# 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

Rev No	Date	Description	Signature of Typed Name (documentation on file)						
			Prepared by	Checked by	Reviewed by	Approved by			
1	18/05/2022	Draft for Client Comment	P. Landmark	To be checked	To be reviewed	R. Hulme			
2	07/06/2022	Final	P. Landmark	S. Fellers	S. Fellers	R. Hulme			

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## Contents

Revisio	n schedule	ii
Quality	statement	iii
Abbrevi	iations	1
Executi	ve Summary	1
1	Introduction	3
2	Groundwater and Surface Water Monitoring	4
2.1	Sample Analyses	4
2.2	Background Groundwater Quality	
2.3	Groundwater Quality Hydraulically Down-Gradient of the New Landfill	
2.3.1	Shallow Aquifer	
2.3.2	Deep Gravel Aquifer	10
2.4	Impact of Old Landfill on Groundwater Quality	11
2.5	Groundwater Quality Down-Gradient of the Irrigation Area	14
2.6	Leachate Effluent Results	
2.7	Tatana Property Drain	
2.8	Hokio Stream	19
3	Landfill Gas Detection in Monitoring Wells	23
4	Discussion	
4.1		
4.1	Sampling Quality Control and Assurance	
4.2	Shallow Aquifer Groundwater Quality	
	•	
4.3.1	Hydraulically down-gradient of the Old Landfill	
4.3.2	Hydraulically up-gradient of the Old Landfill and down gradient of the new landfill	
4.3.3	Irrigation Area	25
4.4	Deep Aquifer Groundwater Quality	25
4.5	Leachate Effluent	
4.6	Tatana Property Drain	
4.7	Hokio Stream	
4.8	Consent Compliance	26
5	Conclusions	28
List of a	appendices	
Append	lix A Site Plan	
	lix B Sampling Schedule	
	lix C Analytical Results	
	lix D Historical Results Graphs	
Append	lix E Landfill Gas Monitoring Results at GW Bores for April 2022	

#### List of tables

Table 2-1: Comprehensive Parameters ......4



Table 2-2: Background Monitoring Results for April 2022	5
Table 2-3: D-Series and E1S Monitoring Bore Results for April 2022	8
Table 2-4: VOCs detected in samples from the shallow aquifer bores during the April 2022	
sampling round	9
Table 2-5: Results for Monitoring Bores within the Deep Aquifer for April 2022	10
Table 2-6: Monitoring Results for Shallow Boreholes Down-Gradient from the Old Landfill for A	April
2022	12
Table 2-7: VOCs detected in samples from down-gradient groundwater bores during the Apri	il
2022 sampling round	13
Table 2-8: Results from Monitoring Bores in the Irrigation Area for April 2022	14
Table 2-9: Results from Leachate Effluent Monitoring for February, March and April 2022	15
Table 2-10: VOCs detected in samples of leachate from the April 2022 sampling round	16
Table 2-11 Tatana Drain Monitoring Results for February, March, and April 2022	18
Table 2-12: Hokio Stream Monitoring Results for February, March, and April 2022	20

# **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 upgradient 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  $BOD_5$  (sc $BOD_5$ ) 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 sc $BOD_5$  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

Туре	Parameters
Characteristics	pH, Electrical Conductivity (EC), Alkalinity, Total Hardness, Suspended Solids
Oxygen demand	Chemical Oxygen Demand (COD), scBOD <sub>5</sub> ++
Nutrients*	Nitrate nitrogen (NO <sub>3</sub> -N), Ammoniacal-nitrogen (NH <sub>4</sub> -N), Dissolved Reactive Phosphorus (DRP), Sulphate (SO <sub>4</sub> )
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<sub>5</sub> (scBOD<sub>5</sub>) 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
рН	-	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 CaCO₃/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 <sub>3</sub> /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

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

<sup>\*</sup>denotes guideline values for aesthetic determinants (G.V.)

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
рН	-	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 <sub>3</sub> /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 <sub>3</sub> /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

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

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	ANZECC 2000 DGV (mg/L)		oncentration lient bores (r		Common source/usage of determinant (from https://www.waterquality.gov.au/anz-
	(from Eurofins- ELS) mg/L		D1	D3rs	D6	guidelines/guideline-values/default/water- quality-toxicants/search#tox-158)
Toluene	0.0005	0.2 (99 <sup>th</sup> percentile) 0.35 (95 <sup>th</sup> percentile) 0.47 (90 <sup>th</sup> percentile) 0.64 (80 <sup>th</sup> percentile)	0.0009	0.0005	0.0020	Hydrocarbon; fuel additives (vehicles)

<sup>&#</sup>x27;ND' indicates where E. coli were not detected

#### 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
рН	-	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 <sub>3</sub> /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 <sub>3</sub> /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

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 crosscontaminated.
- 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.



<sup>\*</sup> denotes guideline values for aesthetic determinants (G.V.)

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
рН	-	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 CaCO₃/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 CaCO₃/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

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	ANZECC 2000 DGV (mg/L)		ncentrations at nt bores (mg/L)	Common source/usage of determinant (from https://www.waterquality.gov.au/anz-
	Eurofins-ELS) mg/L		B2 C2DS		guidelines/guideline-values/default/water- quality-toxicants/search#tox-158)
Chlorobenzene	0.0005	Not defined	0.0045		No brief available
Carbofuran	0.001	0.00006 (99 <sup>th</sup> percentile) 0.0012 (95 <sup>th</sup> percentile) 0.004 (90 <sup>th</sup> percentile) 0.015 (80 <sup>th</sup> 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
рН	-	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 CaCO₃/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 CaCO₃/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

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

#### 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
рН		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 <sub>3</sub> /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 <sub>5</sub>	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 CaCO₃/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

<sup>&#</sup>x27;ND' indicates where E. coli were not detected

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

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

**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 99<sup>th</sup> 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 (99 <sup>th</sup> percentile) 0.016 (95 <sup>th</sup> percentile) 0.037 (90 <sup>th</sup> percentile) 0.085 (80 <sup>th</sup> 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 (99 <sup>th</sup> percentile)	Benzene has been used as a fuel additive.

<sup>\*</sup> 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)

<sup>\*\*</sup>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

<sup>\*\*\*</sup>Data taken from Table 5-4, p81 of the same guideline, for parameters during the methanogenic phase

			0.95 (95 <sup>th</sup> percentile)	
			1.3 (90 <sup>th</sup> percentile) 2.0 (80 <sup>th</sup> percentile)	
o-Xylene	0.0005	0.0176	0.2 (99 <sup>th</sup> percentile) 0.35 (95 <sup>th</sup> percentile) 0.47 (90 <sup>th</sup> percentile) 0.64 (80 <sup>th</sup> 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 (99 <sup>th</sup> percentile) 0.35 (95 <sup>th</sup> percentile) 0.47 (90 <sup>th</sup> percentile) 0.64 (80 <sup>th</sup> 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 (99 <sup>th</sup> percentile) 1.9 (95 <sup>th</sup> percentile) 2.6 (90 <sup>th</sup> percentile) 4.0 (80 <sup>th</sup> 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 (99 <sup>th</sup> percentile) 0.9 (95 <sup>th</sup> percentile) 1.2 (90 <sup>th</sup> percentile) 1.8 (80 <sup>th</sup> 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 (99 <sup>th</sup> percentile) 0.06 (95 <sup>th</sup> percentile) 0.075 (90 <sup>th</sup> percentile) 0.10 (80 <sup>th</sup> 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<sup>1</sup> 95% trigger values, as per the revised resource consent conditions.

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

<b>D</b>	11.14.	ANZECC AE	TD1 (formerly SW3)						
Determinant	Units	(95%)	February	March	April				
рН	-	-	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				

<sup>&</sup>lt;sup>1</sup>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	TD1 (formerly SW3)					
Determinant	Onits	(95%)	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			

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 scBOD₅ 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	Consent Trigger	HS1A (new)	HS1	HS2	HS3	HS1A (new)	HS1	HS2	HS3	HS1A (new)	HS1	HS2	HS3
Dotormilant	• · · · · ·	AE (95%)	Values (Table C1)		February				Ма	rch		April			
рН	-	-	-	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 <sub>5</sub>	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	<u>0.17</u>	<u>0.17</u>	0.20	0.16	<u>0.19</u>	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	Consent Trigger	HS1A (new)	HS1	HS2	HS3	HS1A (new)	HS1	HS2	HS3	HS1A (new)	HS1	HS2	HS3
Dotommant	<b>5</b> 111.0	AE (95%)	Values (Table C1)	February					Ма	rch		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

NR = Not reported

BDL = Below detection limit

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

<u>Underlined</u> – 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 scBOD₅ 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 scBOD₅ 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<sub>2</sub>. 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<sup>2</sup> 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 99<sup>th</sup> 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

<sup>&</sup>lt;sup>2</sup> 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%).

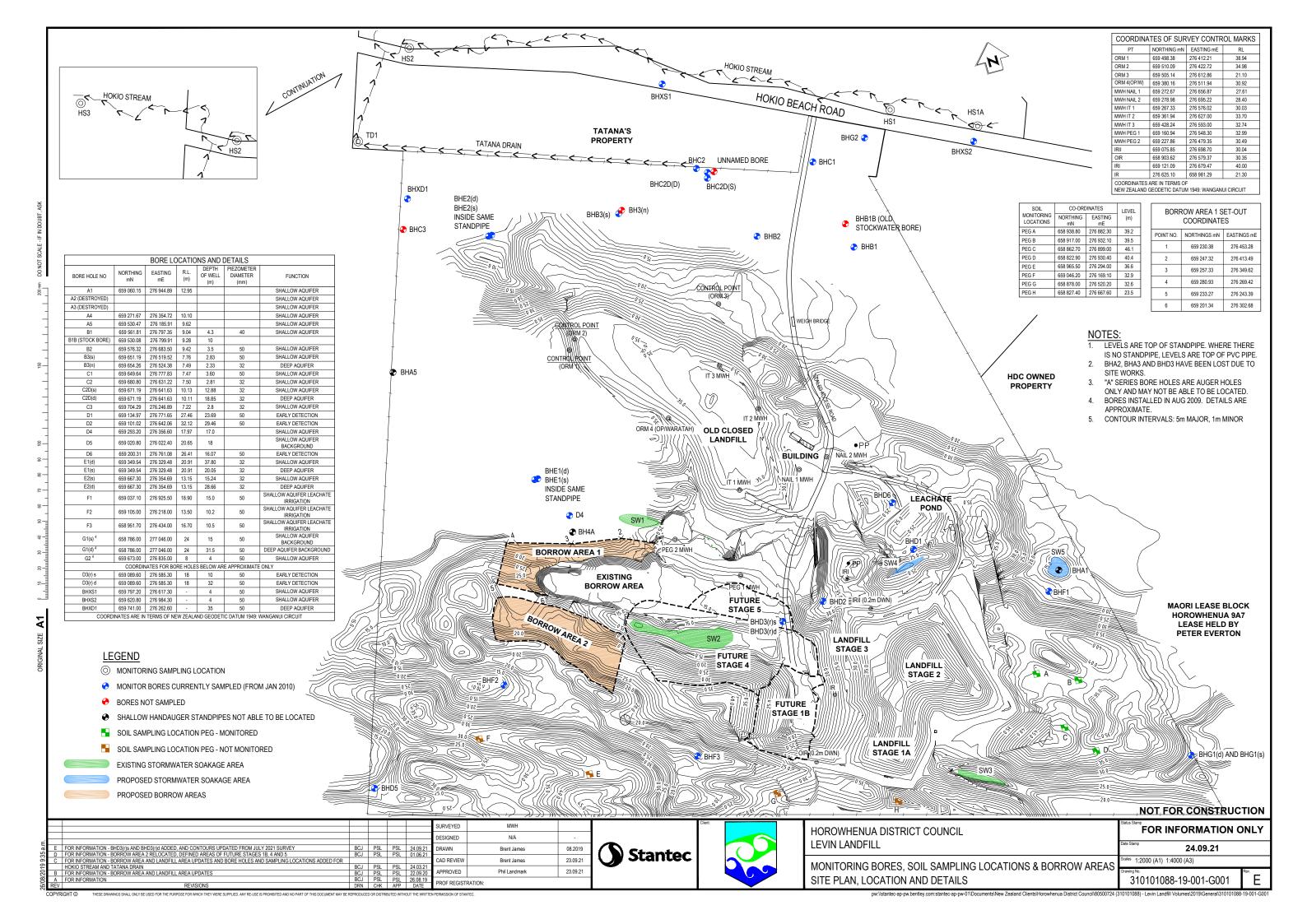
These high results should be investigated further by carrying out more gas testing and signal the need for appropriate precautions to be taken, including using protective PPE, when testing for gas.

# **Appendices**

We design with community in mind

# **Appendix A** Site Plan





# 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).

				Table A	(Condit	ion 3, DP	6010)										Ta	ble B (Co	ndition 3	B, DP 6010	0)										Tabl	e C (Cond	ition 3, D	P 6010)	
Reports Due	Sampl			De	ep Aqu	ifer Bore	S									Shallo	w Aquifer	Bores									Irrigatio	n Bores			Hokio St	ream <sup>(4), (8)</sup>	)	Tatana Drain	Leachate Pond <sup>(5)</sup>
Annual Quarter		C2	dd	E1d	E2d	G1d	Xd1	D3rd <sup>(1)</sup>	C1	C2 <sup>(6)</sup>	C2ds <sup>(6)</sup>	D4	B1	B2	B3s	E1s	E2s	D1 <sup>(2)</sup>	D2 <sup>(2)</sup>	D3rs <sup>(1,2)</sup>	D6 <sup>(2)</sup>	G1s	G2s	Xs1 <sup>(6)</sup>	Xs2 <sup>(6)</sup>	D5 <sup>(3)</sup>	F1 <sup>(3)</sup>	F2 <sup>(3)</sup>	F3 <sup>(3)</sup>	HS1	HS1A	HS2	HS3	TD1 <sup>(7)</sup>	Poliu
Sep-21 Aug-2	Jul-2	21		+ SW			С	С	1	_	- 1	I + SW	- 1	- 1	- 1	I + SW	I + SW	- 1	I + SW	C + SW	- 1	I + SW	- 1	С	С	1		- 1	I + SW	.e€	. ie ₹	5 e ≥	e. e. 2	.e€	.ej∈
Nov-2	Oct-2	21		+ SW			С	С	1	_	- 1	I + SW	- 1	- 1	- 1	I + SW	I + SW	- 1	I + SW	C + SW	- 1	I + SW	- 1	С	С	1		- 1	I + SW	mpi To /20;	20 To	720.	mpi To 720	onth mpi To 720	a mbi
Feb-22	Jan-2	22	1	+ SW	- 1	- 1	С	С	- 1		- 1	I + SW	1	- 1	- 1	I + SW	I + SW	- 1	I + SW	C + SW	- 1	I + SW	- 1	С	С	- 1	1	- 1	I + SW	žိပိ 8	Ž 0 8	ž S g	8 0 Z	S S K	ž8
May-2	2 Apr-2	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	s,	С	С	С	С	C + A
Sep-22 Aug-22	Jul-2	22	- 1	+ SW	ı	1	ı	С	I	I	I	I + SW	I	I	I	I + SW	I + SW	- 1	I + SW	C + SW	I	I + SW	- 1	- 1	I	- 1	- 1	- 1	I + SW	ear 22	1	1	- 1	1	1
Nov-2	2 Oct-2	22	1	+ SW	_	1	- 1	С	1	I	I	I + SW	I	- 1	- 1	I + SW	I + SW	I	I + SW	C + SW	I	I + SW	I	- 1	I	- 1	- 1	- 1	I + SW	2 y 20	С	С	С	С	С
Feb-23	Jan-2	23		+ SW		- 1	- 1	С	- 1	- 1	I	I + SW		- 1	- 1	I + SW	I + SW		I + SW	C + SW		I + SW	_	I	- 1		1	_	I + SW	irch	1	1	1	1	1
May-2	B Apr-2	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	e af Ma	С	С	С	С	С
Sep-23 Aug-2	Jul-2	23	1	+ SW		- 1	- 1	- 1	- 1		- 1	I + SW	_	_		I + SW	I + SW	_	I + SW	I + SW	_	I + SW	_	- 1		_	1	_	I + SW	inu ter	1	1	1	1	1
Nov-2	Oct-2	23	- 1	+ SW	1	I	I	I	I	I	I	I + SW	I	I	I	I + SW	I + SW	Ī	I + SW	I + SW	I	I + SW	I	I	1	I	I	I	I + SW	ont . af	С	С	С	С	С
Feb-24	Jan-2	24	- 1	+ SW	1	I	I	I	I	I	I	I + SW	I	I	I	I + SW	I + SW	Ī	I + SW	I + SW	I	I + SW	I	I	1	I	I	I	I + SW	isc.	1	1	1	1	1
May-2	4 Apr-2	24 C+	Α	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		С	С	С	С	С

#### Measure groundwater level and sample all bores for CH<sub>4</sub>, CO<sub>2</sub> and O<sub>2</sub> 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)
- 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). (3)
- See table below
- (5)
- Measure water level at C2, C2ds, Xs1 and Xs2 when taking monthly samples at TD1 and within the Hokio Stream.
- 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.
- Start measuring approximately the depth of flow in the Hokio Stream at each sampling site when sampling monthly
- Comprehensive list (see below)
- Indicator list (see below)
- 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.

#### 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.

#### 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)

	рН					
Ch t i - i	electrical conductivity (EC)					
Characterising	alkalinity					
parameters	total hardness					
	suspended solids					
Oxygen demand	COD and scBOD <sub>5</sub>					
Nutrients*	NO3-N, NH4-N, DRP and SO <sub>4</sub>					
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					

<sup>\*</sup> Analyses performed for nutrients and metals are for dissolved rather than total concentrations

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

Characterising	pH
parameters	electrical conductivity (EC)
Oxygen demand	COD and scBOD <sub>5</sub>
Nutrients*	NO3-N and NH4-N
Metals*	AL, Mn, Ni, Pb and Hg
Other elements	B and Cl
Biological <sup>+</sup>	E. coli

<sup>\*</sup> Analyses performed for nutrients and metals are for dissolved rather than total concentrations

<sup>&</sup>lt;sup>+</sup> E. coli added from April 2019 sampling onwards

# **Appendix C** Analytical Results





#### **Eurofins ELS Limited**

### **Analytical Report**

Report Number: 22/4617

Issue: 1 16 May 2022

P O Box 642 **LEVIN 5540** Attention: Elysia Kinross

Downer EDI Levin - Landfill

<b>Sample</b> 22/4617-0 Notes: 240	Site 1 Levin B1 0986-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 26/04/2022 00:00		eceived 2022 18:33	Order No.
140103. 240	Test	Result	Units		Test Date	Signatory	
0001	Н	6.9			28/04/2022	Marylou Cab	oral KTP
	Suspended Solids - Total	18	g/m³		28/04/2022	Jennifer Mor	
	Total (NP) Organic Carbon	31.2	g/m³		04/05/2022	Amit Kumar	
	Alkalinity - Total	648	g CaCO3/m³		28/04/2022	Marylou Cab	
	Conductivity at 25°C	214	mS/m		28/04/2022	Marylou Cab	
	Chemical Oxygen Demand	114	g/m³		28/04/2022	Marylou Cab	
	BOD5 - Soluble Carbonaceous		g/m³		28/04/2022	Gordon McA	
	Chloride	323	g/m³		03/05/2022	Divina Laga:	
	Nitrate - Nitrogen	0.69	g/m³		03/05/2022	Divina Laga:	
	Sulphate	3.31	g/m³		03/05/2022	Divina Laga:	
	Ammonia Nitrogen	8.41	g/m³		02/05/2022	Ivan Imamur	
	Total Hardness	385	g CaCO3/m³		03/05/2022	Amit Kumar	
	Calcium - Dissolved	74.1	g/m³		03/05/2022	Amit Kumar	
	Iron - Dissolved	0.102	g/m³		03/05/2022	Amit Kumar	
	Magnesium - Dissolved	48.6	g/m³		03/05/2022	Amit Kumar	
	Sodium - Dissolved	283	g/m³		03/05/2022	Amit Kumar	
	Dissolved Reactive Phosphorus		g/m³		02/05/2022	Ivan Imamur	
	Aluminium - Dissolved	0.012	g/m³		30/04/2022	Amit Kumar	
	Arsenic - Dissolved	0.001	g/m³		30/04/2022	Amit Kumar	
	Boron - Dissolved	1.72	g/m³		30/04/2022	Amit Kumar	
	Cadmium - Dissolved	< 0.0002	g/m³		30/04/2022	Amit Kumar	
	Chromium - Dissolved	0.002	g/m³		30/04/2022	Amit Kumar	
	Copper - Dissolved	0.0185	g/m³		30/04/2022	Amit Kumar	
	Lead - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar	
	Manganese - Dissolved	5.64	g/m³		30/04/2022	Amit Kumar	
	Mercury - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar	
	Nickel - Dissolved	0.0062	g/m³		30/04/2022	Amit Kumar	
	Potassium - Dissolved	20.3	g/m³		30/04/2022	Amit Kumar	
	Zinc - Dissolved	0.046	g/m³		30/04/2022	Amit Kumar	
	E. coli	< 4	cfu/100mL		28/04/2022	Maria Norris	
	Volatile Fatty Acids	< 5 *	g/m³		20/04/2022		Transcribed b
	Total Halogenated Phenolics	< 0.05	g/m³				Transcribed b
	Sample Filtration	Completed	g/III-		28/04/2022	Freddie Bad	
	2,3-Diuron	<0.001	ma/l		06/05/2022	Ganesh Ilan	
SVOC-001	·	<0.001	mg/L		06/05/2022	Ganesh Ilan	
	a-chlordane	<0.0001	mg/L mg/L		06/05/2022	Ganesh Ilan	
		<0.0001	=		06/05/2022	Ganesh Ilan	
SVOC-004 SVOC-005		<0.001	mg/L		06/05/2022	Ganesh Ilan	
	cis-Permethrin	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
			mg/L				
SVOC-007		<0.0001	mg/L		06/05/2022	Ganesh Ilan	
	Endosulfan II	<0.005	mg/L		06/05/2022	Ganesh Ilan	
	Endosulfan Sulfate	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-010		<0.0001	mg/L		06/05/2022	Ganesh Ilan	
	Endrin Aldehyde	<0.001	mg/L		06/05/2022	Ganesh Ilan	
	Endrin Ketone	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
	Gamma-Chlordane	<0.001	mg/L		06/05/2022	Ganesh Ilan	
	Heptachlor	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
	Heptachlor Epoxide	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
	Hexachlorobenzene	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
	Lindane (g-BHC)	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
	Methoxychlor	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-019		<0.0001	mg/L		06/05/2022	Ganesh Ilan	
3V/OC-020	p,p'DDE	< 0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4617-1 ELS 16 May 2022 11:00:22

Test	<b>Sample</b> 22/4617-01 Notes: 240986-0 Levir	Site Levin B1	Ма	p Ref.	<b>Date Sampled</b> 26/04/2022 00:00	<b>Date Re</b> 27/04/20	<b>ceived</b> 022 18:33	Order No.
SVOC-022 Prospination			sult	Jnits		Test Date	Signatory	
SVOC-Q22 Proposal         40.001         mgl.         600532022         Gancesh lanchax KTP           SVOC-Q22 Allachiber         40.0001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q22 Allachiber         40.0001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q22 Allacine         40.0001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q23 Carboturan         40.001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q30 Cayanzine         40.001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q30 Cayanzine         40.001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q33 Mediatury-M         40.001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q33 Mediatury-M         40.001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q33 Mediatury-M         40.0001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q33 Mediatury-M         40.0001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q34 Mediatury-M         40.0001         mgl.         600592022         Gancesh lanchax KTP           SVOC-Q340 Mediatury-M							•	ko KTP
SVOC-028 Endosullan1 <a 10.258="" 10.258-11.258-12.<="" doi.org="" href="https://doi.org/10.16/j.j.com/doi.org/10.16/j.j.com/doi.org/10.16/j.j.com/doi.org/10.16/j.j.com/doi.org/10.16/j.j.com/doi.org/10.16/j.j.com/doi.org/10.16/j.j.com/doi.org/10.16/j.j.com/doi.org/10.16/j.j.com/doi.org/10.16/j.com/doi.org&lt;/td&gt;&lt;td&gt;SVOC-022 Procymidon&lt;/td&gt;&lt;td&gt;e &lt;0&lt;/td&gt;&lt;td&gt;.0001&lt;/td&gt;&lt;td&gt;ng/L&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;06/05/2022&lt;/td&gt;&lt;td&gt;Ganesh Ilanc&lt;/td&gt;&lt;td&gt;ko KTP&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;SVOC-026 Alachlor         &lt;a href=" https:="" td=""><td>SVOC-023 Propanil</td><td>&lt;0</td><td>.001</td><td>mg/L</td><td></td><td>06/05/2022</td><td>Ganesh Ilanc</td><td>ko KTP</td></a>	SVOC-023 Propanil	<0	.001	mg/L		06/05/2022	Ganesh Ilanc	ko KTP
SVOC-028 Automate	SVOC-024 Endosulfan	I <0	.001	ng/L		06/05/2022	Ganesh Ilanc	ko KTP
SVOC-Q27 Amazine         -0.0001         mg/L         06005/2022         Ganesh Ilandok KTP           SVOC-Q28 Carbotrura         -0.001         mg/L         06005/2022         Ganesh Ilandok KTP           SVOC-Q30 Carbotrura         -0.005         mg/L         06005/2022         Ganesh Ilandok KTP           SVOC-Q30 Carbotrura         -0.005         mg/L         06005/2022         Ganesh Ilandok KTP           SVOC-Q30 Mediaty-M         -0.0001         mg/L         06005/2022         Ganesh Ilandok KTP           SVOC-Q30 Sendimethalin         -0.0001         mg/L         06005/2022         Ganesh Ilandok KTP           SVOC-Q40 Prigroxyfen         -0.0001         mg/L         06005/2022         Ganesh Ilandok KTP           SVOC-Q40 Prigroxyfen         -0.0001         mg/L         06005/2022         Ganesh Ilandok KTP           SVOC-Q40 Prigroxyfen         -0.0001         mg/L         06005/2022         Ganesh Ilandok KTP           SVOC-Q40 Prigroxyfen <td></td> <td></td> <td></td> <td>· ·</td> <td></td> <td></td> <td></td> <td></td>				· ·				
SVOC-028 Bromacal				· ·				
SVOC-028 Carbofuran         -0.011         mg/L         .06052/222         Genesh lancko KTP           SVOC-030 Oyanazine         -0.0055         mg/L         .06052/222         Genesh lancko KTP           SVOC-030 Metalazhior         -0.0001         mg/L         .06052/222         Genesh lancko KTP           SVOC-038 Metalazion         -0.0001         mg/L         .06052/222         Genesh lancko KTP           SVOC-039 Propazine         -0.0001         mg/L         .06052/222         Genesh lancko KTP           SVOC-040 Priprosylen         -0.0001         mg/L         .06052/222         Genesh lancko KTP           SVOC-041 Simazine         -0.0001         mg/L         .06052/222         Genesh lancko KTP           SVOC-042 Simazine         -0.0001         mg/L         .06052/222         Genesh lancko KTP           SVOC-043 Simazine         <				-				
SVDC-030 Cyanazine				•				
SVDC-031 6-BHC         -0.0001         mg/L         6005/2022         Genesh Ilancko KTP           SVDC-032 Metholachior         -0.0001         mg/L         6005/2022         Genesh Ilancko KTP           SVDC-033 Metholachior         -0.0001         mg/L         6005/2022         Genesh Ilancko KTP           SVDC-038 Metholachior         -0.0001         mg/L         0605/2022         Genesh Ilancko KTP           SVDC-038 Popazine         -0.0001         mg/L         0605/2022         Genesh Ilancko KTP           SVDC-038 Pendimethalin         -0.0021         mg/L         0605/2022         Genesh Ilancko KTP           SVDC-038 Pendimethalin         -0.0001         mg/L         0605/2022         Genesh Ilancko KTP           SVDC-048 Syrbrovylen         -0.0001         mg/L         0605/2022         Genesh Ilancko KTP           SVDC-049 Timbuthylazine         -0.0001         mg/L         0605/2022         Genesh Ilancko KTP           SVDC-044 Siranzane         -0.0001         mg/L         0605/2022         Genesh Ilancko KTP           SVDC-044 Timbuthylazine         -0.0001         mg/L         0605/2022         Genesh Ilancko KTP           SVDC-044 Siranzane         -0.0001         mg/L         0605/2022         Genesh Ilancko KTP           SVDC-045 Timbuthyla				•				
SVOC-032 Metribuzin	•			•				
SVOC-033 Methibachinr   < 0.0001 mg/L   0805/2022   Ganesh Ilancko KTP				•				
SVOC-034 Metribuzin	•			•				
SVOC-038 Pendimethalin				· ·			Ganesh Ilanc	ko KTP
SVOC-038 Propazine	SVOC-035 Molinate	<0	.0001	ng/L		06/05/2022	Ganesh Ilanc	ko KTP
SVOC-040 Pyriproxyfen	SVOC-037 Oxadiazon	<0	.0001	ng/L		06/05/2022	Ganesh Ilanc	ko KTP
SVCC-040 Pyriproxyfen	SVOC-038 Pendimetha	lin <0	.002	mg/L		06/05/2022	Ganesh Ilanc	ko KTP
SVCC-041 Simazine	SVOC-039 Propazine	<0	.0001	ng/L		06/05/2022	Ganesh Ilanc	ko KTP
SVCC-043 Trilluralin		n <0	.0001	ng/L		06/05/2022		
SVOC-043 Triffuralin				•				
SVOC-044 Ekxazinone	•			· ·				
SVCC-046 Chiorpyrifos   0.0001   mg/L   06/05/2022   Ganesh Ilancko KTP				· ·				
SVOC-046 Diazinon				-				
SVOC-047 Dimethoate				•				
SVOC-048 Pirimiphos methyl				•				
SVOC-049 Acenapthene         < 0.0001				•				
SVOC-050 Acenaphthylene         < 0.0010         mg/L         06/05/2022         Ganesh llancko KTP           SVOC-055 Anthracene         < 0.0010	•	•		•				
SVOC-051 Anthracene         < 0.0010	·			•				
SVOC-053 Benzo(a)pyrene				· ·			Ganesh Ilanc	ko KTP
SVOC-054 Total Benzo(b) and Benzo(k)	SVOC-052 benz(a)anth	racene < 0	).0001	ng/L		06/05/2022	Ganesh Ilanc	ko KTP
Fluoranthrene   SVOC-055 Benzo(g,h,i)perylene   <0.001   mg/L   06/05/2022   Ganesh Ilancko KTP	SVOC-053 Benzo(a)pyr	rene < 0	).0001 r	mg/L		06/05/2022	Ganesh Ilanc	ko KTP
SVOC-057 Chrysene         < 0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-058 Dibenz(a,h)anthracene         < 0.0001	fluoranthren	е	).0010 ı	mg/L				
SVOC-058 Dibenz(a,h)anthracene         < 0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-059 Fluoranthene         < 0.0001				·				
SVOC-059 Fluoranthene         < 0.0001         mg/L         06/05/2022         Ganesh llancko KTP           SVOC-060 Fluorene         < 0.0001	•			-				
SVOC-060 Fluorene         < 0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-061 Indeno(1,2,3-cd)pyrene         < 0.0001	, , ,			•				
SVOC-061 Indeno(1,2,3-cd)pyrene         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-062 Naphthalene         <0.0001				-				
SVOC-062 Naphthalene         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-063 Phenanthrene         <0.0001				•				
SVOC-063 Phenanthrene         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-064 Pyrene         <0.0001	•	,		•				
SVOC-064 Pyrene         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyl         <0.0001	•			•				
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				•				
SVOC-068 2,4,4'-Trichlorobiphenyl         <0.0001         mg/L         06/05/2022         Ganesh llancko KTP           SVOC-069 2,4-Dichlorobiphenyl         <0.0001	SVOC-066 2,2',3,4,4',5'			•		06/05/2022	Ganesh Ilanc	ko 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-Heptachlorobiphengil0001         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	SVOC-067 2,2',4,5,5'-P	entachlorobiphenyl <0	.0001	ng/L		06/05/2022	Ganesh Ilanc	ko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipherx/lo001         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	SVOC-068 2,4,4'-Trichle	orobiphenyl <0	.0001	mg/L		06/05/2022	Ganesh Ilanc	ko 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	SVOC-069 2,4-Dichloro	biphenyl <0	ا 1000.	ng/L			Ganesh Ilanc	ko KTP
VOC-001 1,2,4-Trimethylbenzene         <0.0005				•				
VOC-002 1,3,5-Trimethylbenzene         <0.0005	, ,	, , ,		•				
VOC-003         Benzene         <0.0005		•		•				
VOC-005         Isopropylbenzene         <0.0005		-		•				
VOC-007         Naphthalene         <0.0005				•				
VOC-008 n-Butylbenezene         <0.0005				•				
VOC-009 n-Propylbenzene         <0.0005	•			•				
VOC-010 o-Xylene         <0.0005				•				
VOC-011 p-Isopropyltoluene         <0.0005				•				
VOC-013 sec-Butylbenzene         <0.0005	·			•				
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	•			•			Ganesh Ilanc	ko KTP
	VOC-015 tert-Butylber	nzene <0	.0005	mg/L		29/04/2022	Ganesh Ilanc	ko KTP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 2 of 7 Report Number: 22/4617-1 ELS

Sample Site 22/4617-01 Levin B1 Notes: 240986-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 26/04/2022 00:00		eceived 2022 18:33	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005			29/04/2022	Ganesh Ilan	ska KTD
VOC-016 Tolderle VOC-017 Total p,m Xylene, Ethylbenze		mg/L mg/L		29/04/2022	Ganesh Ilan	
VOC-017 Total p,III xylerie, Ethylberize	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	~		29/04/2022	Ganesh Ilan	
·		mg/L		29/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005 <0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane VOC-022 1,1-Dichloroethane		mg/L		29/04/2022	Ganesh Ilan	
,	<0.0005	mg/L				
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropane		mg/L		29/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		29/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-032 Allyl chloride	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-033 Bromochloromethane	<0.0012	mg/L		29/04/2022	Ganesh Ilan	
VOC-034 Bromomethane	<0.001	mg/L		29/04/2022	Ganesh Ilan	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		29/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		29/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-040 Dibromomethane	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		29/04/2022	Ganesh Iland	
VOC-042 Dichloromethane	<0.005	mg/L		29/04/2022	Ganesh Iland	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		29/04/2022	Ganesh Iland	
VOC-044 Tetrachloroethene	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-047 Trichloroethene	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-049 Vinyl Chloride	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Iland	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-056 4-Chlorotoluene	<0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-057 Bromobenzene	<0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-058 Chlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-059 1,3,5-Trichlorobenzene	< 0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-061 Carbon disulphide	<0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-062 Bromodichloromethane	< 0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-063 Bromoform	< 0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-064 Chloroform	< 0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP
VOC-065 Dibromochloromethane	< 0.0005	mg/L		29/04/2022	Ganesh Iland	cko KTP

#### Comments:

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
рН	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1





<sup>\*</sup> Not an accredited test.

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m <sup>3</sup>
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	1 g/m³
BODO - Goldbie Galbonaceous	inhibitor.	T g/m
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/m <sup>3</sup>
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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane ( g-BHC)		1
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor		0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	1
Methoxychlor p,p'-DDD p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Lindane ( g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone  Propanil  Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L





	T	
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		0.0001 mg/L
	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	_
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.  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.

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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Report Released By

Rob Deacon



P O Box 642

#### **Eurofins ELS Limited**

**Analytical Report** 

Issue: 1 16 May 2022

Report Number: 22/4639

LEVIN 5540 Attention: Elysia Kinross

Downer EDI Levin - Landfill

<b>Sample</b> 22/4639-0 Notes: 24	Site 01 Levin B2 10987-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		<b>eceived</b> 2022 14:19	Order No.
110163. 24	Test	Result	Units		Test Date	Signatory	
0001	pH	6.9	Omis		23/04/2022	Jennifer Mo	nt KTP
0002	Suspended Solids - Total	20	g/m³		23/04/2022	Jennifer Mo	
	Total (NP) Organic Carbon	32.0	g/m³		22/04/2022	Amit Kumar	
	Alkalinity - Total	683	g CaCO3/m³		23/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	258	mS/m		23/04/2022	Jennifer Mo	
0081	Chemical Oxygen Demand	108	g/m³		26/04/2022	Marylou Cal	
0180	BOD5 - Soluble Carbonaceous		g/m³		23/04/2022	Marylou Cal	
0602	Chloride	167	g/m³		29/04/2022	Amit Kumar	
0605	Nitrate - Nitrogen	108	g/m³		29/04/2022	Amit Kumar	
0607	Sulphate	8.99	g/m³		28/04/2022	Divina Laga	
0760	Ammonia Nitrogen	67.6	g/m³		27/04/2022	Ivan Imamu	
1642	Total Hardness	675	g CaCO3/m³		28/04/2022	Amit Kumar	
1810	Calcium - Dissolved	146	g/m³		28/04/2022	Amit Kumar	
1819	Iron - Dissolved	0.187	g/m³		28/04/2022	Amit Kumar	
1822		75.3	g/m³		28/04/2022	Amit Kumar	
	Magnesium - Dissolved		· ·				
1834	Sodium - Dissolved Dissolved Reactive Phosphorus	124	g/m³		28/04/2022	Amit Kumar Ivan Imamu	
2088	'		g/m³		27/04/2022		
6701	Aluminium - Dissolved	0.008	g/m³		28/04/2022	Amit Kumar	
6703	Arsenic - Dissolved	0.002	g/m³		28/04/2022	Amit Kumar	
6707	Boron - Dissolved	2.33	g/m³		28/04/2022	Amit Kumar	
6708	Cadmium - Dissolved	< 0.0002	g/m³		28/04/2022	Amit Kumar	
6711	Chromium - Dissolved	< 0.001	g/m³		28/04/2022	Amit Kumar	
6713	Copper - Dissolved	0.0041	g/m³		28/04/2022	Amit Kumar	
6718	Lead - Dissolved	< 0.0005	g/m³		28/04/2022	Amit Kumar	
6721	Manganese - Dissolved	5.22	g/m³		28/04/2022	Amit Kumar	
	Mercury - Dissolved	< 0.0005	g/m³		28/04/2022	Amit Kumar	
6724	Nickel - Dissolved	0.0027	g/m³		28/04/2022	Amit Kumar	
6726	Potassium - Dissolved	67.7	g/m³		28/04/2022	Amit Kumar	
6738	Zinc - Dissolved	0.017	g/m³		28/04/2022	Amit Kumar	
	E. coli	< 4	cfu/100mL		22/04/2022	Sunita Raju	
	Volatile Fatty Acids	< 5 *	g/m³				Transcribed by
	Total Halogenated Phenolics	< 0.05	g/m³				Transcribed by
	•	Completed			23/04/2022	Harsimran D	
	I 2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-002		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	3 a-chlordane	<0.0001	mg/L		27/04/2022		
SVOC-004		<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-005	· ·	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	6 cis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-007		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	B Endosulfan II	<0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-010	) Endrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-011	I Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-012	2 Endrin Ketone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-013	3 Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-014	1 Heptachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-015	Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-016	6 Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-017	Lindane ( g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
		-0.0001			27/04/2022	Ganesh Ilan	cko KTD
	3 Methoxychlor	<0.0001	mg/L		27/04/2022	Carloon nan	CKO IX I I
SVOC-018	3 Methoxychlor 9 p,p'-DDD	<0.0001	mg/L		27/04/2022	Ganesh Ilan	





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4639-1 ELS

16 May 2022 15:00:49

Sample Site 22/4639-01 Levin B2 Notes: 240987-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 14:19	Order No.
Test	Result	Units		Test Date	Signatory	
SVOC-021 p,p'-DDT	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-022 Procymidone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-025 Alachlor	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-026 Aldicarb	<0.1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	<0.005	mg/L		27/04/2022	Ganesh Ilan	
SVOC-031 d-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-M	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-033 Metolachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-034 Metribuzin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-035 Molinate SVOC-037 Oxadiazon	<0.0001 <0.0001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-037 Oxadiazon	<0.0001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-039 Propazine	<0.002	mg/L		27/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxyfen	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-041 Simazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-044 Hexazinone	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-045 Chlorpyrifos	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-046 Diazinon	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-047 Dimethoate	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-049 Acenapthene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L			Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene SVOC-059 Fluoranthene	< 0.0001 < 0.0001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-059 Fluorantherie	< 0.0001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-062 Naphthalene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher	nyk0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-069 2,4-Dichlorobiphenyl	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipl	ne <b>n</b> 0/10001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-003 Benzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-007 Naphthalene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-008 n-Butylbenezene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene	<0.0005	mg/L mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-010 o-Xylene VOC-011 p-Isopropyltoluene	<0.0005 <0.0005	mg/L mg/L		27/04/2022	Ganesh Ilan	
VOC-011 p-isopropyitoliuerie VOC-013 sec-Butylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-013 sec-butylberizerie VOC-014 Styrene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-014 Stylene VOC-015 tert-Butylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
. 50 0.0 to.: Datyloonizono	-5.5550	g, =		, 0 ,, 2022	- a.ioon iidii	





Page 2 of 7

Sample Site 22/4639-01 Levin B2 Notes: 240987-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 14:19	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005			27/04/2022	Ganesh Ilan	cko KTD
VOC-016 Tolderie VOC-017 Total p,m Xylene, Ethylbenze		mg/L mg/L		27/04/2022	Ganesh Ilan	
				27/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L				
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		27/04/2022		
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropane		mg/L		27/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-032 Allyl chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-033 Bromochloromethane	<0.0012	mg/L		27/04/2022	Ganesh Ilan	
VOC-034 Bromomethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		27/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-042 Dichloromethane	<0.005	mg/L		27/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-044 Tetrachloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-047 Trichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-049 Vinyl Chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-054 1,4-Dichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-055 2-Chlorotoluene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-056 4-Chlorotoluene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-057 Bromobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-058 Chlorobenzene	0.0045	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-059 1,3,5-Trichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-060 4-Methyl-2-Pentanone	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-061 Carbon disulphide	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-063 Bromoform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-064 Chloroform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-065 Dibromochloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP

#### Comments:

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
рН	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/4639-1 ELS

<sup>\*</sup> Not an accredited test.

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m <sup>3</sup>
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	1 g/m³
BODO - Goldbie Galbonaceous	inhibitor.	T g/m
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/m <sup>3</sup>
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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane ( g-BHC)		1
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor		0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	1
Methoxychlor p,p'-DDD p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Lindane ( g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone  Propanil  Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L





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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		0.0001 mg/L
	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	_
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.  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.

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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Report Released By

Rob Deacon



#### **Eurofins ELS Limited**

**Analytical Report** 

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

P O Box 642 **LEVIN 5540** Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample	Site		Map Ref.	Date Sampled	Date R	eceived	Order No.
22/4630-				26/04/2022 00:00	26/04/2	2022 14:23	0
Notes: 24	40988-0 Levin Landfill Sample						
2004	Test	Result	Units		Test Date	Signatory	
0001	pH	7.0	4.2		02/05/2022	Jennifer Mor	
0002	Suspended Solids - Total	88	g/m³		28/04/2022	Jennifer Mor	
0040	Total (NP) Organic Carbon	55.1	g/m³		04/05/2022	Amit Kumar	
0052	Alkalinity - Total	1,070	g CaCO3/m³		02/05/2022	Jennifer Mor	
0055	Conductivity at 25°C	270	mS/m		02/05/2022	Jennifer Mor	
0081	Chemical Oxygen Demand	186	g/m³		28/04/2022	Marylou Cab	
0180	BOD5 - Soluble Carbonaceous		g/m³		28/04/2022	Gordon McA	
0602	Chloride	174	g/m³		29/04/2022	Amit Kumar	
0605	Nitrate - Nitrogen	< 0.10	g/m³		29/04/2022	Amit Kumar	
0607	Sulphate	0.11	g/m³		29/04/2022	Amit Kumar	
0760	Ammonia Nitrogen	183	g/m³		28/04/2022	Divina Laga:	zon 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 Phosphoru	s0.032	g/m³		28/04/2022	Divina Lagaz	zon 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		< 100	cfu/100mL		26/04/2022	Sunita Raju	
	Volatile Fatty Acids	< 5 *	g/m³				Transcribed by
	2 Total Halogenated Phenolics	< 0.05	g/m³				Transcribed by
	Sample Filtration	Completed	3		27/04/2022	Emily Coupe	•
	1 2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-00	,	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	3 a-chlordane	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-00		<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-00		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	6 cis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-00		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	8 Endosulfan II	<0.005	mg/L		27/04/2022	Ganesh Ilan	
	9 Endosulfan Sulfate	<0.0001	•		27/04/2022	Ganesh Ilan	
SVOC-00			mg/L			Ganesh Ilan	
		<0.0001	mg/L		27/04/2022		
	1 Endrin Aldehyde	<0.001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
	2 Endrin Ketone	<0.0001	mg/L				
	3 Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	4 Heptachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	5 Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	6 Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	7 Lindane (g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	8 Methoxychlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	9 p,p'-DDD	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-02	Up,p'DDE	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP





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Page 1 of 7 Report Number: 22/4630-1 ELS 01 June 2022 19:00:03

Sample Site 22/4630-01 Levin B3s Notes: 240988-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 26/04/2022 00:00		eceived 2022 14:23	Order No.
Test	Result	Units		Test Date	Signatory	
SVOC-021 p,p'-DDT	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-022 Procymidone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-025 Alachlor	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-026 Aldicarb	<0.1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	0.008	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	<0.005	mg/L		27/04/2022	Ganesh Ilan	
SVOC-031 d-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-M	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-033 Metolachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-034 Metribuzin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-035 Molinate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-037 Oxadiazon SVOC-038 Pendimethalin	<0.0001 <0.002	mg/L mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-039 Propazine	<0.002	mg/L		27/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxyfen	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-041 Simazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-045 Chlorpyrifos	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-046 Diazinon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-047 Dimethoate	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-049 Acenapthene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L			Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene SVOC-060 Fluorene	< 0.0001 < 0.0001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-060 Fluorerie SVOC-061 Indeno(1,2,3-cd)pyrene	< 0.0001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-062 Naphthalene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		27/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	-	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiph	ne <b>n</b> 0/10001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	0.0009	mg/L		27/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-007 Naphthalene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-008 n-Butylbenezene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-010 o-Xylene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-011 p-Isopropyltoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-013 sec-Butylbenzene VOC-014 Styrene	<0.0005 <0.0005	mg/L mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-014 Styrene VOC-015 tert-Butylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC 010 TOTE DULY IDOTIZETIE	<b>\0.0000</b>	mg/L		£1/U7/2U2Z	Carlosti liati	ONO INTI





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Page 2 of 7 Report Number: 22/4630-1 ELS

Sample         Site           22/4630-01         Levin B3s           Notes: 240988-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 26/04/2022 00:00		eceived 2022 14:23	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005			27/04/2022	Signatory Ganesh Ilan	cko KTD
VOC-016 Total p,m Xylene, Ethylbenze		mg/L mg/L		27/04/2022	Ganesh Ilan	
		•		27/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L				
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L				
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropane		mg/L		27/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-032 Allyl chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-033 Bromochloromethane	<0.0012	mg/L		27/04/2022	Ganesh Ilan	
VOC-034 Bromomethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		27/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-042 Dichloromethane	<0.005	mg/L		27/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-047 Trichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-049 Vinyl Chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-055 2-Chlorotoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-056 4-Chlorotoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-057 Bromobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-058 Chlorobenzene	0.0021	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-059 1,3,5-Trichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-060 4-Methyl-2-Pentanone	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-061 Carbon disulphide	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-062 Bromodichloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-063 Bromoform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-064 Chloroform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-065 Dibromochloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP

#### Comments:

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
рН	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1





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Page 3 of 7 Report Number: 22/4630-1 ELS

<sup>\*</sup> Not an accredited test.

