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Waihi North Project: Site Management Plan

Site ID:	*Services Trench (Willows Road Farm to the north of the existing Water Treatment Plant)*
Revision/ Date:	*Revision 4, 29 January 2026*

Overview:

OGNZL proposes installation of a services trench connecting a future services facilities area at Willows Road Farm (Willows SFA) approximately 4 kms to the north of the existing Water Treatment Plant (**Figure 1**). The proposed services trench passes under farmland and road reserve. The current construction methodology is based on open trench methods, with the option of directional drilling under roads or in areas where surface disturbance is not possible.

A *Preliminary Site Investigation (Ground Contamination) for the Proposed Services Trench*, prepared by WWLA, 9 October 2024 (the PSI), prepared to identify any HAIL Activities (those with potential to cause ground contamination) along or near the services corridor, identified highly localised possible HAIL activities, including at the Water Treatment Plant, in former market gardens along the route, and associated with sheep yards and asbestos building materials at Willows SFA (noting that the updated trench route avoids these features at Willows SFA). A *Detailed Site Investigation* (DSI) was then completed (April 2025) and confirmed that contaminant concentrations are generally low across all HAIL areas, including at the processing plant, and no asbestos was detected at the wool sheds at Willows Road. Some localised areas of elevated metals were noted:

- Elevated arsenic, chromium and copper at Willows Road yards are expected to be associated with livestock drenching. Arsenic exceeds human health criteria. These areas are no longer proposed to be disturbed as part of the service trench works.
- At the WTP arsenic in places exceeds applicable human health and/or environmental criteria, and this is likely to be at least in part naturally occurring. Standard earthworks controls and procedures are applicable to works within this area with only localised remediation required.

OGNZL will be responsible for overseeing the implementation of this SMP Checklist, although the primary day-to-day responsibility will sit with the lead contractor *[insert contractor name].* Where input is required by a SQEP (i.e. WWLA), it is *highlighted* below.

This version (Revision 4) has been updated to reflect specialist review on behalf of Hauraki District Council, and consent condition numbering (Fast Track Approvals number FTAA-2504-1046] as granted on 18 December 2025.

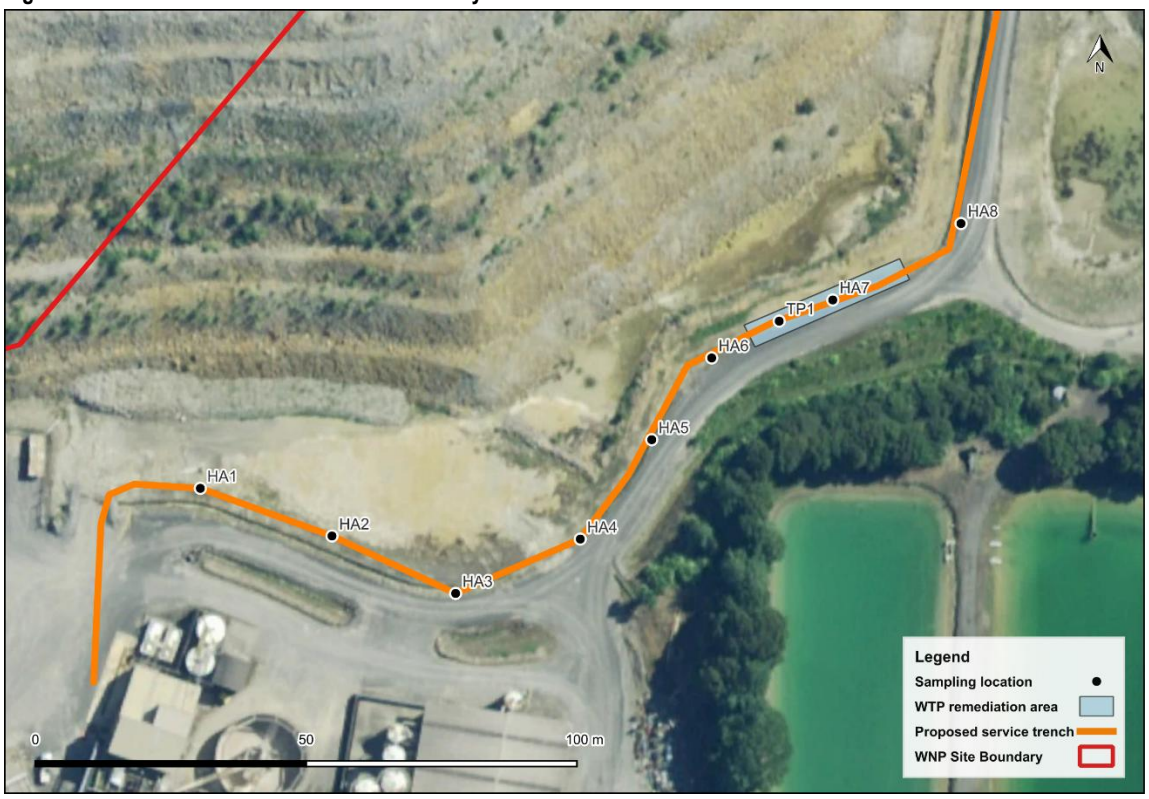
This SMP meets the requirements of Condition C5 (all parts), requiring submission of a Contamination Site Management Plan to Hauraki District Council for certification, at least 30 days prior to works commencing.

Figure 1. Services trench corridor.

Rationale for controls	• Arsenic presents a potential human health risk at the Willows Road yards and potentially at the WTP, although only two (2) of 24 samples were elevated to this level so areas of elevated contaminants are highly localised. Controls are required to mitigate potential risks to site workers if there is any disturbance of shallow soils (considered unlikely). If this area is not remediated during service trench works, then we recommend OGNZL note the elevated arsenic concentrations on the risk register for the site. • Arsenic also presents a potential environmental risk throughout the site, but this is likely to be attributable to natural geological conditions. Good practice erosion and sediment control will be sufficient to control this risk. No specific remediation is required. • No asbestos was detected at the wool sheds, so no asbestos related controls are required.

SMP induction by (SQEP):……..	Date: ……
Actioned by (Contractor's Site Manager):……..	Date: ……

Section	Description	Check
1. Remediation at Willows Road and WTP	Remediation is not required unless soil is proposed to be disturbed at the yards, but is expected to be required in the TP1-HA7 area at the WTP (refer **Figures 2** and **3**). If no remediation is undertaken at Willows Road Farm the potential human health risk will need to be noted on the risk register for the site. There is no risk to human health if the soil is not disturbed. Arsenic-contaminated shallow soil in both locations requires remediation to mitigate risks to human health if it is to be disturbed. This can be either via offsite disposal or onsite soil mixing (within the proposed topsoil stockpile). In both cases Site Establishment and General Earthworks Requirements (**Sections 2** and **3**) below apply. Additional specific controls are included for each option below: • If offsite disposal is preferred, topsoil shall be removed (to 0.3 m below ground at Willows Road Farm and 0.5 m at WTP) and disposed offsite to either the Tailings Storage Facility or a landfill consented to take the level of contamination present. - Stockpiling shall be avoided; trucks shall be loaded directly where possible and within established erosion and sediment controls. - If stockpiling is required, stockpiles shall be covered overnight or when not being worked. - No validation sampling is required as there is already sufficient data to show that soils at the final excavation depth are below the remediation criteria (NESCS human health criteria for commercial use). • If onsite soil mixing is to be undertaken, this shall be done as follows: - Soil (to 0.3 m depth at Willows Road farm at 0.5 m at WTP) shall be excavated and taken to a dedicated topsoil stockpile with erosion and sediment control established. - At least equal parts clean topsoil shall be mixed with clean topsoil within the stockpile. This is expected to occur by alternating one bucket of clean soil with one bucket of contaminated as the soils are placed within the topsoil. There is expected to be significantly more clean topsoil than contaminated topsoil in the finished stockpile. - Validation sampling will only be required if the ratio of clean to contaminated topsoil is 1:1. If more than 2:1 (clean to contaminated) then there is no need for validation sampling as a high level of mixing will have been achieved. - *The SQEP will confirm if works can proceed without further controls, and if validation sampling is required*. - For all remediation options: - Establish dedicated erosion and sediment controls to the remediation area. Standard controls as per **Section 2** are applicable. - Set out stockpiling areas if required so that clean and contaminated soils can be handled separately. - Ensure water is available for use to suppress dust. - Avoid working in heavy rain or wind. - Site workers shall wear long sleeves, long pants and gloves if handling soil. A boot wash, facility to wash hands and faces, and a changing area shall be provided to avoid taking contamination into cars/ homes. - Works areas and breaks areas shall be separated. - Once validation has been achieved, works can progress as per **Section 2** and **3**.	☐

