

# ENVIRONMENTAL START

## Accidental Discovery of Contaminated Soil Hangatiki and Kawerau Substations

### WHAT HAPPENED?

There have been two recent instances of accidental discovery of contaminated soils during earthworks at Transpower Substations. Crews at both Hangatiki and Kawerau substations followed the correct procedures, as defined in their site-specific management plans (SMP), which allowed the project teams to investigate the contamination and establish a plan to safely resume works.

#### **Hangatiki Substation 12/09/2018**

During the excavation of shallow soil for the transformer pad as part of the switchyard extension works, discoloured and odorous soils were encountered. The odour was such that contractors experienced dizziness and slight nausea. The soil was found to be contaminated with hydrocarbons, likely associated with a slow leak from an oil tank that had been removed in the past.

#### **Immediate Action Taken:**

- Works ceased immediately, and visibly impacted soils isolated
- Staff who felt unwell were taken to the local medical centre to be checked out, and were given the all clear.
- Suitably qualified professionals for contaminated land investigations were called to site to investigate the nature and extent of contamination.



#### **Kawerau Substation 26/09/2018**

During demolition of a transformer foundation, as part of the site redevelopment works, an oily substance was discovered. After initial testing, the soil was found to have high readings of hydrocarbons with some traces of polychlorinated biphenyl (PCBs). The results from further testing are imminent and will determine the source and severity of this contamination.

#### **Immediate Action Taken:**

- Work close to the contamination was immediately ceased.
- Additional soil testing was carried out to determine the nature and extent of contamination.
- Further earthworks in other areas on site are to be overseen by a suitably qualified professional.



### OUTCOME

- Pre-works soil testing does not always identify the location and levels of contamination on site. There is always a chance of earthworks encountering unknown contaminants on or below the surface at substation sites.
- It is important to remain vigilant when undertaking earthworks in a substation. Awareness of unusual discoloration, odour and other qualities that indicate potential contamination in soil is needed at all times.
- These discoveries highlight the importance of understanding and complying with site-specific management plans and having clear channels of communication to minimