Levin Landfill April 2022 Quarterly Groundwater, Surface Water and Leachate Monitoring Report

PREPARED FOR Horowhenua District Council | June 2022

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Revision schedule

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Abbreviations

Enter Abbreviation	Enter Full Name
ANZECC LDW	ANZECC 2000 Livestock Drinking Water
BDL	below the detection limit
cfu	Colony-forming unit
COD	Chemical Oxygen Demand
DWSNZ GVs	Drinking Water Standards for New Zealand - Guideline Values for aesthetic determinants
DWSNZ MAVs	Drinking Water Standards for New Zealand – Maximum Acceptable Values
EC	Electrical Conductivity
HDC	Horowhenua District Council
Hg	soluble mercury
HRC	Horizons Regional Council
NH□-N	Ammoniacal-nitrogen
NO□-N	Nitrate nitrogen
scBOD5	soluble carbonaceous BOD5

Executive Summary

Horowhenua District Council (HDC) is required to carry out quarterly compliance monitoring of groundwater and monthly sampling of most of the surface water monitoring locations at the Levin Landfill, as part of the conditions of Resource Consents DP6009, DP6010, DP6011 and DP102259. This report summarises the findings for the monitoring events from the fourth quarter (i.e., February 2022 to April 2022) sampling round and includes results for:

- Background (natural) groundwater
- Landfill leachate
- Groundwater bores within the new landfill and old irrigation area
- Shallow aquifers, down-gradient of the old landfill
- The deep aquifer
- The Tatana Drain, and
- The Hokio Stream.

Stantec has reviewed the results of this fourth quarter monitoring round on behalf of HDC.

Monitoring results for other aspects of the landfill operations, such as for air quality/odour and stormwater quality, are reported annually, as per resource consent requirements.

Samples were collected from 27 groundwater bores from around Levin Landfill during April 2022, and from the landfill leachate at a manhole next to the leachate pond, and at five surface water sites during February2022, March 2022, and April 2022. The samples were analysed for the parameters set out in Discharge Permit 6010.

The April 2022 samples were collected progressively over a 13-day period, which is outside of the normally accepted 7-day sampling period. Meeting the monitoring timeframe is important because it provides greater confidence in comparing results from different parts of the site.

The resource consent for the landfill (namely, discharge permit 6010) establishes compliance limits for the quality of deeper and shallow groundwater which are based upon the Drinking Water Standards for New Zealand – Maximum Acceptable Values (DWSNZ MAVs), Guideline Values for aesthetic determinants (DWSNZ GVs), and the ANZECC 2000 Livestock Drinking Water (ANZECC LDW) trigger values respectively. Compliance limits for surface water are based on the ANZECC 2000 Aquatic Ecosystems (ANZECC AE) 95% trigger values, as required by the revised Resource Consent condition approved in December 2019.

The April 2022 monitoring results have been assessed against these limits, where they are applicable.

Fourteen non-compliances with resource consent conditions were recorded at nine individual monitoring locations, as follows:

- For E. coli in bore Xd1 (with 8 CFU/100ml) which exceeds the DWSNZ MAV value of nil.
- For dissolved manganese in bores C2DD, E2D, Xd1, and D3rd (with 0.735 mg/L, 0.438 mg/L, 0.499 mg/L and 0.467 mg/L, respectively), which exceeded the DWSNZ MAV of 0.4mg/L.
- For nitrate in bore B2 (with 108 mg/L) which exceeded ANZECC LDW value of 90.3 mg/L.
- For ammoniacal-N during the February 2022 and March 2022 sampling rounds in the Tatana Property Drain (with 5.93 mg/L and 14.80 mg/L, respectively), which exceeds the ANZECC AE (95%) limit of 2.1 mg/L.
- The copper concentration (0.0017 mg/L) in the Tatana Drain during March 2022 exceeded the ANZECC AE (95%) limit of 0.0014 mg/L.
- For nitrate-N during February 2022 at HS2 and HS3, sample values exceeded the ANZECC AE (95%) trigger value of 0.16mg/L.
- For nitrate-N during March 2022 at HS1A, HS2 and HS3, sample values exceeded the ANZECC AE (95%) trigger value of 0.16mg/L.

The large number of exceedances for E. coli in the groundwater bores during the January 2022 sampling round was noted to be very unusual. Given that there is no re-occurrence of this in this April sampling round, it is suspected that it was a result of sampling error.

The April 2022 results were also considered in the context of background water quality, both within the groundwater aquifers (shallow and deep bores) and the surface water receiving environment. For example, low pH at background bore G1S, and elevated iron concentrations in the same bore indicate that groundwater could be being impacted by up-gradient activities unrelated to the landfill operations.

There were four exceedances in samples from the leachate effluent. Leachate quality is typical of the composition of leachate recorded generally at Class 1 landfills in New Zealand. Exceedances were for COD in and ammoniacal-N in March 2022 and April 2022.

Methane was detected in thirteen groundwater monitoring bores in the April 2022 sampling round. This is a decrease compared to the last monitoring round, but the methane concentrations were similar. The highest concentration of methane, which was in bore C1 (0.12%), was well below the lower explosive limit for methane (which is 5%).

Hydrogen sulphide was detected in groundwater bore Xs1 during the April 2022 sampling round, with a recorded concentration of 1%. This is extremely high.

Additionally, a very high level of carbon dioxide (5.2%) was measured at bore B2.

Given these results it is recommended that gas testing be undertaken again at the bores as soon possible and that in doing so, all appropriate precautions, including wearing protective PPE gear, are taken assuming that the gas concentrations are as recorded in April 2022.

1 Introduction

Horowhenua District Council (HDC) first commissioned Stantec New Zealand (then Montgomery Watson) to carry out environmental reporting for the discharge consent monitoring undertaken at the Levin Landfill site in the early 2000s. Monitoring has been undertaken by contractors every three months at 32 locations, as required by the resource consent conditions (namely for discharge permit 6010). These sampling locations consist of 27 boreholes penetrating the sand and gravel aquifers, four surface water sampling locations within Hokio Stream, one surface sampling location along the Tatana Drain and a leachate sampling point, as shown in the Site Plan in Appendix A.

The Levin Landfill site is comprised of two landfills: one old, closed and unlined landfill and one new, lined landfill that has been closed pending a decision by HDC to continue operating it. The new landfill footprint has been developed in stages. The most recent stage was Stage 3C which was developed in 2017, though landfill operations have, until the end of October 2021, occurred over the top of Stages 1A, 2 and 3C. The current landfill has reached capacity and is in the process of being capped. Council has deferred a decision on the future of the landfill and has committed to make that decision before the end of 2025.

The Levin Landfill site is located above two identified aquifers, a shallow sand aquifer and a deeper gravel aquifer. The shallow aquifer is unconfined, has a low to moderate permeability, and flows in a northerly direction. The deeper gravel aquifer is a confined to semi-confined aquifer. Horizons Regional Council hydrology staff advises that '*the general confined groundwater flow direction is towards the west*". Groundwater quality in the area is highly variable because of interaction with peat deposits that are prevalent in the area, localised effects such as from grazing activities, droppings from scavenging birds and from nitrogen-fixing plants such as gorse.

Since July 2010 groundwater has been tested for dissolved metals and nutrients, rather than for total concentrations of these parameters.

A review of the resource consent conditions was finalised in December 2019. Changes have been made to some of the surface water and groundwater monitoring conditions and HDC has acted on all of the changes. Sampling since the January 2021 sampling round has been in line with what has been done previously, but different reference parameters have been applied to assess the surface water sampling results, as required by the new consent conditions.

This report presents the results for the April 2022 quarterly monitoring round.

Please note, the laboratory detection limit for E. coli is 1 cfu/100ml; however, in the results received, results were often noted as being below detection levels at <100 cfu/100ml or <4 cfu/100ml. This is assumed to be an error and has been noted in the report as being "not detected". There were also some results reported with a concentration of 0. It is assumed this means the parameter was below the laboratory detection limit.

2 Groundwater and Surface Water Monitoring

2.1 Sample Analyses

Surface water samples were collected by Downer (a contractor to HDC) on 17 February, 09 March, 20 April and 27 April 2022, with the samples being received by the Eurofins ELS Ltd laboratory in Lower Hutt, Wellington on either the same day or the day after sampling occurred.

Groundwater samples were collected by Downer (a contractor to HDC) on 13 April, 14 April, 19 April, 20 April, 21 April and 26 April, with the samples being received by the Eurofins ELS Ltd laboratory in Lower Hutt, Wellington on either the same day or the day after sampling occurred.

The monitoring programme for July 2021 - April 2024 is summarised in the schedule in Appendix B. From July 2019, faecal coliform counts analyses have been included within the indicator and comprehensive analytical suites, as agreed by HDC with the Horizons Regional Council (HRC). This means that faecal coliform counts will be assessed more frequently throughout each year, as compared to the past monitoring regime.

Groundwater samples taken from the boreholes, surface water samples from Hokio Stream and the leachate effluent were analysed for the comprehensive list of parameters which is outlined in Table 2-1. The groundwater samples taken from the boreholes were also analysed for pesticides and semi-volatile organic compounds (SVOCs) in conjunction with the comprehensive list.

Note that, following the revision of the resource consent conditions which were approved in December 2019, soluble carbonaceous BOD_5 ($scBOD_5$) and soluble mercury (Hg) have each been added to the indicator and comprehensive suites of parameters, and E. coli to the comprehensive suite of parameters. The $scBOD_5$ and E. coli parameters replace BOD_5 and faecal coliforms respectively. Monitoring of these additional parameters has commenced from the April 2020 sampling round.

Table 2-1: Comprehensive Parameters

Type	Parameters
Characteristics	pH, Electrical Conductivity (EC), Alkalinity, Total Hardness, Suspended Solids
Oxygen demand	Chemical Oxygen Demand (COD), $scBOD_5$++
Nutrients*	Nitrate nitrogen (NO_3-N), Ammoniacal-nitrogen (NH_4-N), Dissolved Reactive Phosphorus (DRP), Sulphate (SO_4)
Metals*	Aluminium (Al), Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Iron (Fe)**, Magnesium (Mg), Manganese (Mn), Nickel (Ni), Lead (Pb), Zinc (Zn), Mercury (Hg)++
Other elements	Boron (B), Calcium (Ca), Chloride (Cl), Potassium (K), Sodium (Na)**
Organics	Total organic carbon, total phenols, volatile acids
Biological+	E. coli

Note:

*Analyses performed for nutrients and metals are for dissolved rather than total concentrations.

**Selected bores as per stormwater consent 102559

+Faecal coliforms added from July 2019 onwards (see Appendix B)

++Soluble carbonaceous BOD_5 ($scBOD_5$) and Soluble Mercury added as per revised consent conditions for Discharge Permit 6010, December 2019

Those chemical constituents for which concentrations were below laboratory detection limits during the reporting period have had results set at 50% of the laboratory detection limit, which is then used to calculate a median value that is used

in the annual report. This is standard practice when dealing with chemical concentrations in water. However, the same rule cannot be applied for E. coli in the context of the Levin Landfill.

2.2 Background Groundwater Quality

The quality of the natural background water up-gradient from the landfill site is not subject to any consent conditions. However, for comparison purposes, both the ANZECC LDW trigger values and the DWSNZ guidelines were used to benchmark the quality of water up-gradient from the landfill site.

Groundwater samples are collected from the two background bores situated hydraulically up-gradient from both the new and old landfills to the southeast of the site (bores G1S and G1D, see Site Plan, Appendix A). These two bores were constructed in late 2009 to sample background water quality from the two main hydrogeological units.

The results are presented in Table 2-2.

Bore F3 is also included in the background table as it is near the southern boundary of the landfill site (and further west) and is unlikely to be impacted by landfill activities. A full laboratory report containing analytical results is presented in Appendix C and the historical graphs are presented in Appendix D.

Table 2-2: Background Monitoring Results for April 2022

Determinant	Units	DWSNZ MAV	ANZECC LDW	G1S	G1D	F3
Water level	mBGL	-	-	13.98	14.51	4.85
pH	-	7 to 8.5*	6 to 9	**6.9**	7	7.5
Suspended Solids	mg/l	-	-	95	*2.5*	14
Phenol	mg/L	-	-	*0.025*	*0.025*	*0.025*
VFA	mg/L	-	-	*2.5*	*2.5*	*2.5*
TOC	mg/L	-	-	31.6	4.6	1.5
Alkalinity	mg $CaCO_3$/L	-	-	92	64	49
Conductivity	mS/m	-	-	53.6	28.8	18.6
COD	mg/L	-	-	97	30	34
scBOD5	mg/L	-	-	*3*	*3*	*0.5*
E. Coli	CFU/100ml	NIL	100	**28**	**110**	**4**
Chloride	mg/L	250*	-	102.0	34	17.9
Nitrate-N	mg/L	11.3	90.3	*0.005*	0.29	1.08
Sulphate	mg/L	-	-	6.28	19.6	5.48
Ammoniacal-N	mg/L	1.17	-	0.060	0.11	*0.005*
Hardness	mg $CaCO_3$/L	-	-	58	57	31
Calcium	mg/L	-	1000	11.0	8.98	4.77
Magnesium	mg/L	-	-	7.52	8.38	4.54
Potassium	mg/L	-	-	5.49	7.82	5.18
Sodium	mg/L	200*	-	92.2	30.2	22.3
D.R. Phosphorus	mg/L	-	-	0.078	0.206	0.161
Dissolved Aluminium	mg/L	0.1*	5	**0.122**	0.004	*0.001*
Dissolved Arsenic	mg/L	0.01	0.1	0.002	0.002	0.002
Dissolved Boron	mg/L	1.4	5	*0.015*	0.04	*0.015*
Dissolved Cadmium	mg/L	0.004	0.01	*0.0001*	*0.0001*	*0.0001*
Dissolved Chromium	mg/L	0.05	1	0.0020	*0.0005*	*0.0005*
Dissolved Copper	mg/L	2	0.4 #	0.0068	0.0031	0.0005

Determinant	Units	DWSNZ MAV	ANZECC LDW	G1S	G1D	F3
Dissolved Iron	mg/L	0.2*	-	**3.63**	**1.21**	*0.0025*
Dissolved Lead	mg/L	0.01	0.1	0.0005	0.0006	*0.00025*
Dissolved Manganese	mg/L	0.4	-	0.0671	0.0637	*0.00025*
Dissolved Mercury	mg/L	0.007	0.002	*0.00025*	*0.00025*	*0.00025*
Dissolved Nickel	mg/L	0.08	1	0.0018	*0.00025*	*0.00025*
Dissolved Zinc	mg/L	1.5*	20	0.008	0.006	*0.001*

Notes:

*denotes guideline values for aesthetic determinants (G.V.)

All `<' values have been reported as half the detection limit for statistical purposes and are expressed in italics

'ND' indicates where E. coli were not detected

n/r – not required to be tested during this monitoring period

Values which exceeded the DWSNZ MAV are shown in **bold**

Values which exceeded the ANZECC LDW are shown in red

The results in Table 2-2 show that all parameters at bore F3 were within the ANZECC LDW trigger values and DWSNZ limits during the April 2022 monitoring round, except for E.coli detected at a concentration of 4 cfu/100ml.

For E.coli, Bore G1D showed exceedances of both the DWSNZ limits and the ANZECC LDW values and Bores G1S and F3 showed an exceedance of the DWSNZ limit.

At bore G1D, E.coli was detected in a concentration of 110 CFU/100ml, which exceeds the ANZECC LDW value of 100 CFU/100ml and the DWSNZ limit of nil. At G1S, E. coli was detected at 28 CFU/100ml, which exceeds the DWSNZ limit of nil, and at F3, E. coli was detected at 4 CFU/100ml, which exceeds the DWSNZ limit of nil.

At G1S, the dissolved aluminium (0.122 mg/L) concentration exceeded the DWSNZ limit of 0.1 mg/L, and the dissolved iron (3.63 mg/L) concentration exceeded the DWSNZ limit of 0.2 mg/L. Additional, the pH at G1S (6.9) was slightly less than the lower DWSNZ limit of 7.0.

At G1D, the dissolved iron (1.21 mg/L) concentration exceeded the DWSNZ limits of 0.2 mg/L.

2.3 Groundwater Quality Hydraulically Down-Gradient of the New Landfill

Monitoring is carried out within the two main hydrogeological units for bores hydraulically up-gradient of the old landfill and hydraulically down-gradient of the new landfill.

2.3.1 Shallow Aquifer

Bores D1, D2, D3(rs), D4, D5, D6, and E1S (Refer to Site Plan, Appendix A) are located hydraulically up-gradient of the old landfill, but down-gradient of the new landfill. This means they are not influenced by potential leaching from the old landfill and can act as a warning system for any leaching from the new landfill. Borehole D4 is likely to show evidence of any leaching from the new landfill. Borehole D5 is located at the south-western corner of the site and is expected to provide an indication of shallow background groundwater quality because it is unlikely to be influenced by either landfill. It is unlikely that leachate from the new landfill will significantly affect groundwater quality due to the leachate collection system which is in place at the new landfill; however, these bores would still give early warning of any potential problems. It is noted that bore D3r has been replaced with two bores, D3rs, which is a shallow bore and D3rd, which is deep bore. This is discussed in section 2.3.2. It is noted also that new bores D3rs and D3rd should be sampled for the comprehensive suite of parameters for the first two years following installation.

The results from the April 2022 monitoring round for these bores are presented in Table 2-3 and the results have been compared with the ANZECC LDW trigger values as per the consent conditions.

The full laboratory report is included in Appendix C and the historical graphs are presented in Appendix D.

There were **no exceedances of the resource consent conditions during the April 2022** monitoring round in samples from the shallow aquifer. In the January 2022 monitoring round, high concentrations of E. coli had been detected

in bores D1, D2, D3rs, D4, and D6, which were well above the 100 CFU/100ml ANZECC LDW value. This monitoring round, E.coli was detected only in bores D4 (96 cfu/100ml) and D6 (16 cfu/100ml) and at levels below the ANZECC LDW value of 100cfu/100ml.

Table 2-4 records that Toluene was detected in bores D1 (0.0009 mg/L), D3rs (0.0005 mg/L) and D6 (0.0020 mg/L). All concentrations are well below the 99% trigger level of 0.2 mg/L.

Table 2-3: D-Series and E1S Monitoring Bore Results for April 2022

Determinant	Units	ANZECC LDW	D1	D2	D3(rs)	D4	D5	D6	E1S
Water level	mBGL	-	16.75	21.33	5.52	7.73	9.31	16.32	11.28
pH	-	6 to 9	7.4	6.6	6.9	7.1	7.6	7.4	7.4
Suspended Solids	mg/l	-	*1.5*	6	*3*	*2.5*	*1.5*	*1.5*	*3*
Phenol	mg/L	-	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*
VFA	mg/L	-	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*
TOC	mg/L	-	1.3	16.1	25.5	3	2.3	1	7
Alkalinity	mg $CaCO_3$/L	-	109	162	68	70	75	90	82
Conductivity	mS/m	-	37.4	46.6	19.8	29.4	30.4	36.9	26.5
COD	mg/L	-	*7.5*	38	119	42	30	38	24
scBOD5	mg/L	-	*3*	*3*	*3*	*3*	*0.5*	*3*	*3*
E. Coli	CFU/100ml	100	ND	ND	ND	96	ND	16	ND
Chloride	mg/L	-	17.2	43.2	17	36.3	29.7	17.7	26.7
Nitrate-N	mg/L	90.3	9.80	*0.005*	*0.005*	*0.005*	0.72	14.2	*0.005*
Sulphate	mg/L	-	9.85	0.04	1.07	12.9	18.7	5.48	3.58
Ammoniacal-N	mg/L	-	*0.005*	0.60	0.63	0.24	0.02	*0.005*	0.18
Hardness	mg $CaCO_3$/L	-	90	123	46	56	70	96	61
Calcium	mg/L	1000	16.4	20.8	10.9	10	12.2	17.3	12.2
Magnesium	mg/L	-	11.9	17.2	4.58	7.47	9.49	12.8	7.48
Potassium	mg/L	-	9.42	10.90	4.14	6.76	8.15	8.35	6.6
Sodium	mg/L	-	33.5	36.5	20.4	28.8	30.1	26.3	26.9
D.R. Phosphorus	mg/L	-	0.10	0.06	0.071	0.023	0.094	0.1	0.074
Dissolved Aluminium	mg/L	5	*0.001*	0.01	0.065	*0.001*	*0.001*	*0.001*	0.007
Dissolved Arsenic	mg/L	0.1	0.0010	*0.0005*	0.0010	0.0020	0.0010	0.001	0.002
Dissolved Boron	mg/L	5	0.04	0.06	0.04	0.03	0.03	0.05	*0.015*
Dissolved Cadmium	mg/L	0.01	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*
Dissolved Chromium	mg/L	1	*0.0005*	*0.0005*	0.004	*0.0005*	*0.0005*	*0.0005*	*0.0005*
Dissolved Copper	mg/L	0.4 #	0.0014	0.0006	0.0009	0.0139	0.0012	0.0008	0.0009

Determinant	Units	ANZECC LDW	D1	D2	D3(rs)	D4	D5	D6	E1S
Dissolved Iron	mg/L	-	0.006	6.18	16.6	0.283	0.178	0.011	5.44
Dissolved Lead	mg/L	0.1	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	0.0005
Dissolved Manganese	mg/L	-	0.0007	0.47	0.331	0.193	0.0671	0.0011	0.264
Dissolved Mercury	mg/L	0.002	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*
Dissolved Nickel	mg/L	1	*0.00025*	*0.00025*	0.0007	*0.00025*	*0.00025*	*0.00025*	*0.00025*
Dissolved Zinc	mg/L	20	0.018	0.01	0.006	0.006	0.001	0.023	0.004

Notes:

All `<' values have been reported as half the detection limit for statistical purposes and are expressed in italics

copper trigger values range from 0.4 mg/L for sheep, up to 5 mg/L for poultry

'ND' indicates where E. coli were not detected

Values which exceeded the ANZECC LDW are shown in red

Table 2-4: VOCs detected in samples from the shallow aquifer bores during the April 2022 sampling round

Determinant	Laboratory detection limit (from Eurofins-ELS) mg/L	ANZECC 2000 DGV (mg/L)	Detected concentrations at down-gradient bores (mg/L)			Common source/usage of determinant (from https://www.waterquality.gov.au/anz-guidelines/guideline-values/default/water-quality-toxicants/search#tox-158)
			D1	D3rs	D6	
Toluene	0.0005	0.2 (99th percentile) 0.35 (95th percentile) 0.47 (90th percentile) 0.64 (80th percentile)	0.0009	0.0005	0.0020	Hydrocarbon; fuel additives (vehicles)

2.3.2 Deep Gravel Aquifer

Bores E1D, C2DD, E2D, Xd1, and the new replacement bore D3rd all penetrate the deeper gravel aquifer. Deep groundwater flow is assumed to be towards the northwest.

Boreholes E2D and C2DD are located to the north-northwest of both the landfills and are therefore considered to be hydraulically down-gradient of both landfills.

Borehole E1D is located to the southwest of the old landfill and it is therefore considered that this bore would be unlikely to be affected by either landfill.

Bore Xd1 was installed in late 2020 as a requirement of the reviewed resource consent conditions (December 2019). It is located on the western boundary of the site and slightly downstream of the old landfill.

Results for the April 2022 compliance monitoring round are presented in Table 2-5. The results have been compared with the DWSNZ as per the requirements of discharge consent 6010. The full laboratory report is included in Appendix C and the historical graphs are presented in Appendix D.

Table 2-5: Results for Monitoring Bores within the Deep Aquifer for April 2022

Determinant	Units	DWSNZ MAV	E1D	C2DD	E2D	Xd1	D3rd
Water level	mBGL	-	11.17	2.65	4.56	2.52	5.87
pH	-	7 to 8.5*	7.7	7.6	7.6	7.5	7.4
Suspended Solids	mg/l	-	7	115	*2.5*	146	551
Phenol	mg/L	-	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*
VFA	mg/L	-	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*
TOC	mg/L	-	3.7	4.8	3.1	4.8	7.2
Alkalinity	mg $CaCO_3$/L	-	164	226	157	176	249
Conductivity	mS/m	-	45.1	57	44.4	54.3	53.5
COD	mg/L	-	*7.5*	*7.5*	*7.5*	27	18
scBOD5	mg/L	-	*0.5*	*0.5*	*0.5*	*3*	*3*
E-Coli	CFU/100ml	NIL	ND	ND	ND	**8**	ND
Chloride	mg/L	250*	38.5	41.8	40.8	56.9	32.4
Nitrate-N	mg/L	11.3	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*
Sulphate	mg/L	-	*0.01*	0.02	*0.01*	13.4	*0.01*
Ammoniacal-N	mg/L	1.17	0.19	0.33	0.28	0.36	0.4
Hardness	mg $CaCO_3$/L	-	137	186	128	149	199
Calcium	mg/L	-	32.8	47.8	28.1	35.1	57.8
Magnesium	mg/L	-	13.2	16.2	13.9	14.9	13.2
Potassium	mg/L	-	5.75	7.87	7.31	5.32	7.16
Sodium	mg/L	200*	36.3	40.5	43	46.9	21.5
D.R. Phosphorus	mg/L	-	0.421	0.662	0.632	0.076	1.21
Dissolved Aluminium	mg/L	0.1*	*0.001*	0.003	0.002	0.002	0.015
Dissolved Arsenic	mg/L	0.01	0.006	0.004	0.001	*0.0005*	0.018
Dissolved Boron	mg/L	1.4	0.05	0.06	0.006	0.050	0.04
Dissolved Cadmium	mg/L	0.004	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*
Dissolved Chromium	mg/L	0.05	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*
Dissolved Copper	mg/L	2	0.0009	0.0006	*0.00025*	0.0008	0.0011
Dissolved Iron	mg/L	0.2*	0.038	0.022	0.071	0.095	0.009
Dissolved Lead	mg/L	0.01	*0.00025*	*0.00025*	0.0011	*0.00025*	*0.00025*
Dissolved Manganese	mg/L	0.4	0.236	**0.735**	**0.438**	**0.499**	**0.467**

Determinant	Units	DWSNZ MAV	E1D	C2DD	E2D	Xd1	D3rd
Dissolved Mercury	mg/L	0.007	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*
Dissolved Nickel	mg/L	0.08	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*
Dissolved Zinc	mg/L	1.5*	0.0005	0.004	0.004	0.0080	0.001

Notes:

* denotes guideline values for aesthetic determinants (G.V.)

Bold – denotes an exceedance of the relevant DWSNZ (2008) standard

All `<' values have been reported as half the detection limit for statistical purposes and are expressed in italics

n/r – not required to be tested during this monitoring period

'ND' indicates where E. coli were not detected

There were **five exceedances of the DWSNZ limits** in samples from the deep gravel aquifer during the April 2022 monitoring round, as follows:

- For E.Coli bore Xd1 (8 cfu/100ml) exceeded the DWSNZ MAV of nil. Bore Xd1 is new but does has yielded similar values of E. Coli. The E.Coli exceedances last monitoring round in the other deep aquifer bores (E1D, C2DD, E2D, and D3rd) have not occurred again which leads to the assumption that samples may have been cross-contaminated.
- The dissolved manganese concentrations in bores C2DD, E2D, Xd1, and D3rd exceeded the DWSNZ MAV of 0.4mg/L. The results for C2DD, E2D and Xd1 are within the historical range of concentrations observed. As bore D3rd is relatively new any trends will not become apparent until further results have been obtained in subsequent quarterly monitoring rounds and comparisons can be made.

2.4 Impact of Old Landfill on Groundwater Quality

Water sampling is carried out to characterise the groundwater quality in a series of shallow bores situated hydraulically down-gradient from the old unlined landfill.

The Series B boreholes are located within 50 m of the old landfill in a line along its northern edge.

The Series C boreholes are located further down the hydraulic gradient from the old landfill towards Hokio Beach Road to detect whether leachate is moving off site.

Borehole E2S is located northwest of the old landfill to detect any leachate moving directly towards the nearest house down-stream of the site.

Bore G2S was installed in late 2009 and is located to the north of the landfill site, hydraulically down-gradient of the old landfill by Hokio Road and the entrance road to the landfill.

Bores Xs1 and Xs2 are located along Hokio Beach Road, within the road reserve. Bore Xs1 is adjacent to Tatana's property and bore Xs2 is next to the driveway leading to a Council-owned property. Bore Xs2 is considered to be hydraulically upgradient of the old landfill (See Site Plan, Appendix A).

At the time of preparing this report, no results had been received for bore C2, and no VFA and phenol results had been received for bore B3s.

The results from the April 2022 consent monitoring round for these bores are presented in Table 2-6 and have been compared with the ANZECC LDW trigger values as per the requirements of discharge consent 6010. The full laboratory report is included in Appendix C and the historical graphs are presented in Appendix D.

There was **one exceedance of the ANZECC LDW trigger values** during the April 2022 monitoring round.

This was for nitrate-N in bore B2 (108 mg/L) which exceeded the ANZECC LDW value of 90.3 mg/L.

Therefore, this result shows non-compliance with the resource consent conditions.

Carbofuran (0.001mg/L) was detected in bore C2DS at a level slightly lower than the 95% ANZECC 2000 DGV level of 0.0012 mg/L.

Chlorobenzene (0.0045 mg/L) was detected in bore B2, but the trigger levels are not defined.

Table 2-6: Monitoring Results for Shallow Boreholes Down-Gradient from the Old Landfill for April 2022

Determinant	Units	ANZECC LDW	E2S	B1	B2	B3s	C1	C2	C2DS	G2S	Xs1	Xs2
Water level	mBGL	-	5.43	0.96	1.14	0	0.22	0.23	2.72	2.11	0.7300	2.5800
pH	-	6 to 9	7.6	6.9	6.9	7.0	6.8	No result	6.8	7.8	6.8	7.0
Suspended Solids	mg/l	-	9	18	20	88	148	No result	145	4	75	9
Phenol	mg/L	-	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	No result	*0.025*	*0.025*	*0.025*	*0.025*
VFA	mg/L	-	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	No result	*2.5*	*2.5*	*2.5*	*2.5*
TOC	mg/L	-	2.4	31.2	32	55.1	22.8	No result	23.8	9	25.5	2.4
Alkalinity	mg $CaCO_3$/L	-	82	648	683	1070	258	No result	629	164	557	54
Conductivity	mS/m	-	32.4	214	258	270	101	No result	138	61.1	137	18.2
COD	mg/L	-	18	114	108	186	85	No result	74	45	91	37
scBOD5	mg/L	-	*3*	*3*	*3*	*3*	*3*	No result	*3*	0.5	*3*	15
E-Coli	CFU/100ml	100	4	ND	ND	*50*	44	No result	ND	4	ND	ND
Chloride	mg/L	-	38.1	323	167	174	146	No result	87.4	81.8	123.0	12.4
Nitrate-N	mg/L	90.3	*0.005*	0.69	**108**	*0.05*	0.06	No result	*0.05*	*0.005*	*0.05*	0.88
Sulphate	mg/L	-	11	3.31	8.99	0.11	37.2	No result	*0.01*	5.8	1.53	7.49
Ammoniacal-N	mg/L	-	0.3	8.41	67.6	183	4.66	No result	1.48	0.01	7.88	0.03
Hardness	mg $CaCO_3$/L	-	77	385	675	280	209	No result	553	81	418	46
Calcium	mg/L	1000	21.3	74.1	146	52.8	36.8	No result	123	15.7	82.2	9.82
Magnesium	mg/L	-	5.84	48.6	75.3	35.9	28.4	No result	59.5	10	51.5	5.29
Potassium	mg/L	-	6.28	20.3	67.7	120	17.7	No result	14.9	9.45	24.4	4.36
Sodium	mg/L	-	26.7	283	124	138	94	No result	95.5	96.4	103.0	16.1
D.R. Phosphorus	mg/L	-	0.201	0.109	0.016	0.032	0.011	No result	0.02	0.029	0.017	0.015
Dissolved Aluminium	mg/L	5	0.002	0.012	0.008	0.005	0.038	No result	*0.001*	0.004	0.003	0.013
Dissolved Arsenic	mg/L	0.1	0.001	0.001	0.002	0.024	0.002	No result	0.001	*0.0005*	*0.0005*	*0.0005*
Dissolved Boron	mg/L	5	0.03	1.72	2.33	1.17	0.95	No result	0.74	0.6	0.56	0.04
Dissolved Cadmium	mg/L	0.01	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	No result	*0.0001*	*0.0001*	*0.0001*	*0.0001*
Dissolved Chromium	mg/L	1	*0.0005*	0.002	*0.0005*	0.004	*0.0005*	No result	*0.0005*	*0.0005*	0.001	*0.0005*
Dissolved Copper	mg/L	0.4 #	*0.00025*	0.0185	0.0041	0.0025	0.0055	No result	0.0008	0.008	0.0009	0.0014

Determinant	Units	ANZECC LDW	E2S	B1	B2	B3s	C1	C2	C2DS	G2S	Xs1	Xs2
Dissolved Iron	mg/L	-	0.081	0.102	0.187	0.539	0.454	No result	2.45	0.114	0.804	0.074
Dissolved Lead	mg/L	0.1	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	No result	*0.00025*	*0.00025*	*0.00025*	*0.00025*
Dissolved Manganese	mg/L	-	0.225	5.64	5.22	3.48	0.272	No result	2.06	0.0503	0.922	0.0737
Dissolved Mercury	mg/L	0.002	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	No result	*0.00025*	*0.00025*	*0.00025*	*0.00025*
Dissolved Nickel	mg/L	1	*0.00025*	0.0062	0.0027	0.0093	0.0011	No result	0.002	0.0018	0.0022	*0.00025*
Dissolved Zinc	mg/L	20	*0.001*	0.046	0.017	0.006	0.004	No result	0.002	*0.001*	0.004	0.005

Notes:

All `<' values have been reported as half the detection limit for statistical purposes and are expressed in italics

n/r – not required to be tested during this monitoring period

copper trigger values range from 0.4 mg/L for sheep, up to 5 mg/L for poultry

'ND' indicates where E. coli were not detected

Bold - denotes exceedance of ANZECC LDW

Table 2-7: VOCs detected in samples from down-gradient groundwater bores during the April 2022 sampling round

Determinant	Laboratory detection limit (from Eurofins-ELS) mg/L	ANZECC 2000 DGV (mg/L)	Detected concentrations at down-gradient bores (mg/L)		Common source/usage of determinant (from https://www.waterquality.gov.au/anz-guidelines/guideline-values/default/water-quality-toxicants/search#tox-158)
			B2	C2DS	
Chlorobenzene	0.0005	Not defined	0.0045		No brief available
Carbofuran	**0.001**	0.00006 (99th percentile) 0.0012 (95th percentile) 0.004 (90th percentile) 0.015 (80th percentile)		0.008	Used to control leaf and soil insects and nematodes in a variety of fruit, vegetable and cereal crops.

Note that the VOC results for C2 and B3s were not available at the time of compiling this report.

2.5 Groundwater Quality Down-Gradient of the Irrigation Area

The F-series boreholes intersect the shallow aquifer down-gradient of the area that was used to irrigate leachate from 2004 to October 2008. All leachate is now pumped to the Levin Wastewater Treatment Plant. The F1 borehole is located within the area where leachate from the new landfill was irrigated. The F2 and F3 boreholes are in an area that was set aside for leachate irrigation but was never used for that purpose. It is expected that bores F2 and F3 would therefore be representative of background groundwater quality.

The results from the F series boreholes are presented in Table 2-8 and have been compared with the ANZECC LDW trigger values, as per discharge consent 6010. The full laboratory report is included in Appendix C and the historical graphs are presented in Appendix D.

There were **no exceedances of the resource consent conditions** in samples from these bores during the April 2022 monitoring round.

Table 2-8: Results from Monitoring Bores in the Irrigation Area for April 2022

Determinant	Units	ANZECC LDW	F1	F2	F3
Water level	mBGL	-	7.57	2.51	4.85
pH	-	6 to 9	7.5	7.6	7.5
Suspended Solids	mg/l	-	*1.5*	*1.5*	14
Phenol	mg/L	-	*0.025*	*0.025*	*0.025*
VFA	mg/L	-	*2.5*	*2.5*	*2.5*
TOC	mg/L	-	6	1.8	1.5
Alkalinity	mg $CaCO_3$/L	-	141	56	49
Conductivity	mS/m	-	42.4	22.3	18.6
COD	mg/L	-	47	39	34
scBOD5	mg/L	-	*0.5*	*0.5*	*0.5*
E-Coli	CFU/100ml	100	ND	ND	4
Chloride	mg/L	-	40.7	23.7	17.9
Nitrate-N	mg/L	90.3	0.38	0.25	1.08
Sulphate	mg/L	-	2.97	10.2	5.48
Ammoniacal-N	mg/L	-	*0.005*	*0.005*	*0.005*
Hardness	mg $CaCO_3$/L	-	123	40	31
Calcium	mg/L	1000	18.4	6.66	4.77
Magnesium	mg/L	-	18.8	5.78	4.54
Potassium	mg/L	-	8.66	5.8	5.18
Sodium	mg/L	-	40.6	26.4	22.3
D.R. Phosphorus	mg/L	-	0.182	0.152	0.161
Dissolved Aluminium	mg/L	5	*0.001*	0.002	*0.001*
Dissolved Arsenic	mg/L	0.1	0.002	0.001	0.002
Dissolved Boron	mg/L	5	0.03	0.003	*0.015*
Dissolved Cadmium	mg/L	0.01	*0.0001*	*0.0001*	*0.0001*
Dissolved Chromium	mg/L	1	*0.0005*	*0.0005*	*0.0005*
Dissolved Copper	mg/L	0.4 #	0.003	0.0018	0.0005
Dissolved Iron	mg/L	-	*0.0025*	0.020	*0.0025*
Dissolved Lead	mg/L	0.1	*0.00025*	*0.00025*	*0.00025*
Dissolved Manganese	mg/L	-	0.0058	0.0205	*0.00025*

Determinant	Units	ANZECC LDW	F1	F2	F3
Dissolved Mercury	mg/L	0.002	*0.00025*	*0.00025*	*0.00025*
Dissolved Nickel	mg/L	1	*0.00025*	0.0007	*0.00025*
Dissolved Zinc	mg/L	20	*0.001*	*0.001*	*0.001*

Notes:

All `<' values have been reported as half the detection limit for statistical purposes and are expressed in italics

n/r – not required to be tested during this monitoring period
copper trigger values range from 0.4 mg/L for sheep, up to 5 mg/L for poultry

'ND' indicates where E. coli were not detected

* Value was noted as '0' in results received, however it is assumed it indicates the concentration was below the laboratory detection limit.

2.6 Leachate Effluent Results

Leachate effluent from the landfill is not subject to any water quality consent conditions. However, for comparison purposes, typical leachate characteristics for landfills, as published by the Waste Management Institute New Zealand (*Technical Guidelines for Disposal to Land*, August 2018, WasteMINZ), have been compared against the leachate quality monitoring results (Table 2-9). The full laboratory report is included in Appendix C and the historical graphs are presented in Appendix D.

Table 2-9 shows that the concentrations of monitored parameters for leachate effluent samples collected in February 2022 and April 2022 were mostly within the typical ranges to be expected for this type of landfill.

At the time of preparing this report, no results had been received for March 2022.

There were however four exceedances of the typical leachate characteristics. Typical leachate characteristics were exceeded for COD and for ammoniacal-N in the March 2022 and April 2022 monitoring results.

Results for mercury were less than the minimum typical value in February 2022, March 2022 and April 2022.

It is noted that the leachate effluent is sent to Levin WWTP for treatment.

Table 2-9: Results from Leachate Effluent Monitoring for February, March and April 2022

Determinant	Units	Typical Leachate Characteristics* (range)	February	March	April
pH		5.9 - 8.5	7.7	7.9	7.7
Suspended Solids	mg/l	-	67	107	171
Phenol	mg/L	-	*0.025*	0.06	0.08
VFA	mg/L	-	17	58	30 *
TOC	mg/L	-	604	742	805
Alkalinity	mg $CaCO_3$/L	-	6,630	6,990	7,570
Conductivity	mS/m	308 – 27,900	1,540	1,610	1,700
COD	mg/L	84 – 5,090	3,570	**5,150**	**5,930**
$scBOD_5$	mg/L	-	93	105	139
E-Coli	CFU/100mL	-	4,000	*50*	*50*
Chloride	mg/L	45 – 2,584	1,120	1,220	1,310
Nitrate-N	mg/L	-	*0.5*	*0.5*	*0.5*
Sulphate	mg/L	-	13.2	18.3	36.3
Ammonia-N	mg/L	3.4 – 1,440	1,410	**1,530**	**1,640**
Hardness	mg $CaCO_3$/L	-	483	521	530
Calcium	mg/L	-	99.9	110	112
Magnesium	mg/L	-	56.7	59.6	60.7
Potassium	mg/L	-	667	718	787

Determinant	Units	Typical Leachate Characteristics* (range)	February	March	April
Sodium	mg/L	50 – 4,000**	967	1,030	1,120
D.R. Phosphorus	mg/L	-	14.8	16.3	17.9
Dissolved Aluminium	mg/L	-	0.576	0.835	0.854
Dissolved Arsenic	mg/L	-	0.324	0.416	0.371
Dissolved Boron	mg/L	0.54 – 20.1	5.86	7.29	6.87
Dissolved Cadmium	mg/L	-	*0.001*	*0.0001*	*0.001*
Dissolved Chromium	mg/L	-	0.648	0.866	0.838
Dissolved Copper	mg/L	-	0.008	0.0233	0.0100
Dissolved Iron	mg/L	1.6 – 220	4.88	6.26	4.97
Dissolved Lead	mg/L	0.001 - 0.42	*0.0025*	0.0023	*0.0025*
Dissolved Manganese	mg/L	0.3 - 45***	1.22	1.30	1.30
Dissolved Mercury	mg/L	0.2 – 50	***0.0025***	***0.00025***	***0.0025***
Dissolved Nickel	mg/L	0.02 – 2.05**	0.106	0.112	0.141
Dissolved Zinc	mg/L	-	0.049	0.038	0.078

Notes:

* for Class 1-type landfills, Table 5-5, p82, Technical Guidelines for Disposal to Land, WasteMINZ August 2018 (same as Table 4.2 of the CAE Landfill Guidelines 2000, but corrections made to Table 5-5 in line with Table 4.2)

**Data taken from Table 5-4, p81 of the same guideline, for parameters for which no differences in concentrations between the phases of landfill development could be observed

***Data taken from Table 5-4, p81 of the same guideline, for parameters during the methanogenic phase

Bold – denotes a deviation from the typical leachate characteristics range

All `<' values have been reported as half the detection limit for statistical purposes and are expressed in italics

Samples of leachate were collected and analysed for volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC) in April 2022.

Thirteen VOCs were detected in the samples and compared against the relevant ANZECC guidelines in Table 2.10 below. Of these results, the concentration of only one (Naphthalene) exceeded the guideline values at the 99th percentile and this is shown in **bold** in the table.

Table 2-10: VOCs detected in samples of leachate from the April 2022 sampling round

Determinant	Laboratory detection limit (from Eurofins-ELS) mg/L	Detected concentration (mg/L)	ANZECC 2000 default guideline value(s) for toxicants (*percentile for species protection in brackets*) (mg/L)	Common source/usage of determinant (from https://www.waterquality.gov.au/anz-guidelines/guideline-values/default/water-quality-toxicants/search#tox-158)
Naphthalene	0.0005	**0.0030**	0.0025 (99th percentile) 0.016 (95th percentile) 0.037 (90th percentile) 0.085 (80th percentile)	A Polycyclic Aromatic Hydrocarbon (PAH) found in runoff from road surfaces; generally produced from anthropogenic combustion processes
1,2,4-Trimethylbenzene	0.0005	0.0020	Not defined	No brief available
Benzene	0.0005	0.0048	0.6 (99th percentile)	Benzene has been used as a fuel additive.

			0.95 (95th percentile) 1.3 (90th percentile) 2.0 (80th percentile)	
o-Xylene	0.0005	0.0176	0.2 (99th percentile) 0.35 (95th percentile) 0.47 (90th percentile) 0.64 (80th percentile)	Hydrocarbon; used in aviation fuel and polyester manufacture.
p-Isopropyltoluene	0.0005	0.0058	Not defined	No brief available
Tert-Butylbenzene	0.0005	0.0012	Not defined	No brief available
Toluene	0.0005	0.0240	0.2 (99th percentile) 0.35 (95th percentile) 0.47 (90th percentile) 0.64 (80th percentile)	Hydrocarbon; fuel additives (vehicles)
Total p,m Xylene, Ethylbenzene	0.0015	0.0237	Not defined	Used for adhesives, resins, fibres, pesticides and ink, and in the rubber industry, as industrial cleaners and degreasers and as thinners for paints and lacquers.
1,2-Dichloroethane	0.0005	0.0008	1.0 (99th percentile) 1.9 (95th percentile) 2.6 (90th percentile) 4.0 (80th percentile)	Used as industrial solvents, dry-cleaning agents, anaesthetics, and in the production of other organochlorines, textiles, tetraethyl lead fuel additives and plastics.
1,2-Dichloropropane	0.0005	0.0007	0.6 (99th percentile) 0.9 (95th percentile) 1.2 (90th percentile) 1.8 (80th percentile)	Used as soil and grain fumigants, in plastics, resins and rubbers, as degreasers and as chemical intermediates.
Trans-1,3-Dichloropropene	0.0005	0.0016	Not defined	No brief available
1.4-Dichlorobenzene	0.0005	0.0008	0.04 (99th percentile) 0.06 (95th percentile) 0.075 (90th percentile) 0.10 (80th percentile)	Used mainly as an air deodorant and insecticide.
Chlorobenzene	0.0005	0.0011	Not defined	No brief available

2.7 Tatana Property Drain

A drain is located on the Tatana property (see Site Plan in Appendix A). Since July 2015 HDC has agreed to sample surface water from this drain for a selection of parameters that were set by HRC. Four sampling points were selected to represent the top of the drain (SW1), middle of the drain (SW2 and SW3) and lower drain (SW4).

The revised consent conditions have since reduced the extent of sampling to a single location. This is known as 'TD1' and is the same sampling location as for the previously denoted 'SW3'.

Results from the April 2022 sampling round are presented in Table 2-11 and have been compared with the ANZECC AE[1] 95% trigger values, as per the revised resource consent conditions.

Table 2-11 Tatana Drain Monitoring Results for February, March, and April 2022

Determinant	Units	ANZECC AE (95%)	TD1 (formerly SW3)		
			February	March	April
pH	-	-	8.0	7.8	6.8
Suspended Solids	mg/l	-	19	21	94
Phenol	mg/L	-	*0.025*	*0.025*	*0.025*
VFA	mg/L	-	*2.5*	*2.5*	*2.5*
TOC	mg/L	-	3.2	22.2	15.0
Alkalinity	mg CaCO3/L	-	192	407	104
Conductivity	mS/m	-	59.8	105.0	41.0
COD	mg/L	-	123	52	115
scBOD5	mg/L	2	BDL	BDL	BDL
E-Coli	CFU/100ml	-	300	1000	*50*
Chloride	mg/L	-	68.4	87.3	56.0
Nitrate-N	mg/L	0.16	*0.005*	*0.005*	0.030
Sulphate	mg/L	-	1.50	0.49	5.44
Ammoniacal-N	mg/L	2.1	**5.93**	**14.80**	0.12
Hardness	mg CaCO3/L	-	133	296	89
Calcium	mg/L	-	25.1	72.8	17.3
Magnesium	mg/L	-	17.0	27.7	11.1
Potassium	mg/L	-	17.7	23.6	8.6
Sodium	mg/L	-	53.8	64.7	45.5
D.R. Phosphorus	mg/L	-	0.049	0.027	0.043
Dissolved Aluminium	mg/L	0.055	0.021	0.004	0.023
Dissolved Arsenic	mg/L	0.024	0.002	0.002	*0.0005*
Dissolved Boron	mg/L	-	0.22	0.36	0.10
Dissolved Cadmium	mg/L	0.0002	*0.0001*	*0.0001*	*0.0001*
Dissolved Chromium	mg/L	-	*0.0005*	*0.0005*	*0.0005*
Dissolved Copper	mg/L	0.0014	*0.00025*	**0.0017**	*0.00025*

[1]Australian and New Zealand Guidelines for Fresh and Marine Water Quality - Aquatic Ecosystems (AE), Australian and New Zealand Environment and Conservation Council (ANZECC), Canberra, Australia, 2000

Determinant	Units	ANZECC AE (95%)	TD1 (formerly SW3)		
			February	March	April
Dissolved Iron	mg/L	-	1.56	0.15	1.32
Dissolved Lead	mg/L	0.0034	*0.00025*	0.0003	*0.00025*
Dissolved Manganese	mg/L	1.9	0.121	0.767	0.012
Dissolved Mercury	mg/L	0.0006	*0.00025*	*0.00025*	*0.00025*
Dissolved Nickel	mg/L	0.011	0.0015	0.0018	0.0005
Dissolved Zinc	mg/L	0.008	0.0030	0.0030	0.0020

Notes:
Bold – denotes an exceedance of the ANZECC AE 95% protection level trigger values
BDL = Below detection limit
All `<' values have been reported as half the detection limit for statistical purposes and are expressed in italics
n/r – not required to be tested during this monitoring period

There was a total of **three exceedances of the resource consent conditions** for two monitored parameters in samples from the Tatana Drain property at the TD1 location during the February and March 2022 sampling rounds.

Previously, the ammoniacal-N concentration was noted as exceeding the ANZECC AE (95%) limit of 2.1 mg/L and showing a sudden change compared to the historical results. It is noted that the concentrations of this parameter in the previous monitoring reports (April, July, and October 2021) were all below the ANZECC AE (95%) limit and significantly lower than historical ranges. The results for November and December 2021 (0.45 mg/L and 0.66 mg/L respectively) were also below the ANZECC AE 95% limit, however, the January 2022 (5.98 mg/L) result was significantly above the limit, and this continued for the February 2022 (5.93 mg/L) and March 2022 (14.80 mg/L) monitoring events. In April 2022, the concentration of ammoniacal-N dropped significantly down to 0.12 mg/L, which is well below the ANZECC AE (95%) limit. The cause of these significant concentration fluctuations is not known, and this matter should be kept under observation in subsequent reports.

The concentration of copper (0.0017 mg/L) in March 2022 marginally exceeded the ANZECC AE (95%) limit of 0.0014 mg/L. This is the highest value recorded to date but is not exceptional compared to the results over the past two years.

Please note that using the method of halving results that are recorded as being below detection limits, the $scBOD_5$ concentrations at TD1 in the February 2022, March 2022 and April 2022 monitoring rounds is expressed as 3 mg/L. This suggests that there are exceedances of the ANZECC AE (95%) trigger value of 2 mg/L which is incorrect. Therefore, these results for $scBOD_5$ concentrations have been represented in Table 2-11 as being below the detection limit (i.e., as “BDL”).

2.8 Hokio Stream

Surface water grab samples are obtained from Hokio Stream at sites HS1A, HS1, HS2 and HS3 (refer to Appendix A) to investigate whether groundwater containing leachate is having an adverse environmental effect on the stream. Sites HS1A and HS1 are situated up-stream of the old landfill, HS2 is situated alongside the old landfill and up-stream of the Tatana Property Drain discharge, and HS3 is located approximately 50m down-stream of the landfill site property boundary and the Tatana Property Drain discharge. Samples from these monitoring locations on Hokio Stream are analysed for a comprehensive suite of parameters every month (as shown in Appendix B).

Results from the February, March, and April 2022 sampling rounds are presented in Table 2-12 and have been compared with the ANZECC AE 95% trigger values, as per the revised resource consent conditions.

Monitoring for $scBOD_5$ and soluble mercury concentrations has now been added as per the revised Resource Consent conditions.

The revised conditions have recently been implemented and monitoring of these additional parameters, including at the new location, commenced during the April 2020 monitoring round.

Table 2-12: Hokio Stream Monitoring Results for February, March, and April 2022

Determinant	Units	ANZECC AE (95%)	Consent Trigger Values (Table C1)	HS1A (new)	HS1	HS2	HS3	HS1A (new)	HS1	HS2	HS3	HS1A (new)	HS1	HS2	HS3
				February				March				April			
pH	-	-	-	7.8	7.6	7.5	7.5	9.0	8.9	8.6	8.5	7.7	7.7	7.7	7.7
Suspended Solids	mg/l	-	-	9	8	10	13	27	16	16	24	11	11	12	12
Phenol	mg/L	0.320	-	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*	*0.025*
VFA	mg/L	-	-	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*
TOC	mg/L	-	-	6.7	6.3	6.6	6	8.1	7.3	6.9	7.2	6.8	6.6	6.5	6.5
Alkalinity	mg CaCO3/L	-	-	50	49	50	51	44	45	47	50	65	65	70	68
Conductivity	mS/m	-	-	21.8	21.6	21.7	22.2	21.3	21.6	22.3	22.6	25.2	25.6	26.0	26.4
COD	mg/L	-	-	33	36	42	40	26	34	39	37	27	29	29	40
$scBOD_5$	mg/L	2	Monthly Ave. 2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
E-Coli	CFU/100 ml	-	-	1700	580	410	410	68	480	270	280	190	900	910	150
Chloride	mg/L	-	-	26.7	21.4	21.8	21.2	22.0	21.1	21.9	22.4	25.0	24.6	25.2	25.5
Nitrate-N	mg/L	0.16	0.16	0.15	0.14	**0.17**	**0.17**	**0.20**	0.16	**0.19**	**0.20**	0.10	0.07	0.09	0.11
Sulphate	mg/L	-	-	18.3	18.2	17.9	18.1	20.0	18.9	18.9	18.9	16.0	17.0	15.7	15.6
Ammoniacal-N	mg/L	2.1	Max. 2.1 Ave. 0.400	0.05	0.1	0.14	0.19	0.1	0.06	0.10	0.10	0.04	0.08	0.11	0.14
Hardness	mg CaCO3/L	-	-	59	58	60	59	54	55	58	59	75	70	74	76
Calcium	mg/L	-	-	12.6	12.2	12.8	12.7	11.8	11.9	12.7	13.1	16.0	15.0	15.9	16.4
Magnesium	mg/L	-	-	6.69	6.55	6.83	6.73	6.0	6.07	6.38	6.51	8.6	7.92	8.27	8.44
Potassium	mg/L	-	-	9.59	3.74	3.47	3.24	2.6	2.63	2.76	2.78	3.3	3.7	3.45	3.76
Sodium	mg/L	-	-	17.4	16.7	17.5	17.3	17.2	17.4	17.8	18.6	21.9	20.7	21.0	21.6
D.R. Phosphorus	mg/L	-	-	0.118	0.048	0.048	0.051	0.083	0.079	0.085	0.088	0.062	0.072	0.069	0.076
Dissolved Aluminium	mg/L	0.055	Med. 0.055	0.036	0.032	0.029	0.029	0.029	0.017	0.016	0.025	0.012	0.010	0.011	0.010
Dissolved Arsenic	mg/L	0.024	Med. 0.024	*0.0005*	*0.0005*	*0.0005*	*0.0005*	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Dissolved Boron	mg/L	0.370	-	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07

Determinant	Units	ANZECC AE (95%)	Consent Trigger Values (Table C1)	HS1A (new)	HS1	HS2	HS3	HS1A (new)	HS1	HS2	HS3	HS1A (new)	HS1	HS2	HS3
				February				March				April			
Dissolved Cadmium	mg/L	0.0002	Med. 0.0002	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*
Dissolved Chromium (VI)	mg/L	0.001	-	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*
Dissolved Copper	mg/L	0.0014	Med. 0.0014	0.0014	0.0010	0.0010	0.0010	0.0011	0.0010	0.0008	0.0006	0.0008	0.0007	0.0008	0.0008
Dissolved Iron	mg/L	-	-	0.157	0.173	0.206	0.211	0.107	0.105	0.095	0.090	0.167	0.138	0.169	0.161
Dissolved Lead	mg/L	0.0034	Med. 0.0034	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*
Dissolved Manganese	mg/L	1.9	-	0.0211	0.0161	0.016	0.0167	0.0097	0.0081	0.0103	0.0141	0.0396	0.0494	0.0360	0.0381
Dissolved Mercury	mg/L	0.0006	Med. 0.0006	*0.00025*	*0.00025*	*0.00025*	*0.00025*	0.0005	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*
Dissolved Nickel	mg/L	0.011	Med. 0.011	0.0006	*0.00025*	*0.00025*	*0.00025*	0.0005	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*	*0.00025*
Dissolved Zinc	mg/L	0.008	Med. 0.008	0.006	0.003	0.002	0.003	*0.001*	*0.001*	*0.001*	*0.001*	0.003	*0.001*	*0.001*	*0.001*

Notes:

NR = Not reported

BDL = Below detection limit

Bold – denotes an exceedance of the ANZECC AE 95% protection level trigger values

Underlined – denotes exceedance of the Consent Trigger Values

All `<' values have been reported as half the detection limit for statistical purposes and are expressed in italics

* Value was noted as '0' in results received, however it is assumed it indicates the concentration was below the laboratory detection limit

There were **five exceedances** of the resource consent conditions in samples from the Hokio Stream during the February 2022 and March 2022 sampling rounds. These are summarised as follows:

- In February 2022, the nitrate-N concentration exceeded the ANZECC AE (95%) trigger value of 0.16mg/L at sampling locations HS2 and HS3.
- Similarly, in March 2022, the nitrate-N concentration exceeded the ANZECC AE (95%) trigger value of 0.16mg/L at sampling locations HS1A, HS2 and HS3.

It is noted that the concentration of nitrate-N at sampling location HS1 in March 2022 equalled the trigger value of 0.16mg/L but did not exceed it. Likewise, the concentration of copper at HS1A in February 2022 equalled the trigger value of 0.0014mg/L.

Please note that using the method of halving results that are recorded as being below detection limits, the $scBOD_5$ concentrations at all four sites (HS1A, HS1, HS2, and HS3) in the February 2022, March 2022 and April 2022 monitoring rounds is expressed as 3 mg/L. This suggests that there are exceedances of the ANZECC AE (95%) trigger value of 2 mg/L which is incorrect. Therefore, these results for $scBOD_5$ concentrations have been represented in Table 2-9 as being below the detection limit (i.e., as “BDL”).

Overall, the differences in monitoring results between the sites are marginal and there is little to no change in concentrations between upstream and downstream sites on the Hokio Stream. An exception is the E. coli concentrations which differ significantly between sites and sampling rounds. However, the concentrations noted in this report are within the historical range.

3 Landfill Gas Detection in Monitoring Wells

Condition 4 of Discharge Permit 6011 requires that: "…*groundwater monitoring wells shall be sampled for landfill gas when groundwater samples are taken from the wells. As a minimum, sampling shall be undertaken for methane, carbon dioxide and oxygen…*"

In the past, landfill gas monitoring results were only reported in the Annual Report. A recommendation of the 2019-2020 Annual Report was that these results should be included in every quarterly monitoring report so that if any results are unusually high, appropriate action can be promptly undertaken, including putting safeguards in place at the monitoring bores.

Appendix E summarises the results of landfill gas monitoring undertaken on 05th and 07th April 2022.

Out of the 27 groundwater monitoring bores:

- Methane was detected in thirteen of the bores. The highest recorded level was 0.12% in bore C1. This is well below the lower explosive limit of 5% and is therefore deemed at represent a 'safe' level. However, the detection of methane reinforces the need for the necessary precautions generally applicable at landfill sites to be taken when conducting sampling.
- Hydrogen sulphide was detected in bore Xs1, which from the results appears to be a value of 1%, which is extremely high. If the next round of monitoring shows a similar result, then this should be investigated further.
- Landfill bore B2 showed a very high carbon dioxide level of 5.2%, which is seven times higher than the next highest level of CO_2. As noted above, if the next round of monitoring shows a similar result, then this should be investigated further.
- These landfill gas levels are generally like those levels reported in the January 2022 quarterly monitoring report, which were higher than the previous quarter, and reinforce the importance of continuing to monitor these changes and map any patterns.

The possibility of encountering methane (and possible hydrogen sulphide) in groundwater bores endorses the need for appropriate health and safety measures to be adopted during monitoring, as is the case for the landfill gas extraction wells. No smoking should be permitted when personnel undertake groundwater sampling and when in the vicinity of the groundwater monitoring wells, or in fact anywhere else on the Levin Landfill site.

4 Discussion

4.1 Sampling Quality Control and Assurance

The landfill extends over a significant area and there are many sampling locations. However, it is important that the time span of the sampling period is kept as short as possible because a sampling period that is too long may make comparisons of results between rounds and individual monitoring locations less valid.

The April 2022 samples were collected over a 13-day period, which is well outside the normally accepted 7 days (which is a consent condition requirement). Meeting the monitoring timeframe is important because it means that there can be greater confidence in comparing results from different parts of the site. The results during the April sampling round do not, however, show wide disparity from previous results and so it is concluded that this month there was no issue with having the samples taken over the 13-day period, instead of over a 7-day period.

4.2 Background Groundwater Quality

The quality of the natural background groundwater up-gradient from the landfill site is not subject to any consent conditions.

Results since 2010 for the background bores indicate that low pH values are representative of background water quality in the shallow sand aquifer (G1S). However, the pH level for the April 2022 sampling round was 6.9 which is below the lower limit of the DWSNZ MAV. As usual the deeper gravel aquifer (G1D) has a slightly higher pH of 7.0.

Dissolved iron concentrations have fluctuated considerably at both the G1S and G1D bores since monitoring began and are occasionally above the DWSNZ GV. During the April 2022 sampling round, the iron concentrations at G1S (3.63mg/L) and G1D (1.21mg/L) exceeded the DWSNZ GV of 0.2 mg/L but were still within the historical results range recorded at these bores. Elevated iron concentrations in groundwater are likely to be related to hydrogeological conditions found at the site and this phenomenon is common in groundwater in this area.

During the April 2022 sampling round, the dissolved aluminium concentration at G1S (0.122 mg/L) marginally exceeded the DWSNZ MAV limit of 0.1 mg/L which was within historical ranges.

During the April 2022 monitoring round, E. coli also exceeded the DWSNZ GV of nil at G1S (with 28 cfu/100ml), G1D (with 110 CFU/100ml) and at F3 (4 CFU/100ml). The E.coli result for G1D also exceeded the ANZECC LDW of 100 CFU/100ml.

The result for bore G1S is a significant decrease from the previous monitoring round but is still somewhat higher than previous round results.

For bore G1D, the result is the highest it has been since January 2018, and it is important to monitor this in the next sampling round to determine if this is a continued trend.

Bore F3 has recorded similar levels of E.coli, though more recently the results have tended to be below detection level.

The monitoring results suggest that the quality of background groundwater may be being impacted by local ground conditions and/or activities up-gradient of the landfill. Background bore G1S consistently records elevated concentrations of a range of parameters and therefore may not be suitable to use as a yardstick of background water quality in the future.

4.3 Shallow Aquifer Groundwater Quality

4.3.1 Hydraulically down-gradient of the Old Landfill

There was one exceedance of the ANZECC LDW trigger values during the April 2022 monitoring round. Which was for nitrate-N in bore B2 (108 mg/L) which exceeded the ANZECC LDW value of 90.3 mg/L.

Therefore, this result shows non-compliance with the resource consent conditions.

E. coli at bore B3s matched but did not exceed the ANZECC LDW value of 100cfu/ 100ml. The E.coli results of this sampling round contrasts with the sampling results of the previous January 2022 round where five exceedances occurred. The change from the previous sampling round appears to confirm that cross-contamination may have occurred during that sampling round.

Carbofuran was detected in bore C2DS at a level slightly lower than the 95% ANZECC 2000 DGV level and chlorobenzene was detected in bore B2.

4.3.2 Hydraulically up-gradient of the Old Landfill and down gradient of the new landfill

There were no exceedances of the ANZECC LDW trigger values during the April 2022 monitoring round.

This contrasts with the four exceedances in January 2022, all of which were for elevated levels of E. coli. This monitoring round, E.coli was detected only in bores D4 (96 cfu/100ml) and D6 (16 cfu/100ml) and at levels below the ANZECC LDW value of 100cfu/100ml.

Therefore, these results show compliance with the resource consent conditions and appear to confirm that there may have been cross-contamination of samples in the January 2022 sampling round.

4.3.3 Irrigation Area

There were no exceedances of the resource consent conditions during the April 2022 monitoring round in samples from the Irrigation Area.

4.4 Deep Aquifer Groundwater Quality

There were five exceedances of the DWSNZ limits in samples from the deep gravel aquifer during the April 2022 monitoring round.

The concentration of E.Coli exceeded the DWSNZ MAV of nil in bore Xd1 (8 cfu/100ml). Bore Xd1 is new but has yielded similar values of E. Coli. The E.Coli exceedances last monitoring round in the other deep aquifer bores (E1D, C2DD, E2D, and D3rd) have not occurred again which leads to the assumption that samples may have been cross-contaminated.

The dissolved manganese concentrations in bores C2DD, E2D, Xd1, and D3rd exceeded the DWSNZ MAV of 0.4mg/L. The results for C2DD, E2D and Xd1 are within the historical range of concentrations observed. As bore D3rd is relatively new any trends will not become apparent until further results have been obtained in subsequent quarterly monitoring rounds and comparisons can be made.

4.5 Leachate Effluent

Monitoring results from the leachate effluent samples are not required to meet either the ANZECC LDW trigger values or DWSNZ standards. However, there were two exceedances of the typical composition ranges for leachate at Class 1 landfills, as published in the WasteMINZ guidelines[2] during the January 2022 monitoring round.

These were for COD in April 2022 (5,930 mg/L) which exceeded the range of 84 – 5,090 mg/L; and for ammoniacal-N in April 2022 (1,640 mg/L) which exceeded the range of 3.4 – 1,440 mg/L.

While, these exceedances are not common, it is noted these results are within the historical range of results observed. It is noted that the leachate effluent is sent to Levin WWTP for treatment.

Thirteen VOCs were detected in the leachate effluent samples. Of these results, the concentration of only naphthalene (0.0030mg/L) exceeded the guideline values at the 99th percentile (0.0025mg/L).

4.6 Tatana Property Drain

Under the revised conditions, the Tatana Property drain samples are now assessed against the ANZECC AE 95% trigger values.

There were three exceedances of the ANZECC AE (95%) limits and therefore the resource consent conditions are not met.

Ammoniacal – N exceeded the trigger value of 2.1 mg/L with concentrations of 5.93 mg/L and 14.80 mg/L during the February 2022 and March 2022 monitoring events, respectively. These elevated results matched the elevated result during the January 2022 monitoring round, but in April 2022 the concentration of ammoniacal-N dropped significantly

[2] Technical Guidelines for Disposal to Land, WasteMINZ, 2018

down to 0.12 mg/L, which is well below the ANZECC AE (95%) limit. The cause of these significant concentration fluctuations is not known, and this matter should be kept under observation in subsequent reports.

The concentration of copper (0.0017 mg/L) in March 2022 marginally exceeded the ANZECC AE (95%) limit and was the highest value recorded to date, but the result not exceptional compared to the results over the past two years.

4.7 Hokio Stream

Under the revised resource consent conditions, a new monitoring location (HS1A), upstream of HS1, was added to the Hokio Stream monitoring sites and all monitoring results for the Hokio Stream samples are now assessed against the ANZECC AE 95% trigger values.

There were five exceedances of the resource consent conditions in samples from the Hokio Stream during the February 2022 and March 2022 sampling rounds. These are summarised as follows:

- In February 2022, the nitrate-N concentration exceeded the ANZECC AE (95%) trigger value of 0.16mg/L at sampling locations HS2 and HS3.
- Similarly, in March 2022, the nitrate-N concentration exceeded the ANZECC AE (95%) trigger value of 0.16mg/L at sampling locations HS1A, HS2 and HS3.

4.8 Consent Compliance

Discharge permit 6010 states that quarterly and annual monitoring results shall comply with the ANZECC LDW trigger values in the shallow groundwater aquifer (sand aquifer) and surface water bodies. Samples from the deep groundwater (gravel aquifer) shall comply with the applicable DWSNZ values. Should any parameters exceed these standards, the permit holder shall report to the Regional Council as soon as practicable on the significance of the results and, where the change can be attributed to the influence of landfill leachate, consult with the Regional Council to determine if further investigations or remedial measures are required.

Shallow aquifer

There were **no exceedances** of consent conditions hydraulically up-gradient of the old landfill and down-gradient of the new landfill during the April 2022 monitoring period.

There was **one exceedance** of the consent conditions hydraulically down-gradient of the old landfill during the April 2022 monitoring period. This was for nitrate-N in bore B2.

Deeper gravel aquifer

There were **five exceedances** of the DWSNZ limits in samples from the deep gravel aquifer during the April 2022 monitoring round.

The concentration of E.Coli exceeded the DWSNZ MAV of nil in bore Xd1 (8 cfu/100ml). Bore Xd1 is new but has yielded similar values of E. Coli. The E.Coli exceedances last monitoring round in the other deep aquifer bores (E1D, C2DD, E2D, and D3rd) have not occurred again which leads to the assumption that samples may have been cross-contaminated.

The dissolved manganese concentrations in bores C2DD, E2D, Xd1, and D3rd exceeded the DWSNZ MAV of 0.4mg/L. The results for C2DD, E2D and Xd1 are within the historical range of concentrations observed. As bore D3rd is relatively new any trends will not become apparent until further results have been obtained in subsequent quarterly monitoring rounds and comparisons can be made.

Irrigation area

There were **no exceedances** of the resource consent conditions during the April 2022 sampling round for samples obtained from the irrigation area.

Tatana Property drain

There were **three exceedances** of the resource consent conditions in samples from Tatana Drain during the February 2022 and March 2022 sampling rounds, as follows:

- The ammoniacal-N concentration exceeded the ANZECC AE (95%) limit during the February 2022 and March 2022 sampling rounds with concentrations of 5.93 mg/L and 14.80 mg/L, respectively.
- The copper concentration (0.0017 mg/L) in March 2022 exceeded ANZECC AE (95%) limit of 0.0014 mg/L.

Hokio Stream

During the February 2022 and March 2022 monitoring rounds there were **five exceedances** of the resource consent conditions in samples from the Hokio Stream, as follows:

- For HS2 and HS3, the nitrate-N concentration exceeded the ANZECC AE (95%) trigger value of 0.16mg/L during the February 2022 sampling round.
- Similarly, in March 2022, the nitrate-N concentration exceeded the ANZECC AE (95%) trigger value at sampling locations HS1A, HS2 and HS3.

5 Conclusions

Monitoring results obtained in the April 2022 sampling rounds suggest that the groundwater at the background monitoring sites at the Levin Landfill is being impacted by local ground conditions and/or activities up-gradient of the landfill.

During the April 2022 monitoring period there were fourteen exceedances of the resource consent conditions; one exceedance was in a sample from the shallow aquifer, five exceedances were in samples from the deep gravel aquifer, three exceedances were in samples from Tatana Property drain, and five exceedances occurred in samples from the surface water monitoring at Hokio Stream.

Last monitoring round there were an unusual number of exceedances in the shallow and deep aquifer on account of elevated E.coli counts. This sampling round only one exceedance was on account of elevated E.coli which appears to confirm that cross-contamination of samples had occurred last sampling round.

There were four occasions where the leachate effluent quality exceeded the typical leachate composition as recorded generally at Class 1 landfills in New Zealand. This occurred for COD and ammoniacal-N in March 2022 and April 2022. Note that leachate effluent is not subject to any consent limits.

There were no exceedances during the April 2021 monitoring round in samples from the Irrigation Area.

Methane was detected in thirteen groundwater monitoring bores in the April 2022 sampling round. This is less than the number of bores (eighteen) where it was detected last sampling round, but the concentrations of gas detected are like last round.

The highest concentration of methane was in bore C1 (0.12%) which was well below the lower explosive limit for methane (which is 5%).

Hydrogen sulphide was detected in bore Xs1 at a reported concentration of 1%, which is extremely high and of concern.

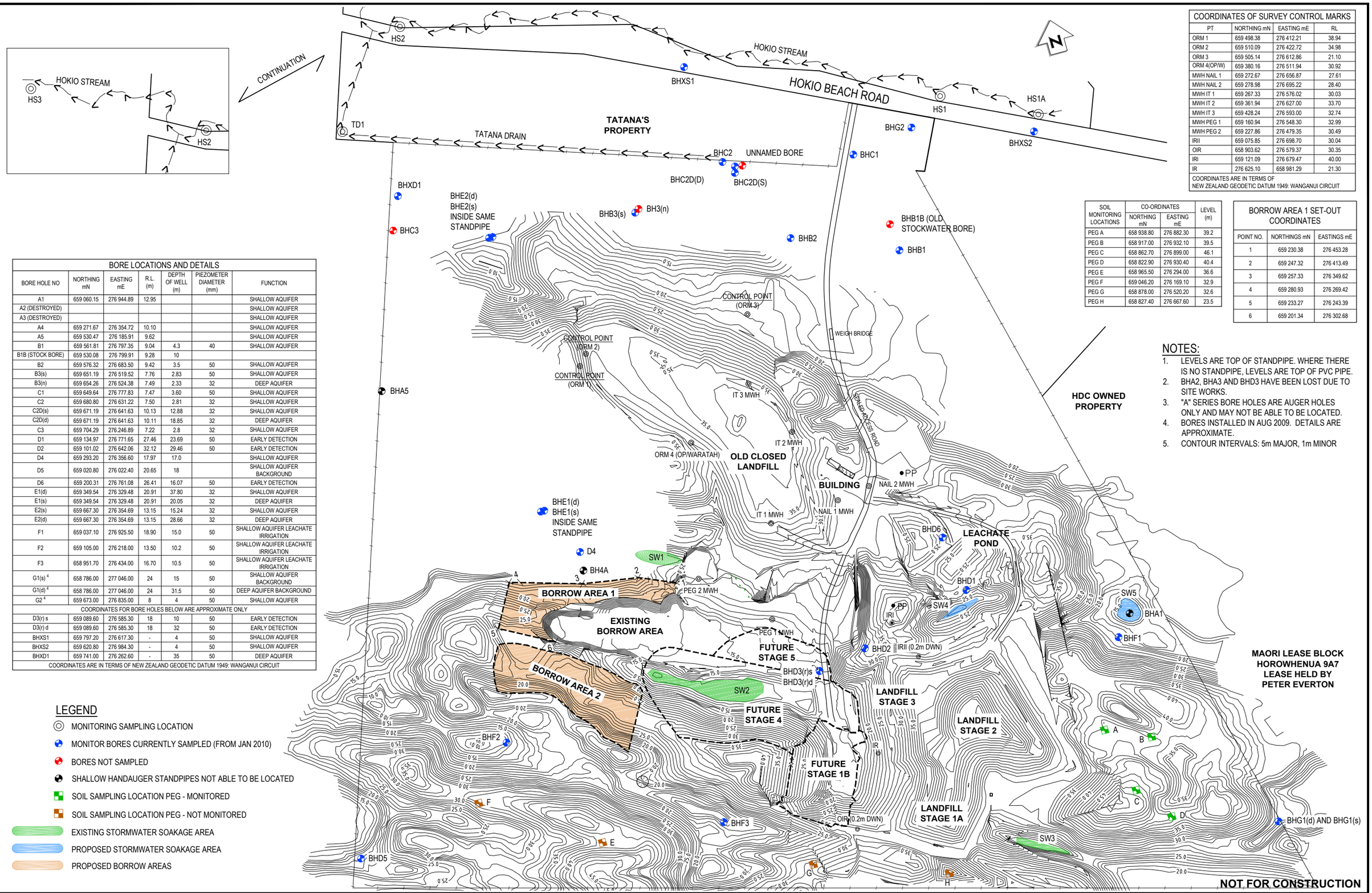
Additionally, a very level of carbon dioxide was measured at bore B2 (5.2%).

These high results should be investigated further by carrying out more gas testing and signal the need for appropriate precautions to be taken, including using protective PPE, when testing for gas.

Appendices

We design with community in mind

Appendix A Site Plan



COORDINATES OF SURVEY CONTROL MARKS			
PT	NORTHING mN	EASTING mE	RL
ORM 1	659 498.38	276 412.21	38.94
ORM 2	659 510.09	276 422.72	34.98
ORM 3	659 505.14	276 612.86	21.10
ORM 4(OP/W)	659 380.16	276 511.94	30.92
MWH NAIL 1	659 272.67	276 656.87	27.61
MWH NAIL 2	659 278.98	276 695.22	28.40
MWH IT 1	659 267.33	276 576.02	30.03
MWH IT 2	659 361.94	276 627.00	33.70
MWH IT 3	659 428.24	276 593.00	32.74
MWH PEG 1	659 160.94	276 548.30	32.99
MWH PEG 2	659 227.86	276 479.35	30.49
IRII	659 075.85	276 698.70	30.04
OIR	658 903.62	276 579.37	30.35
IRI	659 121.09	276 679.47	40.00
IR	276 625.10	658 981.29	21.30
COORDINATES ARE IN TERMS OF NEW ZEALAND GEODETIC DATUM 1949: WANGANUI CIRCUIT			

SOIL MONITORING LOCATIONS	CO-ORDINATES		LEVEL (m)
	NORTHING mN	EASTING mE	
PEG A	658 938.80	276 882.30	39.2
PEG B	658 917.00	276 932.10	39.5
PEG C	658 862.70	276 899.00	46.1
PEG D	658 822.90	276 930.40	40.4
PEG E	658 965.50	276 294.00	36.6
PEG F	659 046.20	276 169.10	32.9
PEG G	658 878.00	276 520.20	32.6
PEG H	658 827.40	276 667.60	23.5

BORROW AREA 1 SET-OUT COORDINATES		
POINT NO.	NORTHINGS mN	EASTINGS mE
1	659 230.38	276 453.28
2	659 247.32	276 413.49
3	659 257.33	276 349.62
4	659 280.93	276 269.42
5	659 233.27	276 243.39
6	659 201.34	276 302.68

BORE LOCATIONS AND DETAILS						
BORE HOLE NO	NORTHING mN	EASTING mE	R.L. (m)	DEPTH OF WELL (m)	PIEZOMETER DIAMETER (mm)	FUNCTION
A1	659 060.15	276 944.89	12.95			SHALLOW AQUIFER
A2 (DESTROYED)						SHALLOW AQUIFER
A3 (DESTROYED)						SHALLOW AQUIFER
A4	659 271.67	276 354.72	10.10			SHALLOW AQUIFER
A5	659 530.47	276 185.91	9.62			SHALLOW AQUIFER
B1	659 561.81	276 797.35	9.04	4.3	40	SHALLOW AQUIFER
B1B (STOCK BORE)	659 530.08	276 799.91	9.28	10		
B2	659 576.32	276 683.50	9.42	3.5	50	SHALLOW AQUIFER
B3(s)	659 651.19	276 519.52	7.76	2.83	50	SHALLOW AQUIFER
B3(n)	659 654.26	276 524.38	7.49	2.33	32	DEEP AQUIFER
C1	659 649.64	276 777.83	7.47	3.60	50	SHALLOW AQUIFER
C2	659 680.80	276 631.22	7.50	2.81	32	SHALLOW AQUIFER
C2D(s)	659 671.19	276 641.63	10.13	12.88	32	SHALLOW AQUIFER
C2D(d)	659 671.19	276 641.63	10.11	18.85	32	DEEP AQUIFER
C3	659 704.29	276.246.89	7.22	2.8	32	SHALLOW AQUIFER
D1	659 134.97	276 771.65	27.46	23.69	50	EARLY DETECTION
D2	659 101.02	276 642.06	32.12	29.46	50	EARLY DETECTION
D4	659 293.20	276 356.60	17.97	17.0		SHALLOW AQUIFER
D5	659 020.80	276 022.40	20.65	18		SHALLOW AQUIFER BACKGROUND
D6	659 200.31	276 761.08	26.41	16.07	50	EARLY DETECTION
E1(d)	659 349.54	276 329.48	20.91	37.80	32	SHALLOW AQUIFER
E1(s)	659 349.54	276 329.48	20.91	20.05	32	DEEP AQUIFER
E2(s)	659 667.30	276 354.69	13.15	15.24	32	SHALLOW AQUIFER
E2(d)	659 667.30	276 354.69	13.15	28.66	32	DEEP AQUIFER
F1	659 037.10	276 925.50	18.90	15.0	50	SHALLOW AQUIFER LEACHATE IRRIGATION
F2	659 105.00	276 218.00	13.50	10.2	50	SHALLOW AQUIFER LEACHATE IRRIGATION
F3	658 951.70	276 434.00	16.70	10.5	50	SHALLOW AQUIFER LEACHATE IRRIGATION
G1(s) [4]	658 786.00	277 046.00	24	15	50	SHALLOW AQUIFER BACKGROUND
G1(d) [4]	658 786.00	277 046.00	24	31.5	50	DEEP AQUIFER BACKGROUND
G2 [4]	659 673.00	276 835.00	8	4	50	SHALLOW AQUIFER
COORDINATES FOR BORE HOLES BELOW ARE APPROXIMATE ONLY						
D3(r) s	659 089.60	276 585.30	18	10	50	EARLY DETECTION
D3(r) d	659 089.60	276 585.30	18	32	50	EARLY DETECTION
BHXS1	659 797.20	276 617.30	-	4	50	SHALLOW AQUIFER
BHXS2	659 620.80	276 984.30	-	4	50	SHALLOW AQUIFER
BHXD1	659 741.00	276 262.60	-	35	50	DEEP AQUIFER
COORDINATES ARE IN TERMS OF NEW ZEALAND GEODETIC DATUM 1949: WANGANUI CIRCUIT						

LEGEND

- MONITORING SAMPLING LOCATION
- MONITOR BORES CURRENTLY SAMPLED (FROM JAN 2010)
- BORES NOT SAMPLED
- SHALLOW HANDAUGER STANDPIPES NOT ABLE TO BE LOCATED
- SOIL SAMPLING LOCATION PEG - MONITORED
- SOIL SAMPLING LOCATION PEG - NOT MONITORED
- EXISTING STORMWATER SOAKAGE AREA
- PROPOSED STORMWATER SOAKAGE AREA
- PROPOSED BORROW AREAS

NOTES:

1. LEVELS ARE TOP OF STANDPIPE. WHERE THERE IS NO STANDPIPE, LEVELS ARE TOP OF PVC PIPE.
2. BHA2, BHA3 AND BHD3 HAVE BEEN LOST DUE TO SITE WORKS.
3. "A" SERIES BORE HOLES ARE AUGER HOLES ONLY AND MAY NOT BE ABLE TO BE LOCATED.
4. BORES INSTALLED IN AUG 2009. DETAILS ARE APPROXIMATE.
5. CONTOUR INTERVALS: 5m MAJOR, 1m MINOR

NOT FOR CONSTRUCTION

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1

REV	REVISIONS	DRN	CHK	APP	DATE
E	FOR INFORMATION - BHD3(r)s AND BHD3(r)d ADDED, AND CONTOURS UPDATED FROM JULY 2021 SURVEY	BCJ	PSL	PSL	24.09.21
D	FOR INFORMATION - BORROW AREA 2 RELOCATED, DEFINED AREAS OF FUTURE STAGES 1B, 4 AND 5	BCJ	PSL	PSL	01.06.21
C	FOR INFORMATION - BORROW AREA AND LANDFILL AREA UPDATES AND BORE HOLES AND SAMPLING LOCATIONS ADDED FOR HOKIO STREAM AND TATANA DRAIN	BCJ	PSL	PSL	24.03.21
B	FOR INFORMATION - BORROW AREA AND LANDFILL AREA UPDATES	BCJ	PSL	PSL	22.09.20
A	FOR INFORMATION	BCJ	PSL	PSL	26.08.19

SURVEYED	MWH	
DESIGNED	N/A	-
DRAWN	Brent James	08.2019
CAD REVIEW	Brent James	23.09.21
APPROVED	Phil Landmark	23.09.21
PROF REGISTRATION:		

Stantec

Client:

HOROWHENUA DISTRICT COUNCIL
LEVIN LANDFILL

MONITORING BORES, SOIL SAMPLING LOCATIONS & BORROW AREAS
SITE PLAN, LOCATION AND DETAILS

Status Stamp: FOR INFORMATION ONLY
Date Stamp: 24.09.21
Scales: 1:2000 (A1) 1:4000 (A3)
Drawing No.: 310101088-19-001-G001
Rev.: E

26/08/2019 9:35 a.m.

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\Horowhenua District Council\80500724 (310101088) - Levin Landfill Volumes\2019\General\310101088-19-001-G001

Appendix B Sampling Schedule

LEVIN LANDFILL - SUMMARY OF SURFACE AND GROUNDWATER MONITORING REQUIREMENTS (July 2021 - April 2024).

(The testing regime is based on Consent Conditions following the completion of the 2015 Resource Consent Review process).

Reports Due		Sampling Month	Table A (Condition 3, DP 6010)	Table B (Condition 3, DP 6010)																						Table C (Condition 3, DP 6010)						
			Deep Aquifer Bores	Shallow Aquifer Bores																				Irrigation Bores				Hokio Stream[4], [8]				Tatana Drain	Leachate Pond[5]	
Annual	Quarterly		C2dd	E1d	E2d	G1d	Xd1	D3rd[1]	C1	C2[6]	C2ds[6]	D4	B1	B2	B3s	E1s	E2s	D1[2]	D2[2]	D3rs[1,2]	D6[2]	G1s	G2s	Xs1[6]	Xs2[6]	D5[3]	F1[3]	F2[3]	F3[3]	HS1	HS1A	HS2	HS3	TD1[7]		
Sep-21	**Aug-21**	**Jul-21**	I	I + SW	I	I	C	C	I	I	I	I + SW	I	I	I	I + SW	I + SW	I	I + SW	C + SW	I	I + SW	I	C	C	I	I	I	I + SW	Monthly Compre. To 03/2022	Monthly Compre. To 03/2022	Monthly Compre. To 03/2022	Monthly Compre. To 03/2022	Monthly Compre. To 03/2022	Monthly Compre.	
	Nov-21	**Oct-21**	I	I + SW	I	I	C	C	I	I	I	I + SW	I	I	I	I + SW	I + SW	I	I + SW	C + SW	I	I + SW	I	C	C	I	I	I	I + SW							A
	Feb-22	**Jan-22**	I	I + SW	I	I	C	C	I	I	I	I + SW	I	I	I	I + SW	I + SW	I	I + SW	C + SW	I	I + SW	I	C	C	I	I	I	I + SW							
	May-22	**Apr-22**	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C	C	C	C	C + A	
Sep-22	**Aug-22**	**Jul-22**	I	I + SW	I	I	I	C	I	I	I	I + SW	I	I	I	I + SW	I + SW	I	I + SW	C + SW	I	I + SW	I	I	I	I	I	I	I + SW	Discontinue after 2 years, i.e. after March 2022	I	I	I	I	I	
	Nov-22	**Oct-22**	I	I + SW	I	I	I	C	I	I	I	I + SW	I	I	I	I + SW	I + SW	I	I + SW	C + SW	I	I + SW	I	I	I	I	I	I	I + SW		C	C	C	C	C	
	Feb-23	**Jan-23**	I	I + SW	I	I	I	C	I	I	I	I + SW	I	I	I	I + SW	I + SW	I	I + SW	C + SW	I	I + SW	I	I	I	I	I	I	I + SW		I	I	I	I	I	
	May-23	**Apr-23**	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C	C	C	C	C	
Sep-23	**Aug-23**	**Jul-23**	I	I + SW	I	I	I	I	I	I	I	I + SW	I	I	I	I + SW	I + SW	I	I + SW	I + SW	I	I + SW	I	I	I	I	I	I	I + SW		I	I	I	I	I	
	Nov-23	**Oct-23**	I	I + SW	I	I	I	I	I	I	I	I + SW	I	I	I	I + SW	I + SW	I	I + SW	I + SW	I	I + SW	I	I	I	I	I	I	I + SW		C	C	C	C	C	
	Feb-24	**Jan-24**	I	I + SW	I	I	I	I	I	I	I	I + SW	I	I	I	I + SW	I + SW	I	I + SW	I + SW	I	I + SW	I	I	I	I	I	I	I + SW		I	I	I	I	I	
	May-24	**Apr-24**	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C + A	C	C	C	C	C	

Measure groundwater level and sample all bores for CH_4, CO_2 and O_2 each time that groundwater is sampled (Condition 4a of DP 6011)

Notes:

(1) Replacement bore D3r consists of two nested piezometers that have been calledL D3rs and D3rd.
(2) See table below
(3) If irrigation re-commences then the annual sampling is to change from comprehensive + 3 times indicator to bi-annual comprehensive + indicator (Clause D of Condition 3, DP 6010) .
(4) See table below
(5) See table below
(6) Measure water level at C2, C2ds, Xs1 and Xs2 when taking monthly samples at TD1 and within the Hokio Stream.
(7) Start taking comprehensive samples at TD1 every month when sampling the Hokio Stream sites. Also note the depth of water in the drain invert at TD1.
(8) Start measuring approximately the depth of flow in the Hokio Stream at each sampling site when sampling monthly.
C Comprehensive list (see below)
I Indicator list (see below)
A Pesticide and SVOC analysis
SW Add sodium and iron analysis (for stormwater consent 102559)

A reduction in sampling frequency at any **groundwater monitoring point** is conditional on (Clauses A - D of Condition 3, DP 6010):

A. Completion of the initial monitoring program;
B. Good consistency of groundwater sample analysis results, or a clearly identified reason for inconsistent results that excludes the contaminant source being landfill operations, stored waste or leachate;
C. No decline in groundwater quality as determined from indicator parameter trends over a period of four consecutive sampling rounds;
D. If a well being monitored on a conditional frequency becomes non-compliant with condition C, the monitoring frequency for that well should return to the initial monitoring frequency until conditions B and C are again being fulfilled.

(2) If site management planning indicates any **early detection monitoring well** is likely to become buried or otherwise destroyed within the following year as a result of normal operations (Clauses E - H, Condition 3, DP 6010):

E. This must be communicated to the regional council;
F. A replacement well is to be constructed in a position agreed upon with Horizons Regional Council
G. The replacement well should be installed in a position suitable to act as a early detection well and be classed as an early detection well;
H. The replacement well should be constructed as a nested well (or two separate wells) with screens positioned in both shallow and deep aquifers.

(4) A reduction in sampling frequency at the **Hokio Stream monitoring locations (HS1A, HS2 and HS3)** is conditional on (Clauses I - L, Condition 3 of DP 6010):

I. No signficant increases in the concentrations between monitoring sites HS1A and HS3, for parameters exceeding the trigger values contained in Table C1 at Site HS3.
J. A statistical analysis approach is to be used to determine if there is a significant increase in contaminant levels between HS1A and HS3.
K. Following the 24 month monitoring period, there shall be no significant increases in concentrations between monitoring sites HS1A and HS3.
L. If the Hokio Stream monitoring locations are being sampled on a conditional frequency and do not meet condition K, the monitoring frequency for all three monitoring locations (HS1A, HS2 and HS3) shall return to the base case intensive monitoring until conditions J and K are again being fulfilled.

(5) A reduction in sampling frequency at the **leachate pond outlet** is conditional on (Clauses M - P, Condition 3, DP 6010):

M. Completion of the initial 2 year monitoring program;
N. Good consistency of water sample analysis results, or a clearly identified reason for inconsistent results;
O. No decline in water quality over a period of four consecutive sampling rounds;
P. If the leachate pond outlet is being sampled on a conditional frequency and becomes non-compliant with condition O, the monitoring frequency should return to the base case intensive monitoring until conditions N and O are again being fulfilled.

COMPREHENSIVE PARAMETER LIST (Table E of Condition 3, DP 6010)

Characterising parameters	pH
	electrical conductivity (EC)
	alkalinity
	total hardness
	suspended solids
Oxygen demand	COD and $scBOD_5$
Nutrients*	NO3-N, NH4-N, DRP and SO_4
Metals*	Al, As, Cd, Cr, Cu, Fe, Mg, Mn, Ni, Pb, Zn and Hg
Other elements	B, Ca, Cl, K and Na
Organics	Total organic carbon, total phenols, volatile acids
Biological	E. coli

* Analyses performed for nutrients and metals are for dissolved rather than total concentrations

INDICATOR PARAMETER LIST (Table F, Condition 3, DP 6010)

Characterising parameters	pH
	electrical conductivity (EC)
Oxygen demand	COD and $scBOD_5$
Nutrients*	NO3-N and NH4-N
Metals*	AL, Mn, Ni, Pb and Hg
Other elements	B and Cl
Biological+	E. coli

* Analyses performed for nutrients and metals are for dissolved rather than total concentrations

+ E. coli added from April 2019 sampling onwards

Appendix C Analytical Results

eurofins | ELS

Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4617
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4617-01	Levin B1		26/04/2022 00:00	27/04/2022 18:33	0

Notes: 240986-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	6.9		28/04/2022	Marylou Cabral KTP
0002	Suspended Solids - Total	18	g/m³	28/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	31.2	g/m³	04/05/2022	Amit Kumar KTP
0052	Alkalinity - Total	648	g CaCO3/m³	28/04/2022	Marylou Cabral KTP
0055	Conductivity at 25°C	214	mS/m	28/04/2022	Marylou Cabral KTP
0081	Chemical Oxygen Demand	114	g/m³	28/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	28/04/2022	Gordon McArthur KTP
0602	Chloride	323	g/m³	03/05/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.69	g/m³	03/05/2022	Divina Lagazon KTP
0607	Sulphate	3.31	g/m³	03/05/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	8.41	g/m³	02/05/2022	Ivan Imamura KTP
1642	Total Hardness	385	g CaCO3/m³	03/05/2022	Amit Kumar KTP
1810	Calcium - Dissolved	74.1	g/m³	03/05/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.102	g/m³	03/05/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	48.6	g/m³	03/05/2022	Amit Kumar KTP
1834	Sodium - Dissolved	283	g/m³	03/05/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.109	g/m³	02/05/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.012	g/m³	30/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	30/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	1.72	g/m³	30/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	30/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	0.002	g/m³	30/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0185	g/m³	30/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	5.64	g/m³	30/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0062	g/m³	30/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	20.3	g/m³	30/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.046	g/m³	30/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	28/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		28/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4617-01	Levin B1		26/04/2022 00:00	27/04/2022 18:33	0

Notes: 240986-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	0.0002	mg/L	06/05/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4617-01	Levin B1		26/04/2022 00:00	27/04/2022 18:33	0

Notes: 240986-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4639
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4639-01	Levin B2		21/04/2022 00:00	22/04/2022 14:19	0

Notes: 240987-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	6.9		23/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	20	g/m³	23/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	32.0	g/m³	22/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	683	g CaCO3/m³	23/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	258	mS/m	23/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	108	g/m³	26/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	23/04/2022	Marylou Cabral KTP
0602	Chloride	167	g/m³	29/04/2022	Amit Kumar KTP
0605	Nitrate - Nitrogen	108	g/m³	29/04/2022	Amit Kumar KTP
0607	Sulphate	8.99	g/m³	28/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	67.6	g/m³	27/04/2022	Ivan Imamura KTP
1642	Total Hardness	675	g CaCO3/m³	28/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	146	g/m³	28/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.187	g/m³	28/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	75.3	g/m³	28/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	124	g/m³	28/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.016	g/m³	27/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.008	g/m³	28/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.002	g/m³	28/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	2.33	g/m³	28/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	28/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	28/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0041	g/m³	28/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	5.22	g/m³	28/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0027	g/m³	28/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	67.7	g/m³	28/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.017	g/m³	28/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	22/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		23/04/2022	Harsimran Dhanoa .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4639-01	Levin B2		21/04/2022 00:00	22/04/2022 14:19	0

Notes: 240987-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4639-01	Levin B2		21/04/2022 00:00	22/04/2022 14:19	0

Notes: 240987-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	0.0045	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4630
Issue: 1
01 June 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4630-01	Levin B3s		26/04/2022 00:00	26/04/2022 14:23	0

Notes: 240988-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.0		02/05/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	88	g/m³	28/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	55.1	g/m³	04/05/2022	Amit Kumar KTP
0052	Alkalinity - Total	1,070	g CaCO3/m³	02/05/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	270	mS/m	02/05/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	186	g/m³	28/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	28/04/2022	Gordon McArthur KTP
0602	Chloride	174	g/m³	29/04/2022	Amit Kumar KTP
0605	Nitrate - Nitrogen	< 0.10	g/m³	29/04/2022	Amit Kumar KTP
0607	Sulphate	0.11	g/m³	29/04/2022	Amit Kumar KTP
0760	Ammonia Nitrogen	183	g/m³	28/04/2022	Divina Lagazon KTP
1642	Total Hardness	280	g CaCO3/m³	28/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	52.8	g/m³	28/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.539	g/m³	28/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	35.9	g/m³	28/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	138	g/m³	28/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.032	g/m³	28/04/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.005	g/m³	28/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.024	g/m³	28/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	1.17	g/m³	28/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	28/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	0.004	g/m³	28/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0025	g/m³	28/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	3.48	g/m³	28/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0093	g/m³	28/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	120	g/m³	28/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.006	g/m³	28/04/2022	Amit Kumar KTP
M0104	E. coli	< 100	cfu/100mL	26/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Sunita Raju Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Sunita Raju Transcribed by
P1859	Sample Filtration	Completed		27/04/2022	Emily Couper .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4630-01	Levin B3s		26/04/2022 00:00	26/04/2022 14:23	0

Notes: 240988-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	0.008	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	0.0009	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4630-01	Levin B3s		26/04/2022 00:00	26/04/2022 14:23	0

Notes: 240988-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	0.0021	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4632
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4632-01	Levin C1		21/04/2022 00:00	22/04/2022 12:45	0

Notes: 240982-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	6.8		26/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	148	g/m³	22/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	22.8	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	258	g CaCO3/m³	26/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	101	mS/m	26/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	85	g/m³	26/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	22/04/2022	Marylou Cabral KTP
0602	Chloride	146	g/m³	29/04/2022	Amit Kumar KTP
0605	Nitrate - Nitrogen	0.06	g/m³	28/04/2022	Divina Lagazon KTP
0607	Sulphate	37.2	g/m³	28/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	4.66	g/m³	27/04/2022	Ivan Imamura KTP
1642	Total Hardness	209	g CaCO3/m³	27/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	36.8	g/m³	27/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.454	g/m³	27/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	28.4	g/m³	27/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	94.0	g/m³	27/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.011	g/m³	27/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.038	g/m³	27/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.002	g/m³	27/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.95	g/m³	27/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	27/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	27/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0055	g/m³	27/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.272	g/m³	27/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0011	g/m³	27/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	17.7	g/m³	27/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.004	g/m³	27/04/2022	Amit Kumar KTP
M0104	E. coli	44	cfu/100mL	22/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		22/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4632-01	Levin C1		21/04/2022 00:00	22/04/2022 12:45	0

Notes: 240982-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4632-01	Levin C1		21/04/2022 00:00	22/04/2022 12:45	0

Notes: 240982-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4623
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4623-01	Levin C2dd		19/04/2022 00:00	20/04/2022 08:37	0

Notes: 240977-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.6		20/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	115	g/m³	20/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	4.8	g/m³	20/04/2022	Tracy Morrison KTP
0052	Alkalinity - Total	226	g CaCO3/m³	20/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	57.0	mS/m	20/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	< 15	g/m³	20/04/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 1	g/m³	20/04/2022	Marylou Cabral KTP
0602	Chloride	41.8	g/m³	22/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	22/04/2022	Divina Lagazon KTP
0607	Sulphate	0.02	g/m³	22/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.33	g/m³	21/04/2022	Divina Lagazon KTP
1642	Total Hardness	186	g CaCO3/m³	22/04/2022	Tracy Morrison KTP
1810	Calcium - Dissolved	47.8	g/m³	21/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.022	g/m³	21/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	16.2	g/m³	21/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	40.5	g/m³	22/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.662	g/m³	21/04/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.003	g/m³	21/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.004	g/m³	21/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.06	g/m³	21/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	21/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	21/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0006	g/m³	21/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.735	g/m³	21/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	7.87	g/m³	21/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.004	g/m³	21/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	20/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		20/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4623-01	Levin C2dd		19/04/2022 00:00	20/04/2022 08:37	0

Notes: 240977-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4623-01	Levin C2dd		19/04/2022 00:00	20/04/2022 08:37	0

Notes: 240977-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4640
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4640-01	Levin C2ds		21/04/2022 00:00	22/04/2022 14:23	0

Notes: 240984-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	6.8		26/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	145	g/m³	23/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	23.8	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	629	g CaCO3/m³	26/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	138	mS/m	26/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	74	g/m³	26/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	23/04/2022	Marylou Cabral KTP
0602	Chloride	87.4	g/m³	28/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.10	g/m³	29/04/2022	Amit Kumar KTP
0607	Sulphate	< 0.02	g/m³	28/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	1.48	g/m³	27/04/2022	Ivan Imamura KTP
1642	Total Hardness	553	g CaCO3/m³	28/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	123	g/m³	28/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	2.45	g/m³	28/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	59.5	g/m³	28/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	95.5	g/m³	28/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.020	g/m³	27/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	< 0.002	g/m³	28/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	28/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.74	g/m³	28/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	28/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	28/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0008	g/m³	28/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	2.06	g/m³	28/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0020	g/m³	28/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	14.9	g/m³	28/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.002	g/m³	28/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	22/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		23/04/2022	Harsimran Dhanoa .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4640-01	Levin C2ds		21/04/2022 00:00	22/04/2022 14:23	0

Notes: 240984-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	0.008	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4640-01	Levin C2ds		21/04/2022 00:00	22/04/2022 14:23	0

Notes: 240984-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4629
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4629-01	Levin D1		20/04/2022 00:00	21/04/2022 14:27	0

Notes: 240991-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.4		22/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	< 3	g/m³	22/04/2022	Marylou Cabral KTP
0040	Total (NP) Organic Carbon	1.3	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	109	g CaCO3/m³	22/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	37.4	mS/m	22/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	< 15	g/m³	22/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	22/04/2022	Marylou Cabral KTP
0602	Chloride	17.2	g/m³	28/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	9.80	g/m³	28/04/2022	Divina Lagazon KTP
0607	Sulphate	9.85	g/m³	28/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	< 0.01	g/m³	26/04/2022	Ivan Imamura KTP
1642	Total Hardness	90	g CaCO3/m³	26/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	16.4	g/m³	26/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.006	g/m³	26/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	11.9	g/m³	26/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	33.5	g/m³	26/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.097	g/m³	26/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	< 0.002	g/m³	22/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	22/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.04	g/m³	27/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	22/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	22/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0014	g/m³	22/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0007	g/m³	22/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	9.42	g/m³	22/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.018	g/m³	22/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	21/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		22/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4629-01	Levin D1		20/04/2022 00:00	21/04/2022 14:27	0

Notes: 240991-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4629-01	Levin D1		20/04/2022 00:00	21/04/2022 14:27	0

Notes: 240991-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	0.0009	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4628
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4628-01	Levin D2		19/04/2022 00:00	20/04/2022 08:21	0

Notes: 240992-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	6.6		20/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	6	g/m³	20/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	16.1	g/m³	20/04/2022	Tracy Morrison KTP
0052	Alkalinity - Total	162	g CaCO3/m³	20/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	46.6	mS/m	20/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	38	g/m³	20/04/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	20/04/2022	Marylou Cabral KTP
0602	Chloride	43.2	g/m³	22/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	22/04/2022	Divina Lagazon KTP
0607	Sulphate	0.04	g/m³	22/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.60	g/m³	21/04/2022	Divina Lagazon KTP
1642	Total Hardness	123	g CaCO3/m³	22/04/2022	Tracy Morrison KTP
1810	Calcium - Dissolved	20.8	g/m³	21/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	6.18	g/m³	21/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	17.2	g/m³	21/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	36.5	g/m³	22/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.055	g/m³	21/04/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.007	g/m³	21/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	21/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.06	g/m³	21/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	21/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	21/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0006	g/m³	21/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.466	g/m³	21/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	10.9	g/m³	21/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.009	g/m³	21/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	20/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		20/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4628-01	Levin D2		19/04/2022 00:00	20/04/2022 08:21	0

Notes: 240992-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4628-01	Levin D2		19/04/2022 00:00	20/04/2022 08:21	0

Notes: 240992-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/2857
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/2857-01	Levin D3rd		20/04/2022 00:00	21/04/2022 14:30	0

Notes: 241057-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.4		22/04/2022	Marylou Cabral KTP
0002	Suspended Solids - Total	551	g/m³	22/04/2022	Marylou Cabral KTP
0040	Total (NP) Organic Carbon	7.2	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	249	g CaCO3/m³	27/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	53.5	mS/m	22/04/2022	Marylou Cabral KTP
0081	Chemical Oxygen Demand	18	g/m³	22/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	22/04/2022	Marylou Cabral KTP
0602	Chloride	32.4	g/m³	28/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	28/04/2022	Divina Lagazon KTP
0607	Sulphate	< 0.02	g/m³	28/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.40	g/m³	26/04/2022	Ivan Imamura KTP
1642	Total Hardness	199	g CaCO3/m³	26/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	57.8	g/m³	26/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.009	g/m³	26/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	13.2	g/m³	26/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	21.5	g/m³	26/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	1.21	g/m³	26/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.015	g/m³	22/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.018	g/m³	22/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.04	g/m³	22/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	22/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	22/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0011	g/m³	22/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.467	g/m³	22/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	7.16	g/m³	22/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	22/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	21/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		22/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/2857-01	Levin D3rd		20/04/2022 00:00	21/04/2022 14:30	0

Notes: 241057-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/2857-01	Levin D3rd		20/04/2022 00:00	21/04/2022 14:30	0

Notes: 241057-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/2858
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/2858-01	Levin D3rs		20/04/2022 00:00	21/04/2022 14:19	0

Notes: 241058-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	6.9		22/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	< 6	g/m³	22/04/2022	Marylou Cabral KTP
0040	Total (NP) Organic Carbon	25.5	g/m³	22/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	68	g CaCO3/m³	22/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	19.8	mS/m	22/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	119	g/m³	22/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	22/04/2022	Marylou Cabral KTP
0602	Chloride	17.0	g/m³	27/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	27/04/2022	Divina Lagazon KTP
0607	Sulphate	1.07	g/m³	27/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.63	g/m³	26/04/2022	Ivan Imamura KTP
1642	Total Hardness	46	g CaCO3/m³	26/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	10.9	g/m³	26/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	16.6	g/m³	26/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	4.58	g/m³	26/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	20.4	g/m³	26/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.071	g/m³	26/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.065	g/m³	22/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	22/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.04	g/m³	22/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	22/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	0.004	g/m³	22/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0009	g/m³	22/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.331	g/m³	22/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0007	g/m³	22/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	4.14	g/m³	22/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.006	g/m³	22/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	21/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		22/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/2858-01	Levin D3rs		20/04/2022 00:00	21/04/2022 14:19	0

Notes: 241058-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/2858-01	Levin D3rs		20/04/2022 00:00	21/04/2022 14:19	0

Notes: 241058-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4631
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4631-01	Levin D4		21/04/2022 00:00	22/04/2022 12:40	0

Notes: 240985-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.1		22/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	< 5	g/m³	22/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	3.0	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	70	g CaCO3/m³	22/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	29.4	mS/m	22/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	42	g/m³	26/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	22/04/2022	Marylou Cabral KTP
0602	Chloride	36.3	g/m³	28/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	28/04/2022	Divina Lagazon KTP
0607	Sulphate	12.9	g/m³	28/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.24	g/m³	27/04/2022	Ivan Imamura KTP
1642	Total Hardness	56	g CaCO3/m³	27/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	10.0	g/m³	27/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.283	g/m³	27/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	7.47	g/m³	27/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	28.8	g/m³	27/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.023	g/m³	27/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	< 0.002	g/m³	27/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.002	g/m³	27/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.03	g/m³	27/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	27/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	27/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0139	g/m³	27/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.193	g/m³	27/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	6.76	g/m³	27/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.006	g/m³	27/04/2022	Amit Kumar KTP
M0104	E. coli	96	cfu/100mL	22/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		22/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4631-01	Levin D4		21/04/2022 00:00	22/04/2022 12:40	0

Notes: 240985-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4631-01	Levin D4		21/04/2022 00:00	22/04/2022 12:40	0

Notes: 240985-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4625
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4625-01	Levin D5		13/04/2022 00:00	14/04/2022 13:09	0

Notes: 240997-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.6		16/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	< 3	g/m³	14/04/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	2.3	g/m³	16/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	75	g CaCO3/m³	16/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	30.4	mS/m	16/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	30	g/m³	19/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 1	g/m³	14/04/2022	Gordon McArthur KTP
0602	Chloride	29.7	g/m³	16/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.72	g/m³	16/04/2022	Divina Lagazon KTP
0607	Sulphate	18.7	g/m³	16/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.02	g/m³	14/04/2022	Ivan Imamura KTP
1642	Total Hardness	70	g CaCO3/m³	19/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	12.2	g/m³	19/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.178	g/m³	19/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	9.49	g/m³	19/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	30.1	g/m³	29/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.094	g/m³	14/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	< 0.002	g/m³	14/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	14/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.03	g/m³	14/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	14/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	14/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0012	g/m³	14/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0671	g/m³	14/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	8.15	g/m³	14/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	14/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	14/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		14/04/2022	Emily Couper .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4625-01	Levin D5		13/04/2022 00:00	14/04/2022 13:09	0

Notes: 240997-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4625-01	Levin D5		13/04/2022 00:00	14/04/2022 13:09	0

Notes: 240997-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4614
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4614-01	Levin D6		20/04/2022 00:00	21/04/2022 14:23	0

Notes: 240994-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.4		22/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	< 3	g/m³	22/04/2022	Marylou Cabral KTP
0040	Total (NP) Organic Carbon	1.0	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	90	g CaCO3/m³	22/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	36.9	mS/m	22/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	38	g/m³	22/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	22/04/2022	Marylou Cabral KTP
0602	Chloride	17.7	g/m³	28/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	14.2	g/m³	28/04/2022	Divina Lagazon KTP
0607	Sulphate	5.48	g/m³	28/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	< 0.01	g/m³	26/04/2022	Ivan Imamura KTP
1642	Total Hardness	96	g CaCO3/m³	26/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	17.3	g/m³	26/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.011	g/m³	26/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	12.8	g/m³	26/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	26.3	g/m³	26/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.100	g/m³	26/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	< 0.002	g/m³	22/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	22/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.05	g/m³	22/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	22/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	22/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0008	g/m³	22/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0011	g/m³	22/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	8.35	g/m³	22/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.023	g/m³	22/04/2022	Amit Kumar KTP
M0104	E. coli	16	cfu/100mL	21/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		22/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4614-01	Levin D6		20/04/2022 00:00	21/04/2022 14:23	0

Notes: 240994-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4614-01	Levin D6		20/04/2022 00:00	21/04/2022 14:23	0

Notes: 240994-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	0.0020	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4634
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4634-01	Levin E1d		19/04/2022 00:00	20/04/2022 08:37	0

Notes: 240978-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.7		20/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	7	g/m³	20/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	3.7	g/m³	20/04/2022	Tracy Morrison KTP
0052	Alkalinity - Total	164	g CaCO3/m³	20/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	45.1	mS/m	20/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	< 15	g/m³	20/04/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 1	g/m³	20/04/2022	Marylou Cabral KTP
0602	Chloride	38.5	g/m³	22/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	22/04/2022	Divina Lagazon KTP
0607	Sulphate	< 0.02	g/m³	22/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.19	g/m³	21/04/2022	Divina Lagazon KTP
1642	Total Hardness	137	g CaCO3/m³	22/04/2022	Tracy Morrison KTP
1810	Calcium - Dissolved	32.8	g/m³	21/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.038	g/m³	21/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	13.2	g/m³	21/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	36.3	g/m³	22/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.421	g/m³	21/04/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	< 0.002	g/m³	21/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.006	g/m³	21/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.05	g/m³	21/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	21/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	21/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0009	g/m³	21/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.236	g/m³	21/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	5.75	g/m³	21/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.005	g/m³	21/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	20/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		20/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4634-01	Levin E1d		19/04/2022 00:00	20/04/2022 08:37	0

Notes: 240978-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4634-01	Levin E1d		19/04/2022 00:00	20/04/2022 08:37	0

Notes: 240978-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4616
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4616-01	Levin E1s		20/04/2022 00:00	20/04/2022 17:27	0

Notes: 240989-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.4		21/04/2022	Marylou Cabral KTP
0002	Suspended Solids - Total	< 6	g/m³	21/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	7.0	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	82	g CaCO3/m³	21/04/2022	Marylou Cabral KTP
0055	Conductivity at 25°C	26.5	mS/m	21/04/2022	Marylou Cabral KTP
0081	Chemical Oxygen Demand	24	g/m³	22/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	21/04/2022	Marylou Cabral KTP
0602	Chloride	26.7	g/m³	22/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	22/04/2022	Divina Lagazon KTP
0607	Sulphate	3.58	g/m³	22/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.18	g/m³	21/04/2022	Divina Lagazon KTP
1642	Total Hardness	61	g CaCO3/m³	26/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	12.2	g/m³	26/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	5.44	g/m³	26/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	7.48	g/m³	26/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	26.9	g/m³	26/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.074	g/m³	21/04/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.007	g/m³	22/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.002	g/m³	22/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	< 0.03	g/m³	27/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	22/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	22/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0009	g/m³	22/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	0.0005	g/m³	22/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.264	g/m³	22/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	6.60	g/m³	22/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.004	g/m³	22/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	20/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		21/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4616-01	Levin E1s		20/04/2022 00:00	20/04/2022 17:27	0

Notes: 240989-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4616-01	Levin E1s		20/04/2022 00:00	20/04/2022 17:27	0

Notes: 240989-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4643
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4643-01	Levin E2d		19/04/2022 00:00	20/04/2022 08:37	0

Notes: 240979-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.6		20/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	< 5	g/m³	20/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	3.1	g/m³	20/04/2022	Tracy Morrison KTP
0052	Alkalinity - Total	157	g CaCO3/m³	20/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	44.4	mS/m	20/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	< 15	g/m³	20/04/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 1	g/m³	20/04/2022	Marylou Cabral KTP
0602	Chloride	40.8	g/m³	22/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	22/04/2022	Divina Lagazon KTP
0607	Sulphate	< 0.02	g/m³	22/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.28	g/m³	21/04/2022	Divina Lagazon KTP
1642	Total Hardness	128	g CaCO3/m³	22/04/2022	Tracy Morrison KTP
1810	Calcium - Dissolved	28.1	g/m³	21/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.071	g/m³	21/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	13.9	g/m³	21/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	43.0	g/m³	22/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.632	g/m³	21/04/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.002	g/m³	21/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	21/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.06	g/m³	21/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	21/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	21/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	0.0011	g/m³	21/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.438	g/m³	21/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	7.31	g/m³	21/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.004	g/m³	21/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	20/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		20/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4643-01	Levin E2d		19/04/2022 00:00	20/04/2022 08:37	0

Notes: 240979-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4643-01	Levin E2d		19/04/2022 00:00	20/04/2022 08:37	0

Notes: 240979-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4615
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4615-01	Levin E2s		21/04/2022 00:00	22/04/2022 12:50	0

Notes: 240990-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.6		22/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	9	g/m³	22/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	2.4	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	82	g CaCO3/m³	22/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	32.4	mS/m	22/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	18	g/m³	26/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	22/04/2022	Marylou Cabral KTP
0602	Chloride	38.1	g/m³	28/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	28/04/2022	Divina Lagazon KTP
0607	Sulphate	11.0	g/m³	28/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.30	g/m³	27/04/2022	Ivan Imamura KTP
1642	Total Hardness	77	g CaCO3/m³	27/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	21.3	g/m³	27/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.081	g/m³	27/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	5.84	g/m³	27/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	26.7	g/m³	27/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.201	g/m³	27/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.002	g/m³	27/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	27/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.03	g/m³	27/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	27/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	27/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.225	g/m³	27/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	27/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	6.28	g/m³	27/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	27/04/2022	Amit Kumar KTP
M0104	E. coli	4	cfu/100mL	22/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		22/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4615-01	Levin E2s		21/04/2022 00:00	22/04/2022 12:50	0

Notes: 240990-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4615-01	Levin E2s		21/04/2022 00:00	22/04/2022 12:50	0

Notes: 240990-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4611
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4611-01	Levin F1		13/04/2022 00:00	14/04/2022 13:22	0

Notes: 240998-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.5		16/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	< 3	g/m³	14/04/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	6.0	g/m³	16/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	141	g CaCO3/m³	16/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	42.4	mS/m	16/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	47	g/m³	19/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 1	g/m³	14/04/2022	Gordon McArthur KTP
0602	Chloride	40.7	g/m³	16/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.38	g/m³	16/04/2022	Divina Lagazon KTP
0607	Sulphate	2.97	g/m³	16/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	< 0.01	g/m³	14/04/2022	Ivan Imamura KTP
1642	Total Hardness	123	g CaCO3/m³	19/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	18.4	g/m³	19/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	< 0.005	g/m³	19/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	18.8	g/m³	19/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	40.6	g/m³	29/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.182	g/m³	14/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	< 0.002	g/m³	14/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.002	g/m³	14/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.03	g/m³	14/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	14/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	14/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0030	g/m³	14/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0058	g/m³	14/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	8.66	g/m³	14/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	14/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	14/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		14/04/2022	Emily Couper .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4611-01	Levin F1		13/04/2022 00:00	14/04/2022 13:22	0

Notes: 240998-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4611-01	Levin F1		13/04/2022 00:00	14/04/2022 13:22	0

Notes: 240998-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4610
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4610-01	Levin F2		13/04/2022 00:00	14/04/2022 13:17	0

Notes: 240999-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.6		16/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	< 3	g/m³	14/04/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	1.8	g/m³	16/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	56	g CaCO3/m³	16/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	22.3	mS/m	16/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	39	g/m³	19/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 1	g/m³	14/04/2022	Gordon McArthur KTP
0602	Chloride	23.7	g/m³	16/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.25	g/m³	16/04/2022	Divina Lagazon KTP
0607	Sulphate	10.2	g/m³	16/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	< 0.01	g/m³	14/04/2022	Ivan Imamura KTP
1642	Total Hardness	40	g CaCO3/m³	19/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	6.66	g/m³	19/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.020	g/m³	19/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	5.78	g/m³	19/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	26.4	g/m³	29/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.152	g/m³	14/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.002	g/m³	14/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	14/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.03	g/m³	14/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	14/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	14/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0018	g/m³	14/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0205	g/m³	14/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0007	g/m³	14/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	5.80	g/m³	14/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	14/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	14/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		14/04/2022	Emily Couper .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4610-01	Levin F2		13/04/2022 00:00	14/04/2022 13:17	0

Notes: 240999-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4610-01	Levin F2		13/04/2022 00:00	14/04/2022 13:17	0

Notes: 240999-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4624
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4624-01	Levin F3		13/04/2022 00:00	14/04/2022 13:05	0

Notes: 241000-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.5		16/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	14	g/m³	14/04/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	1.5	g/m³	16/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	49	g CaCO3/m³	16/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	18.6	mS/m	16/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	34	g/m³	19/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 1	g/m³	14/04/2022	Gordon McArthur KTP
0602	Chloride	17.9	g/m³	16/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	1.08	g/m³	16/04/2022	Divina Lagazon KTP
0607	Sulphate	5.48	g/m³	16/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	< 0.01	g/m³	14/04/2022	Ivan Imamura KTP
1642	Total Hardness	31	g CaCO3/m³	19/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	4.77	g/m³	19/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	< 0.005	g/m³	19/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	4.54	g/m³	19/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	22.3	g/m³	29/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.161	g/m³	14/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	< 0.002	g/m³	14/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.002	g/m³	14/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	< 0.03	g/m³	14/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	14/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	14/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0013	g/m³	14/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	5.18	g/m³	14/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	14/04/2022	Amit Kumar KTP
M0104	E. coli	4	cfu/100mL	14/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		14/04/2022	Emily Couper .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4624-01	Levin F3		13/04/2022 00:00	14/04/2022 13:05	0

Notes: 241000-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4624-01	Levin F3		13/04/2022 00:00	14/04/2022 13:05	0

Notes: 241000-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4642
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4642-01	Levin G1D		14/04/2022 00:00	14/04/2022 14:50	0

Notes: 240980-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.0		16/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	< 5	g/m³	19/04/2022	Marylou Cabral KTP
0040	Total (NP) Organic Carbon	4.6	g/m³	16/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	64	g CaCO3/m³	16/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	28.8	mS/m	16/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	30	g/m³	19/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	19/04/2022	Marylou Cabral KTP
0602	Chloride	34.0	g/m³	20/04/2022	Amit Kumar KTP
0605	Nitrate - Nitrogen	0.29	g/m³	20/04/2022	Amit Kumar KTP
0607	Sulphate	19.6	g/m³	20/04/2022	Amit Kumar KTP
0760	Ammonia Nitrogen	0.11	g/m³	19/04/2022	Divina Lagazon KTP
1642	Total Hardness	57	g CaCO3/m³	22/04/2022	Tracy Morrison KTP
1810	Calcium - Dissolved	8.98	g/m³	21/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	1.21	g/m³	21/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	8.38	g/m³	21/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	30.2	g/m³	22/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.206	g/m³	19/04/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.004	g/m³	16/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.002	g/m³	16/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.04	g/m³	16/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	16/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	16/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0031	g/m³	16/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	0.0006	g/m³	16/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0637	g/m³	16/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	21/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	16/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	7.82	g/m³	16/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.006	g/m³	16/04/2022	Amit Kumar KTP
M0104	E. coli	110	cfu/100mL	14/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		16/04/2022	Emily Couper .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4642-01	Levin G1D		14/04/2022 00:00	14/04/2022 14:50	0

Notes: 240980-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4642-01	Levin G1D		14/04/2022 00:00	14/04/2022 14:50	0

Notes: 240980-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4612
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4612-01	Levin G1S		13/04/2022 00:00	14/04/2022 11:50	0

Notes: 240995-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	6.9		14/04/2022	Gordon McArthur KTP
0002	Suspended Solids - Total	95	g/m³	14/04/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	31.6	g/m³	19/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	92	g CaCO3/m³	14/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	53.6	mS/m	14/04/2022	Gordon McArthur KTP
0081	Chemical Oxygen Demand	97	g/m³	19/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	14/04/2022	Gordon McArthur KTP
0602	Chloride	102	g/m³	16/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	16/04/2022	Divina Lagazon KTP
0607	Sulphate	6.28	g/m³	16/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.06	g/m³	14/04/2022	Ivan Imamura KTP
1642	Total Hardness	58	g CaCO3/m³	19/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	11.0	g/m³	19/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	3.63	g/m³	19/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	7.52	g/m³	19/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	92.2	g/m³	27/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.078	g/m³	14/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.122	g/m³	14/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.002	g/m³	14/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	< 0.03	g/m³	14/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	14/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	0.002	g/m³	14/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0068	g/m³	14/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	0.0005	g/m³	14/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0671	g/m³	14/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0018	g/m³	14/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	5.49	g/m³	14/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.008	g/m³	14/04/2022	Amit Kumar KTP
M0104	E. coli	28	cfu/100mL	14/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		14/04/2022	Emily Couper .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4612-01	Levin G1S		13/04/2022 00:00	14/04/2022 11:50	0

Notes: 240995-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4612-01	Levin G1S		13/04/2022 00:00	14/04/2022 11:50	0

Notes: 240995-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4626
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4626-01	Levin G2s		13/04/2022 00:00	14/04/2022 13:14	0

Notes: 240996-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.8		16/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	4	g/m³	14/04/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	9.0	g/m³	16/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	164	g CaCO3/m³	16/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	61.1	mS/m	16/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	45	g/m³	19/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 1	g/m³	14/04/2022	Gordon McArthur KTP
0602	Chloride	81.8	g/m³	16/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	16/04/2022	Divina Lagazon KTP
0607	Sulphate	5.80	g/m³	16/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.01	g/m³	14/04/2022	Ivan Imamura KTP
1642	Total Hardness	81	g CaCO3/m³	19/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	15.7	g/m³	19/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.114	g/m³	19/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	10.0	g/m³	19/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	96.4	g/m³	29/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.029	g/m³	14/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.004	g/m³	14/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	14/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.60	g/m³	14/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	14/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	14/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0080	g/m³	14/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0503	g/m³	14/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	14/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0018	g/m³	14/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	9.45	g/m³	14/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	14/04/2022	Amit Kumar KTP
M0104	E. coli	4	cfu/100mL	14/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		14/04/2022	Emily Couper .
SVOC-001	2,3-Diuron	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4626-01	Levin G2s		13/04/2022 00:00	14/04/2022 13:14	0

Notes: 240996-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4626-01	Levin G2s		13/04/2022 00:00	14/04/2022 13:14	0

Notes: 240996-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	20/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³

Test	Methodology	Detection Limit
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L

Test	Methodology	Detection Limit
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/46001
Issue: 1
04 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/46001-01	Levin HS1		17/02/2022 00:00	18/02/2022 12:25	0

Notes: 236197-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.6		22/02/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	8	g/m³	21/02/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	6.3	g/m³	18/02/2022	Amit Kumar KTP
0052	Alkalinity - Total	49	g CaCO3/m³	22/02/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	21.6	mS/m	22/02/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	36	g/m³	22/02/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	19/02/2022	Gordon McArthur KTP
0602	Chloride	21.4	g/m³	23/02/2022	Amit Kumar KTP
0605	Nitrate - Nitrogen	0.14	g/m³	23/02/2022	Amit Kumar KTP
0607	Sulphate	18.2	g/m³	23/02/2022	Amit Kumar KTP
0760	Ammonia Nitrogen	0.10	g/m³	23/02/2022	Divina Lagazon KTP
1642	Total Hardness	58	g CaCO3/m³	25/02/2022	Amit Kumar KTP
1810	Calcium - Dissolved	12.2	g/m³	25/02/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.173	g/m³	25/02/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	6.55	g/m³	25/02/2022	Amit Kumar KTP
1834	Sodium - Dissolved	16.7	g/m³	25/02/2022	Amit Kumar KTP
2088	Dissolved Reactive	0.048	g/m³	23/02/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.032	g/m³	23/02/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	23/02/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.06	g/m³	24/02/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	23/02/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	23/02/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0010	g/m³	23/02/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	23/02/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0161	g/m³	23/02/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	24/02/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	23/02/2022	Amit Kumar KTP
6726	Potassium - Dissolved	3.74	g/m³	23/02/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.003	g/m³	23/02/2022	Amit Kumar KTP
M0104	E. coli	580	cfu/100mL	18/02/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Sunita Raju Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Sunita Raju Transcribed by
P1859	Sample Filtration	Completed		21/02/2022	Candy Barrenechea .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/47008
Issue: 1
31 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/47008-01	Levin HS1		09/03/2022 00:00	09/03/2022 16:20	0

Notes: 238527-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	8.9		11/03/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	16	g/m³	10/03/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	7.3	g/m³	10/03/2022	Amit Kumar KTP
0052	Alkalinity - Total	45	g CaCO3/m³	11/03/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	21.6	mS/m	11/03/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	34	g/m³	14/03/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	10/03/2022	Marylou Cabral KTP
0602	Chloride	21.1	g/m³	15/03/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.16	g/m³	15/03/2022	Divina Lagazon KTP
0607	Sulphate	18.9	g/m³	15/03/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.06	g/m³	12/03/2022	Divina Lagazon KTP
1642	Total Hardness	55	g CaCO3/m³	11/03/2022	Amit Kumar KTP
1810	Calcium - Dissolved	11.9	g/m³	11/03/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.105	g/m³	11/03/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	6.07	g/m³	11/03/2022	Amit Kumar KTP
1834	Sodium - Dissolved	17.4	g/m³	11/03/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.079	g/m³	12/03/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.017	g/m³	10/03/2022	Edwin Lowe KTP
6703	Arsenic - Dissolved	0.001	g/m³	10/03/2022	Edwin Lowe KTP
6707	Boron - Dissolved	0.06	g/m³	10/03/2022	Edwin Lowe KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	10/03/2022	Edwin Lowe KTP
6711	Chromium - Dissolved	< 0.001	g/m³	10/03/2022	Edwin Lowe KTP
6713	Copper - Dissolved	0.0010	g/m³	10/03/2022	Edwin Lowe KTP
6718	Lead - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6721	Manganese - Dissolved	0.0081	g/m³	10/03/2022	Edwin Lowe KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6726	Potassium - Dissolved	2.63	g/m³	10/03/2022	Edwin Lowe KTP
6738	Zinc - Dissolved	< 0.002	g/m³	10/03/2022	Edwin Lowe KTP
M0104	E. coli	480	cfu/100mL	09/03/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Marylou Cabral Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Chen Lin Transcribed by
P1859	Sample Filtration	Completed		10/03/2022	Emily Couper .

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

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"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4607
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4607-01	Levin HS1		27/04/2022 00:00	28/04/2022 12:59	0

Notes: 241005-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.7		29/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	11	g/m³	29/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	6.6	g/m³	04/05/2022	Amit Kumar KTP
0052	Alkalinity - Total	65	g CaCO3/m³	29/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	25.6	mS/m	29/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	29	g/m³	29/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	29/04/2022	Marylou Cabral KTP
0602	Chloride	24.6	g/m³	03/05/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.07	g/m³	03/05/2022	Divina Lagazon KTP
0607	Sulphate	17.0	g/m³	03/05/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.08	g/m³	02/05/2022	Ivan Imamura KTP
1642	Total Hardness	70	g CaCO3/m³	03/05/2022	Amit Kumar KTP
1810	Calcium - Dissolved	15.0	g/m³	03/05/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.138	g/m³	03/05/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	7.92	g/m³	03/05/2022	Amit Kumar KTP
1834	Sodium - Dissolved	20.7	g/m³	03/05/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.072	g/m³	02/05/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.010	g/m³	30/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	30/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.07	g/m³	30/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	30/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	30/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0007	g/m³	30/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0494	g/m³	30/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	3.70	g/m³	30/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	30/04/2022	Amit Kumar KTP
M0104	E. coli	900	cfu/100mL	29/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		29/04/2022	Freddie Badraun .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

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"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/46040
Issue: 1
04 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/46040-01	Levin HS1A		17/02/2022 00:00	18/02/2022 12:39	0

Notes: 236198-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.8		22/02/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	9	g/m³	21/02/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	6.7	g/m³	18/02/2022	Amit Kumar KTP
0052	Alkalinity - Total	50	g CaCO3/m³	22/02/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	21.8	mS/m	22/02/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	33	g/m³	22/02/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	19/02/2022	Gordon McArthur KTP
0602	Chloride	26.7	g/m³	23/02/2022	Amit Kumar KTP
0605	Nitrate - Nitrogen	0.15	g/m³	23/02/2022	Amit Kumar KTP
0607	Sulphate	18.3	g/m³	23/02/2022	Amit Kumar KTP
0760	Ammonia Nitrogen	0.05	g/m³	23/02/2022	Divina Lagazon KTP
1642	Total Hardness	59	g CaCO3/m³	25/02/2022	Amit Kumar KTP
1810	Calcium - Dissolved	12.6	g/m³	25/02/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.157	g/m³	25/02/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	6.69	g/m³	25/02/2022	Amit Kumar KTP
1834	Sodium - Dissolved	17.4	g/m³	25/02/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.118	g/m³	23/02/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.036	g/m³	23/02/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	23/02/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.06	g/m³	24/02/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	23/02/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	23/02/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0014	g/m³	23/02/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	23/02/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0211	g/m³	23/02/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	24/02/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0006	g/m³	23/02/2022	Amit Kumar KTP
6726	Potassium - Dissolved	9.59	g/m³	23/02/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.006	g/m³	23/02/2022	Amit Kumar KTP
M0104	E. coli	1,700	cfu/100mL	18/02/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Sunita Raju Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Sunita Raju Transcribed by
P1859	Sample Filtration	Completed		21/02/2022	Candy Barrenechea .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/47009
Issue: 1
31 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/47009-01	Levin HS1A		09/03/2022 00:00	09/03/2022 16:20	0

Notes: 238528-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	9.0		11/03/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	27	g/m³	10/03/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	8.1	g/m³	10/03/2022	Amit Kumar KTP
0052	Alkalinity - Total	44	g CaCO3/m³	11/03/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	21.3	mS/m	11/03/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	26	g/m³	10/03/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	10/03/2022	Marylou Cabral KTP
0602	Chloride	22.0	g/m³	11/03/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.20	g/m³	11/03/2022	Divina Lagazon KTP
0607	Sulphate	20.0	g/m³	11/03/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.05	g/m³	12/03/2022	Divina Lagazon KTP
1642	Total Hardness	54	g CaCO3/m³	11/03/2022	Amit Kumar KTP
1810	Calcium - Dissolved	11.8	g/m³	11/03/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.107	g/m³	11/03/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	6.02	g/m³	11/03/2022	Amit Kumar KTP
1834	Sodium - Dissolved	17.2	g/m³	11/03/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.083	g/m³	12/03/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.029	g/m³	10/03/2022	Edwin Lowe KTP
6703	Arsenic - Dissolved	0.001	g/m³	10/03/2022	Edwin Lowe KTP
6707	Boron - Dissolved	0.06	g/m³	10/03/2022	Edwin Lowe KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	10/03/2022	Edwin Lowe KTP
6711	Chromium - Dissolved	< 0.001	g/m³	10/03/2022	Edwin Lowe KTP
6713	Copper - Dissolved	0.0011	g/m³	10/03/2022	Edwin Lowe KTP
6718	Lead - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6721	Manganese - Dissolved	0.0097	g/m³	10/03/2022	Edwin Lowe KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6726	Potassium - Dissolved	2.62	g/m³	10/03/2022	Edwin Lowe KTP
6738	Zinc - Dissolved	< 0.002	g/m³	10/03/2022	Edwin Lowe KTP
M0104	E. coli	68	cfu/100mL	09/03/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Marylou Cabral Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Chen Lin Transcribed by
P1859	Sample Filtration	Completed		10/03/2022	Emily Couper .

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

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"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4606
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4606-01	Levin HS1A		27/04/2022 00:00	28/04/2022 13:05	0

Notes: 241006-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.7		29/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	11	g/m³	29/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	6.8	g/m³	04/05/2022	Amit Kumar KTP
0052	Alkalinity - Total	65	g CaCO3/m³	29/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	25.2	mS/m	29/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	27	g/m³	29/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	29/04/2022	Marylou Cabral KTP
0602	Chloride	25.0	g/m³	03/05/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.08	g/m³	03/05/2022	Divina Lagazon KTP
0607	Sulphate	16.0	g/m³	03/05/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.04	g/m³	02/05/2022	Ivan Imamura KTP
1642	Total Hardness	75	g CaCO3/m³	03/05/2022	Amit Kumar KTP
1810	Calcium - Dissolved	16.0	g/m³	03/05/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.167	g/m³	03/05/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	8.57	g/m³	03/05/2022	Amit Kumar KTP
1834	Sodium - Dissolved	21.9	g/m³	03/05/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.062	g/m³	02/05/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.012	g/m³	30/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	30/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.06	g/m³	30/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	30/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	30/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0008	g/m³	30/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0396	g/m³	30/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	3.29	g/m³	30/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.003	g/m³	30/04/2022	Amit Kumar KTP
M0104	E. coli	190	cfu/100mL	28/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		29/04/2022	Freddie Badraun .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/46039
Issue: 1
04 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/46039-01	Levin HS2		17/02/2022 00:00	18/02/2022 12:29	0

Notes: 236199-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.5		22/02/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	10	g/m³	21/02/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	6.6	g/m³	18/02/2022	Amit Kumar KTP
0052	Alkalinity - Total	50	g CaCO3/m³	22/02/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	21.7	mS/m	22/02/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	42	g/m³	22/02/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	19/02/2022	Gordon McArthur KTP
0602	Chloride	21.8	g/m³	23/02/2022	Amit Kumar KTP
0605	Nitrate - Nitrogen	0.17	g/m³	23/02/2022	Amit Kumar KTP
0607	Sulphate	17.9	g/m³	23/02/2022	Amit Kumar KTP
0760	Ammonia Nitrogen	0.14	g/m³	23/02/2022	Divina Lagazon KTP
1642	Total Hardness	60	g CaCO3/m³	25/02/2022	Amit Kumar KTP
1810	Calcium - Dissolved	12.8	g/m³	25/02/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.206	g/m³	25/02/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	6.83	g/m³	25/02/2022	Amit Kumar KTP
1834	Sodium - Dissolved	17.5	g/m³	25/02/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.048	g/m³	23/02/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.029	g/m³	23/02/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	23/02/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.06	g/m³	24/02/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	23/02/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	23/02/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0010	g/m³	23/02/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	23/02/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0160	g/m³	23/02/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	24/02/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	23/02/2022	Amit Kumar KTP
6726	Potassium - Dissolved	3.47	g/m³	23/02/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.002	g/m³	23/02/2022	Amit Kumar KTP
M0104	E. coli	410	cfu/100mL	18/02/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Sunita Raju Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Sunita Raju Transcribed by
P1859	Sample Filtration	Completed		21/02/2022	Candy Barrenechea .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/47010
Issue: 1
31 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/47010-01	Levin HS2		09/03/2022 00:00	09/03/2022 16:20	0

Notes: 238529-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	8.6		11/03/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	16	g/m³	10/03/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	6.9	g/m³	10/03/2022	Amit Kumar KTP
0052	Alkalinity - Total	47	g CaCO3/m³	11/03/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	22.3	mS/m	11/03/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	39	g/m³	10/03/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	10/03/2022	Marylou Cabral KTP
0602	Chloride	21.9	g/m³	11/03/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.19	g/m³	11/03/2022	Divina Lagazon KTP
0607	Sulphate	18.9	g/m³	11/03/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.10	g/m³	12/03/2022	Divina Lagazon KTP
1642	Total Hardness	58	g CaCO3/m³	11/03/2022	Amit Kumar KTP
1810	Calcium - Dissolved	12.7	g/m³	11/03/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.095	g/m³	11/03/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	6.38	g/m³	11/03/2022	Amit Kumar KTP
1834	Sodium - Dissolved	17.8	g/m³	11/03/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.085	g/m³	12/03/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.016	g/m³	10/03/2022	Edwin Lowe KTP
6703	Arsenic - Dissolved	0.001	g/m³	10/03/2022	Edwin Lowe KTP
6707	Boron - Dissolved	0.06	g/m³	10/03/2022	Edwin Lowe KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	10/03/2022	Edwin Lowe KTP
6711	Chromium - Dissolved	< 0.001	g/m³	10/03/2022	Edwin Lowe KTP
6713	Copper - Dissolved	0.0008	g/m³	10/03/2022	Edwin Lowe KTP
6718	Lead - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6721	Manganese - Dissolved	0.0103	g/m³	10/03/2022	Edwin Lowe KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6726	Potassium - Dissolved	2.76	g/m³	10/03/2022	Edwin Lowe KTP
6738	Zinc - Dissolved	< 0.002	g/m³	10/03/2022	Edwin Lowe KTP
M0104	E. coli	270	cfu/100mL	09/03/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Marylou Cabral Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Chen Lin Transcribed by
P1859	Sample Filtration	Completed		10/03/2022	Emily Couper .

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

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"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4620
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4620-01	Levin HS2		27/04/2022 00:00	28/04/2022 13:08	0

Notes: 241007-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.7		29/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	12	g/m³	29/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	6.5	g/m³	04/05/2022	Amit Kumar KTP
0052	Alkalinity - Total	70	g CaCO3/m³	29/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	26.0	mS/m	29/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	29	g/m³	29/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	29/04/2022	Marylou Cabral KTP
0602	Chloride	25.2	g/m³	03/05/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.09	g/m³	03/05/2022	Divina Lagazon KTP
0607	Sulphate	15.7	g/m³	03/05/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.11	g/m³	02/05/2022	Ivan Imamura KTP
1642	Total Hardness	74	g CaCO3/m³	03/05/2022	Amit Kumar KTP
1810	Calcium - Dissolved	15.9	g/m³	03/05/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.169	g/m³	03/05/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	8.27	g/m³	03/05/2022	Amit Kumar KTP
1834	Sodium - Dissolved	21.0	g/m³	03/05/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.069	g/m³	02/05/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.011	g/m³	30/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	30/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.07	g/m³	30/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	30/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	30/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0008	g/m³	30/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0360	g/m³	30/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	3.45	g/m³	30/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	30/04/2022	Amit Kumar KTP
M0104	E. coli	910	cfu/100mL	29/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		29/04/2022	Freddie Badraun .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/46009
Issue: 1
04 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/46009-01	Levin HS3		17/02/2022 00:00	18/02/2022 12:20	0

Notes: 236200-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.5		22/02/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	13	g/m³	21/02/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	6.0	g/m³	18/02/2022	Amit Kumar KTP
0052	Alkalinity - Total	51	g CaCO3/m³	22/02/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	22.2	mS/m	22/02/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	40	g/m³	22/02/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	19/02/2022	Gordon McArthur KTP
0602	Chloride	21.2	g/m³	23/02/2022	Amit Kumar KTP
0605	Nitrate - Nitrogen	0.17	g/m³	23/02/2022	Amit Kumar KTP
0607	Sulphate	18.1	g/m³	23/02/2022	Amit Kumar KTP
0760	Ammonia Nitrogen	0.19	g/m³	23/02/2022	Divina Lagazon KTP
1642	Total Hardness	59	g CaCO3/m³	25/02/2022	Amit Kumar KTP
1810	Calcium - Dissolved	12.7	g/m³	25/02/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.211	g/m³	25/02/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	6.73	g/m³	25/02/2022	Amit Kumar KTP
1834	Sodium - Dissolved	17.3	g/m³	25/02/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.051	g/m³	23/02/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.029	g/m³	23/02/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	23/02/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.06	g/m³	24/02/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	23/02/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	23/02/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0010	g/m³	23/02/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	23/02/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0167	g/m³	23/02/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	24/02/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	23/02/2022	Amit Kumar KTP
6726	Potassium - Dissolved	3.24	g/m³	23/02/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.003	g/m³	23/02/2022	Amit Kumar KTP
M0104	E. coli	410	cfu/100mL	18/02/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Sunita Raju Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Sunita Raju Transcribed by
P1859	Sample Filtration	Completed		21/02/2022	Candy Barrenechea .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/47011
Issue: 1
31 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/47011-01	Levin HS3		09/03/2022 00:00	09/03/2022 16:20	0

Notes: 238530-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	8.5		11/03/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	24	g/m³	10/03/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	7.2	g/m³	10/03/2022	Amit Kumar KTP
0052	Alkalinity - Total	50	g CaCO3/m³	11/03/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	22.6	mS/m	11/03/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	37	g/m³	10/03/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	10/03/2022	Marylou Cabral KTP
0602	Chloride	22.4	g/m³	11/03/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.20	g/m³	11/03/2022	Divina Lagazon KTP
0607	Sulphate	18.9	g/m³	11/03/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.10	g/m³	12/03/2022	Divina Lagazon KTP
1642	Total Hardness	59	g CaCO3/m³	11/03/2022	Amit Kumar KTP
1810	Calcium - Dissolved	13.1	g/m³	11/03/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.090	g/m³	11/03/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	6.51	g/m³	11/03/2022	Amit Kumar KTP
1834	Sodium - Dissolved	18.6	g/m³	11/03/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.088	g/m³	12/03/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.025	g/m³	10/03/2022	Edwin Lowe KTP
6703	Arsenic - Dissolved	0.001	g/m³	10/03/2022	Edwin Lowe KTP
6707	Boron - Dissolved	0.06	g/m³	10/03/2022	Edwin Lowe KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	10/03/2022	Edwin Lowe KTP
6711	Chromium - Dissolved	< 0.001	g/m³	10/03/2022	Edwin Lowe KTP
6713	Copper - Dissolved	0.0006	g/m³	10/03/2022	Edwin Lowe KTP
6718	Lead - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6721	Manganese - Dissolved	0.0141	g/m³	10/03/2022	Edwin Lowe KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6726	Potassium - Dissolved	2.78	g/m³	10/03/2022	Edwin Lowe KTP
6738	Zinc - Dissolved	< 0.002	g/m³	10/03/2022	Edwin Lowe KTP
M0104	E. coli	280	cfu/100mL	09/03/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Marylou Cabral Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Chen Lin Transcribed by
P1859	Sample Filtration	Completed		10/03/2022	Emily Couper .

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

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"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4613
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4613-01	Levin HS3		27/04/2022 00:00	28/04/2022 13:15	0

Notes: 241008-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.7		29/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	12	g/m³	29/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	6.5	g/m³	04/05/2022	Amit Kumar KTP
0052	Alkalinity - Total	68	g CaCO3/m³	29/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	26.4	mS/m	29/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	40	g/m³	29/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	29/04/2022	Marylou Cabral KTP
0602	Chloride	25.5	g/m³	03/05/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.11	g/m³	03/05/2022	Divina Lagazon KTP
0607	Sulphate	15.6	g/m³	03/05/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.14	g/m³	02/05/2022	Ivan Imamura KTP
1642	Total Hardness	76	g CaCO3/m³	03/05/2022	Amit Kumar KTP
1810	Calcium - Dissolved	16.4	g/m³	03/05/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.161	g/m³	03/05/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	8.44	g/m³	03/05/2022	Amit Kumar KTP
1834	Sodium - Dissolved	21.6	g/m³	03/05/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.076	g/m³	02/05/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.010	g/m³	30/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.001	g/m³	30/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.07	g/m³	30/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	30/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	30/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0008	g/m³	30/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0381	g/m³	30/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	3.76	g/m³	30/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	< 0.002	g/m³	30/04/2022	Amit Kumar KTP
M0104	E. coli	150	cfu/100mL	29/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		29/04/2022	Freddie Badraun .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/46002
Issue: 1
04 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/46002-01	Levin Leachate Pond		17/02/2022 00:00	18/02/2022 12:14	0

Notes: 236196-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.7		22/02/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	67	g/m³	21/02/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	604	g/m³	18/02/2022	Amit Kumar KTP
0052	Alkalinity - Total	6,630	g CaCO3/m³	24/02/2022	Gordon McArthur KTP
0055	Conductivity at 25°C	1,540	mS/m	22/02/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	3,570	g/m³	22/02/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	93	g/m³	22/02/2022	Gordon McArthur KTP
0602	Chloride	1,120	g/m³	24/02/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 1.00	g/m³	24/02/2022	Divina Lagazon KTP
0607	Sulphate	13.2	g/m³	24/02/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	1,410	g/m³	24/02/2022	Divina Lagazon KTP
1642	Total Hardness	483	g CaCO3/m³	25/02/2022	Amit Kumar KTP
1810	Calcium - Dissolved	99.9	g/m³	25/02/2022	Amit Kumar KTP
1819	Iron - Dissolved	4.88	g/m³	25/02/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	56.7	g/m³	25/02/2022	Amit Kumar KTP
1834	Sodium - Dissolved	967	g/m³	25/02/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	14.8	g/m³	24/02/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.576	g/m³	24/02/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.324	g/m³	24/02/2022	Amit Kumar KTP
6707	Boron - Dissolved	5.86	g/m³	24/02/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0020	g/m³	24/02/2022	Amit Kumar KTP
6711	Chromium - Dissolved	0.648	g/m³	24/02/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0080	g/m³	24/02/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0050	g/m³	24/02/2022	Amit Kumar KTP
6721	Manganese - Dissolved	1.22	g/m³	24/02/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0050	g/m³	21/02/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.106	g/m³	24/02/2022	Amit Kumar KTP
6726	Potassium - Dissolved	667	g/m³	24/02/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.049	g/m³	24/02/2022	Amit Kumar KTP
M0104	E. coli	4,000	cfu/100mL	18/02/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	17 *	g/m³		Sunita Raju Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Sunita Raju Transcribed by
P1859	Sample Filtration	Completed		22/02/2022	Candy Barrenechea .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/47007
Issue: 1
28 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/47007-01	Levin Leachate Pond		09/03/2022 00:00	09/03/2022 16:20	0

Notes: 238526-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.9		11/03/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	107	g/m³	10/03/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	742	g/m³	10/03/2022	Amit Kumar KTP
0052	Alkalinity - Total	6,990	g CaCO3/m³	15/03/2022	Marylou Cabral KTP
0055	Conductivity at 25°C	1,610	mS/m	11/03/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	5,150	g/m³	10/03/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	105	g/m³	10/03/2022	Marylou Cabral KTP
0602	Chloride	1,220	g/m³	16/03/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 1.00	g/m³	16/03/2022	Divina Lagazon KTP
0607	Sulphate	18.3	g/m³	15/03/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	1,530	g/m³	12/03/2022	Divina Lagazon KTP
1642	Total Hardness	521	g CaCO3/m³	11/03/2022	Amit Kumar KTP
1810	Calcium - Dissolved	110	g/m³	11/03/2022	Amit Kumar KTP
1819	Iron - Dissolved	6.26	g/m³	11/03/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	59.6	g/m³	11/03/2022	Amit Kumar KTP
1834	Sodium - Dissolved	1,030	g/m³	11/03/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	16.3	g/m³	12/03/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.835	g/m³	10/03/2022	Edwin Lowe KTP
6703	Arsenic - Dissolved	0.416	g/m³	10/03/2022	Edwin Lowe KTP
6707	Boron - Dissolved	7.29	g/m³	10/03/2022	Edwin Lowe KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	10/03/2022	Edwin Lowe KTP
6711	Chromium - Dissolved	0.866	g/m³	10/03/2022	Edwin Lowe KTP
6713	Copper - Dissolved	0.0233	g/m³	10/03/2022	Edwin Lowe KTP
6718	Lead - Dissolved	0.0023	g/m³	10/03/2022	Edwin Lowe KTP
6721	Manganese - Dissolved	1.30	g/m³	10/03/2022	Edwin Lowe KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6724	Nickel - Dissolved	0.112	g/m³	10/03/2022	Edwin Lowe KTP
6726	Potassium - Dissolved	718	g/m³	10/03/2022	Edwin Lowe KTP
6738	Zinc - Dissolved	0.038	g/m³	10/03/2022	Edwin Lowe KTP
M0104	E. coli	< 100	cfu/100mL	09/03/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	58 *	g/m³		Marylou Cabral Transcribed by
MO-5002	Total Halogenated Phenolics	0.06	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		10/03/2022	Emily Couper .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

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For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

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Report Released By
Rob Deacon

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Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4621
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4621-01	Levin Leachate Pond		20/04/2022 00:00	20/04/2022 17:33	0

Notes: 241004-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.7		21/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	171	g/m³	21/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	805	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	7,570	g CaCO3/m³	22/04/2022	Marylou Cabral KTP
0055	Conductivity at 25°C	1,700	mS/m	21/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	5,930	g/m³	22/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	139	g/m³	21/04/2022	Marylou Cabral KTP
0602	Chloride	1,310	g/m³	27/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 1.00	g/m³	27/04/2022	Divina Lagazon KTP
0607	Sulphate	36.3	g/m³	27/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	1,640	g/m³	27/04/2022	Ivan Imamura KTP
1642	Total Hardness	530	g CaCO3/m³	26/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	112	g/m³	26/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	4.97	g/m³	26/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	60.7	g/m³	26/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	1,120	g/m³	26/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	17.9	g/m³	26/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.854	g/m³	22/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.371	g/m³	22/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	6.87	g/m³	27/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0020	g/m³	22/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	0.838	g/m³	22/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0100	g/m³	22/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0050	g/m³	22/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	1.30	g/m³	22/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0050	g/m³	22/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.141	g/m³	22/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	787	g/m³	22/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.078	g/m³	22/04/2022	Amit Kumar KTP
M0104	E. coli	< 100	cfu/100mL	21/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	30 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	0.08	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		21/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-021	p,p'-DDT	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-022	Procymidone	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4621-01	Levin Leachate Pond		20/04/2022 00:00	20/04/2022 17:33	0

Notes: 241004-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-023 Propanil	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	0.0030	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	0.0020	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	0.0048	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	< 0.0010	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	0.0018	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	0.0176	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	0.0058	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	< 0.0020	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	0.0012	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-016 Toluene	0.0240	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-017 Total p,m Xylene, Ethylbenzene	0.0237	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4621-01	Levin Leachate Pond		20/04/2022 00:00	20/04/2022 17:33	0

Notes: 241004-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	0.0008	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	0.0007	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	0.0016	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	0.0020	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	0.0008	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	0.0011	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	21/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m

Test	Methodology	Detection Limit
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L

Test	Methodology	Detection Limit
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA	0.0005 mg/L

Test	Methodology	Detection Limit
	Method 8260.	
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.
The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.
"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/46049
Issue: 1
10 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/46049-01	Levin TD1		17/02/2022 00:00	18/02/2022 12:32	0

Notes: 236195-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	8.0		22/02/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	19	g/m³	21/02/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	3.2	g/m³	18/02/2022	Amit Kumar KTP
0052	Alkalinity - Total	192	g CaCO3/m³	22/02/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	59.8	mS/m	22/02/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	123	g/m³	22/02/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	22/02/2022	Marylou Cabral KTP
0602	Chloride	68.4	g/m³	24/02/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	24/02/2022	Divina Lagazon KTP
0607	Sulphate	1.50	g/m³	24/02/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	5.93	g/m³	23/02/2022	Divina Lagazon KTP
1642	Total Hardness	133	g CaCO3/m³	25/02/2022	Amit Kumar KTP
1810	Calcium - Dissolved	25.1	g/m³	25/02/2022	Amit Kumar KTP
1819	Iron - Dissolved	1.56	g/m³	25/02/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	17.0	g/m³	25/02/2022	Amit Kumar KTP
1834	Sodium - Dissolved	53.8	g/m³	25/02/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.049	g/m³	23/02/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.021	g/m³	23/02/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	0.002	g/m³	23/02/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.22	g/m³	24/02/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	23/02/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	23/02/2022	Amit Kumar KTP
6713	Copper - Dissolved	< 0.0005	g/m³	23/02/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	23/02/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.121	g/m³	23/02/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	24/02/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0015	g/m³	23/02/2022	Amit Kumar KTP
6726	Potassium - Dissolved	17.7	g/m³	23/02/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.003	g/m³	23/02/2022	Amit Kumar KTP
M0104	E. coli	300	cfu/100mL	19/02/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Sunita Raju Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Sunita Raju Transcribed by
P1859	Sample Filtration	Completed		21/02/2022	Candy Barrenechea .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 21/47006
Issue: 1
31 March 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
21/47006-01	Levin TD1		09/03/2022 00:00	09/03/2022 16:20	0

Notes: 238525-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.8		11/03/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	21	g/m³	10/03/2022	Gordon McArthur KTP
0040	Total (NP) Organic Carbon	22.2	g/m³	10/03/2022	Amit Kumar KTP
0052	Alkalinity - Total	407	g CaCO3/m³	11/03/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	105	mS/m	11/03/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	52	g/m³	10/03/2022	Gordon McArthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	10/03/2022	Marylou Cabral KTP
0602	Chloride	87.3	g/m³	11/03/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.10	g/m³	11/03/2022	Divina Lagazon KTP
0607	Sulphate	0.49	g/m³	11/03/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	14.8	g/m³	12/03/2022	Divina Lagazon KTP
1642	Total Hardness	296	g CaCO3/m³	11/03/2022	Amit Kumar KTP
1810	Calcium - Dissolved	72.8	g/m³	11/03/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.146	g/m³	11/03/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	27.7	g/m³	11/03/2022	Amit Kumar KTP
1834	Sodium - Dissolved	64.7	g/m³	11/03/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.027	g/m³	12/03/2022	Divina Lagazon KTP
6701	Aluminium - Dissolved	0.004	g/m³	10/03/2022	Edwin Lowe KTP
6703	Arsenic - Dissolved	0.002	g/m³	10/03/2022	Edwin Lowe KTP
6707	Boron - Dissolved	0.36	g/m³	10/03/2022	Edwin Lowe KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	10/03/2022	Edwin Lowe KTP
6711	Chromium - Dissolved	0.001	g/m³	10/03/2022	Edwin Lowe KTP
6713	Copper - Dissolved	0.0017	g/m³	10/03/2022	Edwin Lowe KTP
6718	Lead - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6721	Manganese - Dissolved	0.767	g/m³	10/03/2022	Edwin Lowe KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	10/03/2022	Edwin Lowe KTP
6724	Nickel - Dissolved	0.0018	g/m³	10/03/2022	Edwin Lowe KTP
6726	Potassium - Dissolved	23.6	g/m³	10/03/2022	Edwin Lowe KTP
6738	Zinc - Dissolved	0.003	g/m³	10/03/2022	Edwin Lowe KTP
M0104	E. coli	1,000	cfu/100mL	09/03/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Marylou Cabral Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Chen Lin Transcribed by
P1859	Sample Filtration	Completed		10/03/2022	Emily Couper .

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

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"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4622
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4622-01	Levin TD1		27/04/2022 00:00	28/04/2022 13:12	0

Notes: 241003-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	6.8		02/05/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	94	g/m³	29/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	15.0	g/m³	06/05/2022	Amit Kumar KTP
0052	Alkalinity - Total	104	g CaCO3/m³	02/05/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	41.0	mS/m	02/05/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	115	g/m³	29/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	29/04/2022	Marylou Cabral KTP
0602	Chloride	56.0	g/m³	03/05/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.03	g/m³	03/05/2022	Divina Lagazon KTP
0607	Sulphate	5.44	g/m³	03/05/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.12	g/m³	02/05/2022	Ivan Imamura KTP
1642	Total Hardness	89	g CaCO3/m³	03/05/2022	Amit Kumar KTP
1810	Calcium - Dissolved	17.3	g/m³	03/05/2022	Amit Kumar KTP
1819	Iron - Dissolved	1.32	g/m³	03/05/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	11.1	g/m³	03/05/2022	Amit Kumar KTP
1834	Sodium - Dissolved	45.5	g/m³	03/05/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.043	g/m³	02/05/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.023	g/m³	30/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	30/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.10	g/m³	30/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	30/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	30/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0120	g/m³	30/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0005	g/m³	30/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	8.62	g/m³	30/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.002	g/m³	30/04/2022	Amit Kumar KTP
M0104	E. coli	< 100	cfu/100mL	28/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		29/04/2022	Freddie Badraun .

Comments:

* Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³

Test	Methodology	Detection Limit
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

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"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

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Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4633
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4633-01	Levin Xd1		26/04/2022 00:00	27/04/2022 18:33	0

Notes: 240981-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.5		28/04/2022	Marylou Cabral KTP
0002	Suspended Solids - Total	146	g/m³	28/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	4.8	g/m³	30/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	176	g CaCO3/m³	28/04/2022	Marylou Cabral KTP
0055	Conductivity at 25°C	54.3	mS/m	28/04/2022	Marylou Cabral KTP
0081	Chemical Oxygen Demand	27	g/m³	28/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	28/04/2022	Gordon McArthur KTP
0602	Chloride	56.9	g/m³	03/05/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³	03/05/2022	Divina Lagazon KTP
0607	Sulphate	13.4	g/m³	03/05/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.36	g/m³	02/05/2022	Ivan Imamura KTP
1642	Total Hardness	149	g CaCO3/m³	03/05/2022	Amit Kumar KTP
1810	Calcium - Dissolved	35.1	g/m³	03/05/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.095	g/m³	03/05/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	14.9	g/m³	03/05/2022	Amit Kumar KTP
1834	Sodium - Dissolved	46.9	g/m³	03/05/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.076	g/m³	02/05/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.002	g/m³	30/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	30/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.05	g/m³	30/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	30/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	30/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0008	g/m³	30/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.499	g/m³	30/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	30/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	5.32	g/m³	30/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.008	g/m³	30/04/2022	Amit Kumar KTP
M0104	E. coli	8	cfu/100mL	28/04/2022	Maria Norris KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Lizzie Addis Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed		28/04/2022	Freddie Badraun .
SVOC-001	2,3-Diuron	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4633-01	Levin Xd1		26/04/2022 00:00	27/04/2022 18:33	0

Notes: 240981-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	06/05/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4633-01	Levin Xd1		26/04/2022 00:00	27/04/2022 18:33	0

Notes: 240981-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	29/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4609
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4609-01	Levin Xs1		21/04/2022 00:00	22/04/2022 14:29	0

Notes: 241001-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	6.8		26/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	75	g/m³	23/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	25.5	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	557	g CaCO3/m³	26/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	137	mS/m	26/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	91	g/m³	26/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³	23/04/2022	Marylou Cabral KTP
0602	Chloride	123	g/m³	29/04/2022	Amit Kumar KTP
0605	Nitrate - Nitrogen	< 0.10	g/m³	29/04/2022	Amit Kumar KTP
0607	Sulphate	1.53	g/m³	29/04/2022	Amit Kumar KTP
0760	Ammonia Nitrogen	7.88	g/m³	27/04/2022	Ivan Imamura KTP
1642	Total Hardness	418	g CaCO3/m³	28/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	82.2	g/m³	28/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.804	g/m³	28/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	51.5	g/m³	28/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	103	g/m³	28/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.017	g/m³	27/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.003	g/m³	28/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	28/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.56	g/m³	28/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	28/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	0.001	g/m³	28/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0009	g/m³	28/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.922	g/m³	28/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	0.0022	g/m³	28/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	24.4	g/m³	28/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.004	g/m³	28/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	22/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		23/04/2022	Harsimran Dhanoa .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4609-01	Levin Xs1		21/04/2022 00:00	22/04/2022 14:29	0

Notes: 241001-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4609-01	Levin Xs1		21/04/2022 00:00	22/04/2022 14:29	0

Notes: 241001-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

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Eurofins ELS Limited

Analytical Report

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Report Number: 22/4608
Issue: 1
16 May 2022

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4608-01	Levin Xs2		21/04/2022 00:00	22/04/2022 14:32	0

Notes: 241002-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
0001	pH	7.0		23/04/2022	Jennifer Mont KTP
0002	Suspended Solids - Total	9	g/m³	23/04/2022	Jennifer Mont KTP
0040	Total (NP) Organic Carbon	2.4	g/m³	28/04/2022	Amit Kumar KTP
0052	Alkalinity - Total	54	g CaCO3/m³	23/04/2022	Jennifer Mont KTP
0055	Conductivity at 25°C	18.2	mS/m	23/04/2022	Jennifer Mont KTP
0081	Chemical Oxygen Demand	37	g/m³	26/04/2022	Marylou Cabral KTP
0180	BOD5 - Soluble Carbonaceous	15	g/m³	23/04/2022	Marylou Cabral KTP
0602	Chloride	12.4	g/m³	28/04/2022	Divina Lagazon KTP
0605	Nitrate - Nitrogen	0.88	g/m³	28/04/2022	Divina Lagazon KTP
0607	Sulphate	7.49	g/m³	28/04/2022	Divina Lagazon KTP
0760	Ammonia Nitrogen	0.03	g/m³	27/04/2022	Ivan Imamura KTP
1642	Total Hardness	46	g CaCO3/m³	28/04/2022	Amit Kumar KTP
1810	Calcium - Dissolved	9.82	g/m³	28/04/2022	Amit Kumar KTP
1819	Iron - Dissolved	0.074	g/m³	28/04/2022	Amit Kumar KTP
1822	Magnesium - Dissolved	5.29	g/m³	28/04/2022	Amit Kumar KTP
1834	Sodium - Dissolved	16.1	g/m³	28/04/2022	Amit Kumar KTP
2088	Dissolved Reactive Phosphorus	0.015	g/m³	27/04/2022	Ivan Imamura KTP
6701	Aluminium - Dissolved	0.013	g/m³	28/04/2022	Amit Kumar KTP
6703	Arsenic - Dissolved	< 0.001	g/m³	28/04/2022	Amit Kumar KTP
6707	Boron - Dissolved	0.04	g/m³	28/04/2022	Amit Kumar KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³	28/04/2022	Amit Kumar KTP
6711	Chromium - Dissolved	< 0.001	g/m³	28/04/2022	Amit Kumar KTP
6713	Copper - Dissolved	0.0014	g/m³	28/04/2022	Amit Kumar KTP
6718	Lead - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6721	Manganese - Dissolved	0.0737	g/m³	28/04/2022	Amit Kumar KTP
6722	Mercury - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6724	Nickel - Dissolved	< 0.0005	g/m³	28/04/2022	Amit Kumar KTP
6726	Potassium - Dissolved	4.36	g/m³	28/04/2022	Amit Kumar KTP
6738	Zinc - Dissolved	0.005	g/m³	28/04/2022	Amit Kumar KTP
M0104	E. coli	< 4	cfu/100mL	22/04/2022	Sunita Raju KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³		Deb Bottrill Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill Transcribed by
P1859	Sample Filtration	Completed		23/04/2022	Harsimran Dhanoa .
SVOC-001	2,3-Diuron	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-002	a-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-003	a-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-004	Aldrin	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-005	b-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-007	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-008	Endosulfan II	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-010	Endrin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-012	Endrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-014	Heptachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-016	Hexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-017	Lindane (g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-019	p,p'-DDD	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-020	p,p'DDE	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
22/4608-01	Levin Xs2		21/04/2022 00:00	22/04/2022 14:32	0

Notes: 241002-0 Levin Landfill Sample

Test	Result	Units	Test Date	Signatory
SVOC-021 p,p'-DDT	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-022 Procymidone	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-023 Propanil	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-024 Endosulfan I	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-025 Alachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-026 Aldicarb	<0.1	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-027 Atrazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-028 Bromacil	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-029 Carbofuran	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-030 Cyanazine	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-031 d-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-033 Metolachlor	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-034 Metribuzin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-035 Molinate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-038 Pendimethalin	<0.002	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-039 Propazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-041 Simazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-043 Trifluralin	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-044 Hexazinone	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-046 Diazinon	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-047 Dimethoate	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-049 Acenapthene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-051 Anthracene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-057 Chrysene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-060 Fluorene	< 0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-062 Naphthalene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-064 Pyrene	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphenyl	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-003 Benzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-007 Naphthalene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-010 o-Xylene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-014 Styrene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

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22/4608-01	Levin Xs2		21/04/2022 00:00	22/04/2022 14:32	0

Notes: 241002-0 Levin Landfill Sample

	Test	Result	Units	Test Date	Signatory
VOC-016	Toluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-017	Total p,m Xylene, Ethylbenzene	<0.0015	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-018	1,1,1,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-019	1,1,1-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-020	1,1,2,2-Tetrachloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-021	1,1,2-Trichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-022	1,1-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-023	1,1-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-024	1,1-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-025	1,2,3-Trichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-026	1,2-Dibromo-3-chloropropane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-027	1,2-Dibromoethane	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-028	1,2-Dichloroethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-029	1,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-030	1,3-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-031	2,2-Dichloropropane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-032	Allyl chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-033	Bromochloromethane	<0.0012	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-034	Bromomethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-035	Carbon tetrachloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-036	Chloroethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-037	Chloromethane	<0.006	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-038	cis-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-039	cis-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-040	Dibromomethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-041	Dichlorodifluoromethane	<0.001	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-042	Dichloromethane	<0.005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-043	Hexachlorobutadiene	<0.0002	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-044	Tetrachloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-045	trans-1,2-Dichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-046	trans-1,3-Dichloropropene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-047	Trichloroethene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-048	Trichlorofluoromethane	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-049	Vinyl Chloride	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-050	1,2,3-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-051	1,2,4-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-052	1,2-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-053	1,3-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-054	1,4-Dichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-055	2-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-056	4-Chlorotoluene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-057	Bromobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-058	Chlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-059	1,3,5-Trichlorobenzene	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-060	4-Methyl-2-Pentanone	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-061	Carbon disulphide	<0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-062	Bromodichloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-063	Bromoform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-064	Chloroform	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP
VOC-065	Dibromochloromethane	< 0.0005	mg/L	27/04/2022	Ganesh Ilancko KTP

Comments:

***** Not an accredited test.

Sampled by customer using ELS approved containers.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m³
Total (NP) Organic Carbon	Total Non-Purgeable Organic Carbon using TOC analyser. APHA Online Edition 5310 B.	0.1 g/m³
Alkalinity - Total	APHA Online Edition Method 2320 B	1 g CaCO3/m³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m³
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification inhibitor.	1 g/m³
Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
Arsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m³
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m³
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Mercury - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
E. coli	APHA 9222I:Online Edition	1 cfu/100mL
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as acetic acid equivalent.	5 g/m³
Total Halogenated Phenolics	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
2,3-Diuron	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
a-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
a-chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Aldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
b-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
cis-Permethrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dieldrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Endrin Aldehyde	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endrin Ketone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane (g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Alachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L

Test	Methodology	Detection Limit
Aldicarb	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.1 mg/L
Atrazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Bromacil	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Carbofuran	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Cyanazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
d-BHC	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metalaxyl-M	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Metolachlor	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Metribuzin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Molinate	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Oxadiazon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pendimethalin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.002 mg/L
Propazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Simazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Terbuthylazine	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Trifluralin	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Hexazinone	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Chlorpyrifos	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Diazinon	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Dimethoate	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenapthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Acenaphthylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
benz(a)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Benzo(a)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Total Benzo(b) and Benzo(k) fluoranthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Benzo(g,h,i)perylene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.001 mg/L
Chrysene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Dibenz(a,h)anthracene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluoranthene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Fluorene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Indeno(1,2,3-cd)pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Naphthalene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Phenanthrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
Pyrene	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	0.0001 mg/L
2,2',3,4,4',5'-Hexachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 138.	0.001 mg/L
2,2',4,5,5'-Pentachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 101.	0.0001 mg/L
2,4,4'-Trichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 28.	0.0001 mg/L
2,4-Dichlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 7.	0.0001 mg/L
2,2',3,4,4',5',6-Heptachlorobiphenyl	Polychlorinated biphenyl compound analysed by in-house method using GC-MS. Also known as PCB 183.	0.0001 mg/L
Bis(2-ethylhexyl)adipate	Phthalate Plasticiser compound analysed by in-house method using GC-MS	0.0001 mg/L
1,2,4-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trimethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Total p,m Xylene, Ethylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0015 mg/L
1,1,1,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L

Test	Methodology	Detection Limit
	USEPA Method 8260.	
1,1,1-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2,2-Tetrachloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1,2-Trichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,1-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dibromo-3-chloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
1,2-Dibromoethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
1,2-Dichloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2,2-Dichloropropane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Allyl chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromochloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0012 mg/L
Bromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Carbon tetrachloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tetrachloromethane.	0.0005 mg/L
Chloroethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Chloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.006 mg/L
cis-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
cis-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromomethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dichlorodifluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.001 mg/L
Dichloromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.005 mg/L
Hexachlorobutadiene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0002 mg/L
Tetrachloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,2-Dichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
trans-1,3-Dichloropropene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichloroethene	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Trichlorofluoromethane	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Test	Methodology	Detection Limit
Vinyl Chloride	VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,3-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2,4-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,2-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
4-Methyl-2-Pentanone	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Carbon disulphide	VOC Other Volatile Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromodichloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Bromoform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tribromomethane.	0.0005 mg/L
Chloroform	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Dibromochloromethane	VOC Trihalomethane analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

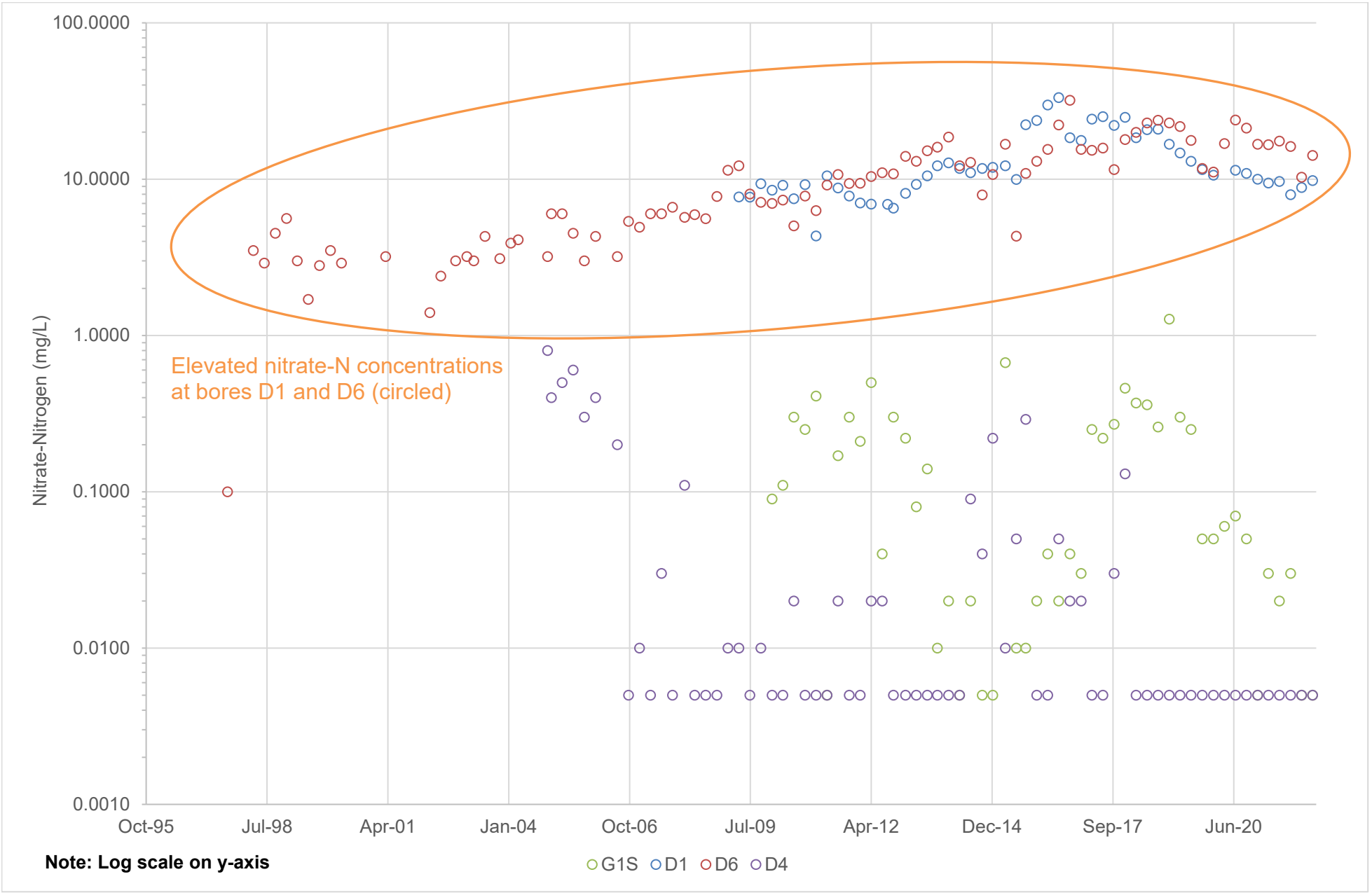
For liquid samples g/m3 is the equivalent to mg/L and ppm, solid samples are reported as mg/kg which is equivalent to ppm.

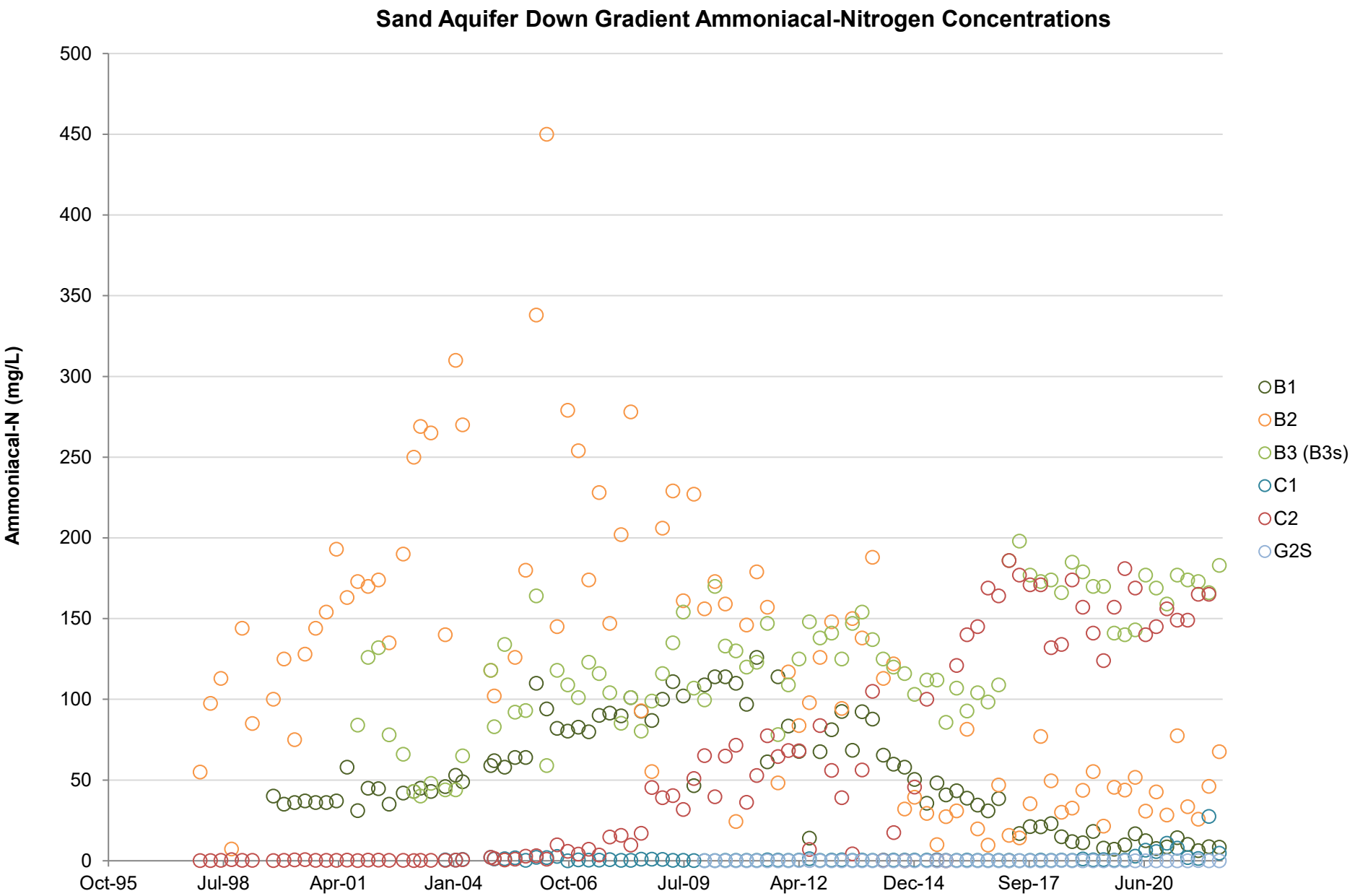
Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

Report Released By
Rob Deacon

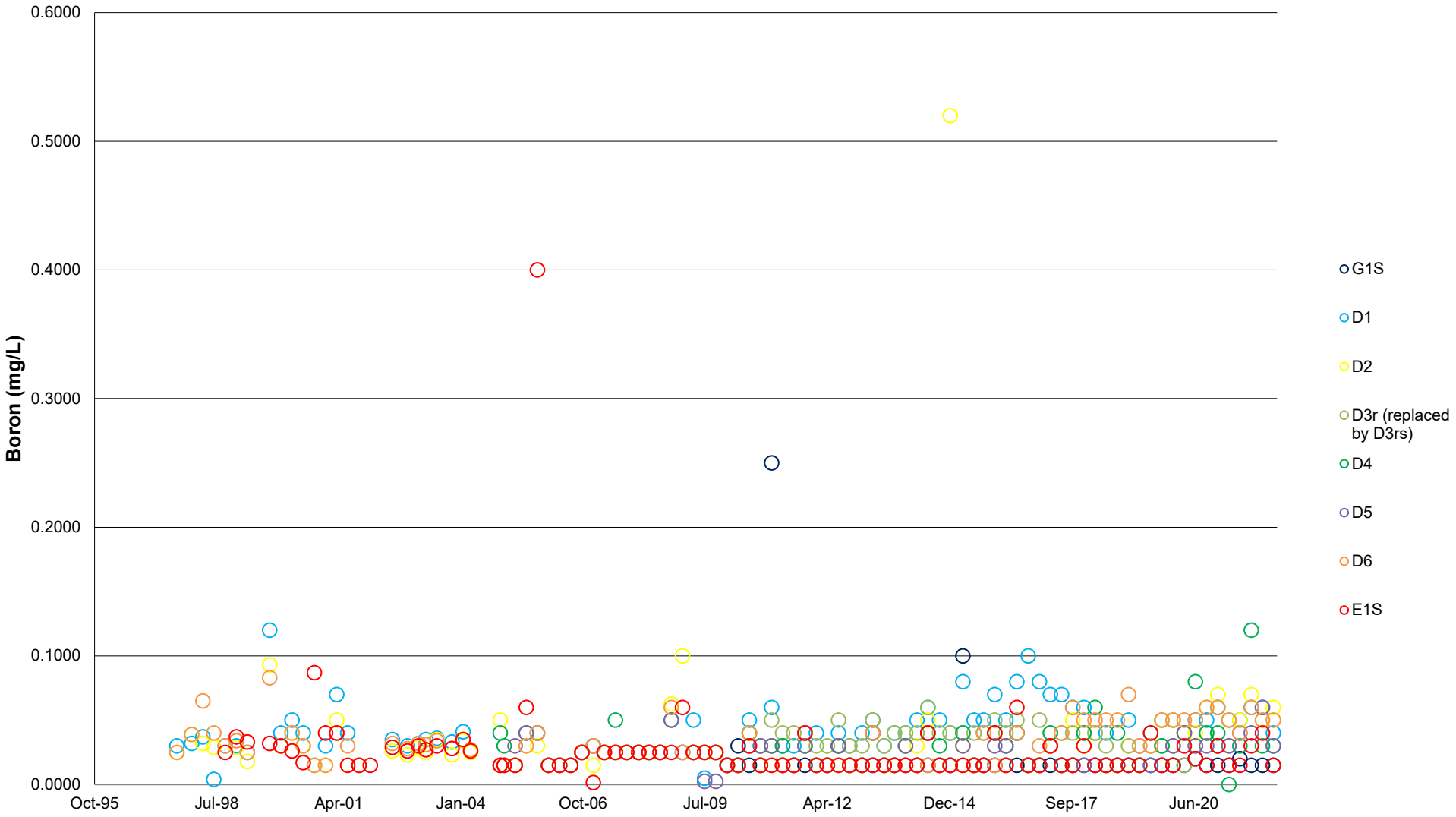
This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not an accredited test", which are outside the scope of this laboratory's accreditation.

Appendix D Historical Results Graphs

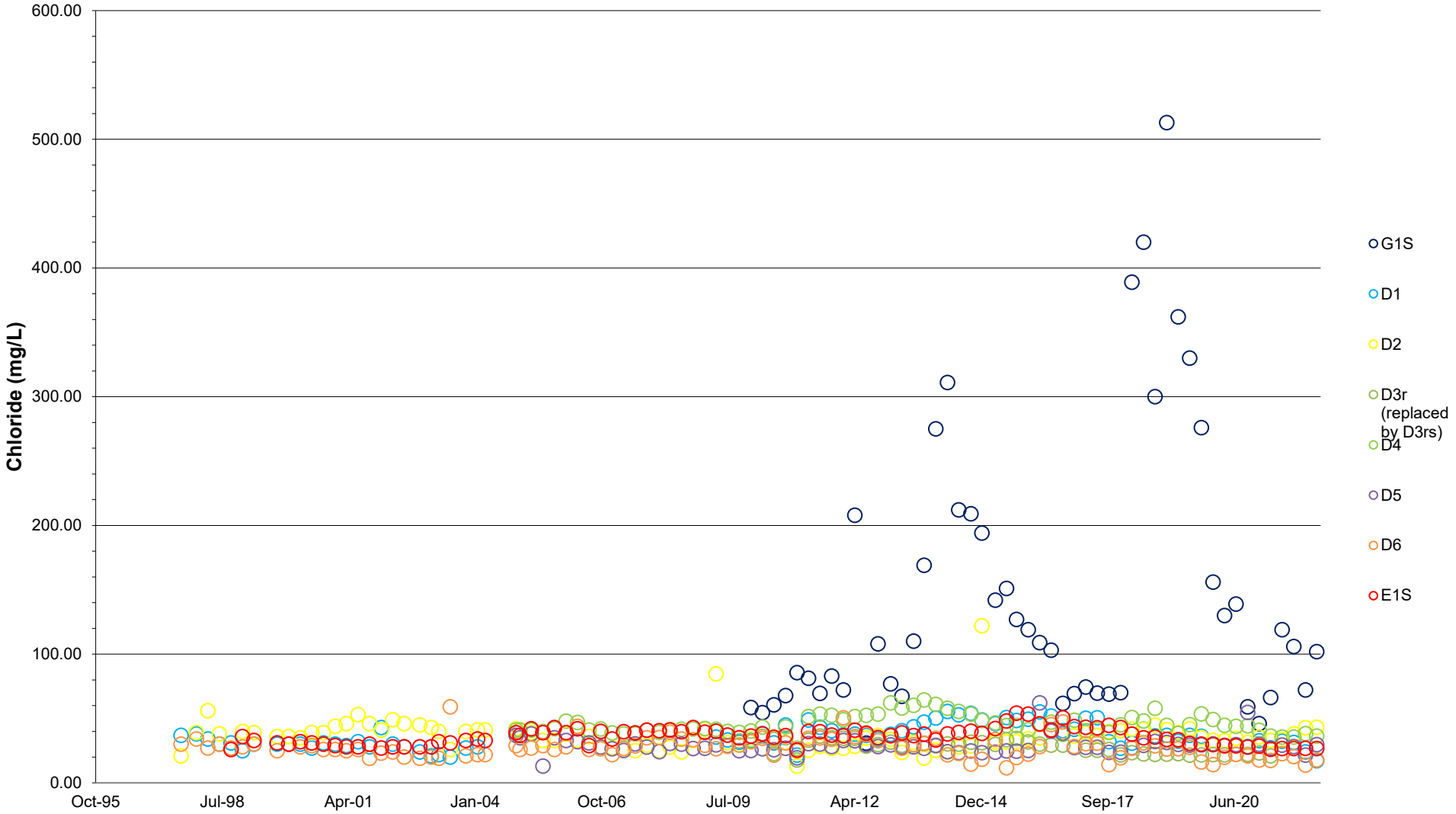

100.0000
10.0000
1.0000
0.1000
0.0100
0.0010
Nitrate-Nitrogen (mg/L)
Elevated nitrate-N concentrations
at bores D1 and D6 (circled)
Oct-95
Jul-98
Apr-01
Jan-04
Oct-06
Jul-09
Apr-12
Dec-14
Sep-17
Jun-20
Note: Log scale on y-axis
G1S
D1
D6
D4


Sand Aquifer Down Gradient Ammoniacal-Nitrogen Concentrations
Ammoniacal-N (mg/L)
500
450
400
350
300
250
200
150
100
50
0
Oct-95
Jul-98
Apr-01
Jan-04
Oct-06
Jul-09
Apr-12
Dec-14
Sep-17
Jun-20
B1
B2
B3 (B3s)
C1
C2
G2S

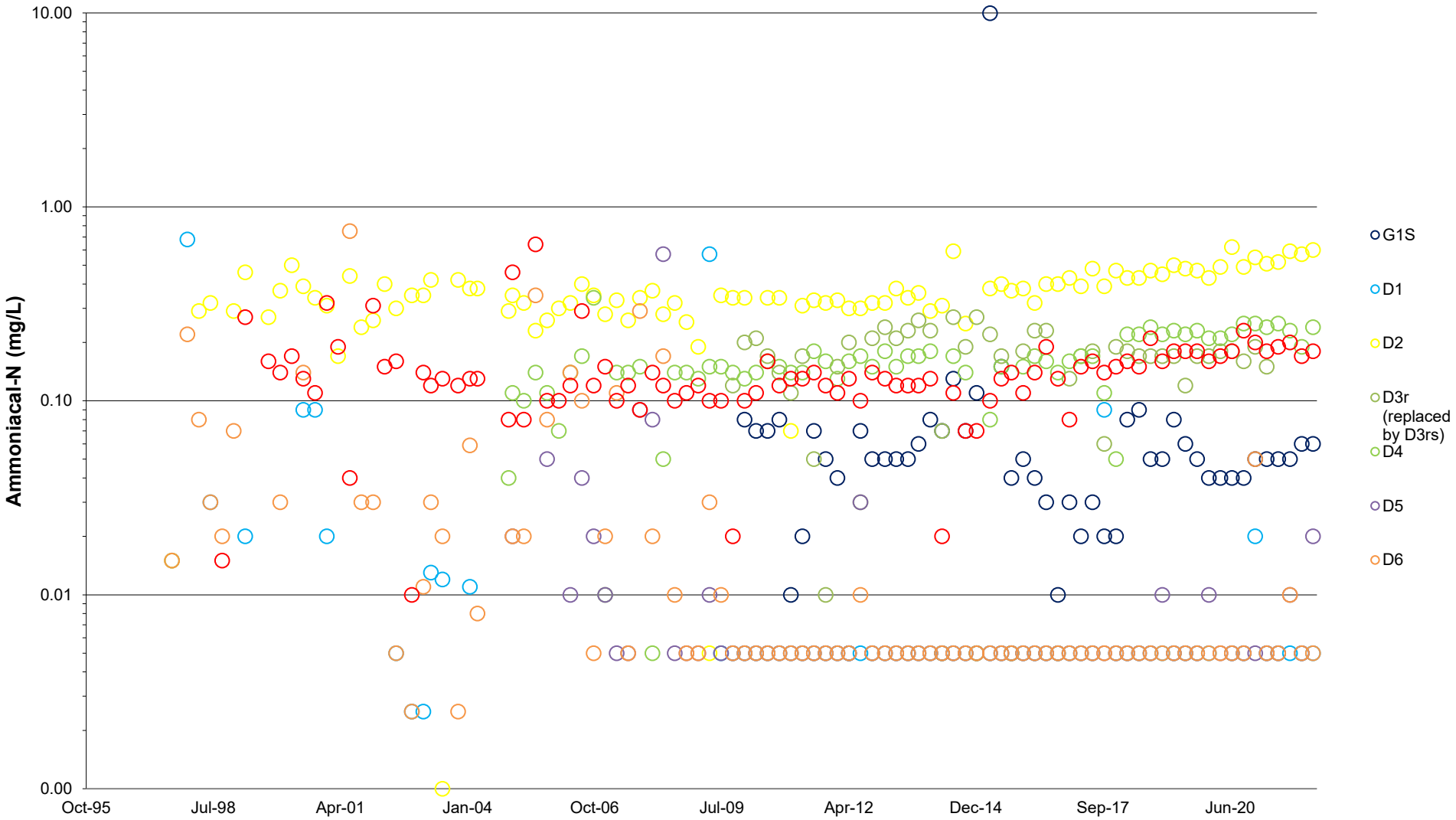
Sand Aquifer Downgrade of New Landfill - Boron Concentrations



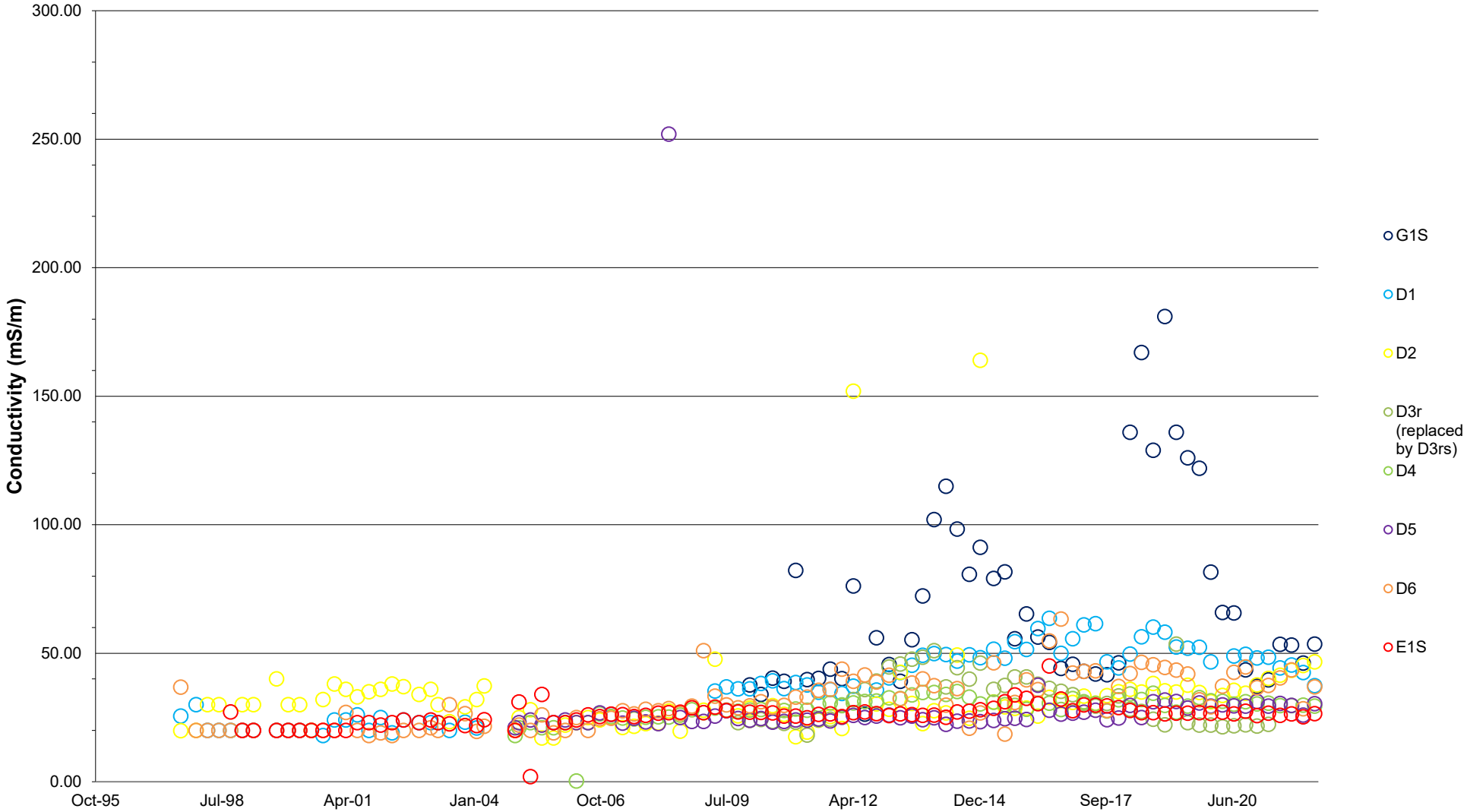
Sand Aquifer Downgrade of New Landfill - Chloride Concentrations

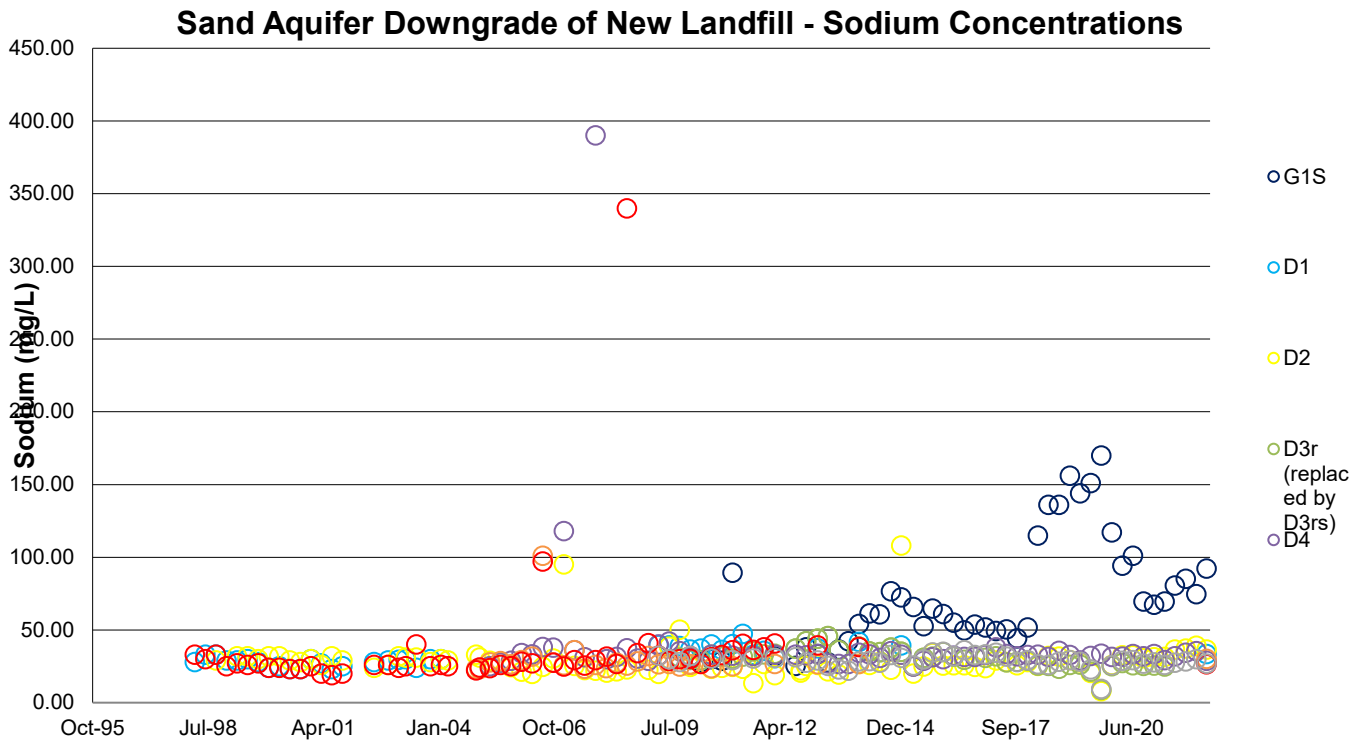


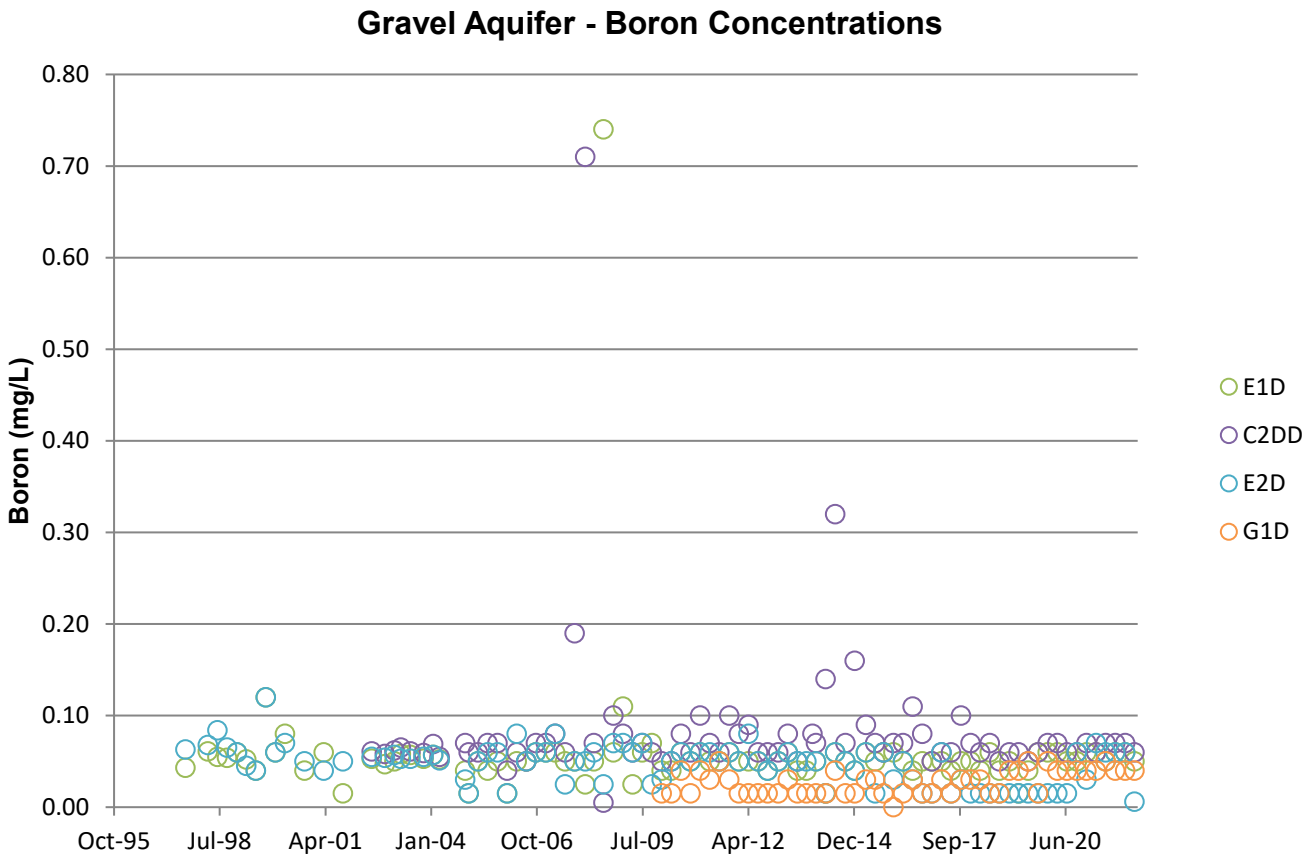
Sand Aquifer Downgrade of New Landfill - Ammoniacal-Nitrogen Concentrations

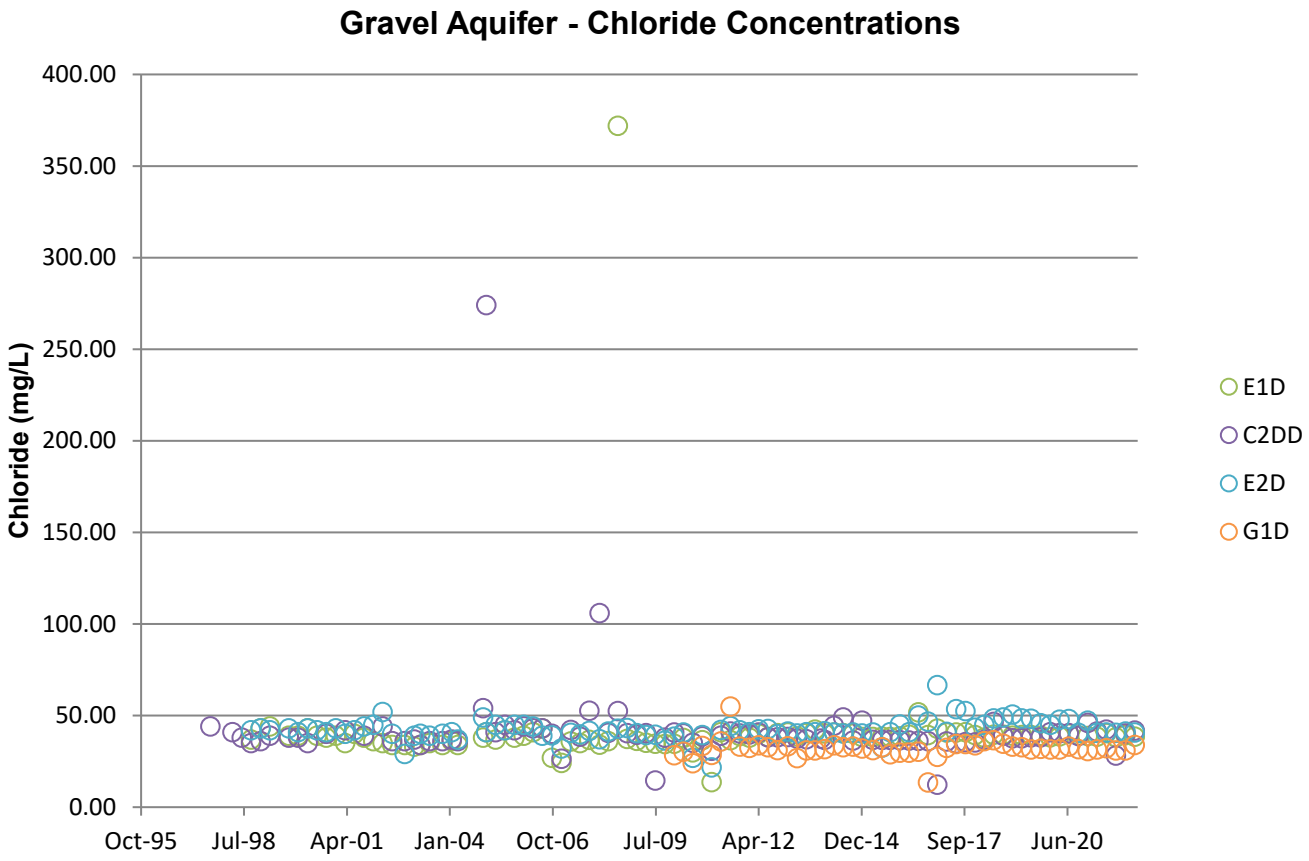


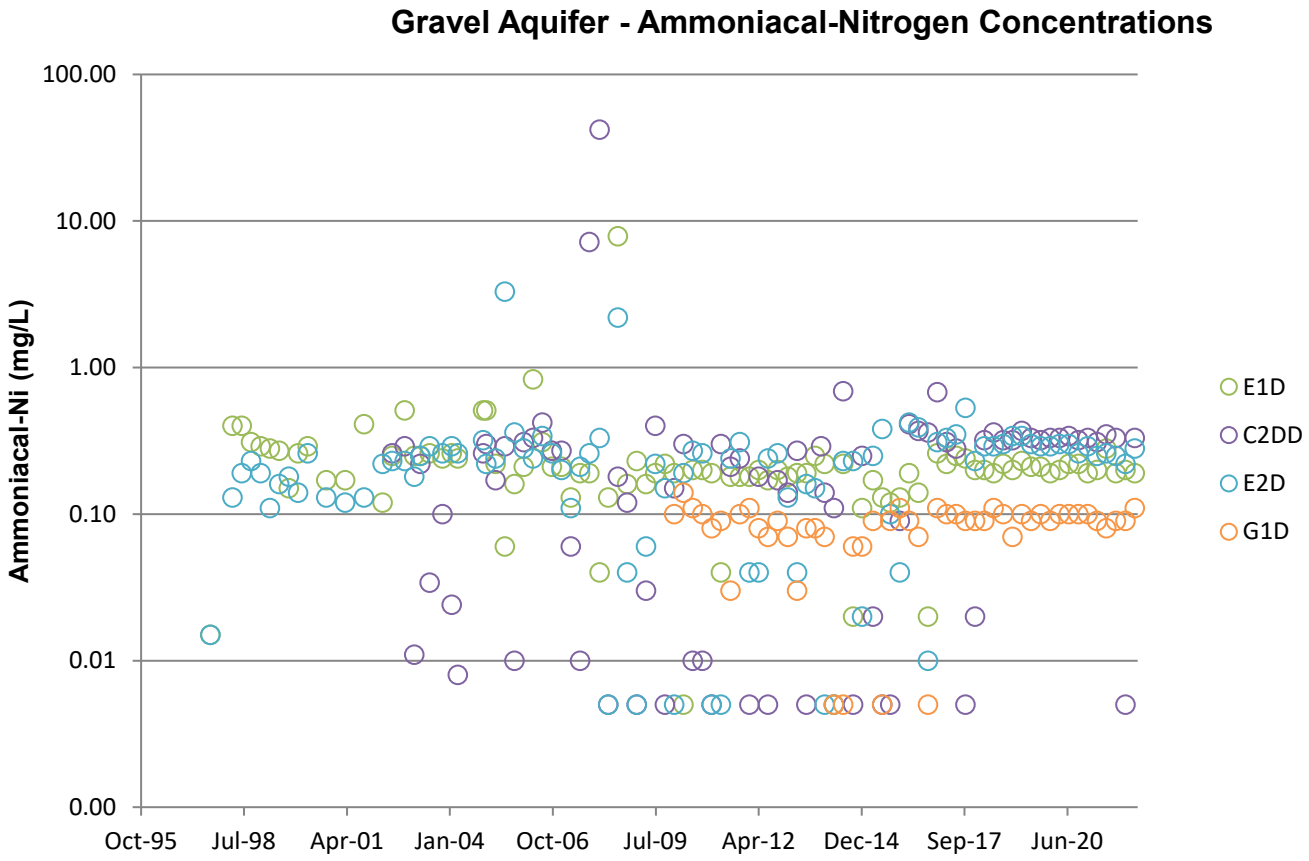
Sand Aquifer Downgrade of New Landfill - Conductivity Levels

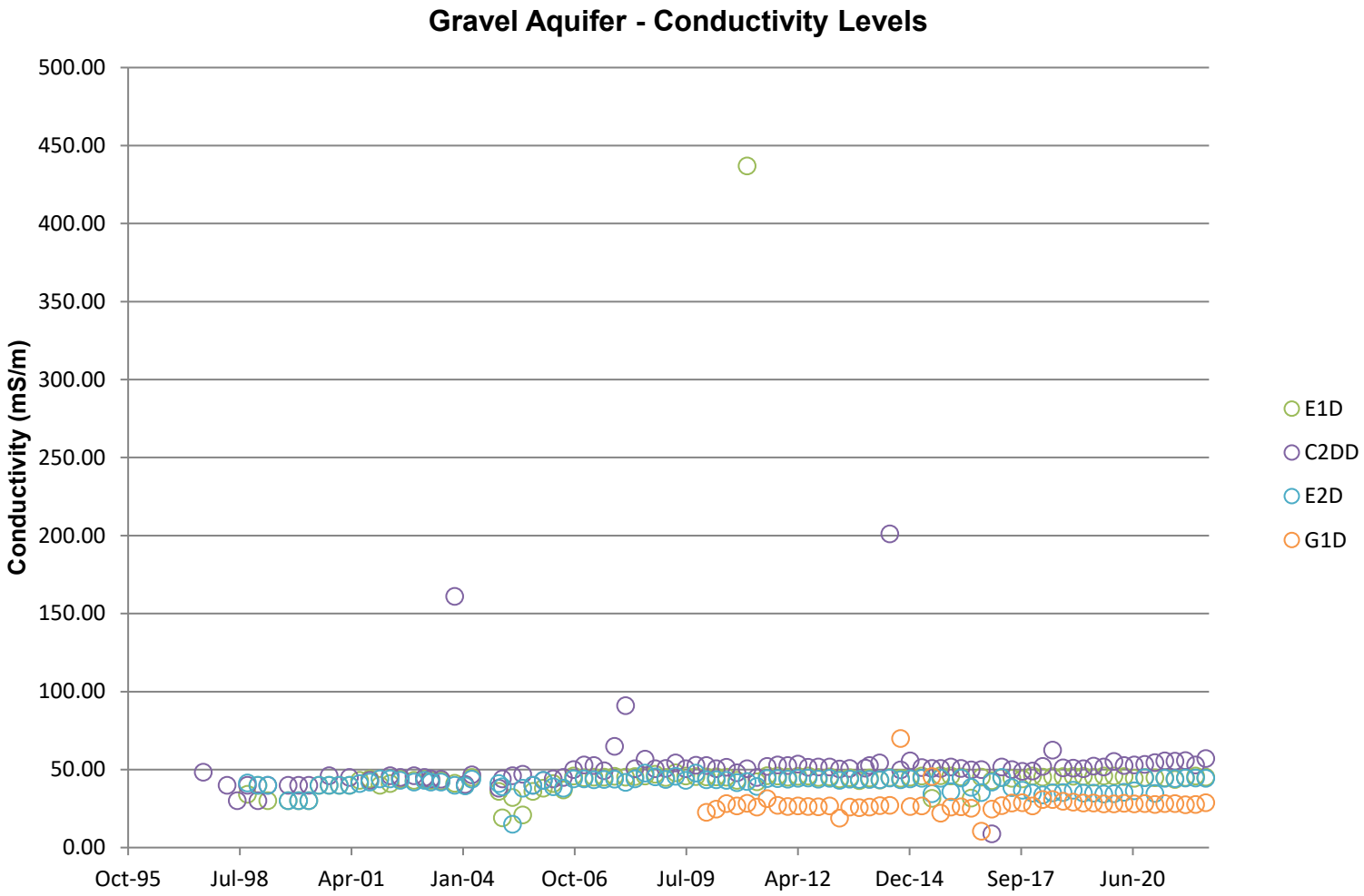


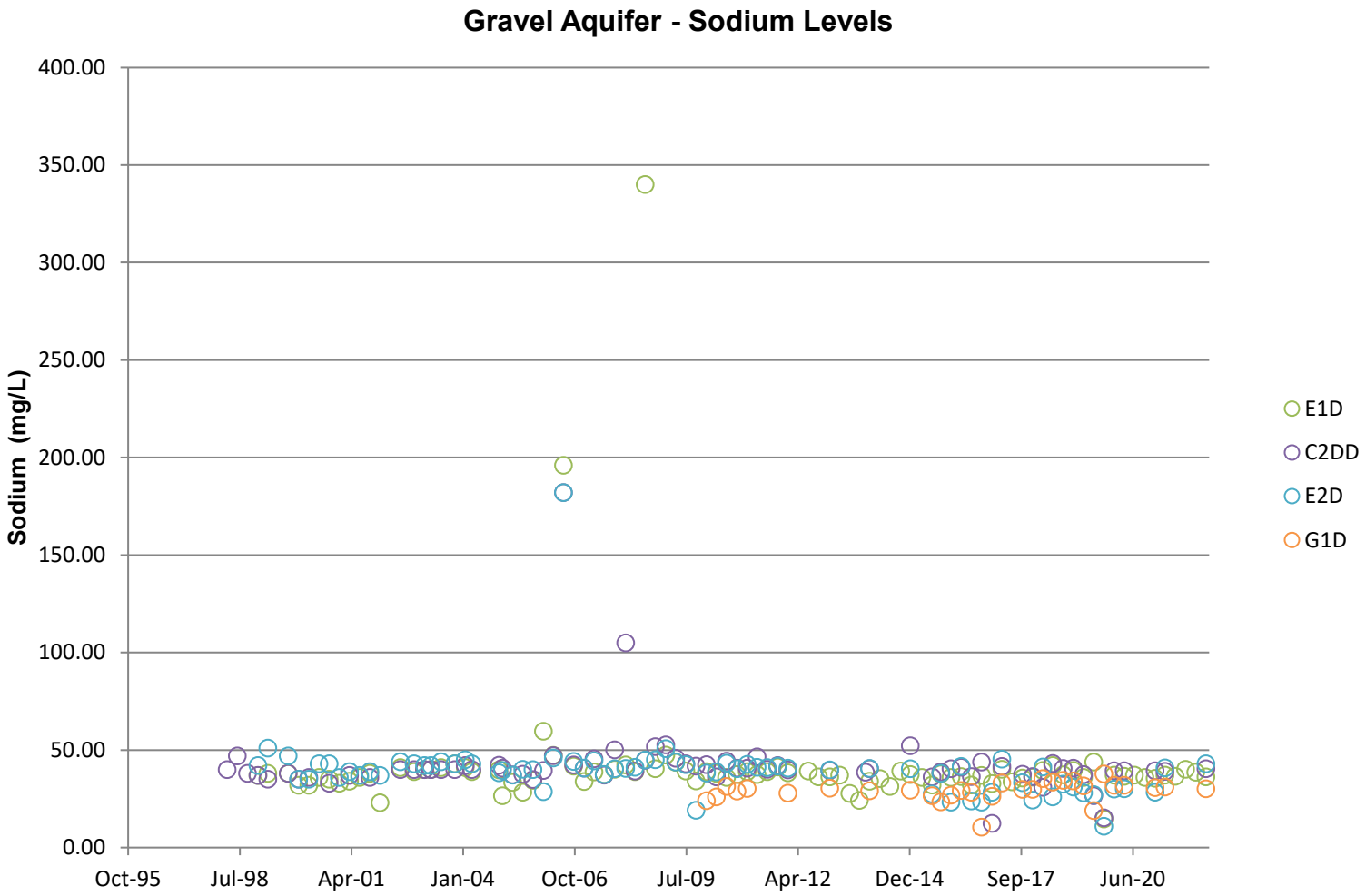

Sand Aquifer Downgrade of New Landfill - Sodium Concentrations
Sodium (mg/L)
450.00
400.00
350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
Oct-95
Jul-98
Apr-01
Jan-04
Oct-06
Jul-09
Apr-12
Dec-14
Sep-17
Jun-20
G1S
D1
D2
D3r (replaced by D3rs)
D4

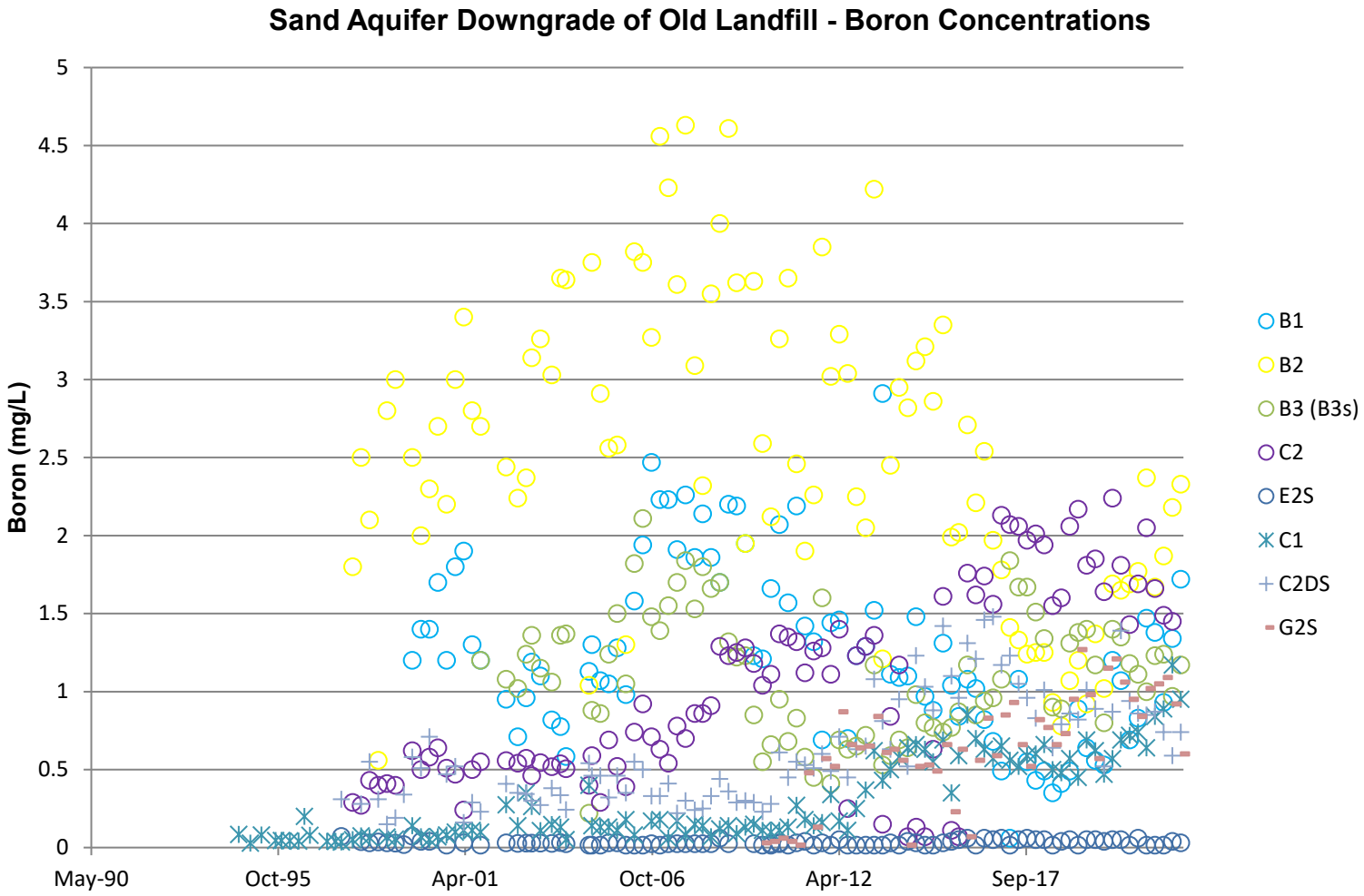

Gravel Aquifer - Boron Concentrations
Boron (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Oct-95
Jul-98
Apr-01
Jan-04
Oct-06
Jul-09
Apr-12
Dec-14
Sep-17
Jun-20
E1D
C2DD
E2D
G1D

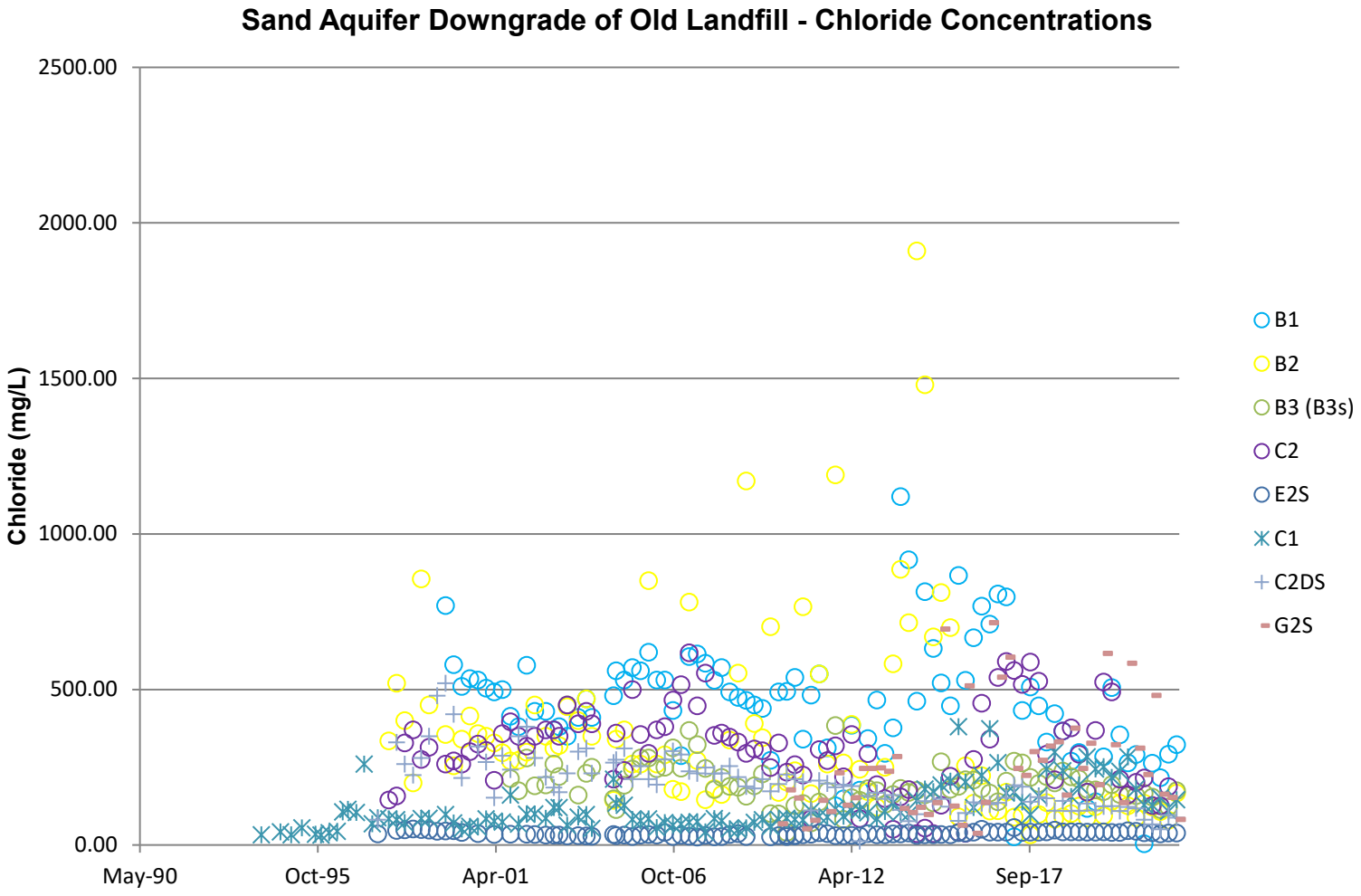

Gravel Aquifer - Chloride Concentrations
Chloride (mg/L)
400.00
350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
Oct-95
Jul-98
Apr-01
Jan-04
Oct-06
Jul-09
Apr-12
Dec-14
Sep-17
Jun-20
E1D
C2DD
E2D
G1D

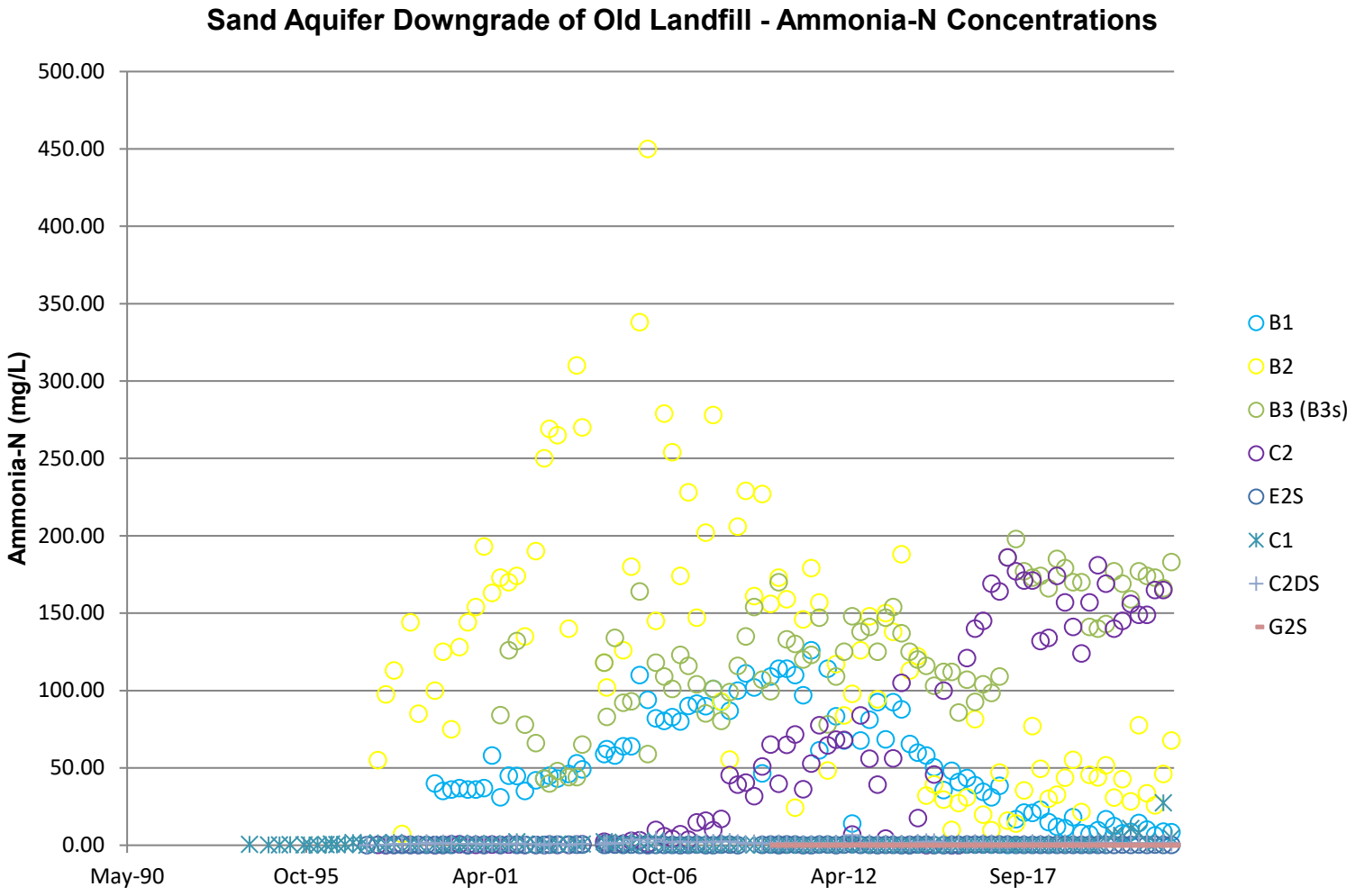

Gravel Aquifer - Ammoniacal-Nitrogen Concentrations
Ammoniacal-Ni (mg/L)
100.00
10.00
1.00
0.10
0.01
0.00
Oct-95
Jul-98
Apr-01
Jan-04
Oct-06
Jul-09
Apr-12
Dec-14
Sep-17
Jun-20
E1D
C2DD
E2D
G1D

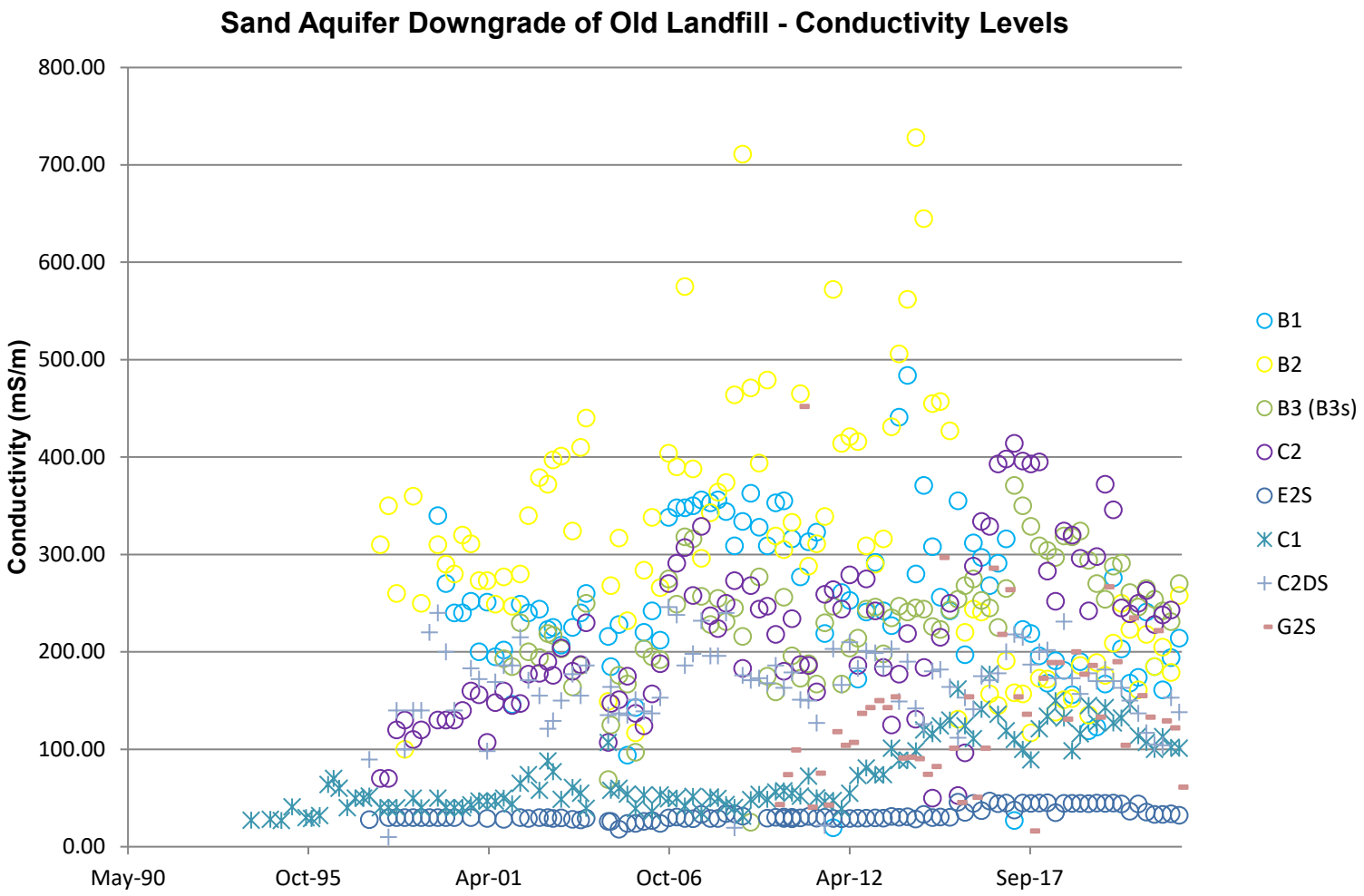

Gravel Aquifer - Conductivity Levels
Conductivity (mS/m)
500.00
450.00
400.00
350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
Oct-95
Jul-98
Apr-01
Jan-04
Oct-06
Jul-09
Apr-12
Dec-14
Sep-17
Jun-20
E1D
C2DD
E2D
G1D

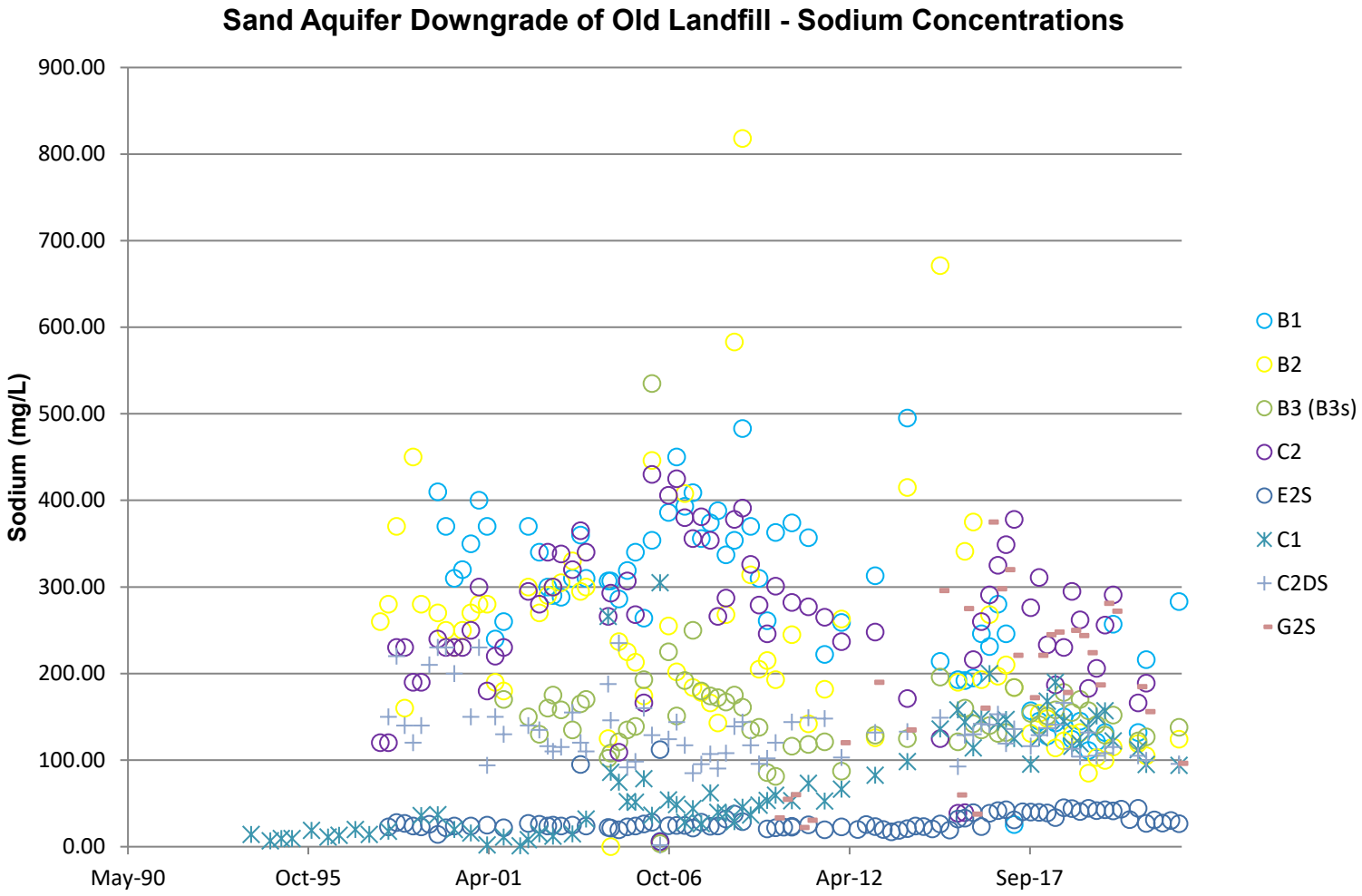

Gravel Aquifer - Sodium Levels
Sodium (mg/L)
400.00
350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
Oct-95
Jul-98
Apr-01
Jan-04
Oct-06
Jul-09
Apr-12
Dec-14
Sep-17
Jun-20
E1D
C2DD
E2D
G1D

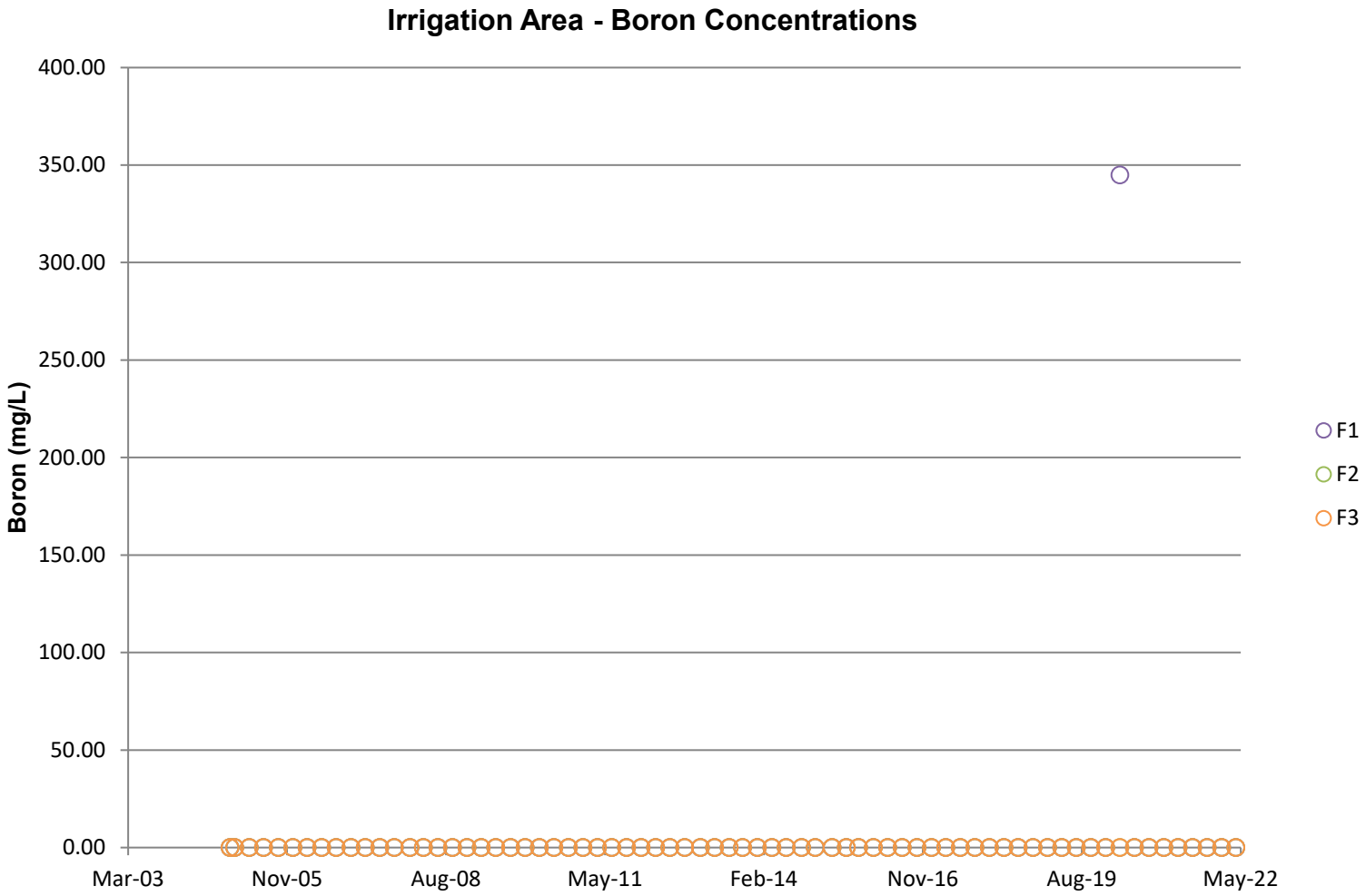

Sand Aquifer Downgrade of Old Landfill - Boron Concentrations
Boron (mg/L)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
May-90
Oct-95
Apr-01
Oct-06
Apr-12
Sep-17
B1
B2
B3 (B3s)
C2
E2S
C1
C2DS
G2S

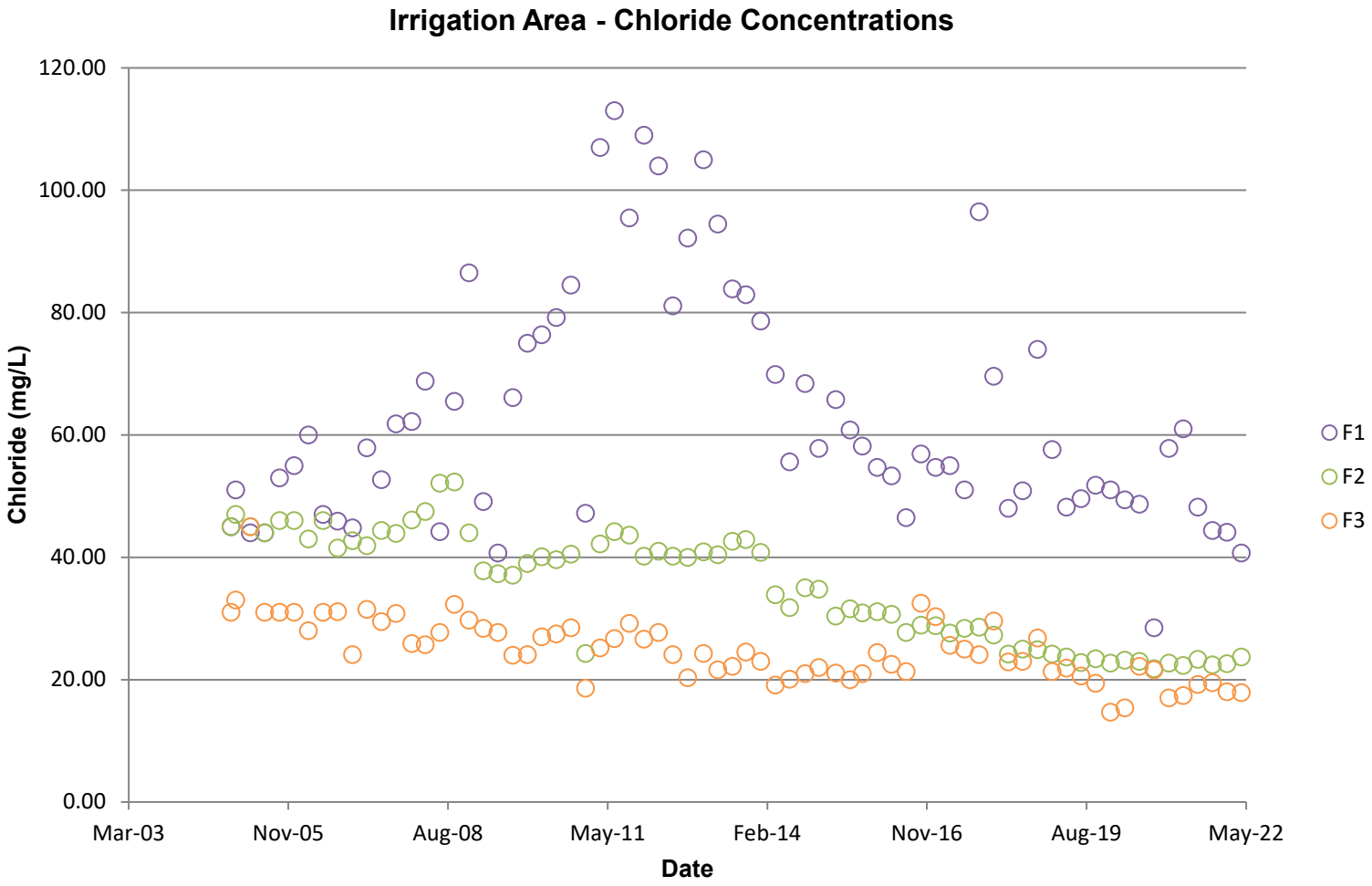

Sand Aquifer Downgrade of Old Landfill - Chloride Concentrations
Chloride (mg/L)
2500.00
2000.00
1500.00
1000.00
500.00
0.00
May-90
Oct-95
Apr-01
Oct-06
Apr-12
Sep-17
B1
B2
B3 (B3s)
C2
E2S
C1
C2DS
G2S