Section	Description	Check
	 **Figure 2. Remediation area at Willows Road Farm yards**	
	 **Figure 3. Remediation area at Water Treatment Plant**	
2. Site Establishment	• Establish general earthworks controls for bulk earthworks and the relevant erosion and sediment control plan ("ESCP") prepared for the works and also the WRC *Erosion and Sediment Control Guidelines for Soil Disturbing Activities (January 2009, updated 2014).*	☐
	• Arrange disposal permits before any soil leaves the site (whether internally to tailings storage facilities ("TSFs") or to a non-OGNZL site). *If in doubt about disposal requirements contact the SQEP.*	☐

Section	Description	Check
	• Induct any new workers or subcontractors to the requirements of the SMP as works progress. *The initial induction shall be led by the SQEP*, i.e. WWLA (subsequent inductions may be by the Site Manager) and shall cover: - Spoil management to minimise discharges to the environment. - Material disposal constraints and reuse opportunities. - Procedures for responding to unexpected contamination.	☐
3. General Earthworks Requirements	• Maintain the approved erosion, sediment, and surface water controls until an erosion-free surface is reinstated. • The focus should be on containment of sediment-laden runoff, and clean-water diversion, to minimise runoff potential.	☐
	• The Site Manager shall undertake daily inspections to ensure compliance with the ESCP procedures and controls.	
	• The following dust management practices shall be implemented in accordance with the *Good Practice Guide for Assessing and Managing Dust, Ministry for the Environment* (2016): - Avoidance of work in windy conditions if ground conditions are dry. - Water can be used lightly as a dust suppressant. - Use of gravel on entrance ways and haul roads. - Ensuring stockpiles are covered when not being worked, and trucks transporting soil have covers. - Filter fabric may be used on site fencing to further reduce dust if necessary.	☐
	• Keep records of disposal volumes and destinations for inclusion in the works completion report ("WCR") or site validation report ("SVR").	☐
	• Imported material: Ensure any materials imported from offsite are directly sourced from a quarry or have been classified as clean. *These must be verified by the SQEP* as being either quarry-sourced or cleanfill as defined by the Ministry for the Environment **before** being imported to site.	☐
	• No water is to discharge to surrounding sites without prior testing, and if necessary, approval by WRC. Water may discharge to ground within the works area or to the WTP if practical. *Contact the SQEP to undertake testing if necessary.*	☐
4. Health and Safety Requirements	• There should be a focus on good hygiene practices – wearing gloves if directly contacting soil, washing hands before eating/drinking, and avoiding eating/drinking in works areas. • A boot wash/brush station shall be provided and workers should wash/ brush boots before entering site sheds and vehicles to prevent transfer of potentially contaminated soils.	☐
5. Unexpected Contamination Response	• *Liaise with the SQEP should any unexpected contamination be identified* and implement mitigation measures advised by the SQEP. Signs of soil contamination may include: – Odorous materials (i.e. hydrocarbons, solvent odour). – Discoloured soil (green, black, blue). – Asbestos cement board fragments. – Refuse, putrescible or demolition materials.	☐
	• If unexpected contamination is encountered, or a discharge occurs, the following steps must be taken by the Contractor: – Cease works in the immediate vicinity of the suspected contamination and tape or cone off. – *Notify the project manager/client representative and the SQEP*. – Implement any additional contaminated land-related health and safety procedures and PPE if deemed necessary by the SQEP. – Update the Hazard Board to direct site workers should continued exclusion of the area be required. – Implement and maintain any additional controls required by the SQEP to manage contamination. • If asbestos is identified, requirements of the Health and Safety at Work (Asbestos) Regulations 2016 must be followed. *The SQEP shall provide direction* and if required, a licensed asbestos contractor engaged.	☐
	• Notify HDC and WRC *via the SQEP* within 24 hours of implementing any contamination mitigation measures.	☐

Section	Description	Check
6. Contamination examples	 **Odours/sheen such as hydrocarbons or solvents.**	
	 **Asbestos fibres and/or building products.**	
	 **Discoloured soil such as black, blue or green staining, or any staining that appears out of the ordinary.**	
	 **Underground structures such as fuel tanks/drums, or other buried waste.**	
	 **Fill materials.**	
	 **Fill materials.**	
7. Post Works (*Provide to SQEP* to prepare works completion/ site validation report)	• Weighbridge summary of all materials disposed from and introduced to site (including soil and water).	☐
	• Details of any health and safety or environmental incidents related to contaminated land (if any).	☐
	• Details of mitigation measures implemented (if any).	☐
	• Details of visits by Council representatives.	☐

Attached:

Soil data for offsite disposal

A1. Soil Laboratory Testing Results, Proposed Services Trench, Waihi

Sample Area					Water Treatment Plant																								Willows Road Farm				Former Market Garden [7]		
Sample information	Sample Location	NESCS Commercial/ Industrial/ Outdoor worker [1]	Eco-SGV [2]	Predicted background [3]	TP1					TP2			HA1		HA2		HA3		HA4	HA5			HA6	HA7			HA8			Comp 1	WR1	ASB1a	ASB2a	42774	42776	42777
	Depth (m bgl)				0	0.5	1	2	3	0.25	1.5	2.4	0.0-0.1	0.4-0.5	0.5-0.6	0.8-0.9	0.0-0.1	0.5-0.6	0.5-0.6	0.0-0.1	0.5-0.6	1.0-1.1	0.7-0.8	0.0-0.1	0.5-0.6	0.8-0.9	0.5-0.6	0.9-1.0	0.0-0.1	0.3-0.4	0.0-0.1	0.0-0.1	-	-	-
	Date				22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	22/01/2025	18/06/2007	19/06/2007	18/06/2007
	Material type				Sandy clay	Sandy clay	Sandy clay	Silty sandy clay	Silty sandy clay	Silty gravel	Gravelly silt	Clayey silt	Clayey sand	Clay	Sandy clay	Clay	Sandy clay	Sandy clay	Sandy clay	Fine sand	Medium sand	Clay	Sandy clay	Sandy clay	Sandy clay	Clayey sand	Sandy clay	Sandy clay	Topsoil	Topsoil	Topsoil	Topsoil	-	-	-
Asbestos	ACM (bonded) % w/w [4]	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	-	-	-
	AF+FA* %w/w [5]	0.001	-	-																															
Metals	Arsenic	70	19.16	13.24	43.2	132	26.1	37.4	12	11	34	2.9	58.2	29.1	19.2	4	24.6	24.3	23.9	32.3	62.1	24.8	27.9	82.6	23.9	31.5	24.1	23.1	130	11	-	-	5.2	5	4.8
	Cadmium	1,300	34.089	0.45	0.045	0.036	0.094	0.098	0.12	0.18	0.071	0.019	0.076	0.03	0.043	0.038	0.077	0.084	0.08	0.095	0.056	0.061	0.087	0.048	0.088	0.055	0.079	0.076	0.17	0.26	-	-	-	-	-
	Chromium	6,300	332.5	51.67	30.6	37.4	28.4	18.4	18.6	12	6.9	2	45	30.8	27.2	19.8	29.3	33.6	25.3	28.2	27.2	28.3	29.5	21.6	29.9	32.1	29.7	29.1	96.7	8.3	-	-	-	-	-
	Copper	>10,000	270.68	62.17	17.8	47.8	32.1	16.6	11.4	11	1.9	0.47	41.5	25.2	23.4	7	27.2	28.1	29	22.8	23.8	18.6	38.4	20.4	28.8	33.7	28.9	21.1	97.2	9.76	-	-	16	16.5	8
	Lead	3,300	1209	37.22	34.4	30.1	19.3	19.1	16.2	24.8	9.33	5.62	31.4	12.7	15.7	13.8	16.8	18.8	16.1	16.6	15.8	18.5	17.3	23	18.5	17.7	19.6	19.9	17.1	13.8	-	-	17	28	24
	Nickel	6,000 [4]	-	35.98	13	13.3	5.4	10.2	11.7	6.65	0.59	0.11	33.8	6.08	3.9	5.71	6.51	5.76	4.7	28.6	18.9	15	6.59	9.43	5.81	7.47	6.01	14.3	9.97	1.9	-	-	-	-	-
	Zinc	400,000 [4]	451.59	185	62.4	63.2	29.5	23.6	59.8	83.2	14.7	10.4	73.7	20.5	17.1	24.7	35	25.6	33.2	73.3	35.7	41	25.2	42.8	29	28.1	30.3	38.3	61.4	38.9	-	-	44	48	56
	Mercury	4,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	0.2	0.18
PAH	1-Methylnaphthalene	-	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	<0.010	-	<0.010	<0.010	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	2-Methylnaphthalene	-	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	<0.010	-	<0.010	<0.010	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Acenaphthene	-	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	<0.010	-	<0.010	<0.010	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Acenaphthylene	-	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	0.012	-	<0.010	<0.010	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Anthracene	-	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	<0.010	-	<0.010	<0.010	0.012	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Benz[a]anthracene	Refer BaP LOR	-	-	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	-	-	0.021	-	<0.020	<0.020	0.026	-	<0.020	-	<0.020	-	<0.020	<0.020	<0.020	-	-	-	-	-	-	-	-	-
	Benzo[a]pyrene	Refer BaP LOR	2.8	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	0.021	-	<0.010	0.012	0.022	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Benzo[b][&j] fluoranthene	-	-	-	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	-	-	0.025	-	<0.020	<0.020	0.029	-	<0.020	-	<0.020	-	<0.020	<0.020	<0.020	-	-	-	-	-	-	-	-	-
	Benzo[g,h,i]perylene	-	-	-	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	-	-	<0.020	-	<0.020	<0.020	<0.020	-	<0.020	-	<0.020	-	<0.020	<0.020	<0.020	-	-	-	-	-	-	-	-	-
	Benzo[k]fluoranthene	Refer BaP LOR	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	<0.010	-	<0.010	<0.010	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Chrysene	Refer BaP LOR	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	0.016	-	<0.010	0.013	0.027	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Dibenz(a,h)anthracene	Refer BaP LOR	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	<0.010	-	<0.010	<0.010	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Fluoranthene	Refer BaP LOR	27	-	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	-	-	0.056	-	<0.020	0.024	0.077	-	<0.020	-	<0.020	-	<0.020	<0.020	<0.020	-	-	-	-	-	-	-	-	-
	Fluorene	-	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	<0.010	-	<0.010	<0.010	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Indeno(1,2,3-cd)pyrene	Refer BaP LOR	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	0.016	-	<0.010	0.012	0.016	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Naphthalene	230 [6]	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	<0.010	-	<0.010	<0.010	0.013	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Phenanthrene	-	-	-	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	-	-	0.036	-	<0.010	<0.010	0.094	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-
	Pyrene	NA [7]	-	-	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	-	-	0.06	-	<0.020	0.025	0.072	-	<0.020	-	<0.020	-	<0.020	<0.020	<0.020	-	-	-	-	-	-	-	-	-
	Benzo[a]pyrene TEQ (LOR)	35	-	-	<0.03	-	<0.03	<0.03	-	<0.03	<0.03	-	-	0.04	-	<0.03	0.03	0.04	-	<0.03	-	<0.03	-	<0.03	<0.03	<0.03	-	-	-	-	-	-	-	-	-
OCP	2,4'-DDD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	2,4'-DDE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	2,4'-DDT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	4,4'-DDD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	4,4'-DDE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	4,4'-DDT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	alpha-BHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Aldrin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	beta-BHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	cis-Chlordane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Chlordane (sum)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	-	-	-	-	-
	cis-Nonachlor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	delta-BHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Total DDT	1000	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0200	<0.0200	-	-	-	-	-
	Dieldrin	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	<0.050	-	-	-	-	-
	Endosulfan I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Endosulfan II	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Endosulfan sulfate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Endrin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	<0.050	-	-	-	-	-
	Endrin aldehyde	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Endrin ketone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	gamma-BHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Heptachlor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Heptachlor epoxide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Hexachlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	Methoxychlor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	trans-nonachlor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-
	trans-Chlordane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	-	-	-	-	-

