coffey geotechnics

Engineering Log - Cored Borehole

Borehole ID.	***BH203***
sheet:	4 of 4
project no.	***GEOTLCOV24303AH***
client: ***Lend Lease Development Pty Ltd***	date started: ***24 May 2013***
principal:	date completed: ***24 May 2013***
project: ***SICEEP - International Convention Centre (ICC) Hotel***	logged by: ***CL***
location: ***Darling Harbour, Sydney***	checked by: ***DS***

position: E: 333,395.70; N: 6,250,513.50 (Datum Not Specified) surface elevation : 3.10m (Datum Not Specified) angle from horizontal: 90°

drill model: DP520 mounting: Track hole diameter : 125 mm

drilling information				material substance					rock mass defects		
method & support	water	RL (m)	depth (m)	graphic log	material description **ROCK TYPE**: grain characterisics, colour, structure, minor components	weathering & alteration	estimated strength & Is50 (X = axial; O = diametral) VL L M H VH EH	samples, field tests & Is(50) (MPa) a = axial; d = diametral	core run & RQD	defect spacing (mm) 30 100 300 1000 3000	additional observations and defect descriptions (type, inclination, planarity, roughness, coating, thickness, other) particular / general
		-13			**SANDSTONE**: fine to medium grained, pale grey, with grey laminae, distinctly across bedded at 0-5° *(continued)*	FR			100%		PT, 0°, PL, RO, CN
									100%		
								a=1.39 d=0.96			PT, 0°, PL, RO, CN PT, 0°, PL, RO, CN
		-14	17.0								
								a=2.23 d=2.07			
									96%		
		-15	18.0								XW SM, Clay, 20mm
								a=1.95 d=1.42			
		-16	19.0								
											JT, 45°, PL, RO, CN
								d=1.30			PT, 0°, PL, RO, CN
		-17	20.0						97%		
					with dark grey sideritic laminae and patches of siderite			a=2.02 d=2.10			
		-18	21.0		Borehole BH203 terminated at 20.80 m						
		-19	22.0								
		-20	23.0								

CDF_0_9_04AL.GLB Log COF BOREHOLE: CORED GEOTLCOV24303AH BH20X SERIES.GPJ <<DrawingFile>> 11/07/2013 15:09

method & support

DT	diatube
AS	auger screwing
AD	auger drilling
RR	roller/tricone
CB	claw or blade bit
W	washbore
NMLC	NMLC core (51.9 mm)
NQ	wireline core (47.6mm)
HQ	wireline core (63.5mm)
PQ	wireline core (85.0mm)
SPT	standard penetration test

water

- 10/10/12, water level on date shown
- water inflow
- complete drilling fluid loss
- partial drilling fluid loss
- 25uL: water pressure test result (lugeons) for depth interval shown

graphic log / core recovery

- core recovered (graphic symbols indicate material)
- no core recovered

core run & RQD

- barrel withdrawn

RQD = Rock Quality Designation (%)

weathering & alteration*

RS	residual soil
XW	extremely weathered
HW	highly weathered
DW	distinctly weathered
MW	moderately weathered
SW	slightly weathered
FR	fresh

*W replaced with A for alteration

strength

VL	very low
L	low
M	medium
H	high
VH	very high
EH	extremely high

defect type

PT	parting
JT	joint
SZ	shear zone
SS	shear surface
CS	crushed seam
SM	seam
DB	drilling break

roughness

SL	slickensided
POL	polished
SO	smooth
RO	rough
VR	very rough

planarity

PL	planar
CU	curved
UN	undulating
ST	stepped
IR	Irregular

coating

CN	clean
SN	stain
VN	veneer
CO	coating

coffey geotechnics

Piezometer Installation Log

Hole ID.	**BH203**
sheet:	1 of 2
project no.	**GEOTLCOV24303AH**
date started:	**24 May 2013**
date completed:	**24 May 2013**
logged by:	**CL**
checked by:	**MG**

client: ***Lend Lease Development Pty Ltd***

principal:

project: ***SICEEP - International Convention Centre (ICC) Hotel***

location: ***Darling Harbour, Sydney***

position: E: 333,395.70; N: 6,250,513.50 (Datum Not Specified) surface elevation : 3.10m (Datum Not Specified) angle from horizontal: 90°

equipment type: DP520 mounting: Track hole diameter : 125 mm

drilling information | **material substance** | **piezometer construction details**

method & support	water	RL (m)	depth (m)	graphic log	material name
		0			BRICK PAVERS
					FILL: Gravelly SAND
					FILL: Gravelly Clayey SAND
					Silty SAND
	▶				SANDSTONE
		-4	4		
			8		INTERLAMINATED SHALE (80%) & SANDSTONE (20%)
					NO CORE
		-8			SANDSTONE
			12		
		-12			
			16		
		-16			
			20		
		-20			Borehole BH203 terminated at 20.80 m

bore construction license:
drilling company:
driller: NUMAC
driller's permit no.:

BH203

0.50 m
1.00 m
3.00 m

Sand
Bentonite
Sand

method & support
see engineering log for details

water
- 10-Oct-12, water level on date shown
- water inflow
- complete drilling fluid loss
- partial drilling fluid loss
- 25 water pressure test result (lugeons) for depth interval shown

graphic log / core recovery
- core recovered (graphic symbols indicate material)
- no core recovered

ID	type	stick up & RL	tip depth & RL	installation date	static water level
BH203	standpipe piezo.	0.00 m 3.10 m	3.00 m 0.10 m		

CDF_0_9_04AL.GLB Log COF PIEZOMETER INSTALLATION LOG GEOTLCOV24303AH BH20X SERIES.GPJ <<DrawingFile>> 11/07/2013 15:01

PointID : BH203 Depth Range: 4.10 - 8.00 m

drawn	
approved	
date	**07/06/2013**
scale	**N.T.S.**
original size	**A4**

coffey geotechnics
SPECIALISTS MANAGING THE EARTH

client: Lend Lease Development Pty Ltd

project: SICEEP - International Convention Centre (ICC) Hotel
Darling Harbour, Sydney

title: **CORE PHOTOGRAPH**
BH203

project no: GEOTLCOV24303AH | fig no: **FIGURE 7** | rev:

PointID : BH203 Depth Range: 8.00 - 13.00 m

drawn	
approved	
date	07/06/2013
scale	N.T.S.
original size	A4

coffey geotechnics
SPECIALISTS MANAGING THE EARTH

client: Lend Lease Development Pty Ltd

project: SICEEP - International Convention Centre (ICC) Hotel
Darling Harbour, Sydney

title: **CORE PHOTOGRAPH**
BH203

project no: GEOTLCOV24303AH | fig no: **FIGURE 8** | rev:

PointID : BH203 Depth Range: 13.00 - 18.00 m

drawn	
approved	
date	07/06/2013
scale	N.T.S.
original size	A4

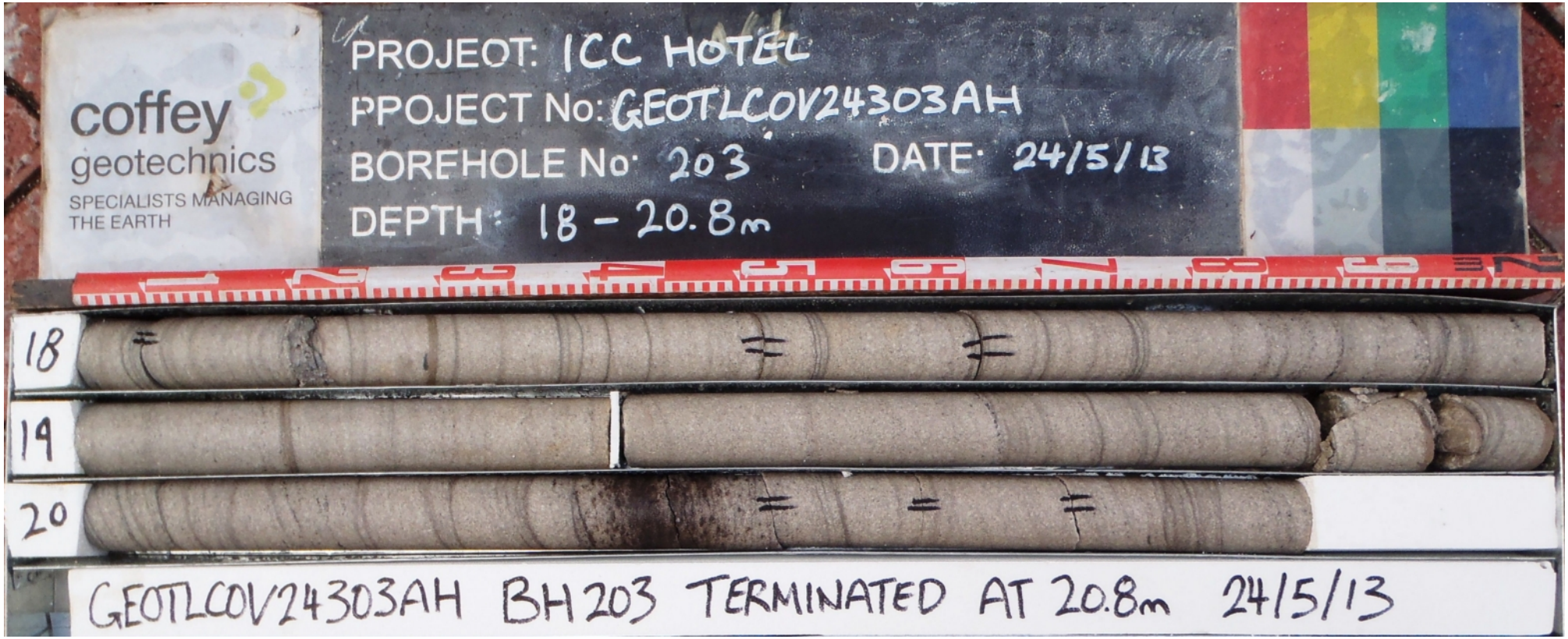
coffey
geotechnics
SPECIALISTS MANAGING
THE EARTH

client: Lend Lease Development Pty Ltd

project: SICEEP - International Convention Centre (ICC) Hotel
Darling Harbour, Sydney

title: **CORE PHOTOGRAPH**
BH203

project no: GEOTLCOV24303AH | fig no: **FIGURE 9** | rev:



PointID : BH203 Depth Range: 18.00 - 20.80 m

drawn	
approved	
date	07/06/2013
scale	N.T.S.
original size	A4

coffey geotechnics
SPECIALISTS MANAGING THE EARTH

client: Lend Lease Development Pty Ltd

project: SICEEP - International Convention Centre (ICC) Hotel Darling Harbour, Sydney

title: **CORE PHOTOGRAPH BH203**

project no: GEOTLCOV24303AH | fig no: **FIGURE 10** | rev:

coffey geotechnics

Engineering Log - Borehole

Borehole ID.	***BH204***
sheet:	1 of 1
project no.	***GEOTLCOV24303AH***
client: ***Lend Lease Development Pty Ltd***	date started: ***14 May 2013***
principal:	date completed: ***14 May 2013***
project: ***SICEEP - International Convention Centre (ICC) Hotel***	logged by: ***JW***
location: ***Darling Harbour, Sydney***	checked by: ***DS***

position: E: 333,405.80; N: 6,250,490.50 (Datum Not Specified) surface elevation : 3.00m (Datum Not Specified) angle from horizontal: 90°

drill model: DP520 mounting: Track hole diameter : 100 mm

drilling information | **material substance**

method & support	penetration 1 2 3	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description (SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components)	moisture condition	consistency / relative density	hand penetrometer (kPa) 100 200 300 400	structure and additional observations
DT				3				**CONCRETE**: 0.15m.				**PAVEMENT**
HA			E					**FILL: SAND**: fine, grey, with some fine to medium sandstone gravel.	D			**FILL** PID = 0.1ppm at 0.3m, no odour or staining
			E									PID = 0ppm at 0.6m, no odour or staining
			E	2	1.0			**FILL: SAND**: fine, dark grey, trace of fine gravel.				PID = 0ppm at 0.8m, no odour or staining
			SPT 6, 5, 4 N*=9					**FILL: SAND**: fine, orange brown, trace of high plasticity clay.	M			PID = 0ppm at 1.3m, no odour or staining
			E	1	2.0			**FILL: Clayey SAND**: fine to medium, pale grey, orange pink, clay is high plasticity.				
			E					**FILL: CLAY**: high plasticity, mottled dark grey, orange and red brown, trace of shale gravel.				PID = 0.1ppm at 2.5m, no odour or staining
AD/T		▶	E	0	3.0		SP	**SAND**: medium to coarse, dark grey, black, trace of clay and with some plant roots.	M	MD		**ALLUVIUM** PID = 0ppm at 3.2m, no odour or staining
			SPT 3, 4, 3 N*=7				SP	**Clayey SAND**: medium to coarse, mottled pale grey, brown and dark red, trace of fine to medium sandstone gravel.		MD / D		**RESIDUAL SOIL**
				-1	4.0							
								Borehole BH204 terminated at 4.25 m				
				-2	5.0							
				-3	6.0							
				-4	7.0							

CDF_0_9_04AL.GLB Log COF BOREHOLE: NON CORED GEOTLCOV24303AH BH20X SERIES.GPJ <<DrawingFile>> 11/07/2013 15:12

method
AD auger drilling*
AS auger screwing*
RR roller/tricone
W washbore
CT cable tool
HA hand auger
DT diatube
B blank bit
V V bit
T TC bit
* bit shown by suffix
e.g. AD/T

support
M mud N nil
C casing

penetration
1 2 3 — no resistance ranging to refusal

water
10-Oct-12 water level on date shown
water inflow
water outflow

samples & field tests
U## undisturbed sample ##mm diameter
D disturbed sample
B bulk disturbed sample
E environmental sample
HP hand penetrometer (kPa)
N standard penetration test (SPT)
N* SPT - sample recovered
Nc SPT with solid cone
VS vane shear peak/remouded (uncorrected kPa)
R refusal

classification symbol & soil description
based on Unified Classification System

moisture
D dry
M moist
W wet

consistency / relative density

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

coffey geotechnics

Engineering Log - Borehole

Borehole ID.	***BH204a***
sheet:	1 of 4
project no.	***GEOTLCOV24303AH***
client: ***Lend Lease Development Pty Ltd***	date started: ***07 Jun 2013***
principal:	date completed: ***07 Jun 2013***
project: ***SICEEP - International Convention Centre (ICC) Hotel***	logged by: ***RC***
location: ***Darling Harbour, Sydney***	checked by: ***DS***

position: E: 333,405.50; N: 6,250,490.90 (Datum Not Specified) surface elevation : 3.00m (Datum Not Specified) angle from horizontal: 90°

drill model: DP520 mounting: Track hole diameter : 100 mm

drilling information | **material substance**

method & support	penetration 1 2 3	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description (SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components)	moisture condition	consistency / relative density	hand penetrometer (kPa) 100 200 300 400	structure and additional observations
AD/T				3				**ASPHALT**: 0.07m.	D			**PAVEMENT**
								FILL: Gravelly SAND: fine to medium, dark grey, cement stabilised.				**FILL**
				2	1.0			becoming black				
								FILL: SAND: medium, pale brown, trace of white shell fragments.				
				1	2.0			**FILL: Sandy CLAY**: low plasticity, white and pale brown, medium grained sand with some ironstone gravel.	<Wp			
		▶							>Wp			
			SPT 1, 4, 5 N*=9					with some dark grey shale rock fragments within the fill	W			
			SPT 4, 10, 5 N*=15	0	3.0			**FILL: Silty SAND**: medium, dark grey, trace of shells.	W / >Wp			
								FILL: MIXTURE OF SAND AND CLAY: fine to medium, low plasticity, brown and grey.				
			SPT 5, 10, 16/30mm N*=R	-1	4.0		SM	**Silty SAND**: medium, dark grey, with some shells.	W	MD / D		**ALLUVIUM**
								SANDSTONE: medium grained, red brown, highly weathered, low strength				**BEDROCK**
								Borehole BH204a continued as cored hole				
				-2	5.0							
				-3	6.0							
				-4	7.0							

CDF_0_9_04AL.GLB Log COF BOREHOLE: NON CORED GEOTLCOV24303AH BH20X SERIES.GPJ <<DrawingFile>> 11/07/2013 15:12

method
AD auger drilling*
AS auger screwing*
RR roller/tricone
W washbore
CT cable tool
HA hand auger
DT diatube
B blank bit
V V bit
T TC bit
* bit shown by suffix
e.g. AD/T

support
M mud
C casing
N nil

penetration
1 2 3 no resistance ranging to refusal

water
10-Oct-12 water level on date shown
water inflow
water outflow

samples & field tests
U## undisturbed sample ##mm diameter
D disturbed sample
B bulk disturbed sample
E environmental sample
HP hand penetrometer (kPa)
N standard penetration test (SPT)
N* SPT - sample recovered
Nc SPT with solid cone
VS vane shear peak/remouded (uncorrected kPa)
R refusal

classification symbol & soil description
based on Unified Classification System

moisture
D dry
M moist
W wet

consistency / relative density

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

coffey geotechnics

Engineering Log - Cored Borehole

Borehole ID.	***BH204a***
sheet:	2 of 4
project no.	***GEOTLCOV24303AH***
client: ***Lend Lease Development Pty Ltd***	date started: ***07 Jun 2013***
principal:	date completed: ***07 Jun 2013***
project: ***SICEEP - International Convention Centre (ICC) Hotel***	logged by: ***RC***
location: ***Darling Harbour, Sydney***	checked by: ***DS***

position: E: 333,405.50; N: 6,250,490.90 (Datum Not Specified) surface elevation : 3.00m (Datum Not Specified) angle from horizontal: 90°

drill model: DP520 mounting: Track hole diameter : 100 mm

drilling information | **material substance** | **rock mass defects**

method & support	water	RL (m)	depth (m)	graphic log	material description **ROCK TYPE**: grain characterisics, colour, structure, minor components	weathering & alteration	estimated strength & Is50 (X = axial; O = diametral) VL L M H VH EH	samples, field tests & Is(50) (MPa) a = axial; d = diametral	core run & RQD	defect spacing (mm) 30 100 300 1000 3000	additional observations and defect descriptions (type, inclination, planarity, roughness, coating, thickness, other) particular / general
		3									
		2	1.0								
		1	2.0								
		0	3.0								
		-1	4.0		start coring at 4.40m						
NMLC		-2	5.0		**SANDSTONE**: medium to coarse grained, brown, iron stained, indistinctly cross bedded	MW					
					NO CORE: 0.07 m	MW		a=1.67 d=1.52	74%		PT, 0°, PL, RO, SN
					SANDSTONE: medium to coarse grained, brown and grey, iron stained, indistinctly cross bedded						PT, 0°, PL, RO, SN
		-3	6.0								PT, 20°, PL, RO, SN
					SANDSTONE: medium to coarse grained, orange brown and red brown, indistinctly cross bedded at 10°-20°, with some fine quartz gravel inclusions			a=1.73 d=1.53			Defects are:PT, 5 - 15°, PL, RO, SN, unless otherwise described
		-4	7.0					a=1.34 d=1.03	97%		
								a=0.94 d=1.05			SM, 5°, PL, RO, Clay, 5 mm
											PT, 20°, PL, RO, SN