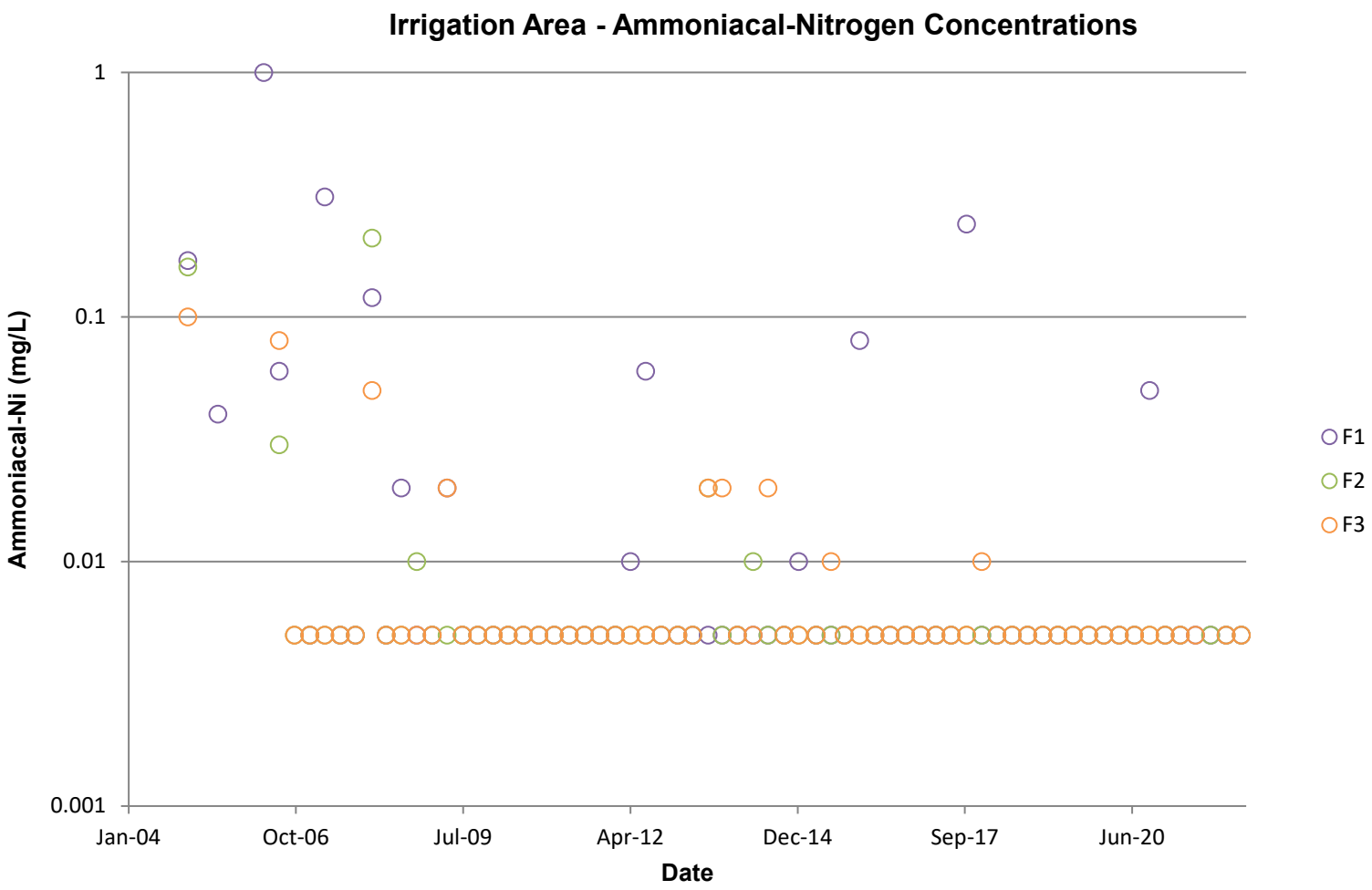

Sand Aquifer Downgrade of Old Landfill - Ammonia-N Concentrations
Ammonia-N (mg/L)
500.00
450.00
400.00
350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
May-90
Oct-95
Apr-01
Oct-06
Apr-12
Sep-17
B1
B2
B3 (B3s)
C2
E2S
C1
C2DS
G2S

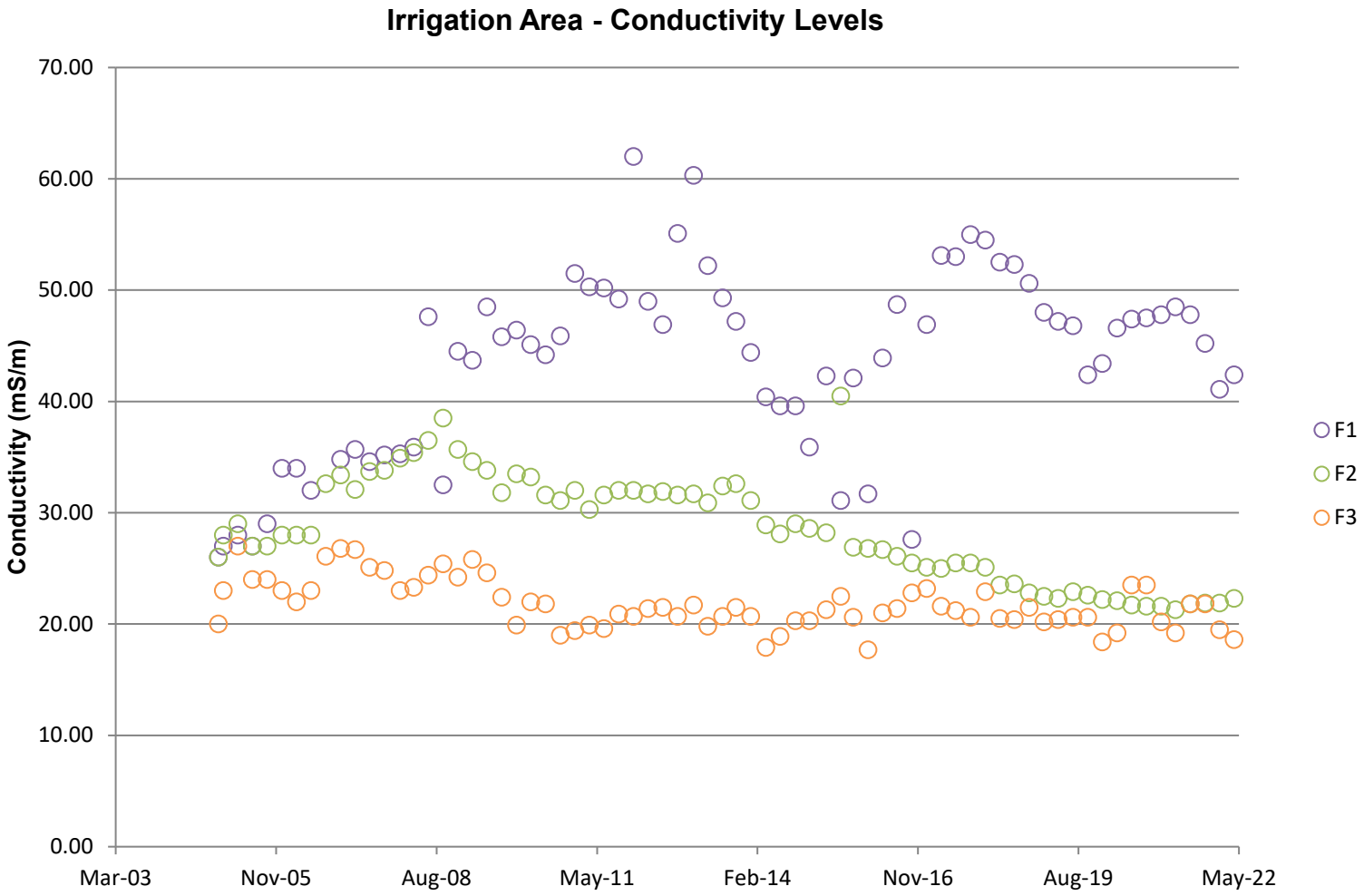

Sand Aquifer Downgrade of Old Landfill - Conductivity Levels
Conductivity (mS/m)
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
May-90
Oct-95
Apr-01
Oct-06
Apr-12
Sep-17
B1
B2
B3 (B3s)
C2
E2S
C1
C2DS
G2S

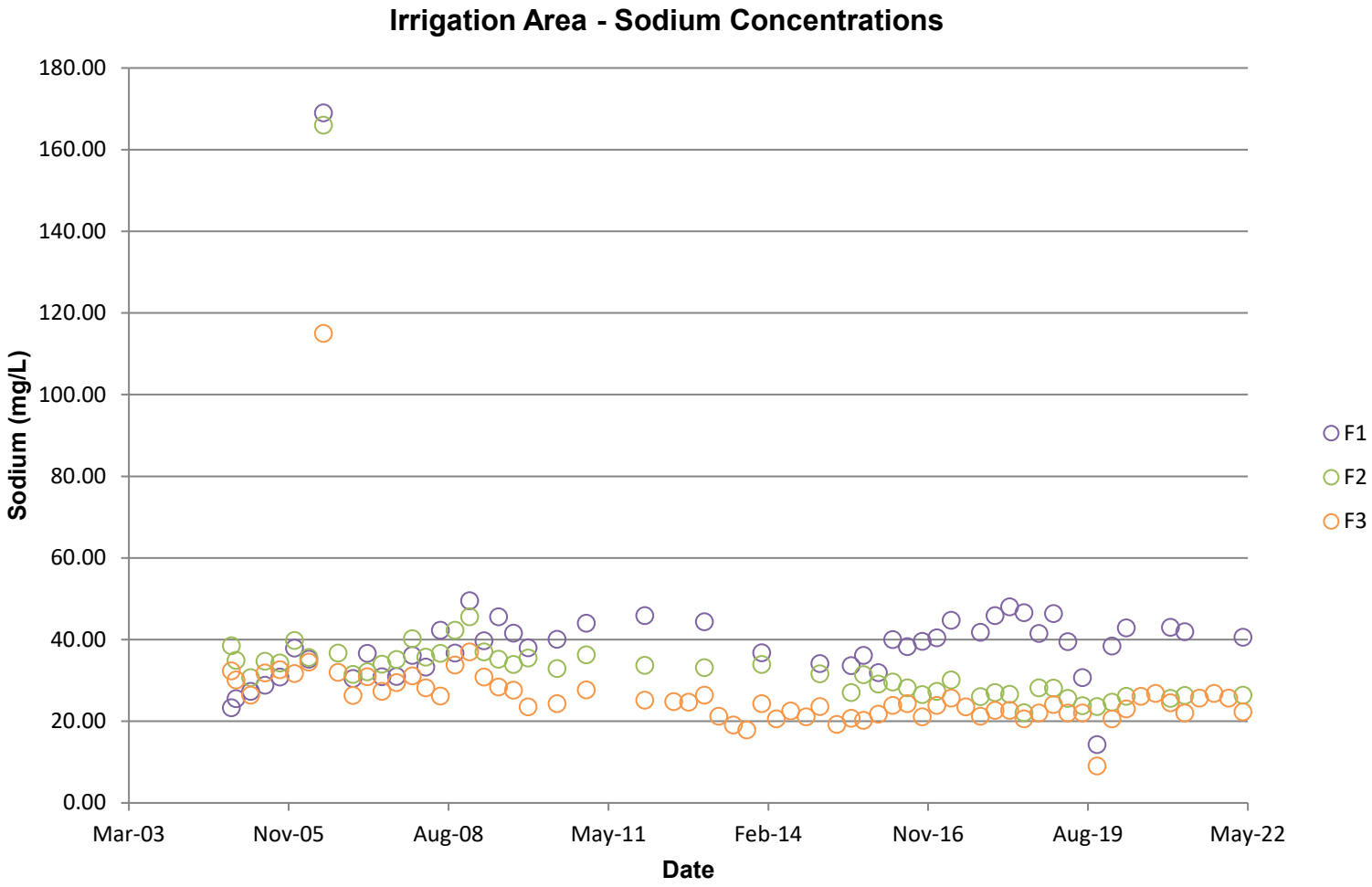

Sand Aquifer Downgrade of Old Landfill - Sodium Concentrations
Sodium (mg/L)
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
May-90
Oct-95
Apr-01
Oct-06
Apr-12
Sep-17
B1
B2
B3 (B3s)
C2
E2S
C1
C2DS
G2S

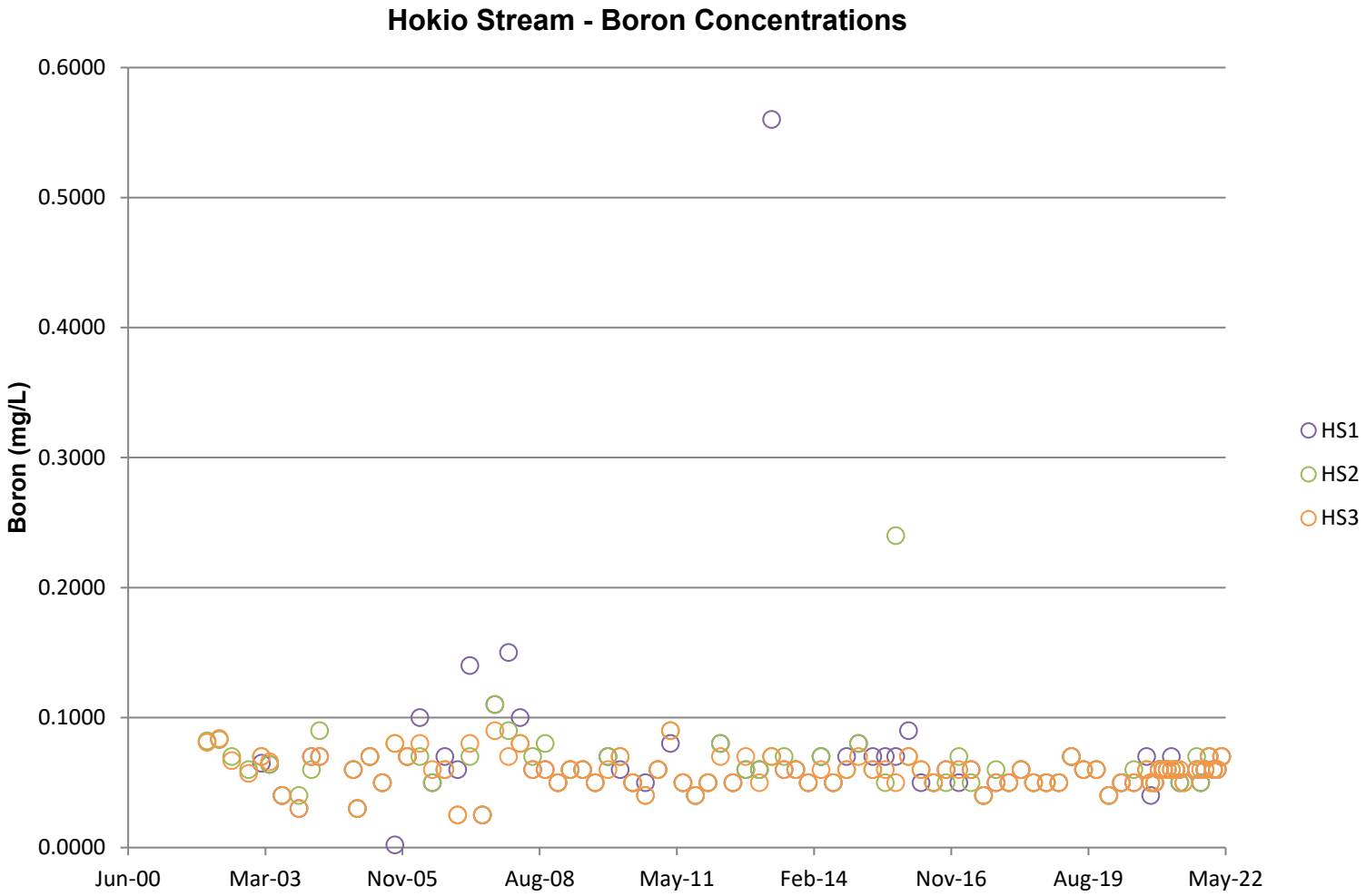

Irrigation Area - Boron Concentrations
Boron (mg/L)
400.00
350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
Mar-03
Nov-05
Aug-08
May-11
Feb-14
Nov-16
Aug-19
May-22
F1
F2
F3

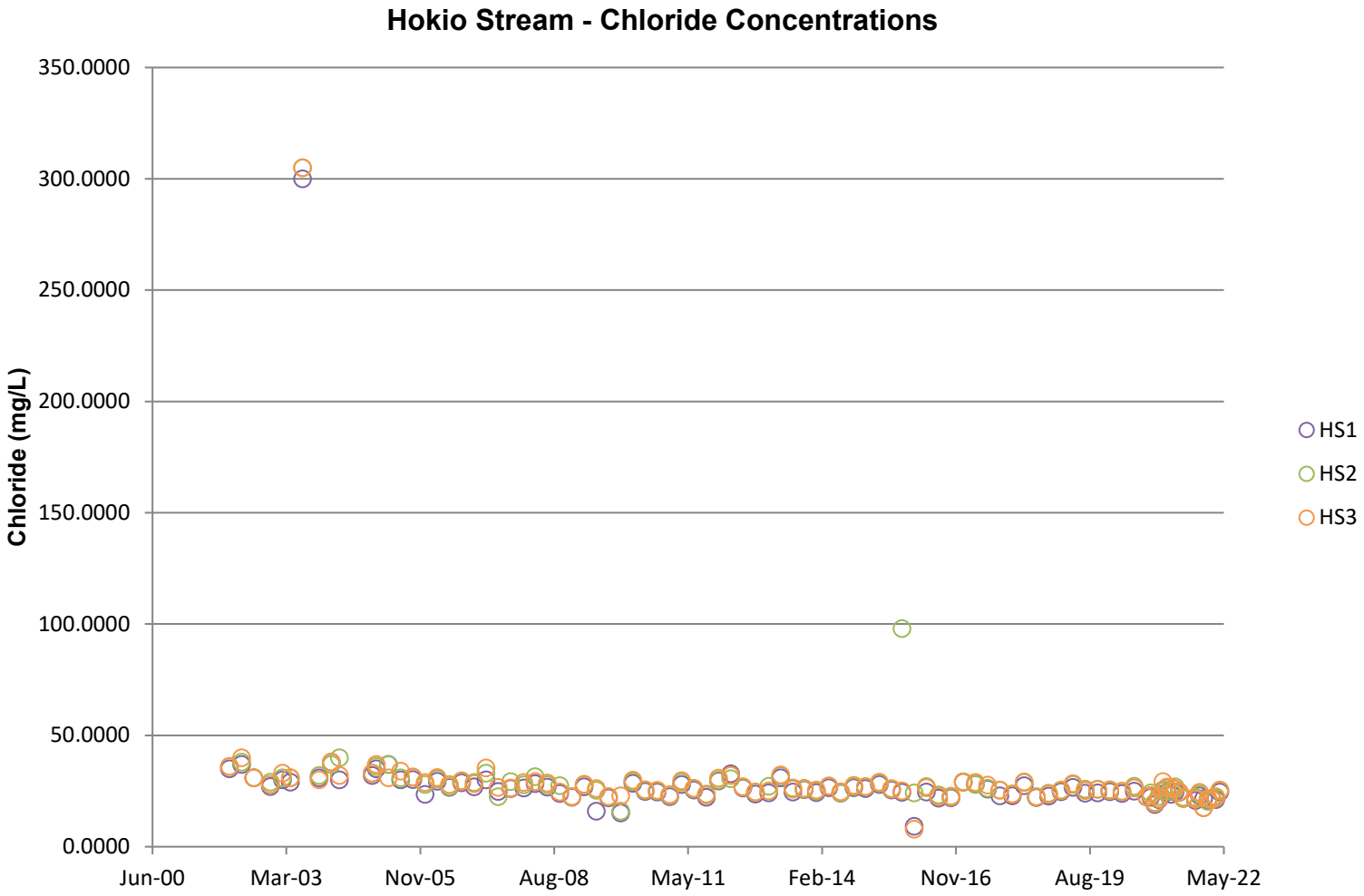

Irrigation Area - Chloride Concentrations
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Chloride (mg/L)
Mar-03
Nov-05
Aug-08
May-11
Feb-14
Nov-16
Aug-19
May-22
Date
F1
F2
F3

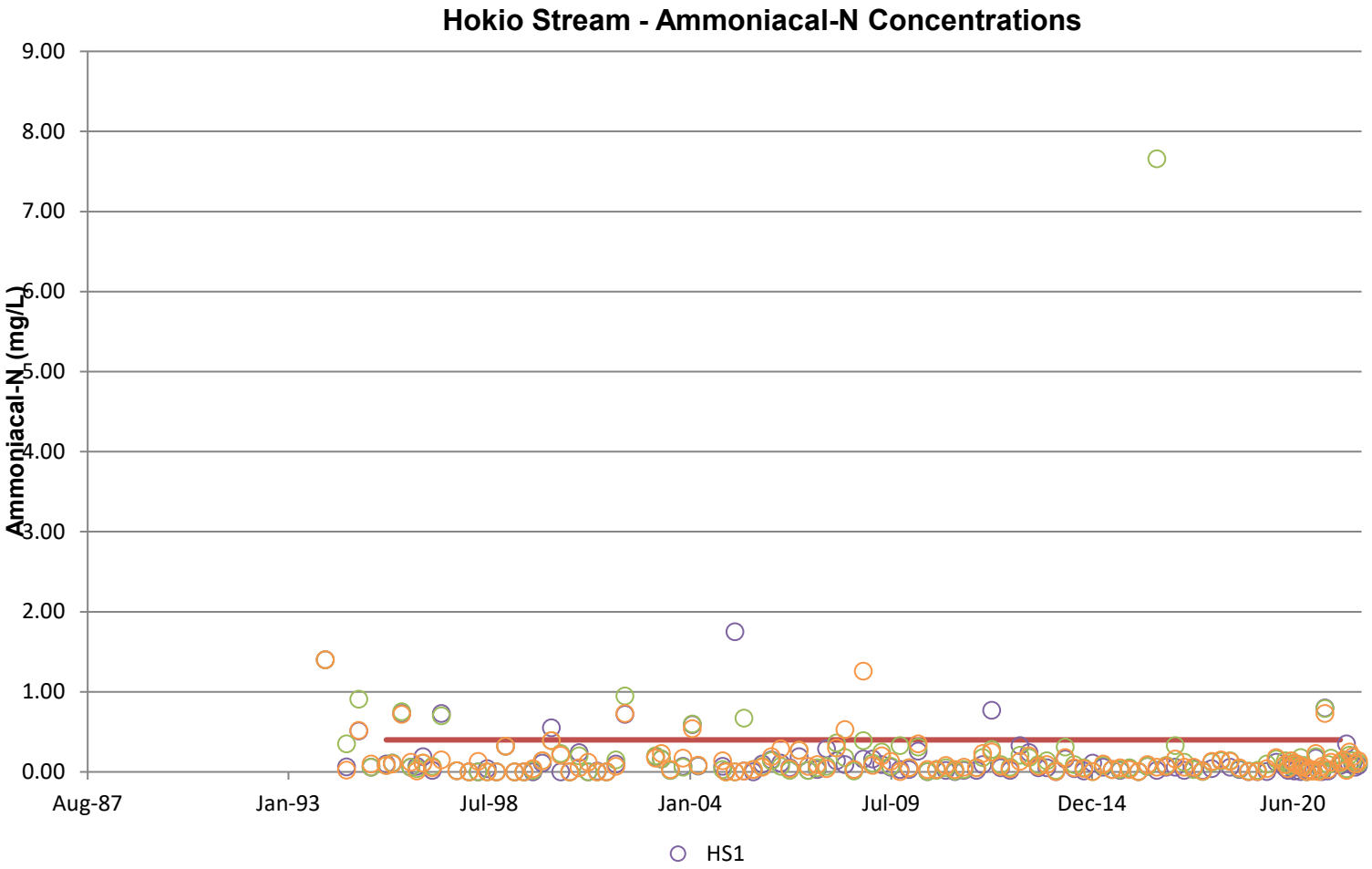

Irrigation Area - Ammoniacal-Nitrogen Concentrations
Ammoniacal-Ni (mg/L)
1
0.1
0.01
0.001
Jan-04
Oct-06
Jul-09
Apr-12
Dec-14
Sep-17
Jun-20
Date
F1
F2
F3

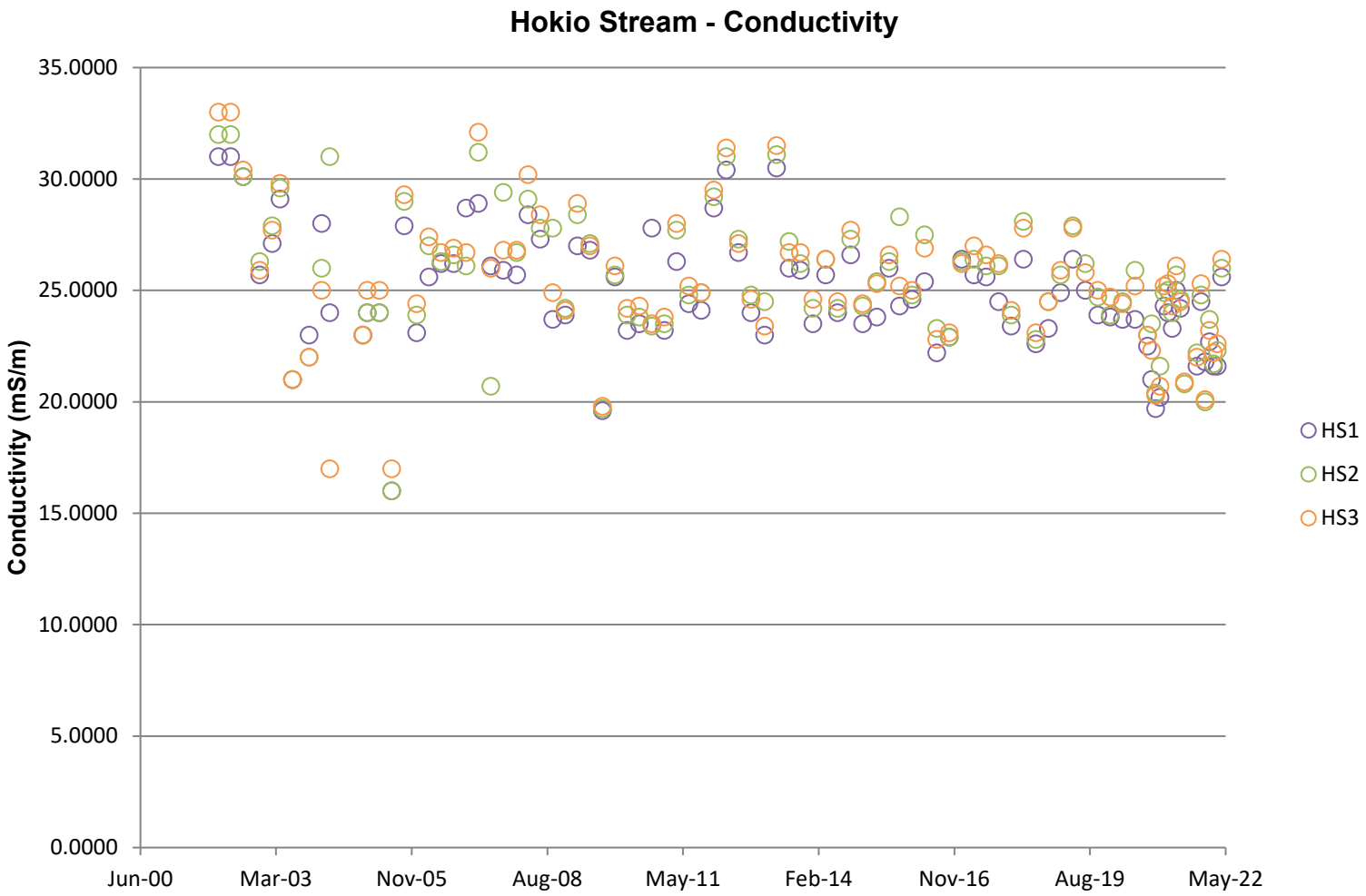

Irrigation Area - Conductivity Levels
Conductivity (mS/m)
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Mar-03
Nov-05
Aug-08
May-11
Feb-14
Nov-16
Aug-19
May-22
F1
F2
F3

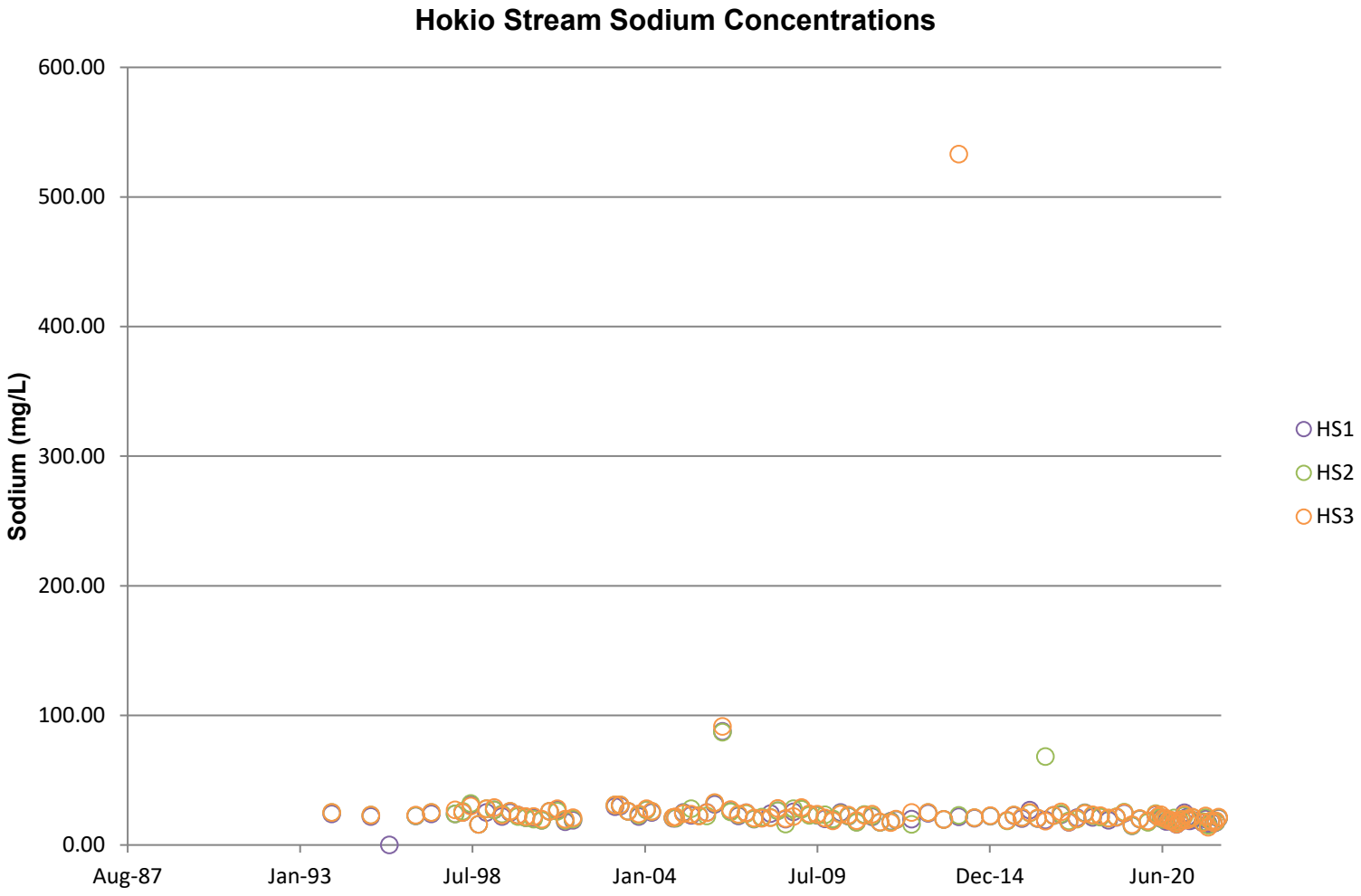

Irrigation Area - Sodium Concentrations
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Sodium (mg/L)
Mar-03
Nov-05
Aug-08
May-11
Feb-14
Nov-16
Aug-19
May-22
Date
F1
F2
F3


Hokio Stream - Boron Concentrations
Boron (mg/L)
0.6000
0.5000
0.4000
0.3000
0.2000
0.1000
0.0000
Jun-00
Mar-03
Nov-05
Aug-08
May-11
Feb-14
Nov-16
Aug-19
May-22
HS1
HS2
HS3


Hokio Stream - Chloride Concentrations
Chloride (mg/L)
350.0000
300.0000
250.0000
200.0000
150.0000
100.0000
50.0000
0.0000
Jun-00
Mar-03
Nov-05
Aug-08
May-11
Feb-14
Nov-16
Aug-19
May-22
HS1
HS2
HS3


Hokio Stream - Ammoniacal-N Concentrations
Ammoniacal-N (mg/L)
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Aug-87
Jan-93
Jul-98
Jan-04
Jul-09
Dec-14
Jun-20
HS1


Hokio Stream - Conductivity
Conductivity (mS/m)
35.0000
30.0000
25.0000
20.0000
15.0000
10.0000
5.0000
0.0000
Jun-00
Mar-03
Nov-05
Aug-08
May-11
Feb-14
Nov-16
Aug-19
May-22
HS1
HS2
HS3


Hokio Stream Sodium Concentrations
Sodium (mg/L)
600.00
500.00
400.00
300.00
200.00
100.00
0.00
Aug-87
Jan-93
Jul-98
Jan-04
Jul-09
Dec-14
Jun-20
HS1
HS2
HS3

Appendix E Landfill Gas Monitoring Results at GW Bores for April 2022

Created	Borehole	Methane (CH_4)	Carbon Dioxide (CO_2)	Hydrogen Sulphide (H_2S)	Oxygen (O_2)
05-04-22	Levin Landfill: Levin Xs2	0.05	0.13	0	20.7
05-04-22	Levin Landfill: Levin G2s	0.06	0.45	0	20.2
07-04-22	Levin Landfill: Levin C2	0.01	0.08	0	20.3
07-04-22	Levin Landfill: Levin C2ds	0	0.14	0	20.1
07-04-22	Levin Landfill: Levin Xs1	0.01	0.73	1	18.7
07-04-22	Levin Landfill: Levin C1	0.12	0.07	0	21.3
07-04-22	Levin Landfill: Levin B1	0.08	0.4	0	21
07-04-22	Levin Landfill: Levin F1	0.01	0.07	0	21
07-04-22	Levin Landfill: Levin G1d	0	0.05	0	20.6
07-04-22	Levin Landfill: Levin G1s	0	0.04	0	20.5
07-04-22	Levin Landfill: Levin D1	0	0.12	0	20.1
07-04-22	Levin Landfill: Levin D2	0	0.22	0	19.9
07-04-22	Levin Landfill: Levin D6	0	0.06	0	20.1
07-04-22	Levin Landfill: Levin F2	0	0.58	0	19.9
07-04-22	Levin Landfill: Levin F3	0	0.08	0	20.5
07-04-22	Levin Landfill: Levin D3rd	0	0.06	0	20.6
07-04-22	Levin Landfill: Levin D3rs	0.02	0.09	0	20.6
07-04-22	Levin Landfill: Levin D5	0.01	0.11	0	20.2
07-04-22	Levin Landfill: Levin D4	0	0.1	0	20.4
07-04-22	Levin Landfill: Levin E1s	0	0.07	0	20.5
07-04-22	Levin Landfill: Levin E1d	0	0.08	0	20.5
07-04-22	Levin Landfill: Levin E2d	0.04	0.12	0	20
07-04-22	Levin Landfill: Levin E2s	0.07	0.18	0	20
07-04-22	Levin Landfill: Levin B3s	0.03	0.05	0	20.4
07-04-22	Levin Landfill: Levin C2dd	0.07	0.18	0	20.1
07-04-22	Levin Landfill: Levin B2	0	5.2	0	15
07-04-22	Levin Landfill: Levin Xd1	0	0.1	0	20.4

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Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of belonging. That's why at Stantec, we always **design with community in mind**.

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