



Job No: 8599/122
Our Ref: 8599/122-AA
17 July 2024

Daracon Contractors Pty Ltd
184 Adderley Street West
AUBURN NSW 2144
Email: Chandan.naidu@daracon.com.au
Copy: Sabina.moktan@daracon.com.au

Attention: Mr. C Naidu

Dear Sir

**Re: Proposed Residential Subdivision
Newpark – Precinct 7-Stage 7J
Exposure Classification Report**

At your request, Geotech Testing Pty Ltd conducted a salinity and aggressivity assessment at the above site after completion of earthworks. This report provides exposure classification of the proposed lots at Precinct 7J of the above development. A total of two hundred and fifty-two (252) lots are covered in this investigation (Lots 9001 to 9252).

Field Work

Field work for this investigation was carried out on 25 and 26 June 2024, and consisted of the following:

- Carry out a walk over survey to assess existing geological and geotechnical conditions within and in the vicinity of the site.
- Excavate ninety-one (91) test pits (TP1 to TP91) to depths up to 1.5m using a small 5 tonne excavator. Test pits were excavated along the boundary lines between lots, and their locations are shown on the attached Drawing No 8599/121-AA1.
- Recovery of representative soil samples from test pits for laboratory testing.

The field work was supervised by a Geotechnical Engineer from this company, who was responsible for nominating test pit locations, recovering samples, and preparation of field logs.

Site Conditions

The site is of regular shape and is located at the end of Flametree Drive, Marsden Park, NSW. It is bounded by open grassland and bushland to the east, west, and north, and by medium to high-density residential areas to the south. The topography of the site is relatively flat, providing a stable and consistent foundation across most of the area. In the western part of the site, man-made slopes have been constructed, with gradients ranging from 1V:2H (steep) to 1V:0.5H (extreme). These slopes represent significant modifications to the natural landscape and indicate areas where elevation changes have been introduced, likely to accommodate the site's design requirements.

At the time of the investigation, significant progress had been made in preparing the site for development. Bulk earthworks for the lots and internal roads had been completed, ensuring that the ground was levelled and appropriately graded for future construction. The installation of electrical infrastructure was underway, with trenches and conduits being laid to provide power to the new development.

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Sub-surface Conditions

Sub-surface conditions encountered at the site are detailed in the attached Table A and are summarised below in Table 1.

Table 1: Sub-surface Conditions

Test Pit	Termination Depth (m)	Fill (m)	Natural (m)	Bedrock (m)
TP1	1.5	0.0-0.2	0.2-1.5	NE
TP2	1.4	0.0-0.2	0.2-1.3	1.3-1.4
TP3	0.6	0.0-0.2	0.2-0.6	NE
TP4	1.0	0.0-0.2	0.2-1.0	NE
TP5	1.5	0.0-0.4	0.4-1.5	NE
TP6	1.5	NE	0.0-1.5	NE
TP7	1.5	0.0-0.9	0.9-1.5	NE
TP8	1.5	0.0-0.5	0.5-1.5	NE
TP9	1.5	0.0-0.3	0.3-1.5	NE
TP10	1.5	0.0-0.6	0.6-1.5	NE
TP11	1.5	0.0-0.2	0.2-1.5	NE
TP12	1.5	0.0-0.3	0.3-1.5	NE
TP13	1.5	0.0-0.3	0.3-1.5	NE
TP14	1.5	0.0-0.2	0.2-1.5	NE
TP15	1.5	0.0-0.2	0.2-1.5	NE
TP16	1.5	0.0-0.3	0.3-1.5	NE
TP17	1.5	0.0-0.2	0.2-1.5	NE
TP18	1.5	NE	0.0-1.5	NE
TP19	1.5	0.0-0.7	0.7-1.5	NE
TP20	1.5	0.0-0.2	0.2-1.5	NE
TP21	1.5	NE	0.0-1.5	NE
TP22	1.5	0.0-0.2	0.2-1.5	NE
TP23	1.5	0.0-0.2	0.2-1.5	NE
TP24	1.5	0.0-0.2	0.2-1.5	NE
TP25	1.5	0.0-0.3	0.3-1.5	NE
TP26	1.5	0.0-0.2	0.2-1.5	NE
TP27	1.5	0.0-0.2	0.2-1.5	NE
TP28	1.5	0.0-0.2	0.2-1.5	NE
TP29	1.5	0.0-0.2	0.2-1.5	NE
TP30	1.5	0.0-0.8	0.8-1.5	NE
TP31	1.5	0.0-0.5	0.5-1.5	NE
TP32	1.5	0.0-1.1	1.1-1.5	NE
TP33	1.5	0.0-0.2	0.2-1.5	NE
TP34	1.5	0.0-0.5	0.5-1.5	NE
TP35	1.5	0.0-0.6	0.6-1.5	NE
TP36	1.5	0.0-0.6	0.6-1.5	NE

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Test Pit	Termination Depth (m)	Fill (m)	Natural (m)	Bedrock (m)
TP37	1.5	0.0-0.4	0.4-0.9	NE
TP38	1.5	0.0-0.3	0.3-1.5	NE
TP39	1.5	0.0-0.4	0.4-1.5	NE
TP40	1.5	0.0-0.4	0.4-1.5	NE
TP41	1.5	0.0-0.4	0.4-1.5	NE
TP42	1.5	0.0-0.5	0.5-1.5	NE
TP43	1.5	0.0-0.6	0.6-1.5	NE
TP44	1.5	0.0-0.6	0.6-1.5	NE
TP45	1.5	NE	0.0-1.5	NE
TP46	1.5	0.0-0.3	0.3-1.5	NE
TP47	1.2	NE	0.0-1.2	NE
TP48	1.1	0.0-0.3	0.3-1.1	NE
TP49	1.2	0.0-0.3	0.3-1.5	NE
TP50	1.5	0.0-0.2	0.2-1.5	NE
TP51	1.5	0.0-0.6	0.6-1.5	NE
TP52	1.5	0.0-0.7	0.7-1.5	NE
TP53	1.5	0.0-1.3	1.3-1.5	NE
TP54	1.5	0.0-0.8	0.8-1.5	NE
TP55	1.5	NE	0.0-1.5	NE
TP56	1.5	NE	0.0-1.5	NE
TP57	0.5	NE	0.0-0.5	NE
TP58	1.5	NE	0.0-1.5	NE
TP59	0.8	NE	0.0-0.8	NE
TP60	1.2	NE	0.0-1.2	NE
TP61	1.5	NE	0.0-1.5	NE
TP62	1.0	NE	0.0-1.0	NE
TP63	0.6	NE	0.0-0.6	NE
TP64	0.6	NE	0.0-0.6	NE
TP65	0.7	NE	0.0-0.7	NE
TP66	1.5	0.0-0.4	0.4-1.5	NE
TP67	0.8	0.0-0.2	0.2-0.8	NE
TP68	0.6	0.0-0.2	0.2-0.6	NE
TP69	1.5	0.0-0.2	0.2-1.5	NE
TP70	1.5	0.0-0.2	0.2-1.5	NE
TP71	0.5	0.0-0.2	0.2-0.5	NE
TP72	0.5	0.0-0.1	0.1-0.5	NE
TP73	1.5	0.0-0.2	0.2-1.5	NE
TP74	1.5	0.0-0.2	0.2-1.5	NE
TP75	0.8	0.0-0.2	0.2-0.8	NE
TP76	0.6	0.0-0.2	0.2-0.6	NE

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Test Pit	Termination Depth (m)	Fill (m)	Natural (m)	Bedrock (m)
TP77	1.5	0.0-0.4	0.4-1.5	NE
TP78	1.5	NE	0.0-1.5	NE
TP79	1.5	0.0-0.6	0.6-1.5	NE
TP80	1.5	0.0-0.2	0.2-1.5	NE
TP81	1.5	0.0-0.5	0.5-1.0	1.0-1.1
TP82	1.3	0.0-0.3	0.3-1.3	NE
TP83	1.5	NE	0.0-1.5	NE
TP84	1.3	NE	0.0-1.3	NE
TP85	1.3	NE	0.0-1.3	NE
TP86	0.7	NE	0.0-0.7	NE
TP87	1.5	NE	0.0-1.5	NE
TP88	1.5	NE	0.0-1.5	NE
TP89	0.5	NE	0.0-0.5	NE
TP90	0.6	NE	0.0-0.6	NE
TP91	1.5	NE	0.0-1.5	NE

NE: Not encountered to the termination depth

The materials encountered in the test pits can be generalised as below:

Fill	<p>Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel</p> <p>Silty Clay, medium to high plasticity, brown/grey-brown, with fine to coarse sub-angular gravel, with fine to coarse grained sands</p>
Natural	<p>Silty CLAY, high plasticity, red mottled grey, with fine to coarse sub-angular gravel</p> <p>Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand</p> <p>Silty CLAY, low/high plasticity, brown, with fine to coarse sub-angular gravel</p> <p>Silty Sandy CLAY, medium plasticity, grey, with fine to coarse grained sands</p> <p>Gravelly Sandy CLAY, medium to high plasticity, red-brown, fine to coarse sub-angular gravel, low to medium grained sand</p> <p>Clayey GRAVEL, medium to coarse grained, red brown, with fine to coarse grained sand, of medium to high plasticity clay, moist, very dense</p> <p>Gravelly CLAY, low to medium plasticity, red-grey, with fine to coarse sub-angular gravel, fine to coarse grained sand</p> <p>Clayey SAND, with fine to coarse grained, grey-brown, of high plasticity clay, moist, dense</p>
Bedrock	<p>SANDSTONE, fine to medium grained, red brown, low to medium strength, moderately weathered</p>

Groundwater Condition

Groundwater was not observed in the test pits during the short time that they remained open. It must be noted that fluctuations in the level of groundwater might occur due to variations in rainfall, temperature, and/or other factors not evident during the investigation.

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Exposure Classification

Laboratory Testing

During field work, a total of 164 soil samples were collected (two from each test pit) for chemical testing in the NATA accredited laboratory of SGS for salinity and acidity properties. The laboratory test results certificates from SGS are attached at the end of this report and are summarised in Table 2 along with exposure classification.

Table 2: Laboratory Tests Results

Test Pit	Depth (m)	PH	EC (µS/cm)	Multiplying Factor	ECe (dS/m)	Exposure Classification
TP1	0.4-0.5	6.2	14	7	0.098	A1
TP1	1.0-1.1	6.1	16	7	0.112	A1
TP2	0.4-0.5	4.8	630	8	5.04	B1
TP2	1.0-1.1	5.3	430	8	3.44	A2
TP3	0.4-0.5	5	710	14	9.94	B1
TP4	0.4-0.5	4.8	520	14	7.28	A2
TP5	0.4-0.5	6.7	330	7	2.31	A1
TP5	1.0-1.1	5.3	370	7	2.59	A2
TP6	0.4-0.5	5.7	210	7	1.47	A1
TP6	1.0-1.1	9.1	330	7	2.31	A1
TP7	0.4-0.5	5.4	480	7	3.36	A2
TP7	1.0-1.1	6.5	170	7	1.19	A1
TP8	0.4-0.5	5.9	570	7	3.99	A1
TP8	1.0-1.1	8.2	270	7	1.89	A1
TP9	0.4-0.5	5.4	540	7	3.78	A2
TP10	0.4-0.5	6	480	7	3.36	A1
TP10	1.0-1.1	5.6	560	7	3.92	A1
TP11	0.4-0.5	5.3	470	7	3.29	A2
TP11	1.0-1.1	5.9	590	14	8.26	B1
TP12	0.4-0.5	5.3	510	14	7.14	A2
TP12	1.0-1.1	4.8	520	6	3.12	A2
TP13	0.4-0.5	5	270	6	1.62	A2
TP13	1.0-1.1	4.8	410	6	2.46	A2
TP14	0.4-0.5	4.8	450	6	2.7	A2
TP14	1.0-1.1	5.2	600	17	10.2	B1
TP15	0.4-0.5	4.8	450	17	7.65	B1
TP15	1.0-1.1	5.1	490	6	2.94	A2
TP16	0.4-0.5	4.5	660	6	3.96	A2
TP16	1.0-1.1	6.4	280	7	1.96	A1
TP17	0.4-0.5	5.1	500	7	3.5	A2
TP17	1.0-1.1	4.9	480	8	3.84	A2
TP18	0.4-0.5	5.2	430	8	3.44	A2
TP18	1.0-1.1	5.4	510	8	4.08	A2
TP19	0.4-0.5	5.9	270	7	1.89	A1

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Test Pit	Depth (m)	PH	EC (µS/cm)	Multipling Factor	ECe (dS/m)	Exposure Classification
TP19	1.0-1.1	6	210	7	1.47	A1
TP20	0.4-0.5	6.7	130	7	0.91	A1
TP20	1.0-1.1	7	330	7	2.31	A1
TP21	0.4-0.5	5	250	7	1.75	A2
TP21	1.0-1.1	5.4	180	7	1.26	A2
TP22	0.4-0.5	6	200	7	1.4	A1
TP22	1.0-1.1	5.6	110	7	0.77	A1
TP23	0.4-0.5	5.1	430	7	3.01	A2
TP23	1.0-1.1	5.6	250	7	1.75	A1
TP24	0.4-0.5	5.4	330	7	2.31	A2
TP24	1.0-1.1	5.4	220	7	1.54	A2
TP25	0.4-0.5	5.7	320	7	2.24	A1
TP25	1.0-1.1	5.6	420	7	2.94	A1
TP26	0.4-0.5	5.8	140	7	0.98	A1
TP26	1.0-1.1	5.4	210	7	1.47	A2
TP27	0.4-0.5	5.2	300	7	2.1	A2
TP27	1.0-1.1	5.3	300	7	2.1	A2
TP28	0.4-0.5	7.1	130	7	0.91	A1
TP28	1.0-1.1	5.6	480	7	3.36	A1
TP29	0.4-0.5	6.5	120	7	0.84	A1
TP29	1.0-1.1	5.4	420	7	2.94	A2
TP30	0.4-0.5	6.8	140	9	1.26	A1
TP30	1.0-1.1	5.8	200	14	2.8	A1
TP31	0.4-0.5	8.2	350	7	2.45	A1
TP31	1.0-1.1	8.3	420	7	2.94	A1
TP32	0.4-0.5	4.8	210	9	1.89	A2
TP32	1.0-1.1	7.2	580	9	5.22	A2
TP33	0.4-0.5	4.9	310	7	2.17	A2
TP33	1.0-1.1	5.2	260	7	1.82	A2
TP34	0.4-0.5	5	190	7	1.33	A2
TP34	1.0-1.1	5.4	94	7	0.658	A2
TP35	0.4-0.5	5	220	7	1.54	A2
TP35	1.0-1.1	5.2	160	7	1.12	A2
TP36	0.4-0.5	4.9	260	7	1.82	A2
TP36	1.0-1.1	4.5	76	14	1.064	A2
TP37	0.4-0.5	5.2	310	14	4.34	A2
TP37	0.8-0.9	4.9	120	14	1.68	A2
TP38	0.4-0.5	4.8	400	6	2.4	A2
TP38	1.0-1.1	4.8	430	6	2.58	A2
TP39	0.4-0.5	5	290	6	1.74	A2
TP39	1.0-1.1	5.5	54	6	0.324	A1

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Test Pit	Depth (m)	PH	EC (µS/cm)	Multiplying Factor	ECe (dS/m)	Exposure Classification
TP40	0.4-0.5	4.9	340	6	2.04	A2
TP40	1.0-1.1	4.9	120	6	0.72	A2
TP41	0.4-0.5	5.5	110	6	0.66	A1
TP41	1.0-1.1	4.8	230	6	1.38	A2
TP42	0.4-0.5	5.1	390	7	2.73	A2
TP42	1.0-1.1	4.8	470	7	3.29	A2
TP43	0.4-0.5	5.9	290	7	2.03	A1
TP43	1.0-1.1	5.1	330	6	1.98	A2
TP44	0.4-0.5	6.4	320	7	2.24	A1
TP44	1.0-1.1	5.4	310	6	1.86	A2
TP45	0.4-0.5	5.4	230	7	1.61	A2
TP45	1.0-1.1	5.3	250	7	1.75	A2
TP46	0.4-0.5	4.9	340	6	2.04	A2
TP46	1.0-1.1	6	230	6	1.38	A1
TP47	0.4-0.5	5.6	120	7	0.84	A1
TP47	1.0-1.1	5.8	200	7	1.4	A1
TP48	0.4-0.5	5.6	340	14	4.76	A2
TP48	1.0-1.1	5.3	220	14	3.08	A2
TP49	0.4-0.5	5.3	270	14	3.78	A2
TP49	1.0-1.1	5.1	51	14	0.714	A2
TP50	0.4-0.5	5.3	420	6	2.52	A2
TP50	1.0-1.1	5.2	370	6	2.22	A2
TP51	0.4-0.5	6.6	130	7	0.91	A1
TP51	1.0-1.1	5.1	230	6	1.38	A2
TP52	0.4-0.5	6.4	300	7	2.1	A1
TP52	1.0-1.1	6	54	6	0.324	A1
TP53	0.4-0.5	5.2	220	7	1.54	A2
TP53	1.0-1.1	5.6	110	6	0.66	A1
TP54	0.4-0.5	6.7	320	7	2.24	A1
TP54	1.0-1.1	5.2	260	6	1.56	A2
TP55	0.4-0.5	5.3	140	6	0.84	A2
TP55	1.0-1.1	5	340	6	2.04	A2
TP56	0.4-0.5	5.2	260	6	1.56	A2
TP56	1.0-1.1	4.9	410	6	2.46	A2
TP57	0.4-0.5	5.4	98	7	0.686	A2
TP58	0.4-0.5	5	650	7	4.55	A2
TP58	1.0-1.1	5.2	620	7	4.34	A2
TP59	0.4-0.5	5.2	600	6	3.6	A2
TP60	0.4-0.5	4.9	370	14	5.18	A2
TP60	1.0-1.1	5.4	450	14	6.3	A2
TP61	0.4-0.5	5.3	98	7	0.686	A2

