Appendices

GHD | Report for Inner West Council - The GreenWay Geotechnical and Contamination Services, 12515105

Appendix A – General notes and standards sheets

GENERAL NOTES



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The report contains the results of a geotechnical investigation or study conducted for a specific purpose and client. The results may not be used or relied on by other parties, or used for other purposes, as they may contain neither adequate nor appropriate information. In particular, the investigation does not cover contamination issues unless specifically required to do so by the client.

To the maximum extent permitted by law, all implied warranties and conditions in relation to the services provided by GHD and the report are excluded unless they are expressly stated to apply in the report.

TEST HOLE LOGGING

The information on the test hole logs (boreholes, test pits, exposures etc.) is based on a visual and tactile assessment, except at the discrete locations where test information is available (field and/or laboratory results). The test hole logs include both factual data and inferred information. Moreover, the location of test holes should be considered approximate, unless noted otherwise (refer report). Reference should also be made to the relevant standard sheets for the explanation of logging procedures (Soil and Rock Descriptions, Core Log Sheet Notes etc.).

GROUNDWATER

Unless otherwise indicated, the water depths presented on the test hole logs are the depths of free water or seepage in the test hole recorded at the given time of measuring. The actual groundwater depth may differ from this recorded depth depending on material permeabilities (i.e. depending on response time of the measuring instrument). Further, variations of this depth could occur with time due to such effects as seasonal, environmental and tidal fluctuations or construction activities such as a change is ground surface level. Confirmation of groundwater levels, phreatic surfaces or piezometric pressures can only be made by appropriate surveys, instrumentation techniques and monitoring programmes.

INTERPRETATION OF RESULTS

The discussion or recommendations contained within this report normally are based on a site evaluation from discrete test hole data, often with only approximate locations (e.g. GPS). Generalised, idealised or inferred subsurface conditions (including any geotechnical cross-sections) have been assumed or prepared by interpolation and/or extrapolation of these data. As such these conditions are an interpretation and must be considered as a guide only.

CHANGE IN CONDITIONS

Local variations or anomalies in ground conditions do occur in the natural environment, particularly between discrete test hole locations or available observation sites. Additionally, certain design or construction procedures may have been assumed in assessing the soil-structure interaction behaviour of the site. Furthermore, conditions may change at the site from those encountered at the time of the geotechnical investigation through construction activities and constantly changing natural processes.

Any change in design, in construction methods, or in ground conditions as noted during construction, from those assumed or reported should be referred to GHD for appropriate assessment and comment.

GEOTECHNICAL VERIFICATION

Verification of the geotechnical assumptions and/or model is an integral part of the design process - investigation, construction verification, and performance monitoring. Variability is a feature of the natural environment and, in many instances, verification of soil or rock quality, or foundation levels, is required. There may be a requirement to extend foundation depths, to modify a foundation system and/or to conduct monitoring as a result of this natural variability. Allowance for verification by appropriate geotechnical personnel must be recognised and programmed for construction.

FOUNDATIONS

Where referred to in the report, the soil or rock quality, or the recommended depth of any foundation (piles, caissons, footings etc.) is an engineering estimate. The estimate is influenced, and perhaps limited, by the fieldwork method and testing carried out in connection with the site investigation, and other pertinent information as has been made available. The material quality and/or foundation depth remains, however, an estimate and therefore liable to variation. Foundation drawings, designs and specifications should provide for variations in the final depth, depending upon the ground conditions at each point of support, and allow for geotechnical verification.

REPRODUCTION OF REPORTS

Where it is desired to reproduce the information contained in our geotechnical report, or other technical information, for the inclusion in contract documents or engineering specification of the subject development, such reproductions must include at least all of the relevant test hole and test data, together with the appropriate Standard Description sheets and remarks made in the written report of a factual or descriptive nature.

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GLOSSARY OF SYMBOLS



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This standard sheet should be read in conjunction with all test hole log sheets and any idealised geological sections prepared for the investigation report.

GENERAL						
Symbol	Description	Symbol	Description			
D	Disturbed Sample	R	Rising Head Permeability Test			
В	Bulk Sample	F	Falling Head Permeability Test			
U(50)	Undisturbed Sampled (suffixed by sample size or tube diameter in mm if applicable)	PBT	Plate Bearing Test			
CS	Core Sample (suffixed by diameter in mm))	Water Inflow (make)			
ES	Soil sample for environmental sampling		Water Outflow (loss)			
PID	Photoionisation Detector	$\mathbf{\nabla}$	Temporary Water Level			
SPT	Standard Penetration Test (with blows per 0.15m)	V	Final Water Level			
Ν	SPT Value	•	Point Load Test (axial)			
HB/HW	SPT Hammer Bouncing/Hammer Weight	0	Point Load Test (diametric)			
PP/HP	Pocket/Hand Penetrometer (suffixed by value kPa)	PL	Point Load (kPa)			
РК	Packer Test (kPa)	IMP	Impression Device Test			
PZ	Piezometer Installation	РМ	Pressuremeter Test			
SV/VS	Shear \/ane Test (suffixed by value in kPa)					



Note: Additional rock symbols may be allocated for a particular project

NATURAL DEFECTS (Coding)

Defect Type		Orientation								
Jt	Joint		For vertical	For vertical non-oriented core "Dip" angle (eg. 5°) measured relative to horizontal.						
Pt	Parting		For inclined	l non-o	riented core	"Angle	" measured relative to c	core axis	S.	
SS	Sheared Sur	rface	For inclined	l orient	ed core "D	ip" angle	and "Dip Direction" and	gle (eg.	45°/225° mag.).	
WSm	Weathered S	Seam	Orientatio	ו (con'	t)	Rough	ness	Coatir	Coating	
SSm	Sheared Sea	am	VT	Vertic	al	Pol	Polished	Cn	Clean	
CSm	Crushed Sea	am	HZ or 0°	Horizo	ontal	So	Smooth	Sn	Stained	
ISm	Infilled Seam	n	d / °	Degre	es	Rf	Rough	Ve	Veneer	
SZ	Sheared Zor	ne				VR	Very Rough	Со	Coating	
VN	Vein					Slk	Slickensided			
Shape						Infilling	/ Common Materials			
Pln	Planar		St	Stepp	ed	CLAY	Clay	Mi	Micaceous	
Cu	Curved		Ir	Irregu	llar	Са	Calcite	Mn	Manganese	
Un	Undulating		Dis	Disco	ntinuous	X	Carbonaceous	Ру	Pyrite	
Others						Kt	Chlorite	Qz	Quartz	
OP	Open	CL	Closed	Ti	Tight	Fe	Iron Oxide	MU	Unidentified Mineral	



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Soil is described in general accordance with <u>Australian Standard AS 1726-2017</u> (Geotechnical Site Investigations) in terms of visual and tactile properties, with potential refinement by laboratory testing. AS 1726 defines soil as particulate materials that occur in the ground and can be disaggregated or remoulded by hand in air or water without prior soaking. Classification of the soil is undertaken following description.

SOIL DESCRIPTION

The soil description includes a) Composition, b) Condition, c) Structure, d) Origin and e) Additional observations. 'FILL', 'TOPSOIL' or a 'MIXTURE OF SOIL AND COBBLES / BOULDERS' (with dominant fraction first) is denoted at the start of a soil description where applicable.

a) Soil Composition (soil name, colour, plasticity or particle characteristics, secondary and then minor components)

Soil Name: A soil is termed a *coarse grained soil* where the dry mass of sand and gravel particles exceeds <u>65%</u> of the total. Soils with more than <u>35%</u> fines (silt or clay particles) are termed *fine grained soils*. The soil name is made up of the primary soil component (in BLOCK letters), prefixed by applicable secondary component qualifiers. Minor components are applied as a qualifiers to the soil name (using the words 'with' or 'trace').

Particles are differentiated on the basis of size. 'Boulders' and 'cobbles' are outside the soil particle range, though their presence (and proportions) is noted. While individual particles may be designated as silt or clay based on grain size, fine grained soils are characterised as silt or clay based on tactile behaviour or Atterberg Limits, and not the relative composition of silt or clay sized particles.

Colour: The prominent colour is noted, followed by (spotted, mottled, streaked etc.) then secondary colours as applicable. Roughly equally proportioned colours are prefixed by (spotted, mottled, streaked etc.). Colour is described in its moist condition, though both wet and dry colours may also be provided if appropriate.

Plasticity: Fine grained soils are designated within standard ranges of plasticity based on tactile assessment or laboratory assessment of the Liquid Limit.

Particle Characteristics: The particle shape, particle distribution and particle size range within a coarse grained soil is described using standard terms. Particle composition may be described using rock or mineral names, with specific terms for carbonate soils.

Secondary and Minor Components: The primary soil is described and modified by secondary and minor components, with assessed ranges as tabulated.

Carbonate Soils: Carbonate content can be assessed by use of dilute '10%' HCl solution. Resulting clear sustained effervescence is interpreted as a *Carbonate soil* (approximately >50% carbonate), while weak or sporadic effervescence indicates *Calcareous soil* (< 50% carbonate). No effervescence is interpreted as a noncalcareous soil.

Organic and Peat Soils: Where identified, organic content is noted. *Organic soil* (2% to 25% organic matter) is usually identified by colour (usually dark grey/black) and odour (i.e. 'mouldy' or hydrogen sulphide odour). *Peat* (>25% organic matter) is identified by a spongy feel and fibrous texture. Peat soils' decomposition may be described as 'fibrous' (little / no decomposition), '*pseudo-fibrous'* (moderate decomposition) or '*amorphous'* (full decomposition).

Fraction	Compone	ents	Particle Size (mm)
Oversize	BOULDER	s	> 200
Oversize	COBBLES		63 - 200
	GRAVEL	Coarse	19 - 63
		Medium	6.7 -19
Coarse grained		Fine	2.36 - 6.7
soil particles	SAND	Coarse	0.6 - 2.36
		Medium	0.21 - 0.6
		Fine	0.075 - 0.21
Fine grained soil	SILT		0.002 - 0.075
particles	CLAY		< 0.002

Plasticity Terms	Laboratory Liquid		
Silt	Clay	Limit Range	
N/A	N/A	(Non Plastic)	
Low Planticity	Low Plasticity	≤ 35%	
LOW Plasticity	Medium Plasticity	> 35% and ≤ 50%	
High Plasticity	High Plasticity	> 50%	

Particle Distribution Terms (Coarse Grained Soils)					
Well graded	good representation of all particle sizes				
Poorly graded	one or more intermediate sizes poorly represented				
Gap graded	one or more intermediate sizes absent				
Uniform	essentially of one size				

Particle Shape Terms (Coarse Grained Soils)					
Rounded	Sub-angular	Flaky or Platy			
Sub-rounded	Angular	Elongated			

Secondary and Minor Components for Coarse Grained Soils

Fines (%)	Modifier (as applicable)	Accessory coarse (%)	Modifier (as applicable)
≤5	'trace silt / clay'	≤15	'trace sand / gravel'
> 5, ≤ 12	'with clay / silt'	> 15, ≤ 30	'with sand / gravel'
> 12	prefix 'silty / clayey'	> 30	prefix 'gravelly / sandy'

Secondary and Minor Components for Fine Grained Soils					
% Coarse	Modifier (as applicable)				
≤ 15	add "trace sand / gravel"				
> 15, ≤ 30	add <i>"with sand / gravel"</i>				
> 30	prefix soil "sandy / gravelly"				



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b) Soil Condition (moisture, relative density or consistency)

Moisture: Fine grained soils are described relative to plastic or liquid limits, while coarse grained soils are assessed based on appearance and feel. The observation of seepage or free water is noted on the test hole logs.

Moisture - Coarse Grained Soils			Moisture - Fine Grained Soils			
Term		Tactile Properties	Term		Tactile Properties	
Dry	('D')	Non-cohesive, free running	Moist, dry of plastic limit	('w < PL')	Hard and friable or powdery	
		Feels cool, darkened colour, tends to stick together	Moist, near plastic limit	('w≈ PL')	Can be moulded	
Moist ('M')	('M')		Moist, wet of plastic limit	('w > PL')	Weakened, free water forms on hands with handling	
Wet ('W')	Feels cool, darkened colour,	Wet, near liquid limit	('w≈LL')	Highly weakened, tends to flow when tapped		
	()	water forms when handling	Wet, wet of liquid limit	('w > LL')	Liquid consistency, soil flows	

Relative Density (Non Cohesive Soils): The Density Index is inherently difficult to assess by visual or tactile means, and is normally assessed by penetration testing (e.g. SPT, DCP, PSP or CPT) with published correlations. Assessment may be affected by moisture and *in situ* stress conditions. Density Index assessment may be refined by combination of *in situ* density testing and laboratory reference maximum and minimum density ranges.

Consistency (Cohesive Soils): May be assessed by direct measurement (shear vane, CPT etc.), or approximate tactile correlations. Cohesive soils include fine grained soils, and coarse grained soils with sufficient fine grained components to induce cohesive behaviour. A 'design shear strength' must consider the mode of testing, the *in situ* moisture content and potential for variations of moisture which may affect the shear strength.

Relative Density (Non-Cohesive Soils)			Consistency (Cohesive Soils)			
Term and (Symbol)		Density Index (%)	Term and (Symbol)		Tactile Properties	Undrained Shear Strength
Very Loose	(VL)	≤ 15	Very Soft	(VS)	Extrudes between fingers when squeezed	< 12 kPa
Loose	(L)	$>$ 15 and \leq 35	Soft	(S)	Can be moulded by light finger pressure	12 - 25 kPa
Medium Dense	(MD)	$>$ 35 and \leq 65	Firm	(F)	Can be moulded by strong finger pressure	25 - 50 kPa
Dense	(D)	$> 65 \text{ and} \le 85$	Stiff	(St)	Cannot be moulded by fingers	50 - 100 kPa
Very Dense	(VD)	> 85	Very Stiff	(VSt)	Can be indented by thumb nail	100 - 200 kPa
Consistency assessment can be influenced by moisture variation.			Hard	(H)	Can be indented with difficulty by thumb nail	> 200 kPa
			Friable	(Fr)	Easily crumbled or broken into small pieces by band	-

c) Structure (zoning, defects, cementing)

Zoning: The <i>in situ</i> zoning is described using the terms belo 'layer' (a continuous zone across the exposed sample)	ow. <i>'Intermixed</i> ' may be used for an irregular arrangement. <i>'pocket'</i> (an irregular inclusion of different material).			
<i>'lens'</i> (a discontinuous layer with lenticular shape)	'interbedded' or "interlaminated' (alternating soil types)			
Defects: Described using terms below, with dimension orie	ntation and spacing described where practical.			
<i>'parting'</i> (an open or closed surface or crack sub parallel to layering with little / no tensile strength - open or closed)	'softened zone' (in clayey soils, usually adjacent to a defect with associated higher moisture content)			
<i>fissure</i> ' (as per a parting, though not parallel or sub parallel to layering – may include desiccation cracks)	<i>'tube'</i> (tubular cavity, singly or one of a large number, often formed from root holes, animal burrows or tunnel erosion)			
'sheared seam' (zone of sub parallel near planar closely spaced intersecting smooth or slickensided fissures dividing the mass into lenticular or wedge shaped blocks)	<i>'tube cast'</i> (an infilled tube – infill may vary from uncemented through to cemented or have rock properties)			
'sheared surface' (a near planar, curved or undulating smooth, polished or slickensided surface, indicative of displacement)	<i>'infilled seam'</i> (sheet like soil body cutting through the soil mass, formed by infilling of open defects)			
Composition: Soils may be composed by various substances (e.g. iron oxides and bydroxides, silica, calcium carbonate				

Cementation: Soils may be cemented by various substances (e.g. iron oxides and hydroxides, silica, calcium carbonate, gypsum), and the cementing agent shall be identified if practical. Cemented soils are described as:

'weakly cemented' easily disaggregated by hand in air or water

'moderately cemented' effort required to disaggregate the soil by hand in air or water

Materials extending beyond 'moderately cemented' are encompassed within the rock strength range. Where consistent cementation throughout a soil mass is identified as a duricrust, it is described in accordance with duricrust rock descriptors. Where alternate descriptors of cementation development are applied for consistency with regional practices or geology, or client requirements, these are outlined separately.



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d) Origin

An interpretation is provided based on observations of landform, geology and fabric, and may further include assignment of a stratigraphic unit. The use of terms 'possibly' or 'probably' indicates a higher degree of uncertainty regarding the assessed origin or stratigraphic unit. Typical origin descriptors include:

Residual	Formed directly from in situ weathering with no visible structure or fabric of the parent soil or rock.
Extremely weathered	Formed directly from in situ weathering, with remnant and/or fabric from the parent rock.
Alluvial	Deposited by streams and rivers (may be applied more generically as transported by water).
Estuarine	Deposited in coastal estuaries, including sediments from inflowing rivers, streams, and tidal currents.
Marine	Deposited in a marine environment.
Lacustrine	Deposited in freshwater lakes.
Aeolian	Transported by wind.
Colluvial and Slopewash	Soil and rock debris transported down slopes by gravity (with or without assistance of water). Colluvium is typically applied to thicker / localised deposits, and slopewash for thinner / widespread deposits.
TOPSOIL	Surficial soil, typically with high levels of organic material. Topsoils buried by other transported soils are termed <i>'remnant topsoil'</i> . Tree roots within otherwise unaltered soil does not characterise topsoil.
FILL	Any material which has been placed by anthropogenic processes (i.e. human activity).

e) Additional Observations

Additional observations may be included to supplement the soil description. Additional observations may consist of notations relating to soil characteristics (odour, contamination, colour changes with time), inferred geology (with delineation of soil horizons or geological time scale) or notes on sampling and testing application (including the reliability, recovery, representativeness, or condition of samples or test conditions and limitations). If the material is assessed to be not representative, terms such as 'poor recovery', 'non-intact', 'recovered as' or 'probably' are applied.

SOIL CLASSIFICATION

Classification allocates the material within distinct soil groups assigned a two character Group Symbol:

Coarse Grained (sand and gravel:	Soils more than <u>65%</u> of soi	il coarser than 0.075 mm)	Fine Grained Soils (silt and clay: more than <u>35%</u> of soil finer than 0.075 mm)		
Major Division	Group Symbol	Soil Group	Major division	Group Symbol	Soil Group
GRAVEL	GW	GRAVEL, well graded		ML	SILT, low plasticity
(more than half of the coarse fraction is > 2.36 mm)	GP	GRAVEL, poorly graded	GRAVEL, poorly graded SILT and CLAY		CLAY, low plasticity
	GM	Silty GRAVEL plasticity)		CI	CLAY, medium plasticity
	GC	Clayey GRAVEL		OL	Organic SILT
SAND	SW	SAND, well graded		МН	SILT, high plasticity
(more than half of the coarse fraction is < 2.36 mm)	SP	SAND, poorly graded	(high plasticity)	СН	CLAY, high plasticity
	SM	Silty SAND		OH	Organic CLAY / SILT
	SC	Clayey SAND	Highly Organic	Pt	PEAT

Coarse grained soils with fines contents between 5% and 12% are provided a dual classification comprising the two group symbols separated by a dash, e.g. for a poorly graded gravel with between 5% and 12% silt fines (poorly graded 'GRAVEL with silt'), the classification is GP-GM.

For the purpose of classification, *poorly graded, uniform,* or *gap graded* soils are all designated as poorly graded. Soils that are dominated by boulders or cobbles are described separately and are not classified.

Classification is routinely undertaken based on tactile assessment with the soil description. Refinement of soil classification may be applied using laboratory assessment, including particle size distribution and Atterberg Limits. Atterberg Limits testing is applied to the sample portion finer than 0.425 mm. Fine grained soil components are assessed on the basis of regions defined within the Modified Casagrande Chart.





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Rock is described in general accordance with <u>Australian Standard AS 1726-2017</u> (Geotechnical site investigations) in terms of visual and tactile properties, with potential refinement by laboratory testing. AS 1726 defines rock as any aggregate of minerals and/or organic materials that cannot be disaggregated by hand in air or water without prior soaking. The rock description and classification distinguishes between rock material, defects, structure and rock mass.

ROCK DESCRIPTION AND CLASSIFICATION

a) Description of rock material (rock name, grain size and type, colour, texture and fabric, inclusions or minor components, moisture content and durability)

Rock Name: Simple rock names are used to provide a reasonable engineering description rather than a precise geological classification. The rock name is chosen on the basis of origin, with common types summarised below. Additional, non-exhaustive, terminology is included in AS 1726. Rock names not described within AS 1726 may be adopted, with geological characteristics typically noted within accompanying text.

Grain	Sedimentary					Meta	morphic		Igneous	i		
Size				Clastic or Detrited		oonate	Dura la dia Estista		Follow Follow		Falaia	Mafia
(mm)	Clastic or Detrital		Low Porosity	Porous	Pyroclastic	Follated	Non-Follated	Feisic	\leftrightarrow	Matic		
>2.0	CONGLO (rounder in a finer BRE (angular or irreg in a finer	MERATE d grains r matrix) CCIA gular fragments r matrix)	LIMESTONE (Predominantly CaCO ₃) or	CALCIRUDITE	AGGLOMERATE (rounded grains in a finer matrix) VOLCANIC BRECCIA (angular fragments in a finer matrix)	GNEISS	MARBLE (carbonate) QUARTZITE	GRANITE	DIORITE	GABBRO		
2.0- 0.06	SANDSTONE			CALCARENITE	TUFF	SCHIST	SERPENTINITE	MICRO- GRANITE	MICRO- DIORITE	DOLERITE		
0.06- 0.002	MUDSTONE (mostly si	SILTSTONE (mostly silt)	CaMgCO ₃)	CALCISILTITE	Fine grained	PHYLLITE	HORNFELS			ραςαιτ		
<0.002	(silt and clay)	CLAYSTONE (mostly clay)		CALCILUTITE	TÜFF	TUFF or SLATE		KHTULITE	ANDESITE	DAJALI		

Reproduced with modification from Tables 15, 16 and 17, Clause 6.2.3.1, AS 1726-2017, Geotechnical site investigations.

Grain size: For rocks with predominantly sand sized grains the dominant or average grain size is described as follows:

Rock type	Coarse grained	Medium grained	Fine grained
Sedimentary rocks	Mainly 0.6 mm to 2 mm	Mainly 0.2 mm to 0.6 mm	Mainly 0.06 mm (just visible) to 0.2 mm
Igneous and metamorphic rocks	Mainly >2 mm	Mainly 0.06 mm to 2 mm	Mainly <0.6 mm (just visible)

Colour assists in rock identification and interpolation. Rock colour is generally described in a *"moist"* condition, using simple terms (e.g. grey, brown, etc.) and modified as necessary by *"pale"*, *"dark"*, or *"mottled"*. Borderline colours may be described as a combination of these colours (e.g. red-brown).

Texture refers to the arrangement of, or the relationship between, the component grains or crystals (e.g. porphyritic, crystalline or amorphous).

Fabric refers to visible grain arrangement along a preferential orientation or a layering. Fabric may be noted as *"indistinct"* (little effect on strength) or *"distinct"* (rock breaks more easily parallel to the fabric). Common terms include *"massive"* or *"flow banding"* (igneous), *"foliation"* or *"cleavage"* (metamorphic). Sedimentary layering is described as *"bedding"* or (where thickness < 20 mm) *"lamination"*. The typical orientation, spacing or thickness of these structural features can be described directly in millimetres and metres. Further quantification of bedding thickness applied by GHD is as follows:

Bedding Term	Thickness
Very thickly bedded	>2 m
Thickly bedded	0.6 to 2 m
Medium bedded	0.2 to 0.6 m
Thinly bedded	60 to 200 mm
Very thinly bedded	20 to 60 mm
Laminated	6 to 20 mm
Thinly laminated	<6 mm

Features, Inclusions and Minor Components are typically only described when those features could influence the engineering behaviour of the rock. Described features may include: gas bubbles in igneous rocks; veins of quartz, calcite or other minerals; pyrite crystals and nodules or bands of ironstone or carbonate; cross bedding in sandstone; clast or matrix support in conglomerates and breccia.

Moisture content may be described by the feel and appearance of the rock, as follows: "*dry*" (looks and feels dry), "*moist*" (feels cool, darkened in colour, but no water is visible on the surface), or "*wet*" (feels cool, darkened in colour, water film or droplets visible on the surface). The moisture content of rock cored with water may not represent in situ conditions.

Durability of rock samples is noted where there is an observed tendency of samples to crack, breakdown in water or otherwise deteriorate with exposure.



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b) Classification of the rock material condition (strength, weathering and/or alteration)

Estimated Strength refers to the rock material and not the rock mass. The strength is defined in terms of uniaxial compressive strength (UCS), though is typically estimated by either tactile assessment or Point Load Strength Index ($Is_{(50)}$) (measured perpendicular to planar anisotropy). A correlation between $Is_{(50)}$ and UCS is adopted for classification, though is not intended for design purposes without appropriate supporting assessment. A field guide follows:

Term ar (Symbo	nd ol)	UCS (MPa)	Is ₍₅₀₎ (MPa)	Field Guide
Very Low	(VL)	0.6 – 2	0.03 - 0.1	Material crumbles under firm blows with sharp end of geological pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30 mm thick can be broken by finger pressure.
Low	(L)	2 - 6	0.1 - 0.3	Easily scored with knife; indentations 1 to 3 mm show in the specimen with firm blows of a geological pick point; has dull sound under hammer. A piece of core 150 mm long by 50 mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium	(M)	6 - 20	0.3 - 1.0	Readily scored with a knife; a piece of core 150 mm long by 50 mm diameter can be broken by hand with difficulty.
High	(H)	20 - 60	1 - 3	A piece of core 150 mm long by 50 mm diameter cannot be broken by hand but can be broken by a geological pick with a single firm blow; rock rings under hammer.
Very High	(VH)	60 - 200	3 -10	Hand specimen breaks with geological pick after more than one blow; rock rings under hammer.
Extremely High	(EH)	>200	>10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.

Based on Table 19, Clause 6.2.4.1, AS 1726-2017, Geotechnical site investigations. Refer to source document for further detail.

Material with strength less than "very low" is described using soil characteristics, with the presence of an original rock texture or fabric noted if relevant.

Weathering and Alteration: The process of weathering involves physical and chemical changes to the rock resulting from exposure near the earth's surface. A subjective scale for weathering is applied as follows:

Weathering Term and (Symbol)		Description
Residual Soil	(RS)	Material has weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.
Extremely Weathered	(XW)	Material has weathered to such an extent that it has soil properties. Mass structure, material texture and fabric of original rock are still visible.
Highly Weathered	(HW)	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores.
Moderately Weathered	(MW)	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable, but shows little or no change of strength from fresh rock.
Slightly Weathered	(SW)	Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.
Fresh	(Fr)	Rock shows no sign of decomposition of individual minerals or colour changes.

Modified based on Table 20, Clause 6.2.4.2, AS 1726-2017, Geotechnical site investigations. Refer to source document for further detail.

Where physical and chemical changes to the rock are caused by hot gases or liquids at depth, the process is called alteration. Unlike weathering, the distribution of altered material may occur at any depth and show no relationship to topography. Where alteration minerals are identified the terms *"extremely altered" (XA), "highly altered" (HA), "moderately altered" (MA)* and *"slightly altered" (SA)* can be used to describe the physical and chemical changes described above.



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c) Description of defects (defect type, orientation, roughness and shape, coatings and composition of seams, spacing, length, openness and thickness, block shape)

Defects often control the overall engineering behaviour of a rock mass. AS 1726 defines a defect as "a discontinuity, fracture, break or void in the material or materials across which there is little or no tensile strength". Describing the type, character and distribution of natural defects is an essential part of the description of many rock masses.

Commonly described characteristics of defects within a rock mass include type, orientation, roughness and shape, coatings and composition of seams, aperture, persistence, spacing and block shape.

The degree of detail required for defect descriptions depends on project requirements. All defects judged of engineering significance for the site and project are described individually. Where appropriate, generalised descriptions for less significant, or multiple similar, defects can be provided for delineated parts of rock core or exposures. A general description of delineated defect sets is provided when sufficient orientation data is available.

Defect Type is described using the terms summarised below. On core logs, only natural defects across which the core is discontinuous are described (i.e. inferred artificial fractures such as drill breaks are excluded). Incipient defects are described using the relevant texture or fabric terms. Healed defects (those that have been re-cemented by minerals such as chlorite or calcite) are described using the prefix "healed" (e.g. healed joint).

Type and (Symbol)		Description	Diagram
Parting	(Pt)	A surface or crack across which the rock has little or no tensile strength. Parallel or sub-parallel to layering (e.g. bedding) or a planar anisotropy in the rock material (e.g. cleavage). May be open or closed.	
Joint	(Jt)	A surface or crack with no apparent shear displacement and across which the rock has little or no tensile strength, but which is not parallel or subparallel to layering or to planar anisotropy in the rock material. May be open or closed.	
Sheared Surface	(SS)	A near planar, curved or undulating surface which is usually smooth, polished or slickensided and which shows evidence of shear displacement.	
Sheared Zone	(SZ)	Zone of rock material with roughly parallel near planar, curved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects. Some of the defects are usually curved and intersect to divide the mass into lenticular or wedge-shaped blocks.	
Sheared Seam	(SSm)	Seam of soil material with roughly parallel almost planar boundaries, composed of soil materials with roughly parallel near planar, curved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects. Some of the defects are usually curved and intersect to divide the mass into lenticular or wedge-shaped blocks.	
Crushed Seam	(CSm)	Seam of soil material with roughly parallel almost planar boundaries, composed of disoriented, usually angular fragments of the host rock material which may be more weathered than the host rock. The seam has soil properties.	
Infilled Seam	(ISm)	Seam of soil material usually with distinct roughly parallel boundaries formed by the migration of soil into an open cavity or joint, infilled seams less than 1 mm thick may be described as a veneer or coating on a joint surface.	
Extremely Weathered Seam	(WSm)	Seam of soil material, often with gradational boundaries. Formed by weathering of the rock material in place.	Seam

Modified based on Table 22, Clause 6.2.5.2, AS 1726-2017, Geotechnical site investigations. Refer to source document for further detail.

Defect Orientation is recorded as the "dip" (maximum angle of the mean plane, measured from horizontal) and the "dip direction" (azimuth of the dip, measured clockwise from true north). Dip and dip direction is expressed in degrees, with two-digit and three-digit numbers respectively, separated by a slash (e.g. 45/090). For vertical boreholes, the defect dip is measured as the acute angle from horizontal. Rock core extracted from vertical boreholes is generally not oriented, so the dip direction cannot be directly measured. For non-oriented inclined boreholes, a defect "alpha" (α) angle is measured as the acute angle from the core axis. For vertical and non-oriented inclined boreholes, the dip direction can sometimes be estimated from the relationship of the defect to a well-defined site structure such as fabric. For oriented inclined boreholes, the measurement of the defect orientation is carried out and recorded in a form suited to the particular device being used and later processed to report true dip and dip direction.



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Roughness and Shape of the defect surface combine to have significant influence on shear strength. Standard descriptions and abbreviations include:

Roughness and (Symbol)		Description
Very Rough	(VR)	Many large surface irregularities (amplitude generally more than 1 mm) Feels like, or coarser than very coarse sand paper.
Rough	(Rf)	Many small surface irregularities (amplitude generally less than 1 mm). Feels like fine to coarse sand paper.
Smooth	(So)	Smooth to touch. Few or no surface irregularities.
Polished	(Pol)	Shiny smooth surface.
Slickensided	(Slk)	Grooved or striated surface, usually polished.

Shape and (S	ymbol)	Description
Planar	(Pln	The defect does not vary in orientation.
Curved	(Cu)	The defect has a gradual change in orientation.
Undulating	(Un)	The defect has a wavy surface.
Stepped	(St)	The defect has one or more well defined steps.
Irregular	(lr)	The defect has many sharp changes of orientation.

Although the surface roughness of defects can be described at small (10-100 mm) scales of observation, the overall shape of the defect surface can usually be observed only at medium (0.1-1 m) and large (>1 m) scale.

Where it is necessary to assess the shear strength of a defect, observations are generally made at multiple scales. Surface roughness may also be characterised by using the joint roughness coefficient (JRC) profiles established by Barton and Choubey (1977). Where large-scale observations are possible, further measurement of defect "waviness" (angle of the asperities relative to the overall dip angle of the plane) is made.

Coatings and Composition of Seams: Many defects have surface coatings, which can affect their shear strength. Standard descriptions include:

Coating and (Symbol)		Description	Common M and (Sy	Common Minerals and (Symbol)	
Clean	(Cn)	No visible coating.	Clay	(CLAY)	
Stained	(Sn)	No visible coating but surfaces are discoloured.	Calcite	(Ca)	
Veneer	(Ve)	A visible coating of soil or mineral substance, but too thin to be measured may be patchy.	Carbonaceous Chlorite	(X) (Kt)	
Coating	(Co)	A visible coating up to 1 mm thick. Soil material greater than 1 mm thick is described using defect terms (e.g. infilled seam). Rock material greater than 1 mm thick is described as a vein (Vn).	Iron Oxide Micaceous Manganese	(Fe) (Mi) (Mn)	
The composition of seams are described using soil description terms as given on the Pyrite					

The composition of seams are described using soil description terms as given on the SOIL DESCRIPTION AND CLASSIFICATION Standard Sheet. Where possible the mineralogy of coatings is identified. Common mineral coatings include:

Aperture: Defects across which there is little or no tensile strength can be either "open" (*Op*) or "closed" (*Cl*). For rock core, the width of the "open" defect is measured whilst still in the core barrel splits. The descriptor "tight" (*Ti*) can only apply to healed or incipient defects (i.e. veins, foliation, etc.).

Persistence and Spacing of defects is described directly in millimetres and metres. If the measurement of defect persistence is limited by the extent of the exposure, the end conditions are noted (i.e. 0, 1 or 2 defect ends observed). The spacing between defects of similar orientation (i.e. within a specific defect set) is recorded when possible.

The frequency of defects within rock core can be measured as either: the spacing between successive defects; or the "Fracture Index", which is the number of defects per metre of core.

Spacing Term	Thickness
Very wide	>2 m
Wide	0.6 to 2 m
Medium	0.2 to 0.6 m
Closely	60 to 200 mm
Very closely	20 to 60 mm
Extremely closely	6 to 20 mm

Quartz

(Qz)

Block Shape: Where it is considered significant, block shape can be described using the subjective terms as follows:

Block Shape	Description
Polyhedral	Irregular discontinuities without arrangement into distinct sets, and of small persistence.
Tabular	One dominant set of parallel discontinuities, for example bedding planes, with other non-continuous joints; thickness of blocks much less than length or width.
Prismatic	Two dominant sets of discontinuities, approximately orthogonal and parallel, with a third irregular set; thickness of blocks much less than length or width.
Equidimensional	Three dominant sets of discontinuities, approximately orthogonal, with occasional irregular joints, giving equidimensional blocks.
Rhomboidal	Three (or more) dominant, mutually oblique, sets of joints giving oblique-shaped, equidimensional blocks.
Columnar	Several, usually more than three sets of continuous, parallel joints usually crossed by irregular joints; lengths much greater than other dimensions.

obse spee Spae num **Blo**

Ref: DS6.5.2.1 Issue 2.0 Date: 01/08/2019

Modified based on Table 23, Clause 6.2.5.7, AS 1726-2017, Geotechnical site investigations. Refer to source document for further detail.



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d) Interpreted stratigraphic unit

Stratigraphic units may be interpreted and reported, in accordance with The Australian Stratigraphic Units Database (ASUD). The terms *"possibly"* or *"probably"* indicate increased uncertainty in this interpretation.

e) Geological structure

After describing the rock material and defects, an interpretation of the nature and configuration of rock mass defects may be presented in logs, charts, 2D sections and 3D models (e.g. dipping strata, folds, unconformities, weathering profiles, defect sets, geological faults, etc.).

PARAMETERS RELATED TO CORE DRILLING

Drill Depth and Core Loss: Drilling intervals are shown on GHD Core Log Sheets by depth increments and horizontal marker lines.

"Core loss", or its inverse "total core recovery" (TCR), is measured as a percentage of the core run. If the location of the core loss is known, or strongly suspected, it is shown in a region of the column bounded by dashed horizontal lines. If unknown, core loss is assigned to the bottom of a core run.

Rock Quality Designation (RQD), described by Deere et al. (1989), may be recorded on GHD Core Log Sheets.

For certain projects, such as tunnelling or underground mining investigations, rock mass ratings or classifications can be required as part of the design process. The RQD forms a component of these rock mass ratings and provides a quantitative estimate of rock mass quality from rock core logs.

The rock core must be "N" sized (nominally 50 mm) or greater for derivation of RQD. The RQD is expressed as a percentage of intact rock core (excluding residual soil and extremely weathered rock) greater than 100 mm in length over the total selected core length.

Deere et al. (1989) recommends measuring lengths of core along the centreline, as shown right.



RQD is expressed as:

$$RQD = \frac{\sum Length \ of \ sound \ core \ pieces > 100 \ mm \ in \ length}{Length \ of \ core \ run} \ x \ 100\%$$

RQD measurement procedure

(reproduced from Figure 13, Clause 6.2.9.4, AS 1726-2017, Geotechnical site investigations)

ROCK MASS CLASSIFICATION

Rock mass classification schemes may be used to represent the engineering characteristics of a rock mass. A large variety of classification schemes have been developed by various authors, ranging from simple to complex. All of the schemes are limited in their application and many rock mass classification systems assume that the rock mass is isotropic, which is rarely the case.

References

STANDARDS AUSTRALIA (2017). AS 1726-2017. GEOTECHNICAL SITE INVESTIGATIONS.

BARTON, N. AND CHOUBEY, V. (1977). THE SHEAR STRENGTH OF ROCK JOINTS IN THEORY AND PRACTICE. ROCK MECHANICS 10, 1-54. SPRINGER. DEERE, D.U. AND DEERE, D.W. (1989). ROCK QUALITY DESIGNATION (RQD) AFTER TWENTY YEARS. CONTRACT REPORT GL-89-1. ARMY CORPS OF ENGINEERS. WASHINGTON DC, 1989.

DYNAMIC CONE PENETROMETER (DCP) TESTING



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SCOPE

The Dynamic Cone Penetrometer (DCP) test comprises the measurement of the soil resistance to a steel rod driven into the ground by a dropped weight.

The DCP test is a simple manual test used in both sandy and clayey soils. The test is a measure of the shear strength of the soil at relatively shallow depth.

EQUIPMENT AND METHOD

A general description of the dynamic penetrometer apparatus used by our firm is presented in Australian Standard AS 1289.6.3.2. The equipment utilises a 9 kg sliding weight with a drop height of 510 mm. It is fitted with a conical tip. The equipment can be adjusted for a fall of 600 mm and use of a blunt tip in accordance with AS 1289.6.3.3.

The test data are generally recorded as the number of blows (n) per 50 mm of penetration. For specific applications (such as pavement investigations), the data may be collected in the reverse form, i.e. as mm per blow. The results are presented either in tabular or graphic form for reporting purposes.

INTERPRETATION

The interpretation of the DCP results is generally based on the assumption that the measured resistance is a function of soil strength. A profile of soil strength (cohesive soils) or density index (cohesionless soils) can thus be established. The test often can be used to qualitatively indicate the presence of soft or loose zones within a soil profile.

The energy of the system per unit area is similar to that of the larger Standard Penetration Test (SPT). Thus, the common relationships of SPT and other parameters can be used as a means of estimating soil properties, after appropriate site specific consideration. The interpretations from the test are approximate only, and this is particularly pertinent to sand profiles where the magnitude of confinement stress is important in the assessment of the results.

Interpretation of the DCP penetration rate at depth must be conducted with due regard to rod friction effects. In particular, care must be exercised with soft clay profiles where rod resistance may have an unconservative impact on the results. Care must also be exercised with soil profiles containing larger particles such as gravels and cobbles where penetration rate can be affected if the DCP tip strikes or glances off such particles.

In-situ California Bearing Ratio (CBR) values of clay soil subgrades are sometimes interpreted directly from DCP test results for use in road pavement design. In this case, the correlation between DCP and CBR based on that published in AUSTROADS Pavement Structural Design guide (AGPT02-17 Part 2) may be applied. This correlation should be verified by site specific laboratory testing, where appropriate. In addition, the effects of moisture content variations (in-situ versus design conditions) must be considered, as the DCP test only reflects the shear strength of the soil at the time of testing. Further information can be found in AUSTROADS Geotechnical Investigation and Design guide (AGRD07-08 Part 7).



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GENERAL

Samples extracted during the fieldwork stage of a site investigation may be "disturbed" or "undisturbed" (as generally indicated on the test hole logs) depending upon the nature and purpose of the sample as well as the method of extraction, transportation, extrusion and testing. This aspect should be taken into account when assessing test results, which must of necessity, reflect the effects of such disturbance.

All soil properties (as measured by laboratory testing) exhibit inherent variability and thus a certain statistical number of tests is required in order to predict an average property with any degree of confidence. The site variability of soil strata, future changes in moisture and other conditions and the discrete sampling positions must also be considered when assessing the representative nature of the laboratory programme.

Certain laboratory test results provide interpreted soil properties as derived by conventional mathematical procedures. The applicability of such properties to engineering design must be assessed with due regard to the site, sample condition, procedure and project in hand.

TESTING

Laboratory testing is normally carried out in accordance with Australian Standard AS 1289 as amended, or in NSW, Roads and Maritime Services (RMS) standards when specified. The routine Australian Standard tests are as follows: Moisture Content AS1289 2.1.1

Liquid Limit	AS1289 3.1.1	
Plastic Limit	AS1289 3.2.1	collectively known as Atterberg Limits
Plasticity Index	AS1289 3.3.1	
Linear Shrinkage	AS1289 3.4.1	
Particle Density	AS1289 3.5.1	
Particle Size Distribution	AS1289 3.6.1, 3.6.2 and 3.6.3	
Emerson Class Number	AS1289 3.8.1	
Percent Dispersion	AS1289 3.8.2	collectively, Dispersive Classification
Pinhole Dispersion Classification	AS1289 3.8.3	
Hole Erosion (HE)	GHD Method	
No Erosion Filter (NEF)	GHD Method	
Organic Matter	AS1289 4.1.1	
Sulphate Content	AS1289 4.2.1	
pH Value	AS1289 4.3.1	
Resistivity	AS1289 4.4.1	
Standard Compaction	AS1289 5.1.1	
Modified Compaction	AS1289 5.2.1	
Dry Density Ratio	AS1289 5.4.1	
Minimum Density	AS1289 5.5.1	
Density Index	AS1289 5.6.1	
California Bearing Ratio	AS1289 6.1.1 and 6.1.2	
Shear Box	AS1289 6.2.2	
Undrained Triaxial Shear	AS1289 6.4.1 and 6.4.2	
One Dimensional Consolidation	AS1289 6.6.1	
Permeability Testing	AS1289 6.7.1, 6.7.2 and 6.7.3	

Where tests are used which are not covered by appropriate standard procedures, details are given in the report.

LABORATORIES

Our Australian laboratories are NATA accredited to AS ISO / IEC17025 for the listed tests.

The oedometer, triaxial and shear box equipment are fully automated for continuous operation using computer controlled data acquisition, processing and plotting systems.

Appendix B – Engineering logs

Client : Inner West Council 000 HOLE No. A1-BH01 28/1 Project : The GreenWay Geotechnical and Contamination Services SHEET 1 OF 1 TEMPLATE 2.00.GDT Location : UTS Haberfield Club Carpark, Haberfield, NSW Position : 328719.58 E 6250682.54 NMGA94/56 AHD Angle from Horiz. : 90° Processed : MAG Surface RL: 1.93m Rig Type : XP60 Mounting: Ute Contractor : Terratest Driller : CD Checked : MG Date: 16/01/2020 Date Started : 10/10/2019 Date Completed : 10/10/2019 Logged by : LM te: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL . OED GEO BOREHOLE AS1726 2017 2112515105-THEGREENWAY.GPJ GHD Depth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Hole Support \ Casing Consistency / Density Index [COBBLES/BOULDERS/FILL/TOPSOIL] then JSC Symbol Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects ASPHALT CARPARK PAVEMENT 0.06 [FILL] Silty Sandy GRAVEL: fine to coarse, angular, dark Μ ES grey, fine to coarse grained sand. 0.2m, PID=5.3ppm 0.40 [FILL] Gravelly SAND: fine to medium grained, pale brown, fine, angular gravel, with silt. Μ ES 0.5m, PID=7.9ppm D ES 1.0m, orange, trace clay. 1.0m, PID=4.7ppm TC-bit auger D Ē 1.40 [FILL] Gravelly CLAY: high plasticity, brown, medium to Μ coarse, angular gravel. ∇ 1.60 [FILL] Silty Gravelly SAND: medium to coarse grained, W 10/10/19 brown, fine to medium, angular gravel, trace clay. D ES 2 00 2.0m, PID=5.7ppm 2 Clayey SAND: fine to coarse grained, brown, low plasticity clay, with fine to coarse, sub-rounded gravel (alluvium). SC W L D 2 50 End of borehole at 2.50 metres. Refusal on bedrock 3 Δ 5 GHD Job No. See standard sheets for Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com ЯÐ

details of abbreviations & basis of descriptions

BOREHOLE LOG SHEET

CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

21-12515105



Client : Inner West Council 28/1/20 HOLE No. A1-BH02 Project : The GreenWay Geotechnical and Contamination Services SHEET 1 OF 1 TEMPLATE 2.00.GDT Location : UTS Haberfield Club Carpark, Haberfield, NSW 328762.99 E 6250647.90 NMGA94/56 Position : AHD Angle from Horiz. : 90° Processed : MAG Surface RL: 2.29m Rig Type : Mounting: Ute Contractor : Terratest Driller : CD Checked : MG XP60 Date: 16/01/2020 Date Started : 10/10/2019 Date Completed : 10/10/2019 Logged by : LM te: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL GEO BOREHOLE AS1726 2017 2112515105-THEGREENWAY.GPJ GHD GEO Depth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Hole Support \ Casing Consistency / Density Index [COBBLES/BOULDERS/FILL/TOPSOIL] then JSC Symbol Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects ASPHALT CARPARK PAVEMENT 0.06 [FILL] Silty Sandy GRAVEL: fine to coarse, angular, grey, Μ ES fine to coarse grained sand. 0.2m, PID=6.7ppm D ES 0.5m, PID=7.0ppm 0.60 [FILL] Sandy GRAVEL: fine, angular, brown, fine to coarse grained sand, with silt, trace brick and mortar. Μ D ES 1.0m, PID=7.0ppm 1.15 [FILL] Sandy Clayey GRAVEL: fine to medium, angular, Μ brown/grey, fine to coarse grained sand, trace brick. TC-bit auger 1.50 Ē [FILL] Silty SAND: fine to coarse grained, pale grey mottled Μ yellow, with fine to medium, angular gravel. D ES 2 2.0m, PID=10.0ppm 2 10 ∇ SC Clayey SAND: fine to coarse grained, brown, low plasticity 2.1m, marine odour W L-10/10/19 clay, with fine to coarse, sub-rounded gravel (alluvium). MD D 3.0m, PID=5.5ppm ES 3.00 3 End of borehole at 3.00 metres. Target Depth Δ 5 GHD Job No. See standard sheets for Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com ЯÐ details of abbreviations 21-12515105 & basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

BOREHOLE LOG SHEET



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				ES			-	[FILL] Gravelly SAND: fine to coarse grained, grey/brown, fine to coarse, angular gravel, with silt.	M	-	0.2m, PID=2.7ppm
				ES SPT 4/4/5 N=9	0.50			[FILL] Silty SAND: fine to coarse grained, grey/brown, with fine to medium gravel.	-		0.5m, PID=3.6ppm
' 1 - - - -				ES D	1.10			[FILL] SAND: fine to medium grained, brown, trace silt, trace fine to medium, angular gravel, trace concrete rubble.	M	-	1.0m, PID=3.7ppm 1.1 - 1.7m, high drilling resistance, possible stabilised layer.
- - - -2				SPT 5/2/6 N=8 D ES	1.70			[FILL] Silty SAND: fine to medium grained, brown.	M	-	2.0m, PID=3.1ppm
-	— TC-bit auger —	Nil		D	2.80		SC	Sandy CLAY: low plasticity, dark grey, fine to medium grained sand, dark grey, with fine to medium, sub-angular gravel, trace rootlets and wood fibres (alluvium).	w = PL	S-F	
- -3 -				2/1/3 N=4 ES \ D			SC	Clayey SAND: fine to coarse grained, pale grey, low plasticity clay, with fine to coarse, sub-rounded to subangular gravel (alluvium).	M	L	3.0m, PID=5.1ppm 3.0m, hydrocarbon odour
- - - - -			Ţ	SPT 2/2/3 N=5 D	4.00						
-		1	4/10/1	9 D SPT 4/4/11 N=15	5 00		SC	Clayey SAND: fine to medium grained, dark grey, trace coarse, sub-rounded gravel (residual).	w < LL	MD	4.0m, PID=3.0ppm 4.0m, marine odour
– ⁵				· · · · ·		<u></u>	<u> </u>	End of borehole at 5.00 metres.	-		-
S	ee stan	dard s	heets	for		GHI Level	2 29 CI	ו מושפו שפעוו hristie Street, St Leonards NSW 2065 Australia	J	od N	10.
d م	etalis o basis (i abbr of desc	eviatio			T: +6	61 2 946	62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		21	-12515105
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B	OREH	OLE LO	g shei	ET							
	lient :	Inn	er West	t Council				HOLE N	о.	A1	-BH06
	roject	: The	e Green	Way Geote un Haberfi	echnical ald NS	and C	ontam	Ination Services		SHEE	ET 1 OF 4
	osition	1 : 328	855.30	E 6250530	.33 N M	GA94/	56	Surface RL: 1.57m AHD Angle from Horiz.: 90	0		Processed : MAG
Ri	ig Typ	e: XC	Rig	Мо	unting:	Track		Contractor : Terratest Driller : CD			Checked : MG
	ate Sta	arted :	16/10/2	019		Dat	te Con	npleted: 16/10/2019 Logged by: LM			Date: 16/01/2020
		DRILI	ING					MATERIAI			Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	A			ES D ES/QA5	0.05 0.10 0.50			ASPHALT FOOTPATH. [FILL] Sandy GRAVEL: fine to coarse, angular, grey, fine to coarse grained sand, with silt. [FILL] Silty SAND: fine to coarse grained, pale brown, with fine to coarse, sub-angular gravel.	M	∧ <u>-</u> , ∧ _ , / / -	0.2m, PID=4.4ppm
			⊊ 16/10/1	SPT 11/9/5 N=14 ES \ 9			-	[FILL] Clayey SAND: fine to coarse grained, brown motited orange, medium plasticity clay, with fine to coarse, angular gravel.	PL	-	0.5m, PID=11.8ppm - - - - - - - - - - - - - - - - - -
- - - - -				SPT 9/3/3 N=6	1.30			[FILL] Sandy GRAVEL: fine to coarse, angular, brown, fine to coarse grained sand, with silt.	M		measured during high - tide - - - - - -
-2 - - - -	-bit auger	Nil		ES	2.00		SP	SAND: fine to coarse grained, dark grey/black, with silt, with fine to coarse, sub-angular gravel, trace shells (alluvium).	w	VL	- - - 2.5m, PID=7.4ppm
- - -3 - - -	10			SPT 0/1/1 N=2 U50			CI	CLAY: medium plasticity, black, with fine to medium grained sand (alluvium).	w > LL	S	2.6m, marine odour
- - -4 - - - - -				SPT 0/1/1 N=2 U50 ES	4.50		- <u>s</u> c	Sandy CLAY: low plasticity, grey/brown, fine to medium grained sand (alluvium).	w> LL	s	4.4m, PID=1.5ppm
- - 5				0/1/1 N=2	5.00						-
S	ee sta	ndard	sheets	for	_	GHI)		J	ob N	lo.
de &	etails basis	of abbi s of des	reviatio criptio	ons G	Ð	Level T: +6 CON	2 29 C 1 2 946 SULTI	hristie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

во	REHO	LE LOO	G SHE	ET							
	ent :	Inne	er Wes	t Council				HOLE N	0.	A1	-BH06
	oject :	Ine • The	Green Bay R	Way Geot	echnica field NS	and C	ontami	nation Services	-	SHEE	ET 2 OF 4
Po	sition	328	855.30	E 625053	0.33 N M	1GA94/	56	Surface RL: 1.57m AHD Angle from Horiz. : 90	0		Processed : MAG
Rig	з Туре	: XC F	Rig	Мо	ounting	Track		Contractor : Terratest Driller : CD			Checked : MG
Da	te Star	ted: 1	6/10/2	019		Dat	te Corr	Impleted : 16/10/2019 Logged by : LM			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on origina issue of log or last revision of log
	7			sts	netres			Description	lition		Comments/ Observations
SCALE (m)	Drilling Methoo	Hole Support \ Casing	Water	Samples & Te	Depth / (RL) m	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Cond	Consistency / Density Index	
							SC	Sandy CLAY: as previous. 5.6m, trace shell fragments.	w > LL	S	5.0m, casing advanced due to hole collapsing.
		HQ casing			5.80		SC	Clayey SAND: fine to coarse grained, brown (inferred residual)	(w > PL)	(St)	5.8m, material and origin inferred from drilling fluid and resistance.
- 8 - -	¥				7.97			Start of coring at 7.97 metres. For cored interval, see Core Log Sheet.			
- 10 Se det & t	e stan tails o basis d	dard s f abbr	sheets eviatio	for ons	HD	GHI Level T: +6 CON	D 2 29 Cr 31 2 946 SULTIN	hristie Street, St Leonards NSW 2065 Australia 32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	ob N 21	lo. -12515105

_	COF	RE L	OG	i she	ET																	
	Clie	nt :		Inne	er We	est C	ouncil								1	HC)LE	E N	lo. /	41-B	H06	
	CORE LOG SHEET Client :: Inner West Council Project :: The GreenWay Geotechnical and Contamination Services HOLE No. A1-BH06 Location :: The Bay Run, Haberfield, NSW SHEET 3 OF 4 Position :: 328855.30 E 6250530.33 NMGA94/56 Surface RL: 1.57m AHD Angle from Horiz. : 90° Processed : MAG Rig Type : XC Rig Mounting: Track Contractor : Terratest Driller : CD Checked :: MG Casing Dia. : HQ Barrel (m) : 1.5m Bit : Diamond (stepfaced) Bit Condition : Fair Date : 16/10/2019 Date Started : 16/10/2019 Date Completed : 16/10/2019Logged by : LM Date Logged : 16/10/2019 MATERIAL Progress Image: Started in the started in the started in the start revision of the																					
		ition	n : . •	328	вау 855 Э	Run 30 F	, Habe	meia, 30.33	NSVV NMGA94/56	Surface RI :	1.57m ΔH	n		Δnal	e fro	m F	loriz	• 90	י		ncessed	· MAG
	Ria	Tvp	•:	XCI	Ria		02000. M	ount	ing: Track	Contractor :	Terratest	U		Drill	er:(,		hecked :	MG
	 Cas	ina	Dia	 : F	HQ		В	arrel	(m): 1.5m	Bit : Diam	ond (stepfaced)		Bi	it Co	nditi	on :	Fai	r		Da	ate: 16/0	1/2020
	Date	e Sta	arte	ed: 1	6/10	/201	9 D	ate C	completed : 16/10/20)19Logged b	y:LM		Da	ate L	ogg	ed :	16/	0/20	019	Note:	* indicates sign	atures on original revision of log
Ë		D	RIL	LINC	3					MATERIA	L								NATUR	RAL FRA	CTURES	
; F	Proç	res	s		%)		se		D	escription			E	stim	ated	:	Spac	ing		Ade	ditional D	Data
		& Casing		oth (m)	oss / Run '	S & TESTS	(RL) metre	Log	ROCK NAME: grain inclusions or minor [COBBLES / BOU	n size, colour, fab components, moi and LDERS / FILL / T	ric and texture, sture, durability OPSOIL] then	ring	{ 	Strer S ₍₅₀₎ O-Dian	ngth MPa MPa		(mi	n)	(F	joints, part racture typ coating, sh	ings, seams veins) e, orientatio nape, roughr	, zones and n, infilling or ness, other,
		Drilling	Water	Drill De	(Core L	SAMPLE	Depth /	Graphic	secondary and mir	nor components, :	zoning (origin)	Weathe	<u>Soil</u> 0.03	0.3	H 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	EH S	++ 100 100	+ 300 + 1000				
	7								Start of coring at 7	.97 metres.												
- - { -	3						7.97		Sheet. CORE LOSS 530r	nm												- -
	9	NMLC coring		9.00	(74)		8.50 8.77 9.12 9.22		SAND: fine to coar (residual). CORE LOSS 230r SAND: fine to coar (residual). SANDSTONE: fine grey, indistinctly be 9.5m, pale brown.	se grained, pa nm. se grained, pa to coarse gra added at 0-5°.	ale grey	RS							-9.23m -9.23m -9.34m -9.34m	, Pt, 0°, Rf , Pt, 0°, Rf , Pt, 0°, Rf , Pt, 0°, Rf	, Pin, Cn , Pin, Cn , Pin, Cn , Pin, Cn	-
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Cli	ent :		Inn	er W	est C	Council							L	Ω		. NI	o 1		
Pro	oject	::	The	Gre	enW	ay Geo	otech	nical and Contami	nation Services				Г	U			0. AI	-01100	
Loc	catio	on :	The	e Bay	Run	, Habe	rfield	, NSW									SHEE	T 4 OF 4	
Pos	sitio	n:	328	855.	30 E	62505	30.33	8 N MGA94/ 56	Surface RL:	1.57m	AHD		Angle from	n H	oriz.	: 90	0	Processed	I: MAC
Rig	j Typ	e :	XC	Rig		N	lount	ting: Track	Contractor :	Terratest			Driller : C	D				Checked :	MG
	sing		a.: I	HQ	1004	B	arre	l (m): 1.5m	Bit : Diam	ond (stepface	ed)	Bi	t Conditio	on :	Fair	0.100	10	Date: 16/	01/202
Dat				16/10	/201	9 0	ate (Completed : 16/1		y: LM		Da	ate Logge	a: T	16/1	0/20	19	issue of log or las	t revision o
				د 					MATERIA	L			-41	-		<u>г</u>		Additional	5 Data
SCALE (M)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: inclusions or m [COBBLES /] SOIL NAME: colour, secondary and	grain size, colour, fab inor components, mo and 3OULDERS / FILL / T plasticity / primary pa d minor components,	ric and texture, isture, durability OPSOIL] then rticle characteris zoning (origin)	Weathering	<u>Soil 0.03 = 50 1</u>	$ \frac{1}{2} = 1$	20	40 (mn) 100	1000 1000	(joints Fractu coatii	, partings, seam veins) re type, orientati ng, shape, rough	Data s, zones on, infillir ness, oth
11	NMLC coring		10.50	(3)		11.20 11.25	×	SANDSTONE: 10.7m, orange 11.0m, orange CORE LOSS 5 SANDSTONE: and pale brown	as previous. red, iron staining red, iron oxide ba 0mm fine to coarse gra , indistinctly bedo	ained, pale gr led at 0-5°.	sw ey sw		•				10.50m, Pt, 10.54m, Pt, -10.66m, Pt, -11.29m, WS -11.52m, WS	0°, Rf, Pln, Cn 0°, Rf, Pln, Cn 0°, Rf, Pln, Cn 5°, Rf, Un, Cn 5m, 40mm Sm, 20mm	
12-			<u>12.00</u>			12.00		End of Borehol Target Depth	e at 12.00 metres	5.									
14																			
15-																			
Se	e sta	and	dard	shee	ts fo	or	_	GHD									Job N	lo.	
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Е	ORE	HOL	E LO	g shei	ET							
	lient	:	Inne	er West	t Council				HOLE N	0.	A1-	-BH07
	rojec	t: on	Ihe • Tho	Green	Way Geote	old NS	I and C	ontam	ination Services		SHEF	T 1 OF 4
	ositi	- no	328	866 95	E 6250528	51 N M	/GA94/	56	Surface RI : 1 44m AHD Angle from Horiz : 90	>		Processed · MAG
	tia Tv	pe	: XCF	Ria	Mo	untina	: Track		Contractor : Terratest Driller : FF			Checked : MG
	ate S	tar	ted : 2		019		Dat	te Cor	mpleted : 23/10/2019 Logged by : LM			Date: 16/01/2020
				ING					MATERIAI			Note: * indicates signatures on original issue of log or last revision of log
	1											
SCALE (m)			Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
		1				0.05	XXX		ASPHALT FOOTPATH.	-	-	
					ES	0.20			FILL] Silty Sandy GRAVEL: fine to coarse, sub-angular,	М		
-								-	[FILL] Clayey SAND: fine to coarse grained, brown, with fine	М	-	0.2m, PID=0.8ppm
-							\bigotimes		to coarse, angular gravel, trace sandstone boulders.			-
					ES		\bigotimes					0.5m, PID=0.7ppm
					4 for		\bigotimes					0.65m, SPT refusal
					HB							on boulder
-					N=ref							-
Γ ¹												1.0m, PID=0.8ppm
ŀ									1.1m, sandstone boulder			1.1m, hard drilling resistance.
ŀ												-
t												-
[1.5m, hard drilling
ŀ				⊻								-
ŀ			2	3/10/1	9							-
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t	5	מ										-
F			IZ		ES	2.50	KXX				L	
ŀ	2	5	-		D			CH	angular gravel (alluvium).	W >>	VS	∠.5m, PID=0.9ppm marine odour
t	"	-								LL		-
F												
-3												-
ŀ												·
Į.					SPT							
ŀ					(HWT)				3.3m, trace fine to medium, angular gravel.			-
ŀ												-
t												-
ŀ												-
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-4												-
F												
ŀ												-
t						4.50						-
F							<i></i>	SC	Sandy CLAY: low plasticity, grey/brown, fine to medium grained sand, trace shall fragments (alluvium)	w >	VS	
ŀ					QDT		////		ฐานการน จนกน, และระจารีก กลุงการการ (สเน็ขในกา).	LL		-
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Ľ,					(HVVT) N=0	5.00						
Ľ	00 -		dord	herte	for -		CHI	ר			oh N	lo
	ee s etail	s of	uaro s f abbr	eviatio				2 29 C	Christie Street, St Leonards NSW 2065 Australia			
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bilder in inner West Council bilder in inner West Council bilder inner West Council bilder inner West Council and Contamination Services bilder inner West Council and Contamination Services bilder inner Services bilder inner West Council and Contamination Services bilder inner Service	BORE	HOL	ELO	SHE	ET							
Project : The Great May Society from Link and Contamination Services SHEET 2 OF 4 Destination :: 3288036E EEX3028351 MIXEAM / SWrite RL: 1.44m Angle from Mortz: ::00* Forcessed :: Big Type :: X-70 Montaming Track Contractor: : Transation Tubic: ::F0* Direcessed :: Dire Started :: 2.11(2019 Date Completed : 221/02019 Logged by : LM Direcessed :: 0 Big Type :: X-10 MATERIAL MATERIAL Direcessed :: 0 Big Type :: X-10 MATERIAL Direcessed :: Direcessed :: 0 Big Type :: X-10 MATERIAL Direcessed :: Direcessed :: 0 Big Type :: X-10 MATERIAL Direcessed :: Direcessed :: 0 Big Type :: X-10 MATERIAL Direcessed :: Direcessed :: 0 Big Type :: X-10 MATERIAL Direcessed :: Direcessed :: 0 Big Type :: X-10 Big Type :: X-10 Direcessed :: Direcessed :: 0 Big Type :: X-10 Big Type :: X-10 Direcessed :: Direcessed :: 0 Big Type :: X-10 Big Type :: X-10 Direcessed :: Direcessed :: 0<	Client	:	Inne	er West	t Council				HOLE N	0.	Δ1	-BH07
Dockson / The Bay Rul, Hadding, Hson Description Angle from Horiz : 00° Processe : Processe : Decked : 1 Description Rg Type: XE Q Mounting: Track Contractor: Tractest Differ: FF Orhecked : 1 Decked : 1 Decked : 10° Deck Started: 2010/0019 Logged by : LM Differ: FF Orhecked : 1 Differ: FF Orhecked : 1 Decked : 1 Decked : 100/001 DRLLNO Bate Completed : 2010/0019 Logged by : LM Differ: FF Orhecked : 1 Differ: FF Orhecked : 1 Decked : 100/001 DRLLNO Material Bate Completed : 2010/0019 Differ: FF Orhecked : 1 Differ: FF Differ: FF Orhecked : 1 Differ: FF	Projec	st:	The	Green	Way Geote	echnical	and C	ontami	ination Services	•	SHEP	= 1 2 OF 4
Tombolis Contractor: Trailed Difference Contractor: Trailed Difference Contractor: Con	Locati	ion :	328	Bay R	E 6250528	1010, NS		56	Surface Pl : 1.44m AHD Angle from Horiz : 90	0	SHEL	Processed : MAG
Disk Standel: 22/10/2019 Date Completed: 23/10/2019 Logged by : LM Date: 18/01 DRLLING MATERIAL Material Commendiated: 23/10/2019 Logged by : LM Date: 18/01 Image: Stander Completed: 23/10/2019 Logged by : LM Date: 18/01 Text Water Stander Sta	Rig Ty	/ne ·	XC.5	200.35	L 0200020	unting	Track	00	Contractor : Terratest Driller : FF			Checked MG
DRILING MATERIAL No. Testado de la construcción de la construne la construcción de la con	Date S	Start	ed : 2	<u>9</u> 3/10/2	019	anting	Dat	te Com	npleted : 23/10/2019 Logged by : LM			Date: 16/01/2020
Direction Comment (in the result Description (in the result Operation (in the result									MATEDIAI			Note: * indicates signatures on origi issue of log or last revision of log
Image: Sector of Se				ING								
-6 -8 -6 -5 Sc Sandy CLAY: represense. 5.0m, shell fragments observed. u > US US -6 -6 -6 -6 -6 -6 -6 -6 -7 -8 -7 -7.30 SC Sandy CLAY: medium plasticity, grey, fine to coarse grained sand (residual). v < 8 6.5m, consister inferent from di- metatione and assessment. -7 -7.30 SC Clayery SAND: fine to coarse grained, pale grey mottled pale M St -8 -8 -8.00 Start of coring at 8 metres. For cored interval, see Core Log Sheet. H H	SCALE (m)	Urlling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
7 0 SC Clayey SAND: fine to ccarse grained, pale grey mottled pale M St 8 SPT 1/4/4 N=8 8.00 Start of coring at 8 metres. For cored interval, see Core Log Sheet. I		I C-bit auger	Nil		U50 D	6.50		SC SC	Sandy CLAY: as previous. 5.0m, shell fragments observed. Sandy CLAY: medium plasticity, grey, fine to coarse grained sand (residual).	w > LL w < PL	VS	6.5m, consistency inferred from drilling resistance and tactile assessment.
	- 7 - 7 				D SPT 1/4/4 N=8	7.30 <u>8.00</u>		- <u>s</u> c-	Clayey SAND: fine to coarse grained, pale grey mottled pale brown, low plasticity clay (residual).	M	St	
See standard sheets for Level 2 29 Christie Street. St Leonards NSW 2065 Australia		tano	lard s	heets	for		GHI	D 2 29 Cl	hristie Street, St Leonards NSW 2065 Australia	J	ob N	ło.
details of abbreviations	detail	s of	abbr	eviatio	ons (C	ID	Level	2 29 Ch	hristie Street, St Leonards NSW 2065 Australia		~	40545405
& basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS 21-1251510	& bas	is o	f des	criptio	ons 🛛 🚬	\sim	CON	SUI TI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

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Pr	ojec	:t:	Th	e Gre	enW	ay Geo	otechi	nical and Contami	nation Services							п		-	IN	0.	AI	-DП	07		
Lo	cati	on	Th	e Bay	/ Run	, Habe	rfield	, NSW													SHEE	T 3 0	OF 4		
Po	siti	on :	328	3866.	95 E	62505	28.51	N MGA94/ 56	Surface RL:	1.44m	AHD		A	۱ng	le fr	om	Hor	iz.	: 90	0		Proc	esse	d: M	AG
Ri	<u>д Ту</u>	pe	XC	Rig		N	lount	ing: Track	Contractor :	Terratest			D	Drill	er :	FF						Che	cked		3
	ising	g Di	a. :	HQ	2/004	E	Barrel	(m): 1.5m	Bit : Diam	iond (steptace	ed)		Bit		ondi	tior	1: (5000		40		Date Note: * inc	dicates sig	inatures of)20 on origin
	ite s	DD		23/10	J/201	9 1	ate C	completed : 23/10					Da	te I	Log	gea I	: 2	//10)/20				f log or la	st revision	n of log
		DR		G	1		1		MATERIA	L		-	-	41.00			0	!			RALI			5	
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: inclusions or mi [COBBLES / E SOIL NAME: colour, secondary and	grain size, colour, fat nor components, mc and BOULDERS / FILL / T plasticity / primary pa I minor components,	oric and texture, isture, durability 'OPSOIL] then article characteris zoning (origin)	stics, address			(50) • - A: - Diar		EH 10	1 20 1 40) 1000		(joints, Fractur coatir	, parting re type, ng, shap	s, seam veins) orientati e, rougi	is, zone	es and lling o other.
- 8						8.00		Start of coring a For Non Cored Sheet.	at 8 metres. interval, see Bor	ehole Log															
•						0.00	$ \times$	CORE LOSS 2	uumm.																
- - -			8.56	(36)		8.20		Clayey SAND: 1 brown (residual	ine to coarse gra).	ained, pale	R	s													
- - -					1			CORE LOSS 6	90mm.			ľ	~~												
-9 -	NMLC		9.25	(100)	9.25																			
- - - - -				(0)				Clayey SAND: f blue-grey (resid	ine to coarse gra ual).	ained, pale	R	s													
		4.01		- J-				CHD												1	oh N				
Se	e si	tan	ard	snee	ets fo	or		Level 2 29 Cł	nristie Street, St Le	onards NSW	2065	Aus	strali	ia						J		υ.			
ae &	bas	s ol is c	abb of des	scrip	tion	s		T: +61 2 946 CONSULTIN	2 4700 F: +61 2 NG GEOTECHN	2 9462 4710 E IICAL ENGIN	: slnm NEERS	ail@ A	@gh ND	d.co GE	om EOL	OG	ISTS	6			21	-12	515	10	5

<u></u>	DRE L	.00	SHE	ΕT																			
Client : Inner West Council HOLE No. A1-BH07																							
	Location : The Bay Run, Haberfield, NSW SHEET 4 OF 4																						
Po	sitio	n :	328	866.9	95 E	6250528.51 NMGA94/ 56 Surface RL: 1.44m AHD							Angle from Horiz. : 90°						Processed : MAG				
Ri	д Тур	be :	XC F	Rig		M	Mounting: Track Contractor : Terratest							Driller : FF						Checked	: MG		
Ca	sing	Dia	a.: ⊦	IQ		В	Barrel (m): 1.5m Bit : Diamond (stepfaced)							Bit Condition : Good						Date: 16	/01/2020		
Da	te St	art	ed : 2	3/10	/201	9 D	ate C	completed : 23/10/2	2019Logged b	y:LM			Da	te Lo	ogge	d:2	27/10	0/20	19	issue of log or la	gnatures on origin ast revision of log		
Dro		ואכ		,					MAIERIA Description	L			Fe	time	tod	6	haci	na		Additional	S Data		
SCALE (m)	Drilling & Casing	Water	Drill Depth (m) (Core Loss / Run % SAMPLES & TESTS			Depth / (RL) metres	Graphic Log	Lescription ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)			e, ty ristics,	Weathering	Strength Is ₍₅₀₎ MPa - Diametral SC - C - C - C - Diametral		(mm) (mm)		- 1000 - 1000	(joints, partings, seams, zones a veins) Fracture type, orientation, infilling coating, shape, roughness, othe					
- - - - - -			10.06	(46)		10.06		Clayey SAND: as CORE LOSS 690 Clayey SAND: fin blue-grey (residua	previous.)mm. e to coarse gra al).	ined, pale									-				
- 11 - - - -			11.56 12.50 13.30			11.23		SANDSTONE: m orange borwn mo bedded.	edium to coars ttiled blue-grey,	e grained, indistinctly	Ē	EW							-				
- - 12 - - -	NMLC			12.50 13.30	(0)		12.00	· · · · · · · · · · · · · · · · · · ·	SANDSTONE: fir red-brown and pu mottling, indistinc	ne to coarse gra Irple with orang tly bedded.	ained, dark ge-brown		łW							•12.22m, W	Sm, 40mm. Sm, 70mm.		
- - - - 13 -					3.30	(0)			· · · · · ·	12.50-13.00m, w	ith fine gravel s	sized voids	Ν	луу							-12.60m, Pt, 12.63m, Pt, -12.85m, Jt,	10°, Pln, Rf, F, 10°, Pln, Rf, F, 75-80°, Un, Rf,	e. e. Fe.
- - - - -				(0)	(0)	(0)	(0)	(0)		13.35	· · · · · · · · · · · · · · · · · · ·	SANDSTONE: fir grey, pale red and indistinctly bedde	ne to medium g d pale orange-b d at 10-20°.	edium grained, pale range-brown, 20°.		sw							-13.98m. ISi
- 14 - - -	4		14.64	(0)		14.64	· · · · · · · · · · · · · · · · · · ·	14m, pale grey, tr laminations.	ace carbonace	eous		Fr							-14.13m, W	Sm, 15mm.			
- - - 15 Se	e sta	anc	lard s	shee	ts fo	pr		End of Borehole a Target Depth	at 14.64 metres	S									Job N	lo.			
de &	Identify Set all set al																						





BC	DREHOL	E LOC	SHE	ET								
27 Cl	ient : oiect :	Inne The	er Wes Green	t Council Way Geote	chnical	and C	ontami	nation Services	JLE N	0.	A1	-HA01
	cation	: The	Bay R	un, Haberfi	ield, NS	W					SHEE	T 1 OF 1
8 Pc	sition :	328	782.42	E 6250614	1.56 N N	IGA94/	56	Surface RL: 1.99m AHD Angle from	Horiz. : 90°	,		Processed : MAG
Ri	g Type	: Hand	d auger	Мо	unting	NA		Contractor : NA Driller : NA				Checked : MG
Da Da	ate Star	t ed : 1	1/10/2	019		Dat	te Con	pleted : 11/10/2019 Logged by : I	.M			Date: 16/01/2020
		DRILL	ING					MATERIAL				Note: * indicates signatures on original issue of log or last revision of log
.GPJ GHD_GEC	pod	ort		Tests	.) metres	D	0	Description		ondition	y/ ex	Comments/ Observations
105-THEGREENWAY SCALE (m)	Drilling Met	Hole Suppo \ Casing	Water	Samples &	Depth / (RL	Graphic Loo	USC Symb	SOIL NAME: plasticity / primary particle characteristics, colour, so minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions of components, durability, strength, weathering / alteration, d	condary and r minor efects	Moisture Co	Consistenc Density Ind	
2017 21125151			Itered	ES	0.25		-	[TOPSOIL] Silty SAND: fine to medium grained, ligh trace sub-angular gravel, trace rootlets.	brown,	М	-	
GEO BOREHOLE AS1726	Hand Auger	Nil	oundwater Not Encour	ES			-	[FILL] Silty SAND: fine to medium grained, brown, w to coarse, sub-angular gravel.	th fine	M	-	
\mathbf{F}			Gro	D	0.80			[FILL] CLAY: medium to high plasticity, pale brown,	with fine			
ŀ	V				0.90			_grained sand. End of borehole at 0.90 metres				
2												
- - - - - - - - - - - - - - - - - - -	ee stan etails of	dard s	heets	a for ons	E	GHI Level T: +6) 2 29 Cl 1 2 946	ristie Street, St Leonards NSW 2065 Australia 2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		J	ob N 21	lo. -12515105



BC	DREHO	LE LOO	g she	ET								
Cli	ient :	Inne	er Wes	st Council				HOLE N	0	Δ1	-1 D01	
i Pro	oject :	The	Greer	nWay Geote	echnical	and C	ontami	nation Services	0.			
	cation	: Rich	hard M	lurden Rese	erve, Ha	berfiel	d, NSW		0	SHEE		
	POSITION: 328833.04 E 023				0.29 N IV	IGA94/	56	Surface RL: 1.48m AHD Angle from Horiz. : 90			Processed : MAG	
	g Type		0		unting		to Com	Contractor : Terratest Driller : CD				
				713		Da					Note: * indicates signatures on origin	
			ING		1	issue of log of last revision of log						
CALE (m)	rilling Method	Vater amples & Tests				raphic Log	SC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strendth, weathering / alteration, defects	loisture Condition	onsistency / ensity Index	Comments/ Observations	
				ES ES	0.10		-	[TOPSOIL] SAND: medium grained, light brown, trace gravel, with rootlets. [FILL] SAND: medium grained, light brown, with angular gravel.	M		0.2m, PID=3.8ppm 0.5m, PID=4.1ppm	
- - - -	—TC-bit auger	īz		ES	0.80			[FILL] Silty SAND: fine to coarse grained, brown, dark brown, trace fine to medium, sub-angular to angular gravel. [FILL] Sandy CLAY: low plasticity, dark grey and dark brown, fine to coarse grained sand trace fine to medium	M		1.0m, PID=5.2ppm	
-		8/	⊊ (10/20 ⁻	В 19	1.50		- <u>s</u> c-	Sandy CLAY: low plasticity, dark grey, fine to coarse grained sand, trace shells (alluvium).	w > PL	F		
-2 - - - - - 3 - - - - - - - -				ES	2.00			End of borehole at 2.00 metres. Target Depth			2.0m, PID=4.1ppm	
ŀ												
Se	e stan	dard c	sheets	s for		GHI	D		J	ob N	l o.	
de	tails o	fabbr	eviatio	ons 6		Level	2 29 Ch	nristie Street, St Leonards NSW 2065 Australia 2 4700 E: +61 2 9462 4710 E: slomail@ddd.com		~	40545405	
&	& basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS								21-12515105			


BC	REHO	E LO	g she	ET							
Cli Pro	ient: oject:	Inne The	er Wes Green	t Council Way Geote	echnica	l and C	ontami	nation Services HOLE N	0.	A1	-LD02
a Lo	cation	: Rich	nard M	urden Rese	erve, Ha	aberfiel	d, NSV	/		SHEE	ET 1 OF 1
Po	sition :	328	829.30	E 6250260).83 N N	/IGA94/	56	Surface RL: 1.40m AHD Angle from Horiz. : 90	0		Processed : MAG
[⊥] ⊲ Rig	д Туре	: XP6	0	Мо	unting	: Ute		Contractor : Terratest Driller : CD			Checked : MG
Da	te Star	ted:8	8/10/20)19		Dat	te Con	npleted : 8/10/2019 Logged by : LM			Date: 16/01/2020
2		DRILL	ING					MATERIAL			issue of log or last revision of log
	q			ests	netres			Description	dition		Comments/ Observations
SCALE (m)	Drilling Metho	Hole Support \ Casing	Water	Samples & Te	Depth / (RL) r	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Con	Consistency / Density Index	
-				ES	0.20		-	[TOPSOIL] Silty SAND: fine to coarse grained, dark brown, low plasticity silt, with/ trace fine to medium, sub-angular gravel, rootlets present.	м	-	
					0.20			[FILL] Clayey SAND: fine to coarse grained, dark grey,	м		0.2m, PID=3.3ppm
					0.30	'		FILLI Sandy CLAY: medium plasticity dark grevel.	м	+	
			ES	VQA1/QA2 B				medium grained sand, with coarse, sub-angular gravel, trace brick.			0.5m, PID=6.0ppm
-	er		⊈ B/10/19	9							
	aug			ES				0.9m, trace organics.	W		
-1	:-bit	z			1 10						1.0m, PID=6.2ppm
-	-10				1.10		- <u>c</u> i -	CLAY: medium plasticity, black with grey lenses, trace fine	w >	F	1.1m, possible
-				D							
-											
-2	V			ES	2.00			End of borehole at 2.00 metres. Target Depth			2.0m, PID=2.7ppm
-											
f											
┠│											
-3											-
f											
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┠╵											
Se	e stan	dard s	heets	for		GHI	D		J	ob N	lo.
de &	tails o basis o	f abbr	eviatio criptio	ons G	HD	Level T: +6	2 29 Cl 31 2 946 SUIL TH	nristie Street, St Leonards NSW 2065 Australia 2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		21	-12515105



Client : Inner West Council 28/1/20 HOLE No. A1-LD03 Project : The GreenWay Geotechnical and Contamination Services SHEET 1 OF 1 TEMPLATE 2.00.GDT Location : Richard Murden Reserve, Haberfield, NSW Position : 328757.75 E 6250089.97 N MGA94/ 56 Surface RL: 1.30m AHD Angle from Horiz. : 90° Processed : MAG Rig Type : XP60 Mounting: Ute Contractor : Terratest Driller : CD Checked : MG Date Completed : 8/10/2019 Date Started : 8/10/2019 Logged by : LM Date: 16/01/2020 te: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL . 0<u>9</u>0 GEO BOREHOLE AS1726 2017 2112515105-THEGREENWAY.GPJ GHD Depth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Hole Support \ Casing Consistency / Density Index [COBBLES/BOULDERS/FILL/TOPSOIL] then JSC Symbol Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects [TOPSOIL] Silty SAND: medium grained, brown, trace Μ rootlets. ES 0.20 [FILL] Silty SAND: medium grained, brown, with medium to 0.2m, PID=2.2ppm Μ coarse, angular gravel. 0.40 [FILL] Silty SAND: medium grained, black, with clay, trace Μ -ES medium to coarse, angular gravel. 0.5m, PID=3.3ppm Groundwater Not Encountered в TC-bit auger ES Ī 1.0m, PID=2.2ppm 1.10 [FILL] Clayey SAND: medium to coarse grained, dark grey, Μ with sub-angular, medium to coarse sandstone gravel. D 1.8m, pale grey. 2.0m, PID=3.0ppm ES 2.00 2 End of borehole at 2.00 metres. Target Depth 3 GHD Job No. See standard sheets for

details of abbreviations & basis of descriptions

BOREHOLE LOG SHEET

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Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS



BOREHOLE LOG SHEET Client : Inner West Council 28/1/20 HOLE No. A1-LD04 Project : The GreenWay Geotechnical and Contamination Services SHEET 1 OF 1 TEMPLATE 2.00.GDT Location : Richard Murden Reserve, Haberfield, NSW 328697.96 E 6249983.50 NMGA94/56 Position : AHD Angle from Horiz. : 90° Processed : MAG Surface RL: 1.43m Rig Type : Mounting: Ute Driller : CD Checked : MG XP60 Contractor: Terratest Date Completed : 8/10/2019 Date Started : 8/10/2019 Logged by : LM Date: 16/01/2020 te: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL . 0<u>9</u>0 GEO BOREHOLE AS1726 2017 2112515105-THEGREENWAY.GPJ GHD Jepth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Hole Support \ Casing Consistency / Density Index [COBBLES/BOULDERS/FILL/TOPSOIL] then JSC Symbol Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects [TOPSOIL] Silty SAND: fine to medium grained, brown, trace Μ rounded gravel, trace rootlets. ES 0.2m, PID=1.8ppm 0.30 [FILL] Clayey SAND: fine to medium grained, brown with Μ orange-red mottles, medium plasticity clay, with fine to coarse, sub-angular gravel. ES 0.5m, PID=2.2ppm в TC-bit auger ES Ē 1.0m, PID=2.5ppm 1 30 [FILL] Sandy Gravelly CLAY: medium to high plasticity, fine to medium grained sand, sub-rounded gravel, trace shells. w = --PL 1.50K Ω CLAY: medium plasticity, black with grey lenses, trace fine 1.5m, possible w > PL F grained sand, trace shells (alluvium) reworked alluvium ⊻ 8/10/19 D ES 2.0m, PID=1.8ppm 2.00 2 End of borehole at 2.00 metres. Target Depth 3 GHD Job No. See standard sheets for Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com ЯÐ details of abbreviations 21-12515105 & basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS



Client: Inner West Council HOLE Project: The Green/Way Geotechnical and Contamination Services HOLE Doction: Richard Murden Reserve, Haberfield, NSW Position: 32832.51 E 6249913.40 MIGA94/56 Surface RL: 1.55m AHD Angle from Horiz: Rig Type: XP60 Mounting: Ute Contractor: Terratest Driller: CD Date Started: 8/10/2019 Date Completed: 8/10/2019 Logged by: LM Diff. The Green/Way Geotechnical and Contamination Services MATERIAL Description Date Started: 8/10/2019 Date Completed:: 8/10/2019 Logged by: LM Diff. The Green/Way Geotechnical and Contamination Services CORRELS/BOULDERS/FILL/TOPSOIL] then Soil: NATERIAL Diff. The Green/Way Geotechnical and Contamination Green/Green/Service Description CORRELS/BOULDERS/FILL/TOPSOIL] then Contactor: Contacto	No.	•	A1	
Instruction Richard Murdan Reserve, Haberfield, NSW Position: 328632.51 E 6249919.40 NMGA94/56 Surface RL: 1.55m AHD Angle from Horiz. Right Murdan Reserve, Haberfield, NSW Contractor: Terratest Driller: CD Date Started: 8/10/2019 Date Completed: 8/10/2019 Logged by: LM Diff Image: Started: 8/10/2019 Date Completed: 8/10/2019 Logged by: LM Diff Image: Started: 8/10/2019 Date Completed: 8/10/2019 Logged by: LM Diff Image: Started: 8/10/2019 Date Completed: 8/10/2019 Logged by: LM Diff Image: Started: 8/10/2019 Image: Started: SOIL NAME: grain size, colour, fabric/: texture, inclusions or minor components, zonig (origin) and ROCK NAME: grain size, colour, fabric/: texture, inclusions or minor components, durability, strength, weathering / ateration, defects Image: Starter Image: Starter Image: Starter Image: Starter Image: Starter Image: Starter Image: Starter Image: Starter Image: Starter Image: Starter Image: Starter Image: Starter <thimage: starter<="" th=""></thimage:>	90°			
Position: 328632.51 E 6249919.40 N/MGA94/.56 Surface RL: 1.56 AHD Angle from Horiz.: Rig Type: XP60 Mounting: Ute Contractor: Terratest Driller: CD Date Started: 8/10/2019 Date Completed: 8/10/2019 Logged by: LM Ording Item Item Solt MATERIAL Description Item Item Item Solt NAME: plasticity primary particle characteristics. colour, secondary a minor components. zoning (origin) and minor compo	90°		SHE	ET 1 OF 1
Rig Type : XP60 Mounting: Ute Contractor : Terratest Driller : CD Date Started : 8/10/2019 Date Completed : 8/10/2019 Logged by : LM DRILLING MATERIAL MATERIAL DRILLING MATERIAL Description Image: Started : 8/10/2019 Image: Started : SOIL NAME: plasticity / primary partice characteristics, colour, secondary a minor components, colour, fabric / teacher, inclusions or minor components, colour, fabric / teacher, incl				Processed : MAG
Date Started : 8/10/2019 Date Completed : 8/10/2019 Logged by : LM DRILLING MATERIAL Diametry Diametry Diametry Diametry Diametry Diametry Diametry Diametry Diametry Diametry <				Checked : MG
DRILLING MATERIAL Description Image: Statistic framework of the statistic framework o				Date: 16/01/2020
Product				issue of log or last revision of log
Image: Sector of the sector	Moisture Condition		Consistency / Density Index	Comments/ Observations
Image: Solution of the second state	M	Л	-	
Image: Service of the service of t	м	Л		0.2m, PID=1.5ppm
 B B B CI CI FILL] Silty CLAY: medium plasticity, dark grey, with fine to medium grained sand, trace fine gravel. CI FILL] Silty SAND: fine to coarse grained, grey, trace fine to medium, angular gravel, trace shells. B B CI CLAY: medium plasticity, black with grey lenses, with fine grained sand, trace shells (alluvium) 				0.5m, PID=1.6ppm
-1 Image: set of the set of th	w: PL	= 'L		
Image: Specific structure I	. <u></u>	Л		1.0m, PID=1.8ppm
	w 2 PL	 "L	St	
2 ES 2.00 2 End of borehole at 2.00 metres. 3 Target Depth				2.0m, PID=0.8ppm
See standard sheets for details of abbreviations GHD Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: slnmail@ghd.com		J	ob N	No.



ВС	OREHO	E LOO	G SHE	ET							
Cli 28/1/20 Pro	ient: oject:	Inne The	er Wes Green	t Council Way Geote	echnical	l and C	ontam	ination Services HOLE N	0.	A1	-LD06
Lo	cation	: Rich	nard M	urden Rese	erve, Ha	berfiel	d, NSV	V		SHEE	et 1 of 1
0 No	sition	328	613.72	E 6249806	6.37 N N	1GA94/	56	Surface RL: 1.73m AHD Angle from Horiz. : 90	0		Processed : MAG
¦ 	g Type	: XP6	0	Мо	unting	: Ute		Contractor : Terratest Driller : CD			Checked : MG
Da	te Star	ted:8	/10/20	19		Dat	te Con	npleted : 8/10/2019 Logged by : LM			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on origina issue of log or last revision of log
J GHD_GEC			_	sts	letres			Description	lition		Comments/ Observations
05-THEGREENWAY.GP. SCALE (m)	Drilling Methoo	Hole Support \ Casing	Water	Samples & Te	Depth / (RL) m	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Cond	Consistency / Density Index	
7 211251510				ES	0.20		-	[TOPSOIL] Silty SAND: fine to medium grained, brown, with rootlets.	м	-	
0KEHOLE_AS1/26 201				ES	0.20			[FILL] Silty Gravelly SAND: fine to medium grained, brown, angular, fine to coarse gravel with clay.	М	-	0.2m, PID=2.0ppm 0.2m, possible ACM. 0.5m, PID=2.2ppm
	nger			в	0.60		-	[FILL] Sandy CLAY: medium plasticity, black, fine to coarse grained sand, with fine to coarse gravel.	w = PL	-	
-1	oit aı	Ī		ES		\bigotimes					1 0m PID=2 5ppm -
ŀ	2		Ţ		1.10	\bigotimes					1.0m, 1 10-2.0ppm
		8/	10/201	B	2.00			grained sand, trace shells (alluvium)	PL	St	reworked alluvium
-2 - - - - - - - - - - - - - - - -	- -				2.00			End of borehole at 2.00 metres. Target Depth			-
Ŀ											
Se	e stan	dard s	heets	for		GHI	D		J	ob N	lo.
de &	tails o basis o	f abbro	eviatio criptic	ons C	HD	T: +6	2 29 C 61 2 946 SULTI	NIISUE Sureel, St Leonards INSW 2005 Australia 32 4700 F: +61 2 9462 4710 E: sinmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105



Client : Inner West Council 28/1/20 HOLE No. A1-LD07 Project : The GreenWay Geotechnical and Contamination Services SHEET 1 OF 1 TEMPLATE 2.00.GDT Location : Richard Murden Reserve, Haberfield, NSW Position : 328582.19 E 6249715.10 N MGA94/56 AHD Angle from Horiz. : 90° Processed : MAG Surface RL: 1.75m Rig Type : XP60 Mounting: Ute Contractor : Terratest Driller : CD Checked : MG Date Completed : 9/10/2019 Date Started : 9/10/2019 Logged by : LM Date: 16/01/2020 te: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL . 0<u>9</u>0 GEO BOREHOLE AS1726 2017 2112515105-THEGREENWAY.GPJ GHD Depth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Hole Support \ Casing Consistency / Density Index [COBBLES/BOULDERS/FILL/TOPSOIL] then JSC Symbol Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects [TOPSOIL] Silty SAND: fine to medium grained, brown, trace Μ rootlets. ES 0.20 [FILL] Silty SAND: fine to coarse grained, light brown yellow, 0.2m, PID=1.5ppm Μ with fine to medium, angular gravel. ES 0.5m, PID=1.3ppm Groundwater Not Encountered в TC-bit auger ES 1.00 Ī [FILL] CLAY: medium plasticity, black, with fine to medium 1.0m, PID=2.1ppm w = grained sand, trace fine to coarse, angular gravel, trace PL cobbles. в 1.80 [FILL] Silty Gravelly SAND: fine to coarse grained, black, fine Μ to coarse, angular gravel. ES 2.0m, PID=5.6ppm 2.00 2 End of borehole at 2.00 metres. Target Depth 3 GHD Job No. See standard sheets for

details of abbreviations & basis of descriptions

BOREHOLE LOG SHEET

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Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS



Client : Inner West Council 28/1/20 HOLE No. A1-LD08 Project : The GreenWay Geotechnical and Contamination Services SHEET 1 OF 1 TEMPLATE 2.00.GDT Location : Richard Murden Reserve, Haberfield, NSW Position : 328549.70 E 6249650.72 NMGA94/56 AHD Angle from Horiz. : 90° Processed : MAG Surface RL: 1.66m Rig Type : Mounting: Ute Driller : CD Checked : MG XP60 Contractor: Terratest Date Completed : 9/10/2019 Date: 16/01/2020 Date Started : 9/10/2019 Logged by : LM te: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL 0 B D GEO BOREHOLE AS1726 2017 2112515105-THEGREENWAY.GPJ GHD Jepth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Hole Support \ Casing Consistency / Density Index [COBBLES/BOULDERS/FILL/TOPSOIL] then JSC Symbol Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects [TOPSOIL] Silty SAND: fine to medium grained, dark brown, Μ trace rootlets. ES 0.20 [FILL] Silty Gravelly SAND: fine to coarse grained, dark 0.2m, PID=3.4ppm Μ brown, angular, fine to coarse gravel, trace glass fragments. ES 0.50 [FILL] Clayey Gravelly SAND: fine to coarse grained, dark brown, medium plasticity clay, angular, fine to coarse gravel, 0.5m, PID=1.0ppm М with cobbles, trace glass fragments. Groundwater Not Encountered в TC-bit auger ES Ī 1.0m, PID=3.4ppm 1.20 [FILL] Sandy CLAY: medium plasticity, black, fine to coarse w = PL grained sand, with fine to medium, angular gravel. D 1.5m, organic odour 2.0m, PID=1.4ppm ES/QA3 2.00 2 End of borehole at 2.00 metres. Target Depth 3 GHD Job No. See standard sheets for ЯÐ

details of abbreviations & basis of descriptions

BOREHOLE LOG SHEET

Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS



Ē	BORE	IOLE	LOG	SHEE	ET							
	Client	:	Inner	West	Council				HOLE N	0.	A1-	-LD09
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2 3 F	Positio	on :	3284	98.31	E 6249539	0.31 N N	1GA94/	56	Surface RL: 1.83m AHD Angle from Horiz. : 90'	>		Processed : AJET
F	Rig Ty	pe:	XP60		Мо	unting	: Ute		Contractor : Terratest Driller : CD			Checked : MG
	Date S	tarteo	I: 9/	10/20	19		Da	te Con	npleted : 9/10/2019 Logged by : LM			Date: 16/01/2020
		DF	RILLI	NG					MATERIAL			issue of log or last revision of log
	poq		:		Tests	.) metres	D	0	Description	ondition	y/ ex	Comments/ Observations
SCALE (m)		ounis aloH	\ Casing	Water	Samples &	Depth / (RL	Graphic Lo	USC Symb	SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Co	Consistenc Density Ind	
-					K	0.10			[TOPSOIL] Silty SAND: fine to medium grained, brown, trace rootlets.	M		
-					ES				grained, with fine to coarse, angular gravel, with brick, tile and glass.			0.2m, PID=1.7ppm
-					D ^s ES	0.50			[FILL] Silty Sandy GRAVEL: fine to coarse, angular, grey, fine to coarse grained sand.	M		0.5m, PID=2.3ppm
				countered	В							
	LC_bit auroa		īz	ater Not Enc	ES							1.0m, PID=2.1ppm
ŀ				Groundw								
-						1.40			[FILL] Silty SAND: fine to coarse grained, black, with angular gravel, trace metal fragments.	M		
-						1.70			[FILL] Silty Gravelly SAND: fine to coarse grained, black, fine to medium, angular gravel, with clay.			
-2					ES	2.00	\bigotimes		End of boroholo at 2.00 matrice			2.0m, PID=3.5ppm
-									Target Depth			
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-3	3											-
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1	See st	anda	rd sl	neets	for		GHI Level	D 2 29 C	nristie Street, St Leonards NSW 2065 Australia	J	ob N	ю.
	Jetalls & basi	sora sofe	bore desc	riptio	ons C	2	T: +6 CON	61 2 946 SULTI	2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105



Client : Inner West Council 28/1/20 HOLE No. A1-LD10 Project : The GreenWay Geotechnical and Contamination Services SHEET 1 OF 1 TEMPLATE 2.00.GDT Location : Richard Murden Reserve, Haberfield, NSW Position : 328404.64 E 6249367.76 NMGA94/56 AHD Angle from Horiz. : 90° Processed : AJET Surface RL: 1.82m Rig Type : XP60 Mounting: Ute Contractor : Terratest Driller : CD Checked : MG Date Completed : 9/10/2019 Date Started : 9/10/2019 Logged by : LM Date: 16/01/2020 te: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL GEO BOREHOLE AS1726 2017 2112515105-THEGREENWAY.GPJ GHD GEO Depth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Hole Support \ Casing Consistency / Density Index [COBBLES/BOULDERS/FILL/TOPSOIL] then JSC Symbol Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects [TOPSOIL] Silty SAND: fine to medium grained, brown, with Μ . rootlets. ES 0.20 [FILL] Silty SAND: fine to coarse grained, brown/yellow, with 0.2m, PID=2.4ppm Μ _ fine to coarse, angular gravel. ES 0.50 [FILL] Silty Gravelly SAND: fine to coarse grained, light Μ 0.5m, PID=4.3ppm Groundwater Not Encountered brown, fine to coarse, angular gravel. D TC-bit auger ES Ī 1.0m, PID=2.8ppm 1.10 [FILL] Clayey SAND: fine grained, with fine, angular gravel. Μ в 1.50 ΓI CLAY: medium plasticity, brown with grey lenses, with fine to w = PL St medium grained sand (alluvium) D 2 00 2.0m, PID=2.3ppm ES 2 End of borehole at 2.00 metres. Target Depth 3 Δ 5 GHD Job No. See standard sheets for Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com ЯÐ details of abbreviations 21-12515105 & basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

BOREHOLE LOG SHEET



Client : Inner West Council 28/1/20 HOLE No. A1-LD11 Project : The GreenWay Geotechnical and Contamination Services SHEET 1 OF 1 TEMPLATE 2.00.GDT Location : Richard Murden Reserve, Haberfield, NSW Surface RL: 2.20m Position : 328400.15 E 6249225.91 NMGA94/56 AHD Angle from Horiz. : 90° Processed : AJET Rig Type : XP60 Mounting: Ute Contractor : Terratest Driller : CD Checked : MG Date Completed : 9/10/2019 Date Started : 9/10/2019 Logged by : LM Date: 16/01/2020 te: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL GEO BOREHOLE AS1726 2017 2112515105-THEGREENWAY.GPJ GHD GEO Jepth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Hole Support \ Casing Consistency / Density Index [COBBLES/BOULDERS/FILL/TOPSOIL] then JSC Symbol Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects [TOPSOIL] Silty SAND: fine grained, brown, with rootlets. _ Μ . ES 0.2m, PID=1.3ppm 0.30 [FILL] Silty SAND: fine to coarse graained with fine to coarse, Μ angular gravel, with sandstone cobbles. ES 0.50 [FILL] Silty Gravelly SAND: fine to coarse grained, brown, Μ 0.5m, PID=2.5ppm fine to coarse, angular gravel. D TC-bit auger ES 1.00 Ē [FILL] Silty Clayey SAND: fine grained, brown, medium Μ 1.0m, PID=1.7ppm plasticity clay, trace fine, angular gravel. в ∇ 1.70 SC Clayey SAND: medium to coarse grained, black, medium w MD 9/10/19 plasticity clay (alluvium). D ES 2.0m, PID=2.0ppm 2 00 2 End of borehole at 2.00 metres. Target Depth 3 Δ 5 GHD Job No. See standard sheets for Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com GHD details of abbreviations

& basis of descriptions

BOREHOLE LOG SHEET

CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS



_	BORE	HOL	E LOO	g shee	ET							
	Client	:	Inne	er West	t Council	obnico		ontomi	HOLE N	0.	A2	-BH02
	Locat	ion :	: IWL	R Corr	idor. Lewis	ham. N	I and C ISW	ontarin	Ination Services		SHEE	ET 1 OF 3
2 3 1	Positi	on :	328	380.23	E 6248168	.58 N N	1GA94/	56	Surface RL: 9.24m AHD Angle from Horiz.: 90	0		Processed : AJET
	Rig Ty	/pe	: XC F	Rig	Мо	unting	: Track		Contractor : Terratest Driller : CD			Checked : MG
	Date \$	Star	ted: 1	8/10/2	019		Dat	te Con	npleted : 18/10/2019 Logged by : LM			Date: 16/01/2020
			DRILL	ING					MATERIAL			issue of log or last revision of log
		rilling Method	ole Support Casing	ater	amples & Tests	epth / (RL) metres	raphic Log	SC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components durability strength weathering / alteration defects	oisture Condition	onsistency / ensity Index	Comments/ Observations
			± _	>	ES	0.20			[TOPSOIL] Sandy GRAVEL: fine to coarse, angular, brown, fine to medium grained sand, with silt. [FILL] Silty SAND: fine to coarse grained, brown, with fine to	м М	-	0.2m, PID=4.8ppm
					ES				coarse, angular gravel.			0.5m, PID=5.6ppm
: - - - - - - -	1				SPT 3/2/3 N=5 ES \	0.80 1.10			[FILL] Sandy CLAY: medium plasticity, brown, fine to coarse grained sand, with fine to medium, angular gravel.	w < PL		1.0m, PID=5.2ppm
-					SPT 3/4/5 N=9	1.90			medium plasticity clay (residual).	PL		
-2 - - - -	2	I C-bit auger	Nil	Not Encountered	ES	2.50	÷ 7 7	CH	CLAY: high plasticity, pale red, trace fine to coarse grained sand, trace fine to medium, rounded ironstone gravel (residual).	w = PL	St	2.0m, PID=5.9ppm
	3			Groundwater	SPT 3/4/5 N=9				pale brown, trace fine, sub-rounded ironstone gravel (residual).	PL	51	
- - - - - -	4				SPT 2/5/8 N=13	4.50						
ŧ					SPT 12 for	4.50 4.70	7.7 	-	SANDSTONE: fine grained, red-brown, highly weathered (bedrock)	-	-	4.5m, PID=12.3ppm
	5				150mm HB N=ref				Start of coring at 4.7 metres. For cored interval, see Core Log Sheet.			-
E	See c	tan	dard o	heete	for		GHI	2		J	ob N	lo.
	detail	s of	fabbr	eviatio	ons C	Ð	Level T: +6	2 29 Cl 1 2 946	hristie Street, St Leonards_NSW_2065_Australia 62 4700 F: +61 2 9462 4710 E: sInmail@ahd.com		24	19515405
L	& bas	is c	of des	criptio	ons 🛛 🎽	\sim	CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

Lo	catio	n :	IWL	R Co	orrido	or, Lew	ishar	n, NSW	0.1										n			· .
Po	sitio	n :	328	380.2 Dia	23 E	62481	58.58	NMGA94/56	Surface RL:	9.24m	AHD		An	gle	tron	n Ho	ríz.	: 90'		-+	Proce	ssed: A
C2	y iyp sing	ne: Dia		NY HO		IVI P	arrol	(m) · 1.5m	Rit · Diam	ond (stepfor	ed)		Rit (Con	. UL ditio	י חינ	- air			-+	Date	16/01/20
Da	te St	arte	ed: 1	. <u> </u>	/201	<u>ם</u> ס 9	ate C	Completed : 18/1)/2019 Logaed b	y: LM			Date) Lo	gged	d: 1	8/10)/20	19		Note: * indica	tes signatures
	C	DRIL	LING	;					MATERIA									N	ΙΑΤυ	RAL F	RACTU	JRES
Pro	gres	s		(%)		Ś			Description			Τ	Esti	mat	ed	Sp	aci	ng			Additio	nal Data
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run ^c	SAMPLES & TESTS	Depth / (RL) metre	Graphic Log	ROCK NAME: inclusions or m [COBBLES / I SOIL NAME: colour, secondary and	grain size, colour, fab nor components, mo and 3OULDERS / FILL / T plasticity / primary pa d minor components,	ric and texture, sture, durability OPSOIL] then rticle characteri zoning (origin)	, Weather ing		Str Is ₍₅₀ 0.1 0.1 0.1 0.1 0.1 0.1 0.1	eng MI - Axial Diametra $C \leftarrow C$	th Pa) 70 70	mm) 1000		(joints, Fracture coating	partings, ve e type, ori g, shape,	seams, zone ins) entation, infi roughness,
-1																						
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4						4.70		Start of coring a For Non Cored Sheet. CORE LOSS 3	at 4.7 metres. interval, see Bord 00mm.	shole Log	-											
5						5.00	\vee															

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	ient :		Inn	er vv Gro	est C	ouncil	otech	nical and Contamination Service						Н	OL	E N	o. A2	-BH02
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	sitio	n :	328	380.	23 E	62481	68.58	NMGA94/56 Surface R	L: 9.24m	AHD		Α	nale	from	h Hor	iz.:90	•	Processed : AJET
Ri	g Tvn	e:	XC	Ria		N	loun	ing: Track Contracto	r: Terratest			D	riller	: CГ)			Checked : MG
	asina	Dia	a.:			R	arrel	(m): 1.5m Bit · Dia	amond (stepfar	ced)		Bit	Con	litio	n:F	air		Date: 16/01/2020
Da	ate St	art	ed :	18/10)/201	9 D	ate (Completed : 18/10/2019Logged	bv:LM	,		Dat	e Lo	aaec	1 : 18	8/10/20	19	Note: * indicates signatures on origina
	Г	DRI		3				MATER						55		<u> </u>		FRACTURES
Pr	oares	s						Description			T	Est	timat	ed	Sp	acing		Additional Data
<u> </u>		Ť		u %	S	etres		ROCK NAME: grain size, colour,	fabric and texture,			St	reng	th		mm)	(iointe	nartings seams zones and
Ê	sin		Ê	/Ru	EST	me		inclusions or minor components, and	noisture, durability	y		ls ₍	₅₀₎ MF	Pa	,	,	Joint	veins)
Ц	Ű		oth (SSC	8.1	(RL	Lo Co	[COBBLES / BOULDERS / FILL	/ TOPSOIL] then	ing line		0	 Axial Diametra 	I			Fractu coat	ure type, orientation, infilling or ing, shape, roughness, other.
CAL	bu	٦	Dep	e Lo	ЪГЩ	th /	ohic	secondary and minor componen	ts, zoning (origin)	istics, atthe	8		ς.	0				5, 1, 5, ,
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-		F		Ĕ			<u> </u>	SANDSTONE: fine grained ro	ad_vellow		0.	, >- 	⊐≥⊥ ⊗		N4	-0-	E 0 Em 14/5	
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Ē						5.45	····	SANDSTONE: fine grained ro	ad-brown									
								bleached pale grey at defects,	indistinctly								-5.53m, WS fragments.	m, CLAY and rock
								bedded at 10-15°, trace carbo	naceous								5,	
┠							· · · ·											
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-6										нм	/						 5.97m, WS fragments, 	om, CLAY and rock
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-7	Z					7.03											-	-
F						1.01		SANDSTONE: fine to medium	grained, pale	— нм	/						7.10m W/S	m CLAV 10mm
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								granica and carbonaccous lar	initations.									
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ŀ						8.13		CORE LOSS 30mm.	analis - J J		f	Ħ					1	
┡								grey, indistinctly bedded at 0-	i grained, pale 10°.									
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de	tails	of	abbr	evia	tion	s (θH	Level 2 29 Christie Street, St T: +61 2 9462 4700 F' +6	Leonards NSW	/ 2065 Au E: sinmai	ust I <i>@</i>	tralia)ahd	a I.com				0.4	1 49545495
&	basis	5 0	f des	crip	tions	s		CONSULTING GEOTECH	INICAL ENGI	NEERS	AN	٧D	GEO	LOG	ISTS	6	2	1-12515105



	BOF	REHOL	E LOG	SHEE	T							
2	Clie	nt :	Inne	r West	Council				HOLE N	О.	A2	-BH03
3	Proj	ect : ation ·	The	Green	Way Geote	echnical ∽h ⊔ill	and C	ontami	nation Services		SHEF	=
	Posi	ition :	3281	173.66	E 6247796	5.87 N M	IGA94/	56	Surface RL: 17 28m AHD Angle from Horiz.: 90	0	0	Processed : AJFT
i 	Rig	Type :	SD05	5	Мо	unting	Ute		Contractor : Stratacore Driller : DM			Checked : MG
	Date	Start	ed: 1	6/10/20	019		Dat	te Con	npleted : 16/10/2019 Logged by : JS			Date: 16/01/2020
			DRILLI	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
					ts	etres			Description	tion		Comments/ Observations
	SUALE (M)	Drilling Method	Hole Support \ Casing	Water	Samples & Tes	Depth / (RL) me	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condi	Consistency / Density Index	
				ountered	ES	0.10			ASPHALT PAVEMENT. [FILL] Gravelly SAND: fine to coarse grained, fine to coarse, sub-angular to angular gravel.	 D	-	0 5au DID=0 7aure
		-TC-bit auger-	Nil	vater Not Enco	D	0.70		- <u>c</u> i-	CLAY: medium plasticity, orange-brown, with fine to coarse grained sand (residual).	w < PL	VSt	ט.sm, אם אפן אין אין אין אין אין אין אין אין אין אי
ľ	1			Groundv	ESZ	1.20					н	1.0m, PID=3.8ppm
ŀ				_		4.50	· · · · ·	-	SANDSTONE: brown and orange brown, inferred medium strength, moderately to highly weathered (bedrock).	-	-	-
Ē		_				1.50			End of borehole at 1.50 metres. Refusal			-
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	See deta & ba	stand ails of asis o	dard s abbre f desc	heets eviatic criptio	for ons ons	HD	GHI Level T: +6 CON	D 2 29 Cf 51 2 946 SULTII	nristie Street, St Leonards NSW 2065 Australia i2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	ob N 21	^{10.} -12515105



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07/1/8		ent:	Inne	r Wes	t Council				HOLE N	0.	A2	-BH04
N N	Loc	cation :	Wes	Green	reet Dulwi	ecnnicai ch Hill	NSW	ontami	nation Services		SHEE	ET 1 OF 1
5.00 .00	Pos	sition :	328	174.74	E 6247742	2.24 N M	IGA94/	56	Surface RL: 15.82m AHD Angle from Horiz. : 90	>		Processed : AJET
	Rig	Type :	SD0	5	Мо	ounting	Ute		Contractor : Stratacore Driller : DM			Checked : MG
Ц Ш Ц	Dat	e Start	ed : 1	6/10/2	019		Dat	te Con	npleted : 16/10/2019 Logged by : JS			Date: 16/01/2020
5			DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
HEGREENWAY.GPJ GHD_GEG	SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
		-				0.00						
G L G Z I		Î		red		0.08	$\times\!\!\times\!\!\times$	-	IFILLI Gravelly SAND: fine to coarse grained, dark grey.	- M	-	-
- 2				unte	ES	0.30	\bigotimes		brown, pale brown, fine to coarse, sub-angular to angular			0.2m, PID=4.6ppm
		ler –		ncol		0.00	ŤŤ		[FILL] Clayey SAND: fine to coarse grained, dark grey, low	м	-	
			Nil	Indwater Not Er	D ^R ES	0.80			plasticity clay.			0.5m, PID=9.1ppm 0.5m, Hydrocarbon odour
<u>-</u>				Grot	FS		 		strength, highly to moderately weathered (bedrock).			-
	·1 ·2 ·3 ·4			Ο̈	ES	1.05			End of borehole at 1.05 metres. Refusal			1.0m, PID=11.5ppm
F	0 -		Jar-1	h c - 1	for E		СПі	ר ר		1	oh N	
	See det & b	e stanc ails of basis o	dard s abbro f deso	heets eviatio criptio	for ons ons	HD	GHI Level T: +6 CON	2 29 CH 31 2 946 SULTII	hristie Street, St Leonards NSW 2065 Australia 52 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	21	-12515105



	Client :	Inne	er Wes	t Council				HOLE N	о.	A2	D-BH04
	-roject : _ocation	The : The	Green	Way Geote Way Footp	echnical ath. Su	and C	ontam Hill. N	SW	•-	SHEE	ET 1 OF 3
	Position	: 328	450.98	E 6248456	6.48 N N	IGA94/	56	Surface RL: 3.57m AHD Angle from Horiz. : 90	•		Processed : AJET
Ĭ	Rig Type	: SD0	5	Мо	unting	Ute		Contractor : Stratacore Driller : DM			Checked : MG
	Date Sta	rted: 1	5/10/2	019		Dat	te Cor	mpleted : 15/10/2019 Logged by : JS			Date: 16/01/2020
		DRILL	ING					MATERIAL			issue of log or last revision of log
	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
				ES	0.07		-	ASPHALT FOOTPATH. [FILL] Clayey SAND: fine to coarse grained, dark brown, trace fine to coarse, sub-angular to angular gravel.	<u>-</u> м		0.2m, PID=3.6ppm
	1			ES SPT 5/8/5 N=13 ES/QA1	0.50			[FILL] Gravelly Sandy CLAY: low plasticity, brown and dark brown, medium to coarse grained sand, fine to coarse, sub-angular sandstone gravel.	w = PL		0.5m, PID=2.6ppm
					1.50		-сн-	CLAY: high plasticity, pale grey mottled pale brown, brown and red brown, with fine to coarse grained sand (residual).	w > PL	F	1.5m, PP=100-150kPa
- -2 - -	TC-bit auger	ĪŻ	t Encountered	3/3/5 N=8	0.50						2.0m, PID=5.4ppm
- - - - - :	3		Groundwater No	SPT 6/9/6 N=15	2.50		SC	Sandy CLAY: medium plasticity, pale grey mottled pale brown and red brown, fine to coarse grained sand, trace fine to medium, sub-rounded ironstone gravel (residual).	w = PL	St	2.5m, PP=150-200kPa
					3.30	<u>2.22</u>		SANDSTONE: medium to coarse grained, pale grey and brown, highly weathered, very low strength (bedrock).			
- 4	1							Start of coring at 3.88 metres. For cored interval, see Core Log Sheet.			
\mathbf{F}											
Ę	5 📖			└\					L		
	See star	ndard s	sheets	for		GHI	D 2 20 C	hristie Street Stleonards NSW 2065 Australia	J	ob N	lo.
	details c & basis	f abbr of des	eviatio criptio	ons C		T: +6	51 2 940 SULTI	62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com ING GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

BOREHOLE LOG SHEET

Here: "In Inter Web Course: The Other Middle Course interaction Service: The Other Middle Course interaction:	CC	DRE L	.0G	SHE	ET																
Bits Description SHEET 2 of 3 sation: The description The description The description The description sation: The description The description The description The description sation: The description The description The description The description sation: The description The description The description The description satism dots The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The description The descript	CI	ient :		Inne	er W	est C	ouncil	4. 1.						ŀ	IOL	.E	No	. A2	D-BH	04	
existion: 3044008 E 024468 49 NMG90 H (S) Surface RL: 3.57m AHD Angle from Hork: 100 Processed : ALET g type: 8003 Methods (S) Surface RL: 3.57m AHD Angle from Hork: 100 Processed : ALET g type: 8003 Methods (S) Surface RL: 3.57m AHD Angle from Hork: 100 Processed : ALET Description: 1.50m AHD ANGLE (S) ANGLE (S	Pr	oject catio	: n·	The	Gre Gre	envva onWa	ay Geo ay Eoc	otechi	Nical and Contami	nation Services								SHEE	T 2 OF	3	
Ip Type: State Mountling: Use: Constractor: Duiller: Duiller: Duiller: Duiller: Mountling: <	Po	sitio	n :	328	450.9	98 E	ay Foc 62484	56.48	NMGA94/ 56	Surface RL:	3.57m A	AHD	Aı	nale from	n Ho	riz. :	90°		Process	sed:/	AJET
Barrie Din: HO Barrel (m:: 1 5m Bit: Demond (stratesco) Bit Condition:: Nov Date: Condition:: Nov	Ri	q Typ	be:	SDO	15		N	lount	ing: Ute	Contractor :	Stratacore		Di	iller : D	M				Checke	d: N	1G
eter Statict 1: 51:00:2010 Test Completed : 19:00:2019 Completed : 1	Ca	sing	Dia	.: H	IQ		В	arrel	(m): 1.5m	Bit : Diam	ond (stepfaced	3)	Bit	Conditio	on: N	New			Date:	16/01/2	2020
INCLUSION MATERIAL CATURATEREE OPENED Image: Standard Specific Constrained Spe	Da	te St	arte	d : 1	15/10	/201	9 D	ate C	completed : 15/10)/2019 Logged b	y:JS		Dat	e Logge	d: 1	5/10	/2019	9	Note: * indicate issue of log of	s signature or last revis	s on origir ion of log
Concersion Spacing (Concersion) Spacing (Concersion		0	DRIL	LING	3					MATERIA	L						NA	TURAL	FRACTU	RES	
Image: Strangend in the st	Pro	ogres	s		(%		SS		DOOKNAME	Description			Est	imated	Sp	acir	ng		Addition	al Data	a
Bit of coring at 3.88 metres. For Non Cored interval, see Borehole Log Start of coring at 3.88 metres. For Non Cored interval, see Borehole Log Start of coring at 3.88 metres. For Non Cored interval, see Borehole Log Start of coring at 3.88 metres. (0) 4.61 m, fine to coarse grained. (1) 95m, pale grey, desimit fine grained (1) 95m, pale grey, desimit fine grained (1) 95m, pale grey, desimit fine grained (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (3) (2) (2) (2) (2) (2) (2) (2) (2) (2) (3) (2) (2) (2) (3) (2) (3) (3) </th <th>SCALE (m)</th> <th>Drilling & Casing</th> <th>Water</th> <th>Drill Depth (m)</th> <th>(Core Loss / Run</th> <th>SAMPLES & TESTS</th> <th>Depth / (RL) metr</th> <th>Graphic Log</th> <th>ICOBBLES / E SOIL NAME: colour, secondary and</th> <th>nor components, moi and OULDERS / FILL / Ti blasticity / primary pa minor components,</th> <th>sture, durability OPSOIL] then rticle characteristic zoning (origin)</th> <th>weathering</th> <th></th> <th></th> <th>) 90 10 10 10 10 10 10 10 10 10 10 10 10 10</th> <th>mm)</th> <th>1000</th> <th>(joints Fractu coatir</th> <th>, partings, se vein re type, orier g, shape, ro</th> <th>eams, zo s) utation, ir ughness</th> <th>nes and filling c , other.</th>	SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run	SAMPLES & TESTS	Depth / (RL) metr	Graphic Log	ICOBBLES / E SOIL NAME: colour, secondary and	nor components, moi and OULDERS / FILL / Ti blasticity / primary pa minor components,	sture, durability OPSOIL] then rticle characteristic zoning (origin)	weathering) 90 10 10 10 10 10 10 10 10 10 10 10 10 10	mm)	1000	(joints Fractu coatir	, partings, se vein re type, orier g, shape, ro	eams, zo s) utation, ir ughness	nes and filling c , other.
image: standard sheets for etails of abbreviations a basis of descriptions GHD Level 2 29 Christie Street, St Leonards NSW 2065 Australia Job No. T: +61 2 9462 4700 F: +61 2 9462 4710 F: shmail@ghd.com CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS Job No.		NMLC coring			(0)		3.88		Start of coring a For Non Cored Sheet. SANDSTONE: brown to pale b 0-5°. 4.61m, fine to c	at 3.88 metres. interval, see Bore medium to coars rown, indistinctly oarse grained.	ehole Log e grained, bedded at	HW					-3 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4	8.95m, WSi 1.04m, Pt, Q 1.12m, Pt, S 1.20m, WSi 1.34m, WSi 1.50m, Pt, Q ragments 1.61m, Pt, Q ragments	n, 20mm [°] , Rf, Pin, C [°] , Rf, Pin, C n, 10mm n, 70mm [°] , RF, Pin, ro	n n ock ock	
GHD Level 2 29 Christie Street, St Leonards NSW 2065 Australia Job No. tetails of abbreviations Level 2 29 Christie Street, St Leonards NSW 2065 Australia 21-12515105 basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS 21-12515105	- - -5							· · · · ·	4.95m, pale gre laminations at 2	y, distinct fine gr. 0°.	ained	SW						-			
etails of abbreviations basis of descriptions	Se	e sta	and	ards	shee	ts fo	or 📘		GHD									Job N	lo.		
basis of descriptions	de	tails	of	abbr	evia	tion	s (e l	Level 2 29 Ch T: +61 2 946	ristie Street, St Le 2 4700 F: +61 2	onards NSW 2 9462 4710 F [.]	2065 Au sInmail	stralia @ahd	i .com				04	4054	E4 ^	E
	&	basis	s of	des	crip	tions	; Ì		CONSULTIN	IG GEOTECHN	ICAL ENGINE	EERS A	AND	GEOLO	GISTS	S		∠	-1231	510	J

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Pr	ojec	t :	The	Gre	enW	/ay Ge	otechi	nical and Contami	nation Services						Г	U			INU). AZ	ם-סחי	J 4
Lo	cati	on	The	Gre	enW	ay Foo	otpath	, Summer Hill, NS	W											SHEE	T 3 OF	3
Po	sitio	on :	328	3450.9	98 E	62484	56.48	N MGA94/ 56	Surface RL:	3.57m	AHD		-	\ng	le fror	n Ho	oriz	2. : 9	90°		Process	sed : AJET
Ri	g Ty	pe :	SDC)5		N	lount	ing: Ute	Contractor :	Stratacore			[Drill	er : D	M					Checke	d: MG
	ising	j Di	a.:		1004	E	Barrel	(m): 1.5m	Bit : Diam	iond (stepface	ed)		Bi		onditio	n:	Ne	W 40/	004	0	Date: Note: * indicate:	s signatures on ori
	ile 5			15/10	//201	19 L	ate C	completed : 15/10		y: JS			Da	ite	Logge	a: T	15/	10/.	201		issue of log o	or last revision of lo
				,					MATERIA	L					4					TURAL		
	Jgre	55		(% ر		tres		ROCK NAME:	grain size, colour, fat	pric and texture,				sun stre	ngth	3	(m	cini m)	9		Addition	ai Dala
Ē	sing	'	Ê	Rur	ESTG	met		inclusions or mi	nor components, mo	isture, durability			ls	5 (50)	MPa		(111	,		(joints	, partings, se vein	eams, zones ai s)
<u>с</u>	Ca		th (r	ss /	& TI	RL)	Log	[COBBLES / E	BOULDERS / FILL / 1	OPSOIL] then		ing		•-A •Diar	xial netral					Fractu	re type, orier	tation, infilling
SAL	s gr	5	Dep	e Lo	LES) / ų	hic	SOIL NAME: colour, secondary and	plasticity / primary pa minor components,	article characteris zoning (origin)	tics,	ther	8,	- ო	0					coati	ig, snape, io	uginicas, onic
Š	Drilli	Vate	Jrill	Č	AMF	Dept	Grap		• •	0(0)		Vea	0		-∞÷ _∟⊏⊏			88	8			
		7			0,		<u> </u>					_	ທ>		≥⊥⊃⊔		4-	- ന യ				
-								SANDSTONE.	as previous.									8	*	5.08m, Pt, §	5°, Rf, Pln, C	n
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de	tails	s of	abbr	evia	tion		<u>5</u>	T: +61 2 946	2 4700 F: +61 2	2 9462 4710 E	: slnr	nail	@gh	id.co	om					21	-1251	5105
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	BORE	HOL	E LOG	S SHEE	ET										
	Client	:	Inne	r West	t Council				HOLE N	0.	A2	D-BH05			
	Projec	st:	The	Green	Way Geote	chnical	l and C	iontami	ination Services	•••	SHEF	ET 1 OF 3			
5.0	Positi	on :	3284	43.59	E 6248434		IGA94/	56	Surface RL: 3.69m AHD Angle from Horiz.: 90	0		Processed : AJET			
i _ i	Ria T	//////////////////////////////////////	SD05	5	Mo	untina	: Ute		Contractor : Stratacore Driller : DM		Checked : MG				
	Date S	Start	ed: 1	5/10/2	019	<u> </u>	Dat	te Con			Date: 16/01/2020				
			ORII I	ING					MATERIAI			Note: * indicates signatures on original issue of log or last revision of log			
-											1				
		Drilling Metrioa	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Moisture Condition	Consistency / Density Index	Comments/ Observations				
					ESA	0.07		<u> </u>	ASPHALT FOOTPATH. [FILL] Gravelly SAND: fine to coarse grained, dark grey, fine to medium, sub-angular gravel.	<u>-</u> М		0.2m, PID=2.9ppm			
	1				SPT 6/14/22 N=36 ES \				0.8m, sandstone boulder.			1.0m, PID=2.9ppm			
	2	- I C-DII augel	Nil	q	SPT 2/3/5 N=8 ES \	1.30		CH	CLAY: high plasticity, pale brown mottled brown, pale grey and red brown, with fine to coarse grained sand (residual).	w > PL	F	- 1.5m, PP=100kPa - - - - - - - - - - - - - - - - -			
-				dwater Not Encountered	SPT 6/	2.10 2.70		- <u>-</u> -	Gravelly CLAY: low to medium plasticity, red-brown, fine to coarse, sub-rounded ironstone gravel (residual).	w = PL	St	2.011, 112-0.0ppm - - - -			
t				uno.	2 for 140mm	2 02	· · · ·		highly weathered, very low strength (bedrock).			-			
	4	7		Ð	HB N=ref	2.93			Start of coring at 2.93 metres. For cored interval, see Core Log Sheet.						
E	, <u> </u>			·	6		CUI								
	See S Hotail	tanc s of	and s	neets				2 29 CI	hristie Street, St Leonards, NSW 2065 Australia	J					
L	& bas	is o	f desc	criptio	ons		I: +6 CON	51 2 946 SULTI	oz 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21-12515105				

Г	CORE LOG SHEET																						
		ent:	Int: Inner West Council HOLE N													٥V	o. A2D-BH05						
1		catio	Ition: The GreenWay Geolecimical and Containination Services														SHEET 2 OF 3						
	Po	sitio	n :	328	443.	59 E	62484	34.57	NMGA94/ 56	Surface RL:	Surface RL: 3.69m AHD Angle from Ho								0°	Processed : AJET			
i –	Ric	g Typ	e:	SDO	15		N	lount	ing: Ute	Contractor :	Stratacore		Driller : DM Checked							ed: MG			
	Ca	sing	Dia	a.:	IQ		B	arrel	- (m): 1.5m	Bit : Diam	iond (stepfaced))	Bi	t Co	onditi	on :	Ne	w			Date:	16/01/2020)
	Date Started : 15/10/2019								completed : 15/10		Da	ate I	Logg	ed :	15/	10/2	019	19 Note: * indicates signatures on original issue of log or last revision of log					
	DRILLING										N							ATURAL FRACTURES					
	Pro	gres	s		(%		B Description							Estimated				cing			Addition	nal Data	
	SCALE (m)	Drilling & Casing Water Drill Depth (m) (Core Loss / Run SAMPLES & TESTS				SAMPLES & TESTS	Depth / (RL) metr	Graphic Log	ICOBBLES / E SOIL NAME: colour, j secondary and	ninor components, moisture, durability and / BOULDERS / FILL / TOPSOIL] then r, plasticity / primary particle characteristics, nd minor components, zoning (origin)				Is ₍₅₀₎ MPa - Axial ○ - Diametral 0 - Diametral 0 - Diametral 0 - Diametral 0 - Diametral 0 - Diametral		EH 2	(mm)			(joints, partings, seams, zones ar veins) Fracture type, orientation, infilling coating, shape, roughness, othe			and g or er.
	2																						
	3						2.93		Start of coring a For Non Cored Sheet. CORE LOSS 6	at 2.93 metres. interval, see Bor 50mm.	ehole Log												-
	4	NMLC coring		4.23	(50)	-	3.58		SANDSTONE: stained orange- 0-5°. 4.1m, trace carl	fine to coarse gra brown, indistinct bonaceous lamir	ained, pale grey ly bedded at nations.	MW. SW			•				-4 -4 -4	.03m, Pt, 5 .08m, Pt, 0 .29m, Pt, 0 .30m, Pt, 0 .48m, Pt, 0	°, Rf, Pin, C °, Rf, Pin, C °, Rf, Pin, S °, Rf, Pin, S °, Rf, Pin, C	an In Cin Sn	-
F	5				(0)																		
	See standard sheets for details of abbreviations & basis of descriptions & consult TING GEOTECHNICAL ENGINEERS AND GEOLOGISTS Job No. 21-12515105																						

É																							
	Clien	t :	-	Inner West Council HOLE N The GreenWay Geotechnical and Contamination Services												o. A2	o. A2D-BH05						
	-roje _oca	ι: tion	: -	The	Gree	envva enW∘	ay Geo av Foo	nechr tpath	Summer Hill NSV	auon Services V								_	SHEET 3 OF 3				
	Posit	ion	: :	3284	143.5	59 E	62484	34.57	N MGA94/ 56	Surface RL:	3.69m	AHD		Α	ngle f	rom	Hori	z. : 90	٥	Processe	d: AJET		
	Rig T	ype	: 3	SD05	5		N	lount	i ng: Ute	Contractor : Stratacore					riller	DN				Checked	MG		
	Casir	ng D	ia. :	H	Q		В	arrel	(m): 1.5m	Bit : Diam	ond (stepfac	ed)		Bit	Cond	itior	1 : N	ew		Date: 16/	/01/2020		
Ľ	Date	Star	ted	: 1	5/10	/2019) D	Date Completed : 15/10/2019Logged by : JS						Da	te Log	ged	: 15	/10/20	19	Note: * indicates sig issue of log or las	natures on original st revision of log		
)	DR		ING	i 1					MATERIA	L		_	-	41.ee - 1		•	1		FRACTURE	S Deta		
	rogr	ess	-		u %)	6	tres		ROCK NAME: gr	Description ain size, colour, fab	ric and texture,			ES St	timate	n	Spa (n	acing	(isints	Additional	Data		
5			1	Ê	/Ru	EST() me	_	inclusions or mine	or components, moi and	moisture, durability			ls	(50) MP	a	(,	(joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.				
	2 C 0	ວັ ຮ	440		SSO	S&T	(RL)	Loc	[COBBLES / BC	OULDERS / FILL / T	OPSOIL] then		ling	o	 Axial Diametral 								
					ore L	1 PLE	oth /	Iphic	secondary and r	ninor components,	zoning (origin)		arne	0.3.7.03		6		~					
	<u>ה</u> ר			5	ő	SAN	Del	Gra				Mo	A C	Soil VL		Ч Н	62	68 <u>6</u>					
									SANDSTONE: a	s previous.													
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																			-5.40m, Pt, 5	5°, Rf, Pln, Cn	-		
			5.	.62				· · · · ·											-5.55m, Pt, §	5°, Rf, Pln, Cn	-		
-								····											-5.71m, Pt, 2	2°, Rf, Pln, X	-		
2									5.8m, trace carbonaceous flecks												-		
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Ŀ	-	+	6.	.97			6.97	• • • •	End of Borehole	at 6.97 metres				+		+	++				-		
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	see s detai	stan Is o	idar if al	a s bre	nee eviat	ts to tions	r		Level 2 29 Chri	istie Street, St Le	onards NSW	2065	Au	strali	a								
	& ba	sis	of d	lesc	ript	ions			CONSULTIN	G <u>G</u> EOTECHN	ICAL ENGI	sinm NEERS		wgno ND	GEOL	. <u>o</u> G	ISTS		21	-12515	105		


21-12515105

A2D-BH05 1/1

Ē	BOREHO	DLE LO	g shei	ET							
	Client :	Inn	er Wes	t Council				HOLE N	0.	A 2	D-BH06
	roject :	Ih∈ N: Ga	i Green	Way Geote	echnica nmer H	I and C	ontam N	Ination Services		SHEE	ET 1 OF 3
	Position	: 328	426.96	E 6248282	2.39 N M	1GA94/	56	Surface RL: 3.91m AHD Angle from Horiz. : 90	0		Processed : AJET
F	Rig Type	: SDC	5	Мо	unting	Ute		Contractor : Stratacore Driller : DM			Checked : MG
	Date Sta	rted :	14/10/2	019		Dat	te Con	npleted : 14/10/2019 Logged by : VW			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
					res			Description	uc		Comments/
	Drilling Method	Hole Support \ Casing	Water	Samples & Test	Depth / (RL) met	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Conditi	Consistency / Density Index	Observations
-				ES	0.30		-	[FILL] SAND: fine to medium grained, dark grey and grey, with medium, sub-angular to sub-rounded gravel. [FILL] Sandy CLAY/ Clayey SAND: fine to medium grained,	M	-	0.2m, PID=3.1ppm
				ES	0.70		- 	brown and red, grey, low to medium plasticity clay, with fine, angular to subangular gravel, trace rootlets.	w > PL		0.5m, PID=4.5ppm
! }- }- }- 1 - 1				SPT 5/4/5 N=9 ES \			-	[FILL] Sandy CLAY: medium plasticity, dark grey and brown, fine to medium grained sand.	w > PL	-	- - 1.0m, PID=4.0ppm
- - - - - - - - - - - - -	TC-bit auger	Ni	ter Not Encountered	SPT 6/3/2 N=5 ES SPT	2.50			SANDSTONE: medium to coarse grained, pale grey, highly weathered, low strength (bedrock).	-	-	2.0m, PID=6.0ppm
- - - - -	3		Groundwa	140mm HB N=ref				Start of coring at 2.65 metres. For cored interval, see Core Log Sheet.			
- - - - - - - - - - - -	L										
Ĺ,	<u>,</u>										-
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	bee stai details d	ndard s	sneets eviatio	ons		Level	2 29 C	hristie Street, St Leonards NSW 2065 Australia	J		
Į	& basis	of des	criptic	ons		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

_	OR	RE LO	OG	SHE	ET																		
	lie	nt :		Inne	er Wo	est C	ouncil									H	OL	E	N	o. A2	D-BH	06	
	roj	ect : ation	: • •	The	Gre	enW Rosc	ay Geo	techr	Nical and Contamin	ation Services										SHE	ET 2 OF	3	
F	Posi	tion	:	328	426.9	96 E	62482	32.39	N MGA94/ 56	Surface RL:	3.91m	AHD		An	gle fr	om	Hor	iz. :	90°	,	Proces	sed : /	JET
F	Rig '	Туре	e :	SD0	5		M	ount	ing: Ute	Contractor :	Stratacore			Dri	ller :	DM					Checke	ed:N	IG
0	Casi	ing [Dia	.: H	IQ		В	arrel	(m): 1.5m	Bit : Diam	ond (stepface	ed)		Bit C	ondi	tior	1: F	air			Date:	16/01/2	2020
)ate	sta	irte	d: 1	4/10	/201	9 D	ate C	completed : 14/10/	2019Logged b	y: ∨W			Date	Log	ged	: 14	4/10	/20	19	Note: * indicate issue of log	es signature or last revis	s on original ion of log
		D	RIL	LING	•					MATERIA	L		-						Ν	ATURAL	FRACTU	RES	
		Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: g inclusions or min [COBBLES / B(SOIL NAME: colour, p secondary and i	Uescription vain size, colour, fat or components, mo and DULDERS / FILL / T lasticity / primary pa minor components,	oric and texture, isture, durability 'OPSOIL] then article characteris zoning (origin)	Weathering			$\frac{\text{Axial}}{\sum \mathbf{e} \mathbf{e} \mathbf{e}}$	EH 10	10 10 10 10 10 10 10 10 10 10 10 10 10 1		19000	(joints Fractu coati	Addition s, partings, s veir rre type, orie ng, shape, ro	ai Data eams, zo is) ntation, ir bughness	a nes and filling or , other. - -
									Start of coring at	2.65 metres.													-
							2.65		For Non Cored in Sheet. CORE LOSS 30	nterval, see Bor 0mm.	ehole Log												-
		NMLC coring		4.26	(18)		4.07		SANDSTONE: fi orange-brown, n 3.90m, indistinct SANDSTONE: fi grey, distincutly grained and carb	ne grained, pale hassive. ly thinly bedded ne to medium <u>c</u> bedded at 0-15 ⁶ honaceous lamin	rained, pale , with fine nations.	MV SV Fr	V -							-2.98m, Pt, I 3.02m, FZ, 3.05m, Pt, I -3.20m, Pt, I -3.25m, Jt, 2 -3.46m, Pt, I 4.66m, Pt, I 4.67m, Pt, I	0-5°, Rf, Un, 0-5°, Rf, Pin, F 5°, Rf, Pin, C 5°, Rf, Pin, C 5°, So, Pin, f 5°, So, Pin, f 0°, Rf, Pin, C	Sand , Gravel e :n Cn -e	-
	See	sta	nda	ard s	shee	ts fo	or I		GHD											Job N	lo.		
	leta	ails (of a	abbr	evia	tion	s	θH	Level 2 29 Chr T: +61 2 9462	istie Street, St Le 4700 F: +61 2	eonards NSW 2 9462 4710 E	2065 A : slnma	ust iil@	tralia)ghd.o	com					21	-125	1510	5
18	k ba	asis	of	des	crip	tions	s		CONSULTIN	G GEOTECHN	IICAL ENGIN	IEERS	A١	ND G	EOL	OG	STS	3					-

		6 SH																	
Client	ent : Inner West Council ject : The GreenWay Geotechnical and Contamination Services											-	NI.						
Projec	ct :	The	Gre	enWa	ay Geo	otechr	nical and Contamir	nation Services					Н	OL	.E	N). A2	D-RH06)
Locati	tion	Ga	digal	Rese	rve, Sı	umme	er Hill, NSW										SHEE	T 3 OF 3	
Positi	ion :	328	3426.9	96 E	624828	82.39	N MGA94/ 56	Surface RL:	3.91m Al	ID		Angle f	rom	Hor	iz. :	90°		Processed	I: AJET
Ria Tv	vpe	: SDO)5		M	lount	ina: Ute	Contractor :	Stratacore		[Driller	: DN	1				Checked :	MG
Casin	na Di	a.: I	HQ		В	arrel	(m): 1.5m	Bit : Diam	ond (stepfaced)		Bi	t Cond	itio	n:F	air			Date: 16/	01/2020
Date §	Star	ted :	14/10	/2019	- 9 D	ate C	completed · 14/10	/2019Logaed b	v : VW		Da	ate Loc	aed	1: 14	4/10	/201	9	Note: * indicates sig	natures on orig
	DR		3			<u>uto e</u>		MATERIA	,				<u>, 9</u>		.,	N	ΔΤΠΡΔΙ		t revision of to
Progre	066							Description			E	etimate	bd	Sn	acir	201		Additional	, Nata
Drillina & Casina	Water	Drill Depth (m)	(Core Loss / Run %	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: ç inclusions or mir [COBBLES / B SOIL NAME: colour, ş secondary and	rain size, colour, fab ior components, mo and OULDERS / FILL / T plasticity / primary pa minor components,	ric and texture, sture, durability OPSOIL] then rticle characteristics zoning (origin)	Weathering	Soil 0.03 F 0		H 10 B 4	+ 20 + 40	nm)	1000	(joints Fractu coatir	, partings, seam veins) re type, orientati ng, shape, rough	s, zones a on, infilling ness, othe
		5.83	(0)				SANDSTONE: a	as previous.									-5.08m, Pt, 5 -5.17m, Pt, 5	°, So, Pln, Cn °, So, Pln, Cn	
2 view of the second se		7.24	(0)		7.04	· ·				Fr		•					6.49m, Pt, (6.61m, Pt, 5 6.64m, WS/ -7.12m, Pt, ()°, So, Pin, CLA` °, Rf, Pin, CLAY n, 20mm)°, RF, Pin, CLA`	ſ Ve Ve
3							End of Borehole Target Depth	at 7.24 metres.											
1																			
10—																			
10 See s	stan	dard	shee	ts fo	or 📕		GHD										Job N	lo.	





PointID : A2D-BH06 Depth Range: 7.00 - 7.24 m

	Imper Meet Council	drawn HW	DATE 2/12/2019	
CHD	The GreenWay Geotechnical and Contamination Services	CHECKED	DATE 2/12/2019	
GHD	Gadigal Reserve, Summer Hill NSW	SCALE Not To S	cale	A4
	Core Photographs	PROJECT № 21-12515105	FIGURE № A2D-BH06 2/2	,

Cli	ent :	Inne	r Wes	t Council					_		
Pro	oject :	The	Greer	nWay Geote	chnica	l and C	ontam	ination Services HOLE N	0.	AZ	D-BH07
Lo	cation	: The	Greer	Way Footpa	ath, Su	mmer I	Hill, NS	SW		SHEE	
PO	sition :	3284 • SD04	+15.14	E 0248283			90	Contractor : Stretacore Driller : DM			Checked : MG
Dat	te Star	ted: 1	, 4/10/2	2019	unung	Dat	te Con	npleted : 14/10/2019 Logged by : VW			Date: 16/01/2020
											Note: * indicates signatures on orig issue of log or last revision of log
			NG							1	
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
							-	ASPHALT FOOTPATH	-	-	
				ES SPT 3/4/3 N=7 ES	0.40		-	[FILL] Sandy CLAY: low plasticity, dark brown, fine to medium grained sand, with fine to medium, sub-angular to angular gravel.	SM	F	0.5m, PID=3.4ppm
·1	TC-bit auger	Nil	ntered	SPT 4/ 6 for 80mm HB N=ref ES/DUP1							1.0m, PID=3.7ppm 2.0m, PID=3.5ppm 2.1m, PID=5.8ppm
3			Groundwater Not Encou	SPT 3/3/3 N=6 ES ⊾	2.50 3.00 3.10			Sandy CLAY: low plasticity, pale brown mottled orange, fine grained sand (residual). CLAY: medium plasticity, red (residual).	w > PL w >	F	3.0m, PID=3.2ppm
·4				SPT 5 for 100mm HB N=ref	3.20		_	Weathered, low strength (bedrock). Start of coring at 3.2 metres. For cored interval, see Core Log Sheet.		/	
5 Se	e stan	dard s	heets	s for ons		GHI Level) 2 29 C	hristie Street, St Leonards NSW 2065 Australia	J	ob N	lo.

Clier Proje Loca Posi Rig 1 Casi Date Prog	nt: ect atio ition & Casing est I ation I ation at the state of the st	: n: Dia arte DRII	Inn The 328 SD a. : ed :	er W e Gre 3415. 05 HQ 14/10 G	est C enW enW 14 E 0/201	Council ay Geo ay Foo 62482 N	otechr otpath 85.31 Iount	nical and Contamir , Summer Hill, NS NMGA94/ 56	nation Services W Surface RL:						Н	OL	E	N	O. A2	D-BH07 et 2 of 3	
Proje Loca Posi Rig 1 Casi Date Prog (m) 17000	ect atio ition & Casing St I and St I 	: n: Dia arte SRII	The 328 SD a. : ed :	e Gre 3415. 05 HQ 14/10 G	enW enW 14 E	ay Geo ay Foo 62482 N	otechr otpath 85.31 Iount	nical and Contamir , Summer Hill, NS NMGA94/ 56	nation Services W Surface RL:	4.57					П	OL		IN (O. AZ Shei	D-БПU/ ET 2 OF 3	
Loca Posi Rig 1 Casi Date	illing & Casing ind a constant	n: n: Dia arte DRII	Th 328 SD a. : ed :	e Gre 3415. 05 HQ 14/10 G	enW 14 E 0/201	ay Foo 62482 N	tpath 85.31 Iount	, Summer Hill, NS NMGA94/56	W Surface RL:	4 5 7									SHE	ET 2 OF 3	
Posi ¹ Casi Date Prog	illing & Casing and a line with the second s	n: Dia arte DRII	328 SD a. : ed : _LIN	3415. 05 HQ 14/10 G	14 E)/201	62482 N	85.31 Iount	N MGA94/ 56	Surface RL:	4											
Rig 1 Casi Date Prog	Typ ing & Casing set 2 set 2 s	Dia Dia arte DRII	SD a.: ed: _LIN	05 HQ 14/10 G)/201	N	lount			4.5/m /	AHD		An	gle	from	Hor	iz. :	90°	b	Processed	: AJET
Casi Date Prog	illing & Casing a solution	Dia arte DRII	a.: ed: _LIN	HQ 14/10 G)/201	В		ing: Ute	Contractor :	Stratacore			Dr	iller	:DN	1				Checked :	MG
Prog (m) SCALE (m)	illing & Casing al a	arte DRII s	ed : _LIN	14/10 G)/201		arrel	(m) : 1.5m	Bit : Diam	ond (stepfaced	d)	I	Bit (Conc	litio	n:F	air			Date: 16/0	1/2020
SCALE (m)	illing & Casing al sol	S S	LIN	G		9 D	ate C	completed : 14/10	/2019Logged b	y:VW			Date	e Lo	ggeo	1: 14	1/10)/20	19	Note: * indicates sign issue of log or last	atures on origi revision of log
Prog	illing & Casing al	s							MATERIAI	_		_						Ν	ATURAL	FRACTURES	
SCALE (m)	rilling & Cas			3un %)	STS	netres		ROCK NAME: g	Description grain size, colour, fab nor components, moi	ric and texture, sture, durability			Esti Str Is	mat engi "MF	ed :h Pa	Spa (r	aciı nm	ng)	(joints	Additional E)ata , zones and
	õ	Water	Drill Depth (m	(Core Loss / F	SAMPLES & TE	Depth / (RL) r	Graphic Log	[COBBLES / B SOIL NAME: colour, p secondary and	and OULDERS / FILL / To plasticity / primary pa minor components,	OPSOIL] then rticle characteristi zoning (origin)	Weathering	Soilons			H 10	20 40	00	1000	Fractu coati	venis) ire type, orientatio ng, shape, roughr	n, infilling o less, other.
2																					
3						3.20		Start of coring a For Non Cored Sheet. CORE LOSS 50	tt 3.2 metres. interval, see Bore 00mm.	ehole Log											
4	NMLC coring			(18)		3.70		SANDSTONE: I indistinctly bedd	medium grained, led at 0-20°. medium grained, / bedded at 0-10 bonaceous lamin	orange-brown pale grey, ', with fine ations.	n, MV SV	v /							-3.79m, Pt, ¹ 3.82m, Pt, -4.47m, Jt, 2 -4.62m, Pt, -4.75m, Pt,	5°, Rf, Pln, Cn 5°, Rf, Pln, Cn 20°, Rf, Pln, Cn 5°, Rf, Pln, Cn 0°, So, Pln, Cn	
5 '		- 1				·		·				<u> </u>					1		•	_	
See	sta	and	ard	shee	ets fo	or 🛛	_	GHD											Job N	No.	

CORE	ELO	OG	SHE	ET																		
Client	t:		Inne	er W	est C	ouncil										~	_		•••			
Proje	ct :		The	Gre	enW	ay Geo	otechr	nical and Contamir	nation Services						Η	OL	E	N	0. A2	D-BH	07	
Locat	tior	ו:	The	Gre	enW	ay Foo	tpath.	, Summer Hill, NS	W										SHEE	ET 3 OF	3	
Positi	ion	:	328	415.	14 E	624828	85.31	N MGA94/ 56	Surface RL:	4.57m AHI)		Anc	ale fr	om	Hori	z. :	90	0	Proces	sed: AJ	JET
Rig T	ype):	SD0	5		M	lount	ing: Ute	Contractor :	Stratacore			Dril	ler :	DN	1				Check	ed: MG	3
Casin	ng [Dia	.: +	IQ		B	arrel	- (m): 1.5m	Bit : Diam	ond (stepfaced)		E	it C	ondi	tior	1:Fa	air			Date:	16/01/20	20
Date	Sta	rte	d: 1)/201	9 D	ate C	completed : 14/10	/2019 Logaed b	y: VW		D	ate	Loa	ged	: 14	/10	/20	19	Note: * indicat	es signatures o	n origi
	D	RIL	LINC	3					MATERIA	, L				- 0.				N	ATURAL	FRACTU	RES	
Progr	ess			_					Description	_		F	stir	nate	h	Sna	cir	na	1		nal Data	
SCALE (m)		Water	Drill Depth (m)	(Core Loss / Run %	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: g inclusions or mir [COBBLES / B SOIL NAME: colour, p secondary and	or components, mo and OULDERS / FILL / T lasticity / primary pa minor components,	oric and texture, isture, durability OPSOIL] then Irticle characteristics, zoning (origin)	Weathering	Soil 0.03		Axial ametral	EH 10	- 20 40 u)	. 100 300	- 1000	(joints Fractu coatii	, partings, s vei re type, orie ng, shape, r	eeams, zone ns) entation, infill oughness, c	⊧s ar ling othei
	-							SANDSTONE: a	as previous.		SW											
NMLC coring			6.00								Fr			•					-5.34m, Pt, 3	3°, So, PIn, ∣	Fe Ve	
9								Target Depth														
See s detail	10 See standard sheets for details of abbreviations & basis of descriptions							GHD Level 2 29 Ch T: +61 2 9462	ristie Street, St Le 2 4700 F: +61 2	eonards NSW 206 9462 4710 E: sli	5 Au nmail		alia Jhd.c	om					Job N	lo. -125'	15105	5



-	BO	REHOL	E LOC	S SHEE	ET							
NZ /1 /		ent :	Inne	er West	t Council				HOLE N	0.	A2	D-BH08
N N	Pro	oject : cation :	The God	Green	Way Geote	echnica	I and C	ontam v			SHEF	 ET 1 OF 3
19.00 	Pos	sition :	3284	425.91	E 6248261	.63 N M	1GA94/	v 56	Surface RL: 4 78m AHD Angle from Horiz. : 90	>		Processed : AJET
- i -	Rig	Type :	Hand	d Carry F	Rig Mo i	unting	: NA		Contractor : Stratacore Driller : CW			Checked : MG
- - -	Da	te Start	ed: 2	8/10/2	019		Dat	te Con	npleted : 28/10/2019 Logged by : LM			Date: 16/01/2020
			DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
		por	τ	-	Tests	metres				ndition	- X6	Comments/ Observations
	SCALE (m)	Drilling Meth	Hole Suppor \ Casing	Water	Samples & ⁻	Depth / (RL)	Graphic Log	USC Symbo	COBBLES/BOULDERS/FILUTOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Co	Consistency Density Inde	
		•					\boxtimes	-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, subangular ballast gravel	М	-	-
					ES	0.20			[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, sub-angular gravel.	м	-	0.2m, PID=2.3ppm
					ES D	0.70						0.5m, PID=2.0ppm
		d Auger-				0.70			[FILL] Sandy CLAY: low plasticity, brown with yellow mottles, fine to coarse grained sand, trace fine to medium, sub-angular gravel, trace brick and glass.	w = PL	-	-
_ - -	1	— Han	Nil		ES D				1.0m, grey mottled red			1.0m, PID=1.7ppm -
												-
ŀ												-
ŀ	2	hbore		pg								-
F	-	 Mas 		ncountere		2.20 2.33			CLAY: red, with medium to coarse, sub-rounded ironstone gravel (residual).			2.2m, material
Ē				er Not Ei					Start of coring at 2.33 metres. For cored interval, see Core Log Sheet.			from drilling fluid -
ŀ				oundwate								-
F	3			Ğ								-
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	Se det	e stand tails of	dard s abbro	heets eviatio	for G	HD	GHL Level T: +6	ر 2 29 C 1 2 946	hristie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: sInmail@ahd.com	J	א מט <i>א</i> ר	10.
L	& I	oasis o	of desc	criptio	ons 📔	\sim	CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		Z	-12313105

CORE	LOG	SHE	ET																	
Client	:	Inne	er We	est C	ouncil									н	OL	E	N	o. A2	D-BH0	8
Project	t : 	The	Gree	enW	ay Geo	techr	ical and Contamination	Services						••	<u> </u>					
	n :	328	11gai 1 425 0	Rese	62482	1000 1 63	NMGA94/56 Si	Inface RI ·	178m /	п		Δno	lo f	rom	Ho		ang	•	Process	
Rig Tv	ne .	Hand	d Carr	v Ria	02-102 N	ount	ing: NA C	ontractor ·	Stratacore	UID		Dril	ler		/	12	30		Checker	
Casing	Dia	n.: 9	0mm	ງ:ອ າ	В	arrel	(m): 1.0m	Bit : Diamo	ond (stepfaced)	В	it Co	ond	itior	1: (Good			Date: 1	6/01/2020
Date St	, tarte	ed : 2	28/10	/201	9 D	ate C	ompleted : 28/10/201	Decision States	/: LM	,	D	ate	Log	ged	1:2	8/10	/20	19	Note: * indicates	signatures on original last revision of log
	DRII	LING	3					MATERIAL									N	IATURAL	FRACTUR	ES
Progres	ss		(%)		s		Des	scription			E	stin	nate	d	Sp	acir	ıg		Additiona	l Data
SCALE (m) Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run ^c	SAMPLES & TESTS	Depth / (RL) metre	Graphic Log	ROCK NAME: grain si inclusions or minor cor [COBBLES / BOULD SOIL NAME: colour, plastici secondary and minor	ze, colour, fabr nponents, mois and ERS / FILL / TC ty / primary par components, z	ic and texture, sture, durability DPSOIL] then ticle characteristic oning (origin)	weathering	Soil 0.03	Stre s ₍₅₀₎ 0-Dia 0-Dia 0-Dia 0-Dia		h a <u>10</u> H 2 H 2 H 2 H 2 H 2 H 2 H 2 H 2 H 2 H)	mm)	1000	(joints Fractu coatii	, partings, sea veins re type, orient ng, shape, rou	ims, zones and) ation, infilling or ghness, other.
					2 33		Start of coring at 2.33 For Non Cored interv Sheet.	3 metres. al, see Bore	hole Log											
		2 50	(0)		_2.00	 	SANDSTONE: mediu brown, indistinctly be	im to coarse dded at 0-10	grained, pale)°.											
- - - 3 -		2.00	(15)		3.30					MV EV	,							-3.04m, Pt, 1 ≺3.09m, WSI	5°, Rf, Un, Fe n, 10mm	- - - - - - -
					3 15	$ \times$	CORE LOSS 150mm	٦.												
ing -		3.50			3.52	[,	_SANDSTONE: as ab	ove.		EW		\ddagger						1		
cori						$ \vee $	CORE LOSS 270mn	۱.												
- 4 - 4		4.50	(27)		3.79		SANDSTONE: fine to grey stained orange, to bedded at 0-15°, w carbonaceous lamina	o medium gr indistinctly ti ith fine grain tions.	ained, pale hinly bedded ned and	SW	-							-3.84m, Pt, 1	0°, Rf, Un, Cl °, RF, Pln, Cl	.AY
 																				
See sta details & basi	Bestandard sheets for etails of abbreviations basis of descriptions GHD Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sinmail@ghd.com													Job N	^{io.} -1251	5105				

CC	ORE		S SHE	ET																		
Cl	ient	:	Inn	er W	est C	Council											- ,			ום ח	00	
Pr	oject	::	The	e Gre	enW	ay Geo	otechi	nical and Contami	nation Services					r	10	LC	: 1	N(J. AZ	υ-ВП	IVŌ	
Lo	catio	on :	Ga	digal	Rese	erve, S	umme	er Hill, NSW											SHEE	T 3 OF	3	
Ро	sitio	n:	328	8425.9	91 E	62482	61.63	N MGA94/ 56	Surface RL:	4.78m Al-	ID		Ang	le fro	m He	oriz.	:9	90°		Proces	ssed : A	JET
Ri	g Ty	be :	Han	d Car	ry Rig	j N	lount	ing: NA	Contractor :	Stratacore			Dril	ler : C	W					Check	ed: M	IG
Ca	sing	Dia	a.: 🤅	90mn	n	E	Barrel	(m): 1.0m	Bit : Diam	ond (stepfaced)		E	Bit C	onditi	on :	Goo	bc			Date:	16/01/2	020
Da	ite S	tart	ed : 2	28/10)/201	9 0	ate C	completed : 28/10)/2019 Logged b	y:LM		0	Date	Logge	ed :	28/1	0/2	201	19	Note: " indica issue of loo	tes signatures g or last revisi	s on origin on of log
		DRI	LLING	3					MATERIA	L		_						N/	ATURAL	FRACTL	IRES	
Pro	ogres	ss		(%		es			Description	ric and texture		1	Estir	nated	s	pac	ing	3		Additio	nal Data	1
	ing			Sun	STS	netr		inclusions or mi	nor components, mo	isture, durability			Stre Is	MPa		(mr	n)		(joints	, partings, s	seams, zoi	nes and
E	Cas		ш с	s / F	Ĕ	L) L	ß	ICOBBLES / F	and	OPSOIL 1 then	0			Axial					Fractu	ve e type, orie	entation, in	filling or
۲Ľ	8		epth	Los	ES &	/ (R		SOIL NAME: colour,	plasticity / primary pa	rticle characteristics	erin ^{''}	_	0-04	imetral					coatir	ng, shape, i	roughness	, other.
SC/	illing	ater	Ū II	ore	MPL	pth	aph	secondary and	minor components,	zoning (origin)	eath	0	0.00	-°6		_	_	2				
	D	Ŵ	D	Ŭ	SA	ے	Q				Š	Soi	╧╎╌╎╴	₅⊢₽₽	50	4 6	800					
_				(0)				SANDSTONE:	as previous.													
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								Target Depth	e at 7.00 metres.													
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Se	e st	anc	lard	shee	ts fo	or	\sim	GHD	vistic Charles Of 1	operate NOW 00			al:-						Job N	о.		
details of abbreviations Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: slnmail@ghd.com										21	-125	1510	5									
&	basi	s o	f des	crip	tion	s		CONSULTI	NG GEOTECHN	ICAL ENGINE	ERS	AN	DG	EOLO	GIST	ſS				-123	1010	5





BC	DREHO	E LO	g she	ET							
	ient :	Inne	er Wes	t Council				HOLE N	о.	A2	D-BH09
	oject :	Ine · Iw/I	Green R Cor	ivvay Geote ridor Sumn	echnical	and C	ontami	Ination Services		SHEE	ET 1 OF 3
Po	sition :	328	412.37	E 6248228	8.80 N N	IGA94/	56	Surface RL: 4.89m AHD Angle from Horiz. : 90	0		Processed : AJET
Rig	д Туре	: Hand	d Carry	Rig Mo	unting	NA		Contractor : Stratacore Driller : CW			Checked : MG
Da	ite Star	ted: 2	29/10/2	019		Da	te Con	npleted : 29/10/2019 Logged by : LM			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: " indicates signatures on origina issue of log or last revision of log
	po	+		[ests	metres		-		ndition	- XI	Comments/ Observations
SCALE (m)	Drilling Meth	Hole Suppor \ Casing	Water	Samples & ⁻	Depth / (RL)	Graphic Log	USC Symbo	SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Co	Consistency Density Inde	
				ES	0.05		-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, subangular ballast gravel.	M	-	
-				ES/OA29	0.25			[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, angular gravel, trace brick.	м		0.2m, PID=1.6ppm 0.2m, Possible ACM
2 - 1 -					0.65						0.5m, PID=2.7ppm
				50	0.05			[FILL] Gravelly Silty SAND: fine to coarse grained, brown, medium to coarse, angular gravel.	M		
² -1				ESZ	1.10					L	1.0m, PID=1.6ppm
-	d Auger	Nil		D			-	[FILL] Clayey Sandy GRAVEL: fine to coarse, sub-angular, brown, fine to coarse grained sand, trace tile fragments.	M	-	
- - - -2 -	Han			ES	1.60		- <u>s</u> c	Sandy CLAY: medium plasticity, grey, fine to coarse grained sand, with fine to medium, sub-rounded, ironstone gravel (residual).	w = PL	F-St	2.0m, PID=0.9ppm
•			⊻	D	2.60		GC	Gravelly CLAY: medium plasticity, grey mottled red, fine to medium, sub-rounded, ironstone gravel, trace fine to coarse grained sand.	w < PL	St	
- 3			3/10/1					Start of coring at 3 metres. For cored interval, see Core Log Sheet.			
-5	L		-					1			
Se	e stan	dard s	sheets	for			2 29 CI	hristie Street, St Leonards, NSW 2065 Australia	J	N DO	10.
&	basis o	of des	criptic	ons		1: +6 CON	51 2 946 SULTII	52 4700 F: +61 2 9462 4710 E: sinmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

<u>_</u>	ORE L	.00	SHE	ET							
C	lient :	_	Inne	er We	est C	ouncil			н		o. A2D-BH09
	roject ocatio	: n·	I he	e Gre R Co	envva	ay Geo ar Sum	ntechr	Ical and Contamination Services			SHEET 2 OF 3
P	ositio	n :	328	412.3	37 E	62482	28.80	NMGA94/56 Surface RL: 4.89m AHD	Angle from	Horiz. : 90	Processed : AJET
R	ід Тур	e:	Han	d Carı	ry Rig	M	ount	ng: NA Contractor : Stratacore	Driller : CV	/	Checked : MG
С	asing	Dia	a.: 9	90mn	n	В	arrel	(m): 1.0m Bit: Diamond (stepfaced) B	Bit Condition	n: Good	Date: 16/01/2020
D	ate St	arte	ed : 2	29/10	/201	9 D	ate C	ompleted : 29/10/2019Logged by : LM D	Date Logged	: 29/10/20	19 Note: * indicates signatures on original issue of log or last revision of log
5	0	RI	LINC	3				MATERIAL		N	ATURAL FRACTURES
PI	ogres	s		(%		es		Description E	Estimated	Spacing	Additional Data
2 2 2	sing		(r	Run	STS	metr		inclusions or minor components, moisture, durability	Is ₍₅₀₎ MPa	(mm)	(joints, partings, seams, zones and veins)
ш Ш	Cas		н (п	ss /	& TE	SL)	_b	and [COBBLES / BOULDERS / FILL / TOPSOIL] then	• - Axial • - Diametral		Fracture type, orientation, infilling or
ALE	g &	5	Jept	E Los	LES	l) / u	hic I	SOIL NAME: colour, plasticity / primary particle characteristics,	9 7 0		coating, shape, roughness, other.
S	Drillin	Vate	orill D	Core	AMP	lept	brap		- 200-00 200-00 200-00		
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ŀ								Start of coring at 3 metres.			-
ŀ						2 00		For Non Cored interval, see Borehole Log Sheet.			-
⁻³		$ \uparrow $				3.00	200	CONGLOMERATE: fine to coarse, red clasts,			3.03m, Pt, 0°, VR, Un, CLAY 3.06m, Pt, 0°, VR, Un, CLAY
F						3.14	5U26	grey mottled orange matrix, sub-rounded			3.10m, Pt, 0°, VR, Un, CLAY 3.14m, WSm, 20mm
ŀ				(0)				SANDSTONE: fine to coarse grained, pale			-3.27m, WSm, 50mm
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t			0.00				· · · · ·				-
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-4				(0)		4.08	 				ס.פוווו, דו, ט`, אז, דח, דפ
Ē	WN						 	SANDSTONE: fine to medium grained, pale			-
ŀ								grained and carbonaceous laminations.			_
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d	etails	of	abbr	evia	tion	s		 Level 2 29 Christie Street, St Leonards NSW 2065 Austra T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@g 	alia ghd.com		21-12515105
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¶ Pr	oject	:	The	Gre	enWa	ay Geo	otechr	nical and Contami	nation Services					••					ET 3 OF 3	
	sitio	n: n·	328	412 3	orriac 37 E	62482	nmer 28 80	NMGA94/56	Surface RI :	<u>4 89m</u> ΔΗΓ	<u> </u>	Δ	nale	from		riz ·	909	, ,	Process	ed · AJET
Ri	g Typ	e:	Han	d Car	ry Rig	N	lount	ing: NA	Contractor :	Stratacore		D	riller	: CV	v		00		Checked	I: MG
Ca	asing	Dia	.: 9	90mn	n	В	arrel	(m): 1.0m	Bit : Diam	ond (stepfaced)		Bit	Con	ditio	n: (Good	1		Date: 1	6/01/2020
Da	ate St	arte	ed : 2	29/10)/201	9 D	ate C	completed : 29/1	0/2019Logged b	y:LM		Da	te Lo	ggeo	1 :2	9/10	/20	19	Note: * indicates issue of log or	signatures on origina last revision of log
	0	DRIL	LINC	3					MATERIAI	L	_						N	ATURAL	FRACTUR	ES
Pr	ogres	s		(%		es		BOCK NAME:	Description	ria and taxtura		Es	timat	ed	Sp	bacir	ng		Additiona	I Data
2	ing			Sun	STS	netr		inclusions or m	nor components, moi	sture, durability		ls Is	reng س MI	tn Pa	(mm)	(joints	, partings, sea	ams, zones and
E	Cas		E L	S/F	& TE	SL) r	Do:	[COBBLES / I	and BOULDERS / FILL / T	OPSOIL] then	þ		• - Axial	-				Fractu	re type, orient) ation, infilling or
ALE	ം മ		ept	Los	ES	(F	lic L	SOIL NAME: colour,	plasticity / primary pa	rticle characteristics,	herir	33						coati	ng, shape, rou	ghness, other.
SC	rillin	/ate	Lin Lin	Core	AMPI	epth	irapł	Secondary and	minor components,	zoning (ongin)	/eat	<u>9</u> 0.0		"₽ шп			200			
		5		<u> </u>	S		0		· · · · · · · · · · · · · · · · · · ·		5	N S	⊐ZI	:50	120	1 2 5 5 5 5 6 6	_₩ 95			
							····	SANDSTONE:	as previous.											
-																		-5.23m, Pt, §	5°, Rf, Pn, X	
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				(0)														5.5911, WS	m, ə , x , əəm	rn
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ŀ			6.88			6.88	 											-6.85m, WS	m, 30mm	
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Ē	BOREHO	DLE LO	g she	ET										
	Client :	Inne	er Wes	t Council				HOLE N	о.	A2	D-LD01			
5 1	ocation	i The	Green ligal Re	ivvay Geote	echnica nmer H	i and C	ontam V	Ination Services	-	SHEE	ET 1 OF 3			
	osition	: 328	454.12	E 6248404	.93 N N	/IGA94/	• 56	Surface RL: 4.69m AHD Angle from Horiz. : 90	0	-	Processed : AJET			
F	Rig Type	e: Geo	205	Мо	unting	: Track		Contractor : Stratacore Driller : DM			Checked : MG			
	Date Sta	rted: 2	25/10/2	019		Dat	te Con	npleted : 25/10/2019 Logged by : JS			Date: 16/01/2020			
		DRILL	.ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log			
	rilling Method	ole Support Casing	/ater	amples & Tests	epth / (RL) metres	raphic Log	SC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colouur, fabric / texture, inclusions or minor components durability, strength weathering / alteration, defects	oisture Condition	onsistency / ensity Index	Comments/ Observations			
				ES			-	[FILL] Gravelly Sandy SILT: dark grey and dark brown, fine to medium grained sand, fine to coarse, sub-angular to angular gravel.	D	-	0.2m, PID=3.6ppm			
				B ES SPT 3/4/6							0.5m, PID=4.4ppm SPT refusal on			
- - - - - - - - - - -	TC-bit auger	Ni	ater Not Encountered	N=10 B ES 10/17/11 N=28	2.00			[FILL] Gravelly SAND: fine to coarse grained, pale brown, brown, yellow brown, fine to coarse, sub-angular to angular gravel, occasional sandstone cobbles, trace glass, plastic, concrete, brick.	D	-	2.0m, PID=5.7ppm			
- 3	-3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -													
4.15 GC Gravelly CLAY: medium plasticity, red brown mottled pale brown; red, fine to medium, sub-rounded to rounded ironstone gravel (residual). SANDSTONE: pale grav and pale brown inferred low														
				8/ 3 for 90mm HB N=ref	4.30	<u>.</u>	_	strength, moderately weathered, low strength (bedrock). Start of coring at 4.3 metres. For cored interval, see Core Log Sheet.						
ŀ	5 🗆													
	See sta	ndard s	sheets	for		GH	כ		J	ob N	lo.			
0 8	details (& basis	of abbr of des	eviatio criptic	ons G	Ð	Level T: +6 CON	2 29 C 1 2 946 SULTI	hristie Street, St Leonards NSW 2065 Australia 52 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105			

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	roject	:	The	e Gre	enW	ay Geo	otechi	nical and Contamina	ation Services						•			- • •	сц. 1.		F 3	
	ositio	л: n·	328	algai 8454 -	Rese	62484	umme 04 93	NMGA94/56	Surface RI :	4 69m			Δ	nal	e fro	m H	oriz	• 9(יייס זי		sed .	
R	ig Typ	 be:	Geo	205		N	lount	ing: Track	Contractor :	Stratacore			D	rille	ər : D	DM	0112		<u> </u>	Chec	ked :	MG
С	asing	Dia	a.:	HQ		E	Barrel	- (m): 1.5m	Bit : Diam	iond (stepface	ed)		Bit	Co	nditi	on :	Ne	w		Date:	16/01	/2020
D	ate St	arte	ed : 2	25/10	/201	9 D	ate C	completed : 25/10/	2019 Logged b	y:JS			Dat	te L	ogge	ed :	25/	10/2	019	Note: * indic issue of lo	ates signatu og or last rev	res on original ision of log
	[DRI	LLING	G					MATERIA	L									NATURA	L FRACT	URES	
Pr	ogres	s		(%		es		BOCK NAME: ar	Description	pric and texture			Es	tim	ated	5	Spac	ing		Additio	onal Da	ta
	sing		Ē	Run	STS	metr		inclusions or mind	or components, mo	isture, durability			ls,	.ren ₍₅₀₎ Ν	//Pa		(mi	n)	(joi	nts, partings, ve	seams, z eins)	ones and
<u></u>	Ca		th (n	ss /	& TE	RL)	Log	[COBBLES / BC	and OULDERS / FILL / T	OPSOIL] then		P.	0	● - Axia - Diame	al etral				Fra	cture type, or	ientation,	infilling or
SAL	ng &	5	Dep	e Lo	LES) / (i	hic	SOIL NAME: colour, pla secondary and n	asticity / primary pa ninor components,	article characteris zoning (origin)	tics, Tag		6,-	e e	c				CO	aung, snape,	rougnines	s, other.
ы Ю	Drilli	Wate	Drill	Co	SAM	Dept	Grap				Mea		00 الـان	-0 _	구판	Ц о	98	000				
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ŀ						4.00		For Non Cored ir	iterval, see Bor	ehole Log												-
t						4.30	\bigtriangledown	CORE LOSS 170	Dmm.			+	+									
F	ng					4.47		SANDSTONE: fi	ne to coarse or	ained nale gr	ev	_	+						4.49m, F	t, 2°, Rf, Pln,	Fe	-
ŀ	cori							and pale brown, i	ndistinctly bedo	led at 0-5°, iro	on											-
ŀ	/IC							staining.			н	w										-
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s	ee sta	and	lard (shee	ts fr	or		GHD											Job	No.		
d	etails	of	abbr	revia	tion	s (GH	Level 2 29 Chri T: +61 2 9462	stie Street, St Le 4700 F: +61 2	eonards NSW 9462 4710 F	2065 A	Aus ail@	stralia Daho	a J.cor	n					4 405	A = 4)E
&	basis	s of	f des	crip	tions	s		CONSULTING	G GEOTECHN	IICAL ENGIN	IEERS	A	ND	GE	OLO	GIS	TS		4	1-125	151	05

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	Clie Droi	nt:		Inne	er Wo	est C	ouncil	toobr	viaal and Contam	ination Continue						H	OL	E	No	5. A2	D-LD0)1
á D	Loc	ect atio	n :	Gao	diaal	Rese	ay Geo erve Si	umme	ncal and Contain er Hill NSW	Ination Services										SHEE	ET 3 OF 3	3
	Pos	itior	ı :	328	454.	12 E	62484	04.93	N MGA94/ 56	Surface RL	: 4.69m	AHD		Α	ngle fr	om	Hori	z. :	90°		Process	ed: AJET
	Rig	Тур	e:	Geo	205		M	lount	i ng: Track	Contractor	: Stratacore	е		D	riller :	DM					Checke	d:MG
	Cas	ing	Dia	.: ト	IQ		В	arrel	(m): 1.5m	Bit : Dia	mond (stepfa	aced)		Bit	Condi	tior	1 : N	ew			Date: 1	6/01/2020
	Date	e Sta	arte	d :2	25/10	/201	9 D	ate C	completed : 25/	0/2019Logged	by:JS			Dat	te Logo	ged	: 25	/10/	201	9	Note: * indicates issue of log or	signatures on origin last revision of log
		D	RIL	LING	3					MATERI	AL			-					_N/	ATURAL	FRACTUR	ES
		Casing sai	S	(m)	s / Run %)	TESTS	L) metres	b	ROCK NAME inclusions or n	Description : grain size, colour, fa ninor components, m and	abric and texture noisture, durabili	e, ity	B	Es St Is ₍	rength ₅₀₎ MPa		Spa (n	nm)	g	(joints Fractu	, partings, sea veins re type, orient	al Data ams, zones and 5) tation, infilling or
	SCALE	Drilling & C	Water	Drill Depth	(Core Loss	SAMPLES &	Depth / (RI	Graphic Lo	SOIL NAME: colour secondary ar	as previous	DPSOIL] then particle characte s, zoning (origin	i eristics,)	Weathering	Soil 0.03		ÉH 10	40 40	300 100	1000	coatir	ng, shape, rou	ughness, other.
					(17)		5.11 5.45 5.55		SANDSTONE grey, indistinct grained and ca CORE LOSS	i fine to medium ly bedded at 0-1 arbonaceous lam	grained, pale 0°, with fine inations.	e	sw							•5.08m, Pt, C)°, Rf, Pln, Fe	
	6	g		5.92			0.00	· · · · · · · · · · · · · · · · · · ·	SANDSTONE grey and pale 0-5°, iron stair	: fine to medium brown, indistinct ing.	grained, pale ly bedded at	e										
		NMLC corinç			(0)				6.27m, lamina	tion at 25°.			sw							-6.72m, Pt, 5	5°, Rf, Pln, X	
- - - -	7			7.46			7 46	· · · · · · · · · · · · · · · · · · ·	7.0m, trace ca laminations.	rbonaceous flec	ks and											
	8								End of Boreho Target Depth	le at 7.46 metre	5.											
-																						
	9																					
	10- See deta & ba	sta ails asis	inda of a	ard s abbr des	shee evia cript	ts fo	or s	ĜH	GHD Level 2 29 C T: +61 2 94 CONSULT	Christie Street, St I 62 4700 F: +61	_eonards NS 2 9462 4710 NICAL ENG	W 2065 E: sin GINEEF	5 Au mail	stralia @ghc	a d.com GEOL					Job N 21	^{Io.} -1251	5105



В	OREHOL	E LOC	SHE	ET							
C	lient :	Inne	r West	t Council				HOLE N	о.	A2	D-LD02
	roject : ocation	Ine Gad	Green	Way Geote	echnica nmer H	I and C	ontami v	nation Services		SHEE	ET 1 OF 1
P	osition :	3284	146.99	E 6248370	.57 N M	1GA94/	56	Surface RL: 4.90m AHD Angle from Horiz. : 90	0	-	Processed : AJET
R	ig Type :	Geo	205	Мо	unting	: Track		Contractor : Stratacore Driller : DM			Checked : MG
D	ate Start	ed: 2	5/10/2	019		Dat	e Com	npleted : 25/10/2019 Logged by : JS			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
	thod	ort		Tests	-) metres	D	lo	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then	ondition	∖y / lex	Comments/ Observations
SCALE (m	Drilling Me	Hole Suppo \ Casing	Water	Samples &	Depth / (RI	Graphic Lo	USC Symb	SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture C	Consistend Density Ind	
		E	S/DUP1	_25/10/19			-	[FILL] Gravelly Sandy SILT: dark grey and dark brown, fine to coarse grained sand, fine to coarse, sub-angular to angular gravel, with cobbles of ballast.	D-M	-	0.2m, PID=4.7ppm
- - - - -	it auger	Nil	Not Encountered	ES SPT 6/6/6 N=12 ES				1.0m without aphlas of ballast			0.5m, PID=3.4ppm
-	TC-b		Groundwater 1	В	1.50			[FILL] Gravelly SAND: fine to coarse grained, brown and dark	м		ינישרא אוש=5.00pm - - - - - -
- - -2				SPT 4/4/5 N=9	2.00			brown, fine to coarse, sub-angular to angular gravel, with silt.			2.0m, PID=4.2ppm
-								Target Depth			
- -3 - - -											
- - -4 -											-
-											- - - - - -
-5											
S d 8	ee stand etails of basis o	dard s abbro	heets eviatio criptio	for ons ons	HD	GHI Level T: +6 CON) 2 29 CH 1 2 946 SULTII	hristie Street, St Leonards NSW 2065 Australia 32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	ob N 21	lo. -12515105

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	ent :	Inne	er Wes	t Council				HOLE N	0	Δ2	
R Pro	oject :	The	Green	Way Geote	echnical	and C	ontami	ination Services	0.		
	cation	: Gao	ligal Re	E 6248307	nmer Hi	II, NSV	56	Surface DI : 5.08m AUD Angle from Horiz : 00	0	SHEE	
	n Tyne	· SD0	433.12 5	E 0240307	unting	L Ite	50	Contractor : Stratacore Driller : DM			Checked MG
⊴ ≟ Dat	te Star	ted: 1		2019	annigi	Dat	te Con	npleted : 14/10/2019 Logged by : VW			Date: 16/01/2020
											Note: * indicates signatures on origina
		DRILL		1							· · · · · · · · · · · · · · · · · · ·
05-THEGREENWAY.GPJ_GHD_ SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	auger	ţi	lot Encountered	ES ES 8 9/11/12 N=23 ES	0.10		- CI	[TOPSOIL] Sandy SILT: brown, fine to coarse grained sand, trace rootlets. CLAY: medium plasticity, grey and yellowish brown, with fine to medium grained sand (residual).	D W> PL	- VSt	0.2m, PID=2.1ppm 0.5m, PID=1.8ppm
- - - - -	TC-bi		Groundwater N	B ⁻ SPT 8/12/17 N=29					PL		1.0m, PID=2.5ppm
								Target Depth			
-5 Se det & t	e stan tails o basis o	dard s f abbr	sheets eviatio criptic	a for ons ons	HD	GHI Level T: +6 CON	D 2 29 CI 31 2 946 SULTII	hristie Street, St Leonards NSW 2065 Australia 32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	ob N 21	io. -12515105

	BORE	HOL	E LOC	SHE	ET							
70/1/20	Client Proiec	:: ct:	Inne The	er West Green	t Council Wav Geote	chnical	and C	ontam	ination Services HOLE N	о.	A2	D-LD04
	_ocati	ion :	Long	gport S	itreet, Sumi	mer Hill	, NSW	ontain			SHEE	ET 1 OF 3
8. N	Positi	on :	3283	389.07	E 6248199	.24 N N	IGA94/	56	Surface RL: 14.81m AHD Angle from Horiz.: 90	0		Processed : AJET
	Rig Ty	/pe :	SD0	5	Мо	unting	Ute		Contractor : Stratacore Driller : DM			Checked : MG
	Date S	Start	ed: 1	6/10/2	019		Dat	te Cor	npleted : 16/10/2019 Logged by : JS			Date: 16/01/2020
			DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
	(=	ethod	port		& Tests	RL) metres	bo-	lodn	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and	Condition	ncy / ndex	Comments/ Observations
			Hole Sup \ Casing	Water	Samples	Depth / (I	Graphic I	USC Syn	ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture	Consister Density Ir	
2 -		1				0.10	$\sim\sim\sim$			<u> </u>	⊢-	
						0.15		·	angular, dark grey, fine to coarse grained sand.	\ <u>D</u> . -	∧ <u>-</u> 」 - 	-
				ES				-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, sub-angular shale gravel.	D	-	0.5m, PID=3.2ppm
	1				SPT 5/10/8 \ N=18 ES							1.0m, PID=5.6ppm
	2			Intered	SPT 4/5/7 N=12 ES	1.50			[FILL] Sandy CLAY: low plasticity, brown, grey, red-brown mixed, fine to coarse grained sand, trace fine to coarse, sub-angular gravel.	w < PL		1.5m, possible ripped shale fill material - - 2.0m, PID=4.3ppm
	3		Nil	Groundwater Not Encou	SPT 4/6/10 N=16 ES				3.0m, trace of building refuse (5%) of brick, metal, concrete, tile.			3.0m, PID=4.2ppm
	1				SPT 4/10/12 N=22 ES B				3.5m, dark grey to black.			4.0m, PID=4.8ppm
	5				SPT 8/10/13 N=23							
	See s	tand	dard s	heets	for		GHI) 2 20 C	hristie Street St Leonards NSW 2065 Australia	J	ob N	lo.
	detail & bas	s of sis o	abbro	eviatio criptio	ons C		T: +6	51 2 940 SULTI	Augustania 62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

Ē	30	REHOL	E LOC	G SHE	ET								
	Clie	ent :	Inne	er West	t Council				HOLE N	0.	Α2	D-LD04	
	Pro	ject :	The	Green	Way Geote	echnica	l and C	ontami	ination Services	•	SHEE		
	-00	ation ·	: Long	389 07	F 6248190		1, INSVV	56	Surface RI : 14 81m AHD Angle from Horiz : 90	0			
ĭ Ľ F	Ria	Tvpe	: SD0	5	Mo	untina	: Ute		Contractor : Stratacore Driller : DM			Checked : MG	
	Dat	e Star	ted : 1	6/10/2	019	<u> </u>	Dat	e Con	npleted : 16/10/2019 Logged by : JS			Date: 16/01/2020	
			DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log	
		g Method	Support ng		oles & Tests	i / (RL) metres	ic Log	Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and	ure Condition	stency / ty Index	Comments/ Observations	
		Drillin	Hole (Water	Samp	Deptr	Grapt	- USC	ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects [FILL] Sandy CLAY: as previous.	Moist	- Consi Densi	5.0m, PID=5.5ppm	
	5				SPT 6/18/197 N=27 FS				5.5m, trace fine to coarse, sub-rounded basalt gravel.	w = PL		6.0m PID=6.8ppm	
- - - - - - - - 7	7 Image: SPT 5/6/8 N=14 7 7.00 7 Image: SPT 5/6/8 N=14 7.00 7.00 7.00 7.00 7.00 7.00 7.00 7.00 9.00 </td												
- - - - - - - - - - - - - - - -	3	-	7.5m, PID=3.0ppm										
- - - - - - - - - - - - - - - - - -	9 9 10 10 10 10 10 10 10 10 10 10												
	10 ^L		1				v / /		1	· · ·		· · · · · · · · · · · · · · · · · · ·	
1	See	e stan	dard s	heets	for		GH[Level) 2 29 Cl	hristie Street, St Leonards NSW 2065 Australia	J	ob N	10.	
8	vet & b	ans of Dasis o	of des	criptio	ons		T: +6 CON	1 2 946 SULTI	62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105	

Climer in Inner Wet Cound Prine: The Counter Vet Counce Location : Longent Street, Summer HL, NEW ENER Location : Longent Street, Summer HL, NEW ENER Teles Street : 100 Summer HL, NEW ENER Street : 100 Summer HL, NEW ENER Deter Completed : 100 Summer HL, NEW ENER Street : 100 Summer HL, NEW ENER Street : 100 Summer HL, NEW ENER Street : 100 Summer HL, NEW ENER Deter Completed : 100 Summer HL, NEW ENER Street : 100 Summer HL, NEW ENER	BC	REHOL	E LOC	G SHE	ET							
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Protection : Johnson in Control 24 Kindsone 30 Burrate KL: 1 agrin Ard Jagrin Ard Jagrin Control 20 Protected : Unit Control 20 Protected : Un		cation		gport S	Street, Sum	mer Hil	I, NSW	<u> </u>	Outras Dis 44.04 Alip Augle form Harles 00	0	SHEE	
No. 17.0 UNIT (INC) UNIT (INC) UNIT (INC) UNIT (INC) UNIT (INC) DBL: NO. DBL: String: INC)		SITION :	328	589.07	E 024819	9.24 N N	IGA94/	00	Contractor: Strategers Driller: DM			Chacked : MC
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DRILLING MATERIAL Description Description 1 1 1 0			.eu . 1	0/10/2	.013		Da					Note: * indicates signatures on origina
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11 11.00 CL CLAY: as previous. w. F 11 11.00 CC Samp CLAY: meture platicity, and regressed term indice previous thread of the construction of the constructio	SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
11 100 SC Sandy CLAY: medium plasticity, pale grey, red brown and plast show, trace grained sand, trace interse of the to coarse grained sand, trace interse of the to coarse, sub-counded to rounded, ironstone gravel (residual). PL PL 12 100 SC Sandy CLAY: medium plasticity, pale grey, red brown and gravel (residual). PL PL 12 12.00 SANDSTONE: pale grey and pale brown, moderately to to the top of top of the top of top of top of the top of top of the top of top o								CI	CLAY: as previous.	w > PL	F	
13 12.90 SANDSTONE: pale grey and pale brown, moderately to highly weathered (bedrock). 13 13 13 14 14 14 14 14 15 See standard sheets for details of abbreviations & trief 2 9462 4700 F: 15 16 14 14	- 11 - 1 -	TC-bit auger	Nii	Groundwater Not Encountered	SPT 6/4/4 N=8	11.00		- sc	Sandy CLAY: medium plasticity, pale grey, red brown and pale brown mottled, medium to coarse grained sand, trace lenses of fine to coarse, sub-rounded to rounded, ironstone gravel (residual).	w > PL	F	
15 Image: See standard sheets for details of abbreviations & basis of descriptions GHD Job No. See standard sheets for details of abbreviations Image: Street and the	- - 13: - - - - - - - - - - - - - - - - - - -					12.90			SANDSTONE: pale grey and pale brown, moderately to highly weathered (bedrock). End of borehole at 13.00 metres. Target Depth			
See standard sheets for details of abbreviations & basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS Job No. 21-12515105	- 15											
details of abbreviations Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: slnmail@ghd.com CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS 21-12515105	Se	e stan	dard s	heets	for		GHI	D		J	ob N	lo.
& basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS 21-12515105	de	tails of	abbr	eviatio	ons 🥻	ΗĎ	Level	2 29 Cl	hristie Street, St Leonards_NSW_2065_Australia 32 4700 F; +61 2 9462 4710 E; slnmail@dhd.com		~ 4	40646405
	&	basis o	f des	criptic	ons 🛛 🎽	\sim	CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12010105

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פ 19- 19-	Po	sition :	328	400.97	E 6248153	3.46 N N	1GA94/	56	Surface RL: 9.18m AHD Angle from Horiz. : 90	0		Processed : RCO
	Rig	J Type :	Hand	d auger	Мо	unting	: NA		Contractor : NA Driller : NA			Checked : MG
	Da	te Start	ed: 1	8/10/2	019		Dat	te Con	npleted : 18/10/2019 Logged by : LM			Date: 16/01/2020
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	SCALE (m)	Drilling Metho	Hole Support \ Casing	Water	Samples & Te	Depth / (RL) r	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Con	Consistency / Density Index	
		tube		ered		0.10	$\dot{\triangleleft}$	-	CONCRETE.	-	-	
117 1107		uger Did i		Encounte	ES	0.10		-	[FILL] Sandy GRAVEL: fine to coarse, angular, fine to medium grained sand.	-	-	0.2m, PID=5.5ppm
		Hand A	2	ter Not E		0.30			[FILL] Silty SAND: fine to coarse grained, yellow, with fine to coarse, sub-angular gravel, trace brick fragments.	-		0.4m PID=8.0nnm
				oundwa	ES	0.50			End of borehole at 0.50 metres.			0.411, PD=0.9pp11
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sition :	328	383.43	E 6248128	3.85 N M	GA94/	56	Surface RL: 10.18m AHD Angle from Horiz.: 90°	,	0	Processed : RCO
a Type	: Hand	l auger	Mo	ountina	NA		Contractor : NA Driller : NA			Checked : MG
ate Star	ted : 1	8/10/2	2019		Dat	e Com	pleted : 18/10/2019 Logged by : LM			Date: 16/01/2020
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Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
Hand Auger	Nii	Groundwater Not Encountered	ES	0.05			[TOPSOIL] Silty SAND: fine to coarse grained, brown, with fine to coarse, angular gravel, trace rootlets. [FILL] Sandy GRAVEL: fine to coarse, fine to coarse grained sand.	M	~ _ ^	0.2m, PID=1.5ppm 0.5m, PID=2.5ppm
					0.8m, PID=1.9ppm					
ee stan etails of hasis c	dard s	heets	a for ons	Ð	GHE Level T: +6) 2 29 CP 1 2 946	rristie Street, St Leonards NSW 2065 Australia 2 4700 F: +61 2 9462 4710 E: slnmail@ghd.com	J	ob N 21	lo. -12515105
	ient : oject : sition : g Type : ite Start Duiling Wethod we stand stails of basis of	ient : Inne oject : The istion : 328 g Type : Hand te Started : 1 DRILL DRILL Unified Wethod Hole South of the Unified Wethod Hole S	ient : Inner Wes oject : The Green isition : 328383.43 g Type : Hand auger tte Started : 18/10/2 DRILLING PRILLING Page 1 18/10/2 PRILLING Prite Started : 18/10/2 PRILLING PRILLING Prite Started : 18/10/2 PRILLING Prite Started : 18/10/2 PRILLING Prite Started : 18/10/2 PRILLING Prite Started : 18/10/2 PRILLING Prite Started : 18/10/2 PRILLING PR	ient : Inner West Council oject : The GreenWay Geoto isition : 328383.43 E 6248128 g Type : Hand auger Mo ite Started : 18/10/2019 DRILLING DRILLING Und Builting Bui	ient : Inner West Council oject : The GreenWay Geotechnical ication : IWLR Corridor, Lewisham, N istiton : 328383.43 E 6248128.85 NM g Type : Hand auger Mounting: the Started : 18/10/2019	ient : Inner West Council oject : The GreenWay Geotechnical and C cation : IWLR Corridor, Lewisham, NSW isition : 328383.43 E 6248128.85 NMGA94/ g Type : Hand auger Mounting: NA te Started : 18/10/2019 Dat DRILLING F Pothod Date of the standard sheets for tails of abbreviations basis of descriptions	ient : Inner West Council oject : The GreenWay Geotechnical and Contami isotion : 328383.43 E 6248128.85 NMGA94/56 g Type : Hand auger Mounting: NA tet Started : 18/10/2019 Date Con DRILLING DRILLING 000 000 000 000 000 000 000 0	Image: The reference way Generalized and Contamination Services cation: VILR Corridor. Levelsham, NSW into: 2028/38.43 E 6249128.85 NMGA94 / 96 Surface RL: 10.16m At D. Alge from Horiz. 200 Type: Hind ang into the started in the	Image: The Control of Learning Interview of Goldschuld and Contamination Services HUEE Control of Learning Interview of Goldschuld and Contamination Services Setting: 2028/81/28 EX08/1028/98 Ex08/1028/1028/1028/1028/1028/1028/1028/10	Image: The Control of Length and Containing Structures: PLOE NO. 22 Carling: The Control of Length and Containing Structures: Structures:



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Client : Inner West Council 28/1/20 HOLE No. A2-HA03 Project : The GreenWay Geotechnical and Contamination Services SHEET 1 OF 1 TEMPLATE 2.00.GDT Location: IWLR Corridor, Lewisham, NSW Position : 328360.23 E 6248095.32 N MGA94/ 56 Surface RL: 10.99m AHD Angle from Horiz. : 90° Processed : RCO Rig Type : Hand auger Mounting: NA Contractor : NA Driller : NA Checked : MG Date Started : 18/10/2019 Date Completed : 18/10/2019 Logged by : LM Date: 16/01/2020 ote: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_ Depth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Consistency / Density Index Hole Support \ Casing JSC Symbol [COBBLES/BOULDERS/FILL/TOPSOIL] then Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects Auger [TOPSOIL] Silty SAND: fine to coarse grained, brown, with Μ Groundwater Not Encounterec --Ī fine to coarse, angular gravel. 0.15 ES Hand End of borehole at 0.15 metres. 0.15m, PID=2.6ppm Auger refusal 0.15m, stabilised or heavily compacted sand/gravel. 1 2 3 Job No. GHD See standard sheets for

details of abbreviations & basis of descriptions

BOREHOLE LOG SHEET



Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

21-12515105



ВС	DREHOL	E LO	G SHE	ET									
	ient :	Inne	er Wes	t Council				HOLE N	0	Δ2			
∛ Pr	oject :	The	Green	Way Geote	echnica	l and C	ontami	nation Services	0.				
	cation	: IWL	R Cori	ridor, Lewis	ham, N	ISW	50	Purfece DL 0.05 AUD Angle from Harin 100		SHEE			
	SILION :	320. • Han/	1 2000	E 024014		· NIA	50	Contractor: NA AHD Angle Iron Horiz.: 90			Chacked : MG		
	to Star		8/10/2	010	unung	Dat	e Com	inleted : 18/10/2019			Date: 16/01/2020		
			0/10/2	.010		Du					Note: * indicates signatures on origina		
	I	DRILL	ING					MATERIAL			issue of log of last revision of log		
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations		
	Hand Auger	Nil	undwater Not Encountered	ES YQA8/QA9			-	[FILL] Sandy CLAY: grey, fine to coarse grained sand, trace ballast gravel, trace ash.	D	-	No odour, no staining. Possible clinkers (fill material), ash/coal present 0.2m, PID=1.0ppm 0.5m, PID=1.6ppm		
-1 -1 - - - - - - - - - - - - - - - - -								Auger retusal on ballast					
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de	e stan tails of	dard s f abbr	sheets eviatio	ons	HD	Level T: +6	2 29 Cł 1 2 946	ristie Street, St Leonards NSW 2065 Australia 2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com	J	יז נוט 21			
&	basis o	of des	criptic	ons 🛛 🎽		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		2	-12313103		
ВО	REHO	LE LOO	G SHE	ET									
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Cli Pro	ient : piect ·	lnne The	er Wes Green	t Council Way Geote	chnical	and C	ontami	nation Services		HOLE N	о.	A2	-HAC02
Lo	cation	: IWL	.R Corr	ridor, Lewis	ham, N	SW	ontarn					SHEE	ET 1 OF 1
Po	sition	328	339.10	E 6248114	.36 N N	IGA94/	56	Surface RL: 9.74m	AHD	Angle from Horiz. : 90	0		Processed : RCO
Rig	g Type	: Hand	d auger	Мо	unting	NA		Contractor : NA		Driller : NA			Checked : MG
Da	te Star	ted : 1	8/10/2	019		Dat	te Con	npleted: 18/10/2019		Logged by : JW			Date: 16/01/2020
		DRILL	ING					MATE	RIAL				Note: * indicates signatures on origin issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	[COBBLES/BOU SOIL NAME: plasticity / primary minor compo ROCK NAME: grain size, c components, durability, si	JLDERS/FII particle cha pnents, zoni olour, fabric trength, we	on LL/TOPSOIL] then racteristics, colour, secondary and ng (origin) and c / texture, inclusions or minor athering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
- - - -			untered	ES	0.85		-	[FILL] Gravelly SAND: fin fine to coarse gravel, trac	e to medi e rootlets.	um grained, dark brown,	M	-	No staining, no odour, ash (gravel) 0.2m, PID=0.9ppm 0.5m, PID=1.6ppm
- -1 -	—Hand Auger —	Nil	dwater Not Enco	ES	1.20		- <u>c</u> i-	CLAY: high plasticity, red	lish brow	n, trace sand (residual).	M		No staining, no odour 1.0m, PID=2.8ppm
-			Grour	ES	1.50		- <u>c</u> i -	CLAY: medium plasticity, Sandy CLAY: medium pla coarse grained sand, trac	reddish g sticity, ye e rock fra	rey (residual). Ilow-reddish grey, fine to gments [40mm] (residual).	M	-	No staining, no odour No staining, no odour
-2 · ·					2.00			End of borehole at 2.00 m Target Depth	ietres.				2.0m, PID=0.9ppm
Se	e stan	dards	heets	for		GHI	D				J	ob N	lo.
de	tails o	fabbr	eviatio	ons 🧲	Ð	Level T: +6	2 29 Cl	nristie Street, St Leonards NS 2 4700 F: +61 2 9462 4710	N 2065 A E: slnm:	Australia ail@ɑhd.com		<u>_</u>	40545405
& I	basis (of des	criptic	ons 🛛 🚬		CON	SULTI	NG GEOTECHNICAL ENG	INEERS	AND GEOLOGISTS		Z 'l	-12313105

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F 78/	Proj	ect :	The	Green	Way Geote	chnical	and C	ontam	ination Services	υ.		
	-00	ation	: IWL	R Corr	ridor, Lewis	ham, N	SW				SHEE	
4 10 1 20	20SI	ition :	328	317.82	E 6248033	5.28 N IV	IGA94/	56	Surface RL: 10.21m AHD Angle from Horiz.: 90			Processed : RCO
	kig Date	Star		auger	010	unting		o Con	Contractor: NA Driller: NA			Date: 16/01/2020
	Jaie	Jula		2/10/2	013		Dai	.e con				Note: * indicates signatures on origina
о И			DRILL	ING					MATERIAL			issue of log of last revision of log
5-THEGREENWAY.GPJ GHD_C SCALF (m)		Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
GEO_BOREHOLE_AS1726 2017 211251510		Hand Auger Hand	Nii	Groundwater Not Encountered	ES	0.05		<u>-</u>	[TOPSOIL] Silty SAND: dark brown, trace rootlets, trace cobbles. CLAY: medium plasticity, yellow with red mottles, trace fine to medium, sub-rounded, ironstone gravel (residual).	M w < PL		No odour, no staining 0.2m, PID=2.9ppm 0.5m, PID=2.5ppm
ŀ						0.90			Clavey SAND: fine to coarse grained hale brown medium	- <u>-</u> -	<u> </u>	No odour, no staining
-1	$ \downarrow$	Y			ES	1.00		30	plasticity clay, trace fine to medium, sub-rounded, ironstone	IVI	-	
- - - - - - - - - - - - - - - - - - -	2								End of borehole at 1.00 metres. Refusal on bedrock			
F								<u> </u>	1	·		
18	See	stan	dard s	heets	for		GHI Level	ر 2 29 C	hristie Street, St Leonards NSW 2065 Australia	J	A do	10.
8	k ba	ans of asis o	of desc	criptio	ons		T: +6 CON	1 2 946 SULTI	62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105



Client: Inner West Council HOLE No. A2-TP01 Project: The GreenWay Geotechnical and Contamination Services SHEET OF Location: IWLR Corridor, Lewisham, NSW 1 1 Position: Surface RL: 12.25m RCO 328385.00 E 6248182.90 N MGA94/56 AHD Processed: Method of Exploration: Hand dug Hole Size: 0.5m x 0.3m Checked: MG Date: 18/10/19 Date: 16/01/2020 Logged by: LM ote: * indicates signatures on origin issue of log or last revision of log lote. Material Description Moisture Condition Consistency / Density Index [COBBLES / BOULDERS / FILL / TOPSOIL] then Depth / (RL) metres Graphic Log SOIL NAME: colour, plasticity / primary particle characteristics, Comments Scale (m) Samples & Tests USC Symbol secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions **Observations** Water or minor components, durability, strength, weathering / alteration, defects [TOPSOIL] Silty SAND: fine to medium grained, brown, Μ with rootlets. Groundwater Not Encountered 0.20 [FILL] Gravelly SAND: fine to medium grained, brown, Μ medium to coarse, sub-angular, shale gravel, trace glass fragments. 0.4 [FILL] Silty Gravelly SAND: fine to medium grained, Μ -В brown, with shale cobbles, trace rootlets, trace glass and plastic fragments. 0.7 End of test pit at 0.7 metres. Target Depth. 28/1/20 -2 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 3 AS1726 2017 ЕЧ Job No. GHD See standard sheets for TEST Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: slnmail@ghd.com GHD details of abbreviations 21-12515105 & basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

TEST PIT LOG SHEET



A2-TP01 - 1 Depth Range: 0.00 m



A2-TP01 - 2 Depth Range: 0.00 m



	DRAWN H. Warr	DATE 31/01/2020	
The GreenWay Geotechnical and Contamination Services	CHECKED J. Scognamiglio	DATE 31/01/2020	
IWLR Corridor, Lewisham NSW	SCALE Not To S	cale	A4
Test pit Photographs	PROJECT № 21-12515105	FIGURE № A2-TP01 1/1	

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	ient :	Inne	er Wes	st Council	obnico		ontomi	HOLE N	0.	A3	-BH01
	cation	: .loh	nson F	Park Dulwic	h Hill I	NSW	onam	Tation Services		SHEE	T 1 OF 1
	sition	327	838.29	E 6247276	6.84 N N	1GA94/	56	Surface RL: 22.67m AHD Angle from Horiz. : 90	٥	-	Processed : RCO
	g Type	: XP6	0	Мо	unting	Ute		Contractor : Terratest Driller : CD			Checked : MG
ראַ Da	te Star	ted: 1	0/10/2	2019		Da	te Corr	npleted : 10/10/2019 Logged by : LM			Date: 16/01/2020
		DRILL	ING								Note: * indicates signatures on origina issue of log or last revision of log
	π			sts	netres			Description	lition		Comments/ Observations
SCALE (m)	Drilling Methoo	Hole Support \ Casing	Water	Samples & Te	Depth / (RL) π	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Conc	Consistency / Density Index	
				ES/QA4			-	[TOPSOIL] Silty SAND: fine to medium grained, dark brown, with rootlets.	М	-	0.2m PID-10.000m
					0.30			FILL] Silty SAND: fine to medium grained, dark brown, trace	м	<u>-</u>	0.2m, 1 iD=19.9ppm
-				FS		\bigotimes		fine to medium, angular gravel.			
			eq			\bigotimes					0.5m, PID=4.8ppm
			nter	D	0.70	Þ¥,			<u> </u>		
	auger —	_	ot Encou	ES	1.00		СН	CLAY: high plasticity, pale brown, trace tine to medium, sub-rounded, ironstone gravel (residual).	PL	VSt	
	-bit	Ī	N NO		1.00	77	СН	CLAY: high plasticity, red with grey mottles, trace fine to	w =	VSt	1.0m, PID=5.5ppm
F	-TC		wate					coarse grained sand and fine to medium, sub-rounded, ironstone gravel (residual).			
ŀ			pun	D							
F			0 D								
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t										н	
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-2				ES	2.00	<u> </u>		End of borehole at 2.00 metres.			2.0m, PID=4.5ppm
t								Target Depth			
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de ହ	talls 0 haeie 4	r abbr of dee	eviatio	ons		T: +6	61 2 946	2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		21	-12515105
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≊ Pro ⊡ Lo	cation	Ine Johi	Green	ark Dulwic	chnicai	and C JSW	ontami	nation Services		SHEE	ET 1 OF 1
B Po	sition :	3278	333.55	E 6247234	1.34 N M	IGA94/	56	Surface RL: 22.86m AHD Angle from Horiz.: 90	0		Processed : RCO
∎ Rig	g Type	: XP60)	Мо	unting:	Ute		Contractor : Terratest Driller : CD			Checked : MG
Da	te Star	ted: 1	0/10/2	019		Dat	te Com	npleted : 10/10/2019 Logged by : LM			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on origina issue of log or last revision of log
GHD				S.	tres			Description	ion		Comments/
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Test	Depth / (RL) me	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condit	Consistency / Density Index	Observations
	1			ES			-	[TOPSOIL] Silty SAND: fine to medium grained, brown, trace fine to medium, angular gravel.	м	-	0.2m PID=8.1ppm
				ES	0.30			[FILL] CLAY: high plasticity, pale brown, trace fine to coarse grained sand, fine to medium, angular gravel.	м	-	0.2m, r iD=0. ippm
	91		Icountered	D		\bigotimes		0.8m pale brown mottled grange			0.5m, PID=11.3ppm
-1	t aug∈	II.	lot Er	ES	1.00	X			\lfloor	$\lfloor - \rfloor$	
	TC-bi		oundwater N	D	1.40		СН	CLAY, high plasticity, grey with red lenses, trace medium to coarse grained sand, trace, fine, sub-rounded, ironstone gravel (residual).	w > PL	St	1.0m, PID=16.5ppm
-			Gro		1.40		SC	Sandy CLAY: grey mottled red and orange, trace medium to coarse, sub-rounded, ironstone gravel (residual).	w = PL		
-					0.00					VOL	
								End of borehole at 2.00 metres. Target Depth			2.0m, PID=6.3ppm
-5			b . 1			CUI	 ר	I			
de &	e stan tails of basis o	and s f abbro of deso	eviation cription	ons ons	HD	Level T: +6	2 29 CH 31 2 946 SULTII	hristie Street, St Leonards NSW 2065 Australia 32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105



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Cli	ent :	Inne	er Wes	t Council				HOLE N	0	Δ3	-BH03
	oject :	The	Green	Way Geote	echnica ⊳h ⊔iii I	l and C	ontami	nation Services	•	SHEF	T 1 OF 1
	sition	327	830.22	E 624720	1.66 N M	1GA94/	56	Surface RL: 23.12m AHD Angle from Horiz.: 90	0	0	Processed : RCO
Rig	Type	: XP6	D	Mo	ounting	: Ute		Contractor : Terratest Driller : CD			Checked : MG
Dat	te Star	ted : 1	0/10/2	019		Dat	te Com	npleted : 10/10/2019 Logged by : LM			Date: 16/01/2020
			ING					ΜΔΤΕΡΙΔΙ			Note: * indicates signatures on origina issue of log or last revision of log
			ING	S	tres			Description	ion		Comments/
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Test	Depth / (RL) me	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condit	Consistency / Density Index	Observations
	1			ES			-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, trace fine to medium, angular gravel.	м	-	0.2m DID=4.4mm
	iger		Encountered	ES D	0.30			[FILL] CLAY: high plasticity, brown mottled red, trace fine to medium grained sand.	w = PL	-	0.5m, PID=9.2ppm
ý́−1 - - - -	TC-bit au	Nil	Groundwater Not I	ES D	1.00		СН	CLAY: high plasticity, red mottled grey, trace fine to medium grained sand, trace fine to medium, sub-rounded, ironstone gravel (residual).	w > PL	St	
- - - -2 -				D	2.00			End of borehole at 2.00 metres		VSt	2.0m DID-7.500m
								Target Depth			
Sec det & t	e stan tails o basis (dard s f abbr of desc	sheets eviatio criptio	for ons ons	HD	GHI Level T: +6 CON	D 2 29 Cł 31 2 946 SULTII	nristie Street, St Leonards NSW 2065 Australia 32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	ob N 21	lo. -12515105



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5. F	osit	ion :	327	820.64	E 6247149	.62 N N	IGA94/	56	Surface RL: 23.91m AHD Angle from Horiz. : 90	0		Processed : RCO
ĭ ⊒ F	Rig T	ype	: SD0	5	Мо	unting	Ute		Contractor : Stratacore Driller : TR			Checked : MG
	Date	Star	ted: 1	1/10/20	019		Dat	te Con	npleted : 11/10/2019 Logged by : JS			Date: 16/01/2020
			DRILL	ING					MATERIAL			Note: * indicates signatures on origina issue of log or last revision of log
	000 mm (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
					ES	0.30		-	[TOPSOIL] Silty SAND: fine to coarse grained, dark brown and brown, trace rootlets.	М	-	0.2m, PID=1.6ppm
-						0.00			[FILL] SAND: fine to coarse grained, dark grey and dark brown, 5% building rubble consisting; tile, brick, concrete	м	-	
					ES SPT 3/6/7 N=13	0.50			fragments [FILL] Sandy CLAY: low plasticity, dark grey and dark brown, fine to medium grained sand, trace fine to medium, sub-angular gravel.	w < PL	-	0.5m, PID=2.0ppm
^o – 1 - - - - -					ES	1.70			Gravelly CLAY: low plasticity, pale brown mottled		Vet	1.0m, PID=1.7ppm 1.5m, PP test failed due to low moisture content.
- -2 - -	2	uger		t Encountered	6/9/9 N=18 ES		000		yellow-brown, fine to medium, sub-rounded gravel, with fine to coarse grained sand (residual) 2.1m, becoming red-brown.	PL		2.0m, PID=3.8ppm
-	5	TC-bit a	Nil	Groundwater Not	SPT 5/9/8 N=17	3.00	0		2.5m, mottled pale grey, pale brown and red brown.			3.0m PP tect failed
- 4 4 4 4 4 4 	ł				SPT 4/6/10 N=16 SPT 3/9/15 N=24			СН	CLAY: nign plasticity, pale grey mottled pale brown (residual).	w < PL	VSt	Jue to low moisture content.
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	letai	stan Is of	dard s f abbr	eviatio	ons G	Ð	Level T: +6	2 29 C 51 2 946	christie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: slnmail@ghd.com	J	<u>21</u>	-12515105
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_	BOREHO	DLE LO	g shei	ET							
1170	Client :	Inne	er West	t Council				HOLE N	0.	A3	-BH04
	Project :	The	Green	Way Geote	echnical	and C	contami	ination Services	•	SHEE	ET 2 OF 3
	Position	· 327	820 64	E 6247149	9 62 N M	1GA94/	56	Surface RI : 23.91m AHD Angle from Horiz : 90	0		Processed · RCO
	Rig Type	: SD0	5	Mo	unting:	Ute		Contractor : Stratacore Driller : TR			Checked : MG
	Date Sta	rted: 1	1/10/2	019	-	Dat	te Corr	npleted : 11/10/2019 Logged by : JS			Date: 16/01/2020
		DRILL	.ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
-					6			_			
	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metre:	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	TC-bit auger	Ĩ		SPT 10 for 50mm HB N=ref	5.10		- CH -	CLAY: as previous SANDSTONE: fine grained, brown, inferred low strength, extremely to highly weathered (bedrock).	w < ∖_PL_ -	-	
ŀ					5.90			Start of coring at 5.9 metres.			
	7										
	9										-
	See sta details (& basis	ndard s of abbr of des	sheets eviatio criptio	for ons ons	HD	GHI Level T: +6 CON	D 2 29 CF 51 2 946 SULTII	hristie Street, St Leonards_NSW_2065_Australia 32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG_GEOTECHNICAL_ENGINEERS_AND_GEOLOGISTS	J	ob N 21	^{io.} -12515105

Difference The Market David Description Description Status of the status	СС	DRE L	. O G	SHE	ET																
Project: In a Greenwise Usedochnical and Contamination Services SHEET 3 OF 3 Peation: Jackson Junk 2004 LI 62/11/62 N MURGAN 55 Surface RL: 23.1m Angle from Horiz:: 00° Protessed : RCO Reg Type: SUBDIA: HO Barrel (m):: 30m Bit 1: 0mmod (stepface) Bit 1: 0mmod (ste	Cli	ient :		Inn	er W	est C	ouncil								Н	OL	E١	No	. A3	BH04	L
Protein: 37780044 E 9037144281/NKG404156 Surface RL: 23.911 Angle from Horiz:: 30 Processed : RCO Charled 2002 Rg Type: 5036 Mounting: Une Contractor: Strutacore Drifler: TR Charled 2002 Garling Dia:: 1000 Bare of (0): Bit Completion: Good Date Screet 2002 The Copyre of the C	Pro	oject catio	: n·	l he	Gre	enW Parl	ay Geo	otechr vich H	iical and Contamin	ation Services						-			SHEE	T 3 OF	3
Pip Type : DDI Mounting: Use Contractor: Statutore Driller: TR Clicket: MO Date Statute: 111/102019 Date Completed : 111/102019 Date Completed : 111/102019 Date Completed : 111/102019 MATERAL MATERAL Progress interception Interception Date Completed : 111/102019 MATERAL MATERAL Progress interception Interception Interception MATERAL MATERAL Interception Interception Interception Interception MATERAL MATERAL Interception Interception Interception Interception Interception MATERAL MATERAL Interception Interception Interception Interception Interception Interception Interception Materal Interception	Po	sitio	n :	327	820.6	64 E	62471	49.62	N MGA94/ 56	Surface RL:	23.91m AHE)	Α	ngle fi	rom	Hori	z. : 9	90°		Process	ed:RCO
Caling Dis: HG Barrel (m): 3.00 Bit Condition: Dool District District <thdistrict< th=""> <thdistrict< th=""> <th< th=""><th>Rig</th><th>д Тур</th><th>e:</th><th>SDC</th><th>)5</th><th></th><th>N</th><th>lount</th><th>ing: Ute</th><th>Contractor :</th><th>Stratacore</th><th></th><th>D</th><th>riller :</th><th>TR</th><th></th><th></th><th></th><th></th><th>Checke</th><th>d: MG</th></th<></thdistrict<></thdistrict<>	Rig	д Тур	e:	SDC)5		N	lount	ing: Ute	Contractor :	Stratacore		D	riller :	TR					Checke	d: MG
Date Server: Date Congretion: 11/10/2019 Date Logger: 11/10/2019 Description Porture: DetLow DetLow DetLow DetLow Additional processing Porture: Bit Mark Processing Bit Mark Processing Description Description Bit Mark Processing Additional Date Additional Date Additional Date Additional Date Additional Date Additional Date Context Bit Mark Processing Bit Mark Processing Additional Date Context Additional Date Context Bit Mark Processing Additional Date Context Bit Mark Processing Bit Mark Processing Additional Date Context Bit Mark Processing	Са	sing	Dia	ı.: H	HQ		В	Barrel	(m): 3.0m	Bit : Diam	ond (stepfaced)		Bit	Condi	tion	: G	ood			Date: 1	6/01/2020
DDRLING MATERIAL NUTURE-TOPICs Progress 1000 1000 Pacing of the secret/pion relations of more any manual secret back of the secret ba	Da	te St	arte	ed : 1	11/10)/201	9 D	ate C	ompleted: 11/10/	2019Logged b	y:JS		Dat	te Log	ged	: 11	/10/2	2019)	Note: * indicates issue of log o	signatures on origi r last revision of log
Progress [u] 0 (u)		D	RIL	LING	3					MATERIAI	L							NA	TURAL	FRACTUR	ES
6 5.90 Starf of coring at 5.9 metres. Even the Cored interval, see Borehole Log Softm, Pt, 07, Rt, Pn, Cn 6 5.90 Softm, Di Cored interval, see Borehole Log Softm, Pt, 07, Rt, Pn, Cn 7 Softm, Pt, 07, Rt, Pn, Fe Softm, Pt, 07, Rt, Pn, Fe 7 Softm, Pt, 07, Rt, Pn, Fe Softm, Pt, 07, Rt, Pn, Fe 8 (0) Softm, Pt, 07, Rt, Pn, Fe 9 (0) Softm, Pt, 07, Rt, Pn, Fe <td< th=""><th>Pro SCALE (m)</th><th>Drilling & Casing</th><th>Water s</th><th>Drill Depth (m)</th><th>(Core Loss / Run %)</th><th>SAMPLES & TESTS</th><th>Depth / (RL) metres</th><th>Graphic Log</th><th>ROCK NAME: gr inclusions or min [COBBLES / Bo SOIL NAME: colour, p secondary and r</th><th>Description rain size, colour, fab or components, moi and DULDERS / FILL / To lasticity / primary pa minor components, :</th><th>ric and texture, sture, durability OPSOIL] then rticle characteristics, zoning (origin)</th><th>Weathering</th><th>Soil 0.03 SI /th><th>timate trength (50) MPa • Axial • Diametral</th><th>EH 10</th><th>50 (n) (n)</th><th>100 100 000 100 000 100 000 100 100 100</th><th></th><th>(joints. Fractur coatir</th><th>Additiona partings, se veins re type, orien ng, shape, roo</th><th>al Data ams, zones and s) tation, infilling d ughness, other.</th></td<>	Pro SCALE (m)	Drilling & Casing	Water s	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: gr inclusions or min [COBBLES / Bo SOIL NAME: colour, p secondary and r	Description rain size, colour, fab or components, moi and DULDERS / FILL / To lasticity / primary pa minor components, :	ric and texture, sture, durability OPSOIL] then rticle characteristics, zoning (origin)	Weathering	Soil 0.03 SI	timate trength (50) MPa • Axial • Diametral	EH 10	50 (n) (n)	100 100 000 100 000 100 000 100 100 100		(joints. Fractur coatir	Additiona partings, se veins re type, orien ng, shape, roo	al Data ams, zones and s) tation, infilling d ughness, other.
8 00 9 00 10 0.00 End of Borehole at 10.00 metres. See standard sheets for details of abbreviations See standard sheets for details of abbreviations See standard sheets for details of abbreviations				7.30	(0)		5.90		Start of coring at For Non Cored in Sheet. SANDSTONE: fi grey, with bands stained beds, inc trace carbonaced	5.9 metres. nterval, see Bore ne to coarse gra of yellow-brown distinctly laminat ous laminations.	ehole Log ained, pale , trace iron ed at 0-5°,	sw		•				-5 -6 -6 -6	.97m, Pt, 0 .11m, Pt, 0 .20m, Jt, R .46m, Pt, 0 .93m, Pt, 0 .08m, Pt, 0	°, Rf, Pln, Cr °, Rf, Pln, Fe f, St, Fe °, Rf, Pln, Fe °, Rf, Pln, Fe	1 ; ;
10 Find of Borehole at 10.00 metres. See standard sheets for details of abbreviations & basis of descriptions Find of Borehole at 10.00 metres. Image: Construction of the standard sheets for details of abbreviations & basis of descriptions Image: Construction of the standard sheets for	- - - - - - - - - - - - - - - - - - -	NMLC coring	1	0.00	(0)		10.00					Fr						-9	.75m, Pt, 2	°, Rf, Pln, X	
See standard sheets for details of abbreviations & basis of descriptions CONSULTING GEOTECHNICAL ENCINEERS AND GEOLOGISTS Job No. 21-12515105	- 10			0.00	I	1			End of Borehole	at 10.00 metres	j	I									
details of abbreviations & basis of descriptions CONSULTING CENTECHNICAL ENGINEERS AND CENTECHNICAL ENGINAL ENGIN CHNICAL ENGINAL ENGIN CHNICAL ENGINAL	Se	e sta	and	ard	shee	ts fo	or		Level 2 29 Chr	istie Street St Le	onards NSW 206	5 Aı	Istrali	а					Job N	0.	
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В	OREHO		SHE	ET							
	lient :	Inne	r West	t Council				HOLE N	0.	A 3	-BH05
	ocation	: Johi	uson P	ark Dulwic	h Hill I	NSW	ontam	Ination Services		SHEE	ET 1 OF 3
	osition	327	331.66	E 6247124	.07 N M	1GA94/	56	Surface RL: 23.87m AHD Angle from Horiz. : 90	0		Processed : RCO
R	ig Type	: SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : TR			Checked : MG
	ate Star	ted: 1	1/10/2	019		Dat	te Con	npleted : 11/10/2019 Logged by : JS			Date: 16/01/2020
2		DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
							-	[TOPSOIL] Silty SAND: fine to medium grained, dark brown, trace rootlets.	М	-	
				ES	0.20			[FILL] Silty Clayey SAND: fine to coarse grained, dark brown, low plasticity clay, with fine to coarse, sub-angular gravel.	M	-	0.2m, PID=2.7ppm
2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -				SPT 2/4/5 N=9 ES \							0.5m, PID=4.4ppm
-	auger		Encountered	SPT 3/3/3 N=6 ES	2.10		СН	1.5m, orange-brown, pale brown, brown, dark brown, trace ash. CLAY: high plasticity, orange brown mottled pale grey and brown, occasional bands of fine to medium, red ironstone gravel (residual).	w < PL	VSt	2.0m, PID=4.1ppm
- - - -3 -	TC-bit	Z	Groundwater Not E	SPT 4/6/9 N=15 ES \							2.5m, PP=400kPa
- - - - - 4 - -				SPT 9/6/8 N=14				3.7m, pale grey mottled pale brown, without ironstone gravel.			
- - - -				SPT 4/ 10 for 50mm HB N=ref	4.60 <u>4.83</u>		-	SANDSTONE: fine to coarse grained, pale grey, inferred low strength, highly weathered (bedrock). Start of coring at 4.83 metres. For cored interval, see Core Log Sheet.	-	-	
-5	L	1							· -		
S	ee stan	dard s	heets	for		GHI Level	ן 2 29 C	hristie Street, St Leonards NSW 2065 Australia	J	od N	10.
å	basis o	of des	criptio	ons	2	T: +6 CON	51 2 946 SULTI	62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

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	ient :		Inne	er We	est C	ouncil									ł	-10	LF	N	0.	A3-I	BH05	5	
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		n :	Joh	nson	Parl	K, Dulw		NMCA04/50	Curfees DI	00.07				n~!	.	m !!						J ad + D(<u>``</u>
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Pr	ogres	s		-					Description	-			Est	tim	ated	s	paci	na		<u>ا ا عد در</u>		al Data	
	 	$\overline{\Box}$		% u	S	tres		ROCK NAME: gr	ain size, colour, fab	ric and texture,			St	ren	gth		(mm	ອ າ)		(iointe n		ams 7000	sand
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F _								orange-brown wi	th pale grey blea	aniea, dark aching at	M١	w			•				-4.97m	ո, Pt. Ո°	Rf, Pln. Cr	ı	-
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	ocatio	n :	Joh	nsor	n Par	k, Dulv	vich F	lill, NSW									SHE		
Po	ositio	n :	327	831.	66 E	62471	24.07	N MGA94/ 56 Sur	face RL: 23.87m AHI)		Angle fr	om	Ho	'iz. :	90°	,	Processed : RC0	0
Ri	g Typ	be :	SD0	5		N	lount	ing: Ute Cor	tractor: Stratacore			Driller :	TR					Checked : MG	
Ca	asing	Dia	a.:⊦	IQ		E	arre	(m): 3.0m	Bit : Diamond (stepfaced)		B	it Condi	tior	1 : (Good			Date: 16/01/202	:0
Da	ate St	arte	ed: 1	1/10)/201	9 C	ate (completed : 11/10/2019L	.ogged by : JS		D	ate Log	ged	: 1	1/10/	20	19	Note: * indicates signatures on issue of log or last revision of	origina of log
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Pr	ogres	S		(%		s		Desc	ription		E	stimate	d	Sp	acin	g		Additional Data	
	bu		_	n	TS	hetre		inclusions or minor comp	onents, moisture, durability			Strength		(mm)		(joint	ts, partings, seams, zones	and
Ξ	asi		E)	12	TES	<u>د</u>	D	20000100/00/00/00/00	ind	5	'	(50) WIF C	<u>ٰ</u>				Fract	veins) ure type orientation infillir	na or
Щ	8		pth	OSSO.	s S	R R	L C	SOIL NAME: colour, plasticity	/ primary particle characteristics,	erinç		O-Diametral					coat	ting, shape, roughness, oth	her.
CA	ling	Ē	De	Le L	PLE	oth /	phi	secondary and minor co	omponents, zoning (origin)	athe	0.03	- m - m	ē			_			
S S	Dril	Wa	Dril	ပ္ပိ	SAN	Dep	Gra			Ne N		╣╷╞╴┠	Ξ	29	200	1000			
								defects, indistinctly bec	Ided at 0-5°.				F			+			
Ī								SANDSTONE: as prev	ious.								-5.08m, Pt,	0°, Rf, Pln, Fe	
-																	-5.18m, Pt,	0°, Rf, Pln, Cn	
-											1						-5.36m, Pt,	0°, Rf, Pln, Fe	
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-						6.20	<u></u>	SANDSTONE: fine to r	medium grained pale		-								
-			6 40					grey, indistinctly bedde	d at 0-10°, trace										
-			0.40					carbonaceous lamination	ons.										
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	ositi	on :	3278	842.71	E 6247095	5.59 N N	1GA94/	56	Surface RL: 26.16m AHD Angle from Horiz.: 90	0		Processed : RCO
ĭ Ľ F	Rig Ty	pe :	SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
	Date S	Start	ed: 1	7/10/20	019	<u> </u>	Dat	te Con	npleted : 17/10/2019 Logged by : JS			Date: 16/01/2020
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SCALE (m)		Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
-					ES	0.10		-	ASPHALT PAVEMENT. [FILL] Gravelly SAND: fine to coarse grained, dark grey, fine to coarse, sub-angular gravel.	- M	-	0.2m PID=2.000m
					FS	0.50						
					SPT 7/4/4 N=8 ES	0.00			[FILL] Gravelly Sandy CLAY: dark brown and dark grey, fine to coarse grained sand, fine to coarse, sub-angular to angular, sandstone gravel, trace sandstone cobbles.	w < PL	-	0.5m, PID=2.6ppm
- - -						1.50						1.0m, PID=2.3ppm 1.1-1.3m, encountered concrete obstruction.
- - - -2	2				SPT 4/6/6 N=12			-	[FILL] Clayey SAND: fine to coarse grained, pale grey, red-brown, brown and dark brown, low plasticity clay, trace fine to coarse gravel of ironstone, sandstone and shale.	М	-	2.0m, reworked
- - -		C-DIL auger	Nil		ES							- - 2.4m, PID=4.2ppm
- - -3 -					SPT 3/6/3 N=9							
F					ES							- - 3.5m, PID=3.4ppm
- - - 4					SPT 3/6/4 N=10	3.65			[FILL] CLAY: low plasticity, brown, pale brown, pale grey, dark brown mottled, with fine to medium, sub-angular to angular gravel, trace fine to coarse grained sand, trace ash.	w = PL	-	-
			1	⊊ 7/10/19	9							4.1-5.0m, perched water table.
					SPT 5/3/3							4.5m, PID=3.4ppm
t.					N=6	5.00	\bigotimes					-
F			-	-				<u> </u>			04 1	
S d 8	See s letail & bas	tano s of is o	dard s abbro	sheets eviatic criptio	for ons ns	HD	GHI Level T: +6 CON	2 29 C 31 2 946 SULTI	hristie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	ob N 21	 -12515105

Client : Inner West Council HOLE No. A3- Project : The GreenWay Geotechnical and Contamination Services HOLE No. A3- Location : Constitution Road, Dulwich Hill, NSW SHEET Position : 327842.71 E 6247095.59 NMGA94/ 56 Surface RL: 26.16m AHD Angle from Horiz. : 90° Rig Type : SD05 Mounting: Ute Contractor : Stratacore Driller : DM Date Started : 17/10/2019 Date Completed : 17/10/2019 Logged by : JS	BH06 T 2 OF 4 Processed : RCO Checked : MG
Project: The Greenway Geolechnical and Contamination Services Location: Constitution Road, Dulwich Hill, NSW Position: 327842.71 E 6247095.59 NMGA94/ 56 Surface RL: 26.16m AHD Angle from Horiz.: Position: S005 Mounting: Ute Contractor: Stratacore Date Started: 17/10/2019 Date Completed: 17/10/2019	T 2 OF 4 Processed : RCO Checked : MG
Position:327842.71 E6247095.59 NMGA94/56Surface RL:26.16mAHDAngle from Horiz.:90°Rig Type:SD05Mounting:UteContractor:StratacoreDriller:DMDate Started:17/10/2019Date Completed:17/10/2019Logged by:JS	Processed : RCO Checked : MG
Rig Type: SD05 Mounting: Ute Contractor: Stratacore Driller: DM Date Started: 17/10/2019 Date Completed: 17/10/2019 Logged by: JS	Checked : MG
Date Started : 17/10/2019 Date Completed : 17/10/2019 Logged by : JS	
	Date: 16/01/2020
DRILLING MATERIAL	Note: * indicates signatures on origi issue of log or last revision of log
SCALE (m) Drilling Method Method Method Moisture Condition Moisture Condition Moisture Consistency / Condition Moisture Condition Moisture Construe Complex Co	Comments/ Observations
Image: Second	5.1m, PID=5.3ppm 5.5m, PP=300kPa
6.5m, trace fine to coarse grained sand. 6.5m, trace fine to coarse grained sand. 7/5/9 N=14 7.10	6.5m, PP=300kPa
Image: Second	
Y 7.41 Start of coring at 7.41 metres. For cored interval, see Core Log Sheet.	
See standard sheets for GHD Level 2 29 Christie Street, St Leonards NSW 2065 Australia	0.
& basis of descriptions	-12515105

	OR	ELC)G S	SHE	ET																	
	lier	it:		Inne	r We	est C	Council									н	OI	E	Na	D. A3	-BH06	
	Proje	ect:		The Com	Gre	enW	ay Ge	otech	nical and Contami	nation Service	S					••	0					
	.oca	tion	:	Con	stitu	tion	Road,	Dulw												SHEE	- 3 0F 4	
	'osit	ion	:	3278	342. <i>1</i> -	'1 E	62470	95.59	N MGA94/ 56	Surface RL:	26.16m AF	ID		Ang	jie t	rom		riz. :	90°		Process	ed: RCO
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	vasii Vəto	IY L Sta	na.	. ⊓ I• 1	7/10	/201	0 B	arrei	(m): 1.5m	DIL : Diali				ato			11:1 1•1	vew	/201	0	Note: * indicates	signatures on original
	Jale	JIA			//10	/201	9 D	ate C			iy: JS		-	Jale	LOU	gea		//10	20 I			last revision of log
Ĺ	rogu									Description	L				nate	м	Sr	acir		ATONAL	Additiona	_J I Data
			Water	Urill Depth (m)	(Core Loss / Run %	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: gr inclusions or min [COBBLES / B(SOIL NAME: colour, pl secondary and r	ain size, colour, fat or components, mo and DULDERS / FILL / T asticity / primary pa ninor components,	oric and texture, isture, durability OPSOIL] then article characteristics zoning (origin)	Weathering	Soil 0.03			h a 10 h 1	20	mm)		(joints Fractu coatii	, partings, sea veins re type, orienta ng, shape, rou	ms, zones and ation, infilling or ghness, other.
							7.41		Start of coring at For Non Cored in Sheet.	7.41 metres. nterval, see Bor	ehole Log											-
					(25)		7.78		SANDSTONE: fi organge-brown, and pale grey, in 0-5°, with bleach	ne to medium g brown, red-brow distinctly bedde ing at defects.	rained, vn, pale brown d to bedded at	- MV	/		•					-7.95m, Pt, (•8.05m, WS •8.71m, WS)°, Rf, Un, Fe m, 20mm m, 40mm	-
	0		8	.88	(0)	te fr	9.60		9.39m, occasion SANDSTONE: n stained organge indistinctly bedde and carbonaceou	al carbonaceou nedium grained, and organge-br ad at 0-20°, trac us laminations.	s laminations. , pale grey own, ee fine grained	sw	,							-8.82m, Pt, (-8.90m, WS -9.35m, Pt, (-9.53m, WS -9.71m, Pt, (Job N	9°, Rf, Un, Fe m, 20mm 5°, Rf, Pln, Cn m, 10mm 9°, Rf, Pln, Fe IO.	
	leta k ba	ils c sis	of al	bbro	eviat cript	tion	s s	GH	Level 2 29 Chr T: +61 2 9462 CONSULTIN	istie Street, St Le 4700 F: +61 2 G GEOTECHN	eonards NSW 20 294624710 E: s IICAL ENGINEE	65 Au Inmai ERS J	ustr I@g AN	alia ghd.c D G	om EOl	.0G	IST	5		21	-1251	5105

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Pr	Oares	s							Description	-		Т	F۹	timate	be	Sn	acina			Additio	nal Data	
		Ť		% u	S	tres		ROCK NAME:	grain size, colour, fat	ric and texture,	,		St	rengt	h	ېرى (r	nm)		(iointe	partings a		e and
Ē	asing		(m	/Ru	EST) me	_	inclusions or m	inor components, mo and	isture, durabilit	y		ls ₍	₅₀₎ MF	'a	, e	,		Jointa	vei	ns)	5 6110
ь Ш	U V V		oth (SSC	S & T	(RL)	Lo C	[COBBLES /	BOULDERS / FILL / T	OPSOIL] then	ind	מ	o	 Axial Diametral 					Fractur coatir	e type, orie na. shape. i	ntation, infill oughness, o	ing or ther.
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[¹¹	NMI						· · · ·											11.	04m, Pt,	2°, Rf, Cn,	х	-
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&	basis	s of	t des	crip	tion	S		CONSULTI	NG GEOTECHN	ICAL ENG	INEERS	A	ND	GEO	LOG	ISTS			- 1	0		•



Ē	BOREHO	LE LOO	G SHEE	ET							
	lient :	Inne	er West					HOLE N	0.	A 3	-BH07
	ocation	: IWI	R Corr	idor Dulwi	chnicai ch Hill	NSW	ontam	Ination Services		SHEE	ET 1 OF 3
P P F	Position	327	848.90	E 6247079	.98 N N	IGA94/	56	Surface RL: 23.63m AHD Angle from Horiz. : 90	>		Processed : RCO
F	Rig Type	: Hand	d Carry F	Rig Mo	unting	NA		Contractor : Stratacore Driller : CW			Checked : MG
	0ate Star	ted: 3	0/10/20	019		Dat	te Con	npleted : 30/10/2019 Logged by : LM			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
	poq	ort		Tests	.) metres	D	o	Description	ondition	y/ ex	Comments/ Observations
SCALE (m)	Drilling Met	Hole Suppo \ Casing	Water	Samples &	Depth / (RL	Graphic Lo	USC Symb	SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture C	Consistenc Density Ind	
-				ES	0.20		-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, with sub-angular gravel.	D	-	-
-				ES			-	[FILL] Gravelly SAND: fine to coarse grained, brown, fine to coarse, sub-angular gravel, trace brick and mortar fragments.	D	-	0.2m, PID=0.9ppm 0.2m, Possible ACM 0.5m, PID=0.7ppm
				D	1 00						
	— Hand Auger-						-	[FILL] CLAY: low plasticity, brown, with fine to coarse grained sand.	M	-	1.0m, PID=0.7ppm
-		Nil		D	1.85		- <u>s</u> c	Sandy CLAY: medium plasticity, pale brown mottled red, fine to coarse grained sand (residual).	w < PL	VSt	-
-			Encountered	D	2.40			2.2m, red.			2.0m, PID=0.6ppm
- - - -3	Washbore		Groundwater Not					CLAY: red, with fine to medium, sub-rounded ironstone gravel (residual).			2.4m, material description and origin inferred from drilling fluid.
	V				3.22			Start of coring at 3.22 metres. For cored interval, see Core Log Sheet.			
- - 4 -											
-											
-5	; L										
	See stan letails o	dard s f abbr	heets eviatio	for ons	HD	GHI Level T: +6	D 2 29 Cl 51 2 946	hristie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: slnmail@ghd.com	J	ob N 21	lo. -12515105
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CORE LOG	SHEE	Т																
Client :	Inner	We	st Co	ouncil								н	OI	F	N	Δ3	BH07	
Project :	The	Gree	nWa	ay Geo	techr	ical and Contamin	ation Services					••		-				
Location :	IWLF		rrido	r, Dul	vich H	Hill, NSW	0	00.00		•					. 00	SHEE	1 2 OF 3	
Position :	3278	48.90		52470	/9.98	N MGA94/ 56	Surface RL:	23.63m /	AHD		ngle	from		'IZ.	:90)°	Processe	
Rig Type :	Hand	Carry	/ KIG	M	ount			Stratacore	1)	DI			v	<u>.</u>				. MG
Casing Dia.	.: 90 al : 90		0040	<u></u> В	arrel	(m): 1.0m	Bit : Diam	ond (steptaced	1)	Bit			n: 0	000	a	10	Note: * indicates si	DI/ZUZU
Date Started)/10/2	2019) D	ate C	ompleted : 30/10	2019Logged by	LM		Dat	e Lo	ggeo	1:30	0/10	0/20)19	issue of log or la	st revision of log
DRILI	LING							-		_			0		r		Additional	5
SCALE (m) Drilling & Casing Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: g inclusions or min [COBBLES / BG SOIL NAME: colour, p secondary and	and size, colour, fab. or components, moi and OULDERS / FILL / TO lasticity / primary pai minor components, a	ic and texture, sture, durability DPSOIL] then ticle characteristi coning (origin)	ی Weathering			ed th 2a - 01 HA HEH 10 - 10	1) 20 1 20		1000 1) 1000	(joints Fractu coatii	, partings, sear veins) re type, oriental ng, shape, roug	Data ns, zones and ion, infilling o hness, other.
-1				3.22		Start of coring at For Non Cored in Sheet.	t 3.22 metres. nterval, see Bore	shole Log										
NMLC corring	3.88	(0)		4.09		SILTSTONE: req yellow bands, ind SANDSTONE: fi with yellow and r	d-brown with pal distinctly laminat ine to coarse gra red bands, lamin	e grey and ed. ined, white ated at 5°.	EW		•					3.35m, Jt, 5 3.40m, Jt, 0 3.50m, Pt, (3.55m, Jt, 0 3.58m, Jt, 0 3.61-3 60m, Jt, 0 3.73m, ISm 25mm 3.80m, Jt, V 3.84m, Jt, V 3.84m, Jt, V 3.84m, Jt, V 3.84m, Jt, V 3.84m, Jt, V 3.84m, Jt, V	 VR, Un, Cn VR, Un, Fe VR, Un, CLA VR, Un, CLA VR, Un, CLA Jt, 0-45°, Un, 1 R, I, 0-50°, VR, Un, Fe 5°, VR, Un, Fe S, VR, St, CE R, St, Fe R, St, Fe R, St, Fe NR, St, Fe 	Y Y ≂e St, AY
	4 04				· · · · ·											4.78m, Pt, 8 4.80m, Jt, 1	5°, Pln, CLAY 5°, Pln, Fe	
	4.94			4.95	\geq							\square		+		-		
5																		
5 ·	-		-															
See standa	ard sl	neet	s fo	r 📕		GHD Level 2 29 Chr	istie Street St Le	onards NSW 2	2065 Au	Istralia	1					Job N	ю.	
See standa details of a	ard sl abbre	neet viat	s foi ions	r	GH	GHD Level 2 29 Chr T: +61 2 9462	ristie Street, St Le 2 4700 F: +61 2	onards NSW 2 9462 4710 E:	2065 Au sInmail	ıstralia @ghd	a .com					Job N	lo. _1251 <i>6</i>	105

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0711	Clie	ent:	_	Inne	er W	est C	ouncil	4 1								НС)L	ΕI	No	b. A3	-BH07	7	
1	Proj Loc	atio	: n:	IWI	R C	orrida	ay Geo or Dulv	vich I	Hill NSW	nation Services										SHEE	T 3 OF	3	
	Pos	itior	n :	327	848.9	90 E	62470	79.98	N MGA94/ 56	Surface RL:	23.63m AHI)		Angl	e fro	m H	oriz	z. : 9	90°		Proces	sed : RC	0
	Rig	Тур	e:	Han	d Car	ry Rig	M	lount	ing: NA	Contractor :	Stratacore		I	Drille	ər : (CW					Checke	ed: MG	;
	Cas	sing	Dia	ı.: Ş	90mn	n	В	arrel	(m): 1.0m	Bit : Diam	ond (stepfaced)		Bi	t Co	nditi	on :	Go	bod			Date:	16/01/20	20
	Dat	e Sta	arte	ed : 3	30/10	/201	9 D	ate C	completed : 30/10	0/2019Logged b	y:LM		Da	ate L	ogg	ed :	30	/10/:	201	9	Note: * indicate issue of log	es signatures or or last revision	n original of log
5		D	RIL	LINC	G					MATERIAI	<u> </u>								N	ATURAL	FRACTU	RES	
	Pro	gres	s		(% l		res		ROCK NAME:	Description grain size, colour, fab	ric and texture,		E	stim Stren	ated ath		Spa	cing	9		Addition	nal Data	
	=	Ising		Ê	Rur	ESTS	met		inclusions or mi	nor components, moi and	sture, durability		k	S ₍₅₀₎ N	ИРа		(11			(joints	, partings, s veir	eams, zone: ns)	s and
Ļ	5 4	S Ca		oth (i	SSC /	8 T 8	(RL)	Log		BOULDERS / FILL / T	OPSOIL] then	ing		• - Axi • Diam	al etral					Fractu coatir	re type, orier na. shape, ro	ntation, infill oughness, o	ing or ther.
	5	ing &	Ē	Dep	Le Lo	PLES	th /	phic	secondary and	l minor components, :	zoning (origin)	athe	0.03		-~=				_		5, 1,	5 ,	
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-							= 10	\bigtriangledown	CORE LOSS 1	80mm.							1	Ħ					
							5.13 5.22		SANDSTONE:	as above.		EW					+						-
-									SANDSTONE: brown-pale pink	fine to medium g	rained, pale												-
-					(19)			· · · · ·	at 10-15°.		ing laninatou												-
2								 				нw								-5.57m, WS	n, CLAY, 30)mm	_
-		bu						· · · · ·															-
-		cori		5.88			5.88	 															-
Ľ	6	MLC						Ν7	CORE LOSS 3	20mm.			$[\uparrow]$				T		Π				_
-		Z			(57)			X															-
-					(37)		6.20	<u> </u>	SANDSTONE	fine to medium g	rained, pale	-						\vdash				_	-
ľ				6.40			0.45	· · · · ·	purple with whit	te bands, thinly la	minated at									6.30m, Jt, 4 6.30m, Jt, 0	5°, Rf, Pin, i °, Rf, Un n 0° Pf Sr		_
ŀ							6.45		SANDSTONE:	fine to medium g	rained, pale	нw								20mm	11, 0 , 14, 51	ITE, OLAT	-
ŀ					(0)			· · · · ·	grey and yellow laminated at 5°.	with black lamina	ates, thinly			d									-
t	\vdash			6.74			6.74		End of Borehole	e at 6.74 metres.							+						-
ŀ									Target Depth														-
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	& b	asis	s of	des	cript	tions			CONSULTIN	NG GEOTECHN	9402 4710 E: SI	nmail RS /	@gl ANE	ia.co GE	OLC	GIS	тs			21	-1251	15105	5





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11/20	Clie	ent:	Inne	er Wes	t Council				HOLE N	о.	A 3	-BH08
2	Pro	ject :	1he • 1-3	Green Willian	iWay Geote ns Parade I	chnical Dulwich	and C	ontami ISW	Ination Services	-	SHEE	ET 1 OF 3
.5. 00	Pos	sition :	327	346.26	E 6247047	.85 N M	IGA94/	56	Surface RL: 21.80m AHD Angle from Horiz. : 90	0	-	Processed : RCO
	Rig	Туре	: XC F	Rig	Мо	unting:	Track		Contractor : Terratest Driller : CD			Checked : MG
- MPL	Dat	te Star	t ed : 1	7/10/2	019		Dat	te Con	npleted : 17/10/2019 Logged by : JF/LM			Date: 16/01/2020
= >			DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
	(III	lethod	port		& Tests	RL) metres	Log	loqu	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and	Condition	ncy / ndex	Comments/ Observations
	PUALE (e Drilling N	Hole Sup \ Casing	Water	Samples	Depth / (I	Graphic I	USC Syr	minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture	Consiste Density I	
		- du	-			0.12	4.4	-		-	-	-
		Ē			ES/QA6			-	[FILL] Gravelly SAND: the to coarse grained, brown, the to coarse, angular gravel, with silt, trace brick fragments.	м	-	0.2m, PID=4.7ppm
					ES		\bigotimes					0.5m PID=4.9ppm
	1				SPT 7/8/10 N=18	0.60			[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, angular gravel.	м		о.оп, г тр-ч.эррт - - -
F	'				ES		\bigotimes					1.0m, PID=4.0ppm
-						1.20			[FILL] Sandy CLAY: low plasticity, grey brown, fine to medium grained sand, trace brick and concrete	M	-	-
-	2				SPT 4/4/4 N=8	1.90		-GC	Gravelly CLAY: high plasticity, brown mottled pale brown, fine	w =	St	
		oit auger	Nil	er Not Encountered	ES L		0		sand (residual).			2.0m, PID=6.3ppm - - - -
-		TC-b		Groundwate	SPT 5/8/9 N=17	2.70		ĊH	CLAY: high plasticity, brown mottled pale grey, trace fine to medium, sub-rounded ironstone gravel (residual).	w < PL	VSt	-
-	3				ES							3.0m, PID=8.6ppm
-	4				SPT 3/6/12 N=18				3.5m, pale brown motued pale grey.			-
					SPT 2/8/11 N=10				4.7m, trace fine grained sand.			
Ē	5 L						V/A					
H	So	a etan	dard o	heate	for		GHI	2		J	ob N	lo.
	det & k	ails of asis c	f abbro	eviatio criptio	ons G	HD	Level T: +6	2 29 Cl 1 2 946 SULTI	hristie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105
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	BC	REHOL	E LOO	G SHEE	ET							
N7	Cli	ient :	Inne	er West	Council				HOLE N	0.	A3	-BH08
3 7	Pro	oject : cation ·	The	Green	vvay Geote	echnica	iand C h ⊟ili ►	ontami ISW	nation Services		SHEF	T 2 OF 3
19. 19.	Po	sition :	327	846.26	E 6247047	7.85 N N	1GA94/	56	Surface RL: 21 80m AHD Angle from Horiz.: 90	0		Processed : RCO
- i 	Rig	g Type :	XC F	Rig	Мо	unting	: Track		Contractor : Terratest Driller : CD			Checked : MG
	Da	te Start	ed : 1	7/10/20	019		Dat	te Com	npleted : 17/10/2019 Logged by : JF/LM			Date: 16/01/2020
			DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
5 -						Ś			Description	_		Commentel
00-111EGREENWAL.GLD GL	SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metre	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Observations
		TC-bit auger —	Nil	GNO	SPT	6.00		СН	CLAY: as previous.	w < PL w = PL	VSt	
	-7				200mm HB N=ref				Start of coring at 6 metres. For cored interval, see Core Log Sheet.			
ŀ	Se	e stand	dard s	heets	for		GHI)		J	ob N	lo.
	de &	tails of basis o	abbr f des	eviatio criptio	ons ons	HĎ	Level T: +6 CON	2 29 Cł 1 2 946 SULTII	nristie Street, St Leonards NSW 2065 Australia 2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

Ľ	COF	RE LO	OG	SHE	ET														
	Clie	nt :		Inne	er Wo	est C	ouncil						н	OI	E	N	o. A3-	BH08	
	Proj	ect:	:	The	Gre	enW	ay Geo	otechr	nical and Contamination Services				•••	<u> </u>					
	.000 Doci	tion	n : . •	327	846 3	ams 26 F	Parade	e, Dui 47.85		חו		Angle fi	om			۵۵	• • •	Processed	· RCO
	Ria	Type	• : • :	XCF	Ria		N N	lount	ing: Track Contractor : Terratest	U		Driller :	СГ)	12	50		Checked :	MG
	Cas	ina [Dia.	.: +	ug IQ			arrel	(m): 1.5m Bit : Diamond (stepfaced)			Bit Condi	tio	n: (Good			Date: 16/0)1/2020
	Date	Sta	arte	d : 1	7/10	/201	9 D	ate C	Completed : 17/10/2019Logged by : JF/LM			Date Log	geo	1:3	0/10	/20 [.]	19	ote: * indicates sign	atures on original
		D	RIL	LING	;				MATERIAL				<u> </u>			N		RACTURES	
F	rog	ress	5		(%		ŵ		Description			Estimate	d	Sp	acir	ng			Data
		Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %	SAMPLES & TESTS	Depth / (RL) metre	Graphic Log	ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics secondary and minor components, zoning (origin)	Weathering	Soil		EH 10) 20	mm)	1000	(joints, Fracture coating	partings, seams veins) type, orientatic g, shape, roughi	s, zones and on, infilling or ness, other.
							6.00		Start of coring at 6 metres. For Non Cored interval, see Borehole Log Sheet.										
	,			7.00	(0)				SANDSTONE: fine to medium grained, pale purple and red-yellow, indistinctly very thinly bedded at 5-10°, iron stained.	HV	v	•					-6.30m, Jt, 0° -6.52m, Jt (he -6.59m, WSm 60mm -6.64m, Jt (he -6.71m, Jt (he -7.06m, Jt, 10	Rf, Pln, Fe Sn aled), Fe filled , 10°, Rf, Pln, C aled), 60°, Pln, aled), 10°, Pln, °, Rf, Pln, Un, F	- - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -	5	NMLC coring			(0)		7.70		SANDSTONE: fine to medium grained, orange-brown, brown and pale grey, indistinctly laminated to thinly laminated at 5-10°.		v	•					-7.20m, Jt (he 7.20m, Jt St 7.30m, Jt (he 7.38m, Jt, 5- 7.40m, Jt, 90 7.48m, Jt, 0° 7.56m, Jt, 90 -7.66m, Pt, 5-	aled), St, Fe Sr Fe Sn aled), 70°, St, F Sn, Fe Sn °, Un, Co St, Fe Sn °, St, Fe Sn 10°, Pln, CLAY	ie Sn
- - - - - - - - - - - - - - - - - - -	0			8.50			10.00		8.5m, iron staining.	MW	v						-8.37m, WSm CLAY/Qz 30r -8.80m, Jt, 80 -8.90m, Jt, 90 -9.47m, WSm 20mm	, 0°, Rf, Pln, nm °, Rf, Cu, Fe 12 °, Un, Fe 250m , 15°, Rf, Pln, C	- - - - - - - - - - - - - - - - - - -
\mathbb{H}	0-								End of Borehole at 10.00 metres.										
8 0 8	See leta & ba	sta ails (asis	nda of a of	ard s abbr des	shee evia cript	ts fo tion tions	or s	GH	Level 2 29 Christie Street, St Leonards NSW 20 T: +61 2 9462 4700 F: +61 2 9462 4710 E: s CONSULTING GEOTECHNICAL ENGINE	65 A Inmai ERS	us il@ Al	tralia)ghd.com ND GEOL	.06	IST	5		JOB N	-12515	105



Ē	BOREH	ole l	OG S⊦	IEET							
	Client :	lr . T	ner W	est Council				HOLE N	о.	A3	-BH09
	-ocatio	. ı n:l∖	NLR C	orridor. Dulw	ich Hill.	NSW	ontarn	Ination Services		SHEE	ET 1 OF 3
B F	Position	n: 3	27867.	74 E 624692	9.15 N N	/GA94/	56	Surface RL: 28.86m AHD Angle from Horiz.: 90	0		Processed : RCO
F	Rig Typ	e: S	D05	Мс	ounting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
	Date St	arted	: 23/10)/2019		Dat	te Con	npleted : 23/10/2019 Logged by : JS			Date: 16/01/2020
		DRI	LLING					MATERIAL			issue of log or last revision of log
	Drilling Method	Hole Support	\ Casing Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
-				ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark grey, fine to coarse, sub-angular to angular gravel, trace rootlets.	м	-	0.2m, PID=8.7ppm
- 1	auger	,		SPT 3/6/9 N=15 ES	0.60		СН	CLAY: high plasticity, pale grey mottled orange-brown, trace fine to coarse grained sand, trace rootlets (residual).	w < PL	St- VSt	0.5m, PID=9.6ppm 0.6m, PP test failed due to low moisture content.
-	TC-bit			SPT 15/18/21 N=39	2.00			1.5m, with fine to medium, sub-rounded ironstone gravel.			
-			water Not Encountered	SPT 17/ 30 for 130mm N=ref		000000000000000000000000000000000000000	GC	Gravelly CLAY: high plasticity, pale grey mottled red-brown, fine to coarse, sub-rounded ironstone gravel (residual).	w < PL	VSt	- - - - - -
- -3 - -			Ground	נס		0000					sample collected from - core
-		HO cas	5 5 5 -	٥							3.5m, disturbed sample collected from - core.
-4 - - -	+ Wash boring			SPT	4.50			SHALE: grey and pale brown, inferred very low strength, highly weathered (bedrock).		-	
F			_	23/ 30 for	4.80			Start of coring at 4.9 metros			
ŀ				120mm HB				For cored interval, see Core Log Sheet.			-
-5 9 0 8	See sta details & basis	andaro of ab s of do	d shee brevia escrip	ets for ations tions	HD	GHI Level T: +6 CON	D 2 29 C 31 2 946 SULTI	hristie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: slnmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	ob N 21	lo. -12515105

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	ient :		Inne	er We	est C	ouncil										НС)LE	ΞN	lo.	. A3	-BH0	9	
	oject	:	Ihe	Gre	enW	ay Geo	otechi wich	າເcal and Contami ⊔ພ_ນຣນທ	nation Services									- •		SHE	=€	3	
	sitio	n :	100L	-R C		57, DUI	NICN	ΠΙΙΙ, INOVV	Surface DI -	28 86m	AUD		•	nal	o fre	m L	lori-	• •	٥°	SHEE		5 50d · 5	200
	a Tvn	ю.	527	5		02409/ M	lount	ina: Ute	Contractor ·	Stratacore	лпυ		א ח	rill	eri	ли г ЭМ		9	0		Check	ed M	G
	ອ י ກ asina	Dia	.: ⊦	-0		R	arrol	(m): 1.5m	Bit Diam	ond (stenfar	ced)		Bit	. Co	nditi	ion ·	Ne	w			Date:	16/01/2	020
	ate St	arte	ed: 2		/201	<u>ם</u> ח 9	ate C	Completed : 23/10)/2019 Loaaed h	v: JS			Da	te L	.000	ed :	23/	 10/2	019		Note: * indicat	es signatures	on original
		RIL		3					MATERIA	<u>, ,-</u> L					- 33	T	- 21		NA	TURAL	FRACTU	RES	un un lug
Pr	ogres	s		(0)		s			Description				Es	tim	ated		Spac	ing			Additio	nal Data	1
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %	SAMPLES & TESTS	Depth / (RL) metre	Graphic Log	ROCK NAME: inclusions or mi [COBBLES / E SOIL NAME: colour, secondary and	grain size, colour, fab nor components, mo and OULDERS / FILL / T olasticity / primary pa minor components,	ric and texture, isture, durability OPSOIL] then rticle character zoning (origin)	istics,	weathering		trer (50) I • Ax D- Diam	$\frac{1}{2}$	EH ¹⁰	(mi	m)	000	(joints Fractu coatii	, partings, s vei re type, orie ng, shape, i	seams, zor ns) entation, in roughness,	nes and filling or other.
																							-
-2 - - - - - - - - - - - - - - - - - -																							-
4						4.80		Start of coring a For Non Cored Sheet. CORE LOSS 2	it 4.8 metres. interval, see Bord 50mm.	ehole Log													- - - - - - - - - - - - - - - - - - -
5	·					· · · · · ·	× ``				I												
S	ee sta	and	ard s	shee	ts fo	or			ristie Street St Le	onarde NIQIA	/ 2065	Δι	strali	а						Job N	IO.		
de	etails	of	abbr	evia	tion	s		T: +61 2 946	2 4700 F: +61 2	9462 4710	E: slnm	nail(@gh	d.co	m					21	-125	1510	5
L&	pasis	s of	des	cript	lions	5		CONSULTIN	IG GEOTECHN	ICAL ENGI	NEERS	6 A	ND	GE	OLC	GIS	TS			-			-

CORE LOG SHEET																					
C	ient :		Inne	er W	est C	council							HOLE No. A3-BH09								
	oject	ct: The GreenWay Geotechnical and Contamination Services											SHEET 3 OF 3								
P	ositio	n :	327	867.	74 E	62469	29.15	N MGA94/ 56	28.86m Al	HD Angle from Horiz. : 90°						90°	[°] Processed : RCO)	
Rig Type : SD05						M	lount	ing: Ute	Contractor :	Contractor : Stratacore			Driller : DM						Checked	I: MG	
Casing Dia. : HQ Barrel (m) : 1.5r							arrel	(m): 1.5m	i): 1.5m Bit: Diamond (stepfaced)					Bit Condition : New					Date: 1	6/01/2020)
D	ate St	art	ed : 2	23/10)/201	Date Completed : 23/10/2019Logged by : JS Date Logge								d: 23/10/2019 Note: * indicates signatures on origina issue of log or last revision of log						riginal log	
	[DRI	LLING	3				MATERIAL									NA	ATURAL FRACTURES			
Pr (u)	Casing Casing		(m) ເ	s / Run %)	TESTS	tL) metres	bo	ROCK NAME: inclusions or mi	Description grain size, colour, fat inor components, mo and BOULDERS / FILL / 1	oric and texture, isture, durability OPSOIL1 then	D	E	Estim Stren Is ₍₅₀₎	stimated Strength s ₍₅₀₎ MPa		Spacing (mm)		Additional Data (joints, partings, seams, zones ; veins) Fracture type, orientation, infillin		and g or	
SCALE	Drilling &	Water	Drill Deptl	(Core Los	SAMPLES 8	Depth / (R	Graphic L	SOIL NAME: colour, secondary and	plasticity / primary pa d minor components,	article characteristics zoning (origin)	Weatherin	Soil 0.03			- 20	- 100 - 300	- 1000	coatir	ıg, shape, rou	ghness, oth	ər.
-			5.85	(24)		5.05		Interlaminated (70:30): siltstor grained, pale gr thickly laminate staining on defe	SILTSTONE / SA he is grey; sandst rey, indistinctly la d at 0-10°, trace ects.	ANDSTONE cone is fine minated to red-brown, iron	MV	/						5.11m, Pt, 0 5.19m, Pt, 0 5.40m, WSr 100mm 5.67m, Pt, 0	°, So, Pln, Cr °, So, Pln, Cr n, Sandy CLA °, So, Pln, Cr	Y Y	-
- - - - - - - - - 7 - - 7 -	NMLC coring		7.24	(5)		6.65		CORE LOSS 7 Interlaminated 3 (70:30): siltstor grained, pale gr thickly laminate staining on defe SANDSTONE: red-brown, orar indistinctly thinl	LOSS 70mm ninated SILTSTONE / SANDSTONE : siltstone is grey; sandstone is fine t, pale grey, indistinctly laminated to laminated at 0-10°, trace red-brown, iron g on defects. STONE: fine to medium grained, wn, orange-brown and pale grey, ctly thinly bedded as 0-5°.	MV		•					5.97m, WSr 6.05m, Sm, 6.13m, Pt, 0 6.35m, Sm, 6.35m, Sm, 6.43m, Pt, 0 6.47m, Sm, 6.59m, WSr 6.75m, Jt, 4 6.89m, Jt, 5 7.09m, Pt, 0	n, 70mm CLAY 20mm °, So, Pln, Cr CLAY 5mm °, Rf, Pln, Fe CLAY 30mm n 130mm 5°, Rf, Pln, Ci 0°, Rf, Pln, Ci °, Rf, Pln °, Rf, Pln	1		
8			8.40	(0)		8.40		7.75m, indisting	ctly bedded at 0-5	5°.	sw	• •	•				***	8.19m, Pt, 2	°, Rf, Pln, Fe		
- - - - - - - - - - - -								Excessive wate	r loss												-
- 10 Si di &	See standard sheets for details of abbreviations & basis of descriptions													Job No. 21-12515105							


Ē	30	Rehol	E LOC	S SHEE	ET							
	Clie	ent:	Inne	r West	t Council				HOLE N	О.	A 3	-BH10
	Pro	ject :	The	Green	Way Geote	echnical	l and C	ontami	ination Services	•		
	200	ition .	3278	R COII	E 6246878		INSVV IGA94/	56	Surface RI : 29.64m AHD Angle from Horiz : 90	0		Processed · SBO
	Rin	Type	SD0	5	Mo	unting	· Ute	50	Contractor : Stratacore Driller : DM			Checked MG
	ug Dat	e Star	ed : 2	, 4/10/2	019	anting	Dat	e Con	npleted : 24/10/2019 Logged by : JS			Date: 16/01/2020
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		Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	1	A			ES SPT 4/6/6 N=12 ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark brown, dark grey, fine to coarse, sub-angular to angular gravel, trace rootlets.	М	-	0.2m, PID=3.9ppm 0.5m, PID=2.9ppm 1.0m, PID=3.3ppm
- - - - - - - - - - - - -	2	oit auger	Nil	Not Encountered	SPT 4/6/7 N=13 D ES	1.30			[FILL] Gravelly CLAY: medium plasticity, brown, pale grey, pale brown and red-brown, sub-angular to sub-rounded, trace of carbonaceous material.	w < PL		1.3m, reworked residual
	3	TC-4		Groundwater	SPT 5/10/8 N=18 ES							3.5m, PID=8.0ppm
- 2 - - -	1				N=6	3.90		- <u>c</u> i -	CLAY: medium plasticity, pale grey mottled red brown, fine to medium, sub-rounded ironstone gravel (residual).	w < PL	St	
	5				SPT 19/ 30 for 140mm HB	4.50			SHALE: pale grey and orange-brown, inferred extremely low strength, highly weathered (bedrock).	-	-	
	500	stan	dard e	heete	for		GHI)		J	ob N	lo.
8	det & b	ails of asis c	abbro desc	eviatio	ons ons	HD	Level T: +6 CON	2 29 CI 1 2 946 SULTII	hristie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

r	BO	REHOL	E LOC	G SHEE	ET							
NZ/1	Cli	ent :	Inne	er West	t Council				HOLE N	0	Δ3.	-BH10
87 10	Pro	oject : cation :	The	Green	Way Geote	echnical	I and C	ontami	Ination Services		SHEF	
5. 00	Po	sition :	3278	389.58	E 6246878	3.04 N M	IGA94/	56	Surface RL: 29.64m AHD Angle from Horiz.: 90	>		Processed : SBO
,i ⊒	Ric	a Type :	SD05	5	Mo	unting	Ute		Contractor : Stratacore Driller : DM			Checked : MG
ATLA N	Da	te Start	ed: 2	4/10/20	019		Dat	te Con	npleted : 24/10/2019 Logged by : JS			Date: 16/01/2020
				ING					ΜΔΤΕΒΙΔΙ			Note: * indicates signatures on original issue of log or last revision of log
ני												
	SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
LE_AS1/20 2017 21129131		 TC-bit auger — 	Nil			5.64		-	SHALE: as previous.	-	-	-
	- 6 - 6 					5.64			Start of coring at 5.64 metres. For cored interval, see Core Log Sheet.			- - - - - - - - - - - - - - - - - - -
	- 8											-
	- - - - - - - - - - - - - - - - - -											- - - - - - - - - - - - - - - - - - -
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	de & I	e stand tails of basis o	ard s abbro f deso	eviatio	ons ons	HD	Level T: +6 CON	2 29 CH 1 2 946 SULTII	hristie Street, St Leonards_NSW_2065_Australia 52 4700 F: +61 2 9462 4710 E: slnmail@ghd.com NG_GEOTECHNICAL_ENGINEERS_AND_GEOLOGISTS		21	-12515105

	0	RE L	.00	SHE	ET														
	Clie	ent :		Inne	er W	est C	ouncil			. .				ŀ	HOL	E N	o. A3	-BH10	
	ro or	ject atio	: n·	I he	Gre R C	enW	ay Geo or Dub	otechr wich I	Hill NSW	on Services				-			SHEE	ET 3 OF 4	
	-00 205	sition	n :	327	889.	58 E	62468	78.04	N MGA94/ 56	Surface RL:	29.64m AH	D	A	Angle fro	m Hori	i z. : 90	•	Processed : SB	0
	Rig	Тур	e:	SD0	5		N	lount	i ng: Ute	Contractor :	Stratacore		C	Driller : D	M			Checked : MG	
	Cas	sing	Dia	ı.: ⊦	IQ		В	arrel	(m): 3.0m	Bit : Diam	ond (stepfaced)		Bit	t Conditi	on:N	ew		Date: 16/01/202	20
	Dat	e Sta	arte	ed:2	24/10	/201	9 D	ate C	ompleted : 24/10/20	19Logged by	y:JS		Da	te Logge	d: 24	1/10/20	19	Note: * indicates signatures on issue of log or last revision of	n original of log
5		D	RI		3					MATERIAL	_		-			Ν		FRACTURES	
		Drilling & Casing sad	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	D ROCK NAME: grain inclusions or minor of [COBBLES / BOUL SOIL NAME: colour, plast secondary and min	escription size, colour, fabi components, moi and _DERS / FILL / To icity / primary pai or components, 2	ric and texture, sture, durability OPSOIL] then ticle characteristics, zoning (origin)	Weathering	VL 010 VL 010 VL 010 SI SI SI	$\frac{1}{2} = \frac{1}{2} = \frac{1}$	40 (r	acing nm)	(joints Fractu coatii	Additional Data , partings, seams, zones veins) re type, orientation, infilli ng, shape, roughness, of	s and ing or ther.
		NMLC coring		8.62	(0)		5.64		Start of coring at 5. For Non Cored inter Sheet. SANDSTONE: fine grey, red-brown and bedded at 0-5°, iror and carbonaceous 8.24m, bedding bed siltstone lamination	64 metres. rval, see Bore to coarse gra d pale brown, n staining, tra- laminations.	ehole Log ined, pale indistinctly ce siltstone d lacks	MW			3		-5.81m, Pt, 0 -5.99m, Pt, 0 -6.42m, Pt, 0 -6.6m, WSm -7.59m, Pt, 0 -8.18m, ISm -8.45m, WSi -8.45m, WSi -8.84m, Pt, 2 -9.13m, Pt, 0 -9.51m, Pt, 2 -9.83m, Jt, 1	 ^{9°}, Rf, Pln, Fe ^{9°}, Rf, Pln, Fe ^{9°}, Rf, Pln, Fe ¹⁰⁰mm ^{9°}, Rf, Un, Fe ^{9°}, Rf, Un, Fe ^{9°}, Rf, Pln, Fe 	
	See det & b	e sta ails basis	and of S of	ard s abbr f des	shee evia crip	ts fo tion	or s	GH	GHD Level 2 29 Christi T: +61 2 9462 47 CONSULTING	e Street, St Le 700 F: +61 2 GEOTECHN	onards NSW 206 9462 4710 E: sl ICAL ENGINEE	65 Au nmail	istrali @gh	ia d.com GEOLO	GISTS		Job N 21	^{io.} -12515105)

4	OR	EL	OG	SHE	ΕT															
	lie	nt:		Inne	er Wo	est C	Council			· // 0 ·					н	OL	ΕN	o. A3	8-BH10	1
⁶	roj	ect atic	: n·	I he	Gre	enW	ay Ge	otechi wich '	Hill NSW	nination Services						_		SHE	ET 4 OF	4
╞	.uca Posi	tion	<u>.</u>	327	.R U 889 !	58 F	62468	78 04	NMGA94/56	Surface RI	· 29.64m	ΔНD		Angle	from	Hori	7 • 90	•		ed SBO
H-F	lia '	Tvn	н. А.	SD0	5		02400 N	lount	ina: Ute	Contractor	· Stratacore			Driller		/	2		Checker	d · MG
	⊸ອ Casi	na	Dia	.: +	- IQ		F	Barrel	(m): 3.0m	Bit : Dian	nond (stepfa	ced)		Bit Con	ditio	n: N	ew		Date: 1	6/01/2020
)ate	Sta	arte	d: 2		/201	9 0)ate C	completed : 24/	10/2019Logged I	by:JS			Date Lo	ggeo	1 :24	/10/20	19	Note: * indicates	signatures on original
F		D	RIL	LING	3					MATERIA	, AL				00		N	IATURAL		ES
P	rog	res	s		()		s			Description				Estimat	ted	Spa	cing		Additiona	al Data
SCALE (m)	()	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %	SAMPLES & TESTS	Depth / (RL) metre	Graphic Log	ROCK NAME inclusions or r [COBBLES / SOIL NAME: coloui secondary ai	: grain size, colour, fa ninor components, mo and BOULDERS / FILL / r, plasticity / primary p nd minor components	bric and texture, oisture, durabilit TOPSOIL] then article character , zoning (origin)	ristics,	Weathering	Streng Is ₍₅₀₎ Mi •-Axial •-Diametra •0.0 •0.0 •0.0 •0.0 •0.0 •0.0 •0.0 •0.	th Pa 3 10	+ 20 + 40 u)	(mn) (100 (mn)	(join Fraci coa	ts, partings, se veins ture type, orient ting, shape, rou	ams, zones and ;) iation, infilling or ughness, other.
- - - - - - - - - - - - - -	1	NMLC coring	1	1.77	(0)				SANDSTONE	: as previous.		1	MW					-10.32m, J -10.44m, K -11.11m, K -11.32m, F	t, 0°, Rf, Pln, Fi Sm, CLAY 20m Sm, CLAY 5mn tt, 0°, Rf, Pln, F	e
- - 1 - - - - - - - - - - - -	3		1	3.32	(0)		13.32		End of Boreho	le at 13.32 metre	20							-12.32m, J	t, 70°, Rf, Pln, I	-e
- - - - - - - - - - - - -	4								End of Boreho	ne at 13.32 metre	s.									
	See leta k ba	sta iils asis	nd of a of	ard s abbr des	shee evia cript	ts fo tion tion	or s	GH	GHD Level 2 29 0 T: +61 2 94 CONSULT	Christie Street, St L 62 4700 F: +61 ING GEOTECHI	eonards NSV 2 9462 4710 NICAL ENG	V 2065 E: slni	i Au mail(S A	stralia @ghd.com \ND_GEC	DLOG	ISTS		Job 2	^{No.} 1-1251	5105





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11 201	Clie Proi	nt: ect:	Inne The	er Wes Green	t Council Wav Geote	chnical	and C	ontami	ination Services HOLE N	о.	A3	-BH11
2	Loca	ation :	Dulv	vich G	rove Footpa	ath, Du	wlich H	lill, NSV	N		SHEE	ET 1 OF 4
2.00.2	Posi	ition :	3279	927.23	E 6246811	.00 N N	1GA94/	56	Surface RL: 28.30m AHD Angle from Horiz. : 90	0		Processed : SBO
	Rig	Type :	XC F	Rig	Мо	unting	: Track		Contractor : Terratest Driller : FF			Checked : MG
	Date	e Start	ed: 2	4/10/2	019		Dat	te Con	npleted : 24/10/2019 Logged by : LM			Date: 16/01/2020
			DRILL	ING					MATERIAL			Note: * indicates signatures on origina issue of log or last revision of log
	ALE (M)	lling Method	le Support asing	lter	mples & Tests	pth / (RL) metres	aphic Log	C Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor	isture Condition	nsistency / nsity Index	Comments/ Observations
	20		− Ho	Wa	Sa	0.08	<u>6.</u> G.	SU -	components, durability, strength, weathering / alteration, defects CONCRETE FOOTPATH	۵ س	රී මී -	
2					FS	0.00		-	[FILL] Silty GRAVEL: fine to coarse, angular, grey, with fine	м	-	
						0.30				L_	L_	0.2m, PID=9.5ppm
							\bigotimes	-	[FILL] Gravelly CLAY: medium plasticity, brown, fine to medium sub-rounded gravel, with fine to coarse grained	w =	-	
					ES		\bigotimes		sand.			0.5m PID=5.5ppm
	1				SPT 1/4/4 N=8 ES \							U.Sm, PID=5.5ppm
	2			q	SPT 1/4/4 N=8 ES	1.70		- <u>c</u> i -	CLAY: medium plasticity, yellow/orange-red mottles, with fine, sub-rounded gravel, trace fine to medium grained sand (residual).	w = PL	St	2.0m. PID=5.7ppm
ŀ		ger -		erec		2.15				L_	L	2.011, 1 1D=0.7 pp11
		— TC-bit aug	Nil	r Not Encount		2.55		СН	CLAY: high plasticity, red, trace fine to coarse grained sand (residual).	w < PL	VSt	
	3			Groundwate	SPT 4/11/11 N=22 ES \			CI	coarse grained sand (residual).	PL	VSI	3.0m, PID=3.7ppm
	4								3.5m, brown.			augering
F						4.55			Start of coring at 4.55 metres.			
ŀ									For cored interval, see Core Log Sheet.			
\mathbf{F}	5 L											
	See	stand	dard s	heets	for	_	GHI	D		J	ob N	lo.
	deta	ails of	abbro	eviatio	ons C	Ð	Level T: +6	2 29 Cl 31 2 946	hristie Street, St Leonards NSW 2065 Australia 52 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		24	-12515105
	& ba	asis o	f desc	criptic	ons 🛛 🖿	\sim	CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12313105

F	CO	RE L	OG	SHE	ET																			
27	Clie	ent:		Inne	er We	est C	Council		iaal and Cantonia	ation Comisso							НС)L	ΕI	No	. A3	-BH1	1	
λ Δ	roj Loc	ject atio	n :	i ne Duk	e Gre wich	Grov	ay Ge /e Foo	Jiechi Ipath	Duwlich Hill NSW	auon Services									-	2	SHEE	T 2 OF	4	
2	Pos	itior	n :	327	927.2	23 E	62468	11.00	NMGA94/ 56	Surface RL:	28.30m	AHD		4	۱ngl	e fro	om I	lori	z. : 9	90°		Proce	ssed :	SBO
1	Rig	Тур	e:	XC I	Rig		N	lount	ing: Track	Contractor :	Terratest			0	Drille	er:	FF					Check	ed :	MG
	Cas	ing	Dia	.: ⊦	HQ		E	Barrel	(m): 3.0m	Bit : Diam	ond (stepfac	ced)		Bit	t Co	ndit	ion	: G	boc			Date:	16/01	/2020
L	Dat	e Sta	arte	d:2	24/10	/201	9 c	ate C	completed : 24/10	2019Logged b	y:LM			Da	te L	.ogg	ed :	24	/10/	2019		Note: * indica issue of log	tes signatu g or last re	res on original vision of log
		D	RIL	LINC	G					MATERIA	L		_							NA	TURAL	FRACTU	IRES	
	PCALE (M)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: g inclusions or min [COBBLES / B4 SOIL NAME: colour, p secondary and	Description rain size, colour, fab or components, moi and DULDERS / FILL / T lasticity / primary pa minor components,	ric and texture, sture, durability OPSOIL] then rticle characteri zoning (origin)	istics,	Weathering					5pa (m 07 ↓		1 000	(joints Fractu coatii	, partings, ; ve re type, orio ng, shape,	nai Da seams, z ins) entation, roughnes	ta infilling or ss, other.
	1																							- - - - - - - - - - - - - - - - - - -
	4	NMLC coring					4.55		Start of coring al For Non Cored i Sheet. SANDSTONE: fi and pale purple,	4.55 metres. nterval, see Boro ne to coarse gra indistinctly thinly	ehole Log ained, pale g y bedded at :	rey 5°. H		c	•					-4	98m, WS	m., 20mm		- - - - - - - - - - - - - - - - - - -
ŀ	See	e sta	nda	ard s	shee	ts fo	or I	_	GHD												Job N	lo.		
	det	ails	of	abbr	evia	tion	s (GH	Level 2 29 Chr T: +61 2 9462	istie Street, St Le 4700 F: +61 2	onards NSW 9462 4710	/ 2065 E: slnm	Au nail(stral @gh	ia d.co	m					24	_125	151	05
I	& b	asis	of	des	cript	tions	s		CONSULTIN	G GEOTECHN	ICAL ENGI	NEERS	S A	ND	GE	OLC	OGIS	STS			21	-123	191	5

_	COF	RE L	OG	SHE	ET															
	Clie	nt :		Inne	er W	est C	Council								н	OL	ΕN	o. A3	-BH11	
	Proj	ect :	: 	The	Gre	enW	ay Geo	otechi	nical and Contamina	ation Services					••	-	_	SHE	ET 3 OF 4	
	Posi	ition	n :	327	927.2	23 E	62468	11.00	N MGA94/ 56	Surface RL:	28.30m	AHD		Anal	e from	Hor	z. : 90)°	Processed	: SBO
F	Rig	Туре	e :	XC I	Rig		N	lount	ing: Track	Contractor :	Terratest			Drille	er:FF	-			Checked :	MG
(Cas	ing l	Dia	ı.: ⊦	IQ		E	Barrel	(m): 3.0m	Bit : Diam	ond (stepfac	ced)		Bit Co	nditio	n:G	ood		Date: 16/0)1/2020
	Date	e Sta	arte	d : 2	24/10)/201	9 D)ate C	completed : 24/10/	2019 Logged b	y: LM			Date L	ogged	1:24	/10/20)19	Note: * indicates sign issue of log or last	atures on original revision of log
		D	RIL	LINC	3					MATERIA	L						1	NATURAL	FRACTURES	
F	rog	ress	s		(%		es		ROCK NAME: gr	Description ain size, colour, fat	pric and texture.			Estima	ated	Spa	acing		Additional E	Data
		sing		Ê	Run	ESTS	met		inclusions or mind	or components, mo	isture, durability	y		IS(50)	ИРа	(r	nm)	(joints	, partings, seams veins)	, zones and
بر ل		Ca		th (r	ss /	& TE	RL)	Log	[COBBLES / BC	OULDERS / FILL / T	OPSOIL] then		ing	• - Axi • Diam	al etral			Fractu	re type, orientatio	n, infilling or
Ā		s gui	e	Dep	e Lo	PLES	th / (phic	SOIL NAME: colour, pla secondary and n	asticity / primary pa ninor components,	zoning (origin)	ristics,	ather		. 0			0000	ng, onapo, rough	
ď		Drill	Wat	Drill	Ö	SAM	Dep	Gra					We		노탄법	84 82	000 1000 1000			
-			+						5.0m, pale grey,	occasional cark	onaceous									
									laminations.											-
-																				-
ŀ																				-
Ē								 												-
ļ									5750mm m - 1 - 1		na									-
ŀ								····	5.7-5.9m, pale bi	own iron staini	ng.	F	_					5.78m, WS	m, CLAY, 40mm	-
ŀ,							6.00													-
F	'								SANDSTONE: m	edium grained,	, pale grey tra	ace								-
-									5-10°, with fine g	rained laminati	ons.									-
																				-
Ē																				-
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ŀ																				-
t					(0)													-6.88m, Pt,	0°, Pln, Rf, CLAY	-
	,																	10mm 6.96m, Pt,	0°, Pln, Rf, CLAY	-
ŀ								 										10mm 7.07m, Pt,	0°, Pln, Rf, CLAY	-
ŀ																		Tomm		-
		oring																		-
ŀ		U U																		-
ŀ		MN							7.5-7.6m, pale or	ange brown, ir	on stained							7.64m, WS	m, CLAY and roc	k -
									patches.			5	SW					inaginents,	2011111	-
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Ē																888		9.3m, Pt, 5 9.33m, Pt,	^r , Pin, Rf, CLAY 5°, Pin, Rf, CLAY	-
ŀ								····										0.55m 14/0	m 15mm	-
ŀ					(0)													9.0011, 148	m, rəmm	-
t								· · · · · · · · · · · · · · · · · · ·				F						9.71m, Pt, 9.73m, Pt,	5°, Pln, Rf, CLAY 5°, Pln, Rf, CLAY	-
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5	See	sta	nd	ards	shee	ts fo	or 🛛		GHD	stie Street St.	oparda NEM	V 2005	<u> </u>	etrolic				Job	lo.	
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Pro	ject	:	The	Gre	enW	ay Geo	otechi	nical and Contami	nation Services								ᇨ	С	INC	0. Aj	-BH11	
Loc	atio	n :	Dul	wich	Grov	/e Foot	path,	Duwlich Hill, NSV	V											SHE	ET 4 OF 4	
Pos	ition	n :	327	927.2	23 E	62468	11.00	N MGA94/ 56	Surface RL:	28.30m	AHD		A	ngle	e fro	m H	lori	z. :	90°		Process	ed:SB
Rig	Тур	e :	XC F	≺ıg		M	ount	ing: Irack	Contractor :	Terratest			D	rille	e r : F	۰F					Checked	I: MG
uas	ang	Dia	.: ⊦ 			B	arrel	(m): 3.0m		ona (stepta	ed)		Bit	00	nditi	on	: G	ood	100	10	Note: * indicates	o/U1/20
Dat	e Sta	arte	a: 2	4/10)/201	9 D	ate C	completed : 24/10	2019Logged b	y: LM			Da		ogg	ea :	24	/10/	/20*		issue of log or	last revision
			LING	j					MATERIA	<u> </u>			-			+	<u> </u>		N	ATURAL	FRACTUR	ES
-ro	gres	s		(%)		res		ROCK NAME:	grain size, colour, fab	ric and texture,			ES St	tima	atea ath		Spa (m		ıg		Additiona	i Data
_	sing		ĉ	Rur	STS	met		inclusions or mi	nor components, mo	sture, durabilit	/		ls	₍₅₀₎ N	IPa		(П	nm)		(joint:	s, partings, sea veins	ims, zone)
	Ca		u) H	ss /	& TE	SL)	Б ^о	[COBBLES / E	and SOULDERS / FILL / T	OPSOIL] then		bu	c	 Axia Diame 	ıl tral					Fractu	ure type, orient	, ation, infill
	g ø		Cept	Ë	LES	1)/(nic I	SOIL NAME: colour,	plasticity / primary pa	rticle character	istics,	heri	8-	- ~						coat	ing, shape, rou	ghness, c
6	rillir	Vate	urill D	Core	AMP	eptl	irap		minor componente,	zoning (ongin)		Veat		- Ö	-ω-⊂ I⊞				000			
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							 	SANDSTONE:	as previous.			1\\\/										
			0 28			10.28						VI V V						00000		-10.19m, W	Sm, 20mm	
F		T İ	0.20			10.20		End of Borehole	e at 10.28 metres	6.						T						
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DT 2	Lo	cation	: Bus	hcare /	Area Dulwi	ich Hill	NSW	onam			SHEE	ET 1 OF 1
0.00	Pos	sition :	3279	963.90	E 6247462	2.09 N N	IGA94/	56	Surface RL: 18.65m AHD Angle from Horiz. : 90	0		Processed : SBO
TE 2.	Rig	Type	: Hand	d auger	Мо	unting	NA		Contractor : NA Driller : NA			Checked : MG
APLA	Dat	te Star	ted : 2	5/10/2	019		Dat	te Con	npleted : 25/10/2019 Logged by : LM			Date: 16/01/2020
Ξ				ING					ΜΑΤΕΡΙΑΙ			Note: * indicates signatures on original issue of log or last revision of log
HD_GEO				ING		es			Description	Ę		Comments/
05-THEGREENWAY.GPJ G	SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metr	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Conditio	Consistency / Density Index	Observations
211251510					FS	0.00		-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, with fine to coarse gravel, with ballast cobbles, trace brick and concrete fragments.	М	-	-
DREHOLE AS1726 2017		uger		t Encountered	ES	0.20			[FILL] Clayey Sandy GRAVEL: fine to coarse, sub-angular to angular, brown, fine to coarse grained sand, trace ballast cobbles, trace brick and concrete fragments.	M		0.2m, PID=3.3ppm - - 0.5m, PID=4.7ppm
GEO BC		Hand A	Nil	Groundwater Not	ES	1.00						
	•1				D	1.00			[FILL] Gravelly SAND: fine to coarse grained, dark grey/black, fine to coarse, angular gravel.	м	-	1.0m, PID=3.9ppm
ŀ	-					1.20	\sim		End of borehole at 1.20 metres.			
	-2											
-	See def	e stan tails o	dard s	heets	for ons	Ð	GHI Level T: +6	D 2 29 Cl 1 2 946	hristie Street, St Leonards NSW 2065 Australia 52 4700 F: +61 2 9462 4710 E: slnmail@ghd.com	J	ob N	No. 1-12515105
	& t	basis d	of desc	criptic	ons 🛛 🎽	\sim	CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105



Bit Inter West Council HOLE No. A3 Project: The GreenWay Geolechnical and Contamination Services HOLE No. A3 Decention: Subcarter Area, Dutwich Hill, NSW SHE Project: Subcarter Area, Dutwich Hill, NSW SHE Position: 32784034 E 6247442.12 N MCA94/56 Surface RL: 18.96m AHD Angle from Horiz:: 90° Position: 32784034 E 6247442.12 N MCA94/56 Surface RL: 19.96m AHD Angle from Horiz:: 90° Position: 32784034 E 6247442.12 N MCA94/56 Surface RL: 19.96m AHD Angle from Horiz:: 90° Position: 32784034 E 6247442.12 N MCA94/56 Date Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Date Starter: District Starter Starter Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription Image: Monthly of the Scription								ET	SHE	LE LOO	REHOL	В		
Project :: The GreenWay Geotechnical and Contamination Services SHE Location :: Busicare Area, Subwich Hill, NSW SHE Position :: 327940.94 E 6247442.12 NIMGA94/56 Surface RL:: 18.96m AHD Angle from Horiz :: 90° Rig Type : Hand auger Mounting: NA Contractor : NA Driller : NA Date Started : 21/10/2019 Logged by : LMUW Date Started : 21/10/2019 Logged by : LMUW Image: Started : 21/10/2019 Description Image: Started : Image: Started : 21/10/2019 Description Image: Started : Image: Started : Image: Started : Image: Started : Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started : Image: Started :	3-HA02	o. A3	HOLE N					t Council	r Wes	Inne	ent :	CI		
Under interview Dublic Link Press, Dublic Link, New York Surface RL: 18.96m And P Angle from Horiz. : 90° Rig Type : Hand auger Mounting: NA Contractor : NA Driller : NA Date Started : 21/10/2019 Date Completed : 21/10/2019 Logged by : LMUW Dite Started : 21/10/2019 Date Completed : 21/10/2019 Logged by : LMUW Dite Started : 21/10/2019 Date Completed : 21/10/2019 Logged by : LMUW Dite Started : 21/10/2019 0 0 0 Image: Distribution of the started in the star		SHEE		nation Services	Contam	l and C	echnical	1Way Geote	Green	The Due	oject :	Pr		
Operation: Description Operation: Description Rig Type: Hand auger Mounting: NA Contractor: : NA Driller: NA Date Started : 21/10/2019 Lagged by : LMJW Dete Started : 21/10/2019 Lagged by : LMJW Dete Started : 21/10/2019 Lagged by : LMJW Difference Operation Operation (I) Difference Operation Operation OPERATION: Difference Operation OPERATION: Difference Operation Operation OPERATION: Difference Operation OPERATION: Difference Operation OPERATION: Difference Difference Operation OPERATION: Difference Operation Operation Operation Operation: Difference Operation: Difference OPERATION: Difference Operation: Difference Operation: Difference <th <="" colspan="2" th=""><th></th><th>。 。</th><th></th><th>Surface RI : 18.06m</th><th>/ 56</th><th>10200</th><th>CN HIII,</th><th>Area, Duiwi</th><th></th><th>: Bus</th><th>sition ·</th><th></th></th>	<th></th> <th>。 。</th> <th></th> <th>Surface RI : 18.06m</th> <th>/ 56</th> <th>10200</th> <th>CN HIII,</th> <th>Area, Duiwi</th> <th></th> <th>: Bus</th> <th>sition ·</th> <th></th>			。 。		Surface RI : 18.06m	/ 56	10200	CN HIII,	Area, Duiwi		: Bus	sition ·	
Date Started : 21/10/2019 Date Completed : 21/10/2019 Logged by : LMJW Dist Started : 21/10/2019 Date Completed : 21/10/2019 Logged by : LMJW Dist Started : 21/10/2019 Date Completed : 21/10/2019 Logged by : LMJW Image: Started : 21/10/2019 Date Completed : 21/10/2019 Logged by : LMJW Image: Started : 21/10/2019 Description Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Logged by : LMJW Image: Started : 21/10/2019 Image: Started : 21/10/2019 Logged by : LMJW Image: Started : 21/10/2019 Image: Started : 21/10/2019 Logged by : LMJW Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started : 21/10/2019 Image: Started :	Checked : MG		Driller : NA	Contractor : NA	50	· NA	untina	Mo	l auger	• Hand	n Tvne	Ri		
DRILLING MATERIAL Image: State of the state of the	Date: 16/01/2020		Logged by : LM/JW	pleted : 21/10/2019	te Con	Da	anting	2019	1/10/2	ted : 2	te Star	Da		
Direction Image: State of the state of t	Note: * indicates signatures on origi issue of log or last revision of log			MATER										
Image: Second system Image: Second system <td< th=""><th>Comments/</th><th>u</th><th>RIAL</th><th>Des</th><th></th><th></th><th>tres</th><th></th><th>ING</th><th></th><th></th><th></th></td<>	Comments/	u	RIAL	Des			tres		ING					
1 Image: Construction of the second seco		Moisture Conditi Consistency / Density Index	LDERS/FILL/TOPSOIL] then article characteristics, colour, secondary and rents, zoning (origin) and lour, fabric / texture, inclusions or minor ength, weathering / alteration, defects	[COBBLES/BOULE SOIL NAME: plasticity / primary par minor compone ROCK NAME: grain size, colo components, durability, strer	USC Symbol	Graphic Log	Depth / (RL) me	Samples & Test	Water	Hole Support \ Casing	Drilling Method	SCALE (m)		
1 Image: to indecome and the indecome and th		М -	e to medium grained, brown, trace	[TOPSOIL] Silty SAND: fine	-		0.10				A			
1 Image: second secon	0.2m, PID=1.8ppm	 M -	to medium grained, brown, fine to al, with brick and tile fragments.	[FILL] Gravelly SAND: fine to coarse, sub-rounded gravel,			0.10	ES D ES						
-1 $\begin{bmatrix} 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$					1		0.60					-		
1 1 <td></td> <td> M - </td> <td>v ∟L: tine to medium, angular dark d sand.</td> <td>grey, fine to coarse grained</td> <td>- {</td> <td>\bigotimes</td> <td></td> <td></td> <td>Ď</td> <td></td> <td></td> <td>L</td>		M -	v ∟L: tine to medium, angular dark d sand.	grey, fine to coarse grained	- {	\bigotimes			Ď			L		
1 Image: Section of the section of t					*		0.80		ltere			1		
1 0 2 2 1 1 1 1 1		w = - PL	plasticity, pale brown mottled m, angular gravel.	[FILL] CLAY: low-medium pl yellow, trace fine to medium				A11/QA12	0)) ()	lil	Auger —	-		
2 ES 2.00 1.8m, mottled red. ES 2.00 End of borehole at 2.00 metres. Target Depth	1.0m, PID=2.3ppm							D	Groundwater N	2	Hand	- - -		
2 ES 2.00 End of borehole at 2.00 metres. Target Depth Target Depth	2.0, PID=1.8ppm			1.8m, mottled red.								-		
Target Depth			etres	End of borehole at 2 00 met	×	<u> FXX</u>	2.00	ES				-2		
				rarget Depth								- - - - -3		
												-		
					I					I		Ŀ		
See standard sheets for details of abbreviations & GHD Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: slnmail@ghd.com 2'	^{No.} 1-12515105	Job N 21	/ 2065 Australia E: sInmail@ghd.com	ristie Street, St Leonards NSW 2 4700 F: +61 2 9462 4710 E	D 2 29 C 61 2 946	GH Level T: +(HD	s for ons	heets eviatio	dard s f abbro	e stan tails of basis c	Se de ୫		



BC	DREHOL	E LOC	S SHE	ET							
	ient : oiect :	Inne	er Wes	t Council	ochnica	and C	ontomi	HOLE N	о.	A3	-HA03
	cation	: Bus	Greer hcare	Area Dulw	ich Hill	NSW	ontarni	Tation Services		SHEE	ET 1 OF 1
Po	sition :	3279	919.93	E 6247418	B.15 N M	IGA94/	56	Surface RL: 19.16m AHD Angle from Horiz. : 90	0		Processed : SBO
Ri	g Type	: Hand	d auger	Mo	ounting	NA		Contractor : NA Driller : NA			Checked : MG
Da	te Star	ted : 2	1/10/2	2019		Da	te Con	pleted: 21/10/2019 Logged by: LM			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on origina issue of log or last revision of log
				v	tres			Description	u		Comments/
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Test	Depth / (RL) me	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Conditi	Consistency / Density Index	Observations
						<u>`^^^`</u>	-	[TOPSOIL] Silty SAND: fine to medium grained, brown, trace	М	-	
	ger –		Encountered	ES	0.10			_fine, angular gravel. [FILL] Clayey SAND: fine to medium grained, brown, with fine to coarse, sub-angular, gravel, trace brick and concrete.	M		0.1m, Possible ACM 0.2m, PID=4.0ppm
	Au	Ē	Vot I	ES/QA10		\bigotimes					
Ś	land	-	iter ľ		0.60		L		\lfloor	L	u.əm, rı⊔=3.4ppm
-			Groundwa	D			-	[FILL] CLAY: medium plasticity, brown mottled red and grey, with fine to coarse grained sand, with fine to coarse, sub-angular gravel, trace cobble-sized brick fragments.	w = PL	-	
- 1	*	$\left \right $		+	1.00	fxxx		End of borehole at 1.00 metres.			1.0m, PID=3.3ppm
- - - - - - - - - - - - - - - - -											
- 3 - - - - Se de	ee stan etails of	dard s	heets	s for ons	HD	GHI Level T: +6	D 2 29 CI 31 2 946	rristie Street, St Leonards NSW 2065 Australia 2 4700 F: +61 2 9462 4710 E: slnmail@ghd.com		ob N 21	No.



ВО	REHOL	E LOC	SHE	ET							
	ent :	Inne	er West	t Council				HOI E N	0	Δ3	-HA04
Pro	oject :	The	Green	Way Geote	chnical	and C	ontami	nation Services	0.		
	cation	: Bus	ncare /				56	Surface DI : 10.40m AUD Angle from Horiz : 00	<u>،</u> ٥	SHEL	
	n Tvne	· Hand	l auger	<u> </u>	untina	NA	00	Contractor · NA Driller · NA	,		Checked : MG
	te Star	ted: 2	5/10/2	019	unung.	Dat	te Con	noleted : 25/10/2019 Logged by : LM			Date: 16/01/2020
											Note: * indicates signatures on origina issue of log or last revision of log
			ING						1	1	
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
				ES	0.20			[TOPSOIL] Silty SAND: fine to coarse grained, brown, with ballast cobbles.	M 		0.2m, PID=6.5ppm
				ES	0.30			[FILL] CLAY: medium plasticity, yellow mottled orange, with fine to coarse grained sand, with ballast cobbles.	w = PL		
			countered		0.60			[FILL] CLAY: high plasticity, grey, trace fine to coarse grained sand.	w = PL	-	U.5m, PID=9.8ppm hydrocarbon odour
- -1 -	——Hand Auge	Nil	undwater Not En	ES				1.0m, mottled yellow.	w > PL		1.0m, PID=1.9ppm
-			Gro	D				1.3m, with red, fine to coarse grained sand.	w = PL		
-2 · ·					2.00	×××		End of borehole at 2.00 metres. Target Depth			
Se det & t	e stan tails of basis c	dard s abbro	heets eviatio	for ons	HD	GHI Level T: +6 CON	D 2 29 Cl 31 2 946 SULTI	nristie Street, St Leonards NSW 2065 Australia 2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	ob N 21	lo. -12515105



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BC	REHO	E LOO	S SHE	ET							
Cli	ient :	Inne Tho	er Wes	st Council	chnical	and C	ontomi	HOLE N	о.	A3	-HA05
	cation	: Bus	hcare	Area Dulwi	ch Hill	NSW	onam	Tration Services		SHEE	ET 1 OF 1
Po	sition :	3278	368.61	E 6247329	0.85 N M	IGA94/	56	Surface RL: 20.06m AHD Angle from Horiz. : 90	0		Processed : SBO
Rig	g Type	: Hand	d auger	Mo	unting:	NA		Contractor : NA Driller : NA			Checked : MG
Da	te Star	ted : 3	1/10/2	2019		Dat	te Com	npleted : 31/10/2019 Logged by : LM			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on origin issue of log or last revision of log
					Ires			Description	uo		Comments/
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Test	Depth / (RL) met	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Conditi	Consistency / Density Index	Observations
-	Â			ES			-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, fine to medium, angular gravel, with rootlets.	D	-	
-				D	0.20			[FILL] Clayey Sandy GRAVEL: fine to medium, angular, brown, fine to coarse grained sand.	D		0.2m, PID=2.4ppm
			ğ		0.60		GC	Gravelly CLAY: medium plasticity, pale brown mottled pale grey, fine to coarse, rounded, ironstone gravel (residual).	w = PL	VSt	0.5m, PID=1.6ppm
- - -1	d Auger	Nil	Not Encountere	D ES/QA30		0					1 0m DID=1 6mm
-	Hano		Groundwater		1.10		- <u>c</u> i-	CLAY: medium plasticity, pale brown mottled pale grey, trace fine to medium , sub-rounded ironstone gravel (residual).	w = PL	VSt	1.011, РФ–1.0ррп
-				D							1.7m, high augering resistance.
-2				ES	2.00			End of herebole at 2.00 metros			
								Target Depth			
Se	e stan	dard s	heets	s for		GHI	D	briatio Street St.Leonardo NSM/ 2005 Austr-1-	J	ob N	lo.
de	tails o	abbr	eviati	ons 🧲		Level T: +6	2 29 Cl 61 2 946	11150e Street, St Leonards NSW 2005 Australia 32 4700 F: +61 2 9462 4710 E: sinmail@ghd.com		21	-12515105
&	basis d	ot dese	criptio	ons 🛛 🖿		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		- 1	



BC	DREHO	E LOC	SHE	ET							
Cli	ient :	Inne	r Wes	t Council				HOLE N	0.	A3	-HA06
Pro	oject :	The	Green	iWay Geote ridor, Dubwi	echnical ch ⊔ill	and C	contami	nation Services	•	SHEF	T 1 OF 1
Po	sition :	3278	357.00	E 6247021	.00 N M	GA94/	56	Surface RL: 21.40m AHD Angle from Horiz.: 90	0	0	Processed : HAL
Rig	g Type	: Hand	lauger	Мо	unting:	NA		Contractor : NA Driller : NA			Checked : MG
Da	te Star	ted: 1	5/11/2	019		Da	te Com	npleted : 15/11/2019 Logged by : LM			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on origin issue of log or last revision of log
					tres			Description	u		Comments/
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Test	Depth / (RL) me	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Conditi	Consistency / Density Index	Observations
-			q	ES	0.00		-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, with fine to medium, sub-rounded gravel.	D	-	0.2m, PID=1.0ppm
-	uger		t Encountere	D ES	0.30			[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, sub-rounded gravel and angular cobbles.	D		0.5m, PID=1.0ppm
-	Hand A	Ĩ	oundwater No	D	0.60		SM	Silty SAND: fine to medium grained, grey, with fine to medium, sub-rounded gravel (residual).	D	MD	
- -1 -			G	ES _	1.00			SHALE: grey, inferred low strength, highly weathered (bedrock).			1.0m, PID=1.1ppm
2											
6-	o eter	dard c	hoote	for		GH	D		, .	oh N	lo.
de	tails of	f abbro	eviatio		ID		2 29 Ch	nristie Street, St Leonards_NSW_2065_Australia 2 4700 E: +61 2 9462 4710 E: slamail@abd.com		~ ·	
&	basis o	of desc	criptic	ons 🛛 🎽		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105



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BC	DREHO	E LOC	g she	ET							
Cli	ient : oiect ·	Inne The	r Wes Green	t Council Way Geote	chnical	and C	ontam	ination Services HOLE N	о.	A3	-HA07
Lo	cation	: IWL	R Cori	ridor. Dulwi	ch Hill.	NSW	onam			SHEE	ET 1 OF 1
Po	sition :	3278	364.10	E 6246965	.50 N N	IGA94/	56	Surface RL: 23.72m AHD Angle from Horiz.: 90	0		Processed : HAL
Rig	g Type	: Hand	d auger	Мо	unting	NA		Contractor : NA Driller : NA			Checked : MG
Da	te Star	ted: 1	5/11/2	019		Dat	te Con	npleted : 15/11/2019 Logged by : LM			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on origin issue of log or last revision of log
				ي ع	etres			Description	ion		Comments/
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Test	Depth / (RL) me	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condit	Consistency / Density Index	
	Â			ES			-	[FILL] Sandy GRAVEL: fine to coarse, sub-angular to angular, brown and grey, fine to coarse grained sand, with ballast cobbles, trace rootlets.	D	-	
	d Auger	Nil	Not Encountered	ES	0.20		-	[FILL] Silty Sandy GRAVEL: fine to coarse, angular, brown and grey, fine to coarse grained sand, with ballast cobbles.	D	-	0.2m, PID=1.4ppm 0.5m, PID=1.9ppm
-	Han		Groundwater	D	0.80 0.95		 	[FILL] Cobbly Silty SAND: fine to coarse grained, brown, fine to coarse, angular cobbles, with fine to coarse, angular gravel.	D		
-1					1 10		0.01	medium, sub-angular gravel (residual).			1.0m, PID=1.7ppm
ŀ				D	1.15			SHALE: grey, inferred low strength, highly weathered		<u></u>	
-2											
8	e stan	dard e	heate	for		GHI	D		J	ob N	lo.
de	tails of	fabbr	eviatio	ons C	Ð	Level T: +6	2 29 C 31 2 946	hristie Street, St Leonards_NSW_2065_Australia 62 4700 F: +61 2 9462 4710 E: slnmail@ghd.com		24	-12515105
&	basis o	of desc	criptic	ons 📄		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12313103



ВО	REHO	E LOO	g shei	ET							
	ent :	Inne	er Wes	t Council				HOLE N	0	Δ3	-I D01
R Pro	oject:	The	Green	Way Geote	chnical	l and C	ontami	ination Services	0.		
	cation	: Johi	$\frac{1}{940.11}$	ark, Dulwic	h Hill, f		56	Surface DL: 00.41m AUD Angle from Horiz: 00	0	SHEE	
	1 Type	· XP6	049.11	E 0247311	unting	• Ito	50	Contractor : Terratect Driller : CD			Checked : MG
	te Star	ted: 1	0/10/2	019	anting	Dat	te Con	npleted : 10/10/2019 Logged by : LM			Date: 16/01/2020
								MATEDIAI			Note: * indicates signatures on origina issue of log or last revision of log
		DRILL	ING		es			Description			Comments/
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metr	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Conditio	Consistency / Density Index	Observations
101071	Â			ES	0.20		-	[TOPSOIL] Silty SAND, fine grained, dark brown, with rootlets.	м	-	
				В	0.20			[FILL] Silty SAND: fine to medium grained, brown, with fine, angular gravel.	м	-	0.2m, PID=6.0ppm
			Itered	ES N	0.70						0.5m, PID=20.3ppm
	auger —	_	ot Encour	ES			СН	CLAY: high plasticity, red mottled pale grey, trace fine to coarse, sub-rounded ironstone gravel (residual).	w < PL	St	
'-1 - -		ÏZ	indwater No							VSt- H	1.0m, PID=8.4ppm
			Grou								
-					2.00						2.0m, PID=3.7ppm
								Target Depth			
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See standard sheets for details of abbreviations & basis of descriptions GHD Level 2 29 Christie Street, St Leonards NSW 2065 Australia Job No. CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS 21-12515105	-5		I		· · · · · · · · · · · · · · · · · · ·				l				
details of abbreviations Level 2 29 Christie Street, St Leonards NSW 2065 Australia 2452 4700 2462 4710 2	Se	e stan	dard s	sheets	for	_	GHI)		Job No.			
& basis of descriptions CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS	de	tails o	f abbr	eviatio	ons G	Ð	Level T: +6	2 29 Cl 1 2 946	hristie Street, St Leonards NSW 2065 Australia 52 4700 F: +61 2 9462 4710 E: sInmail@ghd.com	21-12515105			
	&	basis o	of des	criptio	ons		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	21-12515105			

BC	REHO	E LOC	G SHE	ET							
12 CI	ient :	Inne	er Wes	t Council					•	Δ3	-1 002
⁸ ⁄2 Pr	oject :	The	Greer	nWay Geot	technica	al and	Contar	nination Services	0.		
	cation	: Joh	nson F	Park, Dulwi		NSW	50	Ourfood DL 04 05	<u>, </u>	SHEE	Dressessed - CDO
0 PC	SILION :	· 970	530.42	E 0247100		Ulto	50	Contractor: Strategoro Driller: DM			Chacked : MG
	te Star	ted · 2	, 1/10/2	019	unung.	Dat	te Com	inleted : 21/10/2019			Date: 16/01/2020
	to otal					Du					Note: * indicates signatures on origina
о В	r		ING	1				MATERIAL			issue of log of last revision of log
05-THEGREENWAY.GPJ GHD_	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
AS1726 2017 21125151	 TC-bit auger — 	Nil		SDT	5.56	· · · · · · · · · · · · · · · · · · ·	-	SANDSTONE: as previous.	-	-	
				SPT 15 for 60mm HB N=ref	5.56			End of borehole at 5.56 metres. Target Depth			
Se	e stan	dard s	heets	for	\sim	GHI	D		J	ob N	lo.
de &	tails o basis o	f abbro	eviatio criptic	ons ons	HD	Level T: +6 CON	2 29 Ch 31 2 946 SULTII	nristie Street, St Leonards_NSW_2065_Australia 2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG_GEOTECHNICAL_ENGINEERS_AND_GEOLOGISTS		21	-12515105

_	BO	REHO	LE LOO	g she	ET							
/1/20	Clie	ent :	Inne	er Wes	t Council				HOLE N	0.	A3	-LDBH01
1 29	Pro	ject:	The	Green	Way Geote	echnica	I and C	ontami	ination Services	0.		
00.6		sition	: Dav	18 Stre	E 6247478	1111, N	5VV /GA94/	56	Surface RI : 23.91m AHD Angle from Horiz : 90	0		Processed : SBO
LE 2.	Ria	ITVDE	: SD0	5	Mo	untina	: Ute	00	Contractor : Stratacore Driller : DM			Checked : MG
	Dat	te Star	ted : 1	- 8/10/2	019	<u> </u>	Dat	te Con	npleted : 18/10/2019 Logged by : JS			Date: 16/01/2020
				ING					ΜΑΤΕΡΙΑΙ			Note: * indicates signatures on original issue of log or last revision of log
5 					1							
05-IHEGREENWAY.GPJ GHD	SUALE (M)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
					ES SPT 6/6/7			-	[FILL] Silty SAND: fine to medium grained, dark brown and brown, trace fine to coarse, sub-angular gravel, trace rootlets.	М	-	0.2m, PID=2.7ppm - - 0.5m, PID=3.5ppm
	1				N=13 ES	1.30			[FILL] CLAY: medium plasticity, pale grey. pale brown,	 W =		- - 1.0m, PID=7.2ppm - - - -
	2	SPT 2/3/5 N=8						fine to coarse, sub-rounded to sub-angular ironstone and sandstone gravel, trace rootlets (reworked residual).			1.5m, - PP-100-200kPa - - - - - -	
-		C-bit auge	Nil	tter Not En	ES/DUP1				2.5m, with fine to coarse gravel sized fragments of ripped shale, remoulds to low plasticity clay.	w < PL		- 2.5m, PID=7.6ppm -
- - -; -	3			Groundwa	SPT 4/6/9 N=15							2.8m, PP test failed due to low moisture and high gravel content
-					ES							- - 3.5m, PID=4.0ppm - -
	4				4/9/9 N=18							3.8m, PP test failed due to low moisture and high gravel content
					B ES SPT 4/6/6 N=12							4.5m, PID=3.1ppm
Ē	5 -				· · · · ·		• • × × ×					
	See det & k	e stan tails o pasis (dard s f abbr of des	heets eviatio criptic	ons C	HD	GHI Level T: +6 CON	2 29 Cl 2 29 Cl 1 2 946 SULTII	hristie Street, St Leonards NSW 2065 Australia 32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	J	ob N 21	-12515105

	lie rc ⁱ	ent:	Inne	er West		chnical	and C	onton	HOLE N	о.	A3	-LDBH01	
	roj .oc	ation :	i ne Davi	Green is Stree	vvay Geote et, Dulwich	ecnnical Hill, NS	and C SW	ontam			SHEE	ET 2 OF 4	
B P	os	ition :	3279	981.39	E 6247478	3.61 N M	IGA94/	56	Surface RL: 23.91m AHD Angle from Horiz.: 90	0		Processed : SBO	
≝ R	lig	Type :	SD05	5	Mo	unting:	Ute		Contractor : Stratacore Driller : DM			Checked : MG	
	ate	e Start	ed: 1	8/10/20	019		Dat	te Cor	mpleted : 18/10/2019 Logged by : JS			Date: 16/01/2020 Note: * indicates signatures on original	
			DRILL	ING					MATERIAL		1	issue of log or last revision of log	
SCALE (m)		Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations	
	+						\otimes	-	[FILL] CLAY: as previous.	w =	-		
		TC-bit auger	Nil						5.3-5.7m, sandstone boulder encountered.	PL		5.3m, sandstone boulder inferred as bedrock during drilling, therefore changed to NMLC coring. All water lost downhole and still in fill profile. Switched to	
5 - 6 - - - - - - - - - - - - - -		NMLC coring			D							6.7m, sampled the cored fill.	
- - - - - -			lQ casing	Broundwater Not Encountered	SPT 4/6/10 N=16	7.30		ĊH	CLAY: high plasticity, pale grey mottled pale brown and red-brown, trace fine to coarse, sub-rounded ironstone gravel (residual).	w = PL	VSt	- 7.3m, PP=300kPa - - - -	
-8 - - - - - - -			т	0	SPT 22/ 21 for 140mm N=ref	8.00	8 8 9 9 9	GC	Gravelly CLAY: high plasticity, pale grey mottled pale brown, fine to coarse, sub-rounded to rounded ironstone gravel (residual).	w = PL	VSt	8.0m, SPT refusal on ironstone gravel layers. - - - - - - - - - - - - - - -	
-9 - - - - - - - - 1	0				SPT 7/8/12 N=20	9.00		SC	Clayey SAND: fine to coarse grained, pale brown mottled pale grey, low plasticity clay (residual).	M	MD	-	
	60	stand	lard e	heate	for		GHI)		Job No.			
d 8	leta k b	ails of asis o	abbre f desc	eviatio	ons ons	HD	Level T: +6 CON	2 29 C 1 2 94 SULTI	Christie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com ING GEOTECHNICAL ENGINEERS AND GEOLOGISTS	Job No. 21-12515105			

BOREHOLE LOG SHEET

CI	ient :	Inne	er West	Council				HOLE N	0	Δ3	I DBH01				
i Pr	oject :	The	Green	Way Geote	echnical	l and C	Contam	ination Services	0.	SHEE					
	sition .	: Dav	981 39	E 6247478	3 61 N M	500 1GA94/	56	Surface RI : 23.91m AHD Angle from Horiz : 90	0		Processed · SBO				
Ri	g Type	: SD0	5	Мо	ounting	Ute		Contractor : Stratacore Driller : DM			Checked : MG				
Da	te Star	ted: 1	8/10/20	019		Da	te Con	npleted : 18/10/2019 Logged by : JS			Date: 16/01/2020				
		DRILL	ING					MATERIAL			Note: * indicates signatures on origina issue of log or last revision of log				
				sts	letres			Description	lition		Comments/ Observations				
SCALE (m)	Drilling Methoo	Hole Support \ Casing	Water	Samples & Te	Depth / (RL) m	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Conc	Consistency / Density Index					
-	boring	asing					-	Clayey SAND: as previous.	М	MD					
	 Mash 	ΗQ c		SPT 10/	10.40 10.65	/	-	SANDSTONE: pale brown and grey, highly to moderately weathered (bedrock).	-	-					
				80mm (HB) N=ref				Start of coring at 10.65 metres. For cored interval, see Core Log Sheet.							
'-11 - -															
ŀ															
Ē															
- 12	2														
-															
- - 13 -															
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- - - 14															
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		- 				CUI									
Se de	e stan	uard s f abbr	eviation	ns			2 29 C	hristie Street, St Leonards NSW 2065 Australia	J	או עט 					
&	basis o	of des	criptio	ns 📔		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	21-12515105						

BOREHOLE LOG SHEET

		E L(OG	SHE	EI																		
C	lier	nt:		Inne	er W	est C	Council									Н	OL	E	N	o. A3	-LDBł	-101	
	roje	ect :	: n·	The	Gre	enW	ay Geo	otechi ch Hil	nical and Contaminat	ion Services						'	_		'	SHEF		4	
P	osit	tion	n :	327	981.3	39 E	62474	78.61	N MGA94/ 56	Surface RL:	23.91m A	HD		Ang	le fr	om	Hori	z. :	90°	,	Process	sed : SBC)
R	lig T	Гуре	e:	SD0	5		N	lount	ing: Ute	Contractor :	Stratacore			Dril	ler :	DM					Checke	d: MG	
С	asi	ng I	Dia	.: H	IQ		E	Barrel	(m): 3.0m	Bit : Diam	ond (stepfaced)	E	Bit Co	ondi	tion	1: N	ew			Date:	16/01/2020	D
	ate	Sta	arte	ed : 1	8/10	/201	19 C	Date C	completed : 18/10/20	019Logged b	y:JS		0)ate	Log	ged	: 18	8/10/	/201	19	Note: * indicate issue of log of	s signatures on o or last revision of	rigina log
		D	RIL	LINC	3				_	MATERIA	L		-			_			N	ATURAL	FRACTU	RES	
SCALE (m)		Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	E ROCK NAME: grain inclusions or minor [COBBLES / BOU SOIL NAME: colour, plas secondary and min	Jescription n size, colour, fab components, moi and LDERS / FILL / T ticity / primary pa hor components,	vic and texture, isture, durability OPSOIL] then rticle characteristic zoning (origin)	ر Weathering	Soil 0.03			EH 10	20 (n + 00 + 10 + 10 + 10 + 10 + 10 + 10 + 10	acin nm) 0000000000000000000000000000000000		(joints Fractu coati	Addition , partings, se vein re type, orier ng, shape, ro	al Data eams, zones a s) tation, infillin uughness, oth	and g or ⊮er.
1	1	NMLC coring			(14)		10.65		Start of coring at 1 For Non Cored inte Sheet. CORE LOSS 250r SANDSTONE: fine stained orange-bro bedded at 0-5°.	0.65 metres. erval, see Bord nm. e to coarse gra wn on defects	ehole Log ained, pale grey s, indistinctly	/ SW	/		•					-10.97m, Pt, -11.15m, Pt, -11.55m, Pt, -11.56m, W;	0°, Rf, Pln, F 2°, Rf, St, Fe 0°, Rf, Pln, F 0°, Rf, Pln, F Sm, 10mm	Fe e Fe	
	4		1	2.41			12.41		End of Borehole at Target Depth	12.41 metres	5.									-12.34m, Pt,	2°, Rf, Pln,)	X	
S	ee leta	sta ils (nd of	ard s abbr	shee evia	ts fo	or Is	GH	GHD Level 2 29 Christ T: +61 2 9462 4	ie Street, St Le 700 F: +61 2	eonards NSW 2 9462 4710 E:	065 A slnma	ustr il@g	alia jhd.co	om					Job N 21	lo. -1251	5105	





Inner West Council	HW	V	DATE 2/12/2	2019							
	CHECKED		DATE								
The GreenWay Geotechnical and Contamination Services	JS		2/12/2	2019							
Davis Street, Dulwich Hill NSW	SCALE	Not To S	cale		A4						
Core Photographs	PROJECT № 21-1251	15105	FIGURE № A3-LDBH	101 1/ [.]	1						
TE	ST	PIT LOG SH	IEET								
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C	lien	t: Inr	ner West Co	uncil				No	~	2 TD01	
P	roje	ect: Th	e GreenWay	Geotechn	ical and (Contamination Services	HOLL	NU	. /	13-1FVI	
Lo	oca	tion: IW	LR Corridor,	Dulwich H	ill, NSW			SHE	ET	1 OF 1	
P	osit	i on: 32	8001.29 E 6	6247494.2	5 N N	MGA94/56 Surface RL:	18.72m Al	HD		Processed: SBO	
м	eth	od of Exp	oloration:	Hand	dug	Hole Size:	0.5m x 0.3m			Checked: MG	
D	ate:	14/	10/19			Logged by:	JS			Date: 16/01/2020	
Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSO SOIL NAME: colour, plasticity / primary particle of secondary and minor components, zoning (of ROCK NAME: Grain size, colour, fabric and text or minor components, durability, stren weathering / alteration, defects	IL] then characteristics, origin) and ure, inclusions gth,	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on origina issue of log or last revision of log Comments Observations	
-	Groundwater Not Encountered		0.5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-	[TOPSOIL] Silty SAND: fine to coarse grain brown, trace rootlets. End of test pit at 0.5 metres.	ed, dark	M	-	0.0m, Embankment densely vegetated.	
- - - - - - - - -						Refusal due to dense vegetation.					
-2											
ŀ										ļ,	
Se	e si	tandard sh	neets for		GHD Level 2	29 Christie Street, St Leonards NSW 2065 Australia		Ţ	Job	No.	
de &	etails bas	s of abbrev is of descu	viations		T: +61	2 9462 4700 F: +61 2 9462 4710 E: sinmail@ghd.c		21-12515105			
					00113	SETTING GEOTEORINICAL ENGINEERS AND G		21-12313103			





A3-TP01 - 3 Depth Range: 0.00 m



A3-TP01 - 4 Depth Range: 0.00 m

	Inner West Counsil	DRAWN H. Warr	DATE 31/01/2020	
GHD	The GreenWay Geotechnical and Contamination Services	CHECKED J. Scognamiglio	DATE 31/01/2020	
GIND	IWLR Corridor, Dulwich Hill NSW	SCALE Not To S	cale	A4
	Test pit Photographs	PROJECT № 21-12515105	FIGURE № A3-TP01 2/2	

TE	EST	PIT LOG SHEET	Γ						
C	lien	t: Inner V	Vest Cou	ncil			No		12 TD02
P	roje	ect: The Gr	reenWay	Geotechn	ical and (Contamination Services	NU	. /	4J-1 F UZ
L	oca	tion: IWLR	Corridor,[Dulwich H	ill, NSW		SHE	ET	1 OF 1
P	osit	tion: 32797	6.16 E 6	247471.3	ON N	MGA94/ 56 Surface RL: 20.16m A	HD		Processed: SBO
м	eth	od of Explor	ation:	Hand	dug	Hole Size: 0.5m x 0.3m			Checked: MG
D	ate	14/10/1	9			Logged by: JS			Date: 16/01/2020
						Material Description			Note: * indicates signatures on origina issue of log or last revision of log
Scale (m)	Water	Samples & Tests	Depth / (RL) metres	 Graphic Log 	USC Symbol	[COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments Observations
Ļ					-	to coarse grained sand, trace rootlets.	М	-	
	ered		0.20						
-	Groundwater Not Encounte	в	0.80		-	[FILL] Gravelly Sandy CLAY: low to medium plasticity, fine to coarse grained sand, fine to coarse, sub-angular to angular gravel, trace building refuse including brick.	w < PL	-	
	1		0.80			End of test pit at 0.8 metres.			
F						larget Depth.			
-1									-
ŀ									
ŀ									
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IPLA									
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HS -									
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- EF	1								
<u></u> -3	1								-
-	1								
- 1125	1								
201	1								
31726	1								
SA T									
Se St	ee s	tandard sheet	s for		GHD Level 2	29 Christie Street, St Leonards NSW 2065 Australia		Job	o No.
⊢ de 01 &	etail: bas	s of abbreviati	ons	<u>ann</u>	T: +61 CONS	2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com ULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS			21-12515105



A3-TP02 - 2 Depth Range: 0.00 m

	Inner West Courseil	H. Warr	DATE 31/01/2020	
GHD	The GreenWay Geotechnical and Contamination Services	CHECKED J. Scognamiglio	DATE 31/01/2020	
GIND	IWLR Corridor, Dulwich Hill NSW	SCALE Not To S	cale	A4
	Test pit Photographs	PROJECT № 21-12515105	FIGURE № A3-TP02 1/1	

BC	REHO	LE LOO	G SHE	ET									
Cli	ient :	Inne	er West	t Council				HOLE N	0	Δ4	-RH01		
Pro	oject :	The	Green	Way Geote	chnical	and C	ontami	ination Services	0.				
	cation	: Hero	Cules S	Street, Dulw	Ch Hill,	NSW	56	Surface DI : 25.00m AUD Angle from Heriz : 00	,	SHEE			
Rid		· 5273	5	E 0240710	untina		50	Contractor : Stratacore Driller : DM			Checked : MG		
Da	te Star	ted · 2	1/10/2	019	unung.	Dat	e Con	noleted : 21/10/2019			Date: 16/01/2020		
Ē	to otal					Du					Note: * indicates signatures on origina issue of log or last revision of log		
		DRILL	ING							1	issue of log of last revision of log		
SCALE (m)	SCALE (m) Drilling Method Hole Support \ Casing Water Samples & Tests Samples (RL) metres					Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations		
-			ed	ES ES SPT 2/2/2 N=4 ES	0.05 0.15		<u> </u>	CONCRETE FOOTPATH. [FILL] SAND: fine to coarse grained, pale grey and brown, with fine, sub-angular gravel. [FILL] SAND: fine to coarse grained, dark brown, with low plasticity clay.	 M - M	∧ <u> </u>	0.2m, PID=4.2ppm 0.5m, PID=3.7ppm		
-1 - - - - - - -2	TC-bit auger	Nil	Groundwater Not Encounter	SPTX 6/6/6 N=12 ES X	1.30		сн	CLAY: high plasticity, pale brown and red-brown, with fine to coarse grained sand, trace layers of red, fine to medium, sub-rounded ironstone gravel (residual).	 w = PL	St	1.0m, PID=5.1ppm		
-	₩			SPT 11/ 30 for	2.30 2.73	·····		SANDSTONE: pale grey and red-brown, inferred low strength, highly weathered (bedrock).	-		2.2m, PID=6.0ppm		
-3				80mm HB N=ref				Target Depth					
-5													
Se	e stan	dard s	heets	for	_	GHE	כ		J	ob N	lo.		
de	tails o	fabbr	eviatio	ons 🤆	Ð	Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sinmail@ahd.com				24	-12616105		
&	basis (of des	criptio	ons 🛛 🖿		T: +61 2 9462 4700 F: +61 2 9462 4710 E: slnmail@ghd.com CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS					21-12515105		

BOREH	IOLE LO	og she	ET									
Client : Proiect	: In: :: Th	ner Wes le Greer	t Council Wav Geote	chnical	and C	ontami	ination Services HOLE N	о.	A 4	A4-BH02		
Locatio	on: Bu	Ishcare	Area, Dulwi	ch Hill,	NSW				SHEE	ET 1 OF 1		
Positio	n: 32	8019.03	E 6246569	9.80 N M	GA94/	56	Surface RL: 17.91m AHD Angle from Horiz.: 90	0		Processed : SBO		
Rig Typ	be: SE	05	Мо	unting:	Ute		Contractor : Stratacore Driller : DM			Checked : MG		
Date St	tarted :	22/10/2	2019		Dat	e Con	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020		
	DRIL	LING					MATERIAL			issue of log or last revision of log		
SCALE (m) Drilling Method	Hole Support	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations		
				0.40	$\times\!\!\times\!\!\times$	-	FILLI Silty SAND: fine to coarse grained, dark brown, trace	м	-			
			ES ES SPT 3/2/3	0.10			 Inel o coarse, sub-angular to angular gravel, trace rootlets. [FILL] Sandy CLAY: low plasticity, dark brown and dark grey, fine to coarse grained sand, trace fine to coarse, sub-angular to angular gravel. 0.3m, pale brown and brown. 	w = PL	-	0.2m, PID=4.4ppm 0.5m, PID=5.2ppm		
	ĨŻ	22/10/20	N=5 D 19 ES	0.90		-sc	Sandy CLAY: medium plasticity, brown mottled pale brown, fine to medium grained sand (alluvium).	w = LL	S-F	0.9-1.55m, perched water table 1.0m, PID=5.6ppm		
-				1.00		SC	Clayey SAND: fine to coarse grained, pale grey mottled pale	м	MD			
-			SPT 2/3/	1.70	<u></u>		SANDSTONE: pale grey mottled pale brown, inferred low	+-	<u>+</u>			
-2			N=ref				Target Depth					
-5						<u> </u>			 			
See sta	andard	sheets	ons			2 29 CI	hristie Street, St Leonards, NSW 2065 Australia	J	N DO	NO.		
& basis	s of de	scriptio	ons	T: +61 2 9462 4700 F: +61 2 9462 4710 E: sinmail@ghd.com CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS					21-12515105			

ВС	DREHOL	E LOC	g shei	ET							
Cli	ient :	Inne	er Wes	t Council				HOLE N	0.	A 4	-BH03
	oject :	Ihe Iw/I	Green	Way Geote	echnica	I and C	ontami	Ination Services		SHEE	ET 1 OF 1
Po	sition :	328	011.01	E 6246525	5.23 N N	1GA94/	56	Surface RL: 17 57m AHD Angle from Horiz.: 90	0	0.121	Processed : SBO
Rig	g Type	SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
Da	te Star	ed: 2	2/10/2	019		Dat	te Con	npleted: 22/10/2019 Logged by: JS			Date: 16/01/2020
		DRILL	.ING					MATERIAL			Note: * indicates signatures on origin issue of log or last revision of log
	po	t		ests	metres		_	Description	ndition	- ×	Comments/ Observations
SCALE (m)	Drilling Meth	Hole Suppor \ Casing	Water	Samples & T	Depth / (RL)	Graphic Log	USC Symbo	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Co	Consistency Density Inde	
-				ES	-		-	[FILL] Gravelly Silty SAND: fine to coarse grained, dark brown and dark grey, fine to coarse, sub-angular to angular gravel, with ballast cobbles.	М	-	0.2m, PID=2.8ppm
· · · ·				ES SPT 8/4/3 N=7							0.5m, PID=2.3ppm
-1 - -				ES	1 50						1.0m, PID=1.6ppm
- - -2 -		Nil		SPT 7/3/3 N=6	1.50			[FILL] SAND: fine to coarse grained, dark brown and brown, trace fine to medium, sub-angular gravel.	M	-	
-				ES							2.5m, PID=2.1ppm
- - -3			¥	SPT 1/2/1 N=3	3.00			Sandy CLAV, madium plasticity, relation motified			
-		2	2/10/1	ES				red-brown, fine to coarse grained sand (alluvium).	PL		3.5m, PID=2.9ppm
- - - -4				SPT 1/1/ 6 for 30mm (HB)	3.80			SANDSTONE: orange-brown, inferred low strength, highly weathered (bedrock).			
- - -				IN=TET				End of borehole at 4.00 metres. Target Depth			
-5											
6	o etan	hard o	hooto	for		GHI	D		L.	ob N	lo.
de	tails of	abbr	eviatio		ID		2 29 Cl	hristie Street, St Leonards_NSW_2065_Australia 32.4700E:_+61.2.9462.4710_E:_sloppail@abd.com			
&	basis o	of desc	criptic	ons		CON	<u>SULT</u> I	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

Ē	OREHO	LE LOO	g shei	ET							
	lient :	Inne	er West	t Council	abaiaa	l and C	ontom	HOLE N	0.	A 4	-BH04
	ocation	: IWL	.R Corr	idor. Dulwi	ch Hill.	NSW	Untain			SHEE	ET 1 OF 2
P P	osition	: 328	020.28	E 6246484	.55 N N	1GA94/	56	Surface RL: 19.88m AHD Angle from Horiz. : 90	>		Processed : SBO
F	lig Type	: SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
	ate Sta	ted : 2	2/10/2	019		Dat	te Con	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
			_	ts	etres			Description	tion		Comments/
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tes	Depth / (RL) me	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condi	Consistency / Density Index	Observations
				ES			-	[FILL] Gravelly Silty SAND: fine to coarse grained, dark grey and dark brown, fine to coarse, sub-angular to angular gravel, with ballast cobbles.0.3m, orange, with medium plasticity clay.	М	-	0.2m, PID=2.7ppm
-				ES SPT 5/10/23 N=33	1.00			0.5m, without clay.			0.5m, PID=8.3ppm
- - - - - - - - - - 2 - - - - - - - - -				ES SPT 11/10/6 N=16			-	[FILL] Clayey GRAVEL: fine to coarse, sub-angular to angular, grey and dark grey, low plasticity clay, with fine to coarse grained sand, trace ballast cobbles.	Μ	-	- - - - - - - - - - - - - - - - - - -
- - - - - 3 - - - - - -	TC-bit auger	Nil		SPT 2/18/23 N=41							-
- - - -			¥	ES \ SPT 3/4/5 N=9	4.00						3.5m, PID=4.4ppm
- - - -		2	2/10/1	9 ES SPT	4 00		-	[FILL] Sandy CLAY: low plasticity, dark brown, brown and pale brown, fine to coarse grained sand.	w = PL	-	4.0-5.1m, perched water table 4.5m, PID=5.9ppm
ţ				3/3/4 N=7	4.00		SC	Clayey SAND: fine to coarse grained, pale brown mottled pale grey, low plasticity clay (residual)	W	MD	-
-5						1		5.57, ion placing only (rootadi).			
s	ee star	dard s	heets	for	\sim	GH)		J	ob N	lo.
d	letails o	fabbr	eviatio	ons 🤅	Ð	Level T: +6	2 29 C 1 2 946	hristie Street, St Leonards NSW 2065 Australia 62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		21	-12515105
8	basis	of des	criptio	ons 📄		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		∠	

Client : Inner West Council Project : The GreenWay Geotechnical and Contamination Services HOLE No. A4											-BH04
28	Project	:: The on: IWI	Green R Cori	iWay Geot ridor Dulw	echnical ich Hill	and C NSW	ontami	nation Services		SHEE	T 2 OF 2
9.00	Positio	n : 328	020.28	E 6246484	4.55 N M	GA94/	56	Surface RL: 19.88m AHD Angle from Horiz. : 90	>		Processed : SBO
AF	Rig Typ	be: SDO	5	Mo	ounting:	Ute		Contractor : Stratacore Driller : DM			Checked : MG
L L L L	Date St	tarted : 2	22/10/2	2019		Dat	te Corr	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020
2		DRILL	ING					MATERIAL			Note: " indicates signatures on origina issue of log or last revision of log
	SCALE (m) Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
16162112 /102	C-bit auger	Ni			5.10		SC -	Clayey SAND: as previous. SANDSTONE: pale grey, low to medium strength, inferred moderately weathered (bedrock).	- -	MD -	
	-7 -7 -7 -7 -7 -7 -7 -7 -7 -7 -7 -7 -7 -				5.40			End of borehole at 5.40 metres. Target Depth			
ŀ	-10 ^L							1	·	• -	
	See st	andard s	sheets	for			D 2 29 CH	nristie Street St Leonards NSW 2065 Australia	J	ob N	ю.
	details & basi	ot abbr s of des	eviatio criptio	ons ons		T: +6	51 2 946 SULTII	21-12515105			

BOREHOLE LOG SHEET

<u> </u>	REHUL	E LOC	5 SHE	ET							
Cli	ient:	Inne	r Wes	t Council				HOLE N	о.	A 4	-BH05
	cation	: IWI	Greer R Cori	ridor Dulwi	ch Hill	NSW	ontami	nation Services		SHEE	ET 1 OF 1
Po	sition :	3280	06.58	E 6246455	5.22 N N	1GA94/	56	Surface RL: 19.34m AHD Angle from Horiz. : 90	0		Processed : HAL
Rig	g Type :	SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
Da	te Star	ed: 2	2/10/2	019		Dat	te Con	npleted: 22/10/2019 Logged by: JS			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on origin issue of log or last revision of log
(m)	Method Method a B R Tests (RL) metres					c Log	ymbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and			Comments/ Observations
SCALE	Drilling	Hole Si \ Casin	Water	Sample	Depth /	Graphi	- USC S	ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects [FILL] Gravelly Silty SAND: fine to coarse grained, dark	Moistur	- Consis Density	
- - -				ES				brown and dark gréy, fine to coarse, sub-angular to angular gravel, with ballast cobbles. 0.3m, with medium plasticity clay, orange.			0.2m, PID=5.2ppm
- - -				SPT 5/23/20 N=43 ES	1.00		, , , , ,	0.5m, without clay.			0.5m, PID=4.7ppm
- - - - - - -	TC-bit auger	IJ	Groundwater Not Encountered	SPT 23/26/22 N=48				[FILL] GRAVEL: fine to coarse, sub-angular to angular, grey and dark grey, with fine to coarse grained sand, with ballast cobbles.	D	-	1.0m, PID=3.6ppm
-2					2.00						2.0-3.0m, very slow drilling progress - 30minutes to drill with TC-bit.
-3 · - - - - - - - - - - - - - - - - - - -					3.00			End of borehole at 3.00 metres. Refusal on highly compacted fill			
- -5 Se	e stan	dard s	heets	a for ons	HD	GHI Level T: +6	D 2 29 Cl 51 2 946	hristie Street, St Leonards NSW 2065 Australia 52 4700 F: +61 2 9462 4710 E: sInmail@ghd.com	J	ob N 21	No.

r	BOREHOLE LOG SHEET Client : Inner West Council													
07./L/S	Cli	ent:	Inne	r West	t Council				HOLE N	0.	A4	-BH06		
Ñ	Lo	cation :	IWI	R Corr	idor Dulwi	ch Hill	NSW	ontarni	nation Services		SHEE	ET 1 OF 1		
ם. 10.	Po	sition :	3279	984.32	E 6246424	.18 N N	IGA94/	56	Surface RL: 18.63m AHD Angle from Horiz. : 90'	,		Processed : HAL		
	Rig	g Type :	SD0	5	Мо	unting	Ute		Contractor : Stratacore Driller : DM			Checked : MG		
- MPLA	Da	te Start	ed: 2	2/10/2	019		Dat	te Con	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020		
			DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log		
ן פ														
19-I HEGKEENWAY GPJ GHD	SCALE (m)	SCALE (m) Drilling Method Hole Support \Casing Water Samples & Tests					Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations		
		t auger —	Ail	Not Encountered	ES	0.50		-	[FILL] Gravelly Silty SAND: fine to coarse grained, dark brown and dark grey, fine to coarse, sub-angular to angular gravel, with cobble-sized ballast.	M	-	0.2m, PID=4.2ppm		
	-1	▲TC-bi	2	Groundwater N	SPT 10/ 30 for 100mm HB N=ref	1.00		-	[FILL] GRAVEL: fine to coarse, sub-angular to angular, grey and dark grey, with fine to coarse grained sand, with ballast cobbles.	D	-	0.5m, PID=3.8ppm 0.5m, SPT refusal on ballast 0.7-1.0m, very slow drilling progress - 30minutes to drill with TC-bit.		
									Refusal on highly compacted fill					
	Se	e stano taile of	dard s	heets	for h			2 29 CI	hristie Street, St Leonards NSW 2065 Australia	J	ob N	IO.		
L	&	basis o	f desc	criptio	ons		I: +6 CON	01 2 946 SULTII	D2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS	21-12515105				

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	lient :	Inne	er West	Council				HOLE N	0.	A4	-BH07
	roject :	· Ihe	Green	Way Geote idor, Dulwi	chnica ch ⊔ill	I and C	ontami	ination Services	•-	SHEE	= 1 OF 2
	osition	: 327	937.64	E 6246389	0.22 N N	1GA94/	56	Surface RL: 14 19m AHD Angle from Horiz.: 90	>		Processed : HAI
	ia Type	: SD0	5	Mo	untina	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
	ate Star	ted: 2	2/10/20	019		Dat	te Com	npleted: 22/10/2019 Logged by: JS			Date: 16/01/2020
		DRILL	ING					MATERIAI			Note: * indicates signatures on original issue of log or last revision of log
-		1									
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
				ES SPT 6/5/5 N=10 ES	1 00		-	[FILL] Gravelly Silty SAND: fine to coarse grained, dark brown and dark grey, fine to coarse, sub-angular to angular gravel, trace rootlets.	М	-	0.2m, PID=2.9ppm 0.5m, PID=1.8ppm
'-1 - - - - - - - 2			g	SPT 4/6/6 N=12	1.00		- <u>s</u> c	Sandy CLAY: medium plasticity, pale brown mottled pale grey, fine to coarse grained sand (residual).	w > PL	St	1.0m, PID=2.8ppm - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -	TC-bit auger	II	Groundwater Not Encountere	ES SPT 1/6/6 N=12	3.00		- <u>s</u> c	Clayey SAND: fine to coarse grained, pale grey, low plasticity clay (residual).	M	MD	2.5m, PID=3.6ppm
- 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4				SPT 4/7/9 N=16 SPT 4/9/11 N=20	4.50		- <u>s</u> p	SAND: fine to coarse grained, pale grey, with low plasticity clay (residual).	M	MD	- - - - - - - - - - - - - - - - - - -
-5									· · ·	• • •	
S	ee stan	dard s	sheets	for		GH[Level	ر 2 29 Cł	hristie Street, St Leonards NSW 2065 Australia	J	od N	10.
8 8	etalis o basis o	of des	eviatio criptio	ons		T: +6 CON	1 2 946 SULTI	32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

Client : Inner West Council 28/1/20 HOLE No. A4-BH07 Project : The GreenWay Geotechnical and Contamination Services SHEET 2 OF 2 TEMPLATE 2.00.GDT Location: IWLR Corridor, Dulwich Hill, NSW Surface RL: 14.19m Position : 327937.64 E 6246389.22 N MGA94/ 56 AHD Angle from Horiz. : 90° Processed : HAL Rig Type : SD05 Mounting: Ute Contractor : Stratacore Driller : DM Checked : MG Date Started : 22/10/2019 Date Completed : 22/10/2019 Logged by : JS Date: 16/01/2020 ote: * indicates signatures on origi issue of log or last revision of log DRILLING MATERIAL GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_ Depth / (RL) metres Description Comments/ Moisture Condition Samples & Tests Observations **Drilling Method** Consistency / Density Index Hole Support \ Casing JSC Symbol [COBBLES/BOULDERS/FILL/TOPSOIL] then Graphic Log SCALE (m) SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and Water ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects SP SAND: as previous. Μ MD ▲TC-bit auger Ī 5.30 SANDSTONE: pale grey, inferred low strength, moderately to · · · · --highly weathered (bedrock). 5.50 End of borehole at 5.50 metres. Target Depth 6 7 8 9 10 Job No. GHD See standard sheets for Level 2 29 Christie Street, St Leonards NSW 2065 Australia T: +61 2 9462 4700 F: +61 2 9462 4710 E: sInmail@ghd.com GHD

details of abbreviations & basis of descriptions

BOREHOLE LOG SHEET

CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

21-12515105

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07.11.9	Clie	ent:	Inne	er Wes	t Council	obnico		ontomi	HOLE N	о.	A 4	-BH08
	Loc	ation :	: Nes	s Aven	iue, Dulwicł	n Hill, N	ISW	onam			SHEE	ET 1 OF 1
9.0	Pos	sition :	327	806.10	E 6246218	.85 N N	1GA94/	56	Surface RL: 12.14m AHD Angle from Horiz. : 90	0		Processed : HAL
AIE	Rig	Type :	: SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
	Dat	e Start	ted: 2	2/10/2	019		Dat	te Con	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020
			DRILL	ING					MATERIAL			Note: " indicates signatures on original issue of log or last revision of log
פעק פבי					sts	etres			Description	ition		Comments/ Observations
	SCALE (m)	Drilling Methoc	Hole Support \ Casing	Water	Samples & Te	Depth / (RL) m	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Cond	Consistency / Density Index	
		Â		ered		0.01		<u> </u>		<u> </u>	1/	
-		ار ب		ounte	ES		\bigotimes	-	to coarse, sub-angular gravel, trace silt.	М	-	0.2m PID=9.0ppm
102		auge	_	Enco		0.30	XX		FILL] Clayey SAND: fine to coarse grained, dark brown and	м	+	0.3m, reworked
07/10		-bit	Ī	Not E	ES	0.45			pale brown, low plasticity clay, trace fine to medium,			residual
Ϋ́		-TC		ter N		0.60			Clayey SAND: fine to coarse grained, pale brown, low			odour.
				dwa	ח			-	Vplasticity clay (residual).	-	-	0.5m, PID=8.2ppm
P P P	┝	¥		uno.		0.80			weathered (bedrock).	-		
				Ģ					End of borehole at 0.80 metres.			-
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	aet & F	aus of asis o	appr of des	eviatio			T: +6	61 2 946	32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		21	-12515105
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	Client :	Inne	r Wes	t Council	-			HOLE N	0.	A4	-BH09
	ocation	: Bus	Green	Area Dulwi	ch Hill	NSW	ontami	Ination Services		SHEE	ET 1 OF 1
P	Position :	3279	984.37	E 6246710	.26 N N	1GA94/	56	Surface RL: 23.05m AHD Angle from Horiz. : 90	>		Processed : HAL
F	Rig Type	: SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
1	Date Star	ted : 2	2/10/2	019		Dat	te Con	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log
5					s			Description	_		0
	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metre	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Observations
-				ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark grey and brown, fine to coarse, sub-angular to angular gravel, trace rootlets.	М	-	0.2m, PID=1.8ppm
ŀ		E	S/DUP1	_22/10/19	0.00	\bigotimes					0.5m. PID=1.4ppm
- - - - - - - -			untered	SPT 3/3/4 N=7	0.60		SC	Sandy CLAY: medium plasticity, pale brown and orange brown, fine to coarse grained sand (residual).	w > PL	St	1.0m PID=1.4ppm -
-	— TC-bit auger —	Nil	idwater Not Encol	ES				1.2m: pale grey mottled pale brown.			т.оп, г т.– тэрртт - - - - -
Ē			Groun	SPT 2/4/13 N=17	1.00						1 7m_PP=360kPa
- -2 - - -				SPT	2 60			SANDSTONE: red-brown and pale grey, inferred low strength, highly weathered (bedrock).	-	-	
-				25 for 100mm N=ref	2.00			End of borehole at 2.60 metres. Target Depth			-
	ŀ										
<u>+</u> {	; L	I						1	· · ·		
1	See stan	dard s	heets	for		GHI Level	ر 2 29 Cl	hristie Street, St Leonards NSW 2065 Australia	J	od N	ю.
	basis o	of dese	criptic	ons		T: +6 CON	51 2 946 SULTII	32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

BC	DREHO	E LO	g shei	ET							
	ient : oiect :	Inne	er West	t Council	chnica		ontom	HOLE N	0.	A 4	-BH10
	cation	: Bus	hcare /	Area. Dulwi	ch Hill.	NSW	onam	Ination Services		SHEE	ET 1 OF 1
Po	sition	327	995.05	E 6246698	.42 N M	1GA94/	56	Surface RL: 22.86m AHD Angle from Horiz.: 90	>		Processed : HAL
Rig	g Type	: SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
Da	ite Star	ted : 2	2/10/2	019		Dat	te Con	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: " indicates signatures on origin issue of log or last revision of log
(m)	ng Method	sing	er	ples & Tests	th / (RL) metres	ohic Log	Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and POCK NAME: carla size colour, fabric / tayture, inclusions or minor	sture Condition	sistency / sity Index	Comments/ Observations
OS	TC-bit auger Dril	INI INI	₽ 2/10/1	ие S ES ES SPT 2/8/4 N=12 ES SPT 5/5/4 9 N=9	0.50	Green and a second	SN	components, durability, strength, weathering / alteration, defects [FILL] Gravelly SAND: fine to coarse grained, brown and pale brown, fine to coarse, sub-angular to sub-rounded gravel, with ballast cobbles. [FILL] Clayey Gravelly SAND: fine to coarse grained, pale brown, fine to coarse, sub-angular gravel, low plasticity clay, trace ballast cobbles.	M M	- Cor	0.2m, PID=1.9ppm 0.5m, PID=1.4ppm 1.0m, PID=1.9ppm
				SPT	2.10			SANDSTONE: fine to coarse grained, pale grey, inferred low to medium strength, moderately weathered (bedrock).		-	
- 3				20 for 70mm HB N=ref				Target Depth			
-5											
Se	e stan	dard s	sheets	for		GHI	D		J	ob N	lo.
de	tails o	abbr	eviatio	ons (C		Level T: +6	2 29 C 61 2 946	52 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		21	-12515105
L & I	basis o	of des	criptio	ons 🛛 🖿		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		- 1	12010100

BC	DREHOL	E LOC	SHE	ET							
Cli	ient :	Inne	r Wes	t Council				HOLE N	0.	Δ4	-BH11
	oject :	The	Green	Way Geote	echnical ich ⊔ill	and C	ontami	ination Services	•	SHEF	
Po	sition :	3280	16.20	E 6246647	7.11 NM	GA94/	56	Surface RL: 20.80m AHD Angle from Horiz.: 90	0		Processed : HAI
Rig	g Type	SD0	5	Мо	unting:	Ute		Contractor : Stratacore Driller : DM			Checked : MG
Da	te Star	ed: 2	2/10/2	019		Dat	te Com	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: * indicates signatures on origin issue of log or last revision of log
	po	t		ests	metres			Description	ndition	- ×	Comments/ Observations
SCALE (m)	Drilling Meth	Hole Suppor \ Casing	Water	Samples & T	Depth / (RL)	Graphic Log	USC Symbo	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Co	Consistency Density Inde	
-	Â		ered	ES			-	[FILL] Silty SAND: fine to coarse grained, dark brown, with fine to coarse, sub-angular to angular gravel.	М	-	0.2m, PID=2.7ppm
-	ler		ncounte	FS	0.45			Clavey SAND: fire to correct grained, pale gray and pale	<u> </u>		
-	— TC-bit aug	Ŋ	dwater Not E	SPT 4/4/ 20 for	0.90		30	brown, low plasticity clay (residual).		D	0.5m, PID=2.0ppm
-1 -1			Ground	70mm N=ref ES	1.22	· · · · · · · · · · · · · · · · · · ·		SANDSTONE: pale grey and pale brown, inferred low strength, highly to moderately weathered (bedrock).	-	-	1.0m, PID=2.9ppm
2 2 				20mm N=ref							
-5						<u></u>		1	·		L
Se	e stan	dard s	heets	for		GHI Level	ر 2 29 Cł	hristie Street, St Leonards NSW 2065 Australia	J	od N	ю.
ae &	basis o	aubro of desc	riptic	ons		T: +6 CON	1 2 946 SULTI	32 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

	BOREHOL	ELOC	S SHE	ET								
1170	Client :	Inne	r West	t Council				HOLE N	0.	A4	-BH12	
	Project :	The	Green	Way Geote	echnical	l and C	ontami	nation Services	•	SHEE	T 1 OF 1	
	Position ·	. Busi 328()25 67	F 6246607	2 96 N M	1GA94/	56	Surface RI : 18 98m AHD Angle from Horiz : 90	, ,		Processed · HAI	
	Rig Type	: SD0	5	Мо	unting	Ute		Contractor : Stratacore Driller : DM			Checked : MG	
	Date Star	ted : 2	2/10/2	019		Dat	te Com	npleted: 22/10/2019 Logged by: JS			Date: 16/01/2020	
		DRILL	ING					MATERIAL			Note: * indicates signatures on original issue of log or last revision of log	
5			-									
	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations	
	TC-bit auger	Nij	Broundwater Not Encountered	ES ES SPT 2/2/6 N=8 ES	1.00		-	[FILL] Silty SAND: fine to coarse grained, dark brown, trace fine to coarse, sub-angular to angular gravel, trace rootlets.	M	-	0.2m, PID=3.4ppm 	
	2		O	SPT 17 for 40mm HB N=ref	1.14			SANDSTONE: pale grey, inferred low to medium strength, moderately to slightly weathered (bedrock). End of borehole at 1.14 metres. Target Depth	-	-	- - - - - - - - - - - - - - - - - - -	
	5										-	
	See stan details of & basis o	Access standard sheets for etails of abbreviations basis of descriptions GHD Level 2 29 Christie Street, St Leonards NSW 2065 Australia Job No. CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS 21-12515105										

B	OREHO	LE LOO	SHEE	ET							
C	lient :	Inne	er West	Council				HOLE N	0.	A 4	-HAC01
	ocation	: Bus	hcare A	Area Dulwi	ch Hill	NSW	ontarn	Ination Services		SHEE	ET 1 OF 1
P	osition	328	005.29	E 6246672	.66 N N	/IGA94/	56	Surface RL: 21.68m AHD Angle from Horiz.: 90	0		Processed : HAL
R	ig Type	: SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
D	ate Star	ted : 2	2/10/20	019		Dat	te Con	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020
		DRILL	ING					MATERIAL			issue of log or last revision of log
E (m)	g Method	support Jg		es & Tests	/ (RL) metres	ic Log	Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components. zoning (origin) and	Ire Condition	stency / y Index	Comments/ Observations
SCALI	Drilling	Hole S \ Casir	Water	Sampl	Depth	Graph	- NSC 8	ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects [FILL] Silty SAND: fine to coarse grained, dark grey, with fine	⊠ Moistu	- Consis Densit	
-				ES				to coarse, sub-angular gravel, trace glass and brick.			0.2m, PID=2.2ppm
-				ES							0.5m, PID=2.4ppm 0.5m, SPT attempted but refused on ballast.
1 - - - -	— TC-bit auger	Nii		SPT 3/2/7 N=9	1.35		- <u>s</u> c	Sandy CLAY: low plasticity, pale grey mottled red-brown, fine to coarse grained sand (residual).	w > PL	St	1.0m, PID=2.3ppm
- -2 - -		2	⊻ 2/10/1	ES _					w		2.0m, PID=2.6ppm
- - -3 -				ES SPT <u>30 for</u> 30mm HB N=ref	3.00 3.10			SANDSTONE: pale grey and red-brown, inferred low to medium strength, moderately weathered. End of borehole at 3.10 metres. Target Depth	-		3.0m, PID=2.2ppm
Ŀ		<u> </u>							L		
s	ee stan	dard s	heets	for		GH	D	brietie Street St. eenerde NOW 2005 Aust "	J	ob N	lo.
d	etails o	f abbr	eviatio	ons C	E C	Level T: +6	2 29 C 61 2 946	62 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		21	-12515105
L&	basis o	ot des	criptio	ns 🛛 🗖		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS			

В	OREHO	LE LOO	G SHE	ET							
CI	ient :	Inne	er West	t Council				HOLE N	о.	A 4	-HAC02
	oject :	Ine • Bus	Green	Way Geote Area Dulwi	chnica	I and C	ontam	Ination Services		SHEE	ET 1 OF 1
Po	sition :	328	024.34	E 6246620).55 N M	1GA94/	56	Surface RL: 19.72m AHD Angle from Horiz. : 90	>		Processed : HAL
Ri	g Type	: SD0	5	Мо	unting	: Ute		Contractor : Stratacore Driller : DM			Checked : MG
Da	ate Star	ted: 2	2/10/2	019		Dat	te Con	npleted : 22/10/2019 Logged by : JS			Date: 16/01/2020
1		DRILL	ING					MATERIAL			issue of log or last revision of log
(thod	ort		k Tests	L) metres	bo	pod	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then	Condition	cy / dex	Comments/ Observations
SCALE (m	Drilling Me	Hole Supp \ Casing	Water	Samples 8	Depth / (R	Graphic Lo	USC Syml	SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture C	Consistene Density Inc	
-				ES			-	[FILL] Silty SAND: fine to coarse grained, dark brown, trace fine to coarse, sub-angular to angular gravel, trace rootlets.	М	-	0.2m, PID=1.9ppm
-			ered	ES	0.30			[FILL] Clayey SAND: fine to coarse grained, dark brown, low plasticity, trace fine to coarse, sub-angular gravel.	M		0.5m, PID=2.3ppm
- - -	— TC-bit auger	Nil	Idwater Not Encounte	SPT 2/2/2 N=4 ES							
-			Groun		1.30		-sc	Clayey SAND: fine to coarse grained, pale grey, low plasticity clay (residual).	M	MD	1.0m, PID=2.0ppm
ŀ	V			SPT 30 for	1.50 1.60	· <u>/·/</u> ·		SANDSTONE: pale grey and pale brown, inferred low strength, moderately weathered (bedrock).			1.5m, PID=2.4ppm
- - -2 -				100mm N=ref				End of borehole at 1.60 metres. Target Depth			
- - - -3 -											
-											
S	e stan	dard s	heets	for		GHI)	hristia Straat St.Laanarda NSW 2005 Australia	J	ob N	lo
de ହ	etails of basis d	f abbr	eviatio	ons C	НD	T: +6	2 29 01 61 2 946	52 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		21	-12515105
ľ	NU313 (- uca	- pul			CON	SULII	ING GEOTECHNICAL ENGINEERS AND GEOLOGISTS	1		

ВО	REHO	E LOO	SHE	ET							
	ent:	Inne	er Wes	st Council	chnical	and C	ontomi	HOLE N	0.	A 4	-HAC03
	cation	: IWI	R Cor	ridor Dulwi	ch Hill	NSW	onam	Ination Services		SHEE	ET 1 OF 1
Po	sition	328	048.75	E 6246572	2.48 N N	IGA94/	56	Surface RL: 21.54m AHD Angle from Horiz.: 90	°		Processed : HAL
Rig	g Type	: Hand	d auger	Мо	unting	NA		Contractor : NA Driller : NA			Checked : MG
Da	te Star	ted : 2	2/10/2	2019		Da	te Con	hpleted : 22/10/2019 Logged by : JW			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: " indicates signatures on origina issue of log or last revision of log
	75			sts	letres			Description	lition		Comments/ Observations
SCALE (m)	Drilling Methoo	Hole Support \ Casing	Water	Samples & Te	Depth / (RL) m	Graphic Log	USC Symbol	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Cond	Consistency / Density Index	
					0.20		-	[FILL] GRAVEL: pale brown, with ballast cobbles, with fine to coarse grained sand.	D	-	0.0m, No odour, no staining.
			red	ES	0.20			[FILL] Gravelly SAND: medium to coarse grained, dark brown, with ballast and sandstone cobbles.	M		0.2m, PID=0.7ppm No odour, no staining.
			untei	ES/QA13	0.60	\bigotimes					0.5m, PID=1.0ppm
-	— Hand Auger —	Nil	twater Not Enco		. 0.00		СН	CLAY: high plasticity, orange with brown and red mottles, trace gravel (residual).	w = PL	-	0.6m, No odour, no staining.
-1 - -			Ground	ES							1.0m, PID=1.5ppm
				ES	1.50			End of boxeholo at 1.50 metros			1 5m DID=1 7mm
- 2 - 2 2 								Target Depth			1.5m, РЮ= 1.7ppm
Se	e stan	dard s	heets	s for	_	GH	D		J	ob N	l o.
de	tails o	fabbr	eviati	ons C	HD	Level T: +6	2 29 Cl 31 2 946	hristie Street, St Leonards NSW 2065 Australia 52 4700 F: +61 2 9462 4710 E: sInmail@ghd.com		21	-12515105
&	basis	of des	criptio	ons 🛛 🎽		CON	SULTI	NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		2	-12313103

BC	DREHO	LE LOO	g shee	ET							
8/1/20	ient :	Inne The	er West	t Council	obniac	and O	ontor	HOLE N	о.	A 4	-HAC04
	cation	• IWI	R Corr	idor Dulwi	ch Hill	NSW	ontarn	Ination Services		SHEE	ET 1 OF 1
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	sition	: 328	046.37	E 6246546	6.94 N N	IGA94/	56	Surface RL: 21.62m AHD Angle from Horiz. : 90	0		Processed : HAL
Rig	g Type	: Hand	d auger	Мо	unting	NA		Contractor : NA Driller : NA			Checked : MG
Da	ite Stai	ted : 2	2/10/2	019		Dat	te Con	npleted : 22/10/2019 Logged by : JW			Date: 16/01/2020
		DRILL	ING					MATERIAL			Note: " indicates signatures on origina issue of log or last revision of log
Y.GPJ GHD_GE	ethod	ort		k Tests	L) metres	bo	lod	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then	Condition	cy / dex	Comments/ Observations
05-I HEGREENWA SCALE (m	Drilling Me	Hole Supp \ Casing	Water	Samples 8	Depth / (R	Graphic Lo	USC Syml	SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture C	Consisten Density In	
16162112 /				ES	0.20		-	[FILL] Sandy GRAVEL: fine to coarse, sub-angular to angular, grey, medium to coarse grained sand, with ballast cobbles.	D	-	0.0m, No odour, no staining.
ULE_AS1/26 201			ed	FS	0.20			[FILL] GRAVEL: fine to coarse, sub-angular to angular, grey, with ballast cobbles, trace fine to coarse grained sand.	D	-	0.2m, PID=4.2ppm No odour, no staining.
	Auger		lot Encounter		0.50		CL	CLAY: low plasticity, mottled red and grey (residual).	w < PL	-	0.5m, PID=3.2ppm
-	Hand		undwater N	ES							0.8m, No odour, no staining.
-			Gro								1.0m, PID=1.8ppm
-				ES	1.50						
-								End of borehole at 1.50 metres. Target Depth			1.5m, PID=1.4ppm
-2 - -											
-											
-											
- -3											
-											
-											
						<u></u>	`			oh t	
Se	e star	idard s if abbr	sneets eviatio				2 29 ÇI	hristie Street, St Leonards NSW 2065 Australia	J	UD N	
&	basis	of des	criptio	ons		I: +6 CON	51 2 946 SULTI	D2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105

BC	REHO	E LOC	SHE	ET							
Cli	ient :	Inne	r Wes	t Council						٨٨	
Pro	oject :	The	Green	Way Geote	chnica	l and C	ontami	nation Services	0.		
Lo	cation	: Hero	cules S	Street, Dulw	ich Hill	, NSW	50	Ourface Dia 44.00 AUD Augle from Usels of		SHE	
PO	SITION	327	911.84	E 6246375	0.37 N N	1GA94/	56	Surface RL: 14.69m AHD Angle from Horiz.: 90)°		Processed : HAL
	to Star		2/10/2	010	unung	. INA Dat	o Con	Differ NA Differ NA			Date: 16/01/2020
			2/10/2	.013		Dai	e con				Note: * indicates signatures on origin
		DRILL	ING	1				MATERIAL		-1	issue or log or last revision or log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	Hand Auger	Zil	Groundwater Not Encountered	ES			-	[FILL] SAND: fine grained, brown, with ballast cobbles, trace gravel and clay.	D	-	0.0m, No odour, no staining. 0.2m, PID=1.5ppm 0.5m, PID=1.1ppm
-1 - - - - - - - - - - - - - - - - - -								End of borehole at 1.00 metres. Target Depth			1.0m, PID=1.7ppm
							`	1			
Se	e stan	dard s	neets	tor		GHL Level	ر 2 29 Cl	nristie Street, St Leonards NSW 2065 Australia	J	n au	NU.
& I	basis (of desc	criptio	ons	2	T: +6 CON	1 2 946 SULTII	i2 4700 F: +61 2 9462 4710 E: sInmail@ghd.com NG GEOTECHNICAL ENGINEERS AND GEOLOGISTS		21	-12515105



Inner	West	t Council				HOLE N	0	Δ4	-HAC06
The C	Green	Way Geote	echnical	and C	ontamii	nation Services	0.		
3278	11es 5 78 58	E 6246363		GA94/	56	Surface RI : 14 03m AHD Angle from Horiz : 90	>		
• Hand	auger	Mo	untina	NA	00	Contractor : NA Driller : NA			Checked : MG
ted : 22	/10/2	019		Dat	te Com	pleted : 22/10/2019 Logged by : JW			Date: 16/01/2020
						MATEDIAI			Note: * indicates signatures on origina issue of log or last revision of log
Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
Ni	Groundwater No Encountered	ES A14/QA15	0.60			[FILL] SAND: fine grained, brown, with clay, trace gravel, trace rootlets. [FILL] Silty SAND: fine grained, brown.		-	0.0m, No odour, no staining. 0.2m, PID=1.0ppm 0.5m, PID=2.2ppm 0.6m, No odour, no staining, brick fragments.
		ES	1.00			End of borehole at 1.00 metres. Target Depth			1.0m, PID=1.9ppm
dard sh	neets	for C	Ŧ	GHI Level	D 2 29 Ch 1 2 29 Ch	ristie Street, St Leonards NSW 2065 Australia 2 4700 F: 161 2 9462 4710 F: sinmail@rdpd.com	J	ob N	lo.
	The C 3278 Hand ted : 22 DRILLIT Liod disagned Hole Single Card and a dard sh f abbree	The Green 327878.58 Hand auger ted : 22/10/2 DRILLING Hole Sound Auguster Nogle Connotwater Nogle Groundwater Nogle Hole Sound Auguster Nogle Connotwater	The GreenWay Geote Hercules Street, Dulw 327878.58 E 6246363 Hand auger Mo ted : 22/10/2019 DRILLING Luddh Bues Solution Luddh Sheets for fabbreviations	The GreenWay Geotechnical Hercules Street, Dulwich Hill, 327878.58 E 6246363.07 NM Hand auger Mounting: ted : 22/10/2019 DRILLING TUO DI LING TUO DI LING TUO DI LING TUO DI LING TUO DI LING TUO DI LING ES 1 0.60 ES 1.00 Company ES 1.00 Company Co	The GreenWay Geotechnical and C Hercules Street, Dulwich Hill, NSW 327878.58 E 6246363.07 NMGA94/ Hand auger Mounting: NA ted : 22/10/2019 Dat DRILLING Fibbreviations Caard sheets for Fabbreviations	The GreenWay Geotechnical and Contami Hercules Street, Dulwich Hill, NSW 327878.58 E 6246363.07 NMGA94/56 Hand auger Mounting: NA ted : 22/10/2019 Date Com DRILLING TUDDING TUDDING TUDDING TE TUDING TE TE TUDING TE TE TE TE TE TE TE TE TE T	The GreenWay Coolechnical and Containation Services POLLEN 327878.58 E 6246383.07 NMGA94/56 Surface RL: 14.93m AD Angle from Horiz: 190 Contractor: NA Driller: NA Contractor: NA Contractor:	The CreateWay Geotechnical and Contamination Services Proceedings	The Creative Store (and Contamination Services Transmission (Contamination Services Store) (Contamination (Contamination Services Store) (Contamination (Contaminatio)))))))))))))))))))))



BOREHOLE LOG	G SHEET			
Client : Inne	er West Council	HOLE N	ο Δ 4	
Project : The	GreenWay Geotechnical and Co	tamination Services		
Location : lerra	ace Road, Dulwich Hill, NSW	Surface DI : 12.75m AUD Angle from Heriz : 00°		
Rig Type : SD05	5 Mounting: Lite	Contractor : Stratecore Driller : DM		Checked : MG
Date Started : 2	1/10/2019 Date	Completed · 21/10/2019 Logged by : .IS		Date: 16/01/2020
				Note: * indicates signatures on origin
		MATERIAL		
SCALE (m) Drilling Method Hole Support \ Casing	Water Samples & Tests Depth / (RL) metre Graphic Log	Description Image: Complexity of the comple	Moisture Condition Consistency / Densitv Index	Comments/ Observations
- E	S/DUP1_22/10/19	[TOPSOIL] Sandy SILT: dark grey and dark brown, fine to coarse grained sand, trace fine to medium, sub-angular (gravel, trace rootlets. [FILL] Silty SAND: fine to coarse grained, dark grey and dark brown, with fine to medium, sub-angular gravel, trace clay, trace glass, metal, concrete.	<u>M</u> - M -	0.2m, PID=5.5ppm 0.5m, PID=4.9ppm
- 1 - 1 	8/6/3 N=9 ESS 1.50			1.0m, PID=3.1ppm
- TC-bit aug	SPT 1/1/1 N=3 ES 2.00	- [FILL] SAND: fine to coarse grained, pale brown and brown, trace silt, trace fine gravel. 	M - M MD	2.0m, PID=6.6ppm
- 2	⊈ ESS 1/10/19 SPT 3.20			3.0m, PID=7.0ppm
-4	2/ 3.30 ···· 12 for 150mm HB N=ref	- SANDSTONE: pale grey, moderately weathered, inferred low strength (bedrock). End of borehole at 3.30 metres. Target Depth		
See standard s details of abbre	cheets for eviations GHD Level 2 T: +61	29 Christie Street, St Leonards NSW 2065 Australia 2 9462 4700 F: +61 2 9462 4710 E: shmail@ahd.com	Job	No.
See standard s details of abbre & basis of desc	cheets for eviations criptions	29 Christie Street, St Leonards NSW 2065 Australia 2 9462 4700 F: +61 2 9462 4710 E: slnmail@ghd.com JLTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS	Job M 21	No. 1-1:

	ES		G SHEE	Γ						
C	Client: Inner West Council				incil		HOI F	N٥	Δ	4-TP01
P	ro	ject:	The Gr	reenWay	Geotechn	ical and C	Contamination Services		. /	
L	oc	ation:	Sydney	/ Trains C	Corridor, D	ulwich Hi	II, NSW	SHE	ET	1 OF 1
Ρ	os	ition:	327849	9.80 E 6	246287.30	N N	MGA94/ 56 Surface RL: 13.62m A	HD		Processed: HAL
Μ	let	hod of	Explor	ation:	3t Exc	avator	Hole Size: 1.0m x 0.3m			Checked: MG
D	at	e:	29/11/1	9			Logged by: LM	1	1	Date: 16/01/2020
Scale (m)	Water	Vatel	& Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on origin issue of log or last revision of log Comments Observations
-		ES	6/QA50			-	[FILL] Silty SAND: fine to coarse grained, brown, with boulders and cobbles, trace fine to coarse, sub-angular gravel.	-	-	0.2m PID=3.3nnm
-			(1 01)	0.30				-		0.3m possible ACM
-	dwater Not Encountered	ES	(ACM)			-	[FILE] Safity GRAVEL. The to coarse, sub-angular to sub-rounded, brown, grey and pale brown, fine to coarse grained sand, with sandstone cobbles and boulders, with clay.	-	-	0.5m, PID=3.7ppm
-1 - - -			ES B	1.70						1.0m, PID=3.7ppm
- - -2 - -		0100		1.70		- ci -	CLAY: medium plasticity, yellow mottled orange, with fine to coarse grained sand (residual).	w> PL	(F)	 T.7m, consistency inferred from tactile assessment. Om, PID=4.2ppm
- - - -3-			B S ES	2.70 <u>3.00</u>		- sc -	Sandy CLAY: medium plasticity, yellow mottled orange, fine to medium grained sand, trace fine to medium, rounded gravel (residual). End of test pit at 3 metres. Target Depth.	w > PL	(St)	2.9m, hard digging. 3.0m, PID=5.0ppm
-										
S	ee	standar	d sheet	s for		GHD	29 Christie Street St Leonards NSW 2065 Australia		Job	No.
de &	eta ba	uls of ab asis of d	obreviati escripti	ions ons	GHD	T: +61 CONSI	2 9462 4700 F: +61 2 9462 4710 E: sinmail@ghd.com JLTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS		2	21-12515105



A4-TP01 - 1 Depth Range: 0.00 m



	Inner West Counsil	H. Warr	DATE 31/01/2020	
GHD	The GreenWay Geotechnical and Contamination Services Sydney Trains Corridor, Dulwich Hill NSW Test pit Photographs	CHECKED J. Scognamiglio	DATE 31/01/2020	
GIND		SCALE Not To S	cale	A4
		PROJECT No 21-12515105	FIGURE No A4-TP01 1/3	



A4-TP01 - 3 Depth Range: 0.00 m



A4-TP01 - 4 Depth Range: 0.00 m

	Inner West Council	DRAWN H. Warr	DATE 31/01/2020	
GHD		CHECKED J. Scognamiglio	DATE 31/01/2020	
GIND	Sydney Trains Corridor, Dulwich Hill NSW	SCALE Not To Scale		A4
	Test pit Photographs	PROJECT № 21-12515105	FIGURE № A4-TP01 2/3	



A4-TP01 - 5 Depth Range: 0.00 m

		DRAWN H. Warr	DATE 31/01/2020	
GHD	Inner West Council	CHECKED J. Scognamiglio	DATE 31/01/2020	
GIL	Sydney Trains Corridor, Dulwich Hill NSW	SCALE Not To S	cale	A4
	Test pit Photographs	PROJECT № 21-12515105	FIGURE № A4-TP01 3/3	

	-51	PIT LOG SH	EET								
C	Client: Inner West				ncil	^					
P	Project:		The GreenWay Geotechnical and Contamination Services					NU .	, AT-11 VZ		
L	oca	tion: Syd	dney	Trains C	Corridor, D	ulwich Hi	II, NSW	SHEE	T	1 OF 1	
P	osit	t ion: 32 ⁻	7850	0.50 E 62	246290.00	N N	MGA94/56 Surface RL: 13.99m AH	ID		Processed: HAL	
м	eth	od of Exp	lora	ation:	3t Exc	avator	Hole Size: 1.0m x 0.3m			Checked: MG	
D	ate	29/1	11/19)			Logged by: LM			Date: 16/01/2020	
Scale (m)	Water	Samples & Tests		Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on origina issue of log or last revision of log Comments Observations	
-	Not Encountered	E	з в з	0.70		-	[FILL] Silty SAND: fine to coarse grained, brown, with sandstone cobbles and boulders, trace fine to coarse, sub-angular gravel, trace glass and brick.	М	-	0.2m, PID=2.7ppm 0.5m, PID=3.1ppm	
- - -1 - -	Groundwater	E	зs в	1 40		_	[FILL] Sandy GRAVEL. The to coarse, sub-angular to sub-rounded, brown, grey and pale brown, fine to coarse grained sand, with sandstone cobbles and boulders, with clay.	-	-	0.8m, voids between boulders 1.0m, PID=2.8ppm	
							End of test pit at 1.4 metres. Target Depth.				
Se de 8	See standard sheets for details of abbreviations & basis of descriptions & CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS 41-12						No. 21-12515105				



A4-TP02 - 1 Depth Range: 0.00 m



A4-TP02 - 2 Depth Range: 0.00 m

	Inner West Council The GreenWay Geotechnical and Contamination Services Sydney Trains Corridor, Dulwich Hill NSW Test pit Photographs	H. Warr	DATE 31/01/2020	
GHD		CHECKED J. Scognamiglio	DATE 31/01/2020	
GIL		SCALE Not To Scale		
		PROJECT No 21-12515105	FIGURE № A4-TP02 1/2	



A4-TP02 - 3 Depth Range: 0.00 m

	Inner West Council he GreenWay Geotechnical and Contamination Services	DRAWN H. Warr	DATE 31/01/2020	
GHD		CHECKED J. Scognamiglio	DATE 31/01/2020	
GIND	Sydney Trains Corridor, Dulwich Hill NSW	SCALE Not To S	cale	A4
	Test pit Photographs	PROJECT № 21-12515105	FIGURE № A4-TP02 2/2	