CDF_0_9_04AL.GLB Log COF BOREHOLE: CORED GEOTLCOV24303AH BH20X SERIES.GPJ <<DrawingFile>> 11/07/2013 15:09

method & support

DT	diatube
AS	auger screwing
AD	auger drilling
RR	roller/tricone
CB	claw or blade bit
W	washbore
NMLC	NMLC core (51.9 mm)
NQ	wireline core (47.6mm)
HQ	wireline core (63.5mm)
PQ	wireline core (85.0mm)
SPT	standard penetration test

water

- 10/10/12, water level on date shown
- water inflow
- complete drilling fluid loss
- partial drilling fluid loss
- 25uL: water pressure test result (lugeons) for depth interval shown

graphic log / core recovery

- core recovered (graphic symbols indicate material)
- no core recovered

core run & RQD

- barrel withdrawn

RQD = Rock Quality Designation (%)

weathering & alteration*

RS	residual soil
XW	extremely weathered
HW	highly weathered
DW	distinctly weathered
MW	moderately weathered
SW	slightly weathered
FR	fresh

*W replaced with A for alteration

strength

VL	very low
L	low
M	medium
H	high
VH	very high
EH	extremely high

defect type

PT	parting
JT	joint
SZ	shear zone
SS	shear surface
CS	crushed seam
SM	seam
DB	drilling break

roughness

SL	slickensided
POL	polished
SO	smooth
RO	rough
VR	very rough

planarity

PL	planar
CU	curved
UN	undulating
ST	stepped
IR	Irregular

coating

CN	clean
SN	stain
VN	veneer
CO	coating

coffey geotechnics

Engineering Log - Cored Borehole

Borehole ID.	***BH204a***
sheet:	3 of 4
project no.	***GEOTLCOV24303AH***
client: ***Lend Lease Development Pty Ltd***	date started: ***07 Jun 2013***
principal:	date completed: ***07 Jun 2013***
project: ***SICEEP - International Convention Centre (ICC) Hotel***	logged by: ***RC***
location: ***Darling Harbour, Sydney***	checked by: ***DS***

position: E: 333,405.50; N: 6,250,490.90 (Datum Not Specified) surface elevation : 3.00m (Datum Not Specified) angle from horizontal: 90°

drill model: DP520 mounting: Track hole diameter : 100 mm

drilling information | **material substance** | **rock mass defects**

method & support	water	RL (m)	depth (m)	graphic log	material description **ROCK TYPE**: grain characterisics, colour, structure, minor components	weathering & alteration	estimated strength & Is50 (X = axial; O = diametral) VL L M H VH EH	samples, field tests & Is(50) (MPa) a = axial; d = diametral	core run & RQD	defect spacing (mm) 30 100 300 1000 3000	additional observations and defect descriptions (type, inclination, planarity, roughness, coating, thickness, other) particular / general
NMLC					**SANDSTONE**: medium to coarse grained, orange brown and red brown, indistinctly cross bedded at 10°-20°, with some fine quartz gravel inclusions *(continued)*	MW HW		a=0.52 d=1.27	97%		PT, 30°, PL, RO, Clay VN
					NO CORE: 0.12 m						SM, 5°, PL, RO, Clay, 35 mm
		-6	9.0		**SANDSTONE**: medium to coarse grained, orange brown and red brown, indistinctly cross bedded at 10°-20°, with some fine quartz gravel inclusions	FR		a=1.07 d=0.85			PT, 10°, PL, RO, Clay CO, 2 mm
					SANDSTONE: medium grained, pale grey, distinctly cross bedded at 10° -15°						
		-7	10.0		**SANDSTONE**: medium grained, pale grey, massive, with carbonaceous flecks			a=1.45 d=1.63	85%		
		-8	11.0					a=1.58 d=1.49			
		-9	12.0		**SANDSTONE**: medium to coarse grained, pale grey and grey, distinctly cross bedded at 15°-20°						PT, 20°, PL, RO, CN
		-10	13.0					a=1.72 d=1.76	100%		PT, 20°, PL, RO, CN
											PT, 15°, PL, RO, CN
		-11	14.0					a=1.64 d=1.49			PT, 15°, PL, RO, Clay VN
		-12	15.0					a=1.87 d=1.42			PT, 10°, PL, RO, Clay VN
					SANDSTONE: medium to coarse grained, grey and pale grey, distinctly cross bedded at 25° with some fine siltstone gravel clasts				97%		PT, 10°, UN, SO, Coal CO PT, 5°, UN, SO, Coal CO
											PT, 30°, UN, SO, Coal CO

