



TP07

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	7
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP08**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **01 May 2014**

date completed: **01 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704761; N: 6085255 (WGS84 Zone 55) surface elevation : 615.48m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 2.2 m long 0.2 m wide DCP id.:

excavation information						material substance									
method	support	penetration		water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
<															

method

N natural exposure
X existing excavation
BH backhoe bucket
B bulldozer blade
R ripper
E excavator

support

N none
S shoring

penetration

no resistance ranging to refusal
water
10-Oct-12 water level on date shown
water inflow
water outflow

samples & field tests

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

classification symbol & soil description based on Unified Classification System

moisture

D dry
M moist
W wet
W_p plastic limit
W_L liquid limit

consistency / relative density

VS very soft
S soft
F firm
St stiff
VSt very stiff
H hard
Fb friable
VL very loose
L loose
MD medium dense
D dense
VD very dense



TP08

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	8
original size	A4				rev:	

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: ***Ellerton Drive Extension***

location: **Queanbeyan NSW**

Excavation ID. **TP09**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **01 May 2014**

date completed: **01 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704823; N: 6085107 (WGS84 Zone 55)

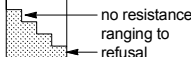
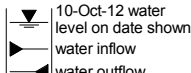
surface elevation : 617.57m (AHD)

pit orientation:

equipment type: 6 Tonne Excavator

excavation method: Excavator

excavation dimensions: 1.4 m long 0.4 m wide DCP id.:

excavation information								material substance										
method	support	penetration			water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations		
E	N	1	2	3	None Observed	BX2	-617.5			CL	Sandy CLAY: low plasticity, pale brown, fine grained sand.	<Wp	F			COLLUVIUM		
							-617.0	0.5			SHALE: grey, highly weathered, low to medium strength.					BEDROCK		
							-616.5	1.0			Test pit TP09 terminated at 0.7 m Refusal on Bedrock							
							-616.0	1.5										
							-615.5	2.0										
							-615.0	2.5										
							-614.5	3.0										
							-614.0	3.5										
method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring					penetration  water 			samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal				classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet Wp plastic limit Wl liquid limit				consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense		



TP09

CDF_0_9_04BA.GLB GrfCtDl COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH09703AA.GPJ <<DrawingFile>> 20/06/2014 16:04

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	9
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP10**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **01 May 2014**

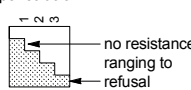
date completed: **01 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704851; N: 6085054 (WGS84 Zone 55) surface elevation : 621.23m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.5 m long 0.5 m wide DCP id.:

excavation information							material substance									
method	support	penetration			water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
↑ E ↓	N	1	2	3	None Observed	BX2	-621.0	0.5		CL	Sandy CLAY: low plasticity, pale brown, fine grained sand, with some fine to medium grained, sub-angular gravel.	<Wp	F	100	5	COLLUVIUM
		St to VSt	200	10												
		H to Fb	300	15												
							-620.5	1.0						400	20	
							-620.0	1.5								
							-619.5	2.0			Test pit TP10 terminated at 1.9 m Bucket Refusal					
							-619.0	2.5								
							-618.5	3.0								
							-618.0	3.5								
							-617.5									

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring	penetration  no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP10

CDF_0_9_04BA.GLB GrfCtBd COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:04

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	10
original size	A4				rev:	

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP11**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **15 May 2014**

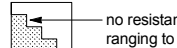
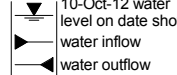
date completed: **15 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704865; N: 6085028 (WGS84 Zone 55) surface elevation : 623.24m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1							TOPSOIL: Sandy SILT: low liquid limit, dark brown, fine grained sand.	<Wl				TOPSOIL
		2			-623.0	0.5		CL	Gravelly CLAY: low plasticity, orange, fine to medium grained, angular gravel.	<Wp	VSt			COLLUVIUM
		3			-622.5	1.0				H to Fb				
					-622.0	1.5			SHALE: grey, highly weathered, low to medium strength.					BEDROCK
					-621.5	2.0			Test pit TP11 terminated at 1.5 m Refusal on Bedrock					
					-621.0	2.5								
					-620.5	3.0								
					-620.0	3.5								
					-619.5									

method	penetration	samples & field tests	classification symbol & soil description	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 water 	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
support N none S shoring				



TP11

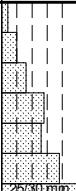
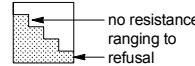
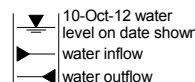
drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	11
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**
 principal: **Queanbeyan City Council**
 project: **Ellerton Drive Extension**
 location: **Queanbeyan NSW**

Excavation ID. **TP12**
 sheet: 1 of 1
 project no. **GEOTFYSH9703AA**
 date excavated: **15 May 2014**
 date completed: **15 May 2014**
 logged by: **BC**
 checked by: **DB**

position: E: 704879; N: 6085001 (WGS84 Zone 55) surface elevation : 621.47m (AHD) pit orientation:
 equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 2.1 m long 0.4 m wide DCP id.:

excavation information						material substance								
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
↑ N ↓ E	N	1 2 3	None Observed	D D	-621.0	0.5		CL	Sandy CLAY: low plasticity, pale brown, fine grained sand. Becoming orang-brown, with some fine to medium grained, angular gravel	<Wp	St to VSt H to Fb	100 200 300 400		COLLUVIUM
					-620.5	1.0								
					-619.5	2.0			Test pit TP12 terminated at 1.7 m Bucket Refusal					
					-619.0	2.5								
					-618.5	3.0								
					-618.0	3.5								
					-617.5									
method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring				penetration  water  10-Oct-12 water level on date shown water inflow water outflow		samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal				classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit			consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense	



TP12

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	12
original size	A4				rev:	

Engineering Log - Excavation

Excavation ID.	TP13
sheet:	1 of 1
project no.	GEOTFYSH9703AA
date excavated:	15 May 2014
date completed:	15 May 2014
logged by:	BC
checked by:	DB

client: **Opus International Consultants Pty Ltd**
principal: **Queanbeyan City Council**
project: **Ellerton Drive Extension**
location: **Queanbeyan NSW**

Dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information				material substance										
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
↑ N ↓ E	1 2 3	None Observed		BX2	-623.0	0.5		CL	TOPSOIL: Sandy SILT : low liquid limit, dark brown, fine grained sand.	<Wp				TOPSOIL
								H to Fb				COLLUVIUM		
					-622.5	1.0		CL	Gravelly CLAY : low plasticity, red-brown, fine to medium grained, angular gravel.					
					-622.0	1.5								
					-621.5	2.0		CL	Silty CLAY : low plasticity, pale grey, high plasticity clay fines with some rootlets.					
					-621.0	2.5								
					-620.5	3.0			with some coarse grained angular shale gravel					
					-620.0	3.5			Test pit TP13 terminated at 3.4 m Target depth					
					-619.5									

method

N natural exposure
X existing excavation
BH backhoe bucket
B bulldozer blade
R ripper
E excavator

support

N none
S shoring

penetration

no resistance
ranging to
refusal

water

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

samples & field tests

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

classification symbol & soil description
based on Unified Classification System

moisture

D dry
M moist
W wet
W_p plastic limit
W_L liquid limit

consistency / relative density

VS very soft
S soft
F firm
St stiff
VSt very stiff
H hard
Fb friable
VL very loose
L loose
MD medium dense
D dense
VD very dense



TP13

CDF_0_9_04BA.GLB GrfCtB1 COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:04

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	13
original size	A4				rev:	

Engineering Log - Excavation

Excavation ID.	<i>TP14</i>
sheet:	1 of 1
project no.	<i>GEOTFYSH9703AA</i>
date excavated:	<i>02 May 2014</i>
date completed:	<i>02 May 2014</i>
logged by:	<i>BC</i>
checked by:	<i>DB</i>

client: **Opus International Consultants Pty Ltd**
principal: **Queanbeyan City Council**
project: **Ellerton Drive Extension**
location: **Queanbeyan NSW**

Dimensions: 1.7 m long 0.4 m wide DCP id.:

excavation information						material substance									
method	support	penetration		water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
↑	N	1	2	3	None Observed				CL	SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components					
↓										Sandy CLAY: low plasticity, brown, fine grained sand.	<Wp	F			COLLUVIUM
							0.5			SANDSTONE: fine grained, grey, highly weathered, low to medium strength.					BEDROCK
							1.0								
							1.5								
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TP14

CDF_0.9_04BA.GLB: Gfctb1 COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:04

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	14
original size	A4				rev:	

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: ***Ellerton Drive Extension***

location: **Queanbeyan NSW**

Excavation ID. **TP15**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **14 May 2015**

date completed: **14 May 2015**

logged by: **BC**

checked by: **DB**

position: E: 704933; N: 6084689 (WGS84 Zone 55)

surface elevation : 639.19m (AHD)

pit orientation:

equipment type: 13 Tonne Excavator

excavation method: Excavator

excavation dimensions: 1.3 m long 0.4 m wide DCP id.:

excavation information					material substance																																																																																																																																																																																																																																																																																																																																																			
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations																																																																																																																																																																																																																																																																																																																																										
N	Z	1	2	3	water	None Observed	BX2	-639.0		CL	Gravelly CLAY: low plasticity, brown, fine to medium grained, angular gravel.	<Wp	St to VSt	100	200	300	400	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000	1005	1010	1015	1020	1025	1030	1035	1040	1045	1050	1055	1060	1065	1070	1075	1080	1085	1090	1095	1100	1105	1110	1115	1120	1125	1130	1135	1140	1145	1150	1155	1160	1165	1170	1175	1180	1185	1190	1195	1200	1205	1210	1215	1220	1225	1230	1235	1240	1245	1250	1255	1260	1265	1270	1275	1280	1285	1290	1295	1300	1305	1310	1315	1320	1325	1330	1335	1340	1345	1350	1355	1360	1365	1370	1375	1380	1385	1390	1395	1400	1405	1410	1415	1420	1425	1430	1435	1440	1445	1450	1455	1460	1465	1470	1475	1480	1485	1490	1495	1500	1505	1510	1515	1520	1525	1530	1535	1540	1545	1550	1555	1560	1565	1570	1575	1580	1585	1590	1595	1600	1605	1610	1615	1620	1625	1630	1635



TP15

CDF_0_9_04BA.GLB GrfCtDI COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:05

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	15
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP16**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

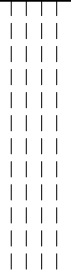
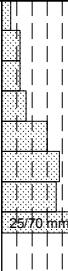
date excavated: **02 May 2014**

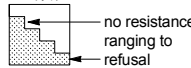
date completed: **02 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704934; N: 6084659 (WGS84 Zone 55) surface elevation : 639.63m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.4 m long 0.4 m wide DCP id.:

excavation information						material substance									
method	support	penetration		water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
↑ E ↓	Z ↓	1	2	None Observed	D	-639.5			CL	Sandy CLAY: low plasticity, pale brown, fine grained sand, with rootlets.	<Wp	St to VSt			COLLUVIUM
			CL			Sandy CLAY: low plasticity, orange, fine grained sand with some fine grained, angular gravel.	H to Fb								
						-639.0	0.5								
						-639.0									
						-639.0									
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						-639.0									
						-639.0									

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	penetration  no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP16

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	16
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP17**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **02 May 2014**

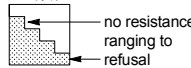
date completed: **02 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704882; N: 6084561 (WGS84 Zone 55) surface elevation : 649.38m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.6 m long 0.4 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1	None Observed					CL	Sandy CLAY: low plasticity, brown, fine grained sand, with rootlets.	<Wp	St to VSt			COLLUVIUM
		2			-649.0	0.5			SANDSTONE: fine grained, grey-brown, highly weathered, low to medium strength.					BEDROCK
		3							Test pit TP17 terminated at 0.6 m Refusal on Bedrock					
					-648.5	1.0								
					-648.0	1.5								
					-647.5	2.0								
					-647.0	2.5								
					-646.5	3.0								
					-646.0	3.5								
					-645.5									

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring	penetration  water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP17

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	17
original size	A4		rev:			

Engineering Log - Excavation

Excavation ID. **TP18**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

client: **Opus International Consultants Pty Ltd**

date excavated: **02 May 2014**

principal: **Queanbeyan City Council**

date completed: **02 May 2014**

project: ***Ellerton Drive Extension***

logged by: **BC**

location: **Queanbeyan NSW**

checked by: **DB**

position: E: 704810; N: 6084497 (WGS84 Zone 55)

surface elevation : 651.45m (AHD)

pit orientation:

equipment type: 13 Tonne Excavator

excavation method: Excavator

excavation dimensions: 1.4 m long 0.4 m wide DCP id.:

excavation information					material substance											
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations		
↑ N ↓	N	1 2 3	None Observed	D	-651.0	0.5		CL	Sandy CLAY: low plasticity, brown, fine grained sand, trace fine grained, angular gravel.	<Wp	St to VSt	100 200 300 400	5 10 15 20	COLLUVIUM		
					-650.5	1.0		SANDSTONE: fine grained, brown-grey, highly weathered, low to medium strength.		VSt to H	25-40 mm	BEDROCK				
					-650.0	1.5			Test pit TP18 terminated at 1.4 m Refusal on Bedrock							
					-649.5	2.0										
					-649.0	2.5										
					-648.5	3.0										
					-648.0	3.5										
					-647.5											
method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring					penetration water 10-Oct-12 water level on date shown water inflow water outflow			samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal			classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet Wp plastic limit WL liquid limit			consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense		



TP18

CDF_0.9_04BA.GLB_Gr/cr/DI_COF_PHOTO TEST PIT PHOTO_1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:11

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	18
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: ***Ellerton Drive Extension***

location: **Queanbeyan NSW**

Excavation ID. **TP19**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **02 May 2014**

date completed: **02 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704711; N: 6084436 (WGS84 Zone 55)

surface elevation : 650.00m (AHD)

pit orientation:

equipment type: 6 Tonne Excavator

excavation method: Excavator

excavation dimensions: 1.5 m long 0.4 m wide DCP id.:

excavation information						material substance											
method	support	penetration			water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations	
		1	2	3										100 200 300 400	5 10 15 20		
↑ ↓ E	N	1	2	3	None Observed		650.0		CL	Sandy CLAY: low plasticity, pale brown, fine grained sand, with some fine grained, sub-angular gravel.	<Wp	F				COLLUVIUM	
						649.5	0.5					SANDSTONE: fine grained, grey, highly weathered, low to medium strength.		St to VSt			
							-649.0	1.0			Test pit TP19 terminated at 0.7 m Refusal on Bedrock					BEDROCK	
							-648.5	1.5									
							-648.0	2.0									
							-647.5	2.5									
							-647.0	3.0									
							-646.5	3.5									

↑
↓
N

↑
↓
X

↑
↓
BH

↑
↓
B

↑
↓
R

↑
↓
E

support

N none

S shoring

↑
↓
1

↑
↓
2

↑
↓
3

no resistance

ranging to

refusal

water

10-Oct-12 water level on date shown

water inflow

water outflow

U## undisturbed sample ##mm diameter

D disturbed sample

B bulk disturbed sample

E environmental sample

HP hand penetrometer (kPa)

N standard penetration test (SPT)

N* SPT - sample recovered

Nc SPT with solid cone

VS vane shearpeak/remoulded (uncorrected kPa)

R refusal

classification symbol & soil description based on Unified Classification System

moisture

D dry

M moist

W wet

W_p plastic limit

W_L liquid limit

consistency / relative density

VS very soft

S soft

F firm

St stiff

VSt very stiff

H hard

Fb friable

VL very loose

L loose

MD medium dense

D dense

VD very dense



TP19

CDF_0_9_04BA.GLB: Gfctb1 COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:11

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	19
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP20**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **14 May 2014**

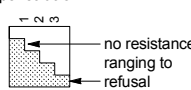
date completed: **14 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704905; N: 6084502 (WGS84 Zone 55) surface elevation : 641.38m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information						material substance								
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
↑ E ↓	N	1	None Observed	BX2				CL	CLAY: low plasticity, pale brown, with rootlets.	<Wp	H to Fb	100	5	COLLUVIUM
								200	10					
		2			-641.0	0.5		CL	Gravelly CLAY: low plasticity, orange-brown, fine to medium grained, angular to sub-angular gravel.			300	15	
		3			-640.5	1.0						400	20	
					-640.0	1.5								
					-639.5	2.0								
					-639.0	2.5								
					-638.5	3.0			Test pit TP20 terminated at 3.0 m Target depth					
					-638.0	3.5								
					-637.5									

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring	penetration  no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP20

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	20
original size	A4		rev:			

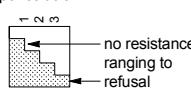
Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**
 principal: **Queanbeyan City Council**
 project: **Ellerton Drive Extension**
 location: **Queanbeyan NSW**

Excavation ID: **TP21**
 sheet: 1 of 1
 project no: **GEOTFYSH9703AA**
 date excavated: **14 May 2014**
 date completed: **14 May 2014**
 logged by: **BC**
 checked by: **DB**

position: E: 704886; N: 6084445 (WGS84 Zone 55) surface elevation : 637.53m (AHD) pit orientation:
 equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information						material substance								
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
↑ N ↓ E	1 2 3		None Observed	BX2	-637.5				TOPSOIL: Clayey SILT: low liquid limit, dark brown.	<Wl		100 200 300 400	5 10 15 20	TOPSOIL
							CL	CLAY: low plasticity, pale grey, trace fine grained, angular gravel.	<Wp	F to St				COLLUVIUM
					-637.0	0.5	CL	Gravelly CLAY: low plasticity, orange, fine grained, sub-angular gravel.	H					
					-636.5	1.0								
					-636.0	1.5		SANDSTONE: fine grained, grey, highly weathered, low to medium strength.			BEDROCK			
					-635.5	2.0			Test pit TP21 terminated at 1.7 m Refusal on Bedrock					
					-635.0	2.5								
					-634.5	3.0								
					-634.0	3.5								

method	penetration	samples & field tests	classification symbol & soil description based on Unified Classification System	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	moisture D dry M moist W wet W _p plastic limit W _L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
support N none S shoring				



TP21

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	21
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP22**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **02 May 2014**

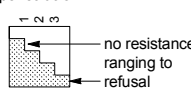
date completed: **02 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704868; N: 6084388 (WGS84 Zone 55) surface elevation : 636.29m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.3 m long 0.4 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1			-636.0	0.5		CL	Sandy CLAY: low plasticity, yellow-brown, fine grained sand with some fine to medium grained, sub-angular gravel.	<Wp	F			COLLUVIUM
		2			-635.5	1.0			SANDSTONE: fine grained, yellow-grey, highly weathered, low to medium strength.		H to Fb			
		3			-635.0	1.5			Test pit TP22 terminated at 1.1 m Refusal on Bedrock					BEDROCK
					-634.5	2.0								
					-634.0	2.5								
					-633.5	3.0								
					-633.0	3.5								
					-632.5									

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	penetration  water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP22

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	22
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP23**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **14 May 2014**

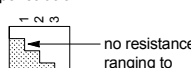
date completed: **14 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704853; N: 6084330 (WGS84 Zone 55) surface elevation : 639.71m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information						material substance									
method	support	penetration		water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
Z	1	2	3	None Observed	BX2	-639.5			CL	Sandy CLAY: low plasticity, brown, fine grained sand.	<Wp	F			COLLUVIUM
									St to VSt						
E						0.5			CH	Silty CLAY: low plasticity, orange, medium plasticity clay, with some fine grained, sub-angular gravel.	H to Fb				25/90 mm
						-639.0				SANDSTONE: fine grained, orange-grey, highly weathered, low to medium strength.					BEDROCK
						-638.5									
						-638.0									
						-637.5									
						-637.0									
						-636.5									
						-636.0									
										Test pit TP23 terminated at 2.2 m Refusal on Bedrock					

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring	penetration  no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP23

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	23
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP24**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **02 May 2014**

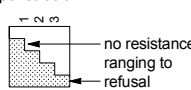
date completed: **02 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704789; N: 6084264 (WGS84 Zone 55) surface elevation : 657.34m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 1.6 m long 0.4 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1						CL	Sandy CLAY: low plasticity, pale brown, fine grained sand, with some fine grained, angular gravel.	<Wp	H to Fb			COLLUVIUM
		2			-657.0	0.5			SANDSTONE: fine grained, grey-brown, highly weathered, low to medium strength.					BEDROCK
		3			-656.5	1.0								
					-656.0	1.5								
					-655.5	2.0								
					-655.0	2.5								
					-654.5	3.0								
					-654.0	3.5								
					-653.5									

method	penetration	samples & field tests	classification symbol & soil description	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



TP24

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	24
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: ***Ellerton Drive Extension***

location: **Queanbeyan NSW**

Excavation ID. **TP25**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **02 May 2014**

date completed: **02 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704891; N: 6084257 (WGS84 Zone 55)

surface elevation : 639.62m (AHD)

pit orientation:

equipment type: 13 Tonne Excavator

excavation method: Excavator

excavation dimensions: 0.0 m long 0.0 m wide DCP id.:

excavation information						material substance									
method	support	penetration		water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	hand penetrometer (kPa) 100 200 300 400	DCP (blows/ 100 mm) 5 10 15 20 25 30 35 40	structure and additional observations
E N		1 2 3	None Observed	D		-639.5				SANDSTONE: fine grained, grey, highly weathered, low to medium strength.					BEDROCK
						-639.0	0.5								
						-638.5	1.0			Test pit TP25 terminated at 0.9 m Refusal on Bedrock					
						-638.0	1.5								
						-637.5	2.0								
						-637.0	2.5								
						-636.5	3.0								
						-636.0	3.5								
method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator		penetration 1 2 3 no resistance refusal water 10-Oct-12 water level on date shown water inflow water outflow		samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal		classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit		consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense							



TP25

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	25
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP26**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **02 May 2014**

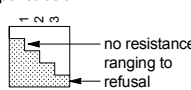
date completed: **02 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704846; N: 6084181 (WGS84 Zone 55) surface elevation : 647.97m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 0.0 m long 0.0 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1	None Observed		-647.5	0.5			SANDSTONE: fine grained, brown/grey, highly weathered, low to medium strength.					
		2			-647.0	1.0			Test pit TP26 terminated at 0.7 m Refusal on Bedrock					
		3			-646.5	1.5								
					-646.0	2.0								
					-645.5	2.5								
					-645.0	3.0								
					-644.5	3.5								
					-644.0									

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	penetration  no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP26

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	26
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP27**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **14 May 2014**

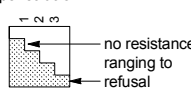
date completed: **14 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704849; N: 6084131 (WGS84 Zone 55) surface elevation : 640.82m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 0.0 m long 0.0 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1	None Observed		-640.5	0.5		GM	Silty GRAVEL: fine to coarse grained, angular, brown. SANDSTONE: fine grained, orange-grey, highly weathered, low to medium strength.	D	F			COLLUVIUM
E		2			-640.0	1.0			Test pit TP27 terminated at 0.6 m Refusal on Bedrock					BEDROCK
		3			-639.5	1.5								
					-639.0	2.0								
					-638.5	2.5								
					-638.0	3.0								
					-637.5	3.5								
					-637.0									

method	penetration	samples & field tests	classification symbol & soil description	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	based on Unified Classification System moisture D dry M moist W wet W_p plastic limit W_L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



TP27

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	27
original size	A4				rev:	

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP28**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **14 May 2014**

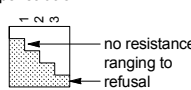
date completed: **14 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704859; N: 6083941 (WGS84 Zone 55) surface elevation : 635.90m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1	None Observed		-635.5	0.5			SANDSTONE: fine grained, orange-grey, highly weathered, low to medium strength.					BEDROCK
					-635.0	1.0			Test pit TP28 terminated at 0.7 m Refusal on Bedrock					
					-634.5	1.5								
					-634.0	2.0								
					-633.5	2.5								
					-633.0	3.0								
					-632.5	3.5								
					-632.0									

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring	penetration  water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP28

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	28
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP29**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **02 May 2014**

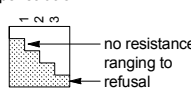
date completed: **02 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704855; N: 6083901 (WGS84 Zone 55) surface elevation : 630.38m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.6 m long 0.4 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1						CL	Sandy CLAY: low plasticity, pale brown, fine grained sand.	<Wp	F			COLLUVIUM
		2							SANDSTONE: fine grained, grey-brown, highly weathered, low to medium strength.		Fb			BEDROCK
		3												
					-630.0	0.5								
					-629.5	1.0			Test pit TP29 terminated at 0.7 m Refusal on Bedrock					
					-629.0	1.5								
					-628.5	2.0								
					-628.0	2.5								
					-627.5	3.0								
					-627.0	3.5								
					-626.5									

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	penetration  no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP29

CDF_0_9_04BA.GLB: Gfctb1 COF PHOTO TEST PIT PHOTO_1 PER PAGE GEOTFYSH09703AA.GPJ <<DrawingFile>> 20/06/2014 16:13

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	29
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP30**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **05 May 2014**

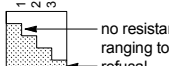
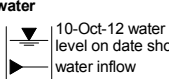
date completed: **05 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704838; N: 6083823 (WGS84 Zone 55) surface elevation : 623.22m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.0 m long 0.4 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1	None Observed		-623.0				TOPSOIL: Sandy SILT: low liquid limit, brown, fine grained sand.	<WI				TOPSOIL
		2				0.5			SANDSTONE: fine grained, pale yellow, highly weathered, low to medium strength.					BEDROCK
		3			-622.5				Test pit TP30 terminated at 0.6 m Refusal on Bedrock					
					-622.0									
					-621.5									
					-621.0									
					-620.5									
					-620.0									
					-619.5									

method	penetration	samples & field tests	classification symbol & soil description based on Unified Classification System	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 no resistance ranging to refusal  10-Oct-12 water level on date shown water inflow water outflow	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	moisture D dry M moist W wet W_p plastic limit W_L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
support N none S shoring				



