPHALT: (0.3m)						PAVEMENT
,			None Observed	E	3	_			FILL: Silty GRAVEL: Fine to medium graine subangular, pale grey, mottled pale brown, was fine to medium grained sand and red brick fre SANDSTONE: Fine to medium grained, pale	ith some agments	М				FILL No Odour, PID = 2.7ppm BEDROCK
						1_			to orange-brown, highly weathered, low to me strength					П	
					2	-			Borehole NBH26 terminated at 0.8m						
						-								П	
						-									
	Ш					2									
				1	4	_									
					_1	87-									
						8=									
						3									
						<u> </u>									
					_0										
						-									
						_								Н	
						4_									
					1	-									
						_									
						5_									
					2	-									
						-									2
						\$57									
						<u>6</u>									
					3	=4									
						=									
						-									
						7									
						_									
					4	_									
						-									
						8									
etho S	d	-	nor -	crowing*		port	NI.	nii 1	notes, samples, tests	classifica		bols and	4		consistency/density index
D		au	ger d	crewing* rilling*	С	mud casing	N		U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter	soil descr based on		assificatio	on		VS very soft S soft
R		wa	er/tri shbo	re	pen 1 2	etration	recistor		D disturbed sample N standard penetration test (SPT)	system					F firm St stiff
T A			ole to			ra ra	resistan nging to fusal	Let	N* SPT - sample recovered Nc SPT with solid cone	moisture D dry					VSt very stiff H hard
Ť		dia	tube nk bi		wat	er		.	V vane shear (kPa)	M moi	st				Fb friable
		٧b	it		┸	10/1/98 on date		vei	Bs bulk sample	Wp plas	stic limit				VL very loose L loose
it sh	own b		x		25	water in			E environmental sample R refusal	W _L liqu	id limit				MD medium dense D dense
g.		AD	Т		-	water or	utflow								VD very dense



SICEEP

Project:

Sheet 1 of 1 GEOTLCOV24303AC Project No:

Borehole No.

NBH27

ACM

Infrastructure NSW 27.4.2012 Date started:

Principal: Date completed: 27.4.2012

Logged by: Borehole Location: See Figure 3 DS Checked by:

drill	mode	and	d mou	ınting:	XP60	Truck			Easting: slope: -90° R.L. Surface: 2.7
	diam				100 m	nm			Northing bearing: N/A datum: AHD
dri	lling	info	orma	tion	+	+	mate		ubstance
method	5 penetration	Support	water	notes samples, tests, etc	RL	depth	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components. material by the color of the col
ADT							~~~		ASPHALT: (0.15m) D PAVEMENT
⋖				E	1		\bowtie		FILL: Gravelly SAND: Fine grained, dark brown, M FILL mottled dark grey, fine to medium grained, subangular
				E	_2	_	\bowtie		to angular gravel
						1_		\otimes	
							\triangle		CONCRETE: (0.4m) D CONCRETE
							ΔΔ		
				SPT		-		CL	CLAY: Medium plasticity, pale brown, mottled <wp alluvium="" f="" orange-brown,="" red-brown<="" td=""></wp>
				2,2,4 N*=6		2		No Odour, PID = 2.1ppm	
						_			
2000000					_0	=			
						3	/////	SP	SAND: Coarse grained, dark grey, mottled black, M L
			_	SPT 2,1,2					with some fine grained, subangular gravel
			<u> </u>	N*=3		9_			W No odour, PID = 2.8ppm
					1	-			
						4			
							-/	SC	Clayey SAND: Fine to medium grained, dark grey, VL mottled black, with some organics
						S=			Organic Odour
				SPT 3,3,3	2	5 -		СН	CLAY: Medium to high plasticity, pale brown, >Wp St mottled dark grey
				N*=6		5			No Odour, PID = 0.4ppm
						_			Borehole NBH27 terminated at 5m
						-			
	Ш				3	-			
						6			
						_			
						-			
					4				
						7			
						-			
						-			
					5				
etho	od				sun	8 port			notes, samples, tests classification symbols and consistency/density index
S D			iger so	crewing* illing*	М	mud casing	N	nil	U ₅₀ undisturbed sample 50mm diameter soil description VS very soft
R /		rol	ller/tric ashboi	one		etration	i		D disturbed sample system F firm
T A		ca	ble to	ol	1	no ra	o resistan inging to	ce	N* SPT - sample recovered moisture VSt very stiff
Т		dia	ind au atube		wat	er	efusal		Nc SPT with solid cone D dry H hard V vane shear (kPa) M moist Fb friable
		V١				10/1/98 on date	water le shown	vel	P pressuremeter W wet VL very loose Bs bulk sample Wp plastic limit L loose
	own by	y suf				water in			E environmental sample W _L liquid limit MD medium dense R refusal D dense
g.		ΑE	T		4	water or	utflow		VD very dense



water outflow

Engineering Log - Borehole

SICEEP

Project:

Sheet Project No:

Borehole No.

Logged by:

NBH29

GEOTLCOV24303AC

dense

very dense

1 of 1

JW

17.4.2012 Date started:

Principal: 17.4.2012 Date completed:

Borehole Location: See Figure 3 DS Checked by:

drill model and mounting: XP60 Ute Easting: 333735 slope: -90 R.L. Surface: hole diameter: 100 mm Northing 6249927 N/A bearing: datum: AHD drilling information material substance classification symbol notes consistency/ density index pocket penetro meter material structure and samples, penetra moisture condition additional observations graphic tests, etc water kPa soil type: plasticity or particle characteristics, depth RI colour, secondary and minor components. 9200 123 ILL: Red Brick (0.08m) D PAVEMENT ADT FILL: SAND: Coarse grained, yellow-brown, with FILL some shell fragments and quartz grains FILL: Sandy GRAVEL: Medium to coarse grained, angular, dark grey, fine to coarse grained sand No Odour, PID = 1.7ppm D П CONCRETE SLAB Concrete: (0.2m) with 10mm reinforcement
FILL: Clayey SAND: Fine grained, dark grey, low ADT M 2 1 Stong Hydrocarbon Odour, PID = 75.3ppm plasticity clay FILL: CLAY: High plasticity, pale grey, mottled orange-brown with some iron oxide staining <Wp 2,2,4 N*=6 2 None Observed 2m - Becoming dark grey. No Odour, PID = 35.2ppm 3 CLAY: High plasticity, pale grey, mottled orange-brown F-St ALLUVIUM 1,2,1 N*=3 E No Odour, PID = 3.4ppm _-1 Borehole NBH29 terminated at 4.95m 6 -3 method support notes, samples, tests classification symbols and stency/density index auger screwing* M mud N nil undisturbed sample 50mm diameter soil description very soft AD RR auger drilling* U₆₃ C casing undisturbed sample 63mm diameter based on unified classification S soft roller/tricone penetration D disturbed sample firm W washbore standard penetration test (SPT) stiff ranging to refusal СТ cable tool SPT - sample recovered N* moisture VSt very stiff HA DT hand auger Nc SPT with solid cone dry hard diatube vane shear (kPa) moist Fb friable В blank bit 10/1/98 water level pressuremeter W VL very loose V bit Bs bulk sample plastic limit on date shown Wp loose TC bit environmental sample liquid limit MD medium dense water inflow *bit shown by suffix R refusal

e.g