		•
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
otal 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
ron - 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/m <sup>3</sup>
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m <sup>3</sup>
Dissolved Reactive Phosphorus		
·	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.  ICP MS following APHA Online Edition method 3135 (modified)	0.005 g/m³
Numinium - 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
ead - 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/m <sup>3</sup>
lickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
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
/olatile 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
Fotal 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	0.000 r mg/L
p-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
leptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
lexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
index - ( - PHO)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
indane ( g-BHC)		0.0001 mg/L
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor ,p'-DDD		-
Methoxychlor p.p'-DDD p.p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor  p'-DDD  p'DDE  p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L
Lindane ( g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT Procymidone Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L 0.0001 mg/L
Methoxychlor  o,p'-DDD  o,p'DDE  o,p'-DDT  Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L





	T	
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		0.0001 mg/L
	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	_
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.  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





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Page 5 of 7 Report Number: 22/4630-1 ELS

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





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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.

Report Released By Rob Deacon

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

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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Page 7 of 7



P O Box 642

#### **Eurofins ELS Limited**

### **Analytical Report**

eport Report Number: 22/4632 Issue: 1

16 May 2022

LEVIN 5540 Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4632-	Site 01 Levin C1 40982-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 12:45	Order No.
110163. 25	Test	Result	Units		Test Date	Signatory	
0001	pH	6.8	Omis		26/04/2022	Jennifer Mo	nt KTP
0002	Suspended Solids - Total	148	g/m³		22/04/2022	Jennifer Mo	
0040	Total (NP) Organic Carbon	22.8	g/m³		28/04/2022	Amit Kumar	
0052	Alkalinity - Total	258	g CaCO3/m³		26/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	101	mS/m		26/04/2022	Jennifer Mo	
0081	Chemical Oxygen Demand	85	g/m³		26/04/2022	Marylou Cal	
0180	BOD5 - Soluble Carbonaceous		g/m³		22/04/2022	Marylou Cal	
0602	Chloride	146	g/m³		29/04/2022	Amit Kumar	
0605	Nitrate - Nitrogen	0.06	g/m³		28/04/2022	Divina Laga	
0607	Sulphate	37.2	g/m³		28/04/2022	Divina Laga:	
0760	Ammonia Nitrogen	4.66	g/m³		27/04/2022	Ivan Imamu	
1642	Total Hardness	209	g CaCO3/m³		27/04/2022	Amit Kumar	
1810	Calcium - Dissolved	36.8	g/m³		27/04/2022	Amit Kumar	
1819	Iron - Dissolved	0.454	g/m³		27/04/2022	Amit Kumar	
1822		28.4	g/m³		27/04/2022	Amit Kumar	
1834	Magnesium - Dissolved Sodium - Dissolved	94.0	g/m³		27/04/2022	Amit Kumar	
2088	Dissolved Reactive Phosphorus		g/m³		27/04/2022		
6701	·	0.038	g/m³		27/04/2022	Ivan Imamu Amit Kumar	
	Aluminium - Dissolved		· ·				
6703	Arsenic - Dissolved	0.002	g/m³		27/04/2022	Amit Kumar Amit Kumar	
6707	Boron - Dissolved	0.95	g/m³		27/04/2022		
6708	Cadmium - Dissolved	< 0.0002	g/m³		27/04/2022	Amit Kumar	
6711	Chromium - Dissolved	< 0.001	g/m³		27/04/2022	Amit Kumar	
6713	Copper - Dissolved	0.0055	g/m³		27/04/2022	Amit Kumar	
6718	Lead - Dissolved	< 0.0005	g/m³		27/04/2022	Amit Kumar	
6721	Manganese - Dissolved	0.272	g/m³		27/04/2022	Amit Kumar	
6722	Mercury - Dissolved	< 0.0005	g/m³		27/04/2022	Amit Kumar	
6724	Nickel - Dissolved	0.0011	g/m³		27/04/2022	Amit Kumar	
6726	Potassium - Dissolved	17.7	g/m³		27/04/2022	Amit Kumar	
6738	Zinc - Dissolved	0.004	g/m³		27/04/2022	Amit Kumar	
M0104	E. coli	44	cfu/100mL		22/04/2022	Maria Norris	
	Volatile Fatty Acids	< 5 *	g/m³				Transcribed by
	Total Halogenated Phenolics	< 0.05	g/m³		00/04/0000		Transcribed by
P1859	•	Completed	<i>n</i>		22/04/2022	Freddie Bad	
	1 2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-002		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	3 a-chlordane	<0.0001	mg/L		27/04/2022		
SVOC-004		<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-00		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	6 cis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-007		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	8 Endosulfan II	<0.005	mg/L		27/04/2022	Ganesh Ilan	
	9 Endosulfan Sulfate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-010		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	1 Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
	2 Endrin Ketone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-013	3 Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-014	4 Heptachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-01	5 Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-016	6 Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-017	7 Lindane ( g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-018	8 Methoxychlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-019	9 p,p'-DDD	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-020	0 p,p'DDE	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP





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Report Number: 22/4632-1 ELS 16 May 2022 15:00:44

Page 1 of 7

Sample Site 22/4632-01 Levin C1 Notes: 240982-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 12:45	Order No.
Test	Result	Units		Test Date	Signatory	
SVOC-021 p,p'-DDT	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-022 Procymidone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-026 Aldicarb	<0.1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-034 Metribuzin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-035 Molinate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-037 Oxadiazon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-038 Pendimethalin	<0.002	mg/L		27/04/2022	Ganesh Ilan	
SVOC-039 Propazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxyfen	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-041 Simazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate SVOC-048 Pirimiphos methyl	<0.001 <0.0001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-046 Printiplies metryl SVOC-049 Acenapthene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-049 Acenaphtherie SVOC-050 Acenaphthylene	< 0.0001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-050 Acenaphinylene SVOC-051 Anthracene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
fluoranthrene SVOC-055 Benzo(g,h,i)perylene	<0.001	_		27/04/2022	Ganesh Ilan	
SVOC-055 Berizo(g,11,1)per yierie SVOC-057 Chrysene	< 0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-057 Chrysene SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-060 Fluorene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-062 Naphthalene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher	ıyk0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	l <0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-069 2,4-Dichlorobiphenyl	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiph	ne <b>n</b> 0/10001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-007 Naphthalene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-008 n-Butylbenezene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-010 o-Xylene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-011 p-lsopropyltoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-013 sec-Butylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-014 Styrene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-015 tert-Butylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	ско КТР





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Page 2 of 7 Report Number: 22/4632-1 ELS

Sample Site 22/4632-01 Levin C1 Notes: 240982-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		<b>eceived</b> 2022 12:45	Order No.
· ·		Heita		Took Doko	Ciamatam.	
Test	Result	Units		Test Date	Signatory	ala KTD
VOC-016 Toluene	<0.0005	mg/L		27/04/2022	Ganesh Ilano	
VOC-017 Total p,m Xylene, Ethylbenze		mg/L		27/04/2022	Ganesh Ilano	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilano	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilano	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilano	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-026 1,2-Dibromo-3-chloropropane		mg/L		27/04/2022	Ganesh Iland	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		27/04/2022	Ganesh Iland	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-032 Allyl chloride	<0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-034 Bromomethane	<0.001	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-035 Carbon tetrachloride	<0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-036 Chloroethane	<0.001	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-037 Chloromethane	<0.006	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-040 Dibromomethane	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-041 Dichlorodifluoromethane	< 0.001	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-042 Dichloromethane	< 0.005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-043 Hexachlorobutadiene	< 0.0002	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-044 Tetrachloroethene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-046 trans-1,3-Dichloropropene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-047 Trichloroethene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-048 Trichlorofluoromethane	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-049 Vinyl Chloride	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-050 1,2,3-Trichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-051 1,2,4-Trichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-052 1,2-Dichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-053 1,3-Dichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-054 1,4-Dichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-055 2-Chlorotoluene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-056 4-Chlorotoluene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-057 Bromobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-058 Chlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-059 1,3,5-Trichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Iland	cko KTP
VOC-060 4-Methyl-2-Pentanone	< 0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-061 Carbon disulphide	<0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-063 Bromoform	< 0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-064 Chloroform	< 0.0005	mg/L		27/04/2022	Ganesh Iland	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Iland	
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#### Comments:

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	





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Page 3 of 7 Report Number: 22/4632-1 ELS

<sup>\*</sup> Not an accredited test.

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m <sup>3</sup>
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	1 g/m³
BODO - Goldbie Galbonaceous	inhibitor.	T g/m
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/m <sup>3</sup>
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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane ( g-BHC)		1
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor		0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	1
Methoxychlor p,p'-DDD p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Lindane ( g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone  Propanil  Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L





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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		0.0001 mg/L
	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	_
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.  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





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Page 5 of 7 Report Number: 22/4632-1 ELS

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.

Report Released By Rob Deacon

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

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** 

Issue: 1 16 May 2022

Report Number: 22/4623

P O Box 642 **LEVIN 5540** Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample	Site		Map Ref.	Date Sampled		eceived	Order No.
22/4623-	01 Levin C2dd 40977-0 Levin Landfill Sample			19/04/2022 00:00	20/04/2	2022 08:37	0
NOIGS. Z	•	Danult	l luite		Toot Date	Ciamatam.	
0004	Test	Result	Units		Test Date	Signatory	L/TD
0001	pH Supported Solids Total	7.6	a/m3		20/04/2022	Jennifer Mo	
0002	Suspended Solids - Total	115	g/m³		20/04/2022	Jennifer Mo	
0040	Total (NP) Organic Carbon	4.8	g/m³		20/04/2022	Tracy Morri	
0052	Alkalinity - Total	226	g CaCO3/m³		20/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	57.0	mS/m		20/04/2022	Jennifer Mo	
0081	Chemical Oxygen Demand	< 15	g/m³		20/04/2022	Gordon Mc	
0180	BOD5 - Soluble Carbonaceous		g/m³		20/04/2022	Marylou Ca	
0602	Chloride	41.8	g/m³		22/04/2022	Divina Laga	
0605	Nitrate - Nitrogen	< 0.01	g/m³		22/04/2022	Divina Laga	
0607	Sulphate	0.02	g/m³		22/04/2022	Divina Laga	
0760	Ammonia Nitrogen	0.33	g/m³		21/04/2022	Divina Laga	
1642	Total Hardness	186	g CaCO3/m³		22/04/2022	Tracy Morri	
1810	Calcium - Dissolved	47.8	g/m³		21/04/2022	Amit Kumar	
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 Phosphoru	ıs0.662	g/m³		21/04/2022	Divina Laga	zon 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	s KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³			Lizzie Addis	Transcribed by
	2 Total Halogenated Phenolics	< 0.05	g/m³				Transcribed by
P1859	· ·	Completed	ŭ		20/04/2022	Freddie Bad	•
SVOC-00	1 2,3-Diuron	<0.001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
SVOC-00	·	<0.0001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
	3 a-chlordane	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
SVOC-00		<0.001	mg/L		20/04/2022	Ganesh Ilar	
SVOC-00		<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	6 cis-Permethrin	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
SVOC-00		<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	8 Endosulfan II	<0.005	mg/L		20/04/2022	Ganesh Ilar	
	9 Endosulfan Sulfate	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
SVOC-01		<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	1 Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilar	
	2 Endrin Ketone	<0.001	-		20/04/2022	Ganesh Ilar	
	3 Gamma-Chlordane		mg/L		20/04/2022	Ganesh Ilar	
		<0.001	mg/L			Ganesh Ilar	
	4 Heptachlor	<0.0001	mg/L		20/04/2022		
	5 Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	6 Hexachlorobenzene	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	7 Lindane ( g-BHC)	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	8 Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	9 p,p'-DDD	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
SVOC-02	U P,P DDE	<0.0001	mg/L		20/04/2022	Ganesh Ilar	ско КТР





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4623-1 ELS 16 May 2022 11:00:26

Test   Page	Sample Site 22/4623-01 Levin C2dd Notes: 240977-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 19/04/2022 00:00	<b>Date Received</b> 20/04/2022 08:37		Order No.
SVOC-021 pc-PoDT         4,001         mg/L         2004/2022         Gamesh Isancko KTP           SVOC-023 Programi         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-024 Programi         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-026 Alscholar         4,00001         mg/L         2004/2022         Canach Isancko KTP           SVOC-027 Arizaria         4,00001         mg/L         2004/2022         Canach Isancko KTP           SVOC-028 Carbothura         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-028 Mediashy/M         4,0001         mg/L         2004/2022         Gancel Isancko KTP           SVOC-028 Mediashy/M         4,0001         mg/L         2004/2022         Gancel Isancko KTP           SVOC-028 Mediashy/M         4,0001         mg/L         2004/2022         Gancel Isancko KTP           SVOC-024 Mediashy/M         4,0001	· •	Result	Units		Test Date	Signatory	
SVOC-022 Procymidone							cko KTP
SVOC-023 Propamal			· ·				
SVOC-Q25 Alchafor         -0.001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q26 Alchafor         -0.01         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q27 Alcazine         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q28 Bromacil         -0.005         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q30 Cyanazine         -0.005         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q31 Gel HPL         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q31 Martinasy-M         -0.001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q33 Motolaria         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q33 Motolaria         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q33 Motolaria         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q33 Propazine         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q34 Propizore         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q44 Priprizoryfen         -0.0001			-		20/04/2022	Ganesh Ilan	cko KTP
SVOC-Q28 Albehlor         -0.1         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q28 Altazine         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q28 Entroburan         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q30 Cynorazine         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q30 Cynorazine         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q31 d-BHC         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q33 Metalasy+M         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q33 Metalasy-M	•	<0.001			20/04/2022	Ganesh Ilan	cko KTP
SVOC-228 Tattazine         -0.0001         mg/l.         2004/2022         Ganesh llandok KTP           SVOC-228 Carbufuran         -0.001         mg/l.         2004/2022         Ganesh llandok KTP           SVOC-230 Cymazine         -0.005         mg/l.         2004/2022         Ganesh llandok KTP           SVOC-231 d-BHC         -0.0001         mg/l.         2004/2022         Ganesh llandok KTP           SVOC-233 Metolachlor         -0.0001         mg/l.         2004/2022         Ganesh llandok KTP           SVOC-233 Soladizon         -0.0001         mg/l.         2004/2022         Ganesh llandok KTP           SVOC-243 Forbutania         -0.0001         mg/l.         2004/2022         Ganesh llandok KTP           SVOC-449 Pyriproxyfor         -0.0001         mg/l.         2004/2022         Ganesh llandok KTP           SVOC-449 Pyriproxyfor         -0.0001         mg/l.         2004/2022         Ganesh llandok KTP           SVOC-449 Pyriproxyfor<	SVOC-025 Alachlor	< 0.0001			20/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	SVOC-026 Aldicarb	<0.1	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-230 Carboturam	SVOC-027 Atrazine	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	SVOC-028 Bromacil	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	SVOC-029 Carbofuran	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metailary-IM	SVOC-030 Cyanazine	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Metrolachior		<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	·						
SVOC-035 Molinate         <0.0001							
SVOC-037 Oxadiazon         4.0001         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-038 Propazine         <0.0001							
SVOC-038 Prendmethalin         -0.002         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-039 Propazine         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-040 Priproxyfen         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-043 Finazine         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-044 Forbutylazine         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-043 Trifluralin         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-045 Chlorpyrifos         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-045 Diazinon         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-049 Eritrimiphos methyl         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-049 Architecte         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-049 Eritrimiphos methyl         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-050 Acenaphthylene         -0.0001         mg/L         2004/2022         Ganash Ilancko KTP           SVOC-							
SVOC-039 Propazine <a 10.1001="" 10.1001<="" doi.org="" href="https://doi.org/10.2004/j.jcp/20&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;  SVOC-040 Fyriproxyfan   &lt;a href=" https:="" j.cog="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></a>							
SVOC-041 Terbuthylazine	•						
SVOC-043 Triburtylazine	, ,						
SVOC-043 Triffuralin							
SVOC-045 Chloryprifos	· ·						
SVCC-046 Chlorpyrifos   -0.0001   mg/L   2004/2022   Ganesh Illancko KTP							
SVOC-046 Diazinon         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-047 Dimethoate         <0.001							
SVOC-047 Dimethoate							
SVOC-048 Pirimiphos methyl   <0.0001 mg/L   2004/2022 Ganesh llancko KTP							
SVOC-050 Acenaphthren   <0.0001   mg/L   20/04/2022   Ganesh Ilancko KTP							
SVOC-050 Acenaphthylene         < 0.0010							
SVOC-051 Anthracene         < 0.0010         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-052 benz(a) anthracene         < 0.0001	•						
SVOC-052 benz(a)anthracene	. ,						
SVOC-053 Benzo(a)pyrene   < 0.0001   mg/L   20/04/2022   Ganesh Ilancko KTP	SVOC-052 benz(a)anthracene	< 0.0001			20/04/2022	Ganesh Ilan	cko KTP
SVOC-055 Benzo(g,h,i)perylene		< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-055 Benzo(g,h,i)perylene         < 0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-057 Chrysene         < 0.0001	SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene         < 0.0001							
SVOC-058 Dibenz(a,h)anthracene         < 0.0001         mg/L         20/04/2022         Ganesh llancko KTP           SVOC-059 Fluoranthene         < 0.0001			<u>~</u>				
SVOC-059 Fluoranthene         < 0.0001         mg/L         20/04/2022         Ganesh llancko KTP           SVOC-060 Fluorene         < 0.0001	· ·						
SVOC-060 Fluorene         < 0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-061 Indeno(1,2,3-cd)pyrene         < 0.0001			-				
SVOC-061 Indeno(1,2,3-cd)pyrene         <0.0001							
SVOC-062 Naphthalene         <0.0001							
SVOC-063 Phenanthrene         <0.0001							
SVOC-064 Pyrene         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyk-0.001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl         <0.0001	•						
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyk 0.001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl <0.0001							
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	•						
SVOC-068 2,4,4'-Trichlorobiphenyl         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-069 2,4-Dichlorobiphenyl         <0.0001		-					
SVOC-069 2,4-Dichlorobiphenyl         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphexyl0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-072 Bis(2-ethylhexyl)adipate         <0.0001							
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphemyl0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-072 Bis(2-ethylhexyl)adipate         <0.0001							
SVOC-072 Bis(2-ethylhexyl)adipate         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           VOC-001 1,2,4-Trimethylbenzene         <0.0005							
VOC-001 1,2,4-Trimethylbenzene         <0.0005		-					
VOC-002 1,3,5-Trimethylbenzene         <0.0005	, , , ,						
VOC-003         Benzene         <0.0005	-	< 0.0005			20/04/2022	Ganesh Ilan	cko KTP
VOC-007         Naphthalene         <0.0005	VOC-003 Benzene	< 0.0005			20/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene         <0.0005	VOC-005 Isopropylbenzene	<0.0005			20/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene         <0.0005	VOC-007 Naphthalene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene         <0.0005	VOC-008 n-Butylbenezene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene         <0.0005	VOC-009 n-Propylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene         <0.0005	VOC-010 o-Xylene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-014 Styrene <0.0005 mg/L 20/04/2022 Ganesh Ilancko KTP	VOC-011 p-Isopropyltoluene	<0.0005	mg/L			Ganesh Ilan	cko KTP
			mg/L			Ganesh Ilan	cko KTP
VOC-015 tert-Butylbenzene <0.0005 mg/L 20/04/2022 Ganesh Ilancko KTP	-						
	VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP





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Page 2 of 7 Report Number: 22/4623-1 ELS

Sample Site 22/4623-01 Levin C2dd Notes: 240977-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 19/04/2022 00:00		eceived 2022 08:37	Order No.
•	Decult	Huito		Toot Date	Cianatani	
Test	Result	Units		Test Date	Signatory	aka KTD
VOC-016 Toluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenzer		mg/L		20/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		20/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-037 Chloromethane	< 0.006	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-040 Dibromomethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-043 Hexachlorobutadiene	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-044 Tetrachloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-046 trans-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-047 Trichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-048 Trichlorofluoromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005			20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene		mg/L		20/04/2022	Ganesh Ilan	
	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L				
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP

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





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Page 3 of 7 Report Number: 22/4623-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PULA Online Edition 5340 P.	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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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 de la	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	0.0005 mg/L
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Page 5 of 7 Report Number: 22/4623-1 ELS

Toot	Mathadalogy	Detection Limit
Test	Methodology	
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

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.

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.

This report may not be reproduced except in full without the written approval of this laboratory.





Report Released By

Rob Deacon



P O Box 642

**LEVIN 5540** 

Attention: Elysia Kinross

### **Eurofins ELS Limited**

# **Analytical Report**

Downer EDI Levin - Landfill

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

Sample 22/4640-0			Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 14:23	Order No.
Notes: 240	0984-0 Levin Landfill Sample	<b>.</b>				<b>0</b> : .	
0004	Test	Result	Units		Test Date	Signatory	KTD
	pH Supported Solids Total	6.8	a/m3		26/04/2022	Jennifer Mo	
	Suspended Solids - Total	145	g/m³		23/04/2022	Jennifer Mo	
	Total (NP) Organic Carbon	23.8	g/m³		28/04/2022	Amit Kumar	
	Alkalinity - Total	629	g CaCO3/m³		26/04/2022	Jennifer Mo	
	Conductivity at 25°C	138	mS/m		26/04/2022	Jennifer Mo	
	Chemical Oxygen Demand	74	g/m³		26/04/2022	Marylou Ca	
	BOD5 - Soluble Carbonaceous		g/m³		23/04/2022	Marylou Cal	
	Chloride	87.4	g/m³		28/04/2022	Divina Laga	
	Nitrate - Nitrogen	< 0.10	g/m³		29/04/2022	Amit Kumar	
	Sulphate	< 0.02	g/m³		28/04/2022	Divina Laga	
	Ammonia Nitrogen	1.48	g/m³		27/04/2022	Ivan Imamu	
	Total Hardness	553	g CaCO3/m³		28/04/2022	Amit Kumar	
	Calcium - Dissolved	123	g/m³		28/04/2022	Amit Kumar	
1819	Iron - Dissolved	2.45	g/m³		28/04/2022	Amit Kumar	
	Magnesium - Dissolved	59.5	g/m³		28/04/2022	Amit Kumar	
	Sodium - Dissolved	95.5	g/m³		28/04/2022	Amit Kumar	
	Dissolved Reactive Phosphorus		g/m³		27/04/2022	Ivan Imamu	
	Aluminium - Dissolved	< 0.002	g/m³		28/04/2022	Amit Kumar	
	Arsenic - Dissolved	0.001	g/m³		28/04/2022	Amit Kumar	
	Boron - Dissolved	0.74	g/m³		28/04/2022	Amit Kumar	
	Cadmium - Dissolved	< 0.0002	g/m³		28/04/2022	Amit Kumar	
6711	Chromium - Dissolved	< 0.001	g/m³		28/04/2022	Amit Kumar	
6713	Copper - Dissolved	0.0008	g/m³		28/04/2022	Amit Kumar	
	Lead - Dissolved	< 0.0005	g/m³		28/04/2022	Amit Kumar	
	Manganese - Dissolved	2.06	g/m³		28/04/2022	Amit Kumar	
	Mercury - Dissolved	< 0.0005	g/m³		28/04/2022	Amit Kumar	
	Nickel - Dissolved	0.0020	g/m³		28/04/2022	Amit Kumar	
	Potassium - Dissolved	14.9	g/m³		28/04/2022	Amit Kumar	
	Zinc - Dissolved	0.002	g/m³		28/04/2022	Amit Kumar	
	E. coli	< 4	cfu/100mL		22/04/2022	Sunita Raju	
	Volatile Fatty Acids	< 5 *	g/m³				Transcribed b
	Total Halogenated Phenolics	< 0.05	g/m³				Transcribed b
	Sample Filtration	Completed	_		23/04/2022	Harsimran [	
	2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-002		<0.0001	mg/L		27/04/2022	Ganesh Ilar	
	a-chlordane	<0.0001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-004		<0.001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-005		<0.0001	mg/L		27/04/2022	Ganesh Ilar	
	cis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-007		<0.0001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-008	Endosulfan II	<0.005	mg/L		27/04/2022	Ganesh Ilar	icko KTP
	Endosulfan Sulfate	<0.0001	mg/L		27/04/2022	Ganesh Ilar	icko KTP
SVOC-010		<0.0001	mg/L		27/04/2022	Ganesh Ilar	icko KTP
SVOC-011	Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilar	icko KTP
	Endrin Ketone	<0.0001	mg/L		27/04/2022	Ganesh Ilar	
	Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilar	
	Heptachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilar	
	Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilar	icko KTP
	Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilar	icko KTP
SVOC-017	Lindane ( g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilar	icko KTP
SVOC-018	Methoxychlor	<0.0001	mg/L		27/04/2022	Ganesh Ilar	icko KTP
		0.0004	/1		27/04/2022	Ganesh Ilar	oko KTD
SVOC-019	טטט-,p,p	<0.0001	mg/L		27/04/2022	Ganesii ilai	ICKO K I F





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4640-1 ELS

16 May 2022 15:00:54

Sample 22/4640-01 Notes: 240984-0 Levin	Site Levin C2ds		Ma	ıp Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 14:23	Order No.
Test	Zarianii Gampio	Result		Units		Test Date	Signatory	
SVOC-021 p,p'-DDT		<0.001		mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-022 Procymidon	е	< 0.0001		mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-023 Propanil		< 0.001		mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-024 Endosulfan	l	< 0.001	I	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-025 Alachlor		< 0.0001	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-026 Aldicarb		<0.1	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine		<0.0001	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil		< 0.005	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran		0.008		mg/L		27/04/2022	Ganesh Ilan	
SVOC-030 Cyanazine		<0.005		mg/L		27/04/2022	Ganesh Ilan	
SVOC-031 d-BHC		<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-M		<0.001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-033 Metolachlor		<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-034 Metribuzin SVOC-035 Molinate		<0.0001 <0.0001		mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
SVOC-035 Molinate SVOC-037 Oxadiazon		<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-037 Oxadiazon SVOC-038 Pendimetha	lin	<0.0001		mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-039 Propazine	1111	<0.002		mg/L		27/04/2022	Ganesh Ilan	
SVOC-0391 Topazine SVOC-040 Pyriproxyfer	•	<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-041 Simazine		<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazi	ne	<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin		<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone		<0.001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos		<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-046 Diazinon		< 0.0001		mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-047 Dimethoate		< 0.001		mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-048 Pirimiphos n	nethyl	< 0.0001	ı	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-049 Acenapthen	е	<0.0001	I	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-050 Acenaphthy	ene	< 0.0010	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-051 Anthracene		< 0.0010	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-052 benz(a)anth	racene	< 0.0001	I	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-053 Benzo(a)pyr		< 0.0001	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-054 Total Benzo fluoranthren	e	< 0.0010		mg/L		27/04/2022	Ganesh Ilan	
SVOC-055 Benzo(g,h,i)	perylene	<0.001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-057 Chrysene		< 0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)		< 0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthen	e	< 0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-060 Fluorene	) ad\n, man a	< 0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3		<0.0001 <0.0001		mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
SVOC-062 Naphthalene SVOC-063 Phenanthre		<0.0001		mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	10	<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'	-Hexachlorobinhen			mg/L		27/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-P				mg/L		27/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichle		<0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichloro	' '	< 0.0001		mg/L		27/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5'	. ,	en@10001		mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-072 Bis(2-ethylh		< 0.0001		mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-001 1,2,4-Trimet		< 0.0005		mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimet	hylbenzene	<0.0005	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene		< 0.0005	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbei	nzene	<0.0005	1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene		< 0.0005	İ	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbene		<0.0005	I	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylben	zene	< 0.0005		mg/L		27/04/2022	Ganesh Ilan	
VOC-010 o-Xylene		< 0.0005		mg/L		27/04/2022	Ganesh Ilan	
VOC-011 p-Isopropylto		<0.0005		mg/L		27/04/2022	Ganesh Ilan	
VOC-013 sec-Butylber	nzene	<0.0005		mg/L		27/04/2022	Ganesh Ilan	
VOC-014 Styrene		<0.0005		mg/L		27/04/2022	Ganesh Ilan	
VOC-015 tert-Butylber	nzene	<0.0005	I	mg/L		27/04/2022	Ganesh Ilan	CKO KIP





Page 2 of 7

Sample Site 22/4640-01 Levin C2ds Notes: 240984-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 14:23	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-017 Total p,m Xylene, Ethylbenze		mg/L		27/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-020 1,1,2-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloropropene	<0.0005	•		27/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloroproperie  VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L mg/L		27/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Thehloropropane VOC-026 1,2-Dibromo-3-chloropropane		mg/L		27/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-Chloropropanie VOC-027 1,2-Dibromoethane	<0.001 <0.0002	•		27/04/2022	Ganesh Ilan	
·		mg/L		27/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L				
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-032 Allyl chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-033 Bromochloromethane	<0.0012	mg/L		27/04/2022	Ganesh Ilan	
VOC-034 Bromomethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		27/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-042 Dichloromethane	<0.005	mg/L		27/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-047 Trichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-064 Chloroform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP

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
рН	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/4640-1 ELS

<sup>\*</sup> Not an accredited test.

<b>-</b> .	I	5
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		0.005 g/m³
Aluminium - Dissolved	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.  ICP-MS following APHA Online Edition method 3125 (modified).	<u> </u>
		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/m <sup>3</sup>
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 CEA	0.05 g/m <sup>3</sup>
Total Halogenated Phenolics Sample Filtration	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA  Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
Sample Filtration 2,3-Diuron	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L
Sample Filtration 2,3-Diuron a-BHC	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin Dieldrin Endosulfan II	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin Dieldrin Endosulfan II Endosulfan Sulfate	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L  0.001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin Dieldrin Endosulfan II Endosulfan Sulfate Endrin Endrin Aldehyde Endrin Ketone Gamma-Chlordane Heptachlor	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane ( g-BHC)  Methoxychlor	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane ( g-BHC)  Methoxychlor p,p'-DDD	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane (g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane ( g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane (g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane (g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone  Propanil	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin Dieldrin Endosulfan II Endosulfan Sulfate Endrin Endrin Aldehyde Endrin Ketone Gamma-Chlordane Heptachlor Heptachlor Epoxide Hexachlorobenzene Lindane (g-BHC) Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT Procymidone	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L





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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		0.0001 mg/L
	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	_
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.  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





Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 5 of 7 Report Number: 22/4640-1 ELS

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

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.

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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Report Released By

Rob Deacon



## **Eurofins ELS Limited**

**Analytical Report** 

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

P O Box 642 **LEVIN 5540** Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4629-01 Notes: 240	Site Levin D1 991-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		eceived 2022 14:27	Order No.
	Test	Result	Units		Test Date	Signatory	
	оH	7.4	••		22/04/2022	Jennifer Moi	nt KTP
	Suspended Solids - Total	< 3	g/m³		22/04/2022	Marylou Cal	
	Total (NP) Organic Carbon	1.3	g/m³		28/04/2022	Amit Kumar	
	Alkalinity - Total	109	g CaCO3/m³		22/04/2022	Jennifer Moi	
	Conductivity at 25°C	37.4	mS/m		22/04/2022	Jennifer Moi	
	Chemical Oxygen Demand	< 15	g/m³		22/04/2022	Marylou Cal	
	BOD5 - Soluble Carbonaceous		g/m³		22/04/2022	Marylou Cal	
	Chloride	17.2	g/m³		28/04/2022	Divina Laga:	
	Nitrate - Nitrogen	9.80	g/m³		28/04/2022	Divina Laga:	
	Sulphate	9.85	g/m³		28/04/2022	Divina Laga:	
	•	< 0.01	g/m³		26/04/2022	Ivan Imamui	
	Ammonia Nitrogen Fotal Hardness	90	g CaCO3/m³		26/04/2022	Amit Kumar	
			· ·				
	Calcium - Dissolved	16.4	g/m³		26/04/2022	Amit Kumar	
	ron - Dissolved	0.006	g/m³		26/04/2022	Amit Kumar	
	Magnesium - Dissolved	11.9	g/m³		26/04/2022	Amit Kumar	
	Sodium - Dissolved	33.5	g/m³		26/04/2022	Amit Kumar	
	Dissolved Reactive Phosphorus		g/m³		26/04/2022	Ivan Imamui	
	Aluminium - Dissolved	< 0.002	g/m³		22/04/2022	Amit Kumar	
	Arsenic - Dissolved	0.001	g/m³		22/04/2022	Amit Kumar	
	Boron - Dissolved	0.04	g/m³		27/04/2022	Amit Kumar	
	Cadmium - Dissolved	< 0.0002	g/m³		22/04/2022	Amit Kumar	
	Chromium - Dissolved	< 0.001	g/m³		22/04/2022	Amit Kumar	
	Copper - Dissolved	0.0014	g/m³		22/04/2022	Amit Kumar	
	_ead - Dissolved	< 0.0005	g/m³		22/04/2022	Amit Kumar	
	Manganese - Dissolved	0.0007	g/m³		22/04/2022	Amit Kumar	
6722 N	Mercury - Dissolved	< 0.0005	g/m³		27/04/2022	Amit Kumar	KTP
6724 N	Nickel - Dissolved	< 0.0005	g/m³		22/04/2022	Amit Kumar	KTP
6726 F	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	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 Bad	lraun .
SVOC-001 2	2,3-Diuron	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-002 a	a-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-003 a	a-chlordane	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-004 A	Aldrin	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-005 b	o-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-007 [		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Endosulfan II	<0.005	mg/L		27/04/2022	Ganesh Ilan	
	Endosulfan Sulfate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-010 E		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	Endrin Ketone	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-013 ( SVOC-014 F							
		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Lindane ( g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Methoxychlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-019 p		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
シルンに ひつしゃ	p,p'DDE	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Report Number: 22/4629-1 ELS 16 May 2022 15:00:37

Page 1 of 7

Sample 22/4629-01 Notes: 240991-0 Levir	Site Levin D1		M	ap Ref.	Date Sample 20/04/2022 00		eceived 2022 14:27	Order No.
Test	Landilli Gampic	Result		Units		Test Date	Signatory	
SVOC-021 p,p'-DDT		<0.001		mg/L		27/04/2022	Ganesh Ila	ncko KTP
SVOC-022 Procymidon	e	<0.0001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-023 Propanil		<0.001		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-024 Endosulfan	I	< 0.001		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-025 Alachlor		< 0.0001		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-026 Aldicarb		<0.1		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-027 Atrazine		< 0.0001		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-028 Bromacil		< 0.005		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-029 Carbofuran		<0.001		mg/L		27/04/2022	Ganesh Ila	ncko KTP
SVOC-030 Cyanazine		< 0.005		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-031 d-BHC		<0.0001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-032 Metalaxyl-M		<0.001		mg/L		27/04/2022	Ganesh Ila	
SVOC-033 Metolachlor		<0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-034 Metribuzin		<0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-035 Molinate		<0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-037 Oxadiazon		<0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-038 Pendimetha	lin	<0.002		mg/L		27/04/2022	Ganesh Ilai	
SVOC-039 Propazine		<0.0001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-040 Pyriproxyfer	1	<0.0001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-041 Simazine	ina	<0.0001		mg/L		27/04/2022 27/04/2022	Ganesh Ilai Ganesh Ilai	
SVOC-042 Terbuthylaz SVOC-043 Trifluralin	ine	<0.0001 <0.0001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-043 Militariii		<0.0001		mg/L mg/L		27/04/2022	Ganesh Ilai	
SVOC-044 Flexazinone SVOC-045 Chlorpyrifos		<0.001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-046 Diazinon		<0.0001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-047 Dimethoate		<0.001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-048 Pirimiphos r	nethyl	<0.0001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-049 Acenapthen	-	<0.0001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-050 Acenaphthy		< 0.0010		mg/L		27/04/2022	Ganesh Ilai	
SVOC-051 Anthracene		< 0.0010		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-052 benz(a)anth	racene	< 0.0001		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-053 Benzo(a)pyr		< 0.0001		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-054 Total Benzo	(b) and Benzo(k)	< 0.0010		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
fluoranthren	е							
SVOC-055 Benzo(g,h,i)	perylene	<0.001		mg/L		27/04/2022	Ganesh Ila	ncko KTP
SVOC-057 Chrysene		< 0.0001		mg/L		27/04/2022	Ganesh Ilai	ncko KTP
SVOC-058 Dibenz(a,h)	anthracene	< 0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-059 Fluoranthen	е	< 0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-060 Fluorene		< 0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-061 Indeno(1,2,3		<0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-062 Naphthalen		<0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-063 Phenanthre	ne	<0.0001		mg/L		27/04/2022	Ganesh Ilai	
SVOC-064 Pyrene	Llavardilandilahan	<0.0001		mg/L		27/04/2022	Ganesh Ila	
SVOC-066 2,2',3,4,4',5'				mg/L		27/04/2022	Ganesh Ilai	
SVOC-067 2,2',4,5,5'-P				mg/L		27/04/2022	Ganesh Ilai	
SVOC-068 2,4,4'-Trichles SVOC-069 2,4-Dichloro		<0.0001 <0.0001		mg/L mg/L		27/04/2022 27/04/2022	Ganesh Ilai Ganesh Ilai	
SVOC-009 2,4-Dictilore SVOC-070 2,2',3,4,4',5'				mg/L		27/04/2022	Ganesh Ilai	
SVOC-070 2,2,3,4,4,5 SVOC-072 Bis(2-ethylh		<0.0001		mg/L		27/04/2022	Ganesh Ilai	
VOC-001 1,2,4-Trimet	• • •	<0.0001		mg/L		20/04/2022	Ganesh Ilai	
VOC-002 1,3,5-Trimet	•	<0.0005		mg/L		20/04/2022	Ganesh Ilai	
VOC-003 Benzene	,	<0.0005		mg/L		20/04/2022	Ganesh Ilai	
VOC-005 Isopropylbe	nzene	<0.0005		mg/L		20/04/2022	Ganesh Ilai	
VOC-007 Naphthalen		< 0.0005		mg/L		20/04/2022	Ganesh Ilai	
VOC-008 n-Butylbene		< 0.0005		mg/L		20/04/2022	Ganesh Ilai	
VOC-009 n-Propylben		< 0.0005		mg/L		20/04/2022	Ganesh Ilai	
VOC-010 o-Xylene		< 0.0005		mg/L		20/04/2022	Ganesh Ilai	
VOC-011 p-Isopropylt	oluene	<0.0005		mg/L		20/04/2022	Ganesh Ilai	ncko KTP
VOC-013 sec-Butylbe		<0.0005		mg/L		20/04/2022	Ganesh Ilai	ncko KTP
VOC-014 Styrene		<0.0005		mg/L		20/04/2022	Ganesh Ilai	ncko KTP
VOC-015 tert-Butylber	nzene	<0.0005		mg/L		20/04/2022	Ganesh Ila	ncko KTP





Page 2 of 7

Sample         Site           22/4629-01         Levin D1           Netes: 240004 0 levin levelf!! Semple		Map Ref.	Map Ref.         Date Sampled         Date Received           20/04/2022 00:00         21/04/2022 14:27			Order No.
Notes: 240991-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	0.0009	mg/L		20/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenzer		mg/L		20/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-024 1,1-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		20/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.0003	mg/L		20/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-043 Trexachloroethene	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	
VOC-044 Tetrachioroetherie VOC-045 trans-1,2-Dichloroetherie	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
•	< 0.0005	•		20/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene		mg/L				
VOC-047 Trichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Iland Ganesh Iland	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022		
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP

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	





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/4629-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PULA Online Edition 5340 P.	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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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
1,2,4 Thinically is on Zeric	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1.3.5-Trimethylbenzene		g/=
1,3,5-Trimethylbenzene Benzene		0.0005 ma/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic 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

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.

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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Report Released By

Rob Deacon

Page 7 of 7



P O Box 642

**LEVIN 5540** 

## **Eurofins ELS Limited**

**Analytical Report** 

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

Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4628-0 Notes: 240	Site 11 Levin D2 0992-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 19/04/2022 00:00		eceived 2022 08:21	Order No.
110103. 240	Test	Result	Units		Test Date	Signatory	
0001	рН	6.6			20/04/2022	Jennifer Mo	nt KTP
	Suspended Solids - Total	6	g/m³		20/04/2022	Jennifer Mo	nt KTP
	Total (NP) Organic Carbon	16.1	g/m³		20/04/2022	Tracy Morris	son KTP
	Alkalinity - Total	162	g CaCO3/m³		20/04/2022	Jennifer Mo	
	Conductivity at 25°C	46.6	mS/m		20/04/2022	Jennifer Mo	nt KTP
	Chemical Oxygen Demand	38	g/m³		20/04/2022	Gordon McA	Arthur KTP
	BOD5 - Soluble Carbonaceous		g/m³		20/04/2022	Marylou Cal	bral KTP
	Chloride	43.2	g/m³		22/04/2022	Divina Laga	
0605	Nitrate - Nitrogen	< 0.01	g/m³		22/04/2022	Divina Laga	
	Sulphate	0.04	g/m³		22/04/2022	Divina Laga	
	Ammonia Nitrogen	0.60	g/m³		21/04/2022	Divina Laga	
	Total Hardness	123	g CaCO3/m³		22/04/2022	Tracy Morris	
	Calcium - Dissolved	20.8	g/m³		21/04/2022	Amit Kumar	
	Iron - Dissolved	6.18	g/m³		21/04/2022	Amit Kumar	
	Magnesium - Dissolved	17.2	g/m³		21/04/2022	Amit Kumar	
	Sodium - Dissolved	36.5	g/m³		22/04/2022	Amit Kumar	
	Dissolved Reactive Phosphorus		g/m³		21/04/2022	Divina Laga	
	Aluminium - Dissolved	0.007	g/m³		21/04/2022	Amit Kumar	
	Arsenic - Dissolved	< 0.001	g/m³		21/04/2022	Amit Kumar	
	Boron - Dissolved	0.06	g/m³		21/04/2022	Amit Kumar	
	Cadmium - Dissolved	< 0.0002	g/m³		21/04/2022	Amit Kumar	
	Chromium - Dissolved	< 0.0002	g/m³		21/04/2022	Amit Kumar	
	Copper - Dissolved	0.0006	g/m³		21/04/2022	Amit Kumar	
	Lead - Dissolved	< 0.0005	g/m³		21/04/2022	Amit Kumar	
	Manganese - Dissolved	0.466	g/m³		21/04/2022	Amit Kumar	
	Mercury - Dissolved	< 0.0005	g/m³		21/04/2022	Amit Kumar	
	Nickel - Dissolved	< 0.0005	g/m³		21/04/2022	Amit Kumar	
	Potassium - Dissolved	10.9	g/m³		21/04/2022	Amit Kumar	
	Zinc - Dissolved	0.009	g/m³		21/04/2022	Amit Kumar	
	E. coli	< 4	cfu/100mL		20/04/2022	Maria Norris	
	Volatile Fatty Acids	< 5 *			20/04/2022		
	•	< 0.05	g/m³				Transcribed by
	Total Halogenated Phenolics		g/m³		20/04/2022	Freddie Bad	Transcribed by
	Sample Filtration 2,3-Diuron	Completed <0.001	ma/l		20/04/2022 20/04/2022	Ganesh Ilan	
	•	<0.001	mg/L		20/04/2022		
SVOC-002	a-chlordane		mg/L		20/04/2022	Ganesh Ilan	
		<0.0001	mg/L			Ganesh Ilan	
SVOC-004		<0.001	mg/L		20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-005		<0.0001	mg/L		20/04/2022 20/04/2022		
	cis-Permethrin	<0.0001	mg/L			Ganesh Ilan	
SVOC-007		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Endosulfan II	<0.005	mg/L		20/04/2022	Ganesh Ilan	
	Endosulfan Sulfate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-010		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	Endrin Ketone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Gamma-Chlordane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	Heptachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Hexachlorobenzene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Lindane ( g-BHC)	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-019		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
21/00 000	p,p'DDE	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Report Number: 22/4628-1 ELS 16 May 2022 11:00:41

Page 1 of 7

Sample	Site		Map Ref.	Date Sampled		eceived	Order No.
22/4628-01	Levin D2			19/04/2022 00:00	20/04/2	2022 08:21	0
Notes: 240992-0 Le	evin Landilli Sample	Decult	Unita		Test Date	C:	
Test SVOC-021 p,p'-DDT		Result <0.001	<b>Units</b> mg/L		20/04/2022	Signatory Ganesh Ilan	cko KTP
SVOC-021 p,p-DD1	lone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-0221 rocyrnic SVOC-023 Propanil	ione	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-024 Endosulfa	an I	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	an i	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb		<0.1	mg/L		20/04/2022	Ganesh Ilan	
SVOC-027 Atrazine		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-028 Bromacil		< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofura	an	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazin	e	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC		<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxy	I-M	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolach	lor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzi	n	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate		<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazo	n	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendime		<0.002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazin		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxy		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-041 Simazine		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-042 Terbuthy		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-044 Hexazino		<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyri	ios	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-046 Diazinon SVOC-047 Dimethoa	ato.	<0.0001	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-047 Diffiction		<0.001 <0.0001	mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-049 Acenapth	•	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-050 Acenaph		< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-051 Anthrace	•	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	
SVOC-052 benz(a)a		< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)		< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-054 Total Ber	• •	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	
fluoranthi			ŭ				
SVOC-055 Benzo(g,	h,i)perylene	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene	9	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-058 Dibenz(a	,h)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-059 Fluoranth	nene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-060 Fluorene		< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-061 Indeno(1	,2,3-cd)pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-062 Naphthal		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-063 Phenanth	nrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-064 Pyrene		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	',5'-Hexachlorobiphen	•	mg/L		20/04/2022	Ganesh Ilan	
	'-Pentachlorobipheny		mg/L		20/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Tri		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichle		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	',5',6-Heptachlorobiph	-	mg/L		20/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-eth		<0.0001 <0.0005	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-001 1,2,4-Trir	•	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trir VOC-003 Benzene	-	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-003 Benzene VOC-005 Isopropyl		<0.0005	mg/L mg/L		20/04/2022	Ganesh Ilan	
VOC-003 Isopropyi		<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-007 Napritrial		<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-009 n-Propylk		<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-010 o-Xylene		< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-011 p-Isoprop		< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-013 sec-Butyl	•	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-014 Styrene	-	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-015 tert-Butyl	benzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
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Sample         Site           22/4628-01         Levin D2		Map Ref.	<b>Date Sampled</b> 19/04/2022 00:00		eceived 2022 08:21	Order No.
Notes: 240992-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-017 Total p,m Xylene, Ethylbenze	ne<0.0015	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-018 1,1,1,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-019 1,1,1-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-020 1,1,2,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-021 1,1,2-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-022 1,1-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-023 1,1-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-024 1,1-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-037 Chloromethane	<0.006	mg/L		20/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		20/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-047 Trichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-050 1,2,3-11ichlorobenzene	<0.0005	•		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-11Ichlorobenzene	<0.0005	mg/L mg/L		20/04/2022	Ganesh Ilan	
·		•			Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022 20/04/2022		
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L			Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP

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:**

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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	





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Page 3 of 7 Report Number: 22/4628-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PUIA Online Edition 5340 P	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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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
1,2,4 Thinically is on Zeric	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1.3.5-Trimethylbenzene		g/=
1,3,5-Trimethylbenzene Benzene		0.0005 ma/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L





Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

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

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.