TP30

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	30
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID: **TP31**

sheet: 1 of 1

project no: **GEOTFYSH9703AA**

date excavated: **05 May 2014**

date completed: **05 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704825; N: 6083786 (WGS84 Zone 55) surface elevation : 618.41m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.7 m long 0.4 m wide DCP id.:

excavation information						material substance												
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations				
E	N	1	None Observed			0.5			TOPSOIL: Sandy SILT : low liquid limit, brown, fine grained sand.	<Wl		100	5	TOPSOIL				
		2							<Wp	St to VSt	200	10	COLLUVIUM					
		3									H to Fb	300			15			
					-618.0	1.0		CL	Sandy CLAY : low plasticity, pale grey, fine grained sand, with some fine grained, angular gravel.			400	20	BEDROCK				
					-617.5	1.5							SANDSTONE: fine grained, grey, highly weathered, low to medium strength.		Test pit TP31 terminated at 1.3 m Refusal on Bedrock			25/60 mm
					-617.0	2.0												
					-616.5	2.5												
					-616.0	3.0												
					-615.5	3.5												
					-615.0													
					-614.5													

method	penetration	samples & field tests	classification symbol & soil description	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 water  10-Oct-12 water level on date shown water inflow water outflow	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
support N none S shoring				



TP31

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	31
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP32**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **05 May 2014**

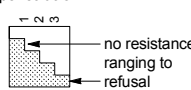
date completed: **05 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704809; N: 6083749 (WGS84 Zone 55) surface elevation : 617.57m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.5 m long 0.4 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1			-617.5			CL	Sandy CLAY: low plasticity, orange, fine grained sand, with some fine grained, angular gravel.	<Wp	St to VSt			COLLUVIUM
		2			-617.0	0.5					H to Fb			
		3							SHALE: grey, highly weathered, low to medium strength.					BEDROCK
									Test pit TP32 terminated at 0.8 m Refusal on Bedrock					
					-616.5	1.0								
					-616.0	1.5								
					-615.5	2.0								
					-615.0	2.5								
					-614.5	3.0								
					-614.0	3.5								

method	penetration	samples & field tests	classification symbol & soil description based on Unified Classification System	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	moisture D dry M moist W wet W _p plastic limit W _L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense



TP32

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	32
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP33**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **05 May 2014**

date completed: **05 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704790; N: 6083714 (WGS84 Zone 55) surface elevation : 614.47m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.0 m long 0.4 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1	None Observed		-614.0	0.5			TOPSOIL: Sandy SILT: low liquid limit, brown, fine grained sand, with rootlets.	<WI		100 200 300 400	10 20 30 40	TOPSOIL
		2							SHALE: grey, highly weathered, low to medium strength.					BEDROCK
		3							Test pit TP33 terminated at 0.6 m Refusal on Bedrock					
					-613.5	1.0								
					-613.0	1.5								
					-612.5	2.0								
					-612.0	2.5								
					-611.5	3.0								
					-611.0	3.5								
					-610.5									

method

N natural exposure
X existing excavation
BH backhoe bucket
B bulldozer blade
R ripper
E excavator

support

N none
S shoring

penetration

 no resistance ranging to refusal

water

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

samples & field tests

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

classification symbol & soil description based on Unified Classification System

moisture

D dry
M moist
W wet
W_p plastic limit
W_L liquid limit

consistency / relative density

VS very soft
S soft
F firm
St stiff
VSt very stiff
H hard
Fb friable
VL very loose
L loose
MD medium dense
D dense
VD very dense



TP33

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	33
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP34**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **05 May 2014**

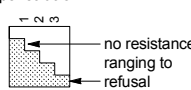
date completed: **05 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704765; N: 6083671 (WGS84 Zone 55) surface elevation : 606.97m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 0.0 m long 0.0 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1						CL	Sandy CLAY: low plasticity, pale brown, fine grained sand, with some fine grained, sub-angular gravel.	<Wp	St to VSt			COLLUVIUM
		2									H to Fb			
		3							SHALE: grey, highly weathered, low to medium strength.					BEDROCK
					-606.5	0.5								
					-606.0	1.0			Test pit TP34 terminated at 0.9 m Refusal on Bedrock					
					-605.5	1.5								
					-605.0	2.0								
					-604.5	2.5								
					-604.0	3.0								
					-603.5	3.5								
					-603.0									

method	penetration	samples & field tests	classification symbol & soil description based on Unified Classification System	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	moisture D dry M moist W wet W _p plastic limit W _L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
support N none S shoring				



TP34

CDF_0_9_04BA.GLB: Gfctb1 COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:23

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	34
original size	A4				rev:	

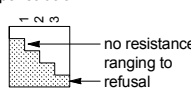
Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**
 principal: **Queanbeyan City Council**
 project: **Ellerton Drive Extension**
 location: **Queanbeyan NSW**

Excavation ID: **TP35**
 sheet: 1 of 1
 project no: **GEOTFYSH9703AA**
 date excavated: **14 May 2014**
 date completed: **14 May 2014**
 logged by: **BC**
 checked by: **DB**

position: E: 704717; N: 6083619 (WGS84 Zone 55) surface elevation: 608.22m (AHD) pit orientation:
 equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information						material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations	
↑ E ↓	N	1	None Observed	BX2	-608.0			GM	Silty GRAVEL: fine to medium grained, angular, brown.	D	L to MD			COLLUVIUM	
		2											25/30 mm	BEDROCK	
		3													
					-607.5	0.5			SHALE: orange-grey, highly weathered, low to medium strength.						
					-607.0	1.0									
					-606.5	1.5									
					-606.0	2.0			Test pit TP35 terminated at 1.8 m Refusal on Bedrock						
					-605.5	2.5									
					-605.0	3.0									
					-604.5	3.5									

method	penetration	samples & field tests	classification symbol & soil description	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
support N none S shoring				



TP35

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	35
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP36**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **14 May 2014**

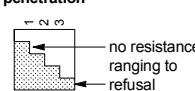
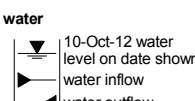
date completed: **14 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704680; N: 6083585 (WGS84 Zone 55) surface elevation : 609.48m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 3.1 m long 1.1 m wide DCP id.:

excavation information				material substance									
method	support	penetration	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1						TOPSOIL: Clayey SILT: low liquid limit, brown.	<WI				TOPSOIL
		2						SHALE: grey, highly weathered, low to medium strength.					BEDROCK
		3						Test pit TP36 terminated at 0.4 m Refusal on Bedrock					
				-609.0	0.5								
				-608.5	1.0								
				-608.0	1.5								
				-607.5	2.0								
				-607.0	2.5								
				-606.5	3.0								
				-606.0	3.5								
				-605.5									

method	penetration	samples & field tests	classification symbol & soil description based on Unified Classification System	consistency / relative density	
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 water 	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	moisture D dry M moist W wet W _p plastic limit W _L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense	
support N none S shoring					



TP36

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	36
original size	A4				rev:	

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP37**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **14 May 2014**

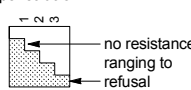
date completed: **14 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704623; N: 6083544 (WGS84 Zone 55) surface elevation : 610.52m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 2.9 m long 1.1 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1			-610.5				TOPSOIL: Clayey SILT: low liquid limit, dark brown, trace fine to medium grained, angular gravel. SHALE: brown-grey, highly weathered, low to medium strength.	<WI			25/30 mm	TOPSOIL
		2			-610.0	0.5								BEDROCK
		3			-609.5	1.0								
					-609.0	1.5								
					-608.5	2.0			Test pit TP37 terminated at 1.6 m Refusal on Bedrock					
					-608.0	2.5								
					-607.5	3.0								
					-607.0	3.5								

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring	penetration  no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP37

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	37
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP38**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **05 May 2014**

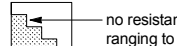
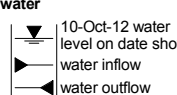
date completed: **05 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704552; N: 6083507 (WGS84 Zone 55) surface elevation : 605.70m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.7 m long 0.4 m wide DCP id.:

excavation information						material substance								
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
↑ E ↓	N	1	None Observed		-605.5	0.5		CL	Sandy CLAY: low plasticity, pale brown, fine grained sand, with some fine to medium grained, sub-angular gravel.	ΔWI	F	100	5	COLLUVIUM
		H to Fb									200	10		
↓		2			-605.0	1.0						300	15	
		3			-604.5	1.5						400	20	
					-604.0				SHALE: grey/brown, highly weathered, low to medium strength.					BEDROCK
					-603.5	2.0			Test pit TP38 terminated at 1.8 m Refusal on Bedrock					
					-603.0	2.5								
					-602.5	3.0								
					-602.0	3.5								

method	penetration	samples & field tests	classification symbol & soil description	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
support N none S shoring				



TP38

CDF_0_9_04BA.GLB GrfCtDI COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:24

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	38
original size	A4				rev:	

Engineering Log - Excavation

Excavation ID.	TP39
sheet:	1 of 1
project no.	GEOTFYSH9703AA
date excavated:	14 May 2014
date completed:	14 May 2014
logged by:	BC
checked by:	DB

client: **Opus International Consultants Pty Ltd**

principal: ***Queanbeyan City Council***

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

position: E: 704516; N: 6083490 (WGS84 Zone 55)

surface elevation : 603.79m (AHD)

pit orientation:

equipment type: 13 Tonne Excavator

excavation method: Excavator

excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information						material substance								
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	hand penetrometer (kPa) 100 200 300 400	DCP (blows/ 100 mm) 5 10 15 20	structure and additional observations
↑ N ↓ E	N	1 2 3	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	CLAY: low plasticity, pale grey-brown.	<Wp	H to Fb	100 200 300 400	5 10 15 20	COLLUVIUM



TP39

CDF_0_9_04BA.GLB GrfCtDI COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:24

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	39
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP40**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

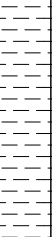
date excavated: **14 May 2014**

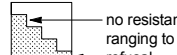
date completed: **14 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704448; N: 6083459 (WGS84 Zone 55) surface elevation : 605.23m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information						material substance									
method	support	penetration		water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description SOIL TYPE: plasticity or particle characteristic, colour, secondary and minor components	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/ 100 mm)	structure and additional observations
↑ N ↓ E ↓	1 2 3			None Observed	D	-605.0	0.5		ML	Clayey SAND: fine grained, reddish-brown, high plasticity clay fines.	M	MD			COLLUVIUM
						-604.5	1.0								
						-604.0	1.5			SHALE: orange-brown, highly weathered, low to medium strength.					BEDROCK
						-603.5	2.0								
						-603.0	2.5			becoming moderately weathered					
						-602.5	3.0			Test pit TP40 terminated at 2.3 m Refusal on Bedrock					
						-602.0	3.5								
						-601.5									

method	penetration	samples & field tests	classification symbol & soil description	consistency / relative density
N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	 no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	based on Unified Classification System	VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
support			moisture	
N none S shoring			D dry M moist W wet W _p plastic limit W _L liquid limit	



TP40

CDF_0_9_04BA.GLB GrfCtB1 COF PHOTO TEST PIT PHOTO 1 PER PAGE GEOTFYSH9703AA.GPJ <<DrawingFile>> 20/06/2014 16:24

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	40
original size	A4				rev:	

Engineering Log - Excavation

Excavation ID. **TP41**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

client: **Opus International Consultants Pty Ltd**

date excavated: **14 May 2014**

principal: **Queanbeyan City Council**

date completed: **14 May 2014**

project: **Ellerton Drive Extension**

logged by: **BC**

location: **Queanbeyan NSW**

checked by: **DB**

position: E: 704362; N: 6083409 (WGS84 Zone 55)

surface elevation : 600.79m (AHD)

pit orientation:

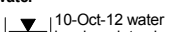
equipment type: 13 Tonne Excavator

excavation method: Excavator

excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

[illegible]

CDP_0_9_04BA.GLB Log COF EXCAVATION + PSP/DCP GEOTFYSH09703AA.GPJ <<DrawingFile>> 27/06/2014 15:42

method	penetration	samples & field tests	classification symbol & soil description based on Unified Classification System	consistency / relative density
N natural exposure	 no resistance ranging to refusal	U## undisturbed sample ##mm diameter	D dry	VS very soft
X existing excavation		D disturbed sample	M moist	S soft
BH backhoe bucket		B bulk disturbed sample	W wet	F firm
B bulldozer blade		E environmental sample	W _p plastic limit	St stiff
R ripper		HP hand penetrometer (kPa)	W _L liquid limit	VSt very stiff
E excavator		N standard penetration test (SPT)		H hard
	water	N* SPT - sample recovered		Fb friable
	 level on date shown water inflow water outflow	Nc SPT with solid cone		VL very loose
support		VS vane shearpeak/remoulded (uncorrected kPa)		L loose
N none		R refusal		MD medium dense
S shoring				D dense
				VD very dense



TP41

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	41
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP42**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **14 May 2014**

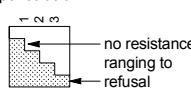
date completed: **14 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704337; N: 6083336 (WGS84 Zone 55) surface elevation : 607.88m (AHD) pit orientation:
equipment type: 13 Tonne Excavator excavation method: Excavator excavation dimensions: 3.0 m long 1.0 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1							SHALE: grey-brown, highly weathered, low to medium strength.					BEDROCK
E		2			-607.5	0.5								
		3			-607.0	1.0			Test pit TP42 terminated at 1.0 m Refusal on Bedrock					
					-606.5	1.5								
					-606.0	2.0								
					-605.5	2.5								
					-605.0	3.0								
					-604.5	3.5								
					-604.0									

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator	penetration  no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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TP42

drawn	SB		client:	Opus International Consultants Pty Ltd		
approved	BC		project:	Ellerton Drive Extension		
date	20/06/2014		title:	TEST PIT PROFILE		
scale	N.T.S.		project no:	GEOTFYSH9703AA	fig no:	42
original size	A4		rev:			

Engineering Log - Excavation

client: **Opus International Consultants Pty Ltd**

principal: **Queanbeyan City Council**

project: **Ellerton Drive Extension**

location: **Queanbeyan NSW**

Excavation ID. **TP43**

sheet: 1 of 1

project no. **GEOTFYSH9703AA**

date excavated: **05 May 2014**

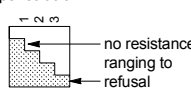
date completed: **05 May 2014**

logged by: **BC**

checked by: **DB**

position: E: 704300; N: 6083352 (WGS84 Zone 55) surface elevation : 602.57m (AHD) pit orientation:
equipment type: 6 Tonne Excavator excavation method: Excavator excavation dimensions: 1.4 m long 0.3 m wide DCP id.:

excavation information					material substance									
method	support	penetration	water	samples & field tests	RL (m)	depth (m)	graphic log	classification symbol	material description	moisture condition	consistency / relative density	hand penetrometer (kPa)	DCP (blows/100 mm)	structure and additional observations
N		1			-602.5			CL	Sandy CLAY: low plasticity, yellow-brown, fine grained sand.	<Wp	F			COLLUVIUM
		2				0.5			SILTSTONE: orange-brown, highly weathered, low to medium strength.		H to Fb			BEDROCK
		3			-601.5	1.0			Test pit TP43 terminated at 0.9 m Refusal on Bedrock					
					-601.0	1.5								
					-600.5	2.0								
					-600.0	2.5								
					-599.5	3.0								
					-599.0	3.5								

method N natural exposure X existing excavation BH backhoe bucket B bulldozer blade R ripper E excavator support N none S shoring	penetration  no resistance ranging to refusal water 10-Oct-12 water level on date shown water inflow water outflow	samples & field tests U## undisturbed sample ##mm diameter D disturbed sample B bulk disturbed sample E environmental sample HP hand penetrometer (kPa) N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone VS vane shearpeak/remoulded (uncorrected kPa) R refusal	classification symbol & soil description based on Unified Classification System moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency / relative density VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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