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Test Pit	Depth (m)	PH	EC (µS/cm)	Multipling Factor	ECe (dS/m)	Exposure Classification
TP61	1.0-1.1	4.8	580	7	4.06	A2
TP62	0.4-0.5	5.7	160	6	0.96	A1
TP63	0.4-0.5	5.8	80	14	1.12	A1
TP64	0.4-0.5	5.6	230	14	3.22	A1
TP65	0.4-0.5	5.5	45	14	0.63	A1
TP66	0.4-0.5	6.1	170	7	1.19	A1
TP66	1.0-1.1	5.3	80	7	0.56	A2
TP67	0.4-0.5	5.3	180	6	1.08	A2
TP68	0.4-0.5	5.1	490	14	6.86	A2
TP69	0.4-0.5	4.9	570	7	3.99	A2
TP69	1.0-1.1	5	700	7	4.9	A2
TP70	0.4-0.5	4.9	770	7	5.39	A2
TP70	1.0-1.1	5.2	590	7	4.13	A2
TP71	0.4-0.5	4.7	730	6	4.38	A2
TP72	0.4-0.5	5	410	14	5.74	A2
TP73	0.4-0.5	5.1	400	7	2.8	A2
TP73	1.0-1.1	5	530	7	3.71	A2
TP74	0.4-0.5	5.4	220	6	1.32	A2
TP74	1.0-1.1	4.9	320	6	1.92	A2
TP75	0.4-0.5	4.4	280	7	1.96	B1
TP76	0.4-0.5	4.2	160	6	0.96	B1
TP77	0.4-0.5	4.8	94	9	0.846	A2
TP77	1.0-1.1	4.7	33	9	0.297	A2
TP78	0.4-0.5	4.8	180	7	1.26	A2
TP78	1.0-1.1	4.7	260	7	1.82	A2
TP79	0.4-0.5	4.6	180	9	1.62	A2
TP79	1.0-1.1	4.5	180	7	1.26	A2
TP80	0.4-0.5	4.8	190	7	1.33	A2
TP80	1.0-1.1	4.9	32	7	0.224	A2
TP81	0.4-0.5	4.7	270	9	2.43	A2
TP82	0.4-0.5	8	230	6	1.38	A1
TP82	1.0-1.1	4.7	510	6	3.06	A2
TP83	0.4-0.5	4	380	6	2.28	B1
TP83	1.0-1.1	4	460	6	2.76	B1
TP84	0.4-0.5	4.5	290	7	2.03	A2
TP84	1.0-1.1	4.8	220	7	1.54	A2
TP85	0.4-0.5	4.9	160	7	1.12	A2
TP85	1.0-1.1	4.9	170	7	1.19	A2
TP86	0.4-0.5	5.1	320	14	4.48	A2
TP87	0.4-0.5	5.2	170	7	1.19	A2
TP87	1.0-1.1	5.6	110	7	0.77	A1

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Test Pit	Depth (m)	PH	EC (µS/cm)	Multiplying Factor	ECe (dS/m)	Exposure Classification
TP88	0.4-0.5	5.2	320	7	2.24	A2
TP88	1.0-1.1	5.5	270	7	1.89	A1
TP89	0.4-0.5	5	440	14	6.16	A2
TP90	0.4-0.5	4.9	290	14	4.06	A2
TP91	0.4-0.5	5.2	84	6	0.504	A2
TP91	1.0-1.1	5.4	40	6	0.24	A2

* The multiplication factor (MF) is a function of the soil texture and description (Site Investigations for Urban Salinity – 2002)

Specifications

Electrical Conductivity (EC) testing was carried out to assess soil salinity, as outlined in the Department of Environment and Heritage (DEH) publication, “Site Investigations for Urban Salinity - 2002”. The test conducted on a soil sample for salinity is generally made up of 1:5 soil water suspension, which is one part air dried soil to five parts distilled water. The determined EC is multiplied by a factor based on the texture of the soil sample (varying from 6 to 17) to obtain Corrected Electrical Conductivity, designated as EC_e. Based on site observation, a multiplication factor of 6 to 17 was used for the soil encountered during field work. The DEH publication defines various classes of saline soils as detailed below.

Classification	EC _e (dS/m)	Exposure Classification AS2870-2011
Non-saline	<2	A1
Slightly saline	2 – 4	
Moderately saline	4 – 8	A2
Very saline	8 – 16	B1
Highly saline	>16	B2

Acidity (pH) testing was also conducted to determine the aggressivity of the soils to steel and concrete. The various classes of aggressive soils are defined as follows according to AS2870-2011.

Classification	pH	Exposure Classification AS2870-2011
Non-aggressive	>5.5	A1
Mild	4.5-5.5	A2
Moderate	4.0-4.5	B1
Severe	<4.0	B2

Based on the results, it is assessed that soils at the site are generally moderately saline and mildly aggressive to steel and concrete.

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Conclusion

Based on the procedures described in AS2870-2011, the exposure classifications for the proposed lots are shown below in Tables 3.

Table 3– Site Exposure Classifications (AS2870-2011)

Lot	Exposure Classification	Lot	Exposure Classification	Lot	Exposure Classification
9001	A2	9085	A2	9169	A2
9002	A2	9086	A2	9170	A2
9003	A2	9087	A1	9171	A2
9004	A2	9088	A1	9172	A2
9005	A2	9089	A2	9173	A2
9006	A2	9090	A2	9174	A2
9007	A2	9091	A2	9175	A2
9008	A2	9092	A2	9176	A2
9009	A2	9093	A1	9177	A2
9010	A2	9094	A1	9178	A2
9011	A2	9095	B1	9179	A2
9012	A2	9096	B1	9180	A2
9013	A2	9097	B1	9181	A2
9014	A2	9098	B1	9182	A2
9015	A2	9099	A2	9183	A2
9016	A2	9100	A2	9184	A2
9017	A2	9101	A2	9185	A2
9018	A2	9102	A2	9186	A2
9019	B1	9103	A2	9187	A2
9020	B1	9104	A2	9188	A2
9021	B1	9105	B1	9189	A2
9022	A2	9106	B1	9190	A2
9023	A2	9107	B1	9191	A2
9024	A2	9108	B1	9192	A2
9025	A2	9109	B1	9193	A2
9026	A2	9110	A2	9194	A2
9027	A2	9111	A2	9195	A2
9028	A2	9112	A2	9196	A2
9029	A2	9113	A2	9197	A2
9030	A2	9114	A2	9198	A2
9031	A2	9115	A2	9199	A2
9032	A2	9116	A2	9200	A2
9033	A2	9117	A2	9201	A1
9034	A2	9118	A2	9202	A1
9035	A2	9119	A2	9203	A1

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Lot	Exposure Classification	Lot	Exposure Classification	Lot	Exposure Classification
9036	A2	9120	A1	9204	A2
9037	A2	9121	A1	9205	A2
9038	B1	9122	A1	9206	A2
9039	B 1	9123	A1	9207	A2
9040	A2	9124	A2	9208	A2
9041	A2	9125	A1	9209	A2
9042	A2	9126	A1	9210	A2
9043	B1	9127	A1	9211	A2
9044	B1	9128	A1	9212	A2
9045	B1	9129	A1	9213	A1
9046	A2	9130	A2	9214	A1
9047	A2	9131	A2	9215	A1
9048	A2	9132	A2	9216	A2
9049	A2	9133	A2	9217	A2
9050	A2	9134	A2	9218	A2
9051	A2	9135	A2	9219	A2
9052	A2	9136	A2	9220	A2
9053	A2	9137	A1	9221	A2
9054	A2	9138	A1	9222	A2
9055	A2	9139	A2	9223	A2
9056	A2	9140	A2	9224	A2
9057	A2	9141	A2	9225	A2
9058	A2	9142	A2	9226	A2
9059	A2	9143	A2	9227	A2
9060	A2	9144	A2	9228	A2
9061	A2	9145	A2	9229	A2
9062	A2	9146	A2	9230	A2
9063	A2	9147	A2	9231	A2
9064	A2	9148	A2	9232	A2
9065	A2	9149	A2	9233	A2
9066	A2	9150	A2	9234	A2
9067	A2	9151	A1	9235	A2
9068	A2	9152	A1	9236	A2
9069	A1	9153	A1	9237	A2
9070	A1	9154	A1	9238	A2
9071	A1	9155	A1	9239	A2
9072	A1	9156	A1	9240	A1
9073	B1	9157	A2	9241	A1
9074	B1	9158	A2	9242	A1

Error! Unknown document property name.
Newpark Precinct 7J, Marsden Park

Lot	Exposure Classification	Lot	Exposure Classification	Lot	Exposure Classification
9075	B1	9159	A2	9243	A1
9076	B1	9160	A2	9244	A1
9077	B1	9161	A2	9245	A1
9078	A2	9162	A2	9246	A1
9079	A2	9163	A2	9247	A1
9080	A2	9164	A2	9248	A1
9081	A2	9165	A2	9249	A1
9082	A2	9166	A2	9250	A1
9083	A2	9167	A2	9251	A1
9084	A2	9168	A2	9252	A1

Based on the results of the post site works salinity assessment, the site is suitable for the residential subdivision development. The construction requirements for A1, A2 and B1 classifications are shown below (AS2870-2011, Table 5.3).

Classification	Minimum Design Characteristic Strength	Minimum Initial Curing
A1	20 MPa	3 days
A2	25 MPa	3 days
B1	32 MPa	7 days
B2	40 MPa	7 days

If you have any questions, please do not hesitate to contact the undersigned.

Yours faithfully
GEOTECH TESTING PTY LTD



KUBER KHADKA
Geotechnical Engineer

Reviewed By:



EMGED RIZKALLA
Director

Attached Drawing No 8599/121-AA1 - Test Pit Location Plan
Table A – Summary of Test Pits
SGS Laboratory Test Results



LEGEND

■ Test Pit



34 Borec Road
Penrith
NSW 2750
ABN 71 076 676 321

Ph: 02 4722 2744
e-mail: info@geotech.com.au
www.geotech.com.au

NOTES

1. Site features are indicative and are not to scale.
2. This drawing has been produced using a base plan provided by others to which additional information e.g test pits, borehole locations or notes have been added. Some or all of the plan may not be relevant at the time of producing this drawing

Daracon Engineering Pty Limited
Newpark Precinct 7J
Marsden Park

Test Pit Locations

Drawing No: 8599/121-AA1
Job No: 8599/121
Drawn By: MH
Date: 27 June 2024
Checked By: KK

File No: 8599-121
Layers: 0, AA1

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 1 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP1	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M \leq PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M \leq PL, friable
TP2	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M $>$ PL, well compacted
	0.2-0.6	0.4-0.5 (DS)	(CH) Silty CLAY, high plasticity, brown, fine to coarse sub-angular gravel, M $>$ PL, stiff
	0.6-1.1	1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, grey-brown, fine to coarse sub-angular gravel, trace fine to medium grained sand, M $>$ PL, stiff
	1.1-1.3		(CI) Silty Sandy CLAY, medium plasticity, grey, fine to coarse grained sand, M \geq PL, stiff
	1.3-1.4		SANDTONE, fine to medium grained, red brown, low to medium strength, moderately weathered
TP3	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M \geq PL, well compacted
	0.2-0.6	0.4-0.5 (DS)	(CI-CH) Gravelly Sandy CLAY, medium to high plasticity, red-brown, fine to coarse sub-angular gravel, fine to medium grained sand, M $>$ PL, stiff TP3 terminated at 0.6m refusal on gravel
TP4	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, M $<$ PL, well compacted
	0.2-0.8	0.4-0.5 (DS)	(CI-CH) Gravelly Sandy CLAY, medium to high plasticity, red-brown, with fine to coarse sub-angular gravel, fine to coarse grained sand, M $>$ PL, stiff
	0.8-1.0		(GC) Clayey GRAVEL, medium to cobble grained, red brown, of medium to high plasticity clay, with sand, moist, very dense TP4 terminated at 1.0m refusal on gravel

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 2 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP5	0.0-0.4		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse sand, M<PL, well compacted
	0.4-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M≤PL, stiff
TP6	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, trace fine to coarse sand, M≤PL, Stiff
TP7	0.0-0.9	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M≤PL, well compacted
	0.9-1.5	1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, trace fine to coarse sand, M≤PL, Stiff
TP8	0.0-0.5	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M≤PL, well compacted
	0.5-1.5	1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, trace fine to coarse sand, M≤PL, Stiff
TP9	0.0-0.3		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M≤PL, well compacted
	0.3-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, trace fine to coarse sand, M≤PL, Stiff
TP10	0.0-0.6	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M≤PL, well compacted
	0.6-1.5	1.0-1.1 (DS)	(CI-CH) Gravelly Sandy CLAY, medium to high plasticity, red-brown, fine to coarse sub-angular gravel, trace fine to coarse grained sand, M≥PL, stiff

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 3 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP11	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M _≤ PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Gravelly Sandy CLAY, medium to high plasticity, red-brown, fine to coarse sub-angular gravel, trace fine to coarse grained sand, M _≥ PL, stiff
TP12	0.0-0.3		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M _≤ PL, well compacted
	0.3-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, brown, fine to medium sub-angular gravel, trace fine to medium grained sand, M _≥ PL, stiff
TP13	0.0-0.3		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M _≤ PL, well compacted
	0.3-1.5	0.4-0.5 (DS) 1.0-1.1(DS) 1.1-1.3 (Atterberg)	(CH) Silty CLAY, high plasticity, brown, trace fine to coarse sub-angular gravel, M _{>} PL, very stiff
TP14	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse gravel, M _≥ PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(SC) Clayey SAND, fine to coarse grained, grey-brown, of high plasticity, clay, moist, very dense
TP15	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse gravel, M _≥ PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of fine to medium sub-angular gravel, M _{>} PL, stiff
TP16	0.0-0.3		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse gravel, M _≥ PL, well compacted
	0.3-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M _{>} PL, stiff

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 4 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP17	0.0-0.2		FILL: Silty Clay, medium to high plasticity, grey-brown, with fine to coarse grained sand, traces of fine to coarse sub-angular gravel, M \geq PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1-1.1 (DS)	(CL) Silty CLAY, low plasticity, brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M $>$ PL, stiff
TP18	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CL) Silty CLAY, low plasticity, brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M $>$ PL, stiff
TP19	0.0-0.7	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, M \geq PL, well compacted
	0.7-1.5	1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M \geq PL. Stiff
TP20	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M \geq PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M \geq PL. Stiff
TP21	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M \geq PL, Stiff
TP22	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M $<$ PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M \geq PL, Stiff
TP23	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M $<$ PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M \geq PL, Stiff

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 5 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP24	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M<PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M≥PL, Stiff
TP25	0.0-0.3		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M<PL, well compacted
	0.3-1.5	0.4-0.5 (DS) 0.7-0.9 (Atterberg) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M≥PL, Stiff
TP26	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M<PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M≥PL, Stiff
TP27	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M<PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M≥PL, Stiff
TP28	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M<PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M≥PL, Stiff
TP29	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M<PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown, with fine to coarse sub-angular gravel, traces of fine to coarse grained sand, M≥PL, Stiff

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 6 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP30	0.0-0.8	0.4-0.5 (DS)	FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M<PL, well compacted
	0.8-1.5	1.0-1.1 (DS)	(GC) Clayey Gravel, low plasticity, dark grey, with fine to coarse sub-angular gravel, traces fine to medium grained sand, M≤PL, well compacted
TP31	0.0-0.5	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, grey-brown, with fine to coarse sub gravel, traces of fine to medium grained sand, M≤PL, well compacted
	0.5-1.5	1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub gravel, traces of fine to medium grained sand, M≤PL, stiff
TP32	0.0-1.1	0.4-0.5 (DS) 0.5-0.7 (Atterberg) 1.0-1.1 (DS)	FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub gravel, traces of fine to medium grained sand, M≤PL, well compacted
	1.1-1.5		(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse gravel, M≤PL, stiff
TP33	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub gravel, traces of fine to medium grained sand, M≤PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 0.5-0.7 (Atterberg) 2.0-2.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse gravel, M≤PL, stiff
TP34	0.0-0.5	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M≤PL, well compacted
	0.5-1.5	1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse gravel, traces of fine to medium grained sand M≤PL, stiff
TP35	0.0-0.6	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M≤PL, well compacted
	0.6-1.5	1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse gravel, traces of fine to medium grained sand M≤PL, stiff

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 7 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP36	0.0-0.6	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M _≤ PL, well compacted
	0.6-1.5	1.0-1.1 (DS)	(CL-CI) Gravelly CLAY, low to medium plasticity, red-grey, with fine to coarse sub-angular gravel, fine to coarse grained sand, M _≤ PL, Stiff
TP37	0.0-0.4		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M _≤ PL, well compacted TP37 terminated at 0.9m refusal on gravel
	0.4-0.9	0.4-0.5 (DS) 0.8-0.9 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of medium to high plasticity clay, moist, dense TP37 terminated at 0.9m refusal on gravel
TP38	0.0-0.3		FILL: Silty Clay, medium to high plasticity, grey-brown, with fine to medium sub-angular gravel, M _≤ PL, well compacted
	0.3-1.5	0.4-0.5 (DS) 0.5-0.7 (Atterberg) 2.0-2.1 (DS)	(CH) Silty CLAY, high plasticity, brown, with fine to medium sub-angular gravel, trace fine to medium grained sand, M>PL, stiff
TP39	0.0-0.4		FILL: Silty Clay, medium to high plasticity, grey-brown, with fine to medium sub-angular gravel, M _≤ PL, well compacted
	0.4-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, brown, trace fine to medium sub angular gravel, trace fine to medium grained sand, M>PL, stiff
TP40	0.0-0.4		FILL: Silty Clay, medium to high plasticity, grey-brown, with fine to medium sub-angular gravel, M _≤ PL, well compacted
	0.4-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, brown, trace fine to medium sub angular gravel, trace fine to medium grained sand, M>PL, stiff
TP41	0.0-0.4		FILL: Silty Clay, medium to high plasticity, grey-brown, with fine to medium sub-angular gravel, M _≤ PL, well compacted
	0.4-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, brown, trace fine to medium sub angular gravel, trace fine to medium grained sand, M>PL, stiff

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 8 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP42	0.0-0.5	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M≤PL, well compacted
	0.5-1.5	1.0-1.1 (DS)	(CI-CH) Silty CLAY, high plasticity, brown, trace fine to coarse sub-angular gravel, trace fine to medium grained sand, M>PL, stiff
TP43	0.0-0.6	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M≤PL, well compacted
	0.6-1.5	1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, brown, with fine to coarse sub-angular gravel, M≥PL, stiff
TP44	0.0-0.6	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M<PL, well compacted
	0.6-1.5	0.8-1.0 (Atterberg) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, grey-brown, with fine to coarse sub-angular gravel, M≥PL, stiff
TP45	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown, with fine to coarse sub-angular gravel, with fine to coarse grained sand, M<PL, stiff
TP46	0.0-0.3		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M≤PL, well compacted
	0.3-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, brown, M>PL, stiff
TP47	0.0-1.2	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M≤PL, well compacted TP47 terminated at 1.2m refusal on gravel
TP48	0.0-0.3		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M≤PL, well compacted
	0.3-1.1	0.4-0.5 (DS) 1.0-1.1 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, of medium to high plasticity clay, moist, very dense TP48 terminated at 1.1m refusal on gravel

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 9 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP49	0.0-0.3		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M _s ≤PL, well compacted
	0.3-1.2	0.4-0.5 (DS) 1.0-1.1 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, of medium to high plasticity clay, moist, very dense TP49 terminated at 1.2m refusal on gravel
TP50	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to medium sub-angular gravel, M _s >PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 0.6-0.8 (Atterberg) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, grey-brown, with fine to coarse sub-angular gravel, M _s ≥PL, stiff
TP51	0.0-0.6	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M _s ≤PL, well compacted
	0.6-1.5	1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, with fine to coarse sub-angular gravel, M _s >PL, stiff
TP52	0.0-0.7	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M _s ≤PL, well compacted
	0.7-1.5	1.0-1.1 (DS)	Silty CLAY, high plasticity, brown, with fine to coarse sub-angular gravel, M _s ≥PL, stiff
TP53	0.0-1.3	0.4-0.5 (DS) 1.0-1.1 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M _s ≤PL, well compacted
	1.3-1.5		(CH) Silty CLAY, high plasticity, brown, with fine to coarse sub-angular gravel, M _s ≥PL, stiff
TP54	0.0-8.0	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M _s ≤PL, well compacted
	0.8-1.5	1.0-1.1 (DS)	Silty CLAY, high plasticity, brown, with fine to coarse sub-angular gravel, M _s ≥PL, stiff
TP55	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, with fine to coarse sub-angular gravel, M _s ≥PL, stiff

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 10 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP56	0.0-1.5	0.4-0.5 (DS) 0.4-0.6 (U ₅₀) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, with fine to coarse sub-angular gravel, M _z PL, stiff
TP57	0.0-0.5	0.4-0.5 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse grained sand, of low plasticity clay, moist, very dense TP57 terminated at 0.5m refusal on gravel
TP58	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, M _z PL, stiff
TP59	0.0-0.8	0.4-0.5 (DS)	(CH) Silty CLAY, high plasticity, brown, with fine to coarse grained sand, of low plasticity clay, moist, very dark TP59 terminated at 0.8m refusal on gravel
TP60	0.0-1.0	0.4-0.5 (DS)	(SC) Clayey SAND, fine to coarse grained, grey-brown, with fine to medium sub-angular gravel, of low plasticity clay, moist, dense
	1.0-1.2	1.0-1.1 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of medium to high plasticity clay, moist, very dense TP60 terminated at 1.2m refusal on gravel
TP61	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS) 1.0-1.2 (Atterberg)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, M _z PL, stiff
TP62	0.0-0.8	0.4-0.5 (DS)	(CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse grained sand, with fine to coarse sub-angular gravel, M _z PL, stiff
	0.8-1.0		(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of medium to high plasticity clay, moist, very dense TP62 terminated at 1.0m refusal on gravel
TP63	0.0-0.6	0.4-0.5 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of medium to high plasticity clay, moist, very dense TP63 terminated at 0.6m refusal on gravel

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 11 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP64	0.0-0.6	0.4-0.5 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of medium to high plasticity clay, moist, very dense TP64 terminated at 0.6m refusal on gravel
TP65	0.0-0.7	0.4-0.5 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse sub-angular gravel, fine to coarse grained sand, moist, very dense TP65 terminated at 0.7m refusal on gravel
TP66	0.0-0.4		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to coarse grained gravel sand, M<PL, well compacted
	0.4-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular, M≥PL, stiff
TP67	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M≥PL, well compacted
	0.2-0.8	0.4-0.5 (DS)	(CH) Silty CLAY, high plasticity, grey-brown, with fine to coarse sub-angular gravel, M≥PL, stiff TP67 at 0.8m refusal on gravel
TP68	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, M≥PL, well compacted
	0.2-0.6	0.4-0.5 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, moist, very dense
TP69	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, M≥PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, traces of fine to coarse sub-angular gravel, M≥PL, stiff
TP70	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, M≥PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse grained sand, M≥PL, stiff

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 12 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP71	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse grained sand, M \geq PL, well compacted
	0.2-0.5	0.4-0.5 (DS)	(CH) Silty CLAY, high plasticity, grey-brown, with fine to coarse sub-angular gravel, M \geq PL, stiff TP71 terminated at 0.5m refusal on gravel
TP72	0.0-0.1		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M \geq PL, well compacted
	0.1-0.5	0.4-0.5 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, fine to coarse grained sand, moist, very dense TP72 terminated at 0.5m refusal on gravel
TP73	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, M \geq PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 0.4-0.7 (U ₅₀) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, M \geq PL, well compacted
TP74	0.0-0.2		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M \geq PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, fine to coarse grained sand, M \geq PL, stiff
TP75	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse grained gravel, M \geq PL, well compacted
	0.2-0.6	0.4-0.5 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, M \geq PL, stiff
	0.6-0.8		(CH) Silty CLAY, high plasticity, brown, M \geq PL, stiff TP75 terminated at 0.8m refusal on gravel
TP76	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with sub-angular gravel, M \geq PL, well compacted
	0.2-0.6	0.4-0.5 (DS)	(CH) Silty CLAY, high plasticity, grey-brown, with sub-angular gravel, M \geq PL, very stiff TP76 terminated at 0.6m refusal on gravel

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 13 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP77	0.0-0.4		FILL: Clayey Gravel, low plasticity, dark grey, with fine to coarse grained sand, M _z PL, well compacted
	0.4-1.5	0.4-0.5 (DS) 0.6-0.8 (Atterberg) 1-1.1 (DS)	(CL) Silty CLAY, low plasticity, brown, with fine to coarse sub-angular gravel, M _z PL, stiff
TP78	0.0-1.3	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown, with fine to coarse grained sand, M _z PL, stiff
	1.3-1.5		(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, M _z PL, stiff
TP79	0.0-0.6	0.4-0.5 (DS)	FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, M _z PL, well compacted
	0.6-1.3	1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M _z PL, Stiff
	1.3-1.5		(CH) Silty CLAY, medium to high plasticity, grey-brown, M _z PL, stiff
TP80	0.0-0.2		FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, M _z PL, well compacted
	0.2-1.5	0.4-0.5 (DS) 0.6-0.9 (Atterberg) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown, with fine to coarse sub-angular gravel, M _z PL, stiff
TP81	0.0-0.5	0.4-0.5 (DS)	FILL: Silty Clay, low plasticity, dark-brown, with fine to coarse sub-angular gravel, M _z PL, well compacted
	0.5-1.0		(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, M _z PL, stiff
	1.0-1.1		SANDTONE, fine to medium grained, red brown, low to medium strength, moderately weathered
TP82	0.0-0.3		FILL: Silty Clay, medium to high plasticity, brown, with fine to coarse sub-angular gravel, fine to coarse grained sand, M _z PL, well compacted
	0.3-1.1	0.4-0.5 (DS) 0.6-0.9 (Atterberg) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, brown, with fine to coarse sub-angular gravel, M _z PL, stiff
	1.1-1.3		(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of low to medium plasticity clay, moist, very dense

TABLE A

Job No: 8599/121
Our Ref: 8599/121-AA

Page 14 of 14

TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP83	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, brown, with fine to coarse sub-angular gravel, trace fine to medium grained sand, M \geq PL, stiff
TP84	0.0-1.1	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M<PL, stiff
	1.1-1.3		(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of low to medium plasticity clay, moist, very dense TP84 terminated at 1.3m refusal on gravel
TP85	0.0-1.1	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, with fine to coarse sub-angular gravel, trace fine to coarse grained sand, M<PL, stiff
	1.1-1.3		(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of low to medium plasticity clay, moist, very dense TP85 terminated at 1.3m refusal on gravel
TP86	0.0-0.7	0.4-0.5 (DS)	(CI-CH) Gravelly Silty CLAY, medium to high plasticity, brown-grey, with fine to coarse sub-angular gravel, fine to coarse grained sand, M \geq PL, very stiff
TP87	0.0-1.5	0.4-0.5 (DS) 0.6-0.8 (Atterberg) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, red brown, with fine to coarse sub-angular gravel, fine to coarse grained sand, M \geq PL, stiff
TP88	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, red brown, with fine to coarse sub-angular gravel, fine to coarse grained sand, M \geq PL, stiff
TP89	0.0-0.5	0.4-0.5 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of low to medium plasticity clay, moist, very dense TP89 terminated at 0.5m refusal on gravel
TP90	0.0-0.6	0.4-0.5 (DS)	(GC) Clayey GRAVEL, medium to coarse grained, red-brown, with fine to coarse grained sand, of low to medium plasticity clay, moist, very dense TP90 terminated at 0.6m refusal on gravel
TP91	0.0-1.5	0.4-0.5 (DS) 1.0-1.1 (DS)	(CH) Silty CLAY, high plasticity, brown, with fine to coarse grained gravel, M \leq PL, stiff

CLIENT DETAILS

Contact **Joe Chen**
 Client **Geotech Testing Pty Ltd**
 Address **P.O. Box 880
 PENRITH
 NSW 2751**

Telephone **02 4722 2700**
 Facsimile **02 4722 6161**
 Email **joe@geotech.com.au**

Project **8599/122 Marsden Park**
 Order Number **8599/122**
 Samples **96**

LABORATORY DETAILS

Manager **Shane McDermott**
 Laboratory **SGS Alexandria Environmental**
 Address **Unit 16, 33 Maddox St
 Alexandria NSW 2015**

Telephone **+61 2 8594 0400**
 Facsimile **+61 2 8594 0499**
 Email **au.environmental.sydney@sgs.com**

SGS Reference **SE267483 R0**
 Date Received **28/6/2024**
 Date Reported **4/7/2024**

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES



Dong LIANG
 Metals/Inorganics Team Leader



Shane MCDERMOTT
 Laboratory Manager



Ying Ying ZHANG
 Laboratory Technician

pH in soil (1:5) [AN101] Tested: 2/7/2024

PARAMETER	UOM	LOR	TP1	TP1	TP2	TP2	TP3
			SOIL 0.4-0.5 27/6/2024 SE267483.001	SOIL 1.0-1.1 27/6/2024 SE267483.002	SOIL 0.4-0.5 27/6/2024 SE267483.003	SOIL 1.0-1.1 27/6/2024 SE267483.004	SOIL 0.4-0.5 27/6/2024 SE267483.005
pH	pH Units	0.1	6.2	6.1	4.8	5.3	5.0

PARAMETER	UOM	LOR	TP4	TP5	TP5	TP6	TP6
			SOIL 0.4-0.5 27/6/2024 SE267483.006	SOIL 0.4-0.5 27/6/2024 SE267483.007	SOIL 1.0-1.1 27/6/2024 SE267483.008	SOIL 0.4-0.5 27/6/2024 SE267483.009	SOIL 1.0-1.1 27/6/2024 SE267483.010
pH	pH Units	0.1	4.8	6.7	5.3	5.7	9.1

PARAMETER	UOM	LOR	TP7	TP7	TP8	TP8	TP9
			SOIL 0.4-0.5 27/6/2024 SE267483.011	SOIL 1.0-1.1 27/6/2024 SE267483.012	SOIL 0.4-0.5 27/6/2024 SE267483.013	SOIL 1.0-1.1 27/6/2024 SE267483.014	SOIL 0.4-0.5 27/6/2024 SE267483.015
pH	pH Units	0.1	5.4	6.5	5.9	8.2	5.4

PARAMETER	UOM	LOR	TP9	TP10	TP10	TP11	TP11
			SOIL 1.0-1.1 27/6/2024 SE267483.016	SOIL 0.4-0.5 27/6/2024 SE267483.017	SOIL 1.0-1.1 27/6/2024 SE267483.018	SOIL 0.4-0.5 27/6/2024 SE267483.019	SOIL 1.0-1.1 27/6/2024 SE267483.020
pH	pH Units	0.1	6.0	5.6	5.3	5.9	5.3

PARAMETER	UOM	LOR	TP12	TP12	TP13	TP13	TP14
			SOIL 0.4-0.5 27/6/2024 SE267483.021	SOIL 1.0-1.1 27/6/2024 SE267483.022	SOIL 0.4-0.5 27/6/2024 SE267483.023	SOIL 1.0-1.1 27/6/2024 SE267483.024	SOIL 0.4-0.5 27/6/2024 SE267483.025
pH	pH Units	0.1	4.8	5.0	4.8	4.8	5.2

PARAMETER	UOM	LOR	TP14	TP15	TP15	TP16	TP16
			SOIL 1.0-1.1 27/6/2024 SE267483.026	SOIL 0.4-0.5 27/6/2024 SE267483.027	SOIL 1.0-1.1 27/6/2024 SE267483.028	SOIL 0.4-0.5 27/6/2024 SE267483.029	SOIL 1.0-1.1 27/6/2024 SE267483.030
pH	pH Units	0.1	4.8	5.1	4.5	6.4	5.1

PARAMETER	UOM	LOR	TP17	TP17	TP18	TP18	TP19
			SOIL 0.4-0.5 27/6/2024 SE267483.031	SOIL 1.0-1.1 27/6/2024 SE267483.032	SOIL 0.4-0.5 27/6/2024 SE267483.033	SOIL 1.0-1.1 27/6/2024 SE267483.034	SOIL 0.4-0.5 27/6/2024 SE267483.035
pH	pH Units	0.1	4.9	4.9	5.2	5.4	5.9

pH in soil (1:5) [AN101] Tested: 2/7/2024 (continued)

			TP19	TP20	TP20	TP21	TP21
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267483.036	SE267483.037	SE267483.038	SE267483.039	SE267483.040
pH	pH Units	0.1	6.0	6.7	7.0	5.0	5.4

			TP22	TP22	TP23	TP23	TP24
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267483.041	SE267483.042	SE267483.043	SE267483.044	SE267483.045
pH	pH Units	0.1	6.0	5.6	5.1	5.6	5.4

			TP24	TP25	TP25	TP26	TP26
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267483.046	SE267483.047	SE267483.048	SE267483.049	SE267483.050
pH	pH Units	0.1	5.4	5.7	5.6	5.8	5.4

			TP27	TP27	TP28	TP28	TP29
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267483.051	SE267483.052	SE267483.053	SE267483.054	SE267483.055
pH	pH Units	0.1	5.2	5.3	7.1	5.6	6.5

			TP29	TP30	TP30	TP31	TP31
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267483.056	SE267483.057	SE267483.058	SE267483.059	SE267483.060
pH	pH Units	0.1	5.4	6.8	5.8	8.2	8.3

			TP32	TP32	TP33	TP33	TP34
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267483.061	SE267483.062	SE267483.063	SE267483.064	SE267483.065
pH	pH Units	0.1	4.8	7.2	4.9	5.2	5.0

			TP34	TP35	TP35	TP36	TP36
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267483.066	SE267483.067	SE267483.068	SE267483.069	SE267483.070
pH	pH Units	0.1	5.4	5.0	5.2	4.9	4.5

pH in soil (1:5) [AN101] Tested: 2/7/2024 (continued)

PARAMETER	UOM	LOR	TP37 SOIL 0.4-0.5 27/6/2024 SE267483.071	TP37 SOIL 0.8-0.9 27/6/2024 SE267483.072	TP38 SOIL 0.4-0.5 27/6/2024 SE267483.073	TP38 SOIL 1.0-1.1 27/6/2024 SE267483.074	TP39 SOIL 0.4-0.5 27/6/2024 SE267483.075
pH	pH Units	0.1	5.2	4.9	4.8	4.8	5.0

PARAMETER	UOM	LOR	TP39 SOIL 1.0-1.1 27/6/2024 SE267483.076	TP40 SOIL 0.4-0.5 27/6/2024 SE267483.077	TP40 SOIL 1.0-1.1 27/6/2024 SE267483.078	TP41 SOIL 0.4-0.5 27/6/2024 SE267483.079	TP41 SOIL 1.0-1.1 27/6/2024 SE267483.080
pH	pH Units	0.1	5.5	4.9	4.9	5.5	4.8

PARAMETER	UOM	LOR	TP42 SOIL 0.4-0.5 27/6/2024 SE267483.081	TP42 SOIL 1.0-1.1 27/6/2024 SE267483.082	TP43 SOIL 0.4-0.5 27/6/2024 SE267483.083	TP43 SOIL 1.0-1.1 27/6/2024 SE267483.084	TP44 SOIL 0.4-0.5 27/6/2024 SE267483.085
pH	pH Units	0.1	5.1	4.8	5.9	5.1	6.4

PARAMETER	UOM	LOR	TP44 SOIL 1.0-1.1 27/6/2024 SE267483.086	TP45 SOIL 0.4-0.5 27/6/2024 SE267483.087	TP45 SOIL 1.0-1.1 27/6/2024 SE267483.088	TP46 SOIL 0.4-0.5 27/6/2024 SE267483.089	TP46 SOIL 1.0-1.1 27/6/2024 SE267483.090
pH	pH Units	0.1	5.4	5.4	5.3	4.9	6.0

PARAMETER	UOM	LOR	TP47 SOIL 0.4-0.5 27/6/2024 SE267483.091	TP47 SOIL 1.0-1.1 27/6/2024 SE267483.092	TP48 SOIL 0.4-0.5 27/6/2024 SE267483.093	TP48 SOIL 1.0-1.1 27/6/2024 SE267483.094	TP49 SOIL 0.4-0.5 27/6/2024 SE267483.095
pH	pH Units	0.1	5.6	5.8	5.6	5.3	5.3

PARAMETER	UOM	LOR	TP49 SOIL 1.0-1.1 27/6/2024 SE267483.096
pH	pH Units	0.1	5.1

Conductivity and TDS by Calculation - Soil [AN106] Tested: 2/7/2024

PARAMETER	UOM	LOR	TP1	TP1	TP2	TP2	TP3
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5 27/6/2024 SE267483.001	1.0-1.1 27/6/2024 SE267483.002	0.4-0.5 27/6/2024 SE267483.003	1.0-1.1 27/6/2024 SE267483.004	0.4-0.5 27/6/2024 SE267483.005
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	14	16	630	430	710

PARAMETER	UOM	LOR	TP4	TP5	TP5	TP6	TP6
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5 27/6/2024 SE267483.006	0.4-0.5 27/6/2024 SE267483.007	1.0-1.1 27/6/2024 SE267483.008	0.4-0.5 27/6/2024 SE267483.009	1.0-1.1 27/6/2024 SE267483.010
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	520	330	370	210	330

PARAMETER	UOM	LOR	TP7	TP7	TP8	TP8	TP9
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5 27/6/2024 SE267483.011	1.0-1.1 27/6/2024 SE267483.012	0.4-0.5 27/6/2024 SE267483.013	1.0-1.1 27/6/2024 SE267483.014	0.4-0.5 27/6/2024 SE267483.015
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	480	170	570	270	540

PARAMETER	UOM	LOR	TP9	TP10	TP10	TP11	TP11
			SOIL	SOIL	SOIL	SOIL	SOIL
			1.0-1.1 27/6/2024 SE267483.016	0.4-0.5 27/6/2024 SE267483.017	1.0-1.1 27/6/2024 SE267483.018	0.4-0.5 27/6/2024 SE267483.019	1.0-1.1 27/6/2024 SE267483.020
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	480	560	470	590	510

PARAMETER	UOM	LOR	TP12	TP12	TP13	TP13	TP14
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5 27/6/2024 SE267483.021	1.0-1.1 27/6/2024 SE267483.022	0.4-0.5 27/6/2024 SE267483.023	1.0-1.1 27/6/2024 SE267483.024	0.4-0.5 27/6/2024 SE267483.025
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	520	270	410	450	600

PARAMETER	UOM	LOR	TP14	TP15	TP15	TP16	TP16
			SOIL	SOIL	SOIL	SOIL	SOIL
			1.0-1.1 27/6/2024 SE267483.026	0.4-0.5 27/6/2024 SE267483.027	1.0-1.1 27/6/2024 SE267483.028	0.4-0.5 27/6/2024 SE267483.029	1.0-1.1 27/6/2024 SE267483.030
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	450	490	660	280	500

PARAMETER	UOM	LOR	TP17	TP17	TP18	TP18	TP19
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5 27/6/2024 SE267483.031	1.0-1.1 27/6/2024 SE267483.032	0.4-0.5 27/6/2024 SE267483.033	1.0-1.1 27/6/2024 SE267483.034	0.4-0.5 27/6/2024 SE267483.035
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	480	480	430	510	270

Conductivity and TDS by Calculation - Soil [AN106] Tested: 2/7/2024 (continued)

PARAMETER	UOM	LOR	TP19	TP20	TP20	TP21	TP21
			SOIL	SOIL	SOIL	SOIL	SOIL
			1.0-1.1 27/6/2024 SE267483.036	0.4-0.5 27/6/2024 SE267483.037	1.0-1.1 27/6/2024 SE267483.038	0.4-0.5 27/6/2024 SE267483.039	1.0-1.1 27/6/2024 SE267483.040
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	210	130	330	250	180

PARAMETER	UOM	LOR	TP22	TP22	TP23	TP23	TP24
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5 27/6/2024 SE267483.041	1.0-1.1 27/6/2024 SE267483.042	0.4-0.5 27/6/2024 SE267483.043	1.0-1.1 27/6/2024 SE267483.044	0.4-0.5 27/6/2024 SE267483.045
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	200	110	430	250	330

PARAMETER	UOM	LOR	TP24	TP25	TP25	TP26	TP26
			SOIL	SOIL	SOIL	SOIL	SOIL
			1.0-1.1 27/6/2024 SE267483.046	0.4-0.5 27/6/2024 SE267483.047	1.0-1.1 27/6/2024 SE267483.048	0.4-0.5 27/6/2024 SE267483.049	1.0-1.1 27/6/2024 SE267483.050
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	220	320	420	140	210

PARAMETER	UOM	LOR	TP27	TP27	TP28	TP28	TP29
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5 27/6/2024 SE267483.051	1.0-1.1 27/6/2024 SE267483.052	0.4-0.5 27/6/2024 SE267483.053	1.0-1.1 27/6/2024 SE267483.054	0.4-0.5 27/6/2024 SE267483.055
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	300	300	130	480	120

PARAMETER	UOM	LOR	TP29	TP30	TP30	TP31	TP31
			SOIL	SOIL	SOIL	SOIL	SOIL
			1.0-1.1 27/6/2024 SE267483.056	0.4-0.5 27/6/2024 SE267483.057	1.0-1.1 27/6/2024 SE267483.058	0.4-0.5 27/6/2024 SE267483.059	1.0-1.1 27/6/2024 SE267483.060
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	420	140	200	350	420

PARAMETER	UOM	LOR	TP32	TP32	TP33	TP33	TP34
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5 27/6/2024 SE267483.061	1.0-1.1 27/6/2024 SE267483.062	0.4-0.5 27/6/2024 SE267483.063	1.0-1.1 27/6/2024 SE267483.064	0.4-0.5 27/6/2024 SE267483.065
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	210	580	310	260	190

PARAMETER	UOM	LOR	TP34	TP35	TP35	TP36	TP36
			SOIL	SOIL	SOIL	SOIL	SOIL
			1.0-1.1 27/6/2024 SE267483.066	0.4-0.5 27/6/2024 SE267483.067	1.0-1.1 27/6/2024 SE267483.068	0.4-0.5 27/6/2024 SE267483.069	1.0-1.1 27/6/2024 SE267483.070
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	94	220	160	260	76

Conductivity and TDS by Calculation - Soil [AN106] Tested: 2/7/2024 (continued)

PARAMETER	UOM	LOR	TP37 SOIL 0.4-0.5 27/6/2024 SE267483.071	TP37 SOIL 0.8-0.9 27/6/2024 SE267483.072	TP38 SOIL 0.4-0.5 27/6/2024 SE267483.073	TP38 SOIL 1.0-1.1 27/6/2024 SE267483.074	TP39 SOIL 0.4-0.5 27/6/2024 SE267483.075
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	310	120	400	430	290

PARAMETER	UOM	LOR	TP39 SOIL 1.0-1.1 27/6/2024 SE267483.076	TP40 SOIL 0.4-0.5 27/6/2024 SE267483.077	TP40 SOIL 1.0-1.1 27/6/2024 SE267483.078	TP41 SOIL 0.4-0.5 27/6/2024 SE267483.079	TP41 SOIL 1.0-1.1 27/6/2024 SE267483.080
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	54	340	120	110	230

PARAMETER	UOM	LOR	TP42 SOIL 0.4-0.5 27/6/2024 SE267483.081	TP42 SOIL 1.0-1.1 27/6/2024 SE267483.082	TP43 SOIL 0.4-0.5 27/6/2024 SE267483.083	TP43 SOIL 1.0-1.1 27/6/2024 SE267483.084	TP44 SOIL 0.4-0.5 27/6/2024 SE267483.085
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	390	470	290	330	320

PARAMETER	UOM	LOR	TP44 SOIL 1.0-1.1 27/6/2024 SE267483.086	TP45 SOIL 0.4-0.5 27/6/2024 SE267483.087	TP45 SOIL 1.0-1.1 27/6/2024 SE267483.088	TP46 SOIL 0.4-0.5 27/6/2024 SE267483.089	TP46 SOIL 1.0-1.1 27/6/2024 SE267483.090
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	310	230	250	340	230

PARAMETER	UOM	LOR	TP47 SOIL 0.4-0.5 27/6/2024 SE267483.091	TP47 SOIL 1.0-1.1 27/6/2024 SE267483.092	TP48 SOIL 0.4-0.5 27/6/2024 SE267483.093	TP48 SOIL 1.0-1.1 27/6/2024 SE267483.094	TP49 SOIL 0.4-0.5 27/6/2024 SE267483.095
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	120	200	340	220	270

PARAMETER	UOM	LOR	TP49 SOIL 1.0-1.1 27/6/2024 SE267483.096
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	51

Moisture Content [AN002] Tested: 2/7/2024

			TP1	TP1	TP2	TP2	TP3
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5	1.0-1.1	0.4-0.5	1.0-1.1	0.4-0.5
			27/6/2024	27/6/2024	27/6/2024	27/6/2024	27/6/2024
PARAMETER	UOM	LOR	SE267483.001	SE267483.002	SE267483.003	SE267483.004	SE267483.005
% Moisture	%w/w	1	14.1	13.0	18.6	11.4	16.1

			TP4	TP5	TP5	TP6	TP6
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5	0.4-0.5	1.0-1.1	0.4-0.5	1.0-1.1
			27/6/2024	27/6/2024	27/6/2024	27/6/2024	27/6/2024
PARAMETER	UOM	LOR	SE267483.006	SE267483.007	SE267483.008	SE267483.009	SE267483.010
% Moisture	%w/w	1	16.9	5.9	14.3	10.9	10.5

			TP7	TP7	TP8	TP8	TP9
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5	1.0-1.1	0.4-0.5	1.0-1.1	0.4-0.5
			27/6/2024	27/6/2024	27/6/2024	27/6/2024	27/6/2024
PARAMETER	UOM	LOR	SE267483.011	SE267483.012	SE267483.013	SE267483.014	SE267483.015
% Moisture	%w/w	1	12.9	11.1	14.2	8.9	14.0

			TP9	TP10	TP10	TP11	TP11
			SOIL	SOIL	SOIL	SOIL	SOIL
			1.0-1.1	0.4-0.5	1.0-1.1	0.4-0.5	1.0-1.1
			27/6/2024	27/6/2024	27/6/2024	27/6/2024	27/6/2024
PARAMETER	UOM	LOR	SE267483.016	SE267483.017	SE267483.018	SE267483.019	SE267483.020
% Moisture	%w/w	1	12.3	11.4	12.9	14.0	13.7

			TP12	TP12	TP13	TP13	TP14
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5	1.0-1.1	0.4-0.5	1.0-1.1	0.4-0.5
			27/6/2024	27/6/2024	27/6/2024	27/6/2024	27/6/2024
PARAMETER	UOM	LOR	SE267483.021	SE267483.022	SE267483.023	SE267483.024	SE267483.025
% Moisture	%w/w	1	11.6	13.9	13.7	12.3	13.6

			TP14	TP15	TP15	TP16	TP16
			SOIL	SOIL	SOIL	SOIL	SOIL
			1.0-1.1	0.4-0.5	1.0-1.1	0.4-0.5	1.0-1.1
			27/6/2024	27/6/2024	27/6/2024	27/6/2024	27/6/2024
PARAMETER	UOM	LOR	SE267483.026	SE267483.027	SE267483.028	SE267483.029	SE267483.030
% Moisture	%w/w	1	9.5	12.6	15.4	14.0	14.9

			TP17	TP17	TP18	TP18	TP19
			SOIL	SOIL	SOIL	SOIL	SOIL
			0.4-0.5	1.0-1.1	0.4-0.5	1.0-1.1	0.4-0.5
			27/6/2024	27/6/2024	27/6/2024	27/6/2024	27/6/2024
PARAMETER	UOM	LOR	SE267483.031	SE267483.032	SE267483.033	SE267483.034	SE267483.035
% Moisture	%w/w	1	14.9	12.6	13.3	9.6	12.7

Moisture Content [AN002] Tested: 2/7/2024 (continued)

			TP19	TP20	TP20	TP21	TP21
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267483.036	SE267483.037	SE267483.038	SE267483.039	SE267483.040
% Moisture	%w/w	1	11.8	7.9	11.4	20.8	9.9

			TP22	TP22	TP23	TP23	TP24
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267483.041	SE267483.042	SE267483.043	SE267483.044	SE267483.045
% Moisture	%w/w	1	8.4	9.9	13.3	12.5	12.7

			TP24	TP25	TP25	TP26	TP26
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267483.046	SE267483.047	SE267483.048	SE267483.049	SE267483.050
% Moisture	%w/w	1	10.3	9.1	12.1	14.2	16.6

			TP27	TP27	TP28	TP28	TP29
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267483.051	SE267483.052	SE267483.053	SE267483.054	SE267483.055
% Moisture	%w/w	1	12.1	16.4	13.4	13.2	12.3

			TP29	TP30	TP30	TP31	TP31
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267483.056	SE267483.057	SE267483.058	SE267483.059	SE267483.060
% Moisture	%w/w	1	19.0	7.7	8.0	13.1	14.7

			TP32	TP32	TP33	TP33	TP34
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267483.061	SE267483.062	SE267483.063	SE267483.064	SE267483.065
% Moisture	%w/w	1	13.0	13.5	15.6	11.1	13.7

			TP34	TP35	TP35	TP36	TP36
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267483.066	SE267483.067	SE267483.068	SE267483.069	SE267483.070
% Moisture	%w/w	1	11.8	8.5	11.2	11.1	16.4

Moisture Content [AN002] Tested: 2/7/2024 (continued)

PARAMETER	UOM	LOR	TP37 SOIL 0.4-0.5 27/6/2024 SE267483.071	TP37 SOIL 0.8-0.9 27/6/2024 SE267483.072	TP38 SOIL 0.4-0.5 27/6/2024 SE267483.073	TP38 SOIL 1.0-1.1 27/6/2024 SE267483.074	TP39 SOIL 0.4-0.5 27/6/2024 SE267483.075
% Moisture	%w/w	1	10.2	7.8	13.3	18.9	9.4

PARAMETER	UOM	LOR	TP39 SOIL 1.0-1.1 27/6/2024 SE267483.076	TP40 SOIL 0.4-0.5 27/6/2024 SE267483.077	TP40 SOIL 1.0-1.1 27/6/2024 SE267483.078	TP41 SOIL 0.4-0.5 27/6/2024 SE267483.079	TP41 SOIL 1.0-1.1 27/6/2024 SE267483.080
% Moisture	%w/w	1	8.3	12.9	12.6	12.7	15.5

PARAMETER	UOM	LOR	TP42 SOIL 0.4-0.5 27/6/2024 SE267483.081	TP42 SOIL 1.0-1.1 27/6/2024 SE267483.082	TP43 SOIL 0.4-0.5 27/6/2024 SE267483.083	TP43 SOIL 1.0-1.1 27/6/2024 SE267483.084	TP44 SOIL 0.4-0.5 27/6/2024 SE267483.085
% Moisture	%w/w	1	19.6	18.4	14.5	13.6	17.5

PARAMETER	UOM	LOR	TP44 SOIL 1.0-1.1 27/6/2024 SE267483.086	TP45 SOIL 0.4-0.5 27/6/2024 SE267483.087	TP45 SOIL 1.0-1.1 27/6/2024 SE267483.088	TP46 SOIL 0.4-0.5 27/6/2024 SE267483.089	TP46 SOIL 1.0-1.1 27/6/2024 SE267483.090
% Moisture	%w/w	1	13.9	11.0	10.5	16.3	12.9

PARAMETER	UOM	LOR	TP47 SOIL 0.4-0.5 27/6/2024 SE267483.091	TP47 SOIL 1.0-1.1 27/6/2024 SE267483.092	TP48 SOIL 0.4-0.5 27/6/2024 SE267483.093	TP48 SOIL 1.0-1.1 27/6/2024 SE267483.094	TP49 SOIL 0.4-0.5 27/6/2024 SE267483.095
% Moisture	%w/w	1	15.1	16.3	19.9	16.3	13.9

PARAMETER	UOM	LOR	TP49 SOIL 1.0-1.1 27/6/2024 SE267483.096
% Moisture	%w/w	1	4.9

METHOD

METHODOLOGY SUMMARY

AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN101

pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl₂) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.

AN106

Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos/cm or µS/cm @ 25°C. For soils, an extract of as received sample with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2510 B.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
***	Indicates that both * and ** apply.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or

CLIENT DETAILS

LABORATORY DETAILS

<p>Contact Joe Chen Client Geotech Testing Pty Ltd Address P.O. Box 880 PENRITH NSW 2751</p> <p>Telephone 02 4722 2700 Facsimile 02 4722 6161 Email joe@geotech.com.au</p> <p>Project 8599/122 Marsden Park Order Number 8599/122 Samples 96</p>		<p>Manager Shane McDermott Laboratory SGS Alexandria Environmental Address Unit 16, 33 Maddox St Alexandria NSW 2015</p> <p>Telephone +61 2 8594 0400 Facsimile +61 2 8594 0499 Email au.environmental.sydney@sgs.com</p> <p>SGS Reference SE267483 R0 Date Received 28 Jun 2024 Date Reported 10 Jul 2024</p>
---	--	---

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.
All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Sample counts by matrix	96 Soil	Type of documentation received	COC
Date documentation received	28/6/2024	Samples received in good order	Yes
Samples received without headspace	N/A	Sample temperature upon receipt	20.5°C
Sample container provider	Client	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	None	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-ENV/JAN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE267483.001	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP1	SE267483.002	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP2	SE267483.003	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP2	SE267483.004	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP3	SE267483.005	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP4	SE267483.006	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP5	SE267483.007	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP5	SE267483.008	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP6	SE267483.009	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP6	SE267483.010	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP7	SE267483.011	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP7	SE267483.012	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP8	SE267483.013	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP8	SE267483.014	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP9	SE267483.015	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP9	SE267483.016	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP10	SE267483.017	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP10	SE267483.018	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP11	SE267483.019	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP11	SE267483.020	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP12	SE267483.021	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP12	SE267483.022	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP13	SE267483.023	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP13	SE267483.024	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP14	SE267483.025	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP14	SE267483.026	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP15	SE267483.027	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP15	SE267483.028	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP16	SE267483.029	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP16	SE267483.030	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP17	SE267483.031	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP17	SE267483.032	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP18	SE267483.033	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP18	SE267483.034	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP19	SE267483.035	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP19	SE267483.036	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP20	SE267483.037	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP20	SE267483.038	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP21	SE267483.039	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP21	SE267483.040	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP22	SE267483.041	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP22	SE267483.042	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP23	SE267483.043	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP23	SE267483.044	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP24	SE267483.045	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP24	SE267483.046	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP25	SE267483.047	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP25	SE267483.048	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP26	SE267483.049	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP26	SE267483.050	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP27	SE267483.051	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP27	SE267483.052	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP28	SE267483.053	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP28	SE267483.054	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP29	SE267483.055	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP29	SE267483.056	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP30	SE267483.057	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP30	SE267483.058	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP31	SE267483.059	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024
TP31	SE267483.060	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	04 Jul 2024	03 Jul 2024

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Conductivity and TDS by Calculation - Soil (continued)

Method: ME-(AU)-ENVJAN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP32	SE267483.061	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP32	SE267483.062	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP33	SE267483.063	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP33	SE267483.064	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP34	SE267483.065	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP34	SE267483.066	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP35	SE267483.067	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP35	SE267483.068	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP36	SE267483.069	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP36	SE267483.070	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP37	SE267483.071	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP37	SE267483.072	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP38	SE267483.073	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP38	SE267483.074	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP39	SE267483.075	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP39	SE267483.076	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP40	SE267483.077	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP40	SE267483.078	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP41	SE267483.079	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP41	SE267483.080	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP42	SE267483.081	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP42	SE267483.082	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP43	SE267483.083	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP43	SE267483.084	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP44	SE267483.085	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP44	SE267483.086	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP45	SE267483.087	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP45	SE267483.088	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP46	SE267483.089	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP46	SE267483.090	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP47	SE267483.091	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP47	SE267483.092	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP48	SE267483.093	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP48	SE267483.094	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP49	SE267483.095	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024
TP49	SE267483.096	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	04 Jul 2024

Moisture Content

Method: ME-(AU)-ENVJAN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE267483.001	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP1	SE267483.002	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP2	SE267483.003	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP2	SE267483.004	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP3	SE267483.005	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP4	SE267483.006	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP5	SE267483.007	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP5	SE267483.008	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP6	SE267483.009	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP6	SE267483.010	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP7	SE267483.011	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP7	SE267483.012	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP8	SE267483.013	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP8	SE267483.014	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP9	SE267483.015	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP9	SE267483.016	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP10	SE267483.017	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP10	SE267483.018	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP11	SE267483.019	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP11	SE267483.020	LB316565	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP12	SE267483.021	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Moisture Content (continued)

Method: ME-(AU)-ENVJAN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP12	SE267483.022	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP13	SE267483.023	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP13	SE267483.024	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP14	SE267483.025	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP14	SE267483.026	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP15	SE267483.027	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP15	SE267483.028	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP16	SE267483.029	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP16	SE267483.030	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP17	SE267483.031	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP17	SE267483.032	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP18	SE267483.033	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP18	SE267483.034	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP19	SE267483.035	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP19	SE267483.036	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP20	SE267483.037	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP20	SE267483.038	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP21	SE267483.039	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP21	SE267483.040	LB316568	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP22	SE267483.041	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP22	SE267483.042	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP23	SE267483.043	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP23	SE267483.044	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP24	SE267483.045	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP24	SE267483.046	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP25	SE267483.047	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP25	SE267483.048	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP26	SE267483.049	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP26	SE267483.050	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP27	SE267483.051	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP27	SE267483.052	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP28	SE267483.053	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP28	SE267483.054	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP29	SE267483.055	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP29	SE267483.056	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP30	SE267483.057	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP30	SE267483.058	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP31	SE267483.059	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP31	SE267483.060	LB316569	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP32	SE267483.061	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP32	SE267483.062	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP33	SE267483.063	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP33	SE267483.064	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP34	SE267483.065	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP34	SE267483.066	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP35	SE267483.067	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP35	SE267483.068	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP36	SE267483.069	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP36	SE267483.070	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP37	SE267483.071	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP37	SE267483.072	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP38	SE267483.073	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP38	SE267483.074	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP39	SE267483.075	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP39	SE267483.076	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP40	SE267483.077	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP40	SE267483.078	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP41	SE267483.079	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP41	SE267483.080	LB316570	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	03 Jul 2024
TP42	SE267483.081	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Moisture Content (continued)

Method: ME-(AU)-ENVJAN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP42	SE267483.082	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP43	SE267483.083	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP43	SE267483.084	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP44	SE267483.085	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP44	SE267483.086	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP45	SE267483.087	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP45	SE267483.088	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP46	SE267483.089	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP46	SE267483.090	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP47	SE267483.091	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP47	SE267483.092	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP48	SE267483.093	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP48	SE267483.094	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP49	SE267483.095	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024
TP49	SE267483.096	LB316572	27 Jun 2024	28 Jun 2024	11 Jul 2024	02 Jul 2024	07 Jul 2024	04 Jul 2024

pH in soil (1:5)

Method: ME-(AU)-ENVJAN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE267483.001	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP1	SE267483.002	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP2	SE267483.003	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP2	SE267483.004	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP3	SE267483.005	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP4	SE267483.006	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP5	SE267483.007	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP5	SE267483.008	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP6	SE267483.009	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP6	SE267483.010	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP7	SE267483.011	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP7	SE267483.012	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP8	SE267483.013	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP8	SE267483.014	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP9	SE267483.015	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP9	SE267483.016	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP10	SE267483.017	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP10	SE267483.018	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP11	SE267483.019	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP11	SE267483.020	LB316709	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP12	SE267483.021	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP12	SE267483.022	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP13	SE267483.023	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP13	SE267483.024	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP14	SE267483.025	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP14	SE267483.026	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP15	SE267483.027	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP15	SE267483.028	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP16	SE267483.029	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP16	SE267483.030	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP17	SE267483.031	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP17	SE267483.032	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP18	SE267483.033	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP18	SE267483.034	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP19	SE267483.035	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP19	SE267483.036	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP20	SE267483.037	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP20	SE267483.038	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP21	SE267483.039	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP21	SE267483.040	LB316579	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP22	SE267483.041	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP22	SE267483.042	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

pH in soil (1:5) (continued)

Method: ME-(AU)-ENVJAN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP23	SE267483.043	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP23	SE267483.044	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP24	SE267483.045	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP24	SE267483.046	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP25	SE267483.047	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP25	SE267483.048	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP26	SE267483.049	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP26	SE267483.050	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP27	SE267483.051	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP27	SE267483.052	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP28	SE267483.053	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP28	SE267483.054	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP29	SE267483.055	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP29	SE267483.056	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP30	SE267483.057	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP30	SE267483.058	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP31	SE267483.059	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP31	SE267483.060	LB316580	27 Jun 2024	28 Jun 2024	04 Jul 2024	02 Jul 2024	03 Jul 2024	02 Jul 2024
TP32	SE267483.061	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP32	SE267483.062	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP33	SE267483.063	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP33	SE267483.064	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP34	SE267483.065	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP34	SE267483.066	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP35	SE267483.067	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP35	SE267483.068	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP36	SE267483.069	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP36	SE267483.070	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP37	SE267483.071	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP37	SE267483.072	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP38	SE267483.073	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP38	SE267483.074	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP39	SE267483.075	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP39	SE267483.076	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP40	SE267483.077	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP40	SE267483.078	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP41	SE267483.079	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP41	SE267483.080	LB316710	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP42	SE267483.081	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP42	SE267483.082	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP43	SE267483.083	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP43	SE267483.084	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP44	SE267483.085	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP44	SE267483.086	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP45	SE267483.087	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP45	SE267483.088	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP46	SE267483.089	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP46	SE267483.090	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP47	SE267483.091	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP47	SE267483.092	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP48	SE267483.093	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP48	SE267483.094	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP49	SE267483.095	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024
TP49	SE267483.096	LB316717	27 Jun 2024	28 Jun 2024	04 Jul 2024	03 Jul 2024	04 Jul 2024	03 Jul 2024

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.



Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result
LB316579.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	1.04
LB316580.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	-0.3
LB316709.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	1.09
LB316710.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0.76
LB316717.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0.99

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267483.010	LB316709.014	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	330	310	31	7
SE267483.020	LB316709.025	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	510	520	30	1
SE267483.030	LB316579.014	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	500	470	30	6
SE267483.040	LB316579.025	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	180	180	31	1
SE267483.050	LB316580.014	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	210	220	31	4
SE267483.060	LB316580.025	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	420	500	30	18
SE267483.080	LB316710.025	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	230	220	31	2
SE267483.090	LB316717.014	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	230	220	31	2
SE267486.024	LB316717.025	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	400	450	30	13

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267483.010	LB316565.011	% Moisture	%w/w	1	10.5	11.7	39	11
SE267483.020	LB316565.022	% Moisture	%w/w	1	13.7	13.6	37	0
SE267483.030	LB316568.011	% Moisture	%w/w	1	14.9	15.0	37	0
SE267483.040	LB316568.022	% Moisture	%w/w	1	9.9	7.7	41	25
SE267483.050	LB316569.011	% Moisture	%w/w	1	16.6	13.0	37	24
SE267483.060	LB316569.022	% Moisture	%w/w	1	14.7	11.2	38	27
SE267483.070	LB316570.011	% Moisture	%w/w	1	16.4	17.0	36	3
SE267483.080	LB316570.022	% Moisture	%w/w	1	15.5	19.1	36	21
SE267483.090	LB316572.011	% Moisture	%w/w	1	12.9	14.2	37	10
SE267486.024	LB316572.022	% Moisture	%w/w	1	14.1	15.2	37	7

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267483.010	LB316709.014	pH	pH Units	0.1	9.1	8.9	31	1
SE267483.020	LB316709.025	pH	pH Units	0.1	5.3	5.3	32	0
SE267483.030	LB316579.014	pH	pH Units	0.1	5.1	5.0	32	1
SE267483.040	LB316579.025	pH	pH Units	0.1	5.4	5.5	32	1
SE267483.050	LB316580.014	pH	pH Units	0.1	5.4	5.4	32	0
SE267483.060	LB316580.025	pH	pH Units	0.1	8.3	8.2	31	0
SE267483.070	LB316710.014	pH	pH Units	0.1	4.5	4.4	32	2
SE267483.080	LB316710.025	pH	pH Units	0.1	4.8	4.9	32	0
SE267483.090	LB316717.014	pH	pH Units	0.1	6.0	6.1	32	2
SE267486.024	LB316717.025	pH	pH Units	0.1	5.2	5.3	32	1

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB316579.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	94
LB316580.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	97
LB316709.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	96
LB316710.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	100
LB316717.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	99

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB316579.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB316580.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB316709.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB316710.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB316717.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022_QA_QC_Plan.pdf

- * NATA accreditation does not cover the performance of this service.
- ** Indicative data, theoretical holding time exceeded.
- *** Indicates that both * and ** apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
- ⑩ LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This test report shall not be reproduced, except in full.

GEOTECH TESTING PTY LTD

Laboratory Test Request / Chain of Custody Record

Lemko Place
PENRITH NSW 2750


P O Box 880
PENRITH NSW 2751

Tel: (02) 4722 2700
Fax: (02) 4722 6161
email: info@geotech.com.au

Page

1 of 2

TO: SGS ENVIRONMENTAL SERVICES UNIT 16 33 MADDOX STREET ALEXANDRIA NSW 2015	Sampling By: JC Job No 8599/122 Project: PROPOSED RESIDENTIAL DEVELOPMENT,
PH: 02 8594 0400 FAX: 02 8594 0499 ATTN: Ms Emily Yin	Project Manager: JC Location: Marsden Park

Sampling details						Results required by:								
Location	Depth	Soil	Water	EC (1:5)	pH	Sulphate	Chloride	ESP					Notes	Keep Sample
1 TP1	0.4-0.5	DSP		✓	✓								SGS EHS Sydney COC SE267483 	
2	1.0-1.1	DSP		✓	✓									
3 TP2	0.4-0.5	DSP		✓	✓									
4	1.0-1.1	DSP		✓	✓									
5 TP3	0.4-0.5	DSP		✓	✓									
6	1.0-1.1	DSP		✓	✓									
7 TP4	0.4-0.5	DSP		✓	✓									
8	1.0-1.1	DSP		✓	✓									
9 TP5	0.4-0.5	DSP		✓	✓									
10	1.0-1.1	DSP		✓	✓									
11 TP6	0.4-0.5	DSP		✓	✓									
12	1.0-1.1	DSP		✓	✓									
13 TP7	0.4-0.5	DSP		✓	✓									
14	1.0-1.1	DSP		✓	✓									
15 TP8	0.4-0.5	DSP		✓	✓									
16	1.0-1.1	DSP		✓	✓									
17 TP9	0.4-0.5	DSP		✓	✓									
18	1.0-1.1	DSP		✓	✓									
19 TP10	0.4-0.5	DSP		✓	✓									
20	1.0-1.1	DSP		✓	✓									
21 TP11	0.4-0.5	DSP		✓	✓									
22	1.0-1.1	DSP		✓	✓									
23 TP12	0.4-0.5	DSP		✓	✓									
24	1.0-1.1	DSP		✓	✓									

Please Use Geotechnical Engineering Template for Reporting

Relinquished by				Received by			
Name	Signature	Date	Name	Signature			
Joe	JC	3/02/2023	Suba	<i>[Signature]</i>	28/06/24		2-5T

Legend:	WG	USG	Undisturbed soil sample (glass jar)	DSP	Disturbed soil sample (small plastic bag)	* Purge & Trap
	WP	DSG	Disturbed soil sample (glass jar)	✓	Test required	# Geotechnique Screen

Lemko Place P O Box 880 Tel: (02) 4722 2700
 PENRITH NSW 2750 PENRITH NSW 2751 Fax: (02) 4722 6161
 email: info@geotech.com.au

TO: SGS ENVIRONMENTAL SERVICES UNIT 16 33 MADDOX STREET ALEXANDRIA NSW 2015		Sampling By: JC	Job No 8599/122
PH: 02 8594 0400 ATTN: Ms Emily Yin		FAX: 02 8594 0499	Project: PROPOSED RESIDENTIAL DEVELOPMENT,
Project Manager: JC		Location: Marsden Park	

Sampling details						Results required by:							
Location	Depth	Soil	Water	EC (1:5)	pH	Sulphate	Chloride	ESP				Notes	Keep Sample
25 TP14	0.4-0.5	DSP		✓	✓							ESP=Exchnageable Sodium Percentage	
26	1.0-1.1	DSP		✓	✓								
27 TP15	0.4-0.5	DSP		✓	✓								
28	1.0-1.1	DSP		✓	✓								
29 TP16	0.4-0.5	DSP		✓	✓								
30	1.0-1.1	DSP		✓	✓								
31 TP17	0.4-0.5	DSP		✓	✓								
32	1.0-1.1	DSP		✓	✓								
33 TP18	0.4-0.5	DSP		✓	✓								
34	1.0-1.1	DSP		✓	✓								
35 TP19	0.4-0.5	DSP		✓	✓								
36	1.0-1.1	DSP		✓	✓								
37 TP20	0.4-0.5	DSP		✓	✓								
38	1.0-1.1	DSP		✓	✓								
39 TP21	0.4-0.5	DSP		✓	✓								
40	1.0-1.1	DSP		✓	✓								
41 TP22	0.4-0.5	DSP		✓	✓								
42	1.0-1.1	DSP		✓	✓								
43 TP23	0.4-0.5	DSP		✓	✓								
44	1.0-1.1	DSP		✓	✓								
45 TP24	0.4-0.5	DSP		✓	✓								
46	1.0-1.1	DSP		✓	✓								
47 TP25	0.4-0.5	DSP		✓	✓								
48	1.0-1.1	DSP		✓	✓								

Please Use Geotechnical Engineering Template for Reporting

Relinquished by				Received by			
Name	Signature	Date	Name	Signature	Date	Initials	
Joe	JC	3/02/2023	Suba	[Signature]	28/02/24	e 2.55	
Legend:		USG	Undisturbed soil sample (glass jar)	DSP	Disturbed soil sample (small plastic bag)	* Purge & Trap	
		DSG	Disturbed soil sample (glass jar)	✓	Test required	# Geotechnique Screen	

Lemko Place
PENRITH NSW 2750

P O Box 880
PENRITH NSW 2751

Tel: (02) 4722 2700
Fax: (02) 4722 6161
email: info@geotech.com.au

TO: SGS ENVIRONMENTAL SERVICES UNIT 16 33 MADDOX STREET ALEXANDRIA NSW 2015		Sampling By: JC Job No: 8599/122	
PH: 02 8594 0400 FAX: 02 8594 0499		Project: PROPOSED RESIDENTIAL DEVELOPMENT,	
ATTN: Ms Emily Yin		Project Manager: JC Location: Marsden Park	

Sampling details						Results required by:						
Location	Depth	Soil	Water	EC (1:5)	pH	Sulphate	Chloride	ESP			Notes	Keep Sample
TP26	0.4-0.5	DSP		✓	✓						ESP=Exchnageable Sodium Percentage	
	1.0-1.1	DSP		✓	✓							
TP27	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP28	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP29	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP30	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP31	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP32	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP33	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP34	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP35	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP36	0.4-0.5	DSP		✓	✓							
	1.0-1.1	DSP		✓	✓							
TP37	0.4-0.5	DSP		✓	✓							
	0.8-0.9	DSP		✓	✓							

49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72

Please Use Geotechnical Engineering Template for Reporting

Relinquished by			Received by		
Name	Signature	Date	Name	Signature	
Joe	JC	3/02/2023	Suba	[Signature]	28/06/24 @ 2:55

Legend:	USG	Undisturbed soil sample (glass jar)	DSP	Disturbed soil sample (small plastic bag)	* Purge & Trap
WG	DSG	Disturbed soil sample (glass jar)	✓	Test required	# Geotechnique Screen

Lemko Place
PENRITH NSW 2750

P O Box 880
PENRITH NSW 2751

Tel: (02) 4722 2700
Fax: (02) 4722 6161
email: info@geotech.com.au

TO: SGS ENVIRONMENTAL SERVICES UNIT 16 33 MADDOX STREET ALEXANDRIA NSW 2015		Sampling By: JC		Job No 8599/122	
PH: 02 8594 0400 ATTN: Ms Emily Yin		FAX: 02 8594 0499		Project: PROPOSED RESIDENTIAL DEVELOPMENT,	
		Project Manager: JC		Location: Marsden Park	

Sampling details					Results required by:								
Location	Depth	Soil	Water	EC (1:5)	pH	Sulphate	Chloride	ESP				Notes	Keep Sample
73 TP38	0.4-0.5	DSP		✓	✓							ESP=Exchnageable Sodium Percentage	
74	1.0-1.1	DSP		✓	✓								
75 TP39	0.4-0.5	DSP		✓	✓								
76	1.0-1.1	DSP		✓	✓								
77 TP40	0.4-0.5	DSP		✓	✓								
78	1.0-1.1	DSP		✓	✓								
79 TP41	0.4-0.5	DSP		✓	✓								
80	1.0-1.1	DSP		✓	✓								
81 TP42	0.4-0.5	DSP		✓	✓								
82	1.0-1.1	DSP		✓	✓								
83 TP43	0.4-0.5	DSP		✓	✓								
84	1.0-1.1	DSP		✓	✓								
85 TP44	0.4-0.5	DSP		✓	✓								
86	1.0-1.1	DSP		✓	✓								
87 TP45	0.4-0.5	DSP		✓	✓								
88	1.0-1.1	DSP		✓	✓								
89 TP46	0.4-0.5	DSP		✓	✓								
90	1.0-1.1	DSP		✓	✓								
91 TP47	0.4-0.5	DSP		✓	✓								
92	1.0-1.1	DSP		✓	✓								
93 TP48	0.4-0.5	DSP		✓	✓								
94	1.0-1.1	DSP		✓	✓								
95 TP49	0.4-0.5	DSP		✓	✓								
96	1.0-1.1	DSP		✓	✓								

Please Use Geotechnical Engineering Template for Reporting

Relinquished by			Received by		
Name	Signature	Date	Name	Signature	
Joe	JC	3/02/2023	Suba	[Signature]	28/06/24 @ 2:55

Legend:

WG	USG	Undisturbed soil sample (glass jar)	DSP	Disturbed soil sample (small plastic bag)	* Purge & Trap
WP	DSG	Disturbed soil sample (glass jar)	✓	Test required	# Geotechnique Screen



SAMPLE RECEIPT ADVICE

SE267483

CLIENT DETAILS

Contact Joe Chen
Client Geotech Testing Pty Ltd
Address P.O. Box 880
PENRITH
NSW 2751

Telephone 02 4722 2700
Facsimile 02 4722 6161
Email joe@geotech.com.au

Project **8599/122 Marsden Park**
Order Number **8599/122**
Samples 96

LABORATORY DETAILS

Manager Shane McDermott
Laboratory SGS Alexandria Environmental
Address Unit 16, 33 Maddox St
Alexandria NSW 2015

Telephone +61 2 8594 0400
Facsimile +61 2 8594 0499
Email au.environmental.sydney@sgs.com

Samples Received Fri 28/6/2024
Report Due Fri 5/7/2024
SGS Reference **SE267483**

SUBMISSION DETAILS

This is to confirm that 96 samples were received on Friday 28/6/2024. Results are expected to be ready by COB Friday 5/7/2024. Please quote SGS reference SE267483 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix	96 Soil	Type of documentation received	COC
Date documentation received	28/6/2024	Samples received in good order	Yes
Samples received without headspace	N/A	Sample temperature upon receipt	20.5°C
Sample container provider	Client	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	None	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

TP3_1.0-1.1 not received.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

CLIENT DETAILS

Client **Geotech Testing Pty Ltd**

Project **8599/122 Marsden Park**

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
001	TP1 0.4-0.5	1	1	1
002	TP1 1.0-1.1	1	1	1
003	TP2 0.4-0.5	1	1	1
004	TP2 1.0-1.1	1	1	1
005	TP3 0.4-0.5	1	1	1
006	TP4 0.4-0.5	1	1	1
007	TP5 0.4-0.5	1	1	1
008	TP5 1.0-1.1	1	1	1
009	TP6 0.4-0.5	1	1	1
010	TP6 1.0-1.1	1	1	1
011	TP7 0.4-0.5	1	1	1
012	TP7 1.0-1.1	1	1	1
013	TP8 0.4-0.5	1	1	1
014	TP8 1.0-1.1	1	1	1
015	TP9 0.4-0.5	1	1	1
016	TP9 1.0-1.1	1	1	1
017	TP10 0.4-0.5	1	1	1
018	TP10 1.0-1.1	1	1	1
019	TP11 0.4-0.5	1	1	1
020	TP11 1.0-1.1	1	1	1
021	TP12 0.4-0.5	1	1	1
022	TP12 1.0-1.1	1	1	1
023	TP13 0.4-0.5	1	1	1
024	TP13 1.0-1.1	1	1	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

CLIENT DETAILS

Client **Geotech Testing Pty Ltd**

Project **8599/122 Marsden Park**

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
025	TP14 0.4-0.5	1	1	1
026	TP14 1.0-1.1	1	1	1
027	TP15 0.4-0.5	1	1	1
028	TP15 1.0-1.1	1	1	1
029	TP16 0.4-0.5	1	1	1
030	TP16 1.0-1.1	1	1	1
031	TP17 0.4-0.5	1	1	1
032	TP17 1.0-1.1	1	1	1
033	TP18 0.4-0.5	1	1	1
034	TP18 1.0-1.1	1	1	1
035	TP19 0.4-0.5	1	1	1
036	TP19 1.0-1.1	1	1	1
037	TP20 0.4-0.5	1	1	1
038	TP20 1.0-1.1	1	1	1
039	TP21 0.4-0.5	1	1	1
040	TP21 1.0-1.1	1	1	1
041	TP22 0.4-0.5	1	1	1
042	TP22 1.0-1.1	1	1	1
043	TP23 0.4-0.5	1	1	1
044	TP23 1.0-1.1	1	1	1
045	TP24 0.4-0.5	1	1	1
046	TP24 1.0-1.1	1	1	1
047	TP25 0.4-0.5	1	1	1
048	TP25 1.0-1.1	1	1	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

CLIENT DETAILS

Client **Geotech Testing Pty Ltd**

Project **8599/122 Marsden Park**

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
049	TP26 0.4-0.5	1	1	1
050	TP26 1.0-1.1	1	1	1
051	TP27 0.4-0.5	1	1	1
052	TP27 1.0-1.1	1	1	1
053	TP28 0.4-0.5	1	1	1
054	TP28 1.0-1.1	1	1	1
055	TP29 0.4-0.5	1	1	1
056	TP29 1.0-1.1	1	1	1
057	TP30 0.4-0.5	1	1	1
058	TP30 1.0-1.1	1	1	1
059	TP31 0.4-0.5	1	1	1
060	TP31 1.0-1.1	1	1	1
061	TP32 0.4-0.5	1	1	1
062	TP32 1.0-1.1	1	1	1
063	TP33 0.4-0.5	1	1	1
064	TP33 1.0-1.1	1	1	1
065	TP34 0.4-0.5	1	1	1
066	TP34 1.0-1.1	1	1	1
067	TP35 0.4-0.5	1	1	1
068	TP35 1.0-1.1	1	1	1
069	TP36 0.4-0.5	1	1	1
070	TP36 1.0-1.1	1	1	1
071	TP37 0.4-0.5	1	1	1
072	TP37 0.8-0.9	1	1	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

CLIENT DETAILS

Client **Geotech Testing Pty Ltd**

Project **8599/122 Marsden Park**

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
073	TP38 0.4-0.5	1	1	1
074	TP38 1.0-1.1	1	1	1
075	TP39 0.4-0.5	1	1	1
076	TP39 1.0-1.1	1	1	1
077	TP40 0.4-0.5	1	1	1
078	TP40 1.0-1.1	1	1	1
079	TP41 0.4-0.5	1	1	1
080	TP41 1.0-1.1	1	1	1
081	TP42 0.4-0.5	1	1	1
082	TP42 1.0-1.1	1	1	1
083	TP43 0.4-0.5	1	1	1
084	TP43 1.0-1.1	1	1	1
085	TP44 0.4-0.5	1	1	1
086	TP44 1.0-1.1	1	1	1
087	TP45 0.4-0.5	1	1	1
088	TP45 1.0-1.1	1	1	1
089	TP46 0.4-0.5	1	1	1
090	TP46 1.0-1.1	1	1	1
091	TP47 0.4-0.5	1	1	1
092	TP47 1.0-1.1	1	1	1
093	TP48 0.4-0.5	1	1	1
094	TP48 1.0-1.1	1	1	1
095	TP49 0.4-0.5	1	1	1
096	TP49 1.0-1.1	1	1	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

CLIENT DETAILS

Contact **Joe Chen**
 Client **Geotech Testing Pty Ltd**
 Address **P.O. Box 880
 PENRITH
 NSW 2751**

Telephone **02 4722 2700**
 Facsimile **02 4722 6161**
 Email **joe@geotech.com.au**

Project **8599/122 Marsden Park**
 Order Number **8599/122**
 Samples **69**

LABORATORY DETAILS

Manager **Shane McDermott**
 Laboratory **SGS Alexandria Environmental**
 Address **Unit 16, 33 Maddox St
 Alexandria NSW 2015**


Telephone **+61 2 8594 0400**
 Facsimile **+61 2 8594 0499**
 Email **au.environmental.sydney@sgs.com**

SGS Reference **SE267484 R0**
 Date Received **28/6/2024**
 Date Reported **5/7/2024**

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES



Dong LIANG
 Metals/Inorganics Team Leader



Shane MCDERMOTT
 Laboratory Manager

pH in soil (1:5) [AN101] Tested: 4/7/2024

PARAMETER	UOM	LOR	TP50 SOIL 0.4-0.5 27/6/2024 SE267484.001	TP50 SOIL 1.0-1.1 27/6/2024 SE267484.002	TP51 SOIL 0.4-0.5 27/6/2024 SE267484.003	TP51 SOIL 1.0-1.1 27/6/2024 SE267484.004	TP52 SOIL 0.4-0.5 27/6/2024 SE267484.005
pH	pH Units	0.1	5.3	5.2	6.6	5.1	6.4

PARAMETER	UOM	LOR	TP52 SOIL 1.0-1.1 27/6/2024 SE267484.006	TP53 SOIL 0.4-0.5 27/6/2024 SE267484.007	TP53 SOIL 1.0-1.1 27/6/2024 SE267484.008	TP54 SOIL 0.4-0.5 27/6/2024 SE267484.009	TP54 SOIL 1.0-1.1 27/6/2024 SE267484.010
pH	pH Units	0.1	6.0	5.2	5.6	6.7	5.2

PARAMETER	UOM	LOR	TP55 SOIL 0.4-0.5 27/6/2024 SE267484.011	TP55 SOIL 1.0-1.1 27/6/2024 SE267484.012	TP56 SOIL 0.4-0.5 27/6/2024 SE267484.013	TP56 SOIL 1.0-1.1 27/6/2024 SE267484.014	TP57 SOIL 0.4-0.5 27/6/2024 SE267484.015
pH	pH Units	0.1	5.3	5.0	5.2	4.9	5.4

PARAMETER	UOM	LOR	TP58 SOIL 0.4-0.5 27/6/2024 SE267484.016	TP58 SOIL 1.0-1.1 27/6/2024 SE267484.017	TP59 SOIL 0.4-0.5 27/6/2024 SE267484.018	TP60 SOIL 0.4-0.5 27/6/2024 SE267484.019	TP60 SOIL 1.0-1.1 27/6/2024 SE267484.020
pH	pH Units	0.1	5.0	5.2	5.2	4.9	5.4

PARAMETER	UOM	LOR	TP61 SOIL 0.4-0.5 27/6/2024 SE267484.021	TP61 SOIL 1.0-1.1 27/6/2024 SE267484.022	TP62 SOIL 0.4-0.5 27/6/2024 SE267484.023	TP63 SOIL 0.4-0.5 27/6/2024 SE267484.024	TP64 SOIL 0.4-0.5 27/6/2024 SE267484.025
pH	pH Units	0.1	5.3	4.8	5.7	5.8	5.6

PARAMETER	UOM	LOR	TP65 SOIL 0.4-0.5 27/6/2024 SE267484.026	TP66 SOIL 0.4-0.5 27/6/2024 SE267484.027	TP66 SOIL 1.0-1.1 27/6/2024 SE267484.028	TP67 SOIL 0.4-0.5 27/6/2024 SE267484.029	TP68 SOIL 0.4-0.5 27/6/2024 SE267484.030
pH	pH Units	0.1	5.5	6.1	5.3	5.3	5.1

PARAMETER	UOM	LOR	TP69 SOIL 0.4-0.5 27/6/2024 SE267484.031	TP69 SOIL 1.0-1.1 27/6/2024 SE267484.032	TP70 SOIL 0.4-0.5 27/6/2024 SE267484.033	TP70 SOIL 1.0-1.1 27/6/2024 SE267484.034	TP71 SOIL 0.4-0.5 27/6/2024 SE267484.035
pH	pH Units	0.1	4.9	5.0	4.9	5.2	4.7

pH in soil (1:5) [AN101] Tested: 4/7/2024 (continued)

			TP72	TP73	TP73	TP74	TP74
			SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267484.036	SE267484.037	SE267484.038	SE267484.039	SE267484.040
pH	pH Units	0.1	5.0	5.1	5.0	5.4	4.9

			TP75	TP76	TP77	TP77	TP78
			SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267484.041	SE267484.042	SE267484.043	SE267484.044	SE267484.045
pH	pH Units	0.1	4.4	4.2	4.8	4.7	4.8

			TP78	TP79	TP79	TP80	TP80
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267484.046	SE267484.047	SE267484.048	SE267484.049	SE267484.050
pH	pH Units	0.1	4.7	4.6	4.5	4.8	4.9

			TP81	TP82	TP82	TP83	TP83
			SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267484.051	SE267484.052	SE267484.053	SE267484.054	SE267484.055
pH	pH Units	0.1	4.7	8.0	4.7	4.0	4.0

			TP84	TP84	TP85	TP85	TP86
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267484.056	SE267484.057	SE267484.058	SE267484.059	SE267484.060
pH	pH Units	0.1	4.5	4.8	4.9	4.9	5.1

			TP87	TP87	TP88	TP88	TP89
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267484.061	SE267484.062	SE267484.063	SE267484.064	SE267484.065
pH	pH Units	0.1	5.2	5.6	5.2	5.5	5.0

			TP90	TP91	TP91
			SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267484.066	SE267484.068	SE267484.069
pH	pH Units	0.1	4.9	5.2	5.4

Conductivity and TDS by Calculation - Soil [AN106] Tested: 4/7/2024

PARAMETER	UOM	LOR	TP50 SOIL 0.4-0.5 27/6/2024 SE267484.001	TP50 SOIL 1.0-1.1 27/6/2024 SE267484.002	TP51 SOIL 0.4-0.5 27/6/2024 SE267484.003	TP51 SOIL 1.0-1.1 27/6/2024 SE267484.004	TP52 SOIL 0.4-0.5 27/6/2024 SE267484.005
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	420	370	130	230	300

PARAMETER	UOM	LOR	TP52 SOIL 1.0-1.1 27/6/2024 SE267484.006	TP53 SOIL 0.4-0.5 27/6/2024 SE267484.007	TP53 SOIL 1.0-1.1 27/6/2024 SE267484.008	TP54 SOIL 0.4-0.5 27/6/2024 SE267484.009	TP54 SOIL 1.0-1.1 27/6/2024 SE267484.010
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	54	220	110	320	260

PARAMETER	UOM	LOR	TP55 SOIL 0.4-0.5 27/6/2024 SE267484.011	TP55 SOIL 1.0-1.1 27/6/2024 SE267484.012	TP56 SOIL 0.4-0.5 27/6/2024 SE267484.013	TP56 SOIL 1.0-1.1 27/6/2024 SE267484.014	TP57 SOIL 0.4-0.5 27/6/2024 SE267484.015
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	140	340	260	410	98

PARAMETER	UOM	LOR	TP58 SOIL 0.4-0.5 27/6/2024 SE267484.016	TP58 SOIL 1.0-1.1 27/6/2024 SE267484.017	TP59 SOIL 0.4-0.5 27/6/2024 SE267484.018	TP60 SOIL 0.4-0.5 27/6/2024 SE267484.019	TP60 SOIL 1.0-1.1 27/6/2024 SE267484.020
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	650	620	600	370	450

PARAMETER	UOM	LOR	TP61 SOIL 0.4-0.5 27/6/2024 SE267484.021	TP61 SOIL 1.0-1.1 27/6/2024 SE267484.022	TP62 SOIL 0.4-0.5 27/6/2024 SE267484.023	TP63 SOIL 0.4-0.5 27/6/2024 SE267484.024	TP64 SOIL 0.4-0.5 27/6/2024 SE267484.025
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	98	580	180	80	230

PARAMETER	UOM	LOR	TP65 SOIL 0.4-0.5 27/6/2024 SE267484.026	TP66 SOIL 0.4-0.5 27/6/2024 SE267484.027	TP66 SOIL 1.0-1.1 27/6/2024 SE267484.028	TP67 SOIL 0.4-0.5 27/6/2024 SE267484.029	TP68 SOIL 0.4-0.5 27/6/2024 SE267484.030
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	45	170	80	180	490

PARAMETER	UOM	LOR	TP69 SOIL 0.4-0.5 27/6/2024 SE267484.031	TP69 SOIL 1.0-1.1 27/6/2024 SE267484.032	TP70 SOIL 0.4-0.5 27/6/2024 SE267484.033	TP70 SOIL 1.0-1.1 27/6/2024 SE267484.034	TP71 SOIL 0.4-0.5 27/6/2024 SE267484.035
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	570	700	770	590	730

Conductivity and TDS by Calculation - Soil [AN106] Tested: 4/7/2024 (continued)

PARAMETER	UOM	LOR	TP72 SOIL 0.4-0.5 27/6/2024 SE267484.036	TP73 SOIL 0.4-0.5 27/6/2024 SE267484.037	TP73 SOIL 1.0-1.1 27/6/2024 SE267484.038	TP74 SOIL 0.4-0.5 27/6/2024 SE267484.039	TP74 SOIL 1.0-1.1 27/6/2024 SE267484.040
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	410	400	530	220	320

PARAMETER	UOM	LOR	TP75 SOIL 0.4-0.5 27/6/2024 SE267484.041	TP76 SOIL 0.4-0.5 27/6/2024 SE267484.042	TP77 SOIL 0.4-0.5 27/6/2024 SE267484.043	TP77 SOIL 1.0-1.1 27/6/2024 SE267484.044	TP78 SOIL 0.4-0.5 27/6/2024 SE267484.045
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	280	160	94	33	180

PARAMETER	UOM	LOR	TP78 SOIL 1.0-1.1 27/6/2024 SE267484.046	TP79 SOIL 0.4-0.5 27/6/2024 SE267484.047	TP79 SOIL 1.0-1.1 27/6/2024 SE267484.048	TP80 SOIL 0.4-0.5 27/6/2024 SE267484.049	TP80 SOIL 1.0-1.1 27/6/2024 SE267484.050
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	260	180	180	190	32

PARAMETER	UOM	LOR	TP81 SOIL 0.4-0.5 27/6/2024 SE267484.051	TP82 SOIL 0.4-0.5 27/6/2024 SE267484.052	TP82 SOIL 1.0-1.1 27/6/2024 SE267484.053	TP83 SOIL 0.4-0.5 27/6/2024 SE267484.054	TP83 SOIL 1.0-1.1 27/6/2024 SE267484.055
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	270	230	510	360	460

PARAMETER	UOM	LOR	TP84 SOIL 0.4-0.5 27/6/2024 SE267484.056	TP84 SOIL 1.0-1.1 27/6/2024 SE267484.057	TP85 SOIL 0.4-0.5 27/6/2024 SE267484.058	TP85 SOIL 1.0-1.1 27/6/2024 SE267484.059	TP86 SOIL 0.4-0.5 27/6/2024 SE267484.060
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	290	220	160	170	320

PARAMETER	UOM	LOR	TP87 SOIL 0.4-0.5 27/6/2024 SE267484.061	TP87 SOIL 1.0-1.1 27/6/2024 SE267484.062	TP88 SOIL 0.4-0.5 27/6/2024 SE267484.063	TP88 SOIL 1.0-1.1 27/6/2024 SE267484.064	TP89 SOIL 0.4-0.5 27/6/2024 SE267484.065
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	170	110	320	270	440

PARAMETER	UOM	LOR	TP90 SOIL 0.4-0.5 27/6/2024 SE267484.066	TP91 SOIL 0.4-0.5 27/6/2024 SE267484.068	TP91 SOIL 1.0-1.1 27/6/2024 SE267484.069
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	290	84	40

Moisture Content [AN002] Tested: 2/7/2024

			TP50	TP50	TP51	TP51	TP52
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267484.001	SE267484.002	SE267484.003	SE267484.004	SE267484.005
% Moisture	%w/w	1	18.2	10.2	15.2	18.4	13.3

			TP52	TP53	TP53	TP54	TP54
			SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267484.006	SE267484.007	SE267484.008	SE267484.009	SE267484.010
% Moisture	%w/w	1	21.5	12.6	13.9	14.4	12.2

			TP55	TP55	TP56	TP56	TP57
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267484.011	SE267484.012	SE267484.013	SE267484.014	SE267484.015
% Moisture	%w/w	1	16.4	19.8	15.2	17.4	17.8

			TP58	TP58	TP59	TP60	TP60
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024
PARAMETER	UOM	LOR	SE267484.016	SE267484.017	SE267484.018	SE267484.019	SE267484.020
% Moisture	%w/w	1	19.0	13.4	14.1	16.8	13.7

			TP61	TP61	TP62	TP63	TP64
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267484.021	SE267484.022	SE267484.023	SE267484.024	SE267484.025
% Moisture	%w/w	1	4.1	17.9	15.3	9.2	17.4

			TP65	TP66	TP66	TP67	TP68
			SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267484.026	SE267484.027	SE267484.028	SE267484.029	SE267484.030
% Moisture	%w/w	1	12.2	14.1	15.9	12.7	16.1

			TP69	TP69	TP70	TP70	TP71
			SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024	SOIL 1.0-1.1 27/6/2024	SOIL 0.4-0.5 27/6/2024
PARAMETER	UOM	LOR	SE267484.031	SE267484.032	SE267484.033	SE267484.034	SE267484.035
% Moisture	%w/w	1	13.1	14.4	14.5	12.9	14.3

Moisture Content [AN002] Tested: 2/7/2024 (continued)

PARAMETER	UOM	LOR	TP72 SOIL 0.4-0.5 27/6/2024 SE267484.036	TP73 SOIL 0.4-0.5 27/6/2024 SE267484.037	TP73 SOIL 1.0-1.1 27/6/2024 SE267484.038	TP74 SOIL 0.4-0.5 27/6/2024 SE267484.039	TP74 SOIL 1.0-1.1 27/6/2024 SE267484.040
% Moisture	%w/w	1	16.4	13.5	12.2	16.9	11.7

PARAMETER	UOM	LOR	TP75 SOIL 0.4-0.5 27/6/2024 SE267484.041	TP76 SOIL 0.4-0.5 27/6/2024 SE267484.042	TP77 SOIL 0.4-0.5 27/6/2024 SE267484.043	TP77 SOIL 1.0-1.1 27/6/2024 SE267484.044	TP78 SOIL 0.4-0.5 27/6/2024 SE267484.045
% Moisture	%w/w	1	14.7	22.5	10.2	17.8	11.7

PARAMETER	UOM	LOR	TP78 SOIL 1.0-1.1 27/6/2024 SE267484.046	TP79 SOIL 0.4-0.5 27/6/2024 SE267484.047	TP79 SOIL 1.0-1.1 27/6/2024 SE267484.048	TP80 SOIL 0.4-0.5 27/6/2024 SE267484.049	TP80 SOIL 1.0-1.1 27/6/2024 SE267484.050
% Moisture	%w/w	1	13.8	13.0	15.9	20.1	11.8

PARAMETER	UOM	LOR	TP81 SOIL 0.4-0.5 27/6/2024 SE267484.051	TP82 SOIL 0.4-0.5 27/6/2024 SE267484.052	TP82 SOIL 1.0-1.1 27/6/2024 SE267484.053	TP83 SOIL 0.4-0.5 27/6/2024 SE267484.054	TP83 SOIL 1.0-1.1 27/6/2024 SE267484.055
% Moisture	%w/w	1	19.2	10.0	19.8	12.1	20.3

PARAMETER	UOM	LOR	TP84 SOIL 0.4-0.5 27/6/2024 SE267484.056	TP84 SOIL 1.0-1.1 27/6/2024 SE267484.057	TP85 SOIL 0.4-0.5 27/6/2024 SE267484.058	TP85 SOIL 1.0-1.1 27/6/2024 SE267484.059	TP86 SOIL 0.4-0.5 27/6/2024 SE267484.060
% Moisture	%w/w	1	15.1	10.4	10.5	14.4	17.5

PARAMETER	UOM	LOR	TP87 SOIL 0.4-0.5 27/6/2024 SE267484.061	TP87 SOIL 1.0-1.1 27/6/2024 SE267484.062	TP88 SOIL 0.4-0.5 27/6/2024 SE267484.063	TP88 SOIL 1.0-1.1 27/6/2024 SE267484.064	TP89 SOIL 0.4-0.5 27/6/2024 SE267484.065
% Moisture	%w/w	1	13.5	12.5	13.7	9.4	16.5

PARAMETER	UOM	LOR	TP90 SOIL 0.4-0.5 27/6/2024 SE267484.066	TP91 SOIL 0.4-0.5 27/6/2024 SE267484.068	TP91 SOIL 1.0-1.1 27/6/2024 SE267484.069
% Moisture	%w/w	1	11.0	17.4	19.3

METHOD

METHODOLOGY SUMMARY

AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN101

pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl₂) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.