method & support

DT	diatube
AS	auger screwing
AD	auger drilling
RR	roller/tricone
CB	claw or blade bit
W	washbore
NMLC	NMLC core (51.9 mm)
NQ	wireline core (47.6mm)
HQ	wireline core (63.5mm)
PQ	wireline core (85.0mm)
SPT	standard penetration test

water

- 10/10/12, water level on date shown
- water inflow
- complete drilling fluid loss
- partial drilling fluid loss
- 25uL: water pressure test result (lugeons) for depth interval shown

graphic log / core recovery

- core recovered (graphic symbols indicate material)
- no core recovered

core run & RQD

- barrel withdrawn

RQD = Rock Quality Designation (%)

weathering & alteration*

RS	residual soil
XW	extremely weathered
HW	highly weathered
DW	distinctly weathered
MW	moderately weathered
SW	slightly weathered
FR	fresh

*W replaced with A for alteration

strength

VL	very low
L	low
M	medium
H	high
VH	very high
EH	extremely high

defect type

PT	parting
JT	joint
SZ	shear zone
SS	shear surface
CS	crushed seam
SM	seam
DB	drilling break

planarity

PL	planar
CU	curved
UN	undulating
ST	stepped
IR	Irregular

roughness

SL	slickensided
POL	polished
SO	smooth
RO	rough
VR	very rough

coating

CN	clean
SN	stain
VN	veneer
CO	coating

coffey geotechnics

Engineering Log - Cored Borehole

Borehole ID.	***BH204a***
sheet:	4 of 4
project no.	***GEOTLCOV24303AH***
client: ***Lend Lease Development Pty Ltd***	date started: ***07 Jun 2013***
principal:	date completed: ***07 Jun 2013***
project: ***SICEEP - International Convention Centre (ICC) Hotel***	logged by: ***RC***
location: ***Darling Harbour, Sydney***	checked by: ***DS***

position: E: 333,405.50; N: 6,250,490.90 (Datum Not Specified) surface elevation : 3.00m (Datum Not Specified) angle from horizontal: 90°

drill model: DP520 mounting: Track hole diameter : 100 mm

drilling information				material substance						rock mass defects		
method & support	water	RL (m)	depth (m)	graphic log	material description **ROCK TYPE**: grain characterisics, colour, structure, minor components	weathering & alteration	estimated strength & Is50 (X = axial; O = diametral) VL L M H VH EH	samples, field tests & Is(50) (MPa) a = axial; d = diametral	core run & RQD	defect spacing (mm) 30 100 300 1000 3000	additional observations and defect descriptions (type, inclination, planarity, roughness, coating, thickness, other) particular / general
NMLC		13			**SANDSTONE**: medium to coarse grained, grey and pale grey, distinctly cross bedded at 25° with some fine siltstone gravel clasts *(continued)*	FR		a=2.20 d=1.60			PT, 30°, PL, RO, CN
					with siltstone clasts, 5mm to 50mm				97%		PT, 20°, UN, SO, CN, siltstone clast
		-14	17.0		**SANDSTONE**: coarse grained, pale grey, massive			a=1.80 d=1.83			
					with some laminations at 20°						
					SANDSTONE: fine to medium grained, grey, closely spaced distinct laminations at 10°			a=1.42 d=1.57			PT, 10°, PL, RO, CN PT, 15°, PL, RO, CN
		-15	18.0		**SANDSTONE**: medium grained, pale grey, distinctly cross bedded at 15° with some siltstone gravel clasts, 10mm to 40mm diameter						
								a=2.02 d=1.80	100%		
		-16	19.0								
								a=2.78 d=2.11			
		-17	20.0								PT, 15°, PL, RO, Clay VN
					Borehole BH204a terminated at 20.40 m						
		-18	21.0								
		-19	22.0								
		-20	23.0								