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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Report Released By

Rob Deacon



## **Eurofins ELS Limited**

# **Analytical Report**

Issue: 1 16 May 2022

Report Number: 22/2857

P O Box 642 **LEVIN 5540** 

Downer EDI Levin - Landfill

Attention: Elysia Kinross

0001 p 0002 S 0040 T 0052 A 0055 C 0081 C 0180 B 0602 C 0605 N 0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M	Guspended Solids - Total Guspended Solids - Total Gotal (NP) Organic Carbon Alkalinity - Total Conductivity at 25°C Chemical Oxygen Demand GOD5 - Soluble Carbonaceous Chloride Altirate - Nitrogen Gulphate Commonia Nitrogen Gotal Hardness Calcium - Dissolved Gon - Dissolved Godium - Dissolved Godium - Dissolved Godium - Dissolved	32.4 < 0.01 < 0.02 0.40 199 57.8 0.009	Units  g/m³ g/m³ g CaCO3/m³ mS/m g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/	Test Date 22/04/2022 22/04/2022 28/04/2022 27/04/2022 22/04/2022 22/04/2022 28/04/2022 28/04/2022 28/04/2022 28/04/2022 28/04/2022 26/04/2022	Signatory Marylou Cab Marylou Cab Amit Kumar Jennifer Mor Marylou Cab Marylou Cab Marylou Cab Divina Lagaz Divina Lagaz Ivan Imamur	oral KTP KTP int KTP oral KTP oral KTP oral KTP oral KTP oral KTP zon KTP
0001 p 0002 S 0040 T 0052 A 0055 C 0081 C 0180 B 0602 C 0605 N 0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M	Suspended Solids - Total Suspended Solids - Total Sotal (NP) Organic Carbon Alkalinity - Total Conductivity at 25°C Chemical Oxygen Demand SOD5 - Soluble Carbonaceous Chloride Altirate - Nitrogen Sulphate Commonia Nitrogen Sotal Hardness Calcium - Dissolved Con - Dissolved Codium - Dissolved	7.4 551 7.2 249 53.5 18 < 6 32.4 < 0.01 < 0.02 0.40 199 57.8 0.009	g/m³ g/m³ g CaCO3/m³ mS/m g/m³ g/m³ g/m³ g/m³ g/m³ g/m³	22/04/2022 22/04/2022 28/04/2022 27/04/2022 22/04/2022 22/04/2022 28/04/2022 28/04/2022 28/04/2022 28/04/2022	Marylou Cab Marylou Cab Amit Kumar Jennifer Mor Marylou Cab Marylou Cab Marylou Cab Divina Lagaz Divina Lagaz Divina Lagaz	oral KTP KTP int KTP oral KTP oral KTP oral KTP oral KTP oral KTP zon KTP
0002 S 0040 T 0052 A 0055 C 0081 C 0180 B 0602 C 0605 N 0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M	Suspended Solids - Total Total (NP) Organic Carbon Alkalinity - Total Conductivity at 25°C Chemical Oxygen Demand SOD5 - Soluble Carbonaceous Chloride Altirate - Nitrogen Total Hardness Calcium - Dissolved Gagnesium - Dissolved Godium - Dissolved Godium - Dissolved Godium - Dissolved	551 7.2 249 53.5 18 < 6 32.4 < 0.01 < 0.02 0.40 199 57.8 0.009	g/m³ g CaCO3/m³ mS/m g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/	22/04/2022 28/04/2022 27/04/2022 22/04/2022 22/04/2022 22/04/2022 28/04/2022 28/04/2022 28/04/2022	Marylou Cab Amit Kumar Jennifer Mor Marylou Cab Marylou Cab Marylou Cab Divina Lagaz Divina Lagaz Divina Lagaz	oral KTP KTP int KTP oral KTP oral KTP oral KTP oral KTP oral KTP zon KTP
0040 T 0052 A 0055 C 0081 C 0180 B 0602 C 0605 N 0607 S 0607 S 1642 T 1810 C 1819 Ir 1822 M 1834 S	Total (NP) Organic Carbon Alkalinity - Total Conductivity at 25°C Chemical Oxygen Demand BOD5 - Soluble Carbonaceous Chloride Litrate - Nitrogen Sulphate Ammonia Nitrogen Total Hardness Calcium - Dissolved Gagnesium - Dissolved Godium - Dissolved Godium - Dissolved	7.2 249 53.5 18 < 6 32.4 < 0.01 < 0.02 0.40 199 57.8 0.009	g/m³ g CaCO3/m³ mS/m g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/	28/04/2022 27/04/2022 22/04/2022 22/04/2022 22/04/2022 28/04/2022 28/04/2022 28/04/2022	Amit Kumar Jennifer Mor Marylou Cab Marylou Cab Marylou Cab Divina Lagaz Divina Lagaz Divina Lagaz	KTP  nt KTP  oral KTP  oral KTP  oral KTP  zon KTP  zon KTP
0052 A 0055 C 0081 C 0180 B 0602 C 0605 N 0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M 1834 S	Alkalinity - Total Conductivity at 25°C Chemical Oxygen Demand COD5 - Soluble Carbonaceous Chloride Litrate - Nitrogen Culphate Ammonia Nitrogen Cotal Hardness Calcium - Dissolved Con - Dissolved Codium - Dissolved	249 53.5 18 < 6 32.4 < 0.01 < 0.02 0.40 199 57.8 0.009	g CaCO3/m³ mS/m g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/	27/04/2022 22/04/2022 22/04/2022 22/04/2022 28/04/2022 28/04/2022 28/04/2022	Jennifer Mor Marylou Cab Marylou Cab Marylou Cab Divina Lagaz Divina Lagaz Divina Lagaz	nt KTP oral KTP oral KTP oral KTP zon KTP zon KTP
0055 C 0081 C 0180 B 0602 C 0605 N 0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M 1834 S	Conductivity at 25°C Chemical Oxygen Demand BOD5 - Soluble Carbonaceous Chloride Bitrate - Nitrogen Bulphate Cammonia Nitrogen Botal Hardness Calcium - Dissolved Bognesium - Dissolved Bodium - Dissolved Bodium - Dissolved	53.5 18 < 6 32.4 < 0.01 < 0.02 0.40 199 57.8 0.009	mS/m g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/m³ g/	22/04/2022 22/04/2022 22/04/2022 28/04/2022 28/04/2022 28/04/2022	Marylou Cab Marylou Cab Marylou Cab Divina Lagaz Divina Lagaz Divina Lagaz	oral KTP oral KTP oral KTP zon KTP zon KTP
0081 C 0180 B 0602 C 0605 N 0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M	Chemical Oxygen Demand BOD5 - Soluble Carbonaceous Chloride Silitrate - Nitrogen Sulphate Ammonia Nitrogen Sotal Hardness Calcium - Dissolved Magnesium - Dissolved Sodium - Dissolved	18 < 6 32.4 < 0.01 < 0.02 0.40 199 57.8 0.009	g/m³ g/m³ g/m³ g/m³ g/m³ g CaCO3/m³	22/04/2022 22/04/2022 28/04/2022 28/04/2022 28/04/2022	Marylou Cab Marylou Cab Divina Lagaz Divina Lagaz Divina Lagaz	oral KTP oral KTP zon KTP zon KTP
0180 B 0602 C 0605 N 0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M 1834 S	SOD5 - Soluble Carbonaceous Chloride Jitrate - Nitrogen Sulphate Ammonia Nitrogen Sotal Hardness Calcium - Dissolved Fron - Dissolved Magnesium - Dissolved	< 6 32.4 < 0.01 < 0.02 0.40 199 57.8 0.009	g/m³ g/m³ g/m³ g/m³ g CaCO3/m³	22/04/2022 28/04/2022 28/04/2022 28/04/2022	Marylou Cab Divina Lagaz Divina Lagaz Divina Lagaz	oral KTP zon KTP zon KTP
0602 C 0605 N 0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M 1834 S	Chloride  Jitrate - Nitrogen  Sulphate  Ammonia Nitrogen  Total Hardness  Calcium - Dissolved  Ton - Dissolved  Jagnesium - Dissolved  Sodium - Dissolved	32.4 < 0.01 < 0.02 0.40 199 57.8 0.009	g/m³ g/m³ g/m³ g/m³ g CaCO3/m³	28/04/2022 28/04/2022 28/04/2022	Divina Lagaz Divina Lagaz Divina Lagaz	zon KTP zon KTP
0605 N 0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M 1834 S	ditrate - Nitrogen Sulphate Ammonia Nitrogen Total Hardness Calcium - Dissolved Fron - Dissolved Magnesium - Dissolved Sodium - Dissolved	< 0.01 < 0.02 0.40 199 57.8 0.009	g/m³ g/m³ g/m³ g CaCO3/m³	28/04/2022 28/04/2022	Divina Lagaz Divina Lagaz	zon KTP
0607 S 0760 A 1642 T 1810 C 1819 Ir 1822 M 1834 S	Sulphate Ammonia Nitrogen  Total Hardness Calcium - Dissolved Fron - Dissolved Aggnesium - Dissolved Codium - Dissolved	< 0.02 0.40 199 57.8 0.009	g/m³ g/m³ g CaCO3/m³	28/04/2022	Divina Lagaz	
0760 A 1642 T 1810 C 1819 Ir 1822 M 1834 S	ammonia Nitrogen  Total Hardness  Calcium - Dissolved  Ton - Dissolved  Magnesium - Dissolved  Sodium - Dissolved	0.40 199 57.8 0.009	g/m³ g CaCO3/m³		•	ZUITKIF
1642 T 1810 C 1819 Ir 1822 M 1834 S	otal Hardness Calcium - Dissolved ron - Dissolved Magnesium - Dissolved Godium - Dissolved	199 57.8 0.009	g CaCO3/m³	20/04/2022		ro KTD
1810 C 1819 Ir 1822 M 1834 S	Calcium - Dissolved Fon - Dissolved Magnesium - Dissolved Godium - Dissolved	57.8 0.009	-	26/04/2022		
1819 Ir 1822 M 1834 S	ron - Dissolved Magnesium - Dissolved Godium - Dissolved	0.009	g/m <sup>3</sup>	26/04/2022	Amit Kumar	
1822 M 1834 S	/lagnesium - Dissolved Sodium - Dissolved		-	26/04/2022	Amit Kumar	
1834 S	Sodium - Dissolved	40.0	g/m³	26/04/2022	Amit Kumar	
		13.2	g/m³	26/04/2022	Amit Kumar	
		21.5	g/m³	26/04/2022	Amit Kumar	
	Dissolved Reactive Phosphorus		g/m³	26/04/2022	Ivan Imamur	
		0.015	g/m³	22/04/2022	Amit Kumar	
		0.018	g/m³	22/04/2022	Amit Kumar	
	Boron - Dissolved	0.04	g/m³	22/04/2022	Amit Kumar	
	Cadmium - Dissolved	< 0.0002	g/m³	22/04/2022	Amit Kumar	
		< 0.001	g/m³	22/04/2022	Amit Kumar	
	• • • • • • • • • • • • • • • • • • • •	0.0011	g/m³	22/04/2022	Amit Kumar	
	ead - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar	
	•	0.467	g/m³	22/04/2022	Amit Kumar	
	Mercury - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar	
	lickel - Dissolved	< 0.0005	g/m³	22/04/2022	Amit Kumar	
	otassium - Dissolved	7.16	g/m³	22/04/2022	Amit Kumar	
6738 Z	inc - Dissolved	< 0.002	g/m³	22/04/2022	Amit Kumar	KTP
	. coli	< 4	cfu/100mL	21/04/2022	Maria Norris	KTP
MO-5001 V	olatile Fatty Acids	< 5 *	g/m³		Deb Bottrill 7	Transcribed by
MO-5002 T	otal Halogenated Phenolics	< 0.05	g/m³		Deb Bottrill 7	Transcribed by
P1859 S	Sample Filtration	Completed		22/04/2022	Freddie Bad	
SVOC-001 2	,3-Diuron	< 0.001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-002 a	-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-003 a	-chlordane	<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-004 A	ldrin	<0.001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-005 b	-BHC	<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-006 c	is-Permethrin	<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-007 D	Dieldrin	<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-008 E	ndosulfan II	< 0.005	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-009 E	ndosulfan Sulfate	<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-010 E	indrin	<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-011 E	ndrin Aldehyde	<0.001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
	Indrin Ketone	<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-013 G	Samma-Chlordane	<0.001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
SVOC-014 H		<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
	•	<0.0001	mg/L	27/04/2022	Ganesh Ilan	cko KTP
	lexachlorobenzene	<0.0001	mg/L	27/04/2022	Ganesh Ilan	
	indane ( g-BHC)	<0.0001	mg/L	27/04/2022	Ganesh Ilan	
	Methoxychlor	<0.0001	mg/L	27/04/2022	Ganesh Ilan	
SVOC-019 p	-	<0.0001	mg/L	27/04/2022	Ganesh Ilan	
SVOC-013 p		<0.0001	mg/L	27/04/2022	Ganesh Ilan	





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/2857-1 ELS 16 May 2022 15:00:09

Sample         Site           22/2857-01         Levin D3rd		Map Ref.	Date Sampled 20/04/2022 00:00		eceived 2022 14:30	Order No.
Notes: 241057-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	alsa KTD
SVOC-021 p,p'-DDT SVOC-022 Procymidone	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-022 Procymidone SVOC-023 Propanil	<0.0001 <0.001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-023 Fropariii SVOC-024 Endosulfan I	<0.001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-024 Endosulari i	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-025 Alacriloi SVOC-026 Aldicarb	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-027 Atrazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-028 Bromacil	<0.005	mg/L		27/04/2022	Ganesh Ilan	
SVOC-029 Carbofuran	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-030 Cyanazine	< 0.005	mg/L		27/04/2022	Ganesh Ilan	
SVOC-031 d-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-M	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-033 Metolachlor	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	< 0.002	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfen	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-041 Simazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-042 Terbuthylazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-043 Trifluralin	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-044 Hexazinone	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-045 Chlorpyrifos	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-046 Diazinon	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-047 Dimethoate	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-048 Pirimiphos methyl	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-049 Acenapthene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-051 Anthracene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	cko KTP
fluoranthrene						
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-060 Fluorene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-062 Naphthalene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphe		mg/L		27/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny		mg/L		27/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobip	•	mg/L		27/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	0.0001	mg/L		27/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-003 Benzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene VOC-007 Naphthalene	<0.0005 <0.0005	mg/L mg/L		20/04/2022	Ganesh Ilan	
VOC-007 Naphinalene VOC-008 n-Butylbenezene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-006 n-Butylbenezene VOC-009 n-Propylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-009 11-F10pylbenzene VOC-010 o-Xylene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-010 0-Xyiene VOC-011 p-Isopropyltoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-011 p-isopropyriolidene VOC-013 sec-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-013 Sec-Butylberizerie VOC-014 Styrene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-014 Stylene VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
. 33 515 told buty isolizone	-0.0000	mg/ =		20/0-1/2022	Carloon nan	





Page 2 of 7

Sample Site 22/2857-01 Levin D3rd		Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		eceived 2022 14:30	Order No.
Notes: 241057-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenzer	ne<0.0015	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-020 1,1,2,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-022 1,1-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-023 1,1-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-024 1,1-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-037 Chloromethane	< 0.006	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		20/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-047 Trichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-052 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	•		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoliderie VOC-057 Bromobenzene		mg/L				
	<0.0005	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L				
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	ско КТР

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





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/2857-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PUIA Online Edition 5340 P	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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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
1,2,4 Thinically is on Zeric	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1.3.5-Trimethylbenzene		g/=
1,3,5-Trimethylbenzene Benzene		0.0005 ma/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic 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

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.

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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Report Released By

Rob Deacon



P O Box 642

**LEVIN 5540** 

Downer EDI Levin - Landfill

Attention: Elysia Kinross

## **Eurofins ELS Limited**

# **Analytical Report**

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

<b>Sample</b> 22/2858-01	Site Levin D3rs 058-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		eceived 2022 14:19	Order No.
	Test	Result	Units		Test Date	Signatory	
	оH	6.9	<b>55</b>		22/04/2022	Jennifer Mo	nt KTP
	Suspended Solids - Total	< 6	g/m³		22/04/2022	Marylou Cal	
	Total (NP) Organic Carbon	25.5	g/m³		22/04/2022	Amit Kumar	
	Alkalinity - Total	68	g CaCO3/m³		22/04/2022	Jennifer Mo	
	Conductivity at 25°C	19.8	mS/m		22/04/2022	Jennifer Mo	
	Chemical Oxygen Demand	119	g/m³		22/04/2022	Marylou Cal	
	BOD5 - Soluble Carbonaceous		g/m³		22/04/2022	Marylou Cal	
	Chloride	17.0	g/m³		27/04/2022	Divina Laga	
	Nitrate - Nitrogen	< 0.01	g/m³		27/04/2022	Divina Laga	
	Sulphate	1.07	g/m³		27/04/2022	Divina Laga	
	Ammonia Nitrogen	0.63	g/m³		26/04/2022	Ivan Imamu	
	Fotal Hardness	46	g CaCO3/m³		26/04/2022	Amit Kumar	
			•				
	Calcium - Dissolved	10.9	g/m³		26/04/2022	Amit Kumar	
	ron - Dissolved	16.6	g/m³		26/04/2022	Amit Kumar	
	Magnesium - Dissolved	4.58	g/m³		26/04/2022	Amit Kumar	
	Sodium - Dissolved	20.4	g/m³		26/04/2022	Amit Kumar	
	Dissolved Reactive Phosphorus		g/m³		26/04/2022	Ivan Imamu	
	Aluminium - Dissolved	0.065	g/m³		22/04/2022	Amit Kumar	
	Arsenic - Dissolved	0.001	g/m³		22/04/2022	Amit Kumar	
	Boron - Dissolved	0.04	g/m³		22/04/2022	Amit Kumar	
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 L	_ead - Dissolved	< 0.0005	g/m³		22/04/2022	Amit Kumar	KTP
6721 <b>N</b>	Manganese - Dissolved	0.331	g/m³		22/04/2022	Amit Kumar	KTP
6722 N	Mercury - Dissolved	< 0.0005	g/m³		22/04/2022	Amit Kumar	KTP
6724 N	Nickel - Dissolved	0.0007	g/m³		22/04/2022	Amit Kumar	KTP
6726 F	Potassium - Dissolved	4.14	g/m³		22/04/2022	Amit Kumar	KTP
6738 2	Zinc - Dissolved	0.006	g/m³		22/04/2022	Amit Kumar	KTP
M0104 E	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 1	Total Halogenated Phenolics	< 0.05	g/m³			Deb Bottrill	Transcribed b
P1859 S	Sample Filtration	Completed	•		22/04/2022	Freddie Bad	
SVOC-001 2	2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-002 a		<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-003 a		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-004 A		<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-005 b		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	cis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-007 [		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Endosulfan II	<0.005	mg/L		27/04/2022	Ganesh Ilan	
	Endosulfan Sulfate	<0.0001	•		27/04/2022	Ganesh Ilan	
			mg/L				
SVOC-010 E		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	Endrin Ketone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-014 F		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	₋indane ( g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Methoxychlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-019 p		<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-020 p	D,p'DDE	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP





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Page 1 of 7 Report Number: 22/2858-1 ELS 16 May 2022 15:00:11

Sample	Site		M	ap Ref.	Date Sampl	ed	Date R	eceived	Order No.
22/2858-01	Levin D3rs				20/04/2022	00:00	21/04/2	2022 14:19	0
Notes: 241058-0 Lev	in Landfill Sample								
Test		Result		Units			Test Date	Signatory	
SVOC-021 p,p'-DDT		<0.001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-022 Procymido	ne	<0.0001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-023 Propanil	. 1	<0.001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-024 Endosulfar SVOC-025 Alachlor	11	<0.001 <0.0001		mg/L			27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-025 Alachiol SVOC-026 Aldicarb		<0.0001		mg/L mg/L			27/04/2022	Ganesh Ilan	
SVOC-020 Aldicard		<0.0001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-028 Bromacil		< 0.005		mg/L			27/04/2022	Ganesh Ilan	
SVOC-029 Carbofurar	1	<0.001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-030 Cyanazine	•	< 0.005		mg/L			27/04/2022	Ganesh Ilan	
SVOC-031 d-BHC		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-I	М	<0.001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlo		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimeth	alin	< 0.002		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfe	en	< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-041 Simazine		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-042 Terbuthyla	zine	< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-043 Trifluralin		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-044 Hexazinon	е	< 0.001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-045 Chlorpyrifo	S	<0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-046 Diazinon		<0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-047 Dimethoate	e	<0.001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-048 Pirimiphos	methyl	<0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-049 Acenapthe	ne	<0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-050 Acenaphth	ylene	< 0.0010		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-051 Anthracene	e	< 0.0010		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-052 benz(a)ant		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)py		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-054 Total Benz fluoranthre		< 0.0010		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-055 Benzo(g,h,	i)perylene	< 0.001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-058 Dibenz(a,h	)anthracene	< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-059 Fluoranthe	ne	< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-060 Fluorene		< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-061 Indeno(1,2	,3-cd)pyrene	<0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-062 Naphthaler	ne	<0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-063 Phenanthre	ene	<0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-064 Pyrene		<0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-066 2,2',3,4,4',5	5'-Hexachlorobiphen	ıyk0.001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-067 2,2',4,5,5'-I	Pentachlorobiphenyl	< 0.0001		mg/L			27/04/2022	Ganesh Ilan	cko KTP
SVOC-068 2,4,4'-Trich	lorobiphenyl	<0.0001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlor		<0.0001		mg/L			27/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5		-		mg/L			27/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethyl	• / .	<0.0001		mg/L			27/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trime	•	<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trime	ethylbenzene	<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-003 Benzene		<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-005 Isopropylbe		<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-007 Naphthaler		<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-008 n-Butylben		<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-009 n-Propylbe	nzene	<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-010 o-Xylene	ltolono	<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-011 p-Isopropy		<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-013 sec-Butylbe	enzene	<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-014 Styrene	22200	<0.0005		mg/L			20/04/2022	Ganesh Ilan	
VOC-015 tert-Butylbe	SIIZEIIE	<0.0005		mg/L			20/04/2022	Ganesh Ilan	UNU NIP





Sample Site 22/2858-01 Levin D3rs		Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		eceived 2022 14:19	Order No.
Notes: 241058-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenzer	e<0.0015	mg/L		20/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-024 1,1-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		20/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		20/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-047 Trichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005			20/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Thichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-11101010berizerie  VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L mg/L		20/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP

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:**

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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	





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/2858-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PUIA Online Edition 5340 P	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/m <sup>3</sup>
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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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.  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.  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.  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.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
tort Datyiberizerie	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	-
Toluono	<ul> <li>vva a groupagic Compound analysed by GCMS following an in house method based on USEPA Method 8260</li> </ul>	0.0005 mg/L
Total n m Yvlene Ethylhenzene		0.0015 mg/l
Total p,m Xylene, Ethylbenzene  1,1,1,2-Tetrachloroethane	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Halogenated Alkanes and Alkanes Compound analysed by GCMS following an in house method based on	0.0015 mg/L 0.0005 mg/L





Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 5 of 7 Report Number: 22/2858-1 ELS

16 May 2022 15:00:11

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

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.

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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Report Released By

Rob Deacon



# **Analytical Report**

Report Number: 22/4631

Issue: 1 16 May 2022

Downer EDI Levin - Landfill P O Box 642 **LEVIN 5540** 

Attention: Elysia Kinross

<b>Sample</b> 22/4631-0			Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 12:40	Order No.
Notes: 24	0985-0 Levin Landfill Sample						
	Test	Result	Units		Test Date	Signatory	
0001	рН	7.1			22/04/2022	Jennifer Mo	
0002	Suspended Solids - Total	< 5	g/m³		22/04/2022	Jennifer Mo	
0040	Total (NP) Organic Carbon	3.0	g/m³		28/04/2022	Amit Kumar	
0052	Alkalinity - Total	70	g CaCO3/m³		22/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	29.4	mS/m		22/04/2022	Jennifer Mo	
0081	Chemical Oxygen Demand	42	g/m³		26/04/2022	Marylou Cal	
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³		22/04/2022	Marylou Cal	
0602	Chloride	36.3	g/m³		28/04/2022	Divina Laga	zon KTP
0605	Nitrate - Nitrogen	< 0.01	g/m³		28/04/2022	Divina Laga	zon KTP
0607	Sulphate	12.9	g/m³		28/04/2022	Divina Laga	zon KTP
0760	Ammonia Nitrogen	0.24	g/m³		27/04/2022	Ivan Imamu	ra 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	s0.023	g/m³		27/04/2022	Ivan Imamu	ra 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	
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	
6726	Potassium - Dissolved	6.76	g/m³		27/04/2022	Amit Kumar	
6738	Zinc - Dissolved	0.006	g/m³		27/04/2022	Amit Kumar	
M0104	E. coli	96	cfu/100mL		22/04/2022	Maria Norris	
	Volatile Fatty Acids	< 5 *	g/m³		22/01/2022		Transcribed by
	Total Halogenated Phenolics	< 0.05	g/m³				Franscribed by
P1859	Sample Filtration	Completed	9/111		22/04/2022	Freddie Bac	•
	2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-001	·	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	3 a-chlordane	<0.0001	•		27/04/2022	Ganesh Ilan	
SVOC-003		<0.001	mg/L			Ganesh Ilan	
			mg/L		27/04/2022		
SVOC-005		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	S cis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-007		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	B Endosulfan II	<0.005	mg/L		27/04/2022	Ganesh Ilan	
	Endosulfan Sulfate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-010		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	2 Endrin Ketone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	l Heptachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
VOC-016	3 Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
	Lindane ( g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-018	B Methoxychlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
	p,p'-DDD	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP





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Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4631-1 ELS 16 May 2022 15:00:40

Sample Site 22/4631-01 Levin D4		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 12:40	Order No.
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 Ilan	cko KTP
SVOC-022 Procymidone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	< 0.002	mg/L		27/04/2022	Ganesh Ilan	
SVOC-039 Propazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxyfen	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-041 Simazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-049 Acenaphthylana	<0.0001 < 0.0010	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-050 Acenaphthylene SVOC-051 Anthracene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-051 Antinacene SVOC-052 benz(a)anthracene	< 0.0010	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-052 Benzo(a)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
fluoranthrene						
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L			Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene SVOC-060 Fluorene	< 0.0001 < 0.0001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-060 Fidorerie SVOC-061 Indeno(1,2,3-cd)pyrene	< 0.0001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene SVOC-062 Naphthalene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		27/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	-	mg/L		27/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipl		mg/L		27/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-014 Styrene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-015 tert-Butylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP





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Page 2 of 7 Report Number: 22/4631-1 ELS

Sample Site 22/4631-01 Levin D4 Notes: 240985-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		Received 2022 12:40	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-017 Total p,m Xylene, Ethylbenzen		mg/L		27/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-032 Allyl chloride	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-033 Bromochloromethane	< 0.0012	mg/L		27/04/2022	Ganesh Ilan	
VOC-034 Bromomethane	<0.0012	mg/L		27/04/2022	Ganesh Ilan	
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		27/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-042 Dichloromethane	< 0.005	mg/L		27/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-047 Trichloroethene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-048 Trichlorofluoromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-050 1,2,3-Trichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-051 1,2,4-Trichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-052 1,2-Dichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-053 1,3-Dichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-054 1,4-Dichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-056 4-Chlorotoluene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-057 Bromobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-058 Chlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-060 4-Methyl-2-Pentanone	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-061 Carbon disulphide	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-062 Bromodichloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-063 Bromoform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-065 Dibromochloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP

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





Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/4631-1 ELS

<sup>\*</sup> Not an accredited test.

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
3OD5 - 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
litrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
mmonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
otal 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
on - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
lagnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
odium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
issolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
luminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
rsenic - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m³
oron - 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
hromium - 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
ead - 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
lickel - 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
olatile 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
Fotal 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
-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
P-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
bis-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
indrin	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
indrin 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
leptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
leptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
lexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
indane ( g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
lethoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
4	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
p'-DDT		
		0.0001 ma/L
Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.001 mg/L
p,p'-DDT Procymidone Propanil Endosulfan I		0.0001 mg/L 0.001 mg/L 0.001 mg/L





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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		0.0001 mg/L
	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	_
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.  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





Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

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

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.

Report Released By Rob Deacon

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

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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**Analytical Report** 

Issue: 1 16 May 2022

Report Number: 22/4625

P O Box 642 **LEVIN 5540** Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4625-0	Site 01 Levin D5 40997-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		eceived 2022 13:09	Order No.
140103. 2-	Test	Result	Units		Test Date	Signatory	
0001	pН	7.6			16/04/2022	Jennifer Mo	nt KTP
0002	Suspended Solids - Total	< 3	g/m³		14/04/2022	Gordon McA	Arthur KTP
0040	Total (NP) Organic Carbon	2.3	g/m³		16/04/2022	Amit Kumar	
0052	Alkalinity - Total	75	g CaCO3/m³		16/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	30.4	mS/m		16/04/2022	Jennifer Mo	nt KTP
0081	Chemical Oxygen Demand	30	g/m³		19/04/2022	Marylou Cal	
0180	BOD5 - Soluble Carbonaceous	s < 1	g/m³		14/04/2022	Gordon McA	
0602	Chloride	29.7	g/m³		16/04/2022	Divina Laga	
0605	Nitrate - Nitrogen	0.72	g/m³		16/04/2022	Divina Laga	
0607	Sulphate	18.7	g/m³		16/04/2022	Divina Laga	
0760	Ammonia Nitrogen	0.02	g/m³		14/04/2022	Ivan Imamu	
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 Phosphoru	s0.094	g/m³		14/04/2022	Ivan Imamu	ra 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 Coupe	er.
SVOC-00	1 2,3-Diuron	<0.001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-002	2 a-BHC	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-003	3 a-chlordane	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-004	4 Aldrin	<0.001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-005	5 b-BHC	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-006	6 cis-Permethrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-007	7 Dieldrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-008	8 Endosulfan II	<0.005	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-009	9 Endosulfan Sulfate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-010	O Endrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-01	1 Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-012	2 Endrin Ketone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-013	3 Gamma-Chlordane	<0.001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-014	4 Heptachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-015	5 Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-016	6 Hexachlorobenzene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-017	7 Lindane ( g-BHC)	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-018	8 Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-019	9 p,p'-DDD	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-020	0 p,p'DDE	<0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
			-				





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Page 1 of 7 Report Number: 22/4625-1 ELS 16 May 2022 11:00:31

Sample Site 22/4625-01 Levir	n D5	Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		Received 2022 13:09	Order No.
Notes: 240997-0 Levin Land	·					
Test SVOC-021 p,p'-DDT	Result	Units		Test Date	Signatory Ganesh Ilan	alsa KTD
SVOC-021 p,p-DD1 SVOC-022 Procymidone	<0.001 <0.0001	mg/L mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
SVOC-022 Procyrilladile	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-023 F10panii SVOC-024 Endosulfan I	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-024 Endosulari i	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		20/04/2022	Ganesh Ilan	
SVOC-027 Atrazine	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-028 Bromacil	< 0.005	mg/L		20/04/2022	Ganesh Ilan	
SVOC-029 Carbofuran	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-030 Cyanazine	<0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	<0.002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-041 Simazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene SVOC-051 Anthracene	< 0.0010 < 0.0010	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-051 Antinacene SVOC-052 benz(a)anthracene		mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-052 Benzo(a)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and		mg/L		20/04/2022	Ganesh Ilan	
fluoranthrene		_				
SVOC-055 Benzo(g,h,i)peryle		mg/L		20/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthra		mg/L		20/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene SVOC-060 Fluorene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-060 Fluorefle SVOC-061 Indeno(1,2,3-cd)p	< 0.0001 yrene < 0.0001	mg/L mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)p	<0.0001 <0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexa		mg/L		20/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentach		mg/L		20/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobip		mg/L		20/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobipher	•	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-070 2,2',3,4,4',5',6-Hep	•	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-072 Bis(2-ethylhexyl)a	, ,	mg/L		20/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylber	nzene <0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimethylber	nzene <0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-014 Styrene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP





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Page 2 of 7 Report Number: 22/4625-1 ELS

Sample Site 22/4625-01 Levin D5 Notes: 240997-0 Levin Landfill Sar	mole	Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		<b>Received</b> 2022 13:09	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		20/04/2022	Ganesh Iland	rko KTP
VOC-017 Total p,m Xylene, Ethylb		mg/L		20/04/2022	Ganesh Iland	
VOC-017 Total p,iii Xylene, Ethyle		mg/L		20/04/2022	Ganesh Iland	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-020 1,1,2,2-Tetrachloroethan		mg/L		20/04/2022	Ganesh Iland	
VOC-020 1,1,2,7-retrachioroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-021 1,1,2-11ichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-022 1,1-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-023 1,1-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-024 1,1-Bichloropropene VOC-025 1,2,3-Trichloropropane	<0.0005			20/04/2022	Ganesh Iland	
VOC-025 1,2,3-111cmoropropane VOC-026 1,2-Dibromo-3-chloropro		mg/L		20/04/2022	Ganesh Iland	
VOC-020 1,2-Dibromoethane	<0.0001 <0.0002	mg/L mg/L		20/04/2022	Ganesh Iland	
VOC-027 1,2-Dibromoethane	<0.0002	•		20/04/2022	Ganesh Iland	
•	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-029 1,2-Dichloropropane		mg/L		20/04/2022	Ganesh Iland	
VOC-030 1,3-Dichloropropane VOC-031 2,2-Dichloropropane	<0.0005 <0.0005	mg/L		20/04/2022	Ganesh Iland	
	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-032 Allyl chloride		mg/L			Ganesh Iland	
VOC-033 Bromochloromethane	<0.0012	mg/L		20/04/2022		
VOC-034 Bromomethane	<0.001	mg/L		20/04/2022	Ganesh Iland	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-036 Chloroethane	<0.001	mg/L		20/04/2022	Ganesh Iland	
VOC-037 Chloromethane	<0.006	mg/L		20/04/2022	Ganesh Iland	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-039 cis-1,3-Dichloropropene		mg/L		20/04/2022	Ganesh Iland	
VOC-040 Dibromomethane	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-041 Dichlorodifluoromethane		mg/L		20/04/2022	Ganesh Iland	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		20/04/2022	Ganesh Iland	
VOC-044 Tetrachloroethene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-045 trans-1,2-Dichloroethene		mg/L		20/04/2022	Ganesh Iland	
VOC-046 trans-1,3-Dichloroproper		mg/L		20/04/2022	Ganesh Ilano	
VOC-047 Trichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022		
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-057 Bromobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Iland	ko KTP

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





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Page 3 of 7 Report Number: 22/4625-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PULA Online Edition 5340 P.	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/m <sup>3</sup>
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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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 de la	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	0.0005 mg/L
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Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

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

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.

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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Report Released By

Rob Deacon



**Analytical Report** 

Issue: 1 16 May 2022

Report Number: 22/4614

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

Sample 22/4614-	Site -01 Levin D6 40994-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		eceived 2022 14:23	Order No.
140100. 2	Test	Result	Units		Test Date	Signatory	
0001	pH	7.4	Offics		22/04/2022	Jennifer Mo	nt KTD
0001	Suspended Solids - Total	< 3	g/m³		22/04/2022	Marylou Cal	
0040	Total (NP) Organic Carbon	1.0	g/m³		28/04/2022	Amit Kumar	
0052	Alkalinity - Total	90	g CaCO3/m³		22/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	36.9	mS/m		22/04/2022	Jennifer Mo	
0081	Chemical Oxygen Demand	38	g/m³		22/04/2022	Marylou Cal	
0180	BOD5 - Soluble Carbonaceous		g/m³		22/04/2022	Marylou Cal	
0602	Chloride	17.7	g/m³		28/04/2022	Divina Laga	
0605	Nitrate - Nitrogen	14.2	g/m³		28/04/2022	Divina Laga	
0607	Sulphate	5.48	g/m³		28/04/2022	Divina Laga	
0760	Ammonia Nitrogen	< 0.01	g/m³		26/04/2022	Ivan Imamu	
1642	Total Hardness	96	g CaCO3/m³		26/04/2022	Amit Kumar	
1810	Calcium - Dissolved	17.3	g/m³		26/04/2022	Amit Kumar	
1819	Iron - Dissolved	0.011	g/m³		26/04/2022	Amit Kumar	
1822	Magnesium - Dissolved	12.8	g/m³		26/04/2022	Amit Kumar	
1834	Sodium - Dissolved	26.3	g/m³		26/04/2022	Amit Kumar	
2088	Dissolved Reactive Phosphoru		g/m³		26/04/2022	Ivan Imamu	
6701	Aluminium - Dissolved	< 0.002	g/m³		22/04/2022	Amit Kumar	
6703	Arsenic - Dissolved	0.002	g/m³		22/04/2022	Amit Kumar	
6707	Boron - Dissolved	0.05	g/m³		22/04/2022	Amit Kumar	
6708	Cadmium - Dissolved	< 0.0002	g/m³		22/04/2022	Amit Kumar	
6711	Chromium - Dissolved	< 0.0002	g/m³		22/04/2022	Amit Kumar	
6713		0.0008	-		22/04/2022	Amit Kumar	
6718	Copper - Dissolved Lead - Dissolved	< 0.0005	g/m³		22/04/2022	Amit Kumar	
6721		0.0005	g/m³ g/m³		22/04/2022	Amit Kumar	
6721	Manganese - Dissolved Mercury - Dissolved	< 0.0011	g/m³		22/04/2022	Amit Kumar	
6724	Nickel - Dissolved	< 0.0005	g/m³		22/04/2022	Amit Kumar	
6726	Potassium - Dissolved		· ·			Amit Kumar	
6738	Zinc - Dissolved	8.35 0.023	g/m³ g/m³		22/04/2022 22/04/2022	Amit Kumar	
M0104		16	cfu/100mL		21/04/2022	Sunita Raju	
		< 5 *			21/04/2022	•	
	Volatile Fatty Acids		g/m³				Transcribed by
	2 Total Halogenated Phenolics	< 0.05	g/m³		22/04/2022		Transcribed by
	Sample Filtration	Completed	/I		22/04/2022	Freddie Bac	
	1 2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-00		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	3 a-chlordane	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-00		<0.001	mg/L		27/04/2022	Ganesh Ilan	
		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	6 cis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-00		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	8 Endosulfan II	<0.005	mg/L		27/04/2022	Ganesh Ilan	
	9 Endosulfan Sulfate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-01		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	1 Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	2 Endrin Ketone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	3 Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	4 Heptachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	5 Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	6 Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	7 Lindane (g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	8 Methoxychlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	9 p,p'-DDD	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
5VUC-02	0 p,p'DDE	<0.0001	mg/L		27/04/2022	Ganesh Ilan	CKO KIP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4614-1 ELS 16 May 2022 15:00:20

Sample         Site           22/4614-01         Levin D6		Map Ref.	Date Sampled 20/04/2022 00:00		Received 2022 14:23	Order No.
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 Ilan	
SVOC-022 Procymidone SVOC-023 Propanil	<0.0001 <0.001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-023 Propariii SVOC-024 Endosulfan I	<0.001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-024 Endosulari i	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-025 Alacrilor SVOC-026 Aldicarb	<0.1	mg/L		27/04/2022	Ganesh Ilan	
SVOC-027 Atrazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-028 Bromacil	<0.005	mg/L		27/04/2022	Ganesh Ilan	
SVOC-029 Carbofuran	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-030 Cyanazine	< 0.005	mg/L		27/04/2022	Ganesh Ilan	
SVOC-031 d-BHC	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-M	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	< 0.002	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfen	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-041 Simazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-042 Terbuthylazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-043 Trifluralin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-044 Hexazinone	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-045 Chlorpyrifos	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-046 Diazinon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-047 Dimethoate	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene SVOC-060 Fluorene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
	< 0.0001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene SVOC-062 Naphthalene	<0.0001 <0.0001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphe		mg/L		27/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobiphen	-	mg/L		27/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobip		mg/L		27/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-014 Styrene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-015 tert-Butylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 2 of 7 Report Number: 22/4614-1 ELS

Sample Site 22/4614-01 Levin D6 Notes: 240994-0 Levin Landfill Sar	mple	Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		eceived 2022 14:23	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	0.0020	mg/L		20/04/2022	Ganesh Iland	rko KTP
VOC-017 Total p,m Xylene, Ethylb		mg/L		20/04/2022	Ganesh Iland	
VOC-018 1,1,1,2-Tetrachloroethan		mg/L		20/04/2022	Ganesh Iland	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-020 1,1,2,2-Tetrachloroethan		mg/L		20/04/2022	Ganesh Iland	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-023 1,1-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-024 1,1-Bichloropropene VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-025 1,2,3-111c11010propane VOC-026 1,2-Dibromo-3-chloropro				20/04/2022	Ganesh Iland	
VOC-020 1,2-Dibromoethane	<0.0001 <0.0002	mg/L mg/L		20/04/2022	Ganesh Iland	
•		•			Ganesh Iland	
VOC-028 1,2-Dichloroethane	<0.0005 <0.0005	mg/L		20/04/2022 20/04/2022	Ganesh Ilano	
VOC-029 1,2-Dichloropropane		mg/L		20/04/2022	Ganesh Iland	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L				
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-032 Allyl chloride	<0.0005	mg/L		20/04/2022	Ganesh Iland Ganesh Iland	
VOC-033 Bromochloromethane	<0.0012	mg/L		20/04/2022		
VOC-034 Bromomethane	<0.001	mg/L		20/04/2022	Ganesh Ilano	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-036 Chloroethane	<0.001	mg/L		20/04/2022	Ganesh Ilano	
VOC-037 Chloromethane	<0.006	mg/L		20/04/2022	Ganesh Ilano	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-040 Dibromomethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-041 Dichlorodifluoromethane		mg/L		20/04/2022	Ganesh Ilano	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		20/04/2022	Ganesh Ilano	
VOC-044 Tetrachloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-045 trans-1,2-Dichloroethene		mg/L		20/04/2022	Ganesh Ilano	
VOC-046 trans-1,3-Dichloroproper		mg/L		20/04/2022	Ganesh Ilano	
VOC-047 Trichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-057 Bromobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Iland	ko KTP

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
рН	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





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Page 3 of 7 Report Number: 22/4614-1 ELS

16 May 2022 15:00:20

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PULA Online Edition 5340 P.	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/m <sup>3</sup>
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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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
1,2,4 Thinically is on Zeric	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1.3.5-Trimethylbenzene		g/=
1,3,5-Trimethylbenzene Benzene		0.0005 ma/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L





Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 5 of 7 Report Number: 22/4614-1 ELS

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

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.

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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Report Released By

Rob Deacon



# **Analytical Report**

Report Number: 22/4634

Issue: 1 16 May 2022

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

Notice: 2409780 Lewin Landilli Sample   Test Date   Signatory   2004/2022   Jannafer Monk KTP   2004/2022   Jannafer KTP   2004/2022   Jannafer KTP   2004/2022   Jannafer KTP   2004/2022	Sample 22/4634-	Site 01 Levin E1d		Map Ref.	Date Sampled 19/04/2022 00:00		eceived 2022 08:37	Order No.
Test         Result         Units         Test Date         Signatory           0001         pl         7.7         gm²         2004/2022         Jannifar Mont KTP           0002         Suspended Solids - Total         164         g CaCO3/m²         2004/2022         Jannifar Mont KTP           0055         Chalcutily at 25°C         45.1         risk         g CaCO3/m²         2004/2022         Jannifar Mont KTP           0056         Choractivily at 25°C         45.1         risk         gm²         2004/2022         Jonnifar Mont KTP           0188         BDS – Soluble Carbonacous < 1         gm²         2004/2022         Jonnifar Mont KTP           0060         Nirabia - Nirospen         < 0.01         gm²         2004/2022         Jonnifar Mont KTP           0075         Archital - Nirospen         < 0.02         gm²         2004/2022         Jonnifar Mont KTP           0070         Armonia - Nirospen         < 0.02         gm²         2204/2022         Divina Lagazon KTP           0070         Armonia - Nirospen         < 0.02         gm²         2104/2022         Divina Lagazon KTP           1819         Calcumina - Nirospen         < 0.13         gm²         2104/2022         Divina Lagazon KTP           1819 </th <th></th> <th></th> <th></th> <th></th> <th>10/04/2022 00:00</th> <th>20/04/2</th> <th>1022 00.07</th> <th>Ü</th>					10/04/2022 00:00	20/04/2	1022 00.07	Ü
DOUG   DH   7.77			Result	Units		Test Date	Signatory	
DOUGLE   Suspended Salvids - Total   7   9m²   2004/2022   Jennifer Mom KTP	0001			<b>CC</b>				nt KTP
Oxfor   Total (NP) Organic Carbon   3.7   9m²   2004/2022   Trany Morrison KTP		•		g/m³				
0656         Alkalininy - Total         164         g CacO3/m³         2004/2022         Jennifer Mont KTP           0055         Conductivity at 25°C         4.5         m Ms         2004/2022         Gendrout Michitary           0081         Chemical Oxygen Demand         < 15				ū				
OBS   Conductivity at 2F°C   45.1   mS/m   2004/2022   Jennifer Mont KTP		, , <del>.</del>		ū			•	
ORD   Chemical Oxygen Demand   15   9m²   2004/2022   2004 Marythur KTP		•		•				
080   080		•						
ORG         Chloride         38.5         g/m³         22/04/2022         Divina Lagazon KTP           0607         Nitrate - Nitrogen         < 0.01		. •		ū				
6865         Nitrate - Nitrogen         < 0.01				ū			-	
Mighate				ū			•	
1642   Total Hardness   137   g CaCO3/m³   21/04/2022   Divina Lagazon KTP		ŭ		ŭ			•	
1810   Calcium - Dissolved   32.8 g/m³   21/04/2022   Arnit Kumar KTP   1810   Iron - Dissolved   0.38 g/m³   21/04/2022   Arnit Kumar KTP   1822   Magnesium - Dissolved   13.2 g/m³   21/04/2022   Arnit Kumar KTP   1822   Magnesium - Dissolved   36.3 g/m³   22/04/2022   Arnit Kumar KTP   1828   Magnesium - Dissolved   36.3 g/m³   22/04/2022   Arnit Kumar KTP   2088   Dissolved Reactive Phosphorus-0.421 g/m³   21/04/2022   Arnit Kumar KTP   2088   Dissolved Reactive Phosphorus-0.421 g/m³   21/04/2022   Arnit Kumar KTP   2088   Dissolved Reactive Phosphorus-0.421 g/m³   21/04/2022   Divina Lagazon KTP   21/04/2022   Arnit Kumar KTP   21/04/202		·		ū			•	
1819   Calcium - Dissolved   3.2 8   g/m³   21/04/2022   Amit Kumar KTP   1819   Iron - Dissolved   0.038   g/m³   21/04/2022   Amit Kumar KTP   1824   Magnesium - Dissolved   36.3   g/m³   21/04/2022   Amit Kumar KTP   1834   Sodium - Dissolved   36.3   g/m³   21/04/2022   Amit Kumar KTP   2088   Dissolved Reactive Phosphorus V.21   g/m³   21/04/2022   Dinit kumar KTP   6701   Aluminium - Dissolved   0.000   g/m³   21/04/2022   Amit Kumar KTP   6707   Aluminium - Dissolved   0.006   g/m³   21/04/2022   Amit Kumar KTP   6708   Boron - Dissolved   0.006   g/m³   21/04/2022   Amit Kumar KTP   6708   Cadmium - Dissolved   0.0002   g/m³   21/04/2022   Amit Kumar KTP   6713   Asranic - Dissolved   0.0002   g/m³   21/04/2022   Amit Kumar KTP   6713   Copper - Dissolved   0.0001   g/m³   21/04/2022   Amit Kumar KTP   6713   Copper - Dissolved   0.0009   g/m³   21/04/2022   Amit Kumar KTP   6713   Copper - Dissolved   0.0009   g/m³   21/04/2022   Amit Kumar KTP   6714   Manganese - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6722   Mercury - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6724   Marganese - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6726   Patasium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6726   Patasium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6728   Patasium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6728   Patasium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6728   Patasium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6728   Patasium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6728   Patasium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6728   Patasium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6728   Patasium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   21/04/2022		~		ū			_	
1819				ū				
1822   Magnesium - Dissolved   33.2   g/m³   22/04/2022   Amit Kumar KTP     1834   Sodium - Dissolved   36.3   g/m³   22/04/2022   Amit Kumar KTP     1836   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     6704   Soron - Dissolved   0.05   g/m³   21/04/2022   Amit Kumar KTP     6708   Cadmium - Dissolved   < 0.0002   g/m³   21/04/2022   Amit Kumar KTP     6708   Cadmium - Dissolved   < 0.0001   g/m³   21/04/2022   Amit Kumar KTP     6718   Cade - Dissolved   < 0.0001   g/m³   21/04/2022   Amit Kumar KTP     6718   Cade - Dissolved   < 0.0005   g/m³   21/04/2022   Amit Kumar KTP     6721   Manganesa - Dissolved   < 0.0005   g/m³   21/04/2022   Amit Kumar KTP     6722   Mercury - Dissolved   < 0.0005   g/m³   21/04/2022   Amit Kumar KTP     6724   Mickel - Dissolved   < 0.0005   g/m³   21/04/2022   Amit Kumar KTP     6725   Mickel - Dissolved   < 0.0005   g/m³   21/04/2022   Amit Kumar KTP     6726   Potassium - Dissolved   5.76   g/m³   21/04/2022   Amit Kumar KTP     6727   Mickel - Dissolved   5.76   g/m³   21/04/2022   Amit Kumar KTP     6728   Zinz - Dissolved   5.76   g/m³   21/04/2022   Amit Kumar KTP     6738   Zinz - Dissolved   5.76   g/m³   21/04/2022   Amit Kumar KTP     M01-5001   Volatile Fatty Acids   < 5 * g/m³   21/04/2022   Amit Kumar KTP     M05-501   Volatile Fatty Acids   < 5 * g/m³   21/04/2022   Amit Kumar KTP     M05-001   Volatile Fatty Acids   < 5 * g/m³   21/04/2022   Amit Kumar KTP     SVOC-0012 a-BHC   < 0.0001   mg/L   20/04/2022   Ganesh Ilancko KTP     SVOC-0012 a-BHC   < 0.0001   mg/L   20/04/2022   Ganesh Ilancko KTP     SVOC-004   Alcidnn   < 0.0001   mg/L   20/04/2022   Ganesh Ilancko KTP     SVOC-005   Endosulfan II   < 0.005   mg/L   20/04/2022   Ganesh Ilancko KTP     SVOC-0016   Endofin Methode   < 0.0001   mg/L   20/04/2022   Ganesh Ilancko KTP     SVOC-017   Endrin Ketone   < 0.0001				-				
1834   Sodium - Dissolved   36.3   g/m²   22/04/2022   Amit Kumar KTP   2088   Dissolved Reactive Phosphorus 0.421   g/m³   21/04/2022   Amit Kumar KTP   6701   Aluminium - Dissolved   0.006   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   0.0001   g/m³   21/04/2022   Amit Kumar KTP   6718   Cadmium - Dissolved   0.0001   g/m³   21/04/2022   Amit Kumar KTP   6718   Capper - Dissolved   0.0009   g/m³   21/04/2022   Amit Kumar KTP   6718   Capper - 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   Marcury - Dissolved   0.236   g/m³   21/04/2022   Amit Kumar KTP   6724   Mickel - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6726   Potassium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6726   Potassium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6726   Potassium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   6728   Potassium - Dissolved   0.005   g/m³   21/04/2022   Amit Kumar KTP   20/04/2022   Amit Kumar KTP   20/04/2022   Amit Kumar KTP   20/04/2022   Canesh Ilan				ū				
2088   Dissolved Reactive Phosphorus 0.421   g/m²   21/04/2022   Divina Lagazon KTP 6701   Aluminium - Dissolved   0.002   g/m²   21/04/2022   Amit Kumar KTP 6703   Aresine - Dissolved   0.006   g/m²   21/04/2022   Amit Kumar KTP 6707   Boron - Dissolved   0.05   g/m²   21/04/2022   Amit Kumar KTP 6708   Cadmium - Dissolved   0.0002   g/m³   21/04/2022   Amit Kumar KTP 6718   Chromium - Dissolved   0.0001   g/m³   21/04/2022   Amit Kumar KTP 6711   Chromium - Dissolved   0.0001   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 6728   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   Mickle - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6724   Nickle - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6724   Nickle - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6728   Potassium - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Amit Kumar KTP 6738   Zinc - Dissolved   0.0005   g/m³   21/04/2022   Zinc - Dissolved   20/04/2022   Zinc - Dissolved   20/04/2022   Zinc - Dissolved   20/04/2022   Zinc - Dissolved   20/0		o .		-				
6701         Aluminium - Dissolved         < 0.002				ū				
6703         Arsenic - Dissolved         0.05         g/m³         21/04/2022         Amit Kumar KTP           6707         Boron - Dissolved         0.05         g/m³         21/04/2022         Amit Kumar KTP           6708         Cardmium - Dissolved         < 0.0001				ŭ			•	
6707         Boron - Dissolved         0.05         g/m³         21/04/2022         Amit Kumar KTP           6708         Cadmium - Dissolved         < 0.0002				ū				
6708         Cadmium - Dissolved         < 0.0002				ŭ				
6711         Chromium - Dissolved         < 0.001				ū				
6713         Copper - Dissolved         0.0009         g/m³         21/04/2022         Amit Kumar KTP           6718         Lead - Dissolved         < 0.0005				-				
6718         Led - Dissolved         < 0.0005				ū				
6721         Manganese - Dissolved         0.236         g/m³         21/04/2022         Amit Kumar KTP           6722         Mercury - Dissolved         < 0.0005		• •		ū				
6722         Mercury - Dissolved         < 0.0005         g/m³         21/04/2022         Amit Kumar KTP           6724         Nickel - Dissolved         < 0.0005				ū				
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           MO104         E. coli         < 4		•		ŭ				
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 21/04/2022 Amit Kumar KTP 21/04/2022 Marit Kumar KTP 21/04/2022 Marit Kumar KTP 21/04/2022 Morit Kumar KTP 21/04/2022 Morit Kumar KTP 21/04/2022 Morit Morit Norris KTP 21/04/2022 Total Halogenated Phenolics < 5 * g/m³ Lizzie Addis Transcribed by Lizzie Addis Transcribed		•		ū				
6738         Zinc - Dissolved         0.005         g/m³         21/04/2022         Amit Kumar KTP           M0104         E. coli         < 4				ŭ				
M0104         E. coli         < 4         cfu/100mL         20/04/2022         Maria Norris KTP           MO-5001         Volatile Fatty Acids         < 5 *				ū				
MO-5001 Volatile Fatty Acids         < 5 *         g/m³         Lizzie Addis Transcribed by Lizzie Addis Transcribed by Lizzie Addis Transcribed by Lizzie Addis Transcribed by P1859 Sample Filtration         Completed         20/04/2022 Freddie Badraun         Freddie Badraun           SVOC-001 2,3-Diuron         < 0.0001				· ·				
MO-5002         Total Halogenated Phenolics         < 0.05         g/m³         Lizzie Addis Transcribed by Presented By Present						20/04/2022		
P1859 Sample Filtration         Completed         20/04/2022         Freddie Badraun           SVOC-001 2,3-Diuron         <0.001		•		ŭ				-
SVOC-001 2,3-Diuron         <0.001		<u> </u>		g/m³				•
SVOC-002 a-BHC         <0.0001		•	•					
SVOC-003 a-chlordane         <0.0001				•				
SVOC-004 Aldrin         <0.001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-005 b-BHC         <0.0001				•				
SVOC-005 b-BHC         <0.0001				•				
SVOC-006 cis-Permethrin         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-007 Dieldrin         <0.0001				•				
SVOC-007 Dieldrin         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-008 Endosulfan II         <0.005								
SVOC-008 Endosulfan II         <0.005			<0.0001	•				
SVOC-009 Endosulfan Sulfate         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-010 Endrin         <0.0001				•				
SVOC-010 Endrin         <0.0001	SVOC-00	8 Endosulfan II	<0.005	mg/L		20/04/2022		
SVOC-011 Endrin Aldehyde         <0.001				mg/L			Ganesh Ilan	cko KTP
SVOC-012 Endrin Ketone         <0.0001	SVOC-01	0 Endrin	<0.0001	mg/L			Ganesh Ilan	cko KTP
SVOC-013 Gamma-Chlordane         <0.001	SVOC-01	1 Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-014 Heptachlor         <0.0001			<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-015 Heptachlor Epoxide         <0.0001	SVOC-01	3 Gamma-Chlordane	<0.001	mg/L			Ganesh Ilan	cko KTP
SVOC-016 Hexachlorobenzene         <0.0001	SVOC-01	4 Heptachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-017 Lindane ( g-BHC)         <0.0001	SVOC-01	5 Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-018 Methoxychlor         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-019 p,p'-DDD         <0.0001	SVOC-01	6 Hexachlorobenzene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-019 p,p'-DDD <0.0001 mg/L 20/04/2022 Ganesh Ilancko KTP	SVOC-01	7 Lindane ( g-BHC)	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
	SVOC-018	8 Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-020 p,p'DDE <0.0001 mg/L 20/04/2022 Ganesh Ilancko KTP	SVOC-019	9 p,p'-DDD	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
	SVOC-02	0 p,p'DDE	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4634-1 ELS 16 May 2022 11:00:46

Sample         Site           22/4634-01         Levin E1d		Map Ref.	<b>Date Sampled</b> 19/04/2022 00:00		Received 2022 08:37	Order No.
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 Ilan	
SVOC-022 Procymidone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-025 Alachlor SVOC-026 Aldicarb	<0.0001	mg/L		20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-026 Aldicard SVOC-027 Atrazine	<0.1 <0.0001	mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
SVOC-027 Atrazine SVOC-028 Bromacil	<0.0001	mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-029 Carbofuran	<0.003	mg/L		20/04/2022	Ganesh Ilan	
SVOC-039 Carbordian	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-031 d-BHC	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-M	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-033 Metolachlor	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-034 Metribuzin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-035 Molinate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-037 Oxadiazon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-038 Pendimethalin	<0.002	mg/L		20/04/2022	Ganesh Ilan	
SVOC-039 Propazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxyfen	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-041 Simazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-048 Pirimiphos methyl	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-049 Acenapthene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-051 Anthracene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
fluoranthrene						
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-060 Fluorene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-062 Naphthalene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		20/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny		mg/L		20/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobip	•	mg/L		20/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-003 Benzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene	<0.0005	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-007 Naphthalene	<0.0005	mg/L			Ganesh Ilan	
VOC-008 n-Butylbenezene VOC-009 n-Propylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene VOC-010 o-Xylene	<0.0005 <0.0005	mg/L mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
VOC-010 0-Aylene VOC-011 p-Isopropyltoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-011 p-isopropyitoiderie VOC-013 sec-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-013 Sec-Butylberizerie VOC-014 Styrene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-014 Stylene VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
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Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Sample         Site           22/4634-01         Levin E1d           Notes 24/2070 0 lovin E1d         Levin E1d		Map Ref.	<b>Date Sampled</b> 19/04/2022 00:00		eceived 2022 08:37	Order No.
Notes: 240978-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenzer		mg/L		20/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropane	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-037 Chloromethane	< 0.006	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-040 Dibromomethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-043 Hexachlorobutadiene	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-044 Tetrachloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-046 trans-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-047 Trichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disdipline VOC-062 Bromodichloromethane	< 0.0005	~		20/04/2022	Ganesh Ilan	
VOC-062 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Bromolofffi VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroloffii VOC-065 Dibromochloromethane		mg/L		20/04/2022	Ganesh Ilan	
VOC-000 DIDIOMOCHIOIOMEINANE	< 0.0005	mg/L		20/04/2022	Ganesh lian	NONIF

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





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/4634-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PULA Online Edition 5340 P.	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/m <sup>3</sup>
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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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
1,2,4 Thinically is on Zeric	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1.3.5-Trimethylbenzene		g/=
1,3,5-Trimethylbenzene Benzene		0.0005 ma/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L





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Page 5 of 7 Report Number: 22/4634-1 ELS

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

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.

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.

This report may not be reproduced except in full without the written approval of this laboratory.





Report Released By

Rob Deacon



# **Analytical Report**

Report Number: 22/4616 Issue: 1

16 May 2022

P O Box 642 LEVIN 5540 Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4616-0 Notes: 24	Site 01 Levin E1s 0989-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		<b>eceived</b> 2022 17:27	Order No.
110163. 24	Test	Result	Units		Test Date	Signatory	
0001	pH	7.4	Omio		21/04/2022	Marylou Cal	oral KTP
	Suspended Solids - Total	< 6	g/m³		21/04/2022	Jennifer Mo	
	Total (NP) Organic Carbon	7.0	g/m³		28/04/2022	Amit Kumar	
	Alkalinity - Total	82	g CaCO3/m³		21/04/2022	Marylou Cal	
	Conductivity at 25°C	26.5	mS/m		21/04/2022	Marylou Cal	
	Chemical Oxygen Demand	24	g/m³		22/04/2022	Marylou Cal	
0180	BOD5 - Soluble Carbonaceous		g/m³		21/04/2022	Marylou Cal	
0602	Chloride	26.7	g/m³		22/04/2022	Divina Laga	
	Nitrate - Nitrogen	< 0.01	g/m³		22/04/2022	Divina Laga	
	Sulphate	3.58	g/m³		22/04/2022	Divina Laga	
	Ammonia Nitrogen	0.18	g/m³		21/04/2022	Divina Laga	
1642	Total Hardness	61	g CaCO3/m³		26/04/2022	Amit Kumar	
1810	Calcium - Dissolved	12.2	g/m³		26/04/2022	Amit Kumar	
1819	Iron - Dissolved	5.44	g/m³		26/04/2022	Amit Kumar	
1822		7.48	g/m³		26/04/2022	Amit Kumar	
1834	Magnesium - Dissolved Sodium - Dissolved	26.9	g/m³		26/04/2022	Amit Kumar	
	Dissolved Reactive Phosphorus		g/m³		21/04/2022		
	•		· ·			Divina Laga	
6701	Aluminium - Dissolved	0.007	g/m³		22/04/2022	Amit Kumar Amit Kumar	
	Arsenic - Dissolved	0.002	g/m³		22/04/2022		
6707	Boron - Dissolved	< 0.03	g/m³		27/04/2022	Amit Kumar	
6708	Cadmium - Dissolved	< 0.0002	g/m³		22/04/2022	Amit Kumar	
6711	Chromium - Dissolved	< 0.001	g/m³		22/04/2022	Amit Kumar	
	Copper - Dissolved	0.0009	g/m³		22/04/2022	Amit Kumar	
6718	Lead - Dissolved	0.0005	g/m³		22/04/2022	Amit Kumar	
	Manganese - Dissolved	0.264	g/m³		22/04/2022	Amit Kumar	
	Mercury - Dissolved	< 0.0005	g/m³		27/04/2022	Amit Kumar	
	Nickel - Dissolved	< 0.0005	g/m³		22/04/2022	Amit Kumar	
	Potassium - Dissolved	6.60	g/m³		22/04/2022	Amit Kumar	
6738	Zinc - Dissolved	0.004	g/m³		22/04/2022	Amit Kumar	
	E. coli	< 4	cfu/100mL		20/04/2022	Maria Norris	
	Volatile Fatty Acids	< 5 *	g/m³				Transcribed by
	Total Halogenated Phenolics	< 0.05	g/m³		0.4.10.4.10.000		Transcribed by
	Sample Filtration	Completed	4		21/04/2022	Freddie Bad	
	2,3-Diuron	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-002		<0.0001	mg/L		21/04/2022	Ganesh Ilan	
	Ba-chlordane	<0.0001	mg/L			Ganesh Ilan	
SVOC-004		<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-005		<0.0001	mg/L		21/04/2022	Ganesh Ilan	
	cis-Permethrin	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-007		<0.0001	mg/L		21/04/2022	Ganesh Ilan	
	B Endosulfan II	<0.005	mg/L		21/04/2022	Ganesh Ilan	
	Endosulfan Sulfate	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-010		<0.0001	mg/L		21/04/2022	Ganesh Ilan	
	Endrin Aldehyde	<0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
	PEndrin Ketone	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-013	Gamma-Chlordane	<0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
	Heptachlor	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-015	Heptachlor Epoxide	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SV/OC-016	· I lavaahlanahanana	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
000010	6 Hexachlorobenzene						
	Lindane ( g-BHC)	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-017			mg/L mg/L		21/04/2022 21/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-017 SVOC-018	Lindane ( g-BHC)	<0.0001	-				cko KTP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4616-1 ELS 16 May 2022 15:00:28

Sample         Site           22/4616-01         Levin E1s		Map Ref.	Date Sampled 20/04/2022 00:00		eceived 2022 17:27	Order No.
Notes: 240989-0 Levin Landfill Sample	Decult	Unito		Toot Date	Cianatanı	
Test SVOC-021 p,p'-DDT	Result <0.001	<b>Units</b> mg/L		Test Date 21/04/2022	Signatory Ganesh Ilan	cko KTD
SVOC-022 Procymidone	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-028 Bromacil	< 0.005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	< 0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	< 0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	<0.002	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-041 Simazine	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001 <0.0001	mg/L		21/04/2022 21/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-049 Acenapthene SVOC-050 Acenaphthylene	< 0.0001	mg/L mg/L		21/04/2022	Ganesh Ilan	
SVOC-050 Acenaphinylene SVOC-051 Anthracene	< 0.0010	mg/L		21/04/2022	Ganesh Ilan	
SVOC-051 Antifracene SVOC-052 benz(a)anthracene	< 0.0010	mg/L		21/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0010	mg/L		21/04/2022	Ganesh Ilan	
fluoranthrene		_				
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene SVOC-060 Fluorene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	
	< 0.0001	mg/L		21/04/2022 21/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene SVOC-062 Naphthalene	<0.0001 <0.0001	mg/L mg/L		21/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphe		mg/L		21/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny		mg/L		21/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobip		mg/L		21/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-014 Styrene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-015 tert-Butylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP





Sample         Site           22/4616-01         Levin E1s		Map Ref.	Date Sampled 20/04/2022 00:00		eceived 2022 17:27	Order No.
Notes: 240989-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-017 Total p,m Xylene, Ethylbenzer	ne<0.0015	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-020 1,1,2,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-021 1,1,2-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-022 1,1-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-023 1,1-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-024 1,1-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		20/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		20/04/2022	Ganesh Ilan	
VOC-043 Trexachloroethene	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	
VOC-044 Tetrachioroetherie VOC-045 trans-1,2-Dichloroetherie	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-045 trans-1,3-Dichloropropene	< 0.0005	•		20/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-bichloroproperie	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-047 Trichlorofluoromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-046 The filorondoron let rane VOC-049 Vinyl Chloride		mg/L		20/04/2022	Ganesh Ilan	
VOC-049 Viriyi Chionde VOC-050 1,2,3-Trichlorobenzene	<0.0005 <0.0005	mg/L		20/04/2022	Ganesh Ilan	
	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene		mg/L		20/04/2022		
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L			Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP

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
рН	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





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/4616-1 ELS

<sup>\*</sup> Not an accredited test.

Trail Info Cycles Coloris   Trail Info Cycles Coloris area (200 area years APA Coloris Edition SCI)   1. 1 grace	Toot	Mathadalani	Detection Limit
Washings	Test	Methodology	Detection Limit
1.1 moles	. , •		<u> </u>
Demois Depois Demois   APPA Challes Filton Nation (2505 D. The surprise is filtered through Whatmarn (PC and incested with relations on the substance)	·		
Process	,		
			15 g/m³
Notes	BOD5 - Soluble Carbonaceous		1 g/m³
Big Probability   December   De	Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
American Methogon	Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Treal thatmires  CP-QCS Subverys APPA Online Edition Network 5128 Enterolleted  CP-QCS Subver	Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Corporation   COP - Dissilations of participation   Extra Control 3728 (provided)   0.21 get	Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
ICP-OSES Interviews parks Centres Estation Method 3100 8 (medided).   0.00 pm²	Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Magnetium: Deconded   CP-DES Interiors pAPAL Collina Edition Memoral 3728 B (modeled)   0.07 g/m²	Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sestion - Dissoched	Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Describer Prosphorus   Flow injection Automaniyer foliosing APHA Chilen Edition Method 4500 P.G.   0.005 gins	Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Abertination - Dissorberd	Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Areanic - Stosolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.003 gint of Continum - Dissolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0002 gint of Continum - Dissolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0002 gint of Continum - Dissolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint of Continum - Dissolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition Method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition Method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition Method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition Method 3125 (modified). 0.0003 gint IP-NS Stolward	Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Boon - Dissolved ICP-MS following APHA Online Edition method 3125 (modified). 0.032 gin?  Citarianiam - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.000 gin?  Coppor - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.000 gin?  Coppor - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Local - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following AP	Aluminium - Dissolved		0.002 g/m³
Boon - Dissolved ICP-MS following APHA Online Edition method 3125 (modified). 0.032 gin?  Citarianiam - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.000 gin?  Coppor - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.000 gin?  Coppor - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Local - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following AP	Arsenic - Dissolved		†
Commium - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  Ox000 gm²  Oxperi - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Lord-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Lord-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Mergarese - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Nickel - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Nickel - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Nickel - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Nickel - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Performance of ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).	Boron - Dissolved		†
Chonnium - Dissolved  Choper - Dissolved  Chop	Cadmium - Dissolved		1
Copper - Dissolved ICP-MS Following APHA Online Edition method 3125 (modified). 0.0005 gm²   Managenese - Dissolved ICP-MS Following APHA Online Edition method 3126 (modified). 0.0005 gm²   Managenese - Dissolved ICP-MS Following APHA Online Edition method 3126 (modified). 0.0005 gm²   Miniciar - Dissolved ICP-MS Following APHA Online Edition method 3126 (modified). 0.0005 gm²   Miniciar - Dissolved ICP-MS Following APHA Online Edition method 3126 (modified). 0.0005 gm²   Miniciar - Dissolved ICP-MS Following APHA Online Edition method 3126 (modified). 0.0005 gm²   Miniciar - Dissolved ICP-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Following APHA Online Edition method 3126 (modified). 0.000 gm²   ED-MS Follow			-
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Mercury - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  ICP-MS following APHA Online Edition method 3125 (modified).  O.0005 gm²  Petassium - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  O.0005 gm²  Petassium - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  O.002 gm²  Time - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  O.002 gm²  ICP-MS following APHA Online Edition method 3125 (modified).  O.002 gm²  ICP-MS following APHA Online Edition method 3125 (modified).  O.002 gm²  Ice coll  APHA 9222 Online Edition  APHA 9222 Online Edition  APHA 9222 Online Edition  Professor by European Apha 922 (modified).  Ice coll  APHA 9222 Online Edition  ethod 3125 (modified).  Ice coll Edition Edition Method 3126 (modified).  Ice coll Edition Edition Method 3126 (modified).  Ice coll Edition Edition Method 3126 (modified).  Analyses at Europian Method International Apha 924 (modified).  Organochlorine Pedicide compound analysed by in-house method using GC-MS  Oline International Organochlorine Pedicide compound analysed by in-house method using GC-MS  Oline International Organochlorine Pedicide compound analysed by in-house method using GC-MS  Oline International Organochlorine Pedicide compound analysed by in-house method using GC-MS  Oline International Organochlorine Pedicide compound analysed by in-house method using GC-MS  Oline International Organochlorine Pedicide compound analysed by in-house method using GC-MS  Oline International Organochlorine Pedicide compound analysed by in-house method us			1
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Nicolar - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  Out gm² Potassium - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  Out gm² Zinc - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  Out gm² E. coil  APHA 92221:Online Edition method 3125 (modified).  Performed by Eurofins Methoure following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are responsed as acetil acid equivalent.  Total Hallogenated Phenolics  Analyses at Eurofins Methourne following Method: LTM-INC-4050 Total Phenolics in Waters and solids by CFA  Out gm² Sample Fittation  Sample litered through 0.45 micros filter following APHA Online Edition Method 30308.  n/a  2Diuron  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² BaHC  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² Acidin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² Compound analysed by in-house method using GC-MS  Out gm² Compound analysed by in-house method using GC-MS  Out gm² Color impt.  Deletin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² Color impt.  Deletin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² Color impt.  Deletin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Deletin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endosultan II  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endosultan II  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endosultan Sulfate  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endorin Kettone  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endorin Kettone  Organochiorine Pesticide compound analysed by in-house meth	•		<del>†                                      </del>
Potassium - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified)  In the World Online Edition of World Method ICTM-ORG-2300 Determination of Volatile Fatty Acids in Water by GC-MS Results are reported as a cotte acid equivalent.  Total Halogenated Phenolics  Analyses as Eurofina Melbourne following Method LTM-ORG-2300 Determination of Volatile Fatty Acids in Water by GC-MS. Results are reported as a cotte acid equivalent.  Total Halogenated Phenolics  Analyses as Eurofina Melbourne following APHA Online Edition Method 3000B.  Intelligenation of Phenolics of Water and solidis by CFA. 0.05 gm²  Sample Filtration  Sample filtration  Sample filtration  Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.001 mg/L.  Pethod Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.001 mg/L.  BeHC  Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.001 mg/L.  BeHC  Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.001 mg/L.  BeHC  Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.0001 mg/L.  BeHC  Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.0001 mg/L.  BeHC  Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.0001 mg/L.  BeHC Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.0001 mg/L.  BeHC Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.0001 mg/L.  BeHC Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.0001 mg/L.  BeHC Organochiorine Pesticide compound analysed by in-house method using GC-MS. 0.0001 mg/L.  Bethchio Methody Delicition Pesticide compound analysed by in-house method using GC-MS. 0.0001 mg/L.  Bethchio Methody Delicition Pesticide compound analyse			†
ICP-MS following APHA Online Edition method 3125 (modified)   0.002 gm²			†
E. coii APHA 9222/Chriline Edition 1 1 chu100mL  Volatile Fatty Acids Pertry Acids			
Volatile Fatty Acids Performed by Eurofins Melbourne following Method: LTM-CRG-2300 Determination of Volatile Fatty Acids in Water by GC-MS, Results are reported as assets acid equivalent.  Total Halogenated Phanolics Analyses at Eurofins Melbourne following Method: LTM-INO-4005 Ortal Phanolics in Waters and solids by CFA Sample Filtration Sample filtration Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house met			†
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Gamma-Chlordane Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.0001 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  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'-DDT Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.0001 mg/L  Procymidone Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.0001 mg/L  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
Heptachlor Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Heptachlor Epoxide Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Hexachlorobenzene Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Lindane ( g-BHC) Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Methoxychlor Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Opp-DDD Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Opp-DDT Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L	Endrin Ketone	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 O.0001 mg/L Hexachlorobenzene Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Lindane ( g-BHC) Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Methoxychlor Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  p,p'-DDD Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  p,p'-DDE Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  Prophi Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  Procymidone Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L	Gamma-Chlordane	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Hexachlorobenzene Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Lindane (g-BHC) Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Methoxychlor Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L	Heptachlor	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  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L  Organochlorine Pesticide compound analysed by in-house method using GC-MS  O.0001 mg/L	Heptachlor Epoxide	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 O.0001 mg/L p,p'-DDD Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L p,p'DDE Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L p,p'-DDT Organochlorine Pesticide compound analysed by in-house method using GC-MS O.001 mg/L Procymidone Organochlorine Pesticide compound analysed by in-house method using GC-MS O.0001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.001 mg/L Endosulfan I Organochlorine Pesticide compound analysed by in-house method using GC-MS O.001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS O.001 mg/L	Hexachlorobenzene	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 0.001 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 Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.001 mg/L	Lindane ( g-BHC)	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 0.001 mg/L	Methoxychlor	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	p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 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	p,p'DDE	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	p,p'-DDT	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	Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Alachlor Organonitrogen 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
Aldicarb Organonitrogen Pesticide compound analysed by in-house method using GC-MS 0.1 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
1,2,4 Thinically is on Zeric	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1.3.5-Trimethylbenzene		g/=
1,3,5-Trimethylbenzene Benzene		0.0005 ma/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic 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

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.

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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Report Released By

Rob Deacon



# **Analytical Report**

Report Number: 22/4643

Issue: 1 16 May 2022

### Downer EDI Levin - Landfill P O Box 642 **LEVIN 5540**

Attention: Elysia Kinross

<b>Sample</b> 22/4643-0 Notes: 24	Site 01 Levin E2d 0979-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 19/04/2022 00:00		eceived 2022 08:37	Order No.
140103. 24	Test	Result	Units		Test Date	Signatory	
0001	На	7.6			20/04/2022	Jennifer Moi	nt KTP
0002	Suspended Solids - Total	< 5	g/m³		20/04/2022	Jennifer Moi	nt KTP
0040	Total (NP) Organic Carbon	3.1	g/m³		20/04/2022	Tracy Morris	son KTP
0052	Alkalinity - Total	157	g CaCO3/m³		20/04/2022	Jennifer Moi	
0055	Conductivity at 25°C	44.4	mS/m		20/04/2022	Jennifer Moi	
0081	Chemical Oxygen Demand	< 15	g/m³		20/04/2022	Gordon McA	
0180	BOD5 - Soluble Carbonaceous		g/m³		20/04/2022	Marylou Cal	
0602	Chloride	40.8	g/m³		22/04/2022	Divina Laga:	
0605	Nitrate - Nitrogen	< 0.01	g/m³		22/04/2022	Divina Laga:	
0607	Sulphate	< 0.02	g/m³		22/04/2022	Divina Laga:	
0760	Ammonia Nitrogen	0.28	g/m³		21/04/2022	Divina Laga:	
1642	Total Hardness	128	g CaCO3/m³		22/04/2022	Tracy Morris	
1810	Calcium - Dissolved	28.1	g/m³		21/04/2022	Amit Kumar	
1819	Iron - Dissolved	0.071	g/m³		21/04/2022	Amit Kumar	
	Magnesium - Dissolved	13.9	g/m³		21/04/2022	Amit Kumar	
1834	Sodium - Dissolved	43.0	g/m³		22/04/2022	Amit Kumar	
			· ·				
2088	Dissolved Reactive Phosphorus		g/m³		21/04/2022	Divina Laga:	
6701	Aluminium - Dissolved	0.002	g/m³		21/04/2022	Amit Kumar	
6703	Arsenic - Dissolved	0.001	g/m³		21/04/2022	Amit Kumar	
6707	Boron - Dissolved	0.06	g/m³		21/04/2022	Amit Kumar	
6708	Cadmium - Dissolved	< 0.0002	g/m³		21/04/2022	Amit Kumar	
6711	Chromium - Dissolved	< 0.001	g/m³		21/04/2022	Amit Kumar	
6713	Copper - Dissolved	< 0.0005	g/m³		21/04/2022	Amit Kumar	
6718	Lead - Dissolved	0.0011	g/m³		21/04/2022	Amit Kumar	
6721	Manganese - Dissolved	0.438	g/m³		21/04/2022	Amit Kumar	
6722	Mercury - Dissolved	< 0.0005	g/m³		21/04/2022	Amit Kumar	
6724	Nickel - Dissolved	< 0.0005	g/m³		21/04/2022	Amit Kumar	
6726	Potassium - Dissolved	7.31	g/m³		21/04/2022	Amit Kumar	
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 Bad	lraun .
SVOC-001	2,3-Diuron	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-002	?a-BHC	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-003	a-chlordane	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-004	Aldrin	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-005	b-BHC	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-007	' Dieldrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-008	B Endosulfan II	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-010	) Endrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	Endrin Ketone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
	Gamma-Chlordane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	Heptachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Hexachlorobenzene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Lindane ( g-BHC)	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	, • ,		-				
	B Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-019		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-020	ρ,ρ υ∪ <b>Ε</b>	<0.0001	mg/L		20/04/2022	Ganesh Ilan	CKOKIP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4643-1 ELS 16 May 2022 11:00:54

Test   Page   Units   Page   Units   Page   Supparty   SVOC-012 pt-DDT   vol.01   mg/L   2004/2022   Supparty   SVOC-022 Procymidone   vol.0001   mg/L   2004/2022   Supparty   SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0005   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0005   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0005   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0005   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-023 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-024 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-024 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-024 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-024 Procymidone   vol.0001   mg/L   2004/2022   Supparty   Units of the SVOC-024 Procymidone	Sample Site 22/4643-01 Levin E2d Notes: 240979-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 19/04/2022 00:00		eceived 2022 08:37	Order No.
SVOC-021 pc-PoDT         4,001         mg/L         2004/2022         Gamesh Isancko KTP           SVOC-023 Programi         4,001         mg/L         2004/2022         Canach Isancko KTP           SVOC-024 Programi         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-026 Allochlor         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-027 Arlacime         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-028 Carbothura         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-028 Carbothura         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-029 Carbothura         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-029 Carbothura         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-029 Medisaby-M         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-029 Medisaby-M         4,0001         mg/L         2004/2022         Canach Isancko KTP           SVOC-029 Medisaby-M         4,0001         mg/L         2004/2022         Gannel Isancko KTP           SVOC-038 Medisaby-M         4,0001	· ·	Result	Units		Test Date	Signatory	
SVOC-022 Procymidone							cko KTP
SVOC-023 Propamal			· ·				
SVOC-Q25 Alchafor         -0.001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q26 Alchafor         -0.01         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q27 Alcazine         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q28 Bromacil         -0.005         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q30 Cyanazine         -0.005         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q31 Gel HPL         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q31 Martinasy-M         -0.001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q33 Motolaria         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q33 Motolaria         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q33 Motolaria         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q33 Propazine         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q34 Propizore         -0.0001         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-Q44 Priprizoryfen         -0.0001			=			Ganesh Ilan	cko KTP
SVOC-Q28 Albehlor         -0.1         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q28 Altazine         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q28 Entroburan         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q30 Cynorazine         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q30 Cynorazine         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q31 d-BHC         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q33 Metalasy+M         -0.0001         mg/L         2004/2022         Ganesh Illancko KTP           SVOC-Q33 Metalasy-M	•	<0.001	•		20/04/2022	Ganesh Ilan	cko KTP
SVOC-Q22 Forthuran <a 10.2004="" 20.2004="" 20<="" doi.org="" href="https://doi.org/10.1001/j.j.com/do&lt;/td&gt;&lt;td&gt;SVOC-025 Alachlor&lt;/td&gt;&lt;td&gt;&lt;0.0001&lt;/td&gt;&lt;td&gt;•&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;20/04/2022&lt;/td&gt;&lt;td&gt;Ganesh Ilan&lt;/td&gt;&lt;td&gt;cko KTP&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;  SVOC-028 Bromacil&lt;/td&gt;&lt;td&gt;SVOC-026 Aldicarb&lt;/td&gt;&lt;td&gt;&lt;0.1&lt;/td&gt;&lt;td&gt;mg/L&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;20/04/2022&lt;/td&gt;&lt;td&gt;Ganesh Ilan&lt;/td&gt;&lt;td&gt;cko KTP&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;  SVOC-230 Carboturam&lt;/td&gt;&lt;td&gt;SVOC-027 Atrazine&lt;/td&gt;&lt;td&gt;&lt; 0.0001&lt;/td&gt;&lt;td&gt;mg/L&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;20/04/2022&lt;/td&gt;&lt;td&gt;Ganesh Ilan&lt;/td&gt;&lt;td&gt;cko KTP&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;  SVOC-030 Cyanazine&lt;/td&gt;&lt;td&gt;SVOC-028 Bromacil&lt;/td&gt;&lt;td&gt;&lt; 0.005&lt;/td&gt;&lt;td&gt;mg/L&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;20/04/2022&lt;/td&gt;&lt;td&gt;Ganesh Ilan&lt;/td&gt;&lt;td&gt;cko KTP&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;  SVOC-031 d-BHC&lt;/td&gt;&lt;td&gt;SVOC-029 Carbofuran&lt;/td&gt;&lt;td&gt;&lt;0.001&lt;/td&gt;&lt;td&gt;mg/L&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;20/04/2022&lt;/td&gt;&lt;td&gt;Ganesh Ilan&lt;/td&gt;&lt;td&gt;cko KTP&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;  SVOC-032 Metailary-IM&lt;/td&gt;&lt;td&gt;SVOC-030 Cyanazine&lt;/td&gt;&lt;td&gt;&lt; 0.005&lt;/td&gt;&lt;td&gt;mg/L&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;20/04/2022&lt;/td&gt;&lt;td&gt;Ganesh Ilan&lt;/td&gt;&lt;td&gt;cko KTP&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;  SVOC-035 Metrolachior&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;0.0001&lt;/td&gt;&lt;td&gt;mg/L&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;20/04/2022&lt;/td&gt;&lt;td&gt;Ganesh Ilan&lt;/td&gt;&lt;td&gt;cko KTP&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;  SVOC-034 Metribuzin&lt;/td&gt;&lt;td&gt;•&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;•&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;SVOC-035 Molinate         &lt;0.0001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-037 Sendiazon         &lt;0.0001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-038 Pendimethalin         &lt;0.002&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-040 Priprorylan         &lt;0.0001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-041 Simazine         &lt;0.0001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-043 Trifluralin         &lt;0.0001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-044 Strazinene         &lt;0.0001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-045 Chlorpyrifos         &lt;0.001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-046 Shaziane         &lt;0.0001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-047 Dimethoate         &lt;0.001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-048 Acanaphrane         &lt;0.001&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-059 Encaphthylane         &lt;0.0010&lt;/td&gt;         mg/L         2004/2022         Ganesh Ilancko KTP           SVOC-055 Encaphthylane&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;•&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;SVOC-037 Oxadiazon         4.0001         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-038 Propazine         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-049 Priproxyfen         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-042 Terbuthylazine         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-042 Terbuthylazine         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-043 Entbuthylazine         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-044 Entbuthylazine         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-044 Entbroyntion         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-044 Entbroyntion         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-043 Entimphos methyl         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-049 Acenaphthylen         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP           SVOC-049 Entmiphos methyl         &lt;0.0001&lt;/td&gt;         mg/L         20/04/20/22         Ganesh Ilancko KTP     &lt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;•&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;  SVOC-038 Progazine&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;•&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;SVOC-039 Propazine         &lt;a href=" https:="" j.jcp="" td=""><td></td><td></td><td>•</td><td></td><td></td><td></td><td></td></a>			•				
SVOC-040 Pyriproxyten			•				
SVOC-041 Simizarine	·		•				
SVOC-043 Triburtylazine	· · · ·						
SVOC-043 Triffuralin			•				
SVOC-045 Chloryprifos	· ·		•				
SVCC-046 Chlorpyrifos   -0.0001   mg/L   2004/2022   Ganesh Illancko KTP			•				
SVOC-046 Diazinon         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-047 Dimethoate         <0.001			•				
SVOC-047 Dimethoate	* *		•				
SVOC-048 Pirimiphos methyl   <0.0001 mg/L   2004/2022 Ganesh llancko KTP			•				
SVOC-050 Acenaphthren   <0.0001   mg/L   20/04/2022   Ganesh Ilancko KTP			•				
SVOC-050 Acenaphthylene         < 0.0010							
SVOC-051 Anthracene         < 0.0010         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-052 benz(a) anthracene         < 0.0001	•		•				
SVOC-052 benz(a)anthracene	. ,		•				
SVOC-053 Benzo(a)pyrene   < 0.0001   mg/L   20/04/2022   Ganesh Ilancko KTP	SVOC-052 benz(a)anthracene	< 0.0001	•		20/04/2022	Ganesh Ilan	cko KTP
SVOC-055 Benzo(g,h,i)perylene		< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-055 Benzo(g,h,i)perylene         < 0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-057 Chrysene         < 0.0001	* * * * * * * * * * * * * * * * * * * *	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene         < 0.0001							
SVOC-058 Dibenz(a,h)anthracene         < 0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-059 Fluoranthene         < 0.0001			•				
SVOC-059 Fluoranthene         < 0.0001         mg/L         20/04/2022         Ganesh llancko KTP           SVOC-060 Fluorene         < 0.0001							
SVOC-060 Fluorene         < 0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-061 Indeno(1,2,3-cd)pyrene         < 0.0001			=				
SVOC-061 Indeno(1,2,3-cd)pyrene         <0.0001			•				
SVOC-062 Naphthalene         <0.0001			•				
SVOC-063 Phenanthrene         <0.0001			•				
SVOC-064 Pyrene         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyk-0.001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl         <0.0001	•		•				
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyk 0.001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl         <0.0001			•				
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	•						
SVOC-068 2,4,4'-Trichlorobiphenyl         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-069 2,4-Dichlorobiphenyl         <0.0001		-	•				
SVOC-069 2,4-Dichlorobiphenyl         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphexyl0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-072 Bis(2-ethylhexyl)adipate         <0.0001			•				
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphemyl0001         mg/L         20/04/2022         Ganesh Ilancko KTP           SVOC-072 Bis(2-ethylhexyl)adipate         <0.0001			•				
SVOC-072 Bis(2-ethylhexyl)adipate         <0.0001         mg/L         20/04/2022         Ganesh Ilancko KTP           VOC-001 1,2,4-Trimethylbenzene         <0.0005			•				
VOC-002 1,3,5-Trimethylbenzene         <0.0005		-	•			Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimethylbenzene         <0.0005	VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-005         Isopropylbenzene         <0.0005	VOC-002 1,3,5-Trimethylbenzene	< 0.0005			20/04/2022	Ganesh Ilan	cko KTP
VOC-007         Naphthalene         <0.0005	VOC-003 Benzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene         <0.0005	VOC-005 Isopropylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene         <0.0005	VOC-007 Naphthalene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene         <0.0005	VOC-008 n-Butylbenezene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene         <0.0005	VOC-009 n-Propylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene         <0.0005	-	<0.0005	•				
VOC-014 Styrene <0.0005 mg/L 20/04/2022 Ganesh Ilancko KTP		<0.0005	mg/L			Ganesh Ilan	cko KTP
VOC-015 tert-Butylbenzene <0.0005 mg/L 20/04/2022 Ganesh Ilancko KTP			•				
	VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP





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Page 2 of 7 Report Number: 22/4643-1 ELS

Sample         Site           22/4643-01         Levin E2d		Map Ref.	<b>Date Sampled</b> 19/04/2022 00:00		eceived 2022 08:37	Order No.
Notes: 240979-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenze		mg/L		20/04/2022	Ganesh Iland	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-026 1,2-Dibromo-3-chloropropane	<0.001	mg/L		20/04/2022	Ganesh Iland	
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-032 Allyl chloride	<0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-034 Bromomethane	<0.001	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-036 Chloroethane	< 0.001	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-037 Chloromethane	< 0.006	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-040 Dibromomethane	< 0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-041 Dichlorodifluoromethane	< 0.001	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-043 Hexachlorobutadiene	< 0.0002	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-044 Tetrachloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Iland	cko KTP
VOC-046 trans-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-047 Trichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-050 1,2,3-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-052 1,2-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005			20/04/2022	Ganesh Ilan	
VOC-057 Biomoberizene VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
		mg/L		20/04/2022	Ganesh Iland	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L			Ganesh Iland	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022		
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Iland	ско К ГР

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	





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Page 3 of 7 Report Number: 22/4643-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PULA Online Edition 5340 P.	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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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 de la contraction	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	0.0005 mg/L
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Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

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	0.0005 mg/L
1,3-Dichloropropane	USEPA Method 8260.  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	USEPA Method 8260.  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	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L
Bromochloromethane	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0012 mg/L
Bromomethane	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.001 mg/L
Carbon tetrachloride	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on USEPA Method 8260. Also known as Tatach larger at house.	0.0005 mg/L
Chloroethane	USEPA Method 8260. Also known as Tetrachloromethane.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.001 mg/L
Chloromethane	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.006 mg/L
cis-1,2-Dichloroethene	USEPA Method 8260.  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	0.0005 mg/L
Dibromomethane	USEPA Method 8260.  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	0.005 mg/L
Hexachlorobutadiene	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0002 mg/L
Tetrachloroethene	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L
trans-1,2-Dichloroethene	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L
trans-1,3-Dichloropropene	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L
Trichloroethene	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L
Trichlorofluoromethane	USEPA Method 8260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0005 mg/L
Vinyl Chloride	USEPA Method 8260.  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

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.

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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Report Released By

Rob Deacon



# **Analytical Report**

Issue: 1 16 May 2022

Report Number: 22/4615

P O Box 642 **LEVIN 5540** Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4615-0	Site 01 Levin E2s 0990-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 12:50	Order No.
Notes. 24	Test	Result	Units		Test Date	Signatory	
0001	pH	7.6	Onits		22/04/2022	Jennifer Moi	nt KTP
0001	Suspended Solids - Total	9	g/m³		22/04/2022	Jennifer Moi	
0040	Total (NP) Organic Carbon	2.4	g/m³		28/04/2022	Amit Kumar	
0040	Alkalinity - Total	82	g CaCO3/m³		22/04/2022	Jennifer Moi	
	Conductivity at 25°C	32.4	mS/m		22/04/2022	Jennifer Moi	
0033	Chemical Oxygen Demand	18	g/m³		26/04/2022	Marylou Cal	
	BOD5 - Soluble Carbonaceous		g/m³		22/04/2022	Marylou Cal	
0602	Chloride	38.1	g/m³		28/04/2022	Divina Laga:	
0605	Nitrate - Nitrogen	< 0.01	g/m³		28/04/2022	Divina Laga:	
0603	Sulphate	11.0	g/m³		28/04/2022	Divina Laga:	
	·		ŭ			•	
0760	Ammonia Nitrogen	0.30	g/m³		27/04/2022	Ivan Imamui	
1642	Total Hardness	77	g CaCO3/m³		27/04/2022	Amit Kumar	
1810	Calcium - Dissolved	21.3	g/m³		27/04/2022	Amit Kumar	
1819	Iron - Dissolved	0.081	g/m³		27/04/2022	Amit Kumar	
	Magnesium - Dissolved	5.84	g/m³		27/04/2022	Amit Kumar	
1834	Sodium - Dissolved	26.7	g/m³		27/04/2022	Amit Kumar	
2088	Dissolved Reactive Phosphorus		g/m³		27/04/2022	Ivan Imamui	
6701	Aluminium - Dissolved	0.002	g/m³		27/04/2022	Amit Kumar	
6703	Arsenic - Dissolved	0.001	g/m³		27/04/2022	Amit Kumar	
6707	Boron - Dissolved	0.03	g/m³		27/04/2022	Amit Kumar	
6708	Cadmium - Dissolved	< 0.0002	g/m³		27/04/2022	Amit Kumar	
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 Bad	raun .
SVOC-001	2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-002	2 a-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-003	a-chlordane	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-004	Aldrin	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-005	b-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-007	' Dieldrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-008	B Endosulfan II	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
	Endosulfan Sulfate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-010		<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	Endrin Ketone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	Heptachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	Lindane ( g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	(0)		•			Ganesh Ilan	
	B Methoxychlor	<0.0001 <0.0001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
SVOC-019			mg/L				
SVOC-020	ν <b>ρ</b> ,ρ υυ <b>ς</b>	<0.0001	mg/L		27/04/2022	Ganesh Ilan	CKUKIP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4615-1 ELS 16 May 2022 15:00:25

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 lla	ıncko KTP
· ,	
SVOC-022 Procymidone <0.0001 mg/L 27/04/2022 Ganesh liz	incko KTP
SVOC-022 Propanil <0.001 mg/L 27/04/2022 Ganesh lia	
SVOC-024 Endosulfan I <0.001 mg/L 27/04/2022 Ganesh IIa	
SVOC-025 Alachlor <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-026 Aldicarb <0.1 mg/L 27/04/2022 Ganesh IIa	
SVOC-027 Atrazine <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-028 Bromacil <0.005 mg/L 27/04/2022 Ganesh IIa	
SVOC-029 Carbofuran <0.001 mg/L 27/04/2022 Ganesh Ila	incko KTP
SVOC-030 Cyanazine <0.005 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-031 d-BHC <0.0001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-032 Metalaxyl-M <0.001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-033 Metolachlor <0.0001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-034 Metribuzin <0.0001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-035 Molinate <0.0001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-037 Oxadiazon <0.0001 mg/L 27/04/2022 Ganesh Ila	incko KTP
SVOC-038 Pendimethalin <0.002 mg/L 27/04/2022 Ganesh Ila	incko KTP
SVOC-039 Propazine <0.0001 mg/L 27/04/2022 Ganesh Ila	incko KTP
SVOC-040 Pyriproxyfen <0.0001 mg/L 27/04/2022 Ganesh Ila	incko KTP
SVOC-041 Simazine <0.0001 mg/L 27/04/2022 Ganesh Ila	incko KTP
SVOC-042 Terbuthylazine <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-043 Trifluralin <0.0001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-044 Hexazinone <0.001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-045 Chlorpyrifos <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-046 Diazinon <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-047 Dimethoate <0.001 mg/L 27/04/2022 Ganesh IIa	
SVOC-048 Pirimiphos methyl <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-049 Acenapthene <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-050 Acenaphthylene < 0.0010 mg/L 27/04/2022 Ganesh IIa	
SVOC-051 Anthracene < 0.0010 mg/L 27/04/2022 Ganesh IIa	
SVOC-052 benz(a)anthracene < 0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-053 Benzo(a)pyrene         < 0.0001	
SVOC-054 Total Benzo(b) and Benzo(k) < 0.0010 mg/L 27/04/2022 Ganesh Ila fluoranthrene	INCKO K I P
	uncko KTD
SVOC-055 Benzo(g,h,i)perylene       <0.001	
SVOC-058 Dibenz(a,h)anthracene < 0.0001 mg/L 27/04/2022 Ganesh like	
SVOC-059 Fluoranthene < 0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-060 Fluorene < 0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-061 Indeno(1,2,3-cd)pyrene <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-062 Naphthalene <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-063 Phenanthrene <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-064 Pyrene <0.0001 mg/L 27/04/2022 Ganesh IIa	
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphenyk0.001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobiphenyl <0.0001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl <0.0001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-069 2,4-Dichlorobiphenyl <0.0001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiphex0010001 mg/L 27/04/2022 Ganesh IIa	incko KTP
SVOC-072 Bis(2-ethylhexyl)adipate <0.0001 mg/L 27/04/2022 Ganesh IIa	incko KTP
VOC-001 1,2,4-Trimethylbenzene <0.0005 mg/L 27/04/2022 Ganesh Ila	incko KTP
VOC-002 1,3,5-Trimethylbenzene <0.0005 mg/L 27/04/2022 Ganesh Ila	incko KTP
VOC-003 Benzene <0.0005 mg/L 27/04/2022 Ganesh Ila	incko KTP
VOC-005 Isopropylbenzene <0.0005 mg/L 27/04/2022 Ganesh Ila	
VOC-007 Naphthalene <0.0005 mg/L 27/04/2022 Ganesh IIa	
VOC-008 n-Butylbenezene <0.0005 mg/L 27/04/2022 Ganesh IIa	
VOC-009 n-Propylbenzene <0.0005 mg/L 27/04/2022 Ganesh IIa	
VOC-010 o-Xylene <0.0005 mg/L 27/04/2022 Ganesh IIa	
VOC-011 p-Isopropyltoluene <0.0005 mg/L 27/04/2022 Ganesh IIa	
VOC-013 sec-Butylbenzene <0.0005 mg/L 27/04/2022 Ganesh IIa	
VOC-014 Styrene <0.0005 mg/L 27/04/2022 Ganesh IIa	
VOC-015 tert-Butylbenzene <0.0005 mg/L 27/04/2022 Ganesh Ila	incko KTP





Page 2 of 7

Sample Site 22/4615-01 Levin E2s Notes: 240990-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		Received 2022 12:50	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-017 Total p,m Xylene, Ethylbenze		mg/L		27/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropane		mg/L		27/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-031 2,2-Dichloroproparie  VOC-032 Allyl chloride	<0.0005	•		27/04/2022	Ganesh Ilan	
VOC-032 Allyl chloride VOC-033 Bromochloromethane	<0.0012	mg/L		27/04/2022	Ganesh Ilan	
VOC-033 Bromomethane	<0.0012	mg/L mg/L		27/04/2022	Ganesh Ilan	
VOC-034 Biomometriane VOC-035 Carbon tetrachloride	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.0003	•			Ganesh Ilan	
VOC-036 Chloromethane	<0.001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
VOC-037 Chloromethane VOC-038 cis-1,2-Dichloroethene		mg/L		27/04/2022	Ganesh Ilan	
·	<0.0005	mg/L				
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane VOC-041 Dichlorodifluoromethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-042 Dichloromethane	<0.005	mg/L		27/04/2022	Ganesh Ilan	
VOC-044 Tetraphlaraethana	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-047 Trichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	ско КТР

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
рН	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1





<sup>\*</sup> Not an accredited test.

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	1 g/m³
BODO - Goldbie Galbonaceous	inhibitor.	T g/m
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/m <sup>3</sup>
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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane ( g-BHC)		1
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor		0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	1
Methoxychlor p,p'-DDD p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Lindane ( g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone  Propanil  Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L





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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		0.0001 mg/L
	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	_
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.  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

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.

Report Released By Rob Deacon

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

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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**Analytical Report** 

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

P O Box 642 LEVIN 5540 Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4611-	Site -01 Levin F1 40998-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		eceived 2022 13:22	Order No.
110100. 2	Test	Result	Units		Test Date	Signatory	
0001	pH	7.5	Onno		16/04/2022	Jennifer Moi	nt KTP
0002	Suspended Solids - Total	< 3	g/m³		14/04/2022	Gordon McA	
0040	Total (NP) Organic Carbon	6.0	g/m³		16/04/2022	Amit Kumar	
0052	Alkalinity - Total	141	g CaCO3/m³		16/04/2022	Jennifer Moi	
0055	Conductivity at 25°C	42.4	mS/m		16/04/2022	Jennifer Moi	
0081	Chemical Oxygen Demand	47	g/m³		19/04/2022	Marylou Cal	
0180	BOD5 - Soluble Carbonaceous		g/m³		14/04/2022	Gordon McA	
0602	Chloride	40.7	g/m³		16/04/2022	Divina Laga:	
0605	Nitrate - Nitrogen	0.38	g/m³		16/04/2022	Divina Laga:	
0607	Sulphate	2.97	g/m³		16/04/2022	Divina Laga:	
0760	Ammonia Nitrogen	< 0.01	g/m³		14/04/2022	Ivan Imamui	
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 Phosphoru	us0.182	g/m³		14/04/2022	Ivan Imamui	ra 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	
6713	Copper - Dissolved	0.0030	g/m³		14/04/2022	Amit Kumar	
6718	Lead - Dissolved	< 0.0005	g/m³		14/04/2022	Amit Kumar	
6721	Manganese - Dissolved	0.0058	g/m³		14/04/2022	Amit Kumar	
6722	Mercury - Dissolved	< 0.0005	g/m³		14/04/2022	Amit Kumar	
6724	Nickel - Dissolved	< 0.0005	g/m³		14/04/2022	Amit Kumar	
6726	Potassium - Dissolved	8.66	g/m³		14/04/2022	Amit Kumar	
6738	Zinc - Dissolved	< 0.002	g/m³		14/04/2022	Amit Kumar	
M0104		< 4	cfu/100mL		14/04/2022	Sunita Raju	
	Volatile Fatty Acids	< 5 *	g/m³				Transcribed by
	2 Total Halogenated Phenolics	< 0.05	g/m³				Transcribed by
	Sample Filtration	Completed	<b>J</b>		14/04/2022	Emily Coupe	,
	1 2,3-Diuron	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-00	·	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-00	3 a-chlordane	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-00		<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-00		< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-00	6 cis-Permethrin	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-00		< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
	8 Endosulfan II	< 0.005	mg/L		20/04/2022	Ganesh Ilan	
	9 Endosulfan Sulfate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-01		< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
	1 Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	2 Endrin Ketone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	3 Gamma-Chlordane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	4 Heptachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	5 Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	6 Hexachlorobenzene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	7 Lindane ( g-BHC)	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	8 Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	9 p,p'-DDD	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	0 p,p'DDE	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
3,30 02	- F,F	.0.0001	g, =		20,07,2022	Janoon nan	





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4611-1 ELS 16 May 2022 11:00:15

Sample         Site           22/4611-01         Levin F1		Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		Received 2022 13:22	Order No.
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 Ilan	
SVOC-022 Procymidone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		20/04/2022	Ganesh Ilan	
SVOC-027 Atrazine SVOC-028 Bromacil	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-029 Carbofuran	<0.005 <0.001	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-029 Carboidian SVOC-030 Cyanazine	<0.001	mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-030 Cyanazine SVOC-031 d-BHC	<0.005	mg/L		20/04/2022	Ganesh Ilan	
SVOC-031 d-BiTC SVOC-032 Metalaxyl-M	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-032 MetalaxyFM	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-033 Metolacillol SVOC-034 Metribuzin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-035 Molinate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-037 Oxadiazon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-038 Pendimethalin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-039 Propazine	<0.002	mg/L		20/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxyfen	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-041 Simazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-051 Anthracene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
fluoranthrene						
SVOC-055 Benzo(g,h,i)perylene	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-060 Fluorene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-062 Naphthalene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-064 Pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		20/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny		mg/L		20/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipl	-	mg/L		20/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	0.0001	mg/L		20/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-003 Benzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-007 Naphthalene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-008 n-Butylbenezene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-010 o-Xylene	<0.0005	mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
VOC-011 p-Isopropyltoluene VOC-013 sec-Butylbenzene	<0.0005 <0.0005	mg/L		20/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-013 sec-Butylbenzene VOC-014 Styrene	<0.0005	mg/L mg/L		20/04/2022	Ganesh Ilan	
VOC-014 Stylene VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOO 010 tert-Dutylberizelle	~0.0000	mg/∟		20/04/2022	Caricoli lidil	ONO INTI





Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Sample         Site           22/4611-01         Levin F1		Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		eceived 2022 13:22	Order No.
Notes: 240998-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-017 Total p,m Xylene, Ethylbenzer	ne<0.0015	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-018 1,1,1,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-019 1,1,1-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-020 1,1,2,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-021 1,1,2-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-022 1,1-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-023 1,1-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-024 1,1-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-037 Chloromethane	< 0.006	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-040 Dibromomethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-041 Dichlorodifluoromethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-043 Hexachlorobutadiene	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-044 Tetrachloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-046 trans-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-047 Trichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-048 Trichlorofluoromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-049 Vinyl Chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-050 1,2,3-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-051 1,2,4-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-052 1,2-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-053 1,3-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-054 1,4-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-058 Chlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
		9, ⊏			203011 Hall	

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:**

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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





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/4611-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PULA Online Edition 5340 P.	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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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 de la	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	0.0005 mg/L
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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	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.	
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA  Method 8260.	
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

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.

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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Report Released By

Rob Deacon

Page 7 of 7



# **Analytical Report**

Issue: 1 16 May 2022

Report Number: 22/4610

Downer EDI Levin - Landfill P O Box 642 **LEVIN 5540** 

Attention: Elysia Kinross

Sample 22/4610-0			Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		eceived 2022 13:17	Order No.
Notes: 24	0999-0 Levin Landfill Sample	Dogult	l luita		Toot Date	Ci-matam.	
0001	Test	Result	Units		Test Date	Signatory	ont I/TD
	pH Supponded Solida Total	7.6	a/m³		16/04/2022	Jennifer Mo	
	Suspended Solids - Total	< 3	g/m³		14/04/2022	Gordon Mc	
	Total (NP) Organic Carbon	1.8	g/m³		16/04/2022	Amit Kumaı	
0052	Alkalinity - Total	56	g CaCO3/m³		16/04/2022	Jennifer Mo	
	Conductivity at 25°C	22.3	mS/m		16/04/2022	Jennifer Mo	
	Chemical Oxygen Demand	39	g/m³		19/04/2022	Marylou Ca	
0180	BOD5 - Soluble Carbonaceous		g/m³		14/04/2022	Gordon Mc	
0602	Chloride	23.7	g/m³		16/04/2022	Divina Laga	
	Nitrate - Nitrogen	0.25 10.2	g/m³		16/04/2022	Divina Laga	
	Sulphate		g/m³		16/04/2022	Divina Laga	
	Ammonia Nitrogen	< 0.01	g/m³		14/04/2022	Ivan Imamu	
1642	Total Hardness	40	g CaCO3/m³		19/04/2022	Amit Kumai	
1810	Calcium - Dissolved	6.66	g/m³		19/04/2022	Amit Kumai	
1819	Iron - Dissolved	0.020	g/m³		19/04/2022	Amit Kumaı	
	Magnesium - Dissolved	5.78	g/m³		19/04/2022	Amit Kumai	
1834	Sodium - Dissolved	26.4	g/m³		29/04/2022	Amit Kumaı	
	Dissolved Reactive Phosphoru		g/m³		14/04/2022	Ivan Imamu	
6701	Aluminium - Dissolved	0.002	g/m³		14/04/2022	Amit Kumai	
6703	Arsenic - Dissolved	0.001	g/m³		14/04/2022	Amit Kumai	
6707	Boron - Dissolved	0.03	g/m³		14/04/2022	Amit Kumai	
6708	Cadmium - Dissolved	< 0.0002	g/m³		14/04/2022	Amit Kumai	
6711	Chromium - Dissolved	< 0.001	g/m³		14/04/2022	Amit Kumaı	
	Copper - Dissolved	0.0018	g/m³		14/04/2022	Amit Kumaı	
	Lead - Dissolved	< 0.0005	g/m³		14/04/2022	Amit Kumaı	
	Manganese - Dissolved	0.0205	g/m³		14/04/2022	Amit Kumaı	
6722	Mercury - Dissolved	< 0.0005	g/m³		14/04/2022	Amit Kumaı	KTP
6724	Nickel - Dissolved	0.0007	g/m³		14/04/2022	Amit Kumaı	KTP
6726	Potassium - Dissolved	5.80	g/m³		14/04/2022	Amit Kumaı	KTP
6738	Zinc - Dissolved	< 0.002	g/m³		14/04/2022	Amit Kumaı	KTP
	E. coli	< 4	cfu/100mL		14/04/2022	Sunita Raju	KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³			Lizzie Addis	s Transcribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³			Lizzie Addis	s Transcribed by
P1859	Sample Filtration	Completed			14/04/2022	Emily Coup	er.
SVOC-001	2,3-Diuron	< 0.001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
SVOC-002	a-BHC	< 0.0001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
SVOC-003	a-chlordane	< 0.0001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
SVOC-004		<0.001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
SVOC-005	b-BHC	<0.0001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
SVOC-006	cis-Permethrin	<0.0001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
SVOC-007	Dieldrin	<0.0001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
	Endosulfan II	<0.005	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
	Endosulfan Sulfate	<0.0001	mg/L		20/04/2022	Ganesh Ilar	ncko KTP
SVOC-010		<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilar	
	Endrin Ketone	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	Gamma-Chlordane	<0.001	mg/L		20/04/2022	Ganesh Ilar	
	Heptachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	Hexachlorobenzene	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	Lindane ( g-BHC)		•		20/04/2022	Ganesh Ilar	
	Linuarie ( g-DHC)	<0.0001	mg/L				
	Mothovyoblas						
SVOC-018	Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilar	
	p,p'-DDD	<0.0001 <0.0001 <0.0001	mg/L mg/L mg/L		20/04/2022 20/04/2022 20/04/2022	Ganesh Ilar Ganesh Ilar	ncko KTP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Report Number: 22/4610-1 ELS 16 May 2022 11:00:13

Page 1 of 7

<b>Sample Site</b> 22/4610-01 Levin F2		Map Ref.	Date Sampled 13/04/2022 00:00		Received 2022 13:17	Order No.
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 Ilan	
SVOC-022 Procymidone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		20/04/2022	Ganesh Ilan	
SVOC-027 Atrazine SVOC-028 Bromacil	<0.0001 <0.005	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-029 Carbofuran	<0.005	mg/L		20/04/2022	Ganesh Ilan	
SVOC-029 Carboldian SVOC-030 Cyanazine	<0.001	mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-030 Cyanazine SVOC-031 d-BHC	<0.003	mg/L		20/04/2022	Ganesh Ilan	
SVOC-031 d-BHC SVOC-032 Metalaxyl-M	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-W	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-033 Metolacillol SVOC-034 Metribuzin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-034 Methodzin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-037 Oxadiazon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-038 Pendimethalin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-039 Propazine	<0.002	mg/L		20/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxyfen	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-041 Simazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-051 Anthracene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
fluoranthrene						
SVOC-055 Benzo(g,h,i)perylene	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-059 Fluoranthene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-060 Fluorene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-062 Naphthalene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-063 Phenanthrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-064 Pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		20/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny		mg/L		20/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipl	-	mg/L		20/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-003 Benzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-007 Naphthalene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-008 n-Butylbenezene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-010 o-Xylene	<0.0005	mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
VOC-011 p-Isopropyltoluene VOC-013 sec-Butylbenzene	<0.0005 <0.0005	mg/L		20/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-013 sec-Butylbenzene VOC-014 Styrene	<0.0005	mg/L mg/L		20/04/2022	Ganesh Ilan	
VOC-014 Stylene VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOO 010 terr-Dutylberizerie	~0.0000	my/L		20/04/2022	Caricott IIdll	ONO INTI





Sample Site 22/4610-01 Levin F2 Notes: 240999-0 Levin Landfill Samp	ple	Map Ref.	Date Sampled 13/04/2022 00:00		eceived 2022 13:17	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		20/04/2022	Ganesh Iland	ko KTP
VOC-017 Total p,m Xylene, Ethylbei		mg/L		20/04/2022	Ganesh Iland	
VOC-018 1,1,1,2-Tetrachloroethane		mg/L		20/04/2022	Ganesh Iland	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-020 1,1,2,2-Tetrachloroethane		mg/L		20/04/2022	Ganesh Iland	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-026 1,2-Dibromo-3-chloropropa		mg/L		20/04/2022	Ganesh Iland	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		20/04/2022	Ganesh Iland	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-032 Allyl chloride	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-033 Bromochloromethane	<0.0012	mg/L		20/04/2022	Ganesh Iland	
VOC-033 Bromoethane	<0.0012	mg/L		20/04/2022	Ganesh Iland	
VOC-035 Carbon tetrachloride	<0.001	mg/L		20/04/2022	Ganesh Iland	
VOC-036 Chloroethane	<0.0003	mg/L		20/04/2022	Ganesh Iland	
VOC-037 Chloromethane	<0.006	mg/L		20/04/2022	Ganesh Iland	
VOC-037 Chloromethane VOC-038 cis-1,2-Dichloroethene	<0.000	mg/L		20/04/2022	Ganesh Iland	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-049 Dibromomethane	<0.0005	•		20/04/2022	Ganesh Iland	
VOC-040 Diblomomethane VOC-041 Dichlorodifluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-041 Dictriorodiffuorometriane VOC-043 Hexachlorobutadiene		mg/L		20/04/2022	Ganesh Iland	
VOC-044 Tetrachloroethene	<0.0002 <0.0005	mg/L		20/04/2022	Ganesh Iland	
		mg/L				
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-046 trans-1,3-Dichloropropene VOC-047 Trichloroethene		mg/L		20/04/2022	Ganesh Ilano	
	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Iland Ganesh Iland	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022		
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-057 Bromobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilano	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Iland	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Iland	ko KTP

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		Methodology	Detection Limit
	рН	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





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Page 3 of 7 Report Number: 22/4610-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PULA Online Edition 5340 P.	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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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
1,2,4 Thinically is on Zeric	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1.3.5-Trimethylbenzene		g/=
1,3,5-Trimethylbenzene Benzene		0.0005 ma/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic 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.			
1,4-Dichlorobenzene	-Dichlorobenzene  VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA  Method 8260.			
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.			
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA  Method 8260.			
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		

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.

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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Report Released By

Rob Deacon



P O Box 642

**LEVIN 5540** 

Downer EDI Levin - Landfill

Attention: Elysia Kinross

# **Eurofins ELS Limited**

# **Analytical Report**

Report Number: 22/4624 Issue: 1

16 May 2022

Sample 22/4624-0	Site 01 Levin F3 11000-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		eceived 2022 13:05	Order No.
Notes. 24	Test	Result	Units		Test Date	Signatory	
0001	pH	7.5	Offics		16/04/2022	Jennifer Mo	nt KTD
0001	Suspended Solids - Total	14	g/m³		14/04/2022	Gordon McA	
0002	Total (NP) Organic Carbon	1.5	g/m³		16/04/2022	Amit Kumar	
0040	Alkalinity - Total	49	g CaCO3/m³		16/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	18.6	mS/m		16/04/2022	Jennifer Mo	
0033	•	34	g/m³		19/04/2022		
0180	Chemical Oxygen Demand BOD5 - Soluble Carbonaceous		g/m³		14/04/2022	Marylou Cal Gordon McA	
0602	Chloride	17.9	g/m³		16/04/2022	Divina Laga	
0602		1.08	· ·			ū	
0603	Nitrate - Nitrogen	5.48	g/m³ g/m³		16/04/2022 16/04/2022	Divina Laga	
	Sulphate		· ·			Divina Laga	
0760	Ammonia Nitrogen	< 0.01	g/m³		14/04/2022	Ivan Imamu	
1642	Total Hardness	31	g CaCO3/m³		19/04/2022	Amit Kumar	
1810	Calcium - Dissolved	4.77	g/m³		19/04/2022	Amit Kumar	
1819	Iron - Dissolved	< 0.005	g/m³		19/04/2022	Amit Kumar	
1822	Magnesium - Dissolved	4.54	g/m³		19/04/2022	Amit Kumar	
1834	Sodium - Dissolved	22.3	g/m³		29/04/2022	Amit Kumar	
2088	Dissolved Reactive Phosphoru		g/m³		14/04/2022	Ivan Imamu	
6701	Aluminium - Dissolved	< 0.002	g/m³		14/04/2022	Amit Kumar	
6703	Arsenic - Dissolved	0.002	g/m³		14/04/2022	Amit Kumar	
6707	Boron - Dissolved	< 0.03	g/m³		14/04/2022	Amit Kumar	
6708	Cadmium - Dissolved	< 0.0002	g/m³		14/04/2022	Amit Kumar	
6711	Chromium - Dissolved	< 0.001	g/m³		14/04/2022	Amit Kumar	
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 Coupe	er.
SVOC-001	I 2,3-Diuron	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-002	2a-BHC	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-003	3 a-chlordane	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-004	1 Aldrin	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-005	5 b-BHC	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-006	S cis-Permethrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-007	7 Dieldrin	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-008	B Endosulfan II	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-009	Endosulfan Sulfate	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-010		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	I Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	2 Endrin Ketone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	B Gamma-Chlordane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	Heptachlor	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	5 Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Hexachlorobenzene		-			Ganesh Ilan	
		<0.0001	mg/L		20/04/2022		
	Lindane (g-BHC)	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	3 Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	Pp,p'-DDD	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	p,p'DDE	<0.0001	mg/L		20/04/2022	Ganesh Ilan	CKO KTP





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Page 1 of 7 Report Number: 22/4624-1 ELS 16 May 2022 11:00:29

Sample Site 22/4624-01 Levin F3		Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		eceived 2022 13:05	Order No.
Notes: 241000-0 Levin Landfill Sample  Test	Popult	Units		Test Date	Cianatany	
SVOC-021 p,p'-DDT	<b>Result</b> <0.001	mg/L		20/04/2022	Signatory Ganesh Ilan	cko KTP
SVOC-022 Procymidone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	< 0.002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-041 Simazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene SVOC-059 Fluoranthene	< 0.0001 < 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene SVOC-060 Fluorene	< 0.0001	mg/L mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-060 Fluorene SVOC-061 Indeno(1,2,3-cd)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene SVOC-062 Naphthalene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		20/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	•	mg/L		20/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipl		mg/L		20/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-003 Benzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-008 n-Butylbenezene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-014 Styrene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP





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Page 2 of 7 Report Number: 22/4624-1 ELS

Sample         Site           22/4624-01         Levin F3		Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		eceived 2022 13:05	Order No.
Notes: 241000-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-017 Total p,m Xylene, Ethylbenzer	ne<0.0015	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-018 1,1,1,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-019 1,1,1-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-020 1,1,2,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-021 1,1,2-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-022 1,1-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-023 1,1-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-024 1,1-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-037 Chloromethane	< 0.006	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-040 Dibromomethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-041 Dichlorodifluoromethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-043 Hexachlorobutadiene	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-044 Tetrachloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-046 trans-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-047 Trichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-048 Trichlorofluoromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-049 Vinyl Chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-050 1,2,3-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-052 1,2-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Biomolomi VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC DIDITION DIDITION DIDITION DI DIDITION	~ 0.0003	mg/L		20/04/2022	Janesh nath	ONO INTI

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	





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Page 3 of 7 Report Number: 22/4624-1 ELS

<sup>\*</sup> Not an accredited test.

Trail Info Cycles Coloris   Trail Info Cycles Coloris area (200 area years APA Coloris Edition SCI)   1. 1 grace	Toot	Mathadalani	Detection Limit
Washings	Test (ND) Oznaja Carban	Methodology	Detection Limit
1.1 moles	. , •		<u> </u>
Demois Depois Demois   APPA Challes Filton Nation (2505 D. The surprise is filtered through Whatmarn (PC and incested with relations on the substance)   1 pm	·		
Process	,		
Process			15 g/m³
Notes	BOD5 - Soluble Carbonaceous		1 g/m³
Big Probability   December   De	Chloride	Ion Chromatography following APHA 4110B.	0.02 g/m³
American Methogon	Nitrate - Nitrogen	Ion Chromatography following APHA 4110B.	0.01 g/m³
Treal thatmires  CP-QCS Subverys APPA Online Edition Network 5128 Enterolleted  CP-QCS Subver	Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m³
Corporation   COP - Dissilations of participation   Extra Control 3728 (provided)   0.21 get	Ammonia Nitrogen	Flow Injection Autoanalyser following APHA Online Edition Method 4500 NH3-H.	0.01 g/m³
ICP-OSES Interviews parks Centres Estation Method 3100 8 (medided).   0.00 pm²	Total Hardness	ICP-OES following APHA Online Edition Method 3120 B (modified).	1 g CaCO3/m³
Magnetium: Deconded   CP-DES Interiors pAPAL Collina Edition Memoral 3728 B (modeled)   0.07 g/m²	Calcium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Sestion - Dissoched	Iron - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.005 g/m³
Describer Prosphorus   Flow injection Automaniyer foliosing APHA Chilen Edition Method 4500 P.G.   0.005 gins	Magnesium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.01 g/m³
Abertination - Dissorberd	Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m³
Areanic - Stosolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.003 gint of Continum - Dissolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0002 gint of Continum - Dissolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0002 gint of Continum - Dissolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint of Continum - Dissolved IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition Method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition Method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition Method 3125 (modified). 0.0003 gint IP-NS Stolward APHA Online Edition Method 3125 (modified). 0.0003 gint IP-NS Stolward	Dissolved Reactive Phosphorus	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.	0.005 g/m³
Boon - Dissolved ICP-MS following APHA Online Edition method 3125 (modified). 0.032 gin?  Citarianiam - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.000 gin?  Coppor - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.000 gin?  Coppor - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Local - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following AP	Aluminium - Dissolved		0.002 g/m³
Boon - Dissolved ICP-MS following APHA Online Edition method 3125 (modified). 0.032 gin?  Citarianiam - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.000 gin?  Coppor - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.000 gin?  Coppor - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Local - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Margariese - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0005 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin?  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following APHA Online Edition method 3126 (modified). 0.0002 gin.  Pulsasium - Dissolved ICP-MS following AP	Arsenic - Dissolved		†
Commium - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  Ox000 gm²  Oxperi - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Lord-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Lord-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Mergarese - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Nickel - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Nickel - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Nickel - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Nickel - Dissolved  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  Performance of ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).  Ox000 gm²  ICP-MS following APHA Online Edition method 3126 (modified).	Boron - Dissolved		†
Chonnium - Dissolved  Choper - Dissolved  Chop	Cadmium - Dissolved		1
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Nicolar - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  Out gm² Potassium - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  Out gm² Zinc - Dissolved  ICP-MS following APHA Online Edition method 3125 (modified).  Out gm² E. coil  APHA 92221:Online Edition method 3125 (modified).  Performed by Eurofins Methoure following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in Water by GC-MS. Results are responsed as acetil acid equivalent.  Total Hallogenated Phenolics  Analyses at Eurofins Methourne following Method: LTM-INC-4050 Total Phenolics in Waters and solids by CFA  Out gm² Sample Fittation  Sample litered through 0.45 micros filter following APHA Online Edition Method 30308.  n/a  2Diuron  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² BaHC  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² Acidin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² Compound analysed by in-house method using GC-MS  Out gm² Compound analysed by in-house method using GC-MS  Out gm² Color impt.  Deletin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² Color impt.  Deletin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out gm² Color impt.  Deletin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Deletin  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endosultan II  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endosultan II  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endosultan Sulfate  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endorin Kettone  Organochiorine Pesticide compound analysed by in-house method using GC-MS  Out impt.  Endorin Kettone  Organochiorine Pesticide compound analysed by in-house meth	•		<del>†                                      </del>
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ICP-MS following APHA Online Edition method 3125 (modified)   0.002 gm²			†
E. coii APHA 9222/Chriline Edition 1 1 chu100mL  Volatile Fatty Acids Pertry Acids			
Volatile Fatty Acids Performed by Eurofins Melbourne following Method: LTM-CRG-2300 Determination of Volatile Fatty Acids in Water by GC-MS, Results are reported as assets acid equivalent.  Total Halogenated Phanolics Analyses at Eurofins Melbourne following Method: LTM-INO-4005 Ortal Phanolics in Waters and solids by CFA Sample Filtration Sample filtration Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house met			†
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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 0.001 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 Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.001 mg/L Organochlorine Pesticide compound analysed by in-house method using GC-MS 0.001 mg/L	Lindane ( g-BHC)	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 0.001 mg/L	Methoxychlor	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	p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 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	p,p'DDE	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	p,p'-DDT	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	Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Alachlor Organonitrogen 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
Aldicarb Organonitrogen Pesticide compound analysed by in-house method using GC-MS 0.1 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
- 4 - 4		0.0005 mg/L
tert-Butvlbenzene		0000g/ L
tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  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
· · · · · · · · · · · · · · · · · · ·		0.0005 mg/L 0.0015 mg/L 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

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.

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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Report Released By

Rob Deacon



**Analytical Report** 

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

P O Box 642 **LEVIN 5540** 

Downer EDI Levin - Landfill

Attention: Elysia Kinross

Sample 22/4642-0	Site 01 Levin G1D 10980-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 14/04/2022 00:00		eceived 2022 14:50	Order No. 0
Notes. 24	Test	Result	Units		Test Date	Signatory	
0001	pH	7.0	Omis		16/04/2022	Jennifer Mo	nt KTP
0001	Suspended Solids - Total	< 5	g/m³		19/04/2022	Marylou Cal	
0040	Total (NP) Organic Carbon	4.6	g/m³		16/04/2022	Amit Kumar	
0040	Alkalinity - Total	64	g CaCO3/m³		16/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	28.8	mS/m		16/04/2022	Jennifer Mo	
0033	Chemical Oxygen Demand	30	g/m³		19/04/2022	Marylou Cal	
0180	BOD5 - Soluble Carbonaceous		g/m³		19/04/2022	Marylou Cal	
0602	Chloride	34.0	g/m³		20/04/2022	Amit Kumar	
0602	Nitrate - Nitrogen	0.29	g/m³		20/04/2022	Amit Kumar	
0603	•	19.6	g/m³		20/04/2022	Amit Kumar	
	Sulphate		ŭ				
0760	Ammonia Nitrogen	0.11	g/m³		19/04/2022	Divina Laga	
1642	Total Hardness	57	g CaCO3/m³		22/04/2022	Tracy Morris	
1810	Calcium - Dissolved	8.98	g/m³		21/04/2022	Amit Kumar	
1819	Iron - Dissolved	1.21	g/m³		21/04/2022	Amit Kumar	
1822	Magnesium - Dissolved	8.38	g/m³		21/04/2022	Amit Kumar	
1834	Sodium - Dissolved	30.2	g/m³		22/04/2022	Amit Kumar	
2088	Dissolved Reactive Phosphoru		g/m³		19/04/2022	Divina Laga	
6701	Aluminium - Dissolved	0.004	g/m³		16/04/2022	Amit Kumar	
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 b
	Total Halogenated Phenolics	< 0.05	g/m³			Lizzie Addis	Transcribed b
P1859	Sample Filtration	Completed	· ·		16/04/2022	Emily Coup	
SVOC-001	1 2,3-Diuron	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-002	2 a-BHC	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-003	3 a-chlordane	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-004		<0.001	mg/L		20/04/2022	Ganesh Ilan	icko KTP
SVOC-005		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	6 cis-Permethrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-007		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	B Endosulfan II	<0.005	mg/L		20/04/2022	Ganesh Ilan	
	9 Endosulfan Sulfate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-010		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	1 Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	2 Endrin Ketone		=		20/04/2022	Ganesh Ilan	
		<0.0001	mg/L				
	3 Gamma-Chlordane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
	Heptachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	5 Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	6 Hexachlorobenzene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	7 Lindane (g-BHC)	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	3 Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	9 p,p'-DDD	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
3VOC-020	p,p'DDE	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	icko KTP





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

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Report Number: 22/4642-1 ELS 16 May 2022 11:00:50

Page 1 of 7

Sample Site 22/4642-01 Levin G1D Notes: 240980-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 14/04/2022 00:00		eceived 2022 14:50	Order No.
Test	Result	Units		Test Date	Signatory	
SVOC-021 p,p'-DDT	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-022 Procymidone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-025 Alachlor	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-026 Aldicarb	<0.1	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-M	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-033 Metolachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-034 Metribuzin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-035 Molinate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-037 Oxadiazon SVOC-038 Pendimethalin	<0.0001 <0.002	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-039 Propazine	<0.002	mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-039 Propagine SVOC-040 Pyriproxyfen	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-040 i yripioxyteri SVOC-041 Simazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-046 Diazinon	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-047 Dimethoate	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-048 Pirimiphos methyl	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-049 Acenapthene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-050 Acenaphthylene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-051 Anthracene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L			Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-060 Fluorene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-062 Naphthalene SVOC-063 Phenanthrene	<0.0001 <0.0001	mg/L mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene SVOC-064 Pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		20/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	-	mg/L		20/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiph		mg/L		20/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-014 Styrene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP





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Page 2 of 7 Report Number: 22/4642-1 ELS

Sample Site 22/4642-01 Levin G1D		Map Ref.	<b>Date Sampled</b> 14/04/2022 00:00	<b>Date Received</b> 14/04/2022 14:50		Order No.
Notes: 240980-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenzer	ne<0.0015	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-020 1,1,2,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-021 1,1,2-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-022 1,1-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-023 1,1-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	
VOC-034 Bromomethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		20/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	<0.0005			20/04/2022	Ganesh Ilan	
VOC-040 Distribution in the VOC-041 Dichlorodifluoromethane	<0.0003	mg/L		20/04/2022	Ganesh Ilan	
VOC-041 Dichlorodindorometriane VOC-043 Hexachlorobutadiene		mg/L			Ganesh Ilan	
	<0.0002	mg/L		20/04/2022		
VOC-044 Tetrachloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-047 Trichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-055 2-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-056 4-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-057 Bromobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-058 Chlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-059 1,3,5-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-060 4-Methyl-2-Pentanone	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-061 Carbon disulphide	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
		3				

#### Comments:

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
рН	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





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Page 3 of 7 Report Number: 22/4642-1 ELS

<sup>\*</sup> Not an accredited test.

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
otal 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
ron - 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
luminium - 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/m <sup>3</sup>
Cadmium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0002 g/m <sup>3</sup>
Chromium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.001 g/m <sup>3</sup>
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
ead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
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/m <sup>3</sup>
lickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Potassium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m <sup>3</sup>
inc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m³
:. coli	APHA 9222I:Online Edition	1 cfu/100mL
/olatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in	5 g/m <sup>3</sup>
volumo i atty / totale	Water by GC-MS. Results are reported as acetic acid equivalent.	g,
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
p-BHC	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
is-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  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Heptachlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS  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  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
dexachlorobenzene		0.0001 mg/L
	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	<u> </u>
indane ( g-BHC)	Organochlorine Pesticide compound analysed by in-house method using GC-MS  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  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
pp'-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
1,2,4 Thinically is on Zeric	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1.3.5-Trimethylbenzene		g/=
1,3,5-Trimethylbenzene Benzene		0.0005 ma/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L





Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

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

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.

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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Report Released By

Rob Deacon

Page 7 of 7



**Analytical Report** 

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

P O Box 642 LEVIN 5540 Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4612-	Site -01 Levin G1S		Map Ref.	Date Sampled 13/04/2022 00:00		eceived 2022 11:50	Order No.
	40995-0 Levin Landfill Sample			13/04/2022 00:00	14/04/2	2022 11.30	U
	Test	Result	Units		Test Date	Signatory	
0001	pH	6.9	Offics		14/04/2022	Gordon McA	Arthur KTD
0001	Suspended Solids - Total	95	g/m³		14/04/2022	Gordon McA	
0002	•	31.6	g/m³		19/04/2022	Amit Kumar	
	Total (NP) Organic Carbon	92	ŭ				
0052	Alkalinity - Total		g CaCO3/m³		14/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	53.6	mS/m		14/04/2022	Gordon McA	
0081	Chemical Oxygen Demand	97	g/m³		19/04/2022	Marylou Cal	
0180	BOD5 - Soluble Carbonaceous		g/m³		14/04/2022	Gordon McA	
0602	Chloride	102	g/m³		16/04/2022	Divina Laga	
0605	Nitrate - Nitrogen	< 0.01	g/m³		16/04/2022	Divina Laga	
0607	Sulphate	6.28	g/m³		16/04/2022	Divina Laga	
0760	Ammonia Nitrogen	0.06	g/m³		14/04/2022	Ivan Imamu	
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 Phosphoru	us0.078	g/m³		14/04/2022	Ivan Imamu	ra 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	
6721	Manganese - Dissolved	0.0671	g/m³		14/04/2022	Amit Kumar	
6722	Mercury - Dissolved	< 0.0005	g/m³		14/04/2022	Amit Kumar	
6724	Nickel - Dissolved	0.0018	g/m³		14/04/2022	Amit Kumar	
6726	Potassium - Dissolved	5.49	g/m³		14/04/2022	Amit Kumar	
6738	Zinc - Dissolved	0.008	g/m³		14/04/2022	Amit Kumar	
M0104		28	cfu/100mL		14/04/2022	Maria Norris	
	Volatile Fatty Acids	< 5 *	g/m³		14/04/2022		Transcribed by
	2 Total Halogenated Phenolics	< 0.05	g/m³				Transcribed by
P1859	<u> </u>		g/III-		14/04/2022		•
		Completed	m a /l			Emily Coupe	
	1 2,3-Diuron	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-00		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	3 a-chlordane	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-00		<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-00		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	6 cis-Permethrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-00		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	8 Endosulfan II	<0.005	mg/L		20/04/2022	Ganesh Ilan	
SVOC-00	9 Endosulfan Sulfate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-01	0 Endrin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-01	1 Endrin Aldehyde	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-01	2 Endrin Ketone	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-01	3 Gamma-Chlordane	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-01	4 Heptachlor	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-01	5 Heptachlor Epoxide	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
	6 Hexachlorobenzene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-01	7 Lindane ( g-BHC)	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
	8 Methoxychlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
	9 p,p'-DDD	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-02		<0.0001	mg/L		20/04/2022	Ganesh Ilan	
2.30 32			<del>-</del>				





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4612-1 ELS

16 May 2022 11:00:19

Sample         Site           22/4612-01         Levin G1S		Map Ref.	Date Sampled 13/04/2022 00:00		eceived 2022 11:50	Order No.
Notes: 240995-0 Levin Landfill Sample	Decult	Heita		Toot Date	Cianatanı	
<b>Test</b> SVOC-021 p,p'-DDT	<b>Result</b> < 0.001	<b>Units</b> mg/L		Test Date 20/04/2022	Signatory Ganesh Ilan	cko KTD
SVOC-022 Procymidone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-038 Pendimethalin	<0.002	mg/L		20/04/2022	Ganesh Ilan	
SVOC-039 Propazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxyfen	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-041 Simazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-042 Terbuthylazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-046 Diazinon SVOC-047 Dimethoate	<0.0001 <0.001	mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-047 Dimethoate SVOC-048 Pirimiphos methyl	<0.001	mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-046 Printiplios metriyi SVOC-049 Acenapthene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-049 Acenaphthene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	
fluoranthrene				20/04/2022	Canach Ilan	aka KTD
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene SVOC-059 Fluoranthene	< 0.0001 < 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene SVOC-060 Fluorene	< 0.0001	mg/L mg/L		20/04/2022 20/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-060 Fluorerie SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-062 Naphthalene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		20/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	•	mg/L		20/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipl		mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-014 Styrene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-015 tert-Butylbenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP





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Page 2 of 7 Report Number: 22/4612-1 ELS

Sample         Site           22/4612-01         Levin G1S		Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		eceived 2022 11:50	Order No.
Notes: 240995-0 Levin Landfill Sample	_					
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenzer		mg/L		20/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		20/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		20/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.000	mg/L		20/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene	<0.0002	mg/L		20/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-040 trans-1,3-bichloroproperie	<0.0005			20/04/2022	Ganesh Ilan	
VOC-047 Trichlorofluoromethane	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-046 The filorondoron let rane VOC-049 Vinyl Chloride		mg/L		20/04/2022	Ganesh Ilan	
VOC-049 Viriyi Chionde VOC-050 1,2,3-Trichlorobenzene	<0.0005 <0.0005	mg/L		20/04/2022	Ganesh Ilan	
	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene		mg/L				
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP

#### Comments:

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
рН	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





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Page 3 of 7 Report Number: 22/4612-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PUIA Online Edition 5340 P	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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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
1,2,4 Thinically is on Zeric	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
1.3.5-Trimethylbenzene		g/=
1,3,5-Trimethylbenzene Benzene		0.0005 ma/L
Benzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L 0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene Toluene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 mg/L
Benzene Isopropylbenzene Naphthalene n-Butylbenezene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butylbenzene Styrene tert-Butylbenzene	VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.  VOC Aromatic 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

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.

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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Report Released By

Rob Deacon



**Analytical Report** 

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

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

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 Notes: 240996-0 Levin Landfill Sample Test Result Units **Test Date** Signatory 0001 рΗ 7.8 16/04/2022 Jennifer Mont KTP 0002 Suspended Solids - Total 4 g/m<sup>3</sup> 14/04/2022 Gordon McArthur KTP 0040 Total (NP) Organic Carbon 9.0 g/m<sup>3</sup> 16/04/2022 Amit Kumar KTP 0052 Alkalinity - Total 164 g CaCO3/m<sup>3</sup> 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 g/m<sup>3</sup> 19/04/2022 Marylou Cabral KTP 0180 **BOD5 - Soluble Carbonaceous** g/m³ 14/04/2022 Gordon McArthur KTP 0602 Chloride 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** g CaCO3/m<sup>3</sup> 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/m<sup>3</sup> 19/04/2022 Amit Kumar KTP 1834 Sodium - Dissolved 96.4 g/m<sup>3</sup> 29/04/2022 Amit Kumar KTP 2088 Dissolved Reactive Phosphorus 0.029 g/m<sup>3</sup> 14/04/2022 Ivan Imamura KTP 6701 Aluminium - Dissolved 0.004 g/m<sup>3</sup> 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 14/04/2022 Amit Kumar KTP g/m<sup>3</sup> 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 14/04/2022 Maria Norris KTP cfu/100mL < 5 \* g/m³ MO-5001 Volatile Fatty Acids Lizzie Addis Transcribed by < 0.05 MO-5002 Total Halogenated Phenolics g/m<sup>3</sup> Lizzie Addis Transcribed by 14/04/2022 Emily Couper. P1859 Sample Filtration Completed SVOC-001 2.3-Diuron < 0.001 20/04/2022 Ganesh Ilancko KTP ma/L 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 20/04/2022 Ganesh Ilancko KTP mg/L 20/04/2022 Ganesh Ilancko KTP SVOC-007 Dieldrin < 0.0001 mg/L SVOC-008 Endosulfan II < 0.005 20/04/2022 Ganesh Ilancko KTP mg/L SVOC-009 Endosulfan Sulfate < 0.0001 20/04/2022 Ganesh Ilancko KTP mg/L < 0.0001 20/04/2022 Ganesh Ilancko KTP SVOC-010 Endrin mg/L 20/04/2022 Ganesh Ilancko KTP SVOC-011 Endrin Aldehyde < 0.001 mg/L < 0.0001 20/04/2022 Ganesh Ilancko KTP SVOC-012 Endrin Ketone 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 SVOC-017 Lindane (g-BHC) < 0.0001 mg/L Ganesh Ilancko KTP SVOC-018 Methoxychlor < 0.0001 mg/L 20/04/2022 Ganesh Ilancko KTP



SVOC-019 p,p'-DDD

SVOC-020 p,p'DDE



Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

< 0.0001

< 0.0001

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

mg/L

mg/L

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

20/04/2022

20/04/2022

Page 1 of 7 Report Number: 22/4626-1 ELS

Ganesh Ilancko KTP

Ganesh Ilancko KTP

16 May 2022 11:00:34

Sample         Site           22/4626-01         Levin G2s		Map Ref.	Date Sampled 13/04/2022 00:00		eceived 2022 13:14	Order No.
Notes: 240996-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	LUTD
SVOC-021 p,p'-DDT	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-022 Procymidone SVOC-023 Propanil	<0.0001 <0.001	mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
SVOC-023 Propariii SVOC-024 Endosulfan I	<0.001	mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-024 Endosulari i	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-025 Alacrilor SVOC-026 Aldicarb	<0.1	mg/L		20/04/2022	Ganesh Ilan	
SVOC-027 Atrazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-028 Bromacil	<0.005	mg/L		20/04/2022	Ganesh Ilan	
SVOC-029 Carbofuran	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-030 Cyanazine	< 0.005	mg/L		20/04/2022	Ganesh Ilan	
SVOC-031 d-BHC	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-032 Metalaxyl-M	<0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	< 0.002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-041 Simazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene	< 0.0010	mg/L		20/04/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010 < 0.0001	mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene SVOC-054 Total Benzo(b) and Benzo(k)	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
fluoranthrene		-				
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene	< 0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-060 Fluorene	< 0.0001	mg/L		20/04/2022 20/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene SVOC-062 Naphthalene	<0.0001 <0.0001	mg/L mg/L		20/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobiphe		mg/L		20/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny		mg/L		20/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobip		mg/L		20/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		20/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-014 Styrene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-015 tert-Butylbenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP





Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Sample Site 22/4626-01 Levin G2s		Map Ref.	<b>Date Sampled</b> 13/04/2022 00:00		eceived 2022 13:14	Order No.
Notes: 240996-0 Levin Landfill Sample						
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-017 Total p,m Xylene, Ethylbenze	ne<0.0015	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-018 1,1,1,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-019 1,1,1-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-020 1,1,2,2-Tetrachloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-021 1,1,2-Trichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-022 1,1-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-023 1,1-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-024 1,1-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-025 1,2,3-Trichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3-chloropropane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-027 1,2-Dibromoethane	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropropane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochloromethane	< 0.0012	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrachloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-037 Chloromethane	< 0.006	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-038 cis-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-039 cis-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-040 Dibromomethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-041 Dichlorodifluoromethane	< 0.001	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-043 Hexachlorobutadiene	< 0.0002	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-044 Tetrachloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-045 trans-1,2-Dichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-046 trans-1,3-Dichloropropene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-047 Trichloroethene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-048 Trichlorofluoromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-049 Vinyl Chloride	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-050 1,2,3-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-051 1,2,4-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-052 1,2-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-053 1,3-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-054 1,4-Dichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-056 4-Chlorotoluene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-057 Bromobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-058 Chlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	cko KTP
VOC-059 1,3,5-Trichlorobenzene	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		20/04/2022	Ganesh Ilan	
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#### Comments:

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





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Page 3 of 7 Report Number: 22/4626-1 ELS

<sup>\*</sup> Not an accredited test.

Toot	Mathadalagu	Detection Limit
Test (ND) Organic Carbon	Methodology  Total New Privacella Organia Corbon union TOC analysis A PUIA Online Edition 5340 P	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/m <sup>3</sup>
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m <sup>3</sup>
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).	0.0002 g/m³
Copper - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
Lead - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m³
Manganese - Dissolved		0.0005 g/m³
•	ICP-MS following APHA Online Edition method 3125 (modified).	
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
		<u> </u>
Endosulfan II	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.005 mg/L
Endosulfan Sulfate  Endrin		0.0001 mg/L
Endrin Aldahyda	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 de la	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	0.0005 mg/L
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Page 5 of 7 Report Number: 22/4626-1 ELS

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	3-Trichlorobenzene VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA  Method 8260.			
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		

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.

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Report Released By

Rob Deacon

Page 7 of 7



# **Analytical Report**

Report Number: 21/46001

Issue: 1 04 March 2022

Downer EDI Levin - Landfill P O Box 642 LEVIN 5540

Attention: Elysia Kinross

Sample 21/46001 Notes: 23	Site -01 Levin HS1 36197-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 17/02/2022 00:00		<b>eceived Order No.</b> 2022 12:25 0
	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:

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





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Page 1 of 2

Report Number: 21/46001-1 ELS

04 March 2022 18:00:16

Email: reportselsnz@eurofins.com Website: http://www.eurofins.co.nz

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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.

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Report Released By

Rob Deacon



# **Analytical Report**

Report Number: 21/47008 Issue: 1

31 March 2022

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

<b>Sample</b> 21/47008 Notes: 23	Site -01 Levin HS1 8527-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 09/03/2022 00:00		eceived 2022 16:20	<b>Order No.</b> 0
	Test	Result	Units		Test Date	Signatory	
0001	pH	8.9			11/03/2022	Jennifer Mon	t KTP
0002	Suspended Solids - Total	16	g/m³		10/03/2022	Gordon McA	rthur KTP
0040	Total (NP) Organic Carbon	7.3	g/m³		10/03/2022	Amit Kumar I	KTP
0052	Alkalinity - Total	45	g CaCO3/m³		11/03/2022	Jennifer Mon	t KTP
0055	Conductivity at 25°C	21.6	mS/m		11/03/2022	Jennifer Mon	t KTP
0081	Chemical Oxygen Demand	34	g/m³		14/03/2022	Gordon McA	rthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³		10/03/2022	Marylou Cab	ral KTP
0602	Chloride	21.1	g/m³		15/03/2022	Divina Lagaz	on KTP
0605	Nitrate - Nitrogen	0.16	g/m³		15/03/2022	Divina Lagaz	on KTP
0607	Sulphate	18.9	g/m³		15/03/2022	Divina Lagaz	on KTP
0760	Ammonia Nitrogen	0.06	g/m³		12/03/2022	Divina Lagaz	on KTP
1642	Total Hardness	55	g CaCO3/m³		11/03/2022	Amit Kumar I	KTP
1810	Calcium - Dissolved	11.9	g/m³		11/03/2022	Amit Kumar I	KTP
1819	Iron - Dissolved	0.105	g/m³		11/03/2022	Amit Kumar I	KTP
1822	Magnesium - Dissolved	6.07	g/m³		11/03/2022	Amit Kumar I	KTP
1834	Sodium - Dissolved	17.4	g/m³		11/03/2022	Amit Kumar I	KTP
2088	Dissolved Reactive Phosphoru	s0.079	g/m³		12/03/2022	Divina Lagaz	on 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 Cab	ral Transcribed
						by	
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³			Chen Lin Tra	inscribed by
P1859	Sample Filtration	Completed			10/03/2022	Emily Coupe	r .

#### Comments:

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	
рН	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/m <sup>3</sup>





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Page 1 of 2

Report Number: 21/47008-1 ELS

31 March 2022 15:00:15

Email: reportselsnz@eurofins.com Website: http://www.eurofins.co.nz

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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.

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Report Released By

Rob Deacon



# **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 22/4607-0			Map Ref.	Date Sampled 27/04/2022 00:00		eceived Order No. 022 12:59 0
Notes: 24	1005-0 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	s0.072	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
	Total Halogenated Phenolics	< 0.05	g/m³			Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed			29/04/2022	Freddie Badraun .

#### Comments:

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
рН	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





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Page 1 of 2 Report Number: 22/4607-1 ELS

16 May 2022 11:00:13

<sup>\*</sup> Not an accredited test.

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/m <sup>3</sup>
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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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Report Released By

Rob Deacon



P O Box 642

**LEVIN 5540** 

Attention: Elysia Kinross

### **Eurofins ELS Limited**

# **Analytical Report**

Downer EDI Levin - Landfill

Report Number: 21/46040 Issue: 1

04 March 2022

Sample 21/46040 Notes: 23	Site -01 Levin HS1A 6198-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 17/02/2022 00:00		eceived :022 12:39	Order No.
	Test	Result	Units		Test Date	Signatory	
0001	pН	7.8			22/02/2022	Jennifer Mont	KTP
0002	Suspended Solids - Total	9	g/m³		21/02/2022	Gordon McAr	thur KTP
0040	Total (NP) Organic Carbon	6.7	g/m³		18/02/2022	Amit Kumar K	TP
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 McAr	thur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³		19/02/2022	Gordon McAr	thur KTP
0602	Chloride	26.7	g/m³		23/02/2022	Amit Kumar k	TP
0605	Nitrate - Nitrogen	0.15	g/m³		23/02/2022	Amit Kumar K	TP
0607	Sulphate	18.3	g/m³		23/02/2022	Amit Kumar K	TP
0760	Ammonia Nitrogen	0.05	g/m³		23/02/2022	Divina Lagazo	on KTP
1642	Total Hardness	59	g CaCO3/m³		25/02/2022	Amit Kumar K	TP
1810	Calcium - Dissolved	12.6	g/m³		25/02/2022	Amit Kumar k	TP
1819	Iron - Dissolved	0.157	g/m³		25/02/2022	Amit Kumar k	TP
1822	Magnesium - Dissolved	6.69	g/m³		25/02/2022	Amit Kumar k	TP
1834	Sodium - Dissolved	17.4	g/m³		25/02/2022	Amit Kumar k	TP
2088	Dissolved Reactive Phosphorus	s0.118	g/m³		23/02/2022	Divina Lagazo	on KTP
6701	Aluminium - Dissolved	0.036	g/m³		23/02/2022	Amit Kumar k	TP
6703	Arsenic - Dissolved	< 0.001	g/m³		23/02/2022	Amit Kumar k	TP
6707	Boron - Dissolved	0.06	g/m³		24/02/2022	Amit Kumar k	TP
6708	Cadmium - Dissolved	< 0.0002	g/m³		23/02/2022	Amit Kumar k	TP
6711	Chromium - Dissolved	< 0.001	g/m³		23/02/2022	Amit Kumar k	TP
6713	Copper - Dissolved	0.0014	g/m³		23/02/2022	Amit Kumar k	TP
6718	Lead - Dissolved	< 0.0005	g/m³		23/02/2022	Amit Kumar k	TP
6721	Manganese - Dissolved	0.0211	g/m³		23/02/2022	Amit Kumar k	TP
6722	Mercury - Dissolved	< 0.0005	g/m³		24/02/2022	Amit Kumar k	TP
6724	Nickel - Dissolved	0.0006	g/m³		23/02/2022	Amit Kumar k	TP
6726	Potassium - Dissolved	9.59	g/m³		23/02/2022	Amit Kumar k	TP
6738	Zinc - Dissolved	0.006	g/m³		23/02/2022	Amit Kumar k	TP
M0104	E. coli	1,700	cfu/100mL		18/02/2022	Maria Norris I	KTP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³			Sunita Raju T	ranscribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³			Sunita Raju T	ranscribed by
P1859	Sample Filtration	Completed			21/02/2022	Candy Barrer	echea .

#### Comments:

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





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Page 1 of 2 Report Number: 21/46040-1 ELS 04 March 2022 18:00:18

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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Report Released By

Rob Deacon



# **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 21/47009 Notes: 23	Site -01 Levin HS1A :8528-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 09/03/2022 00:00		<b>eceived Order No.</b> 2022 16:20 0
	Test	Result	Units		Test Date	Signatory
0001	pH	9.0	Omio		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		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 Phosphoru	ıs0.083	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:

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	
рН	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/m <sup>3</sup>





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Page 1 of 2 Report Number: 21/47009-1 ELS 31 March 2022 15:00:16

Email: reportselsnz@eurofins.com Website: http://www.eurofins.co.nz

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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Report Released By

Rob Deacon



P O Box 642

### **Eurofins ELS Limited**

# **Analytical Report**

Issue: 1 16 May 2022

Report Number: 22/4606

**LEVIN 5540** Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4606-0	Site 01 Levin HS1A 1006-0 Levin Landfill Sample	N	Map Ref.	<b>Date Sampled</b> 27/04/2022 00:00	<b>Date Re</b> 28/04/2	eceived 022 13:05	Order No.
Notes. 24	•	Daniel	IIic-		T1 D-1-	0:	
0004	Test	Result	Units		Test Date	Signatory	KTD
0001	pH	7.7	/ 2		29/04/2022	Jennifer Mont	
0002	Suspended Solids - Total	11	g/m³		29/04/2022	Jennifer Mont	
0040	Total (NP) Organic Carbon	6.8	g/m³		04/05/2022	Amit Kumar K	
0052	Alkalinity - Total	65	g CaCO3/m³		29/04/2022	Jennifer Mont	
0055	Conductivity at 25°C	25.2	mS/m		29/04/2022	Jennifer Mont	
0081	Chemical Oxygen Demand	27	g/m³		29/04/2022	Marylou Cabra	
0180	BOD5 - Soluble Carbonaceous	-	g/m³		29/04/2022	Marylou Cabra	
0602	Chloride	25.0	g/m³		03/05/2022	Divina Lagazo	
0605	Nitrate - Nitrogen	0.08	g/m³		03/05/2022	Divina Lagazo	
0607	Sulphate	16.0	g/m³		03/05/2022	Divina Lagazo	
0760	Ammonia Nitrogen	0.04	g/m³		02/05/2022	Ivan Imamura	
1642	Total Hardness	75	g CaCO3/m³		03/05/2022	Amit Kumar K	
1810	Calcium - Dissolved	16.0	g/m³		03/05/2022	Amit Kumar K	
1819	Iron - Dissolved	0.167	g/m³		03/05/2022	Amit Kumar K	TP
1822	Magnesium - Dissolved	8.57	g/m³		03/05/2022	Amit Kumar K	TP
1834	Sodium - Dissolved	21.9	g/m³		03/05/2022	Amit Kumar K	TP
2088	Dissolved Reactive Phosphorus	s0.062	g/m³		02/05/2022	Ivan Imamura	KTP
6701	Aluminium - Dissolved	0.012	g/m³		30/04/2022	Amit Kumar K	TP
6703	Arsenic - Dissolved	0.001	g/m³		30/04/2022	Amit Kumar K	TP
6707	Boron - Dissolved	0.06	g/m³		30/04/2022	Amit Kumar K	TP
6708	Cadmium - Dissolved	< 0.0002	g/m³		30/04/2022	Amit Kumar K	TP
6711	Chromium - Dissolved	< 0.001	g/m³		30/04/2022	Amit Kumar K	TP
6713	Copper - Dissolved	0.0008	g/m³		30/04/2022	Amit Kumar K	TP
6718	Lead - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar K	TP
6721	Manganese - Dissolved	0.0396	g/m³		30/04/2022	Amit Kumar K	TP
6722	Mercury - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar K	TP
6724	Nickel - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar K	TP
6726	Potassium - Dissolved	3.29	g/m³		30/04/2022	Amit Kumar K	TP
6738	Zinc - Dissolved	0.003	g/m³		30/04/2022	Amit Kumar K	TP
M0104	E. coli	190	cfu/100mL		28/04/2022	Maria Norris K	TP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³			Lizzie Addis T	ranscribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³			Lizzie Addis T	ranscribed by
P1859	Sample Filtration	Completed	-		29/04/2022	Freddie Badra	•

#### Comments:

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
рН	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





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Page 1 of 2 Report Number: 22/4606-1 ELS

16 May 2022 11:00:12

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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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Report Released By

Rob Deacon



P O Box 642

**LEVIN 5540** 

Attention: Elysia Kinross

### **Eurofins ELS Limited**

# **Analytical Report**

Downer EDI Levin - Landfill

Report Number: 21/46039 Issue: 1

04 March 2022

Sample 21/46039 Notes: 23	Site I-01 Levin HS2 86199-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 17/02/2022 00:00		eceived 2022 12:29	Order No.
	Test	Result	Units		Test Date	Signatory	
0001	pH	7.5			22/02/2022	Jennifer Mo	nt KTP
0002	Suspended Solids - Total	10	g/m³		21/02/2022	Gordon McA	Arthur 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 Mo	nt KTP
0055	Conductivity at 25°C	21.7	mS/m		22/02/2022	Jennifer Mo	nt KTP
0081	Chemical Oxygen Demand	42	g/m³		22/02/2022	Gordon McA	Arthur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³		19/02/2022	Gordon McA	Arthur 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 Laga	zon 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	s0.048	g/m³		23/02/2022	Divina Laga	zon 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 Barre	enechea .

#### Comments:

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
pН	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





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 2 Report Number: 21/46039-1 ELS 04 March 2022 18:00:17

<sup>\*</sup> Not an accredited test.

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/m <sup>3</sup>
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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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.

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Report Released By

Rob Deacon



# **Analytical Report**

Downer EDI Levin - Landfill P O Box 642 LEVIN 5540

Attention: Elysia Kinross

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

0040         Total (NP) Organic Carbon         6.9         g/m³         10/03/2022         Amit Kum           0052         Alkalinity - Total         47         g CaCO3/m³         11/03/2022         Jennifer N           0055         Conductivity at 25°C         22.3         mS/m         11/03/2022         Jennifer N           0081         Chemical Oxygen Demand         39         g/m³         10/03/2022         Gordon N           0180         BOD5 - Soluble Carbonaceous < 6         g/m³         10/03/2022         Marylou C           0602         Chloride         21.9         g/m³         11/03/2022         Divina La           0605         Nitrate - Nitrogen         0.19         g/m³         11/03/2022         Divina La           0607         Sulphate         18.9         g/m³         11/03/2022         Divina La           0760         Ammonia Nitrogen         0.10         g/m³         11/03/2022         Divina La           0760         Ammonia Nitrogen         0.10         g/m³         11/03/2022         Divina La           1642         Total Hardness         58         g CaCO3/m³         11/03/2022         Amit Kum           1810         Cacium - Dissolved         0.095         g/m³         11/0	Order No. 0
0001         pH         8.6         11/03/2022         Jennifer M           0002         Suspended Solids - Total         16         g/m³         10/03/2022         Gordon M           0040         Total (NP) Organic Carbon         6.9         g/m³         10/03/2022         Amit Kum           0052         Alkalinity - Total         47         g CaCO3/m³         11/03/2022         Jennifer M           0055         Conductivity at 25°C         22.3         mS/m         11/03/2022         Jennifer M           0081         Chemical Oxygen Demand         39         g/m³         10/03/2022         Gordon M           0180         BOD5 - Soluble Carbonaceous < 6         g/m³         10/03/2022         Marylou C           0605         Nitrate - Nitrogen         0.19         g/m³         11/03/2022         Divina La           0605         Nitrate - Nitrogen         0.19         g/m³         11/03/2022         Divina La           0607         Sulphate         18.9         g/m³         11/03/2022         Divina La           0607         Sulphate         18.9         g/m³         11/03/2022         Divina La           1642         Total Hardness         58         g CaCO3/m³         11/03/2022         Divina	
0002         Suspended Solids - Total         16         g/m³         10/03/2022         Gordon M           0040         Total (NP) Organic Carbon         6.9         g/m³         10/03/2022         Amit Kum           0052         Alkalinity - Total         47         g CaCO3/m³         11/03/2022         Jennifer M           0055         Conductivity at 25°C         22.3         mS/m         11/03/2022         Jennifer M           0081         Chemical Oxygen Demand         39         g/m³         10/03/2022         Jennifer M           0810         Chemical Oxygen Demand         39         g/m³         10/03/2022         Jennifer M           0810         Chemical Oxygen Demand         39         g/m³         10/03/2022         Jennifer M           0810         Chemical Oxygen Demand         39         g/m³         10/03/2022         Marric M           0805         Scholle Carbonaceous < 6	ont KTP
0040         Total (NP) Organic Carbon         6.9         g/m³         10/03/2022         Amit Kum           0052         Alkalinity - Total         47         g CaCO3/m³         11/03/2022         Jennifer N           0055         Conductivity at 25°C         22.3         mS/m         11/03/2022         Jennifer N           0081         Chemical Oxygen Demand         39         g/m³         10/03/2022         Gordon N           0180         BOD5 - Soluble Carbonaceous < 6	Arthur KTP
0052         Alkalinity - Total         47         g CaCO3/m³         11/03/2022         Jennifer M           0055         Conductivity at 25°C         22.3         mS/m         11/03/2022         Jennifer M           0081         Chemical Oxygen Demand         39         g/m³         10/03/2022         Gordon M           0180         BOD5 - Soluble Carbonaceous < 6	
0055         Conductivity at 25°C         22.3         mS/m         11/03/2022         Jennifer M           0081         Chemical Oxygen Demand         39         g/m³         10/03/2022         Gordon M           0180         BOD5 - Soluble Carbonaceous < 6	
0081         Chemical Oxygen Demand         39         g/m³         10/03/2022         Gordon M           0180         BOD5 - Soluble Carbonaceous < 6	
0180         BOD5 - Soluble Carbonaceous < 6	Arthur KTP
0602         Chloride         21.9         g/m³         11/03/2022         Divina La           0605         Nitrate - Nitrogen         0.19         g/m³         11/03/2022         Divina La           0607         Sulphate         18.9         g/m³         11/03/2022         Divina La           0760         Ammonia Nitrogen         0.10         g/m³         12/03/2022         Divina La           1642         Total Hardness         58         g CaCO3/m³         11/03/2022         Amit Kum           1810         Calcium - Dissolved         12.7         g/m³         11/03/2022         Amit Kum           1819         Iron - Dissolved         0.095         g/m³         11/03/2022         Amit Kum           1822         Magnesium - Dissolved         6.38         g/m³         11/03/2022         Amit Kum           1834         Sodium - Dissolved         17.8         g/m³         11/03/2022         Amit Kum           1834         Sodium - Dissolved         17.8         g/m³         11/03/2022         Amit Kum           1834         Sodium - Dissolved         0.016         g/m³         11/03/2022         Divina La           6701         Aluminium - Dissolved         0.016         g/m³         10/03	
0605         Nitrate - Nitrogen         0.19         g/m³         11/03/2022         Divina La           0607         Sulphate         18.9         g/m³         11/03/2022         Divina La           0760         Ammonia Nitrogen         0.10         g/m³         12/03/2022         Divina La           1642         Total Hardness         58         g CaCO3/m³         11/03/2022         Amit Kum           1810         Calcium - Dissolved         12.7         g/m³         11/03/2022         Amit Kum           1819         Iron - Dissolved         0.095         g/m³         11/03/2022         Amit Kum           1822         Magnesium - Dissolved         6.38         g/m³         11/03/2022         Amit Kum           1834         Sodium - Dissolved         17.8         g/m³         11/03/2022         Amit Kum           2088         Dissolved Reactive Phosphorus 0.085         g/m³         12/03/2022         Amit Kum           2087         Dissolved O.016         g/m³         10/03/2022         Edwin Lo           6701         Aluminium - Dissolved         0.016         g/m³         10/03/2022         Edwin Lo           6703         Arsenic - Dissolved         0.000         g/m³         10/03/2022 <t< td=""><td></td></t<>	
0607         Sulphate         18.9         g/m³         11/03/2022         Divina La           0760         Ammonia Nitrogen         0.10         g/m³         12/03/2022         Divina La           1642         Total Hardness         58         g CaCO3/m³         11/03/2022         Amit Kum           1810         Calcium - Dissolved         12.7         g/m³         11/03/2022         Amit Kum           1819         Iron - Dissolved         0.095         g/m³         11/03/2022         Amit Kum           1822         Magnesium - Dissolved         6.38         g/m³         11/03/2022         Amit Kum           1834         Sodium - Dissolved         17.8         g/m³         11/03/2022         Amit Kum           2088         Dissolved Reactive Phosphorus 0.085         g/m³         12/03/2022         Divina La           6701         Aluminium - Dissolved         0.016         g/m³         10/03/2022         Edwin Lo           6703         Arsenic - Dissolved         0.001         g/m³         10/03/2022         Edwin Lo           6708         Cadmium - Dissolved         < 0.0002	
0760         Ammonia Nitrogen         0.10         g/m³         12/03/2022         Divina La           1642         Total Hardness         58         g CaCO3/m³         11/03/2022         Amit Kum           1810         Calcium - Dissolved         12.7         g/m³         11/03/2022         Amit Kum           1819         Iron - Dissolved         0.095         g/m³         11/03/2022         Amit Kum           1822         Magnesium - Dissolved         6.38         g/m³         11/03/2022         Amit Kum           1834         Sodium - Dissolved         17.8         g/m³         11/03/2022         Amit Kum           2088         Dissolved Reactive Phosphorus 0.085         g/m³         11/03/2022         Amit Kum           2088         Dissolved Reactive Phosphorus 0.085         g/m³         10/03/2022         Edwin Lo           6701         Aluminium - Dissolved         0.016         g/m³         10/03/2022         Edwin Lo           6703         Arsenic - Dissolved         0.001         g/m³         10/03/2022         Edwin Lo           6707         Boron - Dissolved         0.006         g/m³         10/03/2022         Edwin Lo           6711         Chromium - Dissolved         < 0.001	
1642         Total Hardness         58         g CaCO3/m³         11/03/2022         Amit Kum           1810         Calcium - Dissolved         12.7         g/m³         11/03/2022         Amit Kum           1819         Iron - Dissolved         0.095         g/m³         11/03/2022         Amit Kum           1822         Magnesium - Dissolved         6.38         g/m³         11/03/2022         Amit Kum           1834         Sodium - Dissolved         17.8         g/m³         11/03/2022         Amit Kum           2088         Dissolved Reactive Phosphorus 0.085         g/m³         12/03/2022         Divina La           6701         Aluminium - Dissolved         0.016         g/m³         10/03/2022         Edwin Lo           6703         Arsenic - Dissolved         0.001         g/m³         10/03/2022         Edwin Lo           6707         Boron - Dissolved         0.06         g/m³         10/03/2022         Edwin Lo           6708         Cadmium - Dissolved         < 0.0002	
1810       Calcium - Dissolved       12.7       g/m³       11/03/2022       Amit Kum         1819       Iron - Dissolved       0.095       g/m³       11/03/2022       Amit Kum         1822       Magnesium - Dissolved       6.38       g/m³       11/03/2022       Amit Kum         1834       Sodium - Dissolved       17.8       g/m³       11/03/2022       Amit Kum         2088       Dissolved Reactive Phosphorus 0.085       g/m³       12/03/2022       Divina La         6701       Aluminium - Dissolved       0.016       g/m³       10/03/2022       Edwin Lo         6703       Arsenic - Dissolved       0.001       g/m³       10/03/2022       Edwin Lo         6707       Boron - Dissolved       0.06       g/m³       10/03/2022       Edwin Lo         6708       Cadmium - Dissolved       < 0.0002	
1819       Iron - Dissolved       0.095       g/m³       11/03/2022       Amit Kum         1822       Magnesium - Dissolved       6.38       g/m³       11/03/2022       Amit Kum         1834       Sodium - Dissolved       17.8       g/m³       11/03/2022       Amit Kum         2088       Dissolved Reactive Phosphorus 0.085       g/m³       12/03/2022       Divina La         6701       Aluminium - Dissolved       0.016       g/m³       10/03/2022       Edwin Lo         6703       Arsenic - Dissolved       0.001       g/m³       10/03/2022       Edwin Lo         6707       Boron - Dissolved       0.06       g/m³       10/03/2022       Edwin Lo         6708       Cadmium - Dissolved       < 0.0002	
1822       Magnesium - Dissolved       6.38       g/m³       11/03/2022       Amit Kum         1834       Sodium - Dissolved       17.8       g/m³       11/03/2022       Amit Kum         2088       Dissolved Reactive Phosphorus 0.085       g/m³       12/03/2022       Divina La         6701       Aluminium - Dissolved       0.016       g/m³       10/03/2022       Edwin Lo         6703       Arsenic - Dissolved       0.001       g/m³       10/03/2022       Edwin Lo         6707       Boron - Dissolved       0.06       g/m³       10/03/2022       Edwin Lo         6708       Cadmium - Dissolved       < 0.0002	ır KTP
1834       Sodium - Dissolved       17.8       g/m³       11/03/2022       Amit Kum         2088       Dissolved Reactive Phosphorus 0.085       g/m³       12/03/2022       Divina La         6701       Aluminium - Dissolved       0.016       g/m³       10/03/2022       Edwin Lo         6703       Arsenic - Dissolved       0.001       g/m³       10/03/2022       Edwin Lo         6707       Boron - Dissolved       0.06       g/m³       10/03/2022       Edwin Lo         6708       Cadmium - Dissolved       < 0.0002	ır KTP
6701       Aluminium - Dissolved       0.016       g/m³       10/03/2022       Edwin Lo         6703       Arsenic - Dissolved       0.001       g/m³       10/03/2022       Edwin Lo         6707       Boron - Dissolved       0.06       g/m³       10/03/2022       Edwin Lo         6708       Cadmium - Dissolved       < 0.0002	ır KTP
6701       Aluminium - Dissolved       0.016       g/m³       10/03/2022       Edwin Lo         6703       Arsenic - Dissolved       0.001       g/m³       10/03/2022       Edwin Lo         6707       Boron - Dissolved       0.06       g/m³       10/03/2022       Edwin Lo         6708       Cadmium - Dissolved       < 0.0002	azon KTP
6707       Boron - Dissolved       0.06       g/m³       10/03/2022       Edwin Lo         6708       Cadmium - Dissolved       < 0.0002	
6708       Cadmium - Dissolved       < 0.0002	e KTP
6711 Chromium - Dissolved       < 0.001	e KTP
6713       Copper - Dissolved       0.0008       g/m³       10/03/2022       Edwin Lo         6718       Lead - Dissolved       < 0.0005	e KTP
6718       Lead - Dissolved       < 0.0005	e KTP
6721 Manganese - Dissolved       0.0103       g/m³       10/03/2022       Edwin Lo         6722 Mercury - Dissolved       < 0.0005	e KTP
6722 Mercury - Dissolved       < 0.0005	e KTP
6724 Nickel - Dissolved < 0.0005 g/m³ 10/03/2022 Edwin Lo	e KTP
· · · · · · · · · · · · · · · · · · ·	e KTP
6736 Detective Disselved 2.76 a/m3 10/02/2022 Edwin Lo	e KTP
6726 Foldsslutt - Dissolved 2.76 g/ff 10/03/2022 Edwiit Lo	re KTP
6738 Zinc - Dissolved < 0.002 g/m³ 10/03/2022 Edwin Lo	e KTP
M0104 E. coli 270 cfu/100mL 09/03/2022 Maria No.	is KTP
MO-5001 Volatile Fatty Acids < 5 * g/m³ Marylou C	abral Transcribed
by	
MO-5002 Total Halogenated Phenolics < 0.05 g/m³ Chen Lin	ranscribed by
P1859 Sample Filtration Completed 10/03/2022 Emily Completed	oer.

#### Comments:

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	
рН	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/m <sup>3</sup>





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Page 1 of 2 Report Number: 21/47010-1 ELS

31 March 2022 15:00:16

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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Report Released By

Rob Deacon



P O Box 642

### **Eurofins ELS Limited**

**Analytical Report** 

Issue: 1 16 May 2022

Report Number: 22/4620

**LEVIN 5540** Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4620-0			Map Ref.	<b>Date Sampled</b> 27/04/2022 00:00		eceived 2022 13:08	Order No.
Notes: 24	1007-0 Levin Landfill Sample						
	Test	Result	Units		Test Date	Signatory	
0001	pH	7.7			29/04/2022	Jennifer Mont	
0002	Suspended Solids - Total	12	g/m³		29/04/2022	Jennifer Mont	
0040	Total (NP) Organic Carbon	6.5	g/m³		04/05/2022	Amit Kumar K	
0052	Alkalinity - Total	70	g CaCO3/m³		29/04/2022	Jennifer Mont	
0055	Conductivity at 25°C	26.0	mS/m		29/04/2022	Jennifer Mont	
0081	Chemical Oxygen Demand	29	g/m³		29/04/2022	Marylou Cabr	al KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³		29/04/2022	Marylou Cabr	al KTP
0602	Chloride	25.2	g/m³		03/05/2022	Divina Lagazo	on KTP
0605	Nitrate - Nitrogen	0.09	g/m³		03/05/2022	Divina Lagazo	n KTP
0607	Sulphate	15.7	g/m³		03/05/2022	Divina Lagazo	on 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 K	TP
1810	Calcium - Dissolved	15.9	g/m³		03/05/2022	Amit Kumar K	TP
1819	Iron - Dissolved	0.169	g/m³		03/05/2022	Amit Kumar K	TP
1822	Magnesium - Dissolved	8.27	g/m³		03/05/2022	Amit Kumar K	TP
1834	Sodium - Dissolved	21.0	g/m³		03/05/2022	Amit Kumar K	TP
2088	Dissolved Reactive Phosphorus	s0.069	g/m³		02/05/2022	Ivan Imamura	KTP
6701	Aluminium - Dissolved	0.011	g/m³		30/04/2022	Amit Kumar K	TP
6703	Arsenic - Dissolved	0.001	g/m³		30/04/2022	Amit Kumar K	TP
6707	Boron - Dissolved	0.07	g/m³		30/04/2022	Amit Kumar K	TP
6708	Cadmium - Dissolved	< 0.0002	g/m³		30/04/2022	Amit Kumar K	TP
6711	Chromium - Dissolved	< 0.001	g/m³		30/04/2022	Amit Kumar K	TP
6713	Copper - Dissolved	0.0008	g/m³		30/04/2022	Amit Kumar K	TP
6718	Lead - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar K	TP
6721	Manganese - Dissolved	0.0360	g/m³		30/04/2022	Amit Kumar K	TP
6722	Mercury - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar K	TP
6724	Nickel - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar K	TP
6726	Potassium - Dissolved	3.45	g/m³		30/04/2022	Amit Kumar K	TP
6738	Zinc - Dissolved	< 0.002	g/m³		30/04/2022	Amit Kumar K	TP
M0104	E. coli	910	cfu/100mL		29/04/2022	Sunita Raju K	TP
MO-5001	Volatile Fatty Acids	< 5 *	g/m³			Lizzie Addis T	ranscribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³			Lizzie Addis T	ranscribed by
P1859	Sample Filtration	Completed			29/04/2022	Freddie Badra	-

#### Comments:

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
рН	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





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Page 1 of 2 Report Number: 22/4620-1 ELS

16 May 2022 11:00:26

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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.

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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Report Released By

Rob Deacon



P O Box 642

**LEVIN 5540** 

### **Eurofins ELS Limited**

# **Analytical Report**

Report Number: 21/46009 Issue: 1

04 March 2022

Attention: Elysia Kinross

Downer EDI Levin - Landfill

<b>Sample</b> 21/46009 Notes: 23	Site -01 Levin HS3 6200-0 Levin Landfill Sample	N	llap Ref.	<b>Date Sampled</b> 17/02/2022 00:00		eceived 022 12:20	Order No.
	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 McAr	thur KTP
0040	Total (NP) Organic Carbon	6.0	g/m³		18/02/2022	Amit Kumar k	TP
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 McAr	thur KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³		19/02/2022	Gordon McAr	thur KTP
0602	Chloride	21.2	g/m³		23/02/2022	Amit Kumar k	TP
0605	Nitrate - Nitrogen	0.17	g/m³		23/02/2022	Amit Kumar k	TP
0607	Sulphate	18.1	g/m³		23/02/2022	Amit Kumar k	TP
0760	Ammonia Nitrogen	0.19	g/m³		23/02/2022	Divina Lagazo	on KTP
1642	Total Hardness	59	g CaCO3/m³		25/02/2022	Amit Kumar k	TP
1810	Calcium - Dissolved	12.7	g/m³		25/02/2022	Amit Kumar k	TP
1819	Iron - Dissolved	0.211	g/m³		25/02/2022	Amit Kumar k	TP
1822	Magnesium - Dissolved	6.73	g/m³		25/02/2022	Amit Kumar k	TP
1834	Sodium - Dissolved	17.3	g/m³		25/02/2022	Amit Kumar k	TP
2088	Dissolved Reactive Phosphorus	s0.051	g/m³		23/02/2022	Divina Lagazo	on KTP
6701	Aluminium - Dissolved	0.029	g/m³		23/02/2022	Amit Kumar k	TP
6703	Arsenic - Dissolved	< 0.001	g/m³		23/02/2022	Amit Kumar k	TP
6707	Boron - Dissolved	0.06	g/m³		24/02/2022	Amit Kumar k	TP
6708	Cadmium - Dissolved	< 0.0002	g/m³		23/02/2022	Amit Kumar k	TP
6711	Chromium - Dissolved	< 0.001	g/m³		23/02/2022	Amit Kumar k	TP
6713	Copper - Dissolved	0.0010	g/m³		23/02/2022	Amit Kumar k	TP
6718	Lead - Dissolved	< 0.0005	g/m³		23/02/2022	Amit Kumar k	TP
6721	Manganese - Dissolved	0.0167	g/m³		23/02/2022	Amit Kumar k	TP
6722	Mercury - Dissolved	< 0.0005	g/m³		24/02/2022	Amit Kumar k	TP
6724	Nickel - Dissolved	< 0.0005	g/m³		23/02/2022	Amit Kumar K	TP
6726	Potassium - Dissolved	3.24	g/m³		23/02/2022	Amit Kumar k	TP
6738	Zinc - Dissolved	0.003	g/m³		23/02/2022	Amit Kumar K	TP
M0104	E. coli	410	cfu/100mL		18/02/2022	Maria Norris I	KTP
	Volatile Fatty Acids	< 5 *	g/m³			Sunita Raju T	ranscribed by
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³			Sunita Raju T	ranscribed by
P1859	Sample Filtration	Completed			21/02/2022	Candy Barrer	echea .

#### Comments:

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
рН	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





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Page 1 of 2 Report Number: 21/46009-1 ELS 04 March 2022 18:00:17

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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Report Released By

Rob Deacon



# **Analytical Report**

Report Number: 21/47011

Issue: 1

31 March 2022

Downer EDI Levin - Landfill
P O Box 642
LEVIN 5540

Attention: Elysia Kinross

	88530-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 09/03/2022 00:00	<b>Date R</b> 09/03/2	2022 16:20	<b>Order No.</b> 0
	Test	Result	Units		Test Date	Signatory	
0001	рН	8.5			11/03/2022	Jennifer Mo	nt KTP
0002	Suspended Solids - Total	24	g/m³		10/03/2022	Gordon McA	Arthur 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 Mo	nt KTP
0055	Conductivity at 25°C	22.6	mS/m		11/03/2022	Jennifer Mo	nt KTP
0081	Chemical Oxygen Demand	37	g/m³		10/03/2022	Gordon McA	Arthur KTP
0180	BOD5 - Soluble Carbonaceous	s < 6	g/m³		10/03/2022	Marylou Ca	oral KTP
0602	Chloride	22.4	g/m³		11/03/2022	Divina Laga	zon KTP
0605	Nitrate - Nitrogen	0.20	g/m³		11/03/2022	Divina Laga	zon KTP
0607	Sulphate	18.9	g/m³		11/03/2022	Divina Laga	zon KTP
0760	Ammonia Nitrogen	0.10	g/m³		12/03/2022	Divina Laga	zon 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 Phosphoru	s0.088	g/m³		12/03/2022	Divina Laga	zon 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 Ca	oral Transcribed
						by	
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³			Chen Lin Tr	anscribed by
P1859	Sample Filtration	Completed			10/03/2022	Emily Coup	er.

#### Comments:

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
рН	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





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Page 1 of 2 Report Number: 21/47011-1 ELS

31 March 2022 15:00:17

<sup>\*</sup> Not an accredited test.

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/m <sup>3</sup>
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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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Report Released By

Rob Deacon



P O Box 642

**LEVIN 5540** 

Attention: Elysia Kinross

Downer EDI Levin - Landfill

### **Eurofins ELS Limited**

# **Analytical Report**

Report Number: 22/4613 Issue: 1

16 May 2022

Sample 22/4613-0	Site 01 Levin HS3 11008-0 Levin Landfill Sample		Map Ref.	Date Sampled 27/04/2022 00:00		<b>Order No.</b> 022 13:15 0
. 10100. 2	Test	Result	Units		Test Date	Signatory
0001	pH	7.7	Office		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	s0.076	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
	Total Halogenated Phenolics	< 0.05	g/m³			Lizzie Addis Transcribed by
P1859	Sample Filtration	Completed			29/04/2022	Freddie Badraun .

#### Comments:

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
рН	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





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Page 1 of 2 Report Number: 22/4613-1 ELS

16 May 2022 11:00:21

<sup>\*</sup> Not an accredited test.

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/m <sup>3</sup>
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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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.

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Report Released By

Rob Deacon



P O Box 642

**LEVIN 5540** 

### **Eurofins ELS Limited**

**Analytical Report** 

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

Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 21/46002 Notes: 23	Site -01 Levin Leachate P 6196-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 17/02/2022 00:00	<b>Date Re</b> 18/02/2	<b>Order No.</b> 022 12:14 0
	Test	Result	Units		Test Date	Signatory
0001	Hq	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	s14.8	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:

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





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Page 1 of 2

Report Number: 21/46002-1 ELS

04 March 2022 18:00:16

Email: reportselsnz@eurofins.com Website: http://www.eurofins.co.nz

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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.

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Report Released By

Rob Deacon



# **Analytical Report**

Downer EDI Levin - Landfill P O Box 642 LEVIN 5540

Attention: Elysia Kinross

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

<b>Sample</b> 21/47007 Notes: 23	Site -01 Levin Leachate P 8526-0 Levin Landfill Sample	ond	Map Ref.	<b>Date Sampled</b> 09/03/2022 00:00		Received 2022 16:20	Order No.
	Test	Result	Units		Test Date	Signatory	
0001	На	7.9			11/03/2022	Jennifer Mo	nt KTP
0002	Suspended Solids - Total	107	g/m³		10/03/2022	Gordon Mc	Arthur 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 Ca	bral KTP
0055	Conductivity at 25°C	1,610	mS/m		11/03/2022	Jennifer Mo	nt KTP
0081	Chemical Oxygen Demand	5,150	g/m³		10/03/2022	Gordon Mc	Arthur KTP
0180	BOD5 - Soluble Carbonaceous	105	g/m³		10/03/2022	Marylou Ca	bral KTP
0602	Chloride	1,220	g/m³		16/03/2022	Divina Laga	zon KTP
0605	Nitrate - Nitrogen	< 1.00	g/m³		16/03/2022	Divina Laga	
0607	Sulphate	18.3	g/m³		15/03/2022	Divina Laga	zon KTP
0760	Ammonia Nitrogen	1,530	g/m³		12/03/2022	Divina Laga	zon KTP
1642	Total Hardness	521	g CaCO3/m³		11/03/2022	Amit Kumar	
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	s16.3	g/m³		12/03/2022	Divina Laga	zon 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 Ca	bral Transcribed
						by	
MO-5002	Total Halogenated Phenolics	0.06	g/m³			Lizzie Addis	Transcribed by
P1859	Sample Filtration	Completed	-		10/03/2022	Emily Coup	er.

#### Comments:

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
рН	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





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016 Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 2 Report Number: 21/47007-1 ELS 28 March 2022 15:00:08

Email: reportselsnz@eurofins.com Website: http://www.eurofins.co.nz

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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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Report Released By

Rob Deacon



# **Analytical Report**

Report Number: 22/4621

Issue: 1 16 May 2022

Downer EDI Levin - Landfill P O Box 642 **LEVIN 5540** 

Attention:	Elysia	Kinross	

<b>Sample</b> 22/4621-0		ond	Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		eceived 2022 17:33	Order No.
Notes: 24	1004-0 Levin Landfill Sample						
	Test	Result	Units		Test Date	Signatory	
0001	pH	7.7			21/04/2022	Jennifer Mo	nt KTP
0002	Suspended Solids - Total	171	g/m³		21/04/2022	Jennifer Mo	nt 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 Ca	bral KTP
0055	Conductivity at 25°C	1,700	mS/m		21/04/2022	Jennifer Mo	nt KTP
0081	Chemical Oxygen Demand	5,930	g/m³		22/04/2022	Marylou Ca	bral KTP
0180	BOD5 - Soluble Carbonaceous	139	g/m³		21/04/2022	Marylou Ca	bral KTP
0602	Chloride	1,310	g/m³		27/04/2022	Divina Laga	zon KTP
0605	Nitrate - Nitrogen	< 1.00	g/m³		27/04/2022	Divina Laga	zon KTP
0607	Sulphate	36.3	g/m³		27/04/2022	Divina Laga	zon KTP
0760	Ammonia Nitrogen	1,640	g/m³		27/04/2022	Ivan Imamu	ra 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	
1834	Sodium - Dissolved	1,120	g/m³		26/04/2022	Amit Kumar	
2088	Dissolved Reactive Phosphorus	•	g/m³		26/04/2022	Ivan Imamu	
6701	Aluminium - Dissolved	0.854	g/m³		22/04/2022	Amit Kumar	
6703	Arsenic - Dissolved	0.371	g/m³		22/04/2022	Amit Kumar	
6707	Boron - Dissolved	6.87	g/m³		27/04/2022	Amit Kumar	
6708	Cadmium - Dissolved	< 0.0020	g/m³		22/04/2022	Amit Kumar	
6711	Chromium - Dissolved	0.838	g/m³		22/04/2022	Amit Kumar	
			ŭ				
6713	Copper - Dissolved	0.0100	g/m³		22/04/2022	Amit Kumar	
6718	Lead - Dissolved	< 0.0050	g/m³		22/04/2022	Amit Kumar	
6721	Manganese - Dissolved	1.30	g/m³		22/04/2022	Amit Kumar	
	Mercury - Dissolved	< 0.0050	g/m³		22/04/2022	Amit Kumar	
6724	Nickel - Dissolved	0.141	g/m³		22/04/2022	Amit Kumar	
6726	Potassium - Dissolved	787	g/m³		22/04/2022	Amit Kumar	
6738	Zinc - Dissolved	0.078	g/m³		22/04/2022	Amit Kumar	
	E. coli	< 100	cfu/100mL		21/04/2022	Maria Norris	
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 Bad	draun .
SVOC-001	I 2,3-Diuron	<0.001	mg/L		21/04/2022	Ganesh Ilar	ncko KTP
SVOC-002	2 a-BHC	<0.0001	mg/L		21/04/2022	Ganesh Ilar	ncko KTP
SVOC-003	3 a-chlordane	< 0.0001	mg/L		21/04/2022	Ganesh Ilar	ncko KTP
SVOC-004	1 Aldrin	<0.001	mg/L		21/04/2022	Ganesh Ilar	ncko KTP
SVOC-005	5 b-BHC	<0.0001	mg/L		21/04/2022	Ganesh Ilar	ncko KTP
SVOC-006	S cis-Permethrin	< 0.0001	mg/L		21/04/2022	Ganesh Ilar	ncko KTP
SVOC-008	B Endosulfan II	< 0.005	mg/L		21/04/2022	Ganesh Ilar	ncko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L		21/04/2022	Ganesh Ilar	ncko KTP
SVOC-010	) Endrin	<0.0001	mg/L		21/04/2022	Ganesh Ilar	ncko KTP
	2 Endrin Ketone	<0.0001	mg/L		21/04/2022	Ganesh Ilar	
	B Gamma-Chlordane	<0.001	mg/L		21/04/2022	Ganesh Ilar	
	Heptachlor	<0.0001	mg/L		21/04/2022	Ganesh Ilar	
	5 Heptachlor Epoxide	<0.0001	mg/L		21/04/2022	Ganesh Ilar	
	6 Hexachlorobenzene	<0.0001	mg/L		21/04/2022	Ganesh Ilar	
	Lindane ( g-BHC)	<0.0001	mg/L		21/04/2022	Ganesh Ilar	
	( )		•				
	B Methoxychlor	<0.0001	mg/L		21/04/2022	Ganesh Ilar	
	9 p,p'-DDD	<0.0001	mg/L		21/04/2022	Ganesh Ilar	
SVOC-020		<0.0001	mg/L		21/04/2022	Ganesh Ilar	
	I n n'-DDT	< 0.001	mg/L		21/04/2022	Ganesh Ilar	icko KTP
SVOC-021	2 Procymidone	<0.0001	mg/L		21/04/2022	Ganesh Ilar	





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4621-1 ELS 16 May 2022 15:00:31

Sample Site 22/4621-01 Levin Leachate F Notes: 241004-0 Levin Landfill Sample	Pond	Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		eceived 2022 17:33	Order No.
Test	Result	Units		Test Date	Signatory	
SVOC-023 Propanil	<0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-024 Endosulfan I	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		21/04/2022	Ganesh Ilan	
SVOC-027 Atrazine	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	< 0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	< 0.002	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-041 Simazine	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene	< 0.0010	mg/L		21/04/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010	mg/L		21/04/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L		21/04/2022	Ganesh Ilan	CKO K I P
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-060 Fluorene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-061 Indeno(1,2,3-cd)pyrene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-062 Naphthalene	0.0030	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-063 Phenanthrene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-064 Pyrene	< 0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher	nyk0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	l <0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobiph	ne <b>n</b> 0/10001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		21/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	0.0020	mg/L		21/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L		21/04/2022	Ganesh Ilan	
VOC-003 Benzene	0.0048	mg/L		21/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene	< 0.0010	mg/L		21/04/2022	Ganesh Ilan	
VOC-007 Naphthalene	0.0018	mg/L		21/04/2022	Ganesh Ilan	
VOC-008 n-Butylbenezene	<0.0005	mg/L		21/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene	<0.0005	mg/L		21/04/2022	Ganesh Ilan	
VOC-010 o-Xylene	0.0176	mg/L		21/04/2022	Ganesh Ilan	
VOC-011 p-Isopropyltoluene	0.0058	mg/L		21/04/2022	Ganesh Ilan	
VOC-014 Styrene	< 0.0020	mg/L		21/04/2022	Ganesh Ilan	
VOC-015 tert-Butylbenzene VOC-016 Toluene	0.0012 0.0240	mg/L		21/04/2022 21/04/2022	Ganesh Ilan	
		mg/L		21/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenzen VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L mg/L		21/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-1etrachioroethane	<0.0005	mg/L		21/04/2022	Ganesh Ilan	
voo-ora 1,1,1-monoroemane	<b>\0.000</b> 3	my/L		Z 1/U4/ZUZZ	Janesh Hall	UNU INTE





22/4621-01 L	Site Levin Leachate Pond	Map Ref.	<b>Date Sampled</b> 20/04/2022 00:00		eceived 2022 17:33	Order No.
Notes: 241004-0 Levin La	·					
Test	Result	Units		Test Date	Signatory	
VOC-020 1,1,2,2-Tetracl		mg/L		21/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloro		mg/L		21/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroeth		mg/L		21/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloroeth		mg/L		21/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropro	•	mg/L		21/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloro		mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-026 1,2-Dibromo-3		mg/L		21/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoet		mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-028 1,2-Dichloroeth	nane 0.0008	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-029 1,2-Dichloropro	opane 0.0007	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-030 1,3-Dichloropro	opane <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-031 2,2-Dichloropro	opane <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-032 Allyl chloride	<0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-033 Bromochlorom	ethane <0.0012	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-034 Bromomethan	e <0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-035 Carbon tetrach	nloride <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-036 Chloroethane	<0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-037 Chloromethane	e <0.006	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-038 cis-1,2-Dichlor	oethene <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-039 cis-1,3-Dichlor	opropene <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-040 Dibromometha	ne <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-041 Dichlorodifluor	omethane <0.001	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-043 Hexachlorobut	adiene <0.0002	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-044 Tetrachloroeth	ene <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-045 trans-1,2-Dichl	loroethene <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-046 trans-1,3-Dichl	loropropene 0.0016	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-047 Trichloroethen	e <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-048 Trichlorofluoro	methane <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-049 Vinyl Chloride	<0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-050 1,2,3-Trichloro	benzene <0.0005	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-051 1,2,4-Trichloro	benzene 0.0020	mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-052 1,2-Dichlorobe		mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-053 1,3-Dichlorobe		mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-054 1,4-Dichlorobe		mg/L		21/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluen		mg/L		21/04/2022	Ganesh Ilan	cko KTP
VOC-056 4-Chlorotoluen		mg/L		21/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene		mg/L		21/04/2022	Ganesh Ilan	
VOC-058 Chlorobenzene		mg/L		21/04/2022	Ganesh Ilan	
VOC-059 1,3,5-Trichloro		mg/L		21/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Per		mg/L		21/04/2022	Ganesh Ilan	
VOC-061 Carbon disulph		mg/L		21/04/2022	Ganesh Ilan	
VOC-062 Bromodichloro		mg/L		21/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005 < 0.0005	mg/L		21/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		21/04/2022	Ganesh Ilan	
VOC-065 Dibromochloro		mg/L		21/04/2022	Ganesh Ilan	
VOC-003 DIDITIONION	1110thalle < 0.0003	mg/L		Z 1/U+/ZUZZ	Janesh nah	UNU IN I F

#### Comments:

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
рН	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





<sup>\*</sup> Not an accredited test.