Notes:

All values are presented in mg/kg except where noted (asbestos).

* FA = fibrous asbestos, AF = asbestos fines.

ND denotes no asbestos detected.

<LR indicates concentration below the laboratory limit of reporting.

Grey values are below expected background values, black values exceed background, bold values exceed Eco SGVs and blue shaded values exceed applicable human health criteria.

1. MfE, 2011. Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health (unless otherwise stated). Soil Contamination Standard - Commercial/Industrial land use.
2. Landcare Research Manaaki Whenua , 2019. Updated Development of Soil Guideline Values for the Protection of Ecological Receptors (Eco-SGVs). Technical document. Added concentration limits using EC30 and site predicted background used. Typical soils, aged contaminants.
3. Landcare Research Manaaki Whenua, 2015. *Background Soil Concentrations of Selected Trace Elements and Organic Contaminants in New Zealand*. Values for Andesite.
4. National Environment Protection Council [Australia] - National Environment Protection Measure (Assessment of Site Contamination). Health Investigation Levels - Commercial/Industrial land use (HIL D)
5. MfE, 1999. Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand. Tier 1 Soil acceptance criteria, clay, contamination <1 m depth, commercial/industrial use. Stc Protection of Groundwater Quality, groundwater at 4 m.
6. BRANZ, 2017. New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
7. Information provided by OGNZL, data is understood to comprise topoil samples.