CDF_0_9_04AL.GLB Log COF BOREHOLE: CORED GEOTLCOV24303AH BH20X SERIES.GPJ <<DrawingFile>> 11/07/2013 15:10

method & support

DT	diatube
AS	auger screwing
AD	auger drilling
RR	roller/tricone
CB	claw or blade bit
W	washbore
NMLC	NMLC core (51.9 mm)
NQ	wireline core (47.6mm)
HQ	wireline core (63.5mm)
PQ	wireline core (85.0mm)
SPT	standard penetration test

water

10/10/12, water level on date shown
water inflow
complete drilling fluid loss
partial drilling fluid loss
25uL water pressure test result (lugeons) for depth interval shown

graphic log / core recovery

core recovered (graphic symbols indicate material)
no core recovered

core run & RQD

barrel withdrawn
RQD = Rock Quality Designation (%)

weathering & alteration*

RS	residual soil
XW	extremely weathered
HW	highly weathered
DW	distinctly weathered
MW	moderately weathered
SW	slightly weathered
FR	fresh

*W replaced with A for alteration

strength

VL	very low
L	low
M	medium
H	high
VH	very high
EH	extremely high

defect type

PT	parting
JT	joint
SZ	shear zone
SS	shear surface
CS	crushed seam
SM	seam
DB	drilling break

roughness

SL	slickensided
POL	polished
SO	smooth
RO	rough
VR	very rough

planarity

PL	planar
CU	curved
UN	undulating
ST	stepped
IR	Irregular

coating

CN	clean
SN	stain
VN	veneer
CO	coating

coffey geotechnics

Piezometer Installation Log

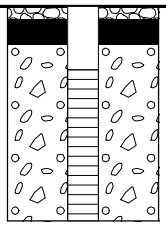
Hole ID.	***BH204a***
sheet:	1 of 2
project no.	***GEOTLCOV24303AH***
client: ***Lend Lease Development Pty Ltd***	date started: ***07 Jun 2013***
principal:	date completed: ***07 Jun 2013***
project: ***SICEEP - International Convention Centre (ICC) Hotel***	logged by: ***RC***
location: ***Darling Harbour, Sydney***	checked by: ***MG***

position: E: 333,405.50; N: 6,250,490.90 (Datum Not Specified) surface elevation : 3.00m (Datum Not Specified) angle from horizontal: 90°

equipment type: DP520 mounting: Track hole diameter : 100 mm

drilling information | **material substance** | **piezometer construction details**

method & support	water	RL (m)	depth (m)	graphic log	material name
		0	4		ASPHALT FILL: Gravelly SAND FILL: SAND FILL: Sandy CLAY FILL: Silty SAND FILL: MIXTURE OF SAND AND CLAY
		-4	8		Silty SAND SANDSTONE **NO CORE** SANDSTONE
NMLC		-8	12		**NO CORE** SANDSTONE
		-12	16		
		-16	20		
		-20			Borehole BH204a terminated at 20.40 m



bore construction license:
drilling company:
driller: NUMAC
driller's permit no.:

Cuttings
Bentonite
Gravel

ID	type	stick up & RL	tip depth & RL	installation date	static water level
BH204a	standpipe piezo.	0.00 m 3.00 m	4.25 m -1.25 m		

method & support
see engineering log for details

water
- 10-Oct-12, water level on date shown
- water inflow
- complete drilling fluid loss
- partial drilling fluid loss
- 25 water pressure test result (lugeons) for depth interval shown

graphic log / core recovery
- core recovered (graphic symbols indicate material)
- no core recovered