Test	Methodology	Detection Limit
	APHA Online Edition Method 5220 D.	15 g/m <sup>3</sup>
Chemical Oxygen Demand		
BOD5 - Soluble Carbonaceous	APHA Online Edition Method 5210 B. The sample is filtered through Whatman GFC and treated with nitrification	1 g/m³
Obligation	inhibitor.	0.00 =/==3
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/m <sup>3</sup>
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/m <sup>3</sup>
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		1 cfu/100mL
	APHA 9222I:Online Edition  Performed by Eurofice Melbourne following Method: LTM OPC 2360 Determination of Valetile Edity Aside in	
Volatile Fatty Acids	Performed by Eurofins Melbourne following Method: LTM-ORG-2360 Determination of Volatile Fatty Acids in	5 g/m³
Total Halamanatad Dhanalisa	Water by GC-MS. Results are reported as acetic acid equivalent.	0.0F m/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
	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  Puriprovufon	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L
Pyriproxyfen	Organonitrogen Pesticide compound analysed by in-house method using GC-MS	-
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.  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.  VOC Aromatic Compound analysed by GCMS following an in house method based on USEPA Method 8260.	0.0005 Hg/L
	VOC Aromatic Compound analysed by GCMS following an in house method based on USEFA Method 6260.  VOC Halogenated Alkanes and Alkenes Compound analysed by GCMS following an in house method based on	0.0015 mg/L 0.0005 mg/L
1,1,1,2-Tetrachloroethane	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
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Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 5 of 7 Report Number: 22/4621-1 ELS

16 May 2022 15:00:31

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	0.0005 mg/L
	Method 8260.	
1,3-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA	0.0005 mg/L
	Method 8260.	
1,4-Dichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA	0.0005 mg/L
	Method 8260.	
2-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA	0.0005 mg/L
	Method 8260.	
4-Chlorotoluene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA	0.0005 mg/L
	Method 8260.	
Bromobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA	0.0005 mg/L
	Method 8260.	
Chlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA	0.0005 mg/L
	Method 8260.	
1,3,5-Trichlorobenzene	VOC Halogenated Aromatic Compound analysed by GCMS following an in house method based on USEPA	0.0005 mg/L
	Method 8260.	
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	0.0005 mg/L
	known as Tribromomethane.	
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

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.

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.

This report may not be reproduced except in full without the written approval of this laboratory.





Report Released By

Rob Deacon



P O Box 642

**LEVIN 5540** 

Attention: Elysia Kinross

### **Eurofins ELS Limited**

# **Analytical Report**

Downer EDI Levin - Landfill

Report Number: 21/46049 Issue: 1

10 March 2022

Sample 21/46049	Site I-01 Levin TD1 I6195-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 17/02/2022 00:00		eceived 2022 12:32	Order No.
140163. 20	·	Daniell	11-16-		T D-1-	0:	
0004	Test	Result	Units		Test Date	Signatory	+ IZTD
0001	pH	8.0	/3		22/02/2022	Jennifer Mor	
0002	Suspended Solids - Total	19	g/m³		21/02/2022	Gordon McA	
0040	Total (NP) Organic Carbon	3.2	g/m³		18/02/2022	Amit Kumar	
0052	Alkalinity - Total	192	g CaCO3/m³		22/02/2022	Jennifer Mor	
0055	Conductivity at 25°C	59.8	mS/m		22/02/2022	Jennifer Mor	
0081	Chemical Oxygen Demand	123	g/m³		22/02/2022	Gordon McA	
0180	BOD5 - Soluble Carbonaceous	-	g/m³		22/02/2022	Marylou Cab	
0602	Chloride	68.4	g/m³		24/02/2022	Divina Lagaz	
0605	Nitrate - Nitrogen	< 0.01	g/m³		24/02/2022	Divina Lagaz	
0607	Sulphate	1.50	g/m³		24/02/2022	Divina Lagaz	
0760	Ammonia Nitrogen	5.93	g/m³		23/02/2022	Divina Lagaz	on 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 Phosphoru	s0.049	g/m³		23/02/2022	Divina Lagaz	on 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 Raiu	Transcribed by
	Total Halogenated Phenolics	< 0.05	g/m³				Transcribed by
P1859	Sample Filtration	Completed			21/02/2022	Candy Barre	-

#### Comments:

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
pН	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





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Page 1 of 2 Report Number: 21/46049-1 ELS 10 March 2022 13:00:09

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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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Report Released By

Rob Deacon



# **Analytical Report**

Downer EDI Levin - Landfill P O Box 642 LEVIN 5540

Attention: Elysia Kinross

Report Number: 21/47006 Issue: 1 31 March 2022

0002 0040 0052	Test pH Suspended Solids - Total	Result 7.8	Units			
0002 0040 0052	Suspended Solids - Total	7.8		Test Date	Signatory	
0040 0052	'			11/03/2022	Jennifer Mo	nt KTP
0052	T . I (NID) O O . I	21	g/m³	10/03/2022	Gordon McA	Arthur KTP
	Total (NP) Organic Carbon	22.2	g/m³	10/03/2022	Amit Kumar	KTP
	Alkalinity - Total	407	g CaCO3/m³	11/03/2022	Jennifer Mo	nt KTP
0055	Conductivity at 25°C	105	mS/m	11/03/2022	Jennifer Mo	nt KTP
0081	Chemical Oxygen Demand	52	g/m³	10/03/2022	Gordon McA	Arthur KTP
0180	BOD5 - Soluble Carbonaceous	s < 6	g/m³	10/03/2022	Marylou Cal	oral KTP
0602	Chloride	87.3	g/m³	11/03/2022	Divina Laga	zon KTP
0605	Nitrate - Nitrogen	< 0.10	g/m³	11/03/2022	Divina Laga	zon KTP
0607	Sulphate	0.49	g/m³	11/03/2022	Divina Laga	zon KTP
0760	Ammonia Nitrogen	14.8	g/m³	12/03/2022	Divina Laga	zon 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 Phosphoru	ıs0.027	g/m³	12/03/2022	Divina Laga	zon 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 Cal	oral Transcribed
					by	
MO-5002	Total Halogenated Phenolics	< 0.05	g/m³		Chen Lin Tr	anscribed by
P1859	Sample Filtration	Completed		10/03/2022	Emily Coupe	er.

#### Comments:

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
рН	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





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Page 1 of 2 Report Number: 21/47006-1 ELS 31 March 2022 15:00:15

Email: reportselsnz@eurofins.com Website: http://www.eurofins.co.nz

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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Report Released By

Rob Deacon



# **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 22/4622-0 Notes: 24	Site 01 Levin TD1 .1003-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 27/04/2022 00:00		eceived 2022 13:12	Order No.
	Test	Result	Units		Test Date	Signatory	
0001	Hq	6.8			02/05/2022	Jennifer Mon	t KTP
0002	Suspended Solids - Total	94	g/m³		29/04/2022	Jennifer Mon	t KTP
0040	Total (NP) Organic Carbon	15.0	g/m³		06/05/2022	Amit Kumar I	KTP
0052	Alkalinity - Total	104	g CaCO3/m³		02/05/2022	Jennifer Mon	t KTP
0055	Conductivity at 25°C	41.0	mS/m		02/05/2022	Jennifer Mon	t KTP
0081	Chemical Oxygen Demand	115	g/m³		29/04/2022	Marylou Cab	ral KTP
0180	BOD5 - Soluble Carbonaceous	< 6	g/m³		29/04/2022	Marylou Cab	ral KTP
0602	Chloride	56.0	g/m³		03/05/2022	Divina Lagaz	on KTP
0605	Nitrate - Nitrogen	0.03	g/m³		03/05/2022	Divina Lagaz	on KTP
0607	Sulphate	5.44	g/m³		03/05/2022	Divina Lagaz	on KTP
0760	Ammonia Nitrogen	0.12	g/m³		02/05/2022	Ivan Imamura	a KTP
1642	Total Hardness	89	g CaCO3/m³		03/05/2022	Amit Kumar I	KTP
1810	Calcium - Dissolved	17.3	g/m³		03/05/2022	Amit Kumar I	KTP
1819	Iron - Dissolved	1.32	g/m³		03/05/2022	Amit Kumar I	KTP
1822	Magnesium - Dissolved	11.1	g/m³		03/05/2022	Amit Kumar I	KTP
1834	Sodium - Dissolved	45.5	g/m³		03/05/2022	Amit Kumar I	KTP
2088	Dissolved Reactive Phosphorus	s0.043	g/m³		02/05/2022	Ivan Imamura	a KTP
6701	Aluminium - Dissolved	0.023	g/m³		30/04/2022	Amit Kumar I	KTP
6703	Arsenic - Dissolved	< 0.001	g/m³		30/04/2022	Amit Kumar I	KTP
6707	Boron - Dissolved	0.10	g/m³		30/04/2022	Amit Kumar I	KTP
6708	Cadmium - Dissolved	< 0.0002	g/m³		30/04/2022	Amit Kumar I	KTP
6711	Chromium - Dissolved	< 0.001	g/m³		30/04/2022	Amit Kumar I	KTP
6713	Copper - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar I	KTP
6718	Lead - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar I	KTP
6721	Manganese - Dissolved	0.0120	g/m³		30/04/2022	Amit Kumar I	KTP
6722	Mercury - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar I	KTP
6724	Nickel - Dissolved	0.0005	g/m³		30/04/2022	Amit Kumar I	KTP
6726	Potassium - Dissolved	8.62	g/m³		30/04/2022	Amit Kumar I	KTP
6738	Zinc - Dissolved	0.002	g/m³		30/04/2022	Amit Kumar I	KTP
M0104	E. coli	< 100	cfu/100mL		28/04/2022	Maria Norris	
MO-5001	Volatile Fatty Acids	< 5 *	g/m³				Transcribed by
	Total Halogenated Phenolics	< 0.05	g/m³				Transcribed by
P1859	Sample Filtration	Completed			29/04/2022	Freddie Badr	aun .

#### Comments:

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
рН	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





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Page 1 of 2 Report Number: 22/4622-1 ELS

16 May 2022 11:00:26

<sup>\*</sup> Not an accredited test.

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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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

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.

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Report Released By

Rob Deacon



**Analytical Report** 

Report Number: 22/4633 Issue: 1 16 May 2022

P O Box 642
LEVIN 5540
Attention: Elysia Kinross

Downer EDI Levin - Landfill

Very   Person   Per	Sample 22/4633-	Site -01 Levin Xd1		Map Ref.	Date Sampled 26/04/2022 00:00		eceived 2022 18:33	Order No.
Test         Result         Units         Test Date         Signatory           0001         H         7.5         2804/2022         Jamilur More KTP           0002         Suspanded Solicis - Total         1 46         g/m²         2804/2022         Jamilur More KTP           0052         Alkalnily - Total         1 76         g CaCO3/m²         2804/2022         Amelium Kt Kumar KTP           0055         Conductivity at 25°C         54.3         mSim         2804/2022         Maryluc Cabral KTP           0055         Conductivity at 25°C         54.3         mSim         2804/2022         Maryluc Cabral KTP           0180         RODS - Soulate Carbonaceus - c         g pm²         2804/2022         Maryluc Cabral KTP           0805         Nitra - Nitrogen         - 0.01         gm²         2005/2022         Divina Lagazon KTP           0805         Nitra - Nitrogen         - 0.01         gm²         2005/2022         Divina Lagazon KTP           0805         Nitra - Nitrogen         - 0.01         gm²         2005/2022         Divina Lagazon KTP           0805         Subitation - Nitrogen         - 0.01         gm²         2005/2022         Divina Lagazon KTP           0806         Nitra - Nitrogen         - 0.05					20/04/2022 00:00	2170-172	10.00	Ü
DOUG   SHORD   Total   146   9/m²   2804/2022   Manylou Cabral KTP			Result	Units		Test Date	Signatory	
DOUG   Total (NP) Organic Carbon   4.8   9m²   3004/2022   3004/2022   4004	0001			· · · · · · · · · · · · · · · · · · ·			-	oral KTP
0.042   Total (NP) Organic Carbon   4.8   9m²   30.04/2022   Amit Kumar KTP   0.052   Akiniky - Total   176   9 CaCO3/m²   2804/2022   20.04202   20.04		•		a/m³			•	
0056         Alkalininy - Total         176         g CaCO3/m³         2804/2022         Marylou Cabral KTP           0056         Conductivity at 2F°C         5.4.3         mS/m         2804/2022         Marylou Cabral KTP           0081         Chemical Oxygen Demand         27         g/m³         2804/2022         God Zolfol Cabral KTP           0180         RDDS-Soltable Carbonaceus < 6		•		· ·				
0085         Conductivity at 25°C         \$4.3         mS/m         2804/2022         Marylou Cabral KTP           0081         Dennical Oxygen Demand         27         ym²n         2804/2022         Gardon McArthur KTP           0602         Chloride         6.5         9         ym²n         0305/2022         Divina Lagazon KTP           0605         Nitrate - Nitrogen         < 0.01		( , 0		· ·				
OBB		•		· ·			-	
08 BODS - Soluble Carbonaceous          9 m²³         28042/2022         Gordon McArthur KTP           0802         Chloride         5.9 g²²³         0305/2022         Divina Lagazon KTP           0805         Nitrate - Nitrogen         < 0.01		•					-	
6862         Chloride         65.9         g/m²         303052022         Divina Lagazon KTP           0807         Sulphate         13.4         g/m²         303052022         Divina Lagazon KTP           0807         Sulphate         13.4         g/m²         303052022         Divina Lagazon KTP           0760         Armmonia Nitrogen         0.36         g/m²         30052022         Armit Kumar KTP           1810         Calcium - Dissolved         3.5.1         g/m²         0.3052022         Armit Kumar KTP           1819         Ino - Dissolved         0.095         g/m²         0.3052022         Armit Kumar KTP           1822         Magnesium - Dissolved         46.9         g/m²         0.3052022         Armit Kumar KTP           1838         Sodium - Dissolved         46.9         g/m²         0.3052022         Armit Kumar KTP           2088         Dissolved Reactive Phosphorus0.076         g/m²         0.30652022         Armit Kumar KTP           6701         Aluminium - Dissolved         0.002         g/m²         0.3042022         Armit Kumar KTP           6702         Borsolved         0.001         g/m²         3.0042022         Armit Kumar KTP           6703         Arsenic - Dissolved         0.		, ,		· ·			•	
0605         Nitrate - Nitrogen         0.01         g/m²         30305/2022         Divina Lagazon KTP           0700         Sulphate         13.4         g/m²         30305/2022         Divina Lagazon KTP           0700         Ammoria Nitrogen         0.36         g/m²         30305/2022         Ivan Imamura KTP           1810         Calcium - Dissolved         35.1         g/m²         30305/2022         Amit Kumar KTP           1819         Iron - Dissolved         0.095         g/m²         30305/2022         Amit Kumar KTP           1822         Magnesium - Dissolved         46.9         g/m²         30305/2022         Amit Kumar KTP           1832         Magnesium - Dissolved         46.9         g/m²         30305/2022         Amit Kumar KTP           1834         Sodium - Dissolved         46.9         g/m²         30305/2022         Amit Kumar KTP           6701         Aluminium - Dissolved         0.002         g/m²         3004/2022         Amit Kumar KTP           6707         Boron - Dissolved         0.005         g/m²         3004/2022         Amit Kumar KTP           6708         Cadriuum - Dissolved         0.0001         g/m²         3004/2022         Amit Kumar KTP           6709         B				· ·				
0607         Sulphate         13.4         g/m³         0305/2022         lovina Lagazon KTP           0760         Ammonia Nitrogen         0.36         g/m³         0205/2022         lan Imamura KTP           1642         Total Hardness         149         g CaCO3/m³         0305/2022         Amit Kumar KTP           1819         Ion Dissolved         0.95         g/m³         0305/2022         Amit Kumar KTP           1829         Magnesium - Dissolved         46.9         g/m³         0305/2022         Amit Kumar KTP           1828         Magnesium - Dissolved         46.9         g/m³         0305/2022         Amit Kumar KTP           2088         Dissolved Reactive Phosphorus 0.076         g/m³         0304/2022         Amit Kumar KTP           6701         Aluminium - Dissolved         0.002         g/m³         3004/2022         Amit Kumar KTP           6703         Arsenic - Dissolved         0.001         g/m³         3004/2022         Amit Kumar KTP           6708         Cadmium - Dissolved         0.0002         g/m³         3004/2022         Amit Kumar KTP           6711         Chromium - Dissolved         0.0005         g/m³         3004/2022         Amit Kumar KTP           6718         Lead - Dissolved </td <td></td> <td></td> <td></td> <td>· ·</td> <td></td> <td></td> <td>•</td> <td></td>				· ·			•	
1642   Total Hardness   149   9 CaCO3/m³   0305/2022   Amit Rumar KTP				· ·			•	
1842   Total Hardness		•		· ·			•	
1819   Calcium - Dissolved   35.1   g/m²   03/05/2022   Amit Kumar KTP   1819   Iron - Dissolved   0.095   g/m³   03/05/2022   Amit Kumar KTP   1822   Magnesium - Dissolved   46.9   g/m³   03/05/2022   Amit Kumar KTP   1834   Sodium - Dissolved   46.9   g/m³   03/05/2022   Amit Kumar KTP   1834   Sodium - Dissolved   46.9   g/m³   03/05/2022   Amit Kumar KTP   1834   Sodium - Dissolved   46.9   g/m³   03/05/2022   Amit Kumar KTP   6701   Aluminium - Dissolved   0.002   g/m³   03/04/2022   Amit Kumar KTP   6703   Arsenic - Dissolved   0.001   g/m³   30/04/2022   Amit Kumar KTP   6706   Boron - Dissolved   0.005   g/m³   30/04/2022   Amit Kumar KTP   6707   Boron - Dissolved   0.006   g/m³   30/04/2022   Amit Kumar KTP   6708   Cadmium - Dissolved   0.0001   g/m³   30/04/2022   Amit Kumar KTP   6718   Capper - Dissolved   0.0001   g/m³   30/04/2022   Amit Kumar KTP   6718   Lead - Dissolved   0.0008   g/m³   30/04/2022   Amit Kumar KTP   6718   Lead - Dissolved   0.0005   g/m³   30/04/2022   Amit Kumar KTP   6722   Marganese - Dissolved   0.0005   g/m³   30/04/2022   Amit Kumar KTP   6722   Marganese - Dissolved   0.0005   g/m³   30/04/2022   Amit Kumar KTP   6724   Marganese - Dissolved   0.0005   g/m³   30/04/2022   Amit Kumar KTP   6726   Potassium - Dissolved   0.0005   g/m³   30/04/2022   Amit Kumar KTP   6726   Potassium - Dissolved   0.0008   g/m³   30/04/2022   Amit Kumar KTP   6728   Zinc - Dissolved   0.008   g/m³   30/04/2022   Amit Kumar KTP   MO-5007 Total Halogenated Phenolics   0.05   g/m³   30/04/2022   Amit Kumar KTP   MO-5007 Total Halogenated Phenolics   0.05   g/m³   30/04/2022   Amit Kumar KTP   MO-5007 Total Halogenated Phenolics   0.05   g/m³   30/04/2022   Amit Kumar KTP   MO-5007 Total Halogenated Phenolics   0.05   g/m³   30/04/2022   Amit Kumar KTP   MO-5007 Total Halogenated Phenolics   0.05   g/m³   30/04/2022   Amit Kumar KTP   MO-5007 Total Halogenated Phenolics   0.05   g/m³   30/04/2022   Amit Kumar KTP   MO-5007 Dieldrin   0.0001   mg/L   06/05/2022   Ganesh Ilancko KTP   SVOC-		~		· ·				
1819				· ·				
1822         Magnesium - Dissolved         44.9         g/m³         03/05/2022         Amit Kumar KTP           1834         Sodium - Dissolved         46.9         g/m³         03/05/2022         Amit Kumar KTP           2088         Dissolved Reactive Phosphorus0.076         g/m³         02/05/2022         Ivan Imamura KTP           6701         Alzenic - Dissolved         0.001         g/m³         30/04/2022         Amit Kumar KTP           6703         Arsenic - Dissolved         0.05         g/m³         30/04/2022         Amit Kumar KTP           6708         Cadnium - Dissolved         0.001         g/m³         30/04/2022         Amit Kumar KTP           6718         Cadnium - Dissolved         0.001         g/m³         30/04/2022         Amit Kumar KTP           6711         Chromium - Dissolved         0.0001         g/m³         30/04/2022         Amit Kumar KTP           6713         Capper - 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         Mickel - Dissolved         0.0005         g/m³         30/04/2022         Amit Kumar KTP           6722				· ·				
1834         Sodium - Dissolved         46.9         g/m³         02/05/2022         kmit Kumar KTP           2088         Dissolved Reactive Phosphorus0.076         g/m³         02/05/2022         kmit Kumar KTP           6701         Aluminium - Dissolved         0.002         g/m³         30/04/2022         Amit Kumar KTP           6707         Boron - Dissolved         < 0.001				· ·				
2088   Dissolved Reactive Phosphorus 0.076   g/m³   3004/2022   Amit Kumar KTP		· ·		· ·				
6701         Aluminium - Dissolved         0.002         g/m³         3004/2022         Amit Kumar KTP           6703         Arsenic - Dissolved         0.05         g/m³         3004/2022         Amit Kumar KTP           6708         Cadmium - Dissolved         0.05         g/m³         3004/2022         Amit Kumar KTP           6708         Cadmium - Dissolved         0.0002         g/m³         3004/2022         Amit Kumar KTP           6711         Chromium - Dissolved         0.0001         g/m³         3004/2022         Amit Kumar KTP           6713         Copper - Dissolved         0.0005         g/m³         3004/2022         Amit Kumar KTP           6718         Lead - Dissolved         0.0005         g/m³         3004/2022         Amit Kumar KTP           6721         Manganese - Dissolved         0.0005         g/m³         3004/2022         Amit Kumar KTP           6722         Mercury - Dissolved         0.0005         g/m³         3004/2022         Amit Kumar KTP           6732         Michel - Dissolved         0.0005         g/m³         3004/2022         Amit Kumar KTP           6732         Nickel - Dissolved         0.0005         g/m³         3004/2022         Amit Kumar KTP           6732				· ·				
Froit		•		· ·				
6707         Boron - Dissolved         0.05         g/m³         30/04/2022         Amit Kumar KTP           6708         Cadmium - Dissolved         < 0.0002				· ·				
6708         Cadmium - Dissolved         < 0.0002	6703	Arsenic - Dissolved	< 0.001	g/m³		30/04/2022	Amit Kumar	KTP
6711         Chromium - Dissolved         < 0.001	6707	Boron - Dissolved	0.05	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	6708	Cadmium - Dissolved	< 0.0002	g/m³		30/04/2022	Amit Kumar	KTP
6718         Lead - Dissolved         < 0.0005	6711	Chromium - Dissolved	< 0.001	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	6713	Copper - Dissolved	0.0008	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	6718	Lead - 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           MO104         E. coli         8         cfu/100mL         28/04/2022         Maria Norris KTP           MO-5001         Volatile Fatty Acids         < 5 *	6721	Manganese - Dissolved	0.499	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 *	6722	Mercury - Dissolved	< 0.0005	g/m³		30/04/2022	Amit Kumar	KTP
6738         Zinc - Dissolved         0.008         g/m³         30/04/2022         Amit Kumar KTP           M0104         E. obi         8         cfu/100mL         28/04/2022         Maria Norris KTP           MO-5002         Total Halogenated Phenolics         < 5 *	6724	Nickel - Dissolved	< 0.0005	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 *	6726	Potassium - Dissolved	5.32	g/m³		30/04/2022	Amit Kumar	KTP
MO-5001 Volatile Fatty Acids         < 5 *         g/m³         Lizzie Addis Transcribed by Lizzie Addis Transcribed by Lizzie Addis Transcribed by Lizzie Addis Transcribed by P1859 Sample Filtration         Completed         28/04/2022 Freddie Badraun	6738	Zinc - Dissolved	0.008	g/m³		30/04/2022	Amit Kumar	KTP
MO-5002 Total Halogenated Phenolics P1859 Sample Filtration         < 0.05         g/m³         Lizzie Addis Transcribed by Freddie Badraun .           SVOC-001 2,3-Diuron         < 0.001	M0104	E. coli	8	cfu/100mL		28/04/2022	Maria Norris	KTP
MO-5002 Total Halogenated Phenolics P1859 Sample Filtration         < 0.05         g/m³         Lizzie Addis Transcribed by Freddie Badraun .           SVOC-001 2,3-Diuron         < 0.001	MO-5001	Volatile Fatty Acids	< 5 *	g/m³			Lizzie Addis	Transcribed by
SVOC-001 2,3-Diuron         <0.001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-002 a-BHC         <0.0001			< 0.05	g/m³			Lizzie Addis	Transcribed by
SVOC-001 2,3-Diuron         <0.001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-002 a-BHC         <0.0001	P1859	Sample Filtration	Completed	•		28/04/2022	Freddie Bad	lraun .
SVOC-002 a-BHC         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-003 a-chlordane         <0.0001	SVOC-00	1 2,3-Diuron	<0.001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-003 a-chlordane         <0.0001			<0.0001	•		06/05/2022	Ganesh Ilan	cko KTP
SVOC-004 Aldrin         <0.001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-005 b-BHC         <0.0001			<0.0001			06/05/2022	Ganesh Ilan	cko KTP
SVOC-005 b-BHC         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-006 cis-Permethrin         <0.0001	SVOC-00	4 Aldrin		· ·				
SVOC-006 cis-Permethrin         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-007 Dieldrin         <0.0001				•				
SVOC-007 Dieldrin         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-008 Endosulfan II         <0.005								
SVOC-008 Endosulfan II         <0.005         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-009 Endosulfan Sulfate         <0.0001								
SVOC-009 Endosulfan Sulfate         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-010 Endrin         <0.0001				•				
SVOC-010 Endrin         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-011 Endrin Aldehyde         <0.001				•				
SVOC-011 Endrin Aldehyde         <0.001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-012 Endrin Ketone         <0.0001				•				
SVOC-012 Endrin Ketone         <0.0001				•				
SVOC-013 Gamma-Chlordane         <0.001		· ·		•				
SVOC-014 Heptachlor         <0.0001				•				
SVOC-015 Heptachlor Epoxide         <0.0001								
SVOC-016 Hexachlorobenzene         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-017 Lindane ( g-BHC)         <0.0001								
SVOC-017 Lindane ( g-BHC)         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-018 Methoxychlor         <0.0001		· ·		•				
SVOC-018 Methoxychlor         <0.0001         mg/L         06/05/2022         Ganesh Ilancko KTP           SVOC-019 p,p'-DDD         <0.0001				•				
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				•				
	SVOC-02	0 p,p'DDE	<0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP





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Page 1 of 7 Report Number: 22/4633-1 ELS 16 May 2022 11:00:43

Sample Site 22/4633-01 Levin Xd1		Map Ref.	<b>Date Sampled</b> 26/04/2022 00:00		eceived 2022 18:33	Order No.
Notes: 240981-0 Levin Landfill Sample  Test	Docult	Unito		Toot Data	Cianatary	
SVOC-021 p,p'-DDT	<b>Result</b> < 0.001	<b>Units</b> mg/L		Test Date 06/05/2022	Signatory Ganesh Ilan	cko KTD
SVOC-022 Procymidone	<0.001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-025 Alachlor	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	<0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	< 0.001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	< 0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	<0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	<0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	<0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	<0.002	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine	<0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-041 Simazine	<0.0001	mg/L		06/05/2022	Ganesh Ilan	cko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene	< 0.0010	mg/L		06/05/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010	mg/L		06/05/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L		06/05/2022	Ganesh Ilan	
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-059 Fluoranthene SVOC-060 Fluorene	< 0.0001 < 0.0001	mg/L		06/05/2022	Ganesh Ilan Ganesh Ilan	
SVOC-060 Fluorene SVOC-061 Indeno(1,2,3-cd)pyrene	<0.0001	mg/L mg/L		06/05/2022 06/05/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene SVOC-062 Naphthalene	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		06/05/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	•	mg/L		06/05/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipl		mg/L		06/05/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		06/05/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-003 Benzene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-008 n-Butylbenezene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	cko KTP
VOC-014 Styrene	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	cko KTP
VOC-015 tert-Butylbenzene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	cko KTP





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Page 2 of 7 Report Number: 22/4633-1 ELS

Sample Site 22/4633-01 Levin Xd1 Notes: 240981-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 26/04/2022 00:00		eceived 2022 18:33	Order No.
'	Danieli	11-16-		T1 D-1-	0:	
Test	Result	Units		Test Date	Signatory	LUTD
VOC-016 Toluene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-017 Total p,m Xylene, Ethylbenze		mg/L		29/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropane		mg/L		29/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		29/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-032 Allyl chloride	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-033 Bromochloromethane	<0.0012	mg/L		29/04/2022	Ganesh Ilan	
VOC-034 Bromomethane	<0.001	mg/L		29/04/2022	Ganesh Ilan	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		29/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		29/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene VOC-040 Dibromomethane	<0.0005 <0.0005	mg/L		29/04/2022 29/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-040 Dibromomethane VOC-041 Dichlorodifluoromethane	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-041 Dichloromethane	<0.001	mg/L			Ganesh Ilan	
VOC-042 Dichlorometriane VOC-043 Hexachlorobutadiene	<0.003	mg/L mg/L		29/04/2022 29/04/2022	Ganesh Ilan	
VOC-043 Tiexachioropatadierie VOC-044 Tetrachioroethene	<0.0002	mg/L		29/04/2022	Ganesh Ilan	
VOC-044 Tetrachioroetherie VOC-045 trans-1,2-Dichloroethere	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-045 trans-1,3-Dichloropropene	<0.0005			29/04/2022	Ganesh Ilan	
VOC-047 Trichloroethene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-047 Trichlorofluoromethane	<0.0005	mg/L mg/L		29/04/2022	Ganesh Ilan	
VOC-049 Vinyl Chloride	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-050 1,2,3-11ichlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-051 1,2,4-111chloroberizene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-055 2-Chlorotoluene	<0.0005			29/04/2022	Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L mg/L		29/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-057 Bromobenzene VOC-058 Chlorobenzene	<0.0005			29/04/2022	Ganesh Ilan	
VOC-058 Childrobenzene VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L mg/L		29/04/2022	Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	<0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-061 Carbon disdipline VOC-062 Bromodichloromethane	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-062 Bromoform	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-063 Biomolomi VOC-064 Chloroform	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		29/04/2022	Ganesh Ilan	
V C C DIDIOINOCIIIOI OITIEUI AITE	< 0.000J	mg/L		20/04/2022	Janusii iiali	ONO IVII

#### Comments:

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





<sup>\*</sup> Not an accredited test.

Test	Methodology	Detection Limit
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m <sup>3</sup>
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	1 g/m³
BODO - Goldbie Galbonaceous	inhibitor.	T g/m
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/m <sup>3</sup>
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	5 g/m³
	Water by GC-MS. Results are reported as acetic acid equivalent.	
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
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Lindane ( g-BHC)		1
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor		0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD	Organochlorine Pesticide compound analysed by in-house method using GC-MS	1
Methoxychlor p,p'-DDD p,p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Lindane ( g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone  Propanil  Endosulfan I	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 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  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  Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.001 mg/L
Pirimiphos methyl		0.0001 mg/L
Acenapthene	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
· · · · · · · · · · · · · · · · · · ·	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	
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 Alkanes Compound analysed by GCMS following an in house method based on	0.00015 mg/L
1, 1, 1,4-1 GUAGHIOTOGUIANG	100 Fraingeriated Athanes and Athanes Compound analysed by Golilo following an in house method based on	0.0000 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	

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.

Report Released By Rob Deacon

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

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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# **Analytical Report**

Issue: 1 16 May 2022

Report Number: 22/4609

P O Box 642 **LEVIN 5540** Attention: Elysia Kinross

Downer EDI Levin - Landfill

Sample 22/4609-			Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		Received 2022 14:29	Order No.
Notes: 24	41001-0 Levin Landfill Sample						
	Test	Result	Units		Test Date	Signatory	
0001	pH	6.8			26/04/2022	Jennifer Mor	
0002	Suspended Solids - Total	75	g/m³		23/04/2022	Jennifer Mor	
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 Mor	nt KTP
0055	Conductivity at 25°C	137	mS/m		26/04/2022	Jennifer Mor	nt KTP
0081	Chemical Oxygen Demand	91	g/m³		26/04/2022	Marylou Cab	oral KTP
0180	BOD5 - Soluble Carbonaceous	s < 6	g/m³		23/04/2022	Marylou Cab	oral 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 Imamur	a 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 Phosphoru	ıs0.017	g/m³		27/04/2022	Ivan Imamur	a KTP
6701	Aluminium - Dissolved	0.003	g/m³		28/04/2022	Amit Kumar	
6703	Arsenic - Dissolved	< 0.001	g/m³		28/04/2022	Amit Kumar	
6707	Boron - Dissolved	0.56	g/m³		28/04/2022	Amit Kumar	
6708	Cadmium - Dissolved	< 0.0002	g/m³		28/04/2022	Amit Kumar	
6711	Chromium - Dissolved	0.001	g/m³		28/04/2022	Amit Kumar	
6713	Copper - Dissolved	0.0009	g/m³		28/04/2022	Amit Kumar	
6718	Lead - Dissolved	< 0.0009	g/m³		28/04/2022	Amit Kumar	
			•				
6721	Manganese - Dissolved	0.922	g/m³		28/04/2022	Amit Kumar	
6722	Mercury - Dissolved	< 0.0005	g/m³		28/04/2022	Amit Kumar	
6724	Nickel - Dissolved	0.0022	g/m³		28/04/2022	Amit Kumar	
6726	Potassium - Dissolved	24.4	g/m³		28/04/2022	Amit Kumar	
6738	Zinc - Dissolved	0.004	g/m³		28/04/2022	Amit Kumar	
M0104	E. coli	< 4	cfu/100mL		22/04/2022	Sunita Raju	
	Volatile Fatty Acids	< 5 *	g/m³				Transcribed by
	2 Total Halogenated Phenolics	< 0.05	g/m³				Franscribed by
	Sample Filtration	Completed			23/04/2022	Harsimran D	hanoa .
SVOC-00	1 2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-00	2 a-BHC	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-00	3 a-chlordane	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-00	4 Aldrin	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-00	5 b-BHC	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-00	6 cis-Permethrin	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-00	7 Dieldrin	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-00	8 Endosulfan II	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-00	9 Endosulfan Sulfate	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-01	0 Endrin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
	1 Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
	2 Endrin Ketone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	3 Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
	4 Heptachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	5 Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	6 Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
			•		27/04/2022	Ganesh Ilan	
	7 Lindane (g-BHC)	<0.0001	mg/L				
	8 Methoxychlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
	9 p,p'-DDD	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-02	υ ρ,ρ טטב	<0.0001	mg/L		27/04/2022	Ganesh Ilan	CKO K I P





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Report Number: 22/4609-1 ELS 16 May 2022 15:00:16

Page 1 of 7

Sample Site 22/4609-01 Levin Xs1 Notes: 241001-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 14:29	Order No.
Test	Result	Units		Test Date	Signatory	
SVOC-021 p,p'-DDT	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-022 Procymidone	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-024 Endosulfan I	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-025 Alachlor	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-026 Aldicarb	<0.1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	< 0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-033 Metolachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-034 Metribuzin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-035 Molinate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-037 Oxadiazon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-038 Pendimethalin	<0.002	mg/L		27/04/2022	Ganesh Ilan	
SVOC-039 Propazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-040 Pyriproxyfen	<0.0001	mg/L		27/04/2022		
SVOC-041 Simazine	<0.0001	mg/L		27/04/2022	Ganesh Iland	
SVOC-042 Terbuthylazine SVOC-043 Trifluralin	<0.0001 <0.0001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
SVOC-043 Tillidrallin SVOC-044 Hexazinone	<0.0001	mg/L mg/L		27/04/2022	Ganesh Ilan	
SVOC-044 Flexazinone SVOC-045 Chlorpyrifos	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-045 Childryffilos SVOC-046 Diazinon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-057 Chrysene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-060 Fluorene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-062 Naphthalene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-063 Phenanthrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-064 Pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher	nyk0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	rl <0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-068 2,4,4'-Trichlorobiphenyl	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-069 2,4-Dichlorobiphenyl	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipl	he <b>n</b> 0/10001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-003 Benzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-005 Isopropylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-007 Naphthalene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-008 n-Butylbenezene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-009 n-Propylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-010 o-Xylene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-011 p-Isopropyltoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-013 sec-Butylbenzene VOC-014 Styrene	<0.0005 <0.0005	mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
VOC-014 Styrene VOC-015 tert-Butylbenzene	<0.0005	mg/L mg/L		27/04/2022	Ganesh Ilan	
VOC-013 tert-Dutylberizerie	<b>\0.000</b> 3	mg/∟		21/04/2022	Janesh Hall	UNU INTE





Sample Site 22/4609-01 Levin Xs1 Notes: 241001-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		Received 2022 14:29	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-017 Total p,m Xylene, Ethylbenz		mg/L		27/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropan		mg/L		27/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-031 2,2-bichloroproparie  VOC-032 Allyl chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-032 Any chloride VOC-033 Bromochloromethane	<0.0012	mg/L		27/04/2022	Ganesh Ilan	
VOC-033 Bromoethane	<0.0012	mg/L		27/04/2022	Ganesh Ilan	
VOC-034 Biomomethane VOC-035 Carbon tetrachloride	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.000	•			Ganesh Ilan	
VOC-036 Chloromethane	<0.001	mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
VOC-037 Chlorometriane VOC-038 cis-1,2-Dichloroethene	<0.005	mg/L		27/04/2022	Ganesh Ilan	
•	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene VOC-040 Dibromomethane		mg/L		27/04/2022	Ganesh Ilan	
VOC-040 Diblomomethane	<0.0005 <0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-041 Dichloromethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
		mg/L				
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene VOC-045 trans-1,2-Dichloroethene	<0.0005 <0.0005	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
•		mg/L		27/04/2022	Ganesh Ilan	
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L				
VOC-047 Trichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-048 Trichlorofluoromethane VOC-049 Vinyl Chloride	<0.0005 <0.0005	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-049 Viriyi Chilohae VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
• •	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-051 1,2,4-Trichlorobenzene		mg/L				
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
VOC-054 1,4-Dichlorobenzene	<0.0005	mg/L				
VOC-055 2-Chlorotoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-056 4-Chlorotoluene	<0.0005	mg/L		27/04/2022		
VOC-057 Bromobenzene VOC-058 Chlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-056 Chlorobenzene VOC-059 1,3,5-Trichlorobenzene	<0.0005	mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
, ,	<0.0005	mg/L			Ganesh Ilan	
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-061 Carbon disulphide	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-062 Bromodichloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-063 Bromoform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-064 Chloroform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-065 Dibromochloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	CKOKIP

#### Comments:

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





Page 3 of 7

<sup>\*</sup> Not an accredited test.

		•
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
otal 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
ron - 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/m <sup>3</sup>
Sodium - Dissolved	ICP-OES following APHA Online Edition Method 3120 B (modified).	0.02 g/m <sup>3</sup>
Dissolved Reactive Phosphorus		
'	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.  ICP MS following APHA Online Edition method 3135 (modified)	0.005 g/m³
Numinium - 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
ead - 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/m <sup>3</sup>
lickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m <sup>3</sup>
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
/olatile 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
Fotal 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	0.000 r mg/L
p-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
leptachlor Epoxide	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
lexachlorobenzene	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
index - ( - PHO)	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
indane ( g-BHC)		0.0001 mg/L
	Organochlorine Pesticide compound analysed by in-house method using GC-MS	
Methoxychlor	Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor ,p'-DDD		-
Methoxychlor p.p'-DDD p.p'DDE	Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Methoxychlor  p'-DDD  p'DDE  p'-DDT	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L
Lindane ( g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L
Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT Procymidone Propanil	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L 0.0001 mg/L
Methoxychlor  o,p'-DDD  o,p'DDE  o,p'-DDT  Procymidone	Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS Organochlorine Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L 0.0001 mg/L 0.001 mg/L 0.0001 mg/L





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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		0.0001 mg/L
	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	_
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.  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





Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 5 of 7 Report Number: 22/4609-1 ELS

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.

Report Released By Rob Deacon

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

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**

Report Number: 22/4608

Issue: 1 16 May 2022

Downer EDI Levin - Landfill P O Box 642 **LEVIN 5540** 

Attention: Elysia Kinross

Sample 22/4608-0			Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		Received 2022 14:32	Order No.
Notes: 24	1002-0 Levin Landfill Sample						
	Test	Result	Units		Test Date	Signatory	
0001	pH	7.0			23/04/2022	Jennifer Mo	
0002	Suspended Solids - Total	9	g/m³		23/04/2022	Jennifer Mo	
0040	Total (NP) Organic Carbon	2.4	g/m³		28/04/2022	Amit Kumar	
0052	Alkalinity - Total	54	g CaCO3/m³		23/04/2022	Jennifer Mo	
0055	Conductivity at 25°C	18.2	mS/m		23/04/2022	Jennifer Mo	
0081	Chemical Oxygen Demand	37	g/m³		26/04/2022	Marylou Ca	
0180	BOD5 - Soluble Carbonaceous	15	g/m³		23/04/2022	Marylou Ca	
0602	Chloride	12.4	g/m³		28/04/2022	Divina Laga	zon KTP
0605	Nitrate - Nitrogen	0.88	g/m³		28/04/2022	Divina Laga	zon KTP
0607	Sulphate	7.49	g/m³		28/04/2022	Divina Laga	zon KTP
0760	Ammonia Nitrogen	0.03	g/m³		27/04/2022	Ivan Imamu	ra 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	s0.015	g/m³		27/04/2022	Ivan Imamu	ra 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	
6711	Chromium - Dissolved	< 0.001	g/m³		28/04/2022	Amit Kumar	
6713	Copper - Dissolved	0.0014	g/m³		28/04/2022	Amit Kumar	
6718	Lead - Dissolved	< 0.0005	g/m³		28/04/2022	Amit Kumar	
6721	Manganese - Dissolved	0.0737	g/m³		28/04/2022	Amit Kumar	
6722	Mercury - Dissolved	< 0.0005	g/m³		28/04/2022	Amit Kumar	
6724	Nickel - Dissolved	< 0.0005	g/m³		28/04/2022	Amit Kumar	
6726	Potassium - Dissolved	4.36	g/m³		28/04/2022	Amit Kumar	
6738	Zinc - Dissolved	0.005	g/m³		28/04/2022	Amit Kumar	
M0104	E. coli	< 4	cfu/100mL		22/04/2022		
		< 5 *			22/04/2022	Sunita Raju	
	Volatile Fatty Acids		g/m³				Transcribed by
	Total Halogenated Phenolics	< 0.05	g/m³		00/04/0000		Transcribed by
	Sample Filtration	Completed	,,		23/04/2022	Harsimran I	
	I 2,3-Diuron	<0.001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-002		<0.0001	mg/L		27/04/2022	Ganesh Ilar	
	3 a-chlordane	<0.0001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-004		<0.001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-005		<0.0001	mg/L		27/04/2022	Ganesh Ilar	
	Scis-Permethrin	<0.0001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-007	7 Dieldrin	<0.0001	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
SVOC-008	B Endosulfan II	< 0.005	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
SVOC-009	Endosulfan Sulfate	<0.0001	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
SVOC-010	) Endrin	<0.0001	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
SVOC-011	I Endrin Aldehyde	<0.001	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
SVOC-012	2 Endrin Ketone	< 0.0001	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
SVOC-013	3 Gamma-Chlordane	<0.001	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
SVOC-014	1 Heptachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
SVOC-015	5 Heptachlor Epoxide	<0.0001	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
	S Hexachlorobenzene	<0.0001	mg/L		27/04/2022	Ganesh Ilar	ncko KTP
	Lindane ( g-BHC)	<0.0001	mg/L		27/04/2022	Ganesh Ilar	
	3 Methoxychlor	<0.0001	mg/L		27/04/2022	Ganesh Ilar	
	p,p'-DDD	<0.0001	mg/L		27/04/2022	Ganesh Ilar	
SVOC-020		<0.0001	mg/L		27/04/2022	Ganesh Ilar	
			9/ =		,0 ,,2022	- Silvoii iidi	





Wellington 85 Port Road, Seaview Lower Hutt 5045 Phone: (04) 576-5016

Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227

Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 1 of 7 Report Number: 22/4608-1 ELS 16 May 2022 15:00:13

Sample Site 22/4608-01 Levin Xs2 Notes: 241003 0 Levin Lendfill Sample		Map Ref.	Date Sampled 21/04/2022 00:00		eceived 2022 14:32	Order No.
Notes: 241002-0 Levin Landfill Sample  Test	Docult	Units		Test Date	Cianatary	
SVOC-021 p,p'-DDT	<b>Result</b> < 0.001	mg/L		27/04/2022	Signatory Ganesh Ilan	cko KTP
SVOC-022 Procymidone	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-023 Propanil	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-024 Endosulfan I	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-025 Alachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-026 Aldicarb	<0.1	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-027 Atrazine	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-028 Bromacil	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-029 Carbofuran	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-030 Cyanazine	< 0.005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-031 d-BHC	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-032 Metalaxyl-M	<0.001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-033 Metolachlor	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-034 Metribuzin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-035 Molinate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-037 Oxadiazon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-038 Pendimethalin	<0.002	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-039 Propazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-040 Pyriproxyfen	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-041 Simazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	cko KTP
SVOC-042 Terbuthylazine	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-043 Trifluralin	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-044 Hexazinone	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-045 Chlorpyrifos	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-046 Diazinon	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-047 Dimethoate	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-048 Pirimiphos methyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-049 Acenapthene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-050 Acenaphthylene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-051 Anthracene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-052 benz(a)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-053 Benzo(a)pyrene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-054 Total Benzo(b) and Benzo(k) fluoranthrene	< 0.0010	mg/L		27/04/2022	Ganesh Ilan	
SVOC-055 Benzo(g,h,i)perylene	<0.001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-057 Chrysene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-058 Dibenz(a,h)anthracene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-059 Fluoranthene SVOC-060 Fluorene	< 0.0001	mg/L		27/04/2022	Ganesh Ilan Ganesh Ilan	
SVOC-060 Fluorerie SVOC-061 Indeno(1,2,3-cd)pyrene	< 0.0001 <0.0001	mg/L mg/L		27/04/2022 27/04/2022	Ganesh Ilan	
SVOC-061 Indeno(1,2,3-cd)pyrene SVOC-062 Naphthalene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-063 Phenanthrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-064 Pyrene	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-066 2,2',3,4,4',5'-Hexachlorobipher		mg/L		27/04/2022	Ganesh Ilan	
SVOC-067 2,2',4,5,5'-Pentachlorobipheny	•	mg/L		27/04/2022	Ganesh Ilan	
SVOC-068 2,4,4'-Trichlorobiphenyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-069 2,4-Dichlorobiphenyl	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
SVOC-070 2,2',3,4,4',5',6-Heptachlorobipl		mg/L		27/04/2022	Ganesh Ilan	
SVOC-072 Bis(2-ethylhexyl)adipate	<0.0001	mg/L		27/04/2022	Ganesh Ilan	
VOC-001 1,2,4-Trimethylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-002 1,3,5-Trimethylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-003 Benzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-005 Isopropylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-007 Naphthalene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-008 n-Butylbenezene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-009 n-Propylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-010 o-Xylene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-011 p-Isopropyltoluene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-013 sec-Butylbenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-014 Styrene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-015 tert-Butylbenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP





Sample Site 22/4608-01 Levin Xs2 Notes: 241002-0 Levin Landfill Sample		Map Ref.	<b>Date Sampled</b> 21/04/2022 00:00		eceived 2022 14:32	Order No.
Test	Result	Units		Test Date	Signatory	
VOC-016 Toluene	<0.0005			27/04/2022	Signatory Ganesh Ilan	cko KTD
VOC-016 Tolderle VOC-017 Total p,m Xylene, Ethylbenze		mg/L mg/L		27/04/2022	Ganesh Ilan	
		•		27/04/2022	Ganesh Ilan	
VOC-018 1,1,1,2-Tetrachloroethane	<0.0005	mg/L				
VOC-019 1,1,1-Trichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-020 1,1,2,2-Tetrachloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-021 1,1,2-Trichloroethane	<0.0005	mg/L		27/04/2022 27/04/2022	Ganesh Ilan Ganesh Ilan	
VOC-022 1,1-Dichloroethane	<0.0005	mg/L				
VOC-023 1,1-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-024 1,1-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-025 1,2,3-Trichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-026 1,2-Dibromo-3-chloropropane		mg/L		27/04/2022	Ganesh Ilan	
VOC-027 1,2-Dibromoethane	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-028 1,2-Dichloroethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-029 1,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-030 1,3-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-031 2,2-Dichloropropane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-032 Allyl chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-033 Bromochloromethane	<0.0012	mg/L		27/04/2022	Ganesh Ilan	
VOC-034 Bromomethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-035 Carbon tetrachloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-036 Chloroethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-037 Chloromethane	<0.006	mg/L		27/04/2022	Ganesh Ilan	
VOC-038 cis-1,2-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-039 cis-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-040 Dibromomethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-041 Dichlorodifluoromethane	<0.001	mg/L		27/04/2022	Ganesh Ilan	
VOC-042 Dichloromethane	<0.005	mg/L		27/04/2022	Ganesh Ilan	
VOC-043 Hexachlorobutadiene	<0.0002	mg/L		27/04/2022	Ganesh Ilan	
VOC-044 Tetrachloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-045 trans-1,2-Dichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-046 trans-1,3-Dichloropropene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-047 Trichloroethene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-048 Trichlorofluoromethane	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-049 Vinyl Chloride	<0.0005	mg/L		27/04/2022	Ganesh Ilan	
VOC-050 1,2,3-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-051 1,2,4-Trichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-052 1,2-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-053 1,3-Dichlorobenzene	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-054 1,4-Dichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-055 2-Chlorotoluene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-056 4-Chlorotoluene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-057 Bromobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-058 Chlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-059 1,3,5-Trichlorobenzene	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-060 4-Methyl-2-Pentanone	<0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-061 Carbon disulphide	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-062 Bromodichloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-063 Bromoform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-064 Chloroform	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP
VOC-065 Dibromochloromethane	< 0.0005	mg/L		27/04/2022	Ganesh Ilan	cko KTP

#### Comments:

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
рН	Dedicated pH meter following APHA Online Edition Method 4500-H B.	0.1





Rolleston 43 Detroit Drive Rolleston 7675 Phone: (03) 343-5227 Dunedin 16 Lorne Street South Dunedin 9012 Phone: (03) 972-7963

Page 3 of 7 Report Number: 22/4608-1 ELS

<sup>\*</sup> Not an accredited test.

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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		0.005 g/m³
Aluminium - Dissolved	Flow Injection Autoanalyser following APHA Online Edition Method 4500-P G.  ICP-MS following APHA Online Edition method 3125 (modified).	<u> </u>
		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 CEA	0.05 g/m <sup>3</sup>
Total Halogenated Phenolics Sample Filtration	Analyses at Eurofins Melbourne following Method LTM-INO-4050 Total Phenolics in Waters and solids by CFA  Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B	0.05 g/m³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a
Sample Filtration 2,3-Diuron	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L
Sample Filtration 2,3-Diuron a-BHC	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin Dieldrin Endosulfan II	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a 0.001 mg/L 0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin Dieldrin Endosulfan II Endosulfan Sulfate	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L  0.001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin Dieldrin Endosulfan II Endosulfan Sulfate Endrin Endrin Aldehyde Endrin Ketone Gamma-Chlordane Heptachlor	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane ( g-BHC)  Methoxychlor	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane ( g-BHC)  Methoxychlor p,p'-DDD	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane (g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane ( g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane (g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration  2,3-Diuron  a-BHC  a-chlordane  Aldrin  b-BHC  cis-Permethrin  Dieldrin  Endosulfan II  Endosulfan Sulfate  Endrin  Endrin Aldehyde  Endrin Ketone  Gamma-Chlordane  Heptachlor  Heptachlor Epoxide  Hexachlorobenzene  Lindane (g-BHC)  Methoxychlor  p,p'-DDD  p,p'DDE  p,p'-DDT  Procymidone  Propanil	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  0.0001 mg/L
Sample Filtration 2,3-Diuron a-BHC a-chlordane Aldrin b-BHC cis-Permethrin Dieldrin Endosulfan II Endosulfan Sulfate Endrin Endrin Aldehyde Endrin Ketone Gamma-Chlordane Heptachlor Heptachlor Epoxide Hexachlorobenzene Lindane (g-BHC) Methoxychlor p,p'-DDD p,p'DDE p,p'-DDT Procymidone	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS  Organochlorine Pesticide compound analysed by in-house method using GC-MS	n/a  0.001 mg/L  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  Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 Hig/L
Pirimiphos methyl		0.0001 mg/L
, ,	Organophosphorous Pesticide compound analysed by in-house method using GC-MS	0.0001 mg/L
Acceptable	Polyaromatic Hydrocarbon compound analysed by in-house method using GC-MS	
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
1, 1, 1, 2 1 5 H A O H O I O 5 H A I I C	1 VOC Harogeniated Annanies and Annenies Compound analysed by Golds following an in house method based on	5.0005 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.

Report Released By Rob Deacon

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

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.

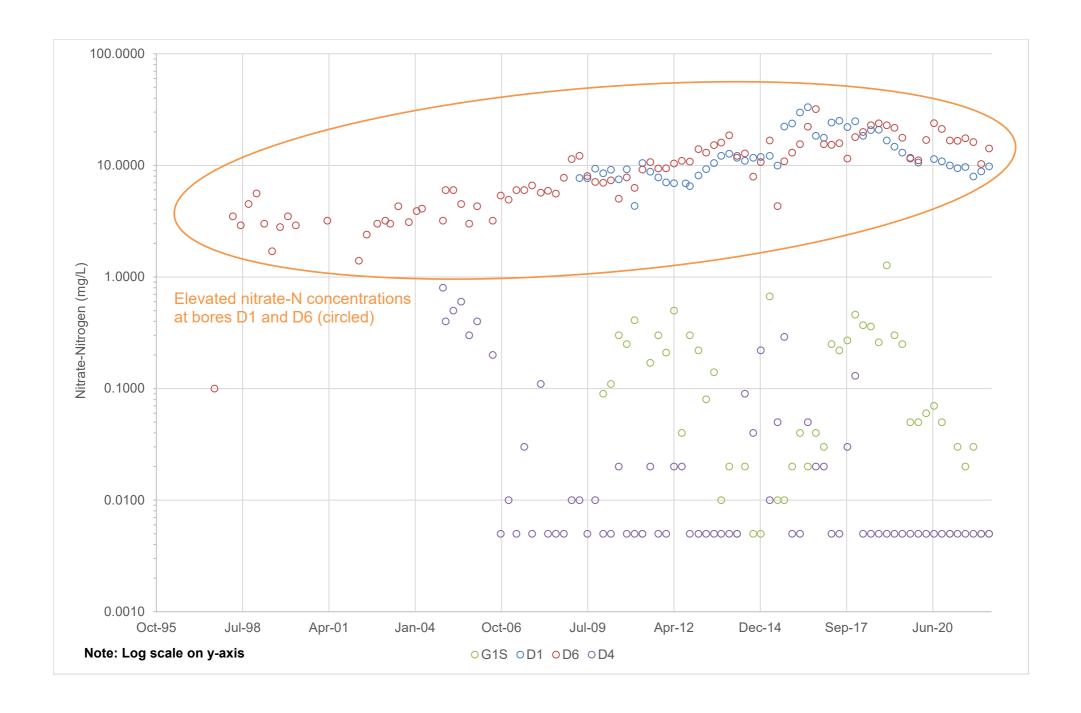
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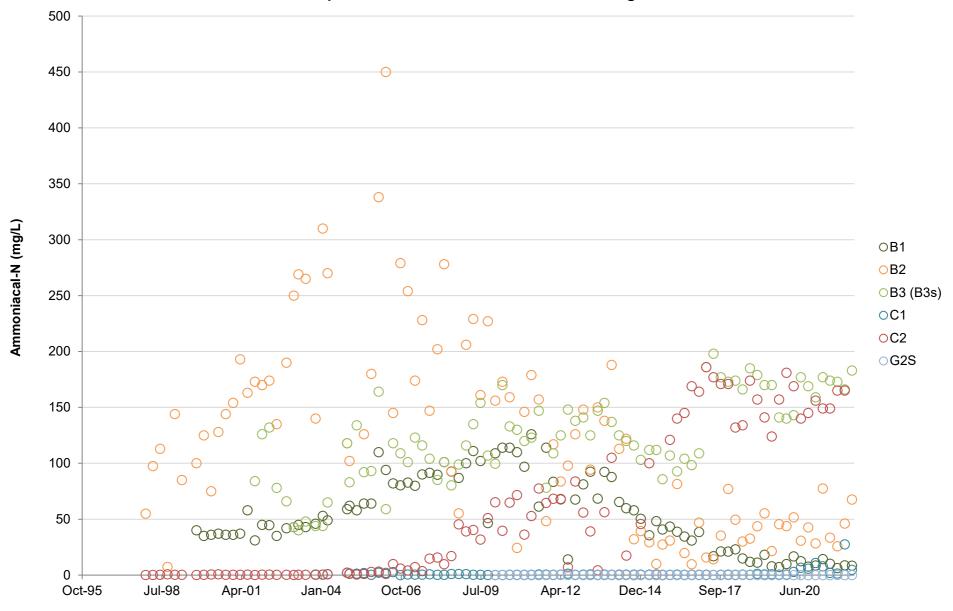


### **Appendix D** Historical Results Graphs

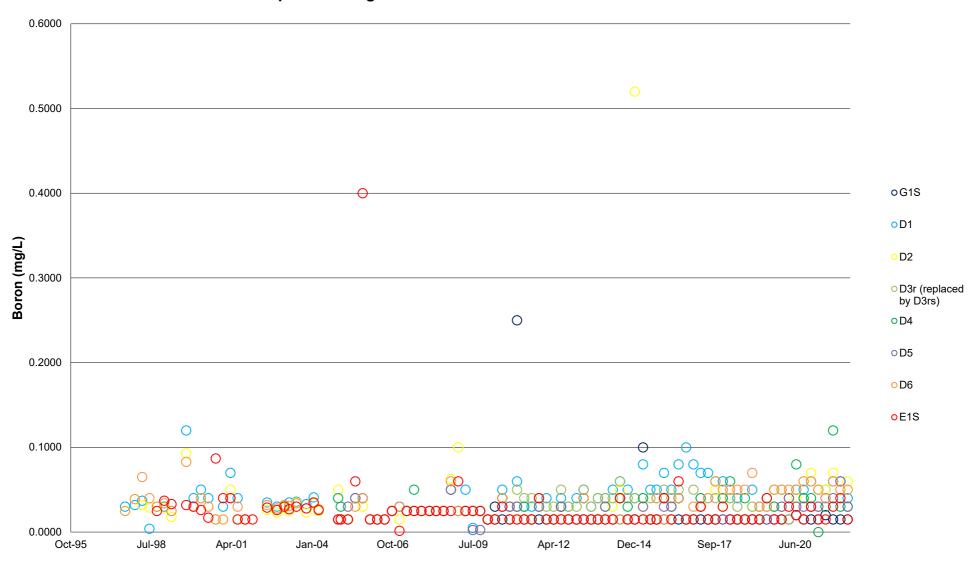




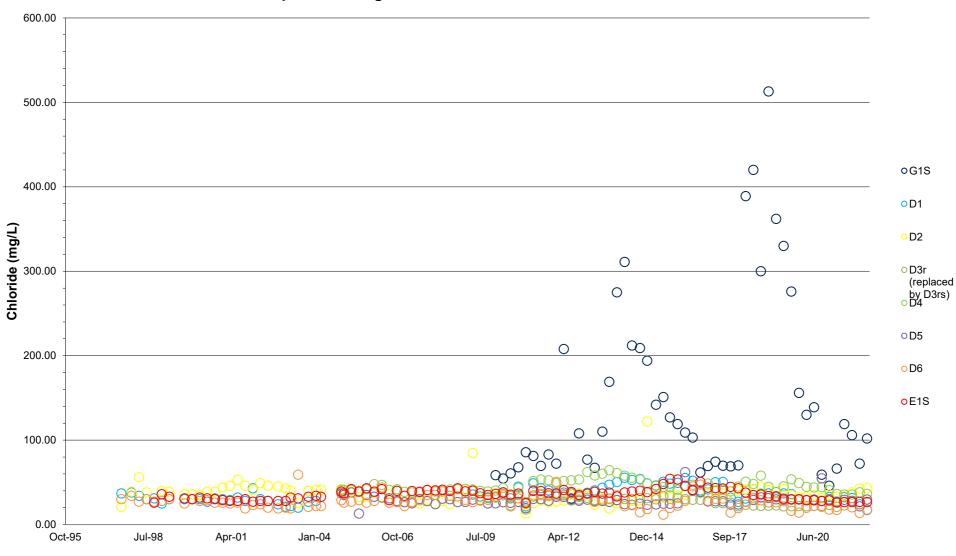
#### Sand Aquifer Down Gradient Ammoniacal-Nitrogen Concentrations



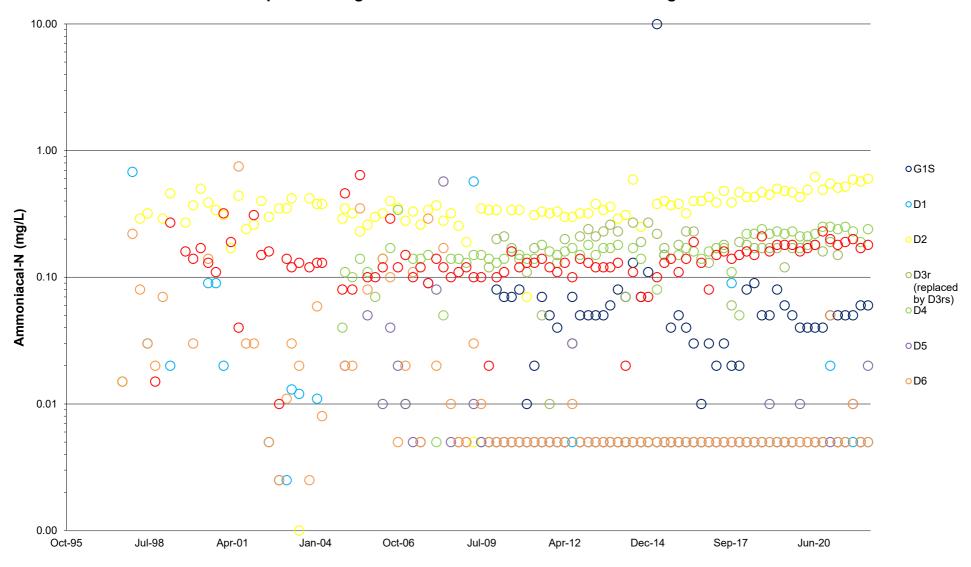
#### Sand Aquifer Downgrade of New Landfill - Boron Concentrations



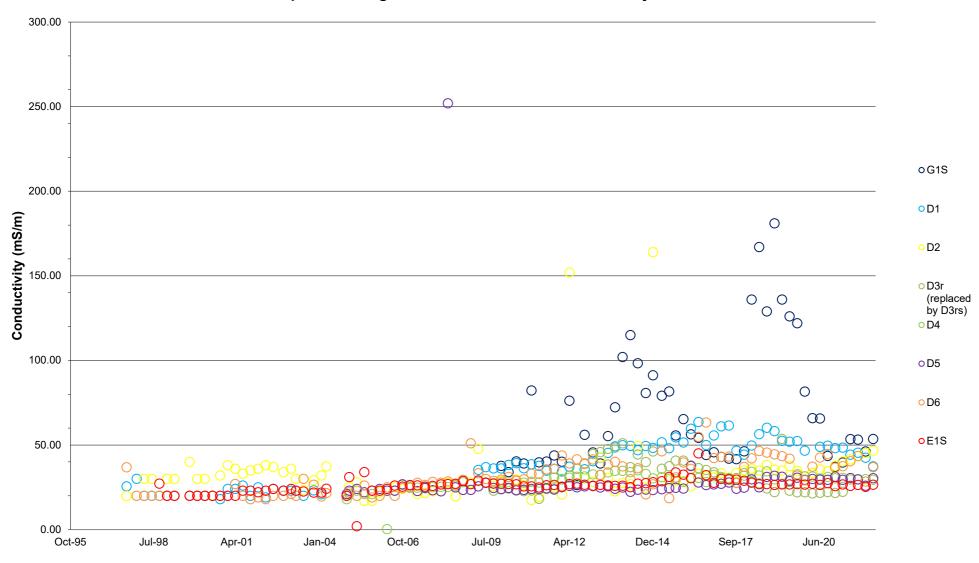
#### Sand Aquifer Downgrade of New Landfill - Chloride Concentrations

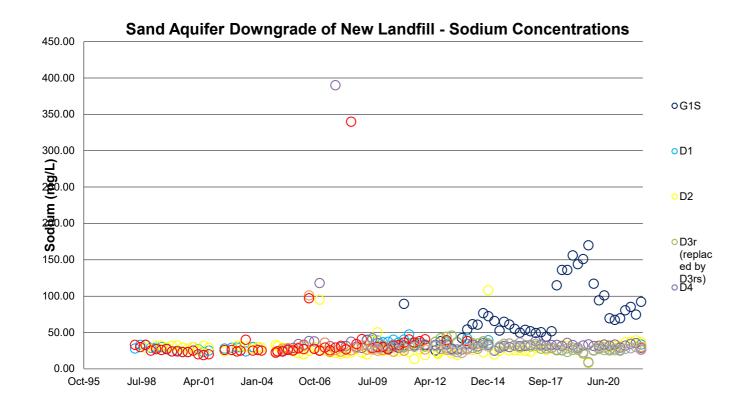


#### Sand Aquifer Downgrade of New Landfill - Ammoniacal-Nitrogen Concentrations

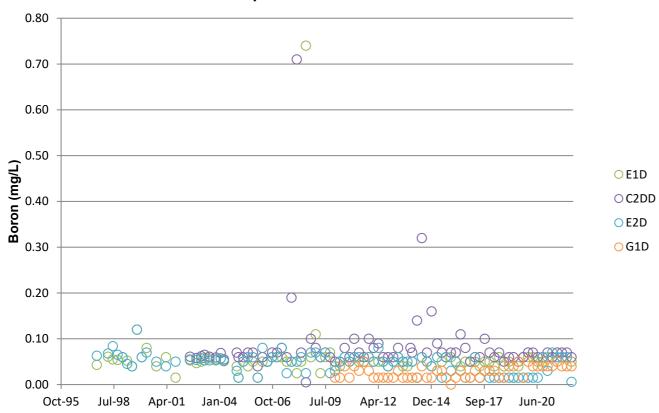


#### Sand Aquifer Downgrade of New Landfill - Conductivity Levels

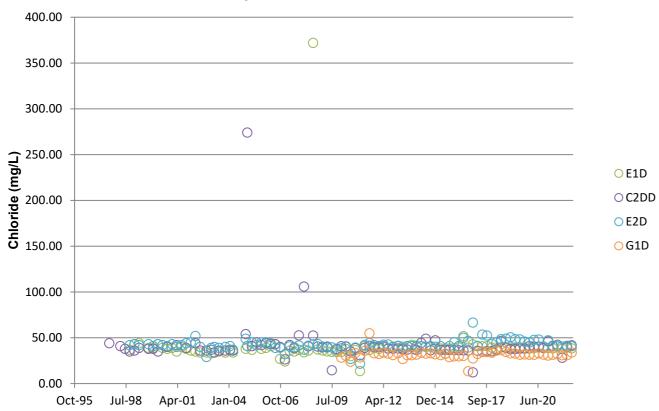




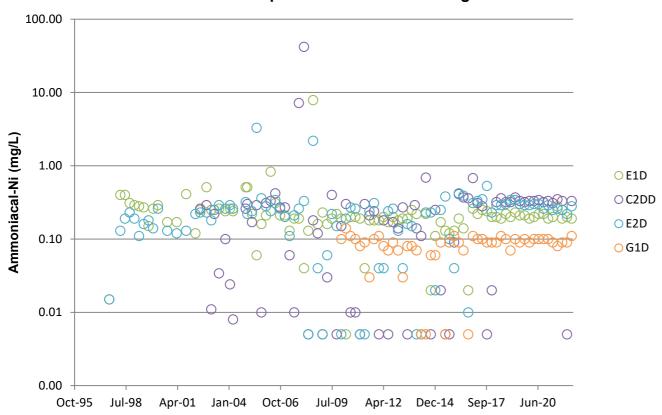
#### **Gravel Aquifer - Boron Concentrations**



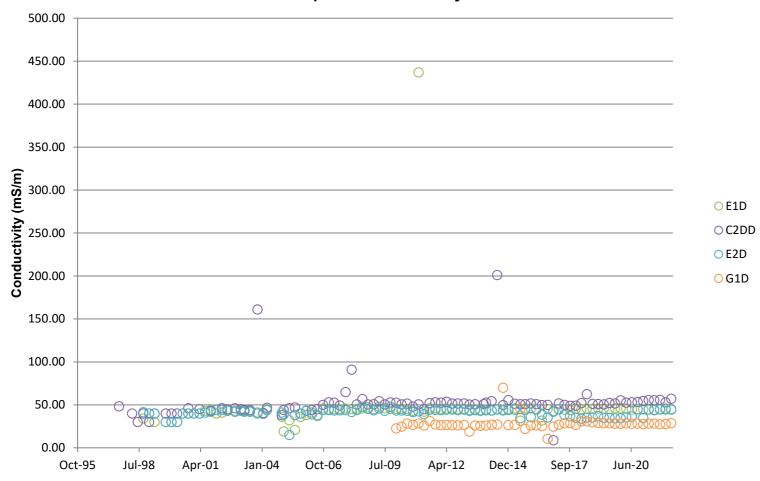
#### **Gravel Aquifer - Chloride Concentrations**



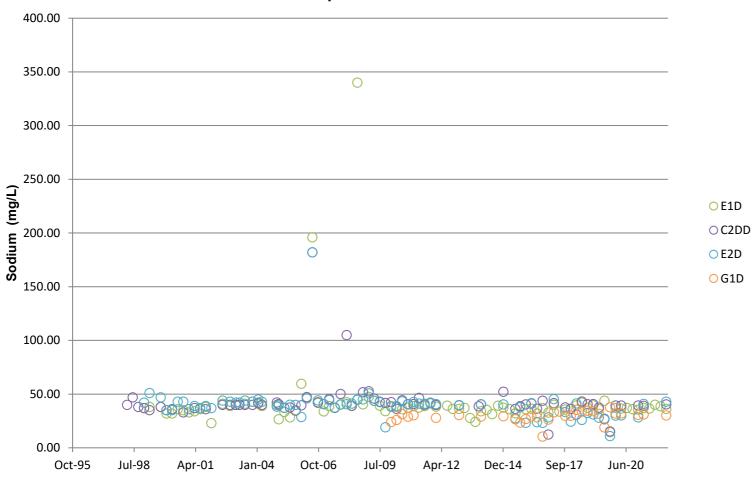
#### **Gravel Aquifer - Ammoniacal-Nitrogen Concentrations**



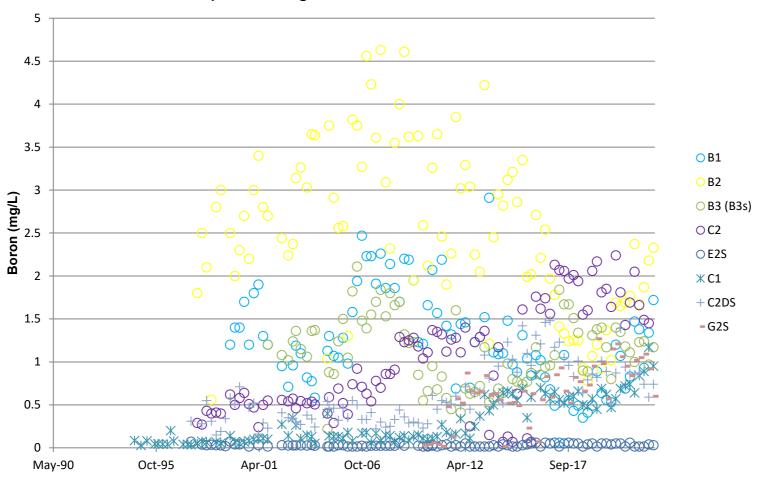
#### **Gravel Aquifer - Conductivity Levels**



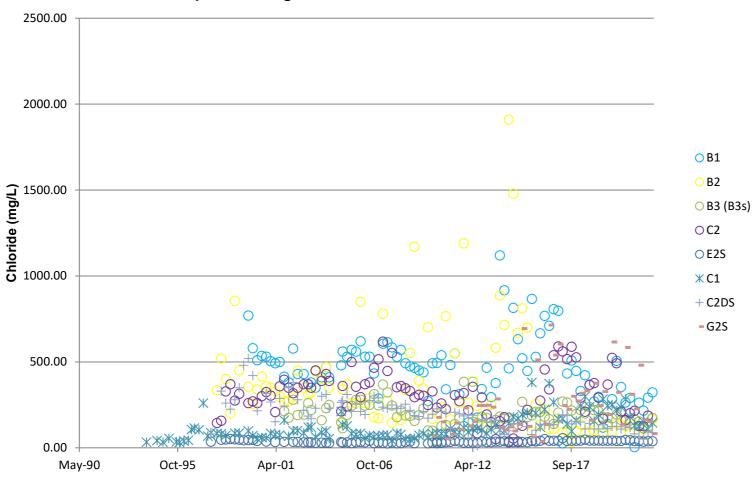
#### **Gravel Aquifer - Sodium Levels**



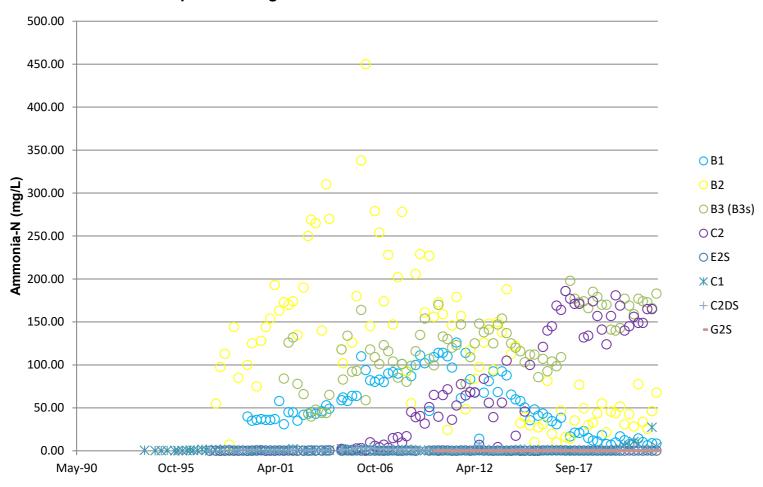
#### Sand Aquifer Downgrade of Old Landfill - Boron Concentrations



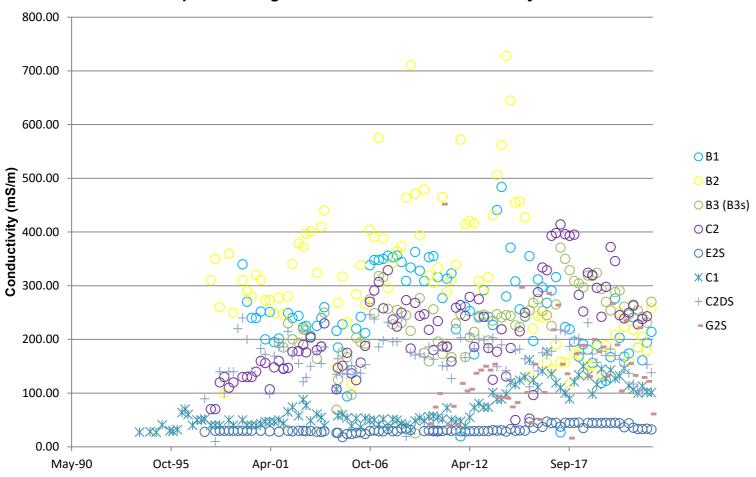
#### **Sand Aquifer Downgrade of Old Landfill - Chloride Concentrations**



#### Sand Aquifer Downgrade of Old Landfill - Ammonia-N Concentrations



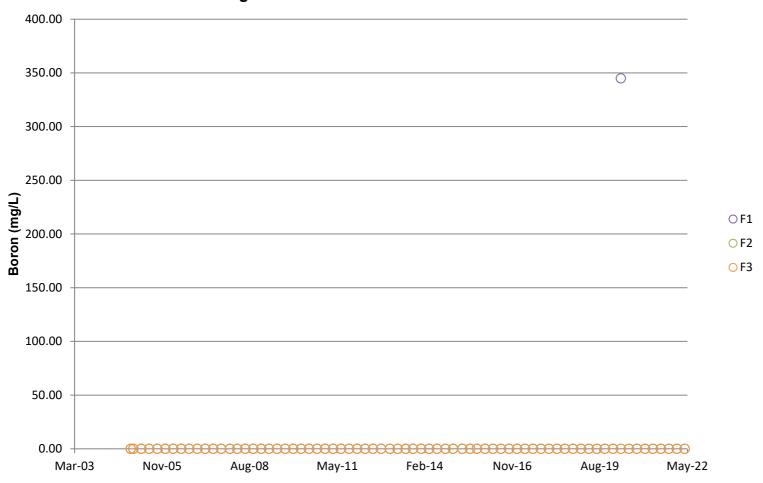
#### **Sand Aquifer Downgrade of Old Landfill - Conductivity Levels**



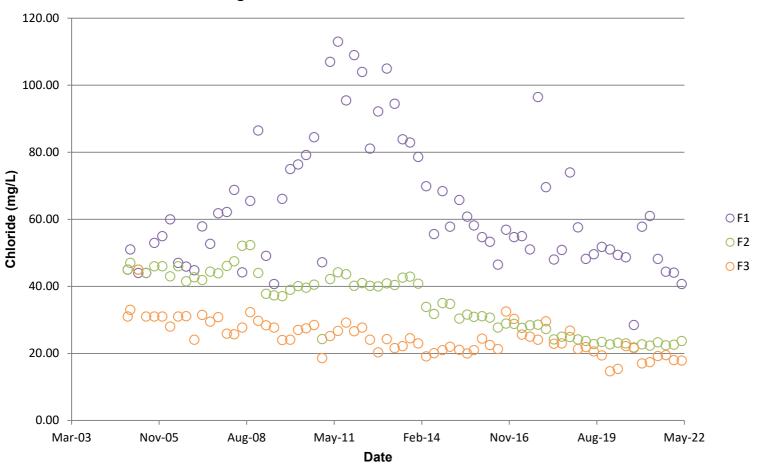
#### Sand Aquifer Downgrade of Old Landfill - Sodium Concentrations



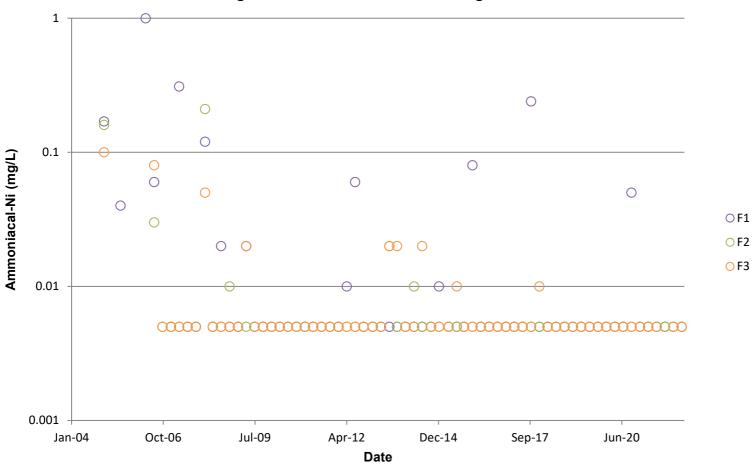
#### **Irrigation Area - Boron Concentrations**



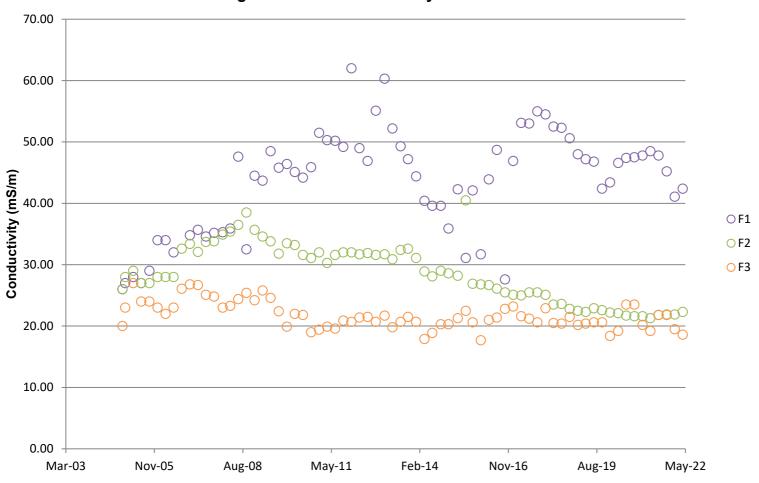
#### **Irrigation Area - Chloride Concentrations**



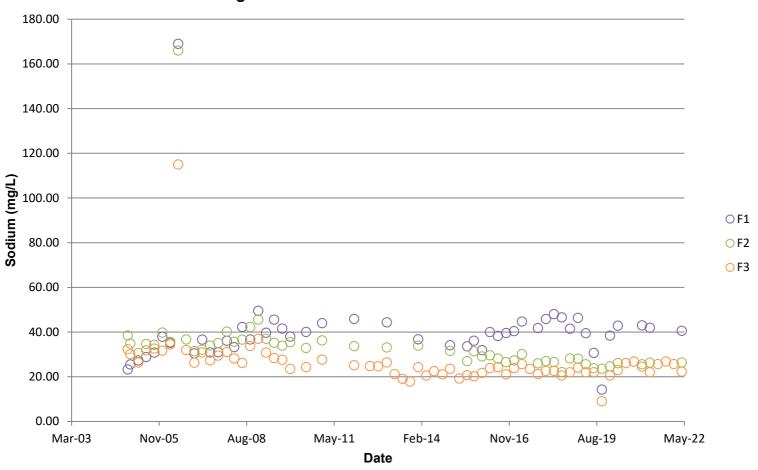
#### **Irrigation Area - Ammoniacal-Nitrogen Concentrations**



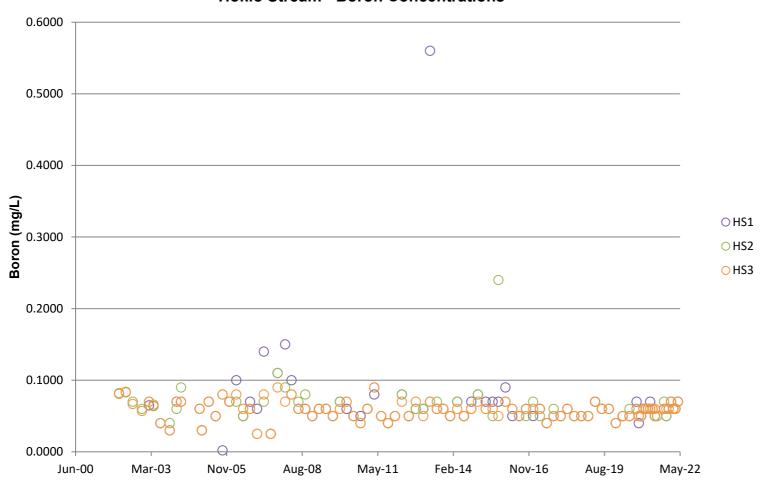
#### **Irrigation Area - Conductivity Levels**



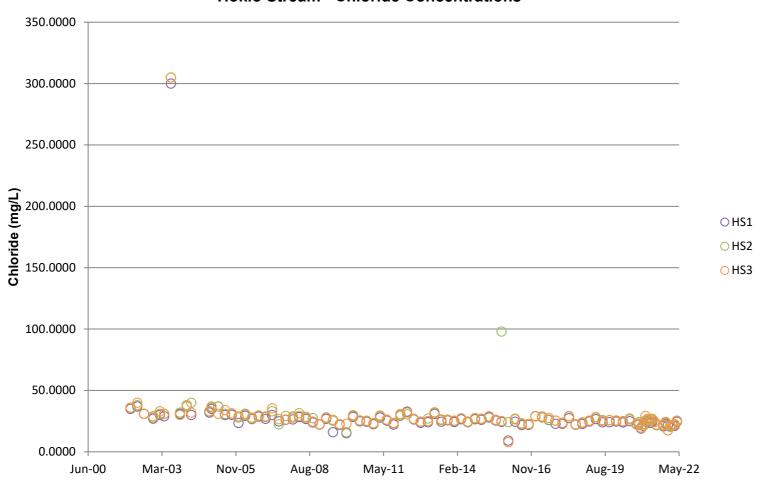
#### **Irrigation Area - Sodium Concentrations**



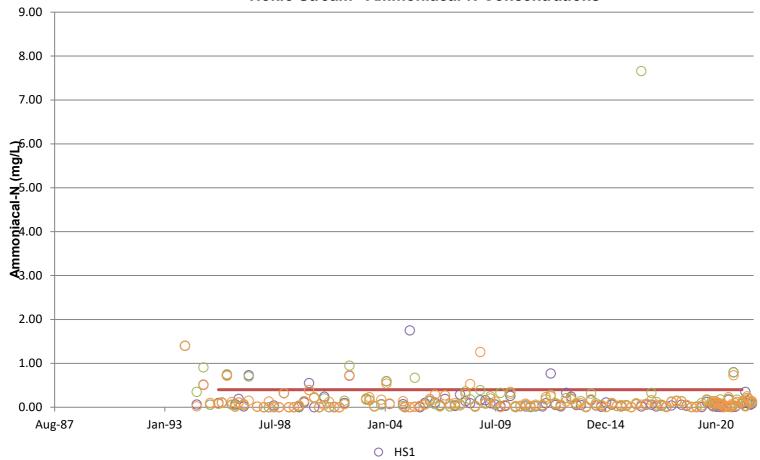
#### **Hokio Stream - Boron Concentrations**



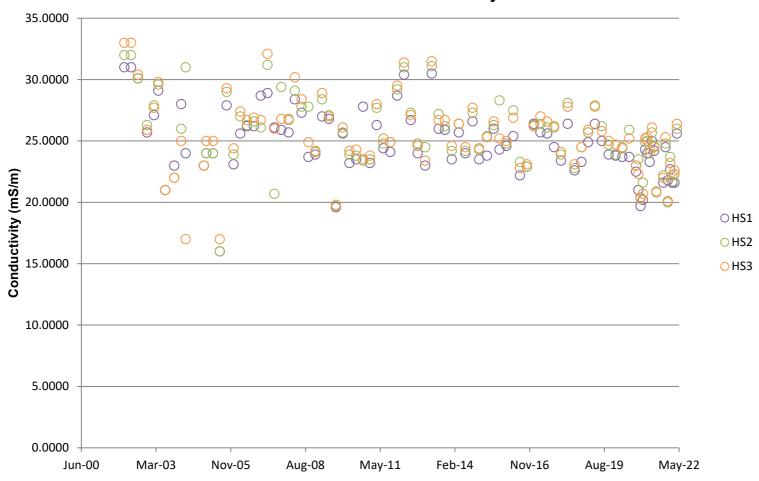
#### **Hokio Stream - Chloride Concentrations**



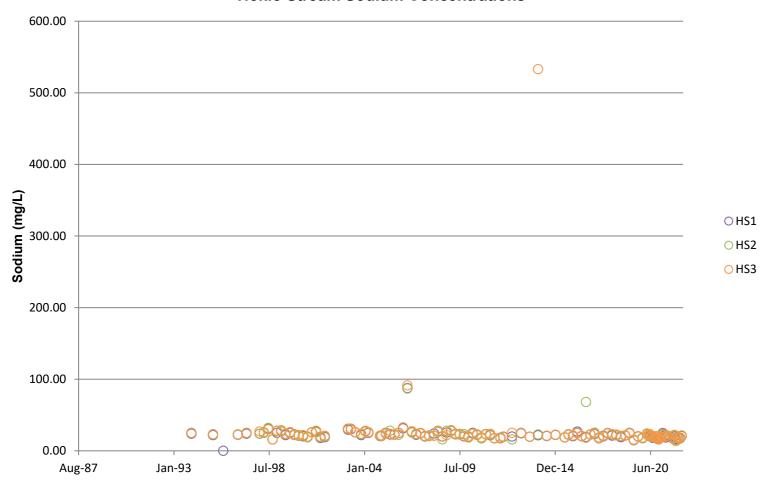
#### **Hokio Stream - Ammoniacal-N Concentrations**



#### **Hokio Stream - Conductivity**



#### **Hokio Stream Sodium Concentrations**



## **Appendix E** Landfill Gas Monitoring Results at GW Bores for April 2022



Created	Borehole	Methane (CH <sub>4</sub> )	Carbon Dioxide (CO <sub>2</sub> )	Hydrogen Sulphide (H <sub>2</sub> S)	Oxygen (O <sub>2</sub> )
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	0.01	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	0.73	0	21.3
07-04-22	Levin Landfill: Levin B1	0.08	0.4	0	21.5
07-04-22	Levin Landfill: Levin F1	0.01	0.07	0	21
07-04-22	Levin Landfill: Levin G1d	0.01	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

# CREATING COMMUNITIES

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**.

We care about the communities we serve—because they're our communities too. We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

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