AN106

Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos/cm or µS/cm @ 25°C. For soils, an extract of as received sample with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2510 B.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
***	Indicates that both * and ** apply.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This report must not be reproduced, except in full.



STATEMENT OF QA/QC PERFORMANCE

SE267484 R0

CLIENT DETAILS

Contact Joe Chen
Client Geotech Testing Pty Ltd
Address P.O. Box 880
PENRITH
NSW 2751

Telephone 02 4722 2700
Facsimile 02 4722 6161
Email joe@geotech.com.au

Project **8599/122 Marsden Park**
Order Number **8599/122**
Samples 69

LABORATORY DETAILS

Manager Shane McDermott
Laboratory SGS Alexandria Environmental
Address Unit 16, 33 Maddox St
Alexandria NSW 2015

Telephone +61 2 8594 0400
Facsimile +61 2 8594 0499
Email au.environmental.sydney@sgs.com

SGS Reference **SE267484 R0**
Date Received 28 Jun 2024
Date Reported 05 Jul 2024

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Analysis Date	Conductivity and TDS by Calculation - Soil	68 items
Duplicate	Conductivity and TDS by Calculation - Soil	1 item

SAMPLE SUMMARY

Sample counts by matrix	68 Soil	Type of documentation received	COC
Date documentation received	28/6/2024	Samples received in good order	Yes
Samples received without headspace	N/A	Sample temperature upon receipt	20.5°C
Sample container provider	Client	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	None	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

pH in soil (1:5) (continued)

Method: ME-(AU)-ENV/JAN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP74	SE267484.039	LB316807	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP74	SE267484.040	LB316807	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP75	SE267484.041	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP76	SE267484.042	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP77	SE267484.043	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP77	SE267484.044	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP78	SE267484.045	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP78	SE267484.046	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP79	SE267484.047	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP79	SE267484.048	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP80	SE267484.049	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP80	SE267484.050	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP81	SE267484.051	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP82	SE267484.052	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP82	SE267484.053	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP83	SE267484.054	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP83	SE267484.055	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP84	SE267484.056	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP84	SE267484.057	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP85	SE267484.058	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP85	SE267484.059	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP86	SE267484.060	LB316806	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP87	SE267484.061	LB316823	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP87	SE267484.062	LB316823	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP88	SE267484.063	LB316823	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP88	SE267484.064	LB316823	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP89	SE267484.065	LB316823	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP90	SE267484.066	LB316823	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP91	SE267484.068	LB316823	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024
TP91	SE267484.069	LB316823	27 Jun 2024	28 Jun 2024	04 Jul 2024	04 Jul 2024	05 Jul 2024	04 Jul 2024

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-ENVJAN106

Sample Number	Parameter	Units	LOR	Result
LB316805.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	1.66
LB316806.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0.8
LB316807.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	1.37
LB316823.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	1.34

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267484.010	LB316805.014	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	260	54.981339187	31	4
SE267484.020	LB316805.025	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	450	33.440835266	30	4
SE267484.030	LB316807.014	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	490	64.730538922	30	5
SE267484.040	LB316807.025	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	320	47.648083623	31	8
SE267484.050	LB316806.014	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	32	49.558944765	35	42 @
SE267484.060	LB316806.025	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	320	08.024242424	31	4
SE267566.002	LB316823.014	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	78.535294117	77.2573529411	33	2

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE266549A.002	LB316776.011	% Moisture	%w/w	1	17.139001349	21.0062893081	35	20
SE267484.010	LB316636.011	% Moisture	%w/w	1	12.2	11.7	38	4
SE267484.020	LB316636.022	% Moisture	%w/w	1	13.7	14.1	37	3
SE267484.030	LB316637.011	% Moisture	%w/w	1	16.1	15.5	36	4
SE267484.040	LB316637.022	% Moisture	%w/w	1	11.7	13.5	38	14
SE267484.050	LB316638.011	% Moisture	%w/w	1	11.8	10.9	39	8
SE267484.060	LB316638.022	% Moisture	%w/w	1	17.5	18.6	36	6
SE267566.002	LB316776.016	% Moisture	%w/w	1	13.924050632	93.4868421052	37	3

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267484.010	LB316805.014	pH	pH Units	0.1	5.2	5.2	32	1
SE267484.020	LB316805.025	pH	pH Units	0.1	5.4	5.4	32	1
SE267484.030	LB316807.014	pH	pH Units	0.1	5.1	5.2	32	2
SE267484.040	LB316807.025	pH	pH Units	0.1	4.9	5.0	32	2
SE267484.050	LB316806.014	pH	pH Units	0.1	4.9	5.0	32	0
SE267484.060	LB316806.025	pH	pH Units	0.1	5.1	5.1	32	0
SE267566.002	LB316823.014	pH	pH Units	0.1	7.7062	7.6557	31	1

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB316805.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	97
LB316806.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	97
LB316807.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	99
LB316823.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	93

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB316805.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB316806.003	pH	pH Units	0.1	7.4	7.415	98 - 102	99
LB316807.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB316823.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022_QA_QC_Plan.pdf

- * NATA accreditation does not cover the performance of this service.
- ** Indicative data, theoretical holding time exceeded.
- *** Indicates that both * and ** apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
- ⑩ LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This test report shall not be reproduced, except in full.

GEOTECH TESTING PTY LTD

Laboratory Test Request / Chain of Custody Record

Lenko Place
 PENRITH NSW 2750
 P O Box 880
 PENRITH NSW 2751

Tel: (02) 4722 2700
 Fax: (02) 4722 6161
 email: info@geotech.com.au

Project Manager: JC

Location: Marsden Park

Page 1 of 2

TO: SGS ENVIRONMENTAL SERVICES
 UNIT 16
 33 MADDOX STREET
 ALEXANDRIA NSW 2015

Sampling By: JC

Job No

Project: PROPOSED RESIDENTIAL DEVELOPMENT,
 8599/122

PH: 02 8594 0400
 ATTN: Ms Emily Yin
 FAX: 02 8594 0499

Project Manager: JC

Location: Marsden Park

Sampling details

Location	Depth	Soil	Water	EC (1:5)	pH	Sulphate	Chloride	ESP	Notes	Keep Sample
TP50	0.4-0.5	DSP		✓	✓				ESP=Exchangeable Sodium Percentage	
	1.0-1.1	DSP		✓	✓					
TP51	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP52	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP53	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP54	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP55	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP56	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP57	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP58	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP59	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP60	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP61	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP62	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP63	0.4-0.5	DSP		✓	✓					

Results required by:

SGS EHS Sydney COC
SE267484


Please Use Geotechnical Engineering Template for Reporting

Relinquished by: Name: Joe Signature: JC Date: 3/02/2023

Received by: Name: Suba Signature: P. Putaraj Date: 28/06/24

Legend: USG Undisturbed soil sample (glass jar) DSP Disturbed soil sample (small plastic bag)
 WG Disturbed soil sample (glass jar) DSG Test required

* Purge & Trap
 # Geotechnique Screen

GEOTECH TESTING PTY LTD

Laboratory Test Request / Chain of Custody Record

Lenko Place
 PENRITH NSW 2750
 P O Box 880
 PENRITH NSW 2751
 Tel: (02) 4722 2700
 Fax: (02) 4722 6161
 email: info@geotech.com.au

TO: SGS ENVIRONMENTAL SERVICES
 UNIT 16
 33 MADDOX STREET
 ALEXANDRIA NSW 2015

Project Manager: JC
 Sampling By: JC

Job No: 8599/122
 Project: PROPOSED RESIDENTIAL DEVELOPMENT,
 Marsden Park

PH: 02 8594 0400
 ATTN: Ms Emily Yin
 FAX: 02 8594 0499

Sampling details

Results required by:

Location	Depth	Soil	Water	EC (1:5)	pH	Sulphate	Chloride	ESP	Notes	Keep Sample
25	TP64	0.4-0.5	DSP	✓	✓				ESP=Exchangeable Sodium Percentage	
24	TP65	0.4-0.5	DSP	✓	✓					
27	TP66	0.4-0.5	DSP	✓	✓					
28		1.0-1.1	DSP	✓	✓					
29	TP67	0.4-0.5	DSP	✓	✓					
30	TP68	0.4-0.5	DSP	✓	✓					
31	TP69	0.4-0.5	DSP	✓	✓					
32	TP70	1.0-1.1	DSP	✓	✓					
33		0.4-0.5	DSP	✓	✓					
34	TP71	1.0-1.1	DSP	✓	✓					
35	TP72	0.4-0.5	DSP	✓	✓					
36	TP73	0.4-0.5	DSP	✓	✓					
37		1.0-1.1	DSP	✓	✓					
38	TP74	0.4-0.5	DSP	✓	✓					
39		1.0-1.1	DSP	✓	✓					
40	TP75	0.4-0.5	DSP	✓	✓					
41	TP76	0.4-0.5	DSP	✓	✓					
42	TP77	0.4-0.5	DSP	✓	✓					
43		1.0-1.1	DSP	✓	✓					
44	TP78	0.4-0.5	DSP	✓	✓					
45		1.0-1.1	DSP	✓	✓					
46	TP79	0.4-0.5	DSP	✓	✓					
47		1.0-1.1	DSP	✓	✓					
48		1.0-1.1	DSP	✓	✓					

Please Use Geotechnical Engineering Template for Reporting

Relinquished by: Name: Joe, Signature: JC, Date: 3/02/2023

Received by: Name: P. Subbaray, Signature: P. Subbaray, Date: 28/06/24

Legend: USG Undisturbed soil sample (glass jar) ✓ DSP Disturbed soil sample (small plastic bag) * Purge & Trap
 W/G Disturbed soil sample (glass jar) DSG Test required # Geotechnique Screen

GEOTECH TESTING PTY LTD

Laboratory Test Request / Chain of Custody Record

Lenko Place
PENRITH NSW 2750

P O Box 880
PENRITH NSW 2751

Tel: (02) 4722 2700
Fax: (02) 4722 6161
email: info@geotech.com.au

Project Manager: JC Location: Marsden Park

Page 7 of 7

TO: SGS ENVIRONMENTAL SERVICES
UNIT 16
33 MADDOX STREET
ALEXANDRIA NSW 2016

Project: PROPOSED RESIDENTIAL DEVELOPMENT,

Sampling By: JC

Job No: 8599/122

Project: PROPOSED RESIDENTIAL DEVELOPMENT,

PH: 02 8594 0400 FAX: 02 8594 0499
ATTN: Ms Emily Yin

Project Manager: JC

Location: Marsden Park

Project: PROPOSED RESIDENTIAL DEVELOPMENT,

Sampling details							Results required by:			
Location	Depth	Soil	Water	EC (1:5)	pH	Sulphate	Chloride	ESP	Notes	Keep Sample
TP80	0.4-0.5	DSP		✓	✓				ESP=Exchangeable Sodium Percentage	
	1.0-1.1	DSP		✓	✓					
TP81	0.4-0.5	DSP		✓	✓					
TP82	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP83	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP84	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP85	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP86	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP87	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP88	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP89	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP90	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					
TP91	0.4-0.5	DSP		✓	✓					
	1.0-1.1	DSP		✓	✓					

Please Use Geotechnical Engineering Template for Reporting

Name		Relinquished by		Date		Name		Signature	
Joe		JC		3/02/2023		SUSA		P. Pulamney	

Legend: USG Undisturbed soil sample (glass jar) DSP Disturbed soil sample (small plastic bag)
 WPG Disturbed soil sample (glass jar) DSG Test required

* Purge & Trap
 # Geotechnique Screen



SAMPLE RECEIPT ADVICE

SE267484

CLIENT DETAILS

Contact Joe Chen
Client Geotech Testing Pty Ltd
Address P.O. Box 880
PENRITH
NSW 2751

Telephone 02 4722 2700
Facsimile 02 4722 6161
Email joe@geotech.com.au

Project **8599/122 Marsden Park**
Order Number **8599/122**
Samples 69

LABORATORY DETAILS

Manager Shane McDermott
Laboratory SGS Alexandria Environmental
Address Unit 16, 33 Maddox St
Alexandria NSW 2015

Telephone +61 2 8594 0400
Facsimile +61 2 8594 0499
Email au.environmental.sydney@sgs.com

Samples Received Fri 28/6/2024
Report Due Fri 5/7/2024
SGS Reference **SE267484**

SUBMISSION DETAILS

This is to confirm that 69 samples were received on Friday 28/6/2024. Results are expected to be ready by COB Friday 5/7/2024. Please quote SGS reference SE267484 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix	68 Soil	Type of documentation received	COC
Date documentation received	28/6/2024	Samples received in good order	Yes
Samples received without headspace	N/A	Sample temperature upon receipt	20.5°C
Sample container provider	Client	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	None	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

TP90_1.0-1.1 not received.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



SAMPLE RECEIPT ADVICE

SE267484

CLIENT DETAILS

Client Geotech Testing Pty Ltd

Project 8599/122 Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
001	TP50 0.4-0.5	1	1	1
002	TP50 1.0-1.1	1	1	1
003	TP51 0.4-0.5	1	1	1
004	TP51 1.0-1.1	1	1	1
005	TP52 0.4-0.5	1	1	1
006	TP52 1.0-1.1	1	1	1
007	TP53 0.4-0.5	1	1	1
008	TP53 1.0-1.1	1	1	1
009	TP54 0.4-0.5	1	1	1
010	TP54 1.0-1.1	1	1	1
011	TP55 0.4-0.5	1	1	1
012	TP55 1.0-1.1	1	1	1
013	TP56 0.4-0.5	1	1	1
014	TP56 1.0-1.1	1	1	1
015	TP57 0.4-0.5	1	1	1
016	TP58 0.4-0.5	1	1	1
017	TP58 1.0-1.1	1	1	1
018	TP59 0.4-0.5	1	1	1
019	TP60 0.4-0.5	1	1	1
020	TP60 1.0-1.1	1	1	1
021	TP61 0.4-0.5	1	1	1
022	TP61 1.0-1.1	1	1	1
023	TP62 0.4-0.5	1	1	1
024	TP63 0.4-0.5	1	1	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

CLIENT DETAILS

Client **Geotech Testing Pty Ltd**

Project **8599/122 Marsden Park**

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
025	TP64 0.4-0.5	1	1	1
026	TP65 0.4-0.5	1	1	1
027	TP66 0.4-0.5	1	1	1
028	TP66 1.0-1.1	1	1	1
029	TP67 0.4-0.5	1	1	1
030	TP68 0.4-0.5	1	1	1
031	TP69 0.4-0.5	1	1	1
032	TP69 1.0-1.1	1	1	1
033	TP70 0.4-0.5	1	1	1
034	TP70 1.0-1.1	1	1	1
035	TP71 0.4-0.5	1	1	1
036	TP72 0.4-0.5	1	1	1
037	TP73 0.4-0.5	1	1	1
038	TP73 1.0-1.1	1	1	1
039	TP74 0.4-0.5	1	1	1
040	TP74 1.0-1.1	1	1	1
041	TP75 0.4-0.5	1	1	1
042	TP76 0.4-0.5	1	1	1
043	TP77 0.4-0.5	1	1	1
044	TP77 1.0-1.1	1	1	1
045	TP78 0.4-0.5	1	1	1
046	TP78 1.0-1.1	1	1	1
047	TP79 0.4-0.5	1	1	1
048	TP79 1.0-1.1	1	1	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.



SAMPLE RECEIPT ADVICE

SE267484

CLIENT DETAILS

Client Geotech Testing Pty Ltd

Project 8599/122 Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
049	TP80 0.4-0.5	1	1	1
050	TP80 1.0-1.1	1	1	1
051	TP81 0.4-0.5	1	1	1
052	TP82 0.4-0.5	1	1	1
053	TP82 1.0-1.1	1	1	1
054	TP83 0.4-0.5	1	1	1
055	TP83 1.0-1.1	1	1	1
056	TP84 0.4-0.5	1	1	1
057	TP84 1.0-1.1	1	1	1
058	TP85 0.4-0.5	1	1	1
059	TP85 1.0-1.1	1	1	1
060	TP86 0.4-0.5	1	1	1
061	TP87 0.4-0.5	1	1	1
062	TP87 1.0-1.1	1	1	1
063	TP88 0.4-0.5	1	1	1
064	TP88 1.0-1.1	1	1	1
065	TP89 0.4-0.5	1	1	1
066	TP90 0.4-0.5	1	1	1
068	TP91 0.4-0.5	1	1	1
069	TP91 1.0-1.1	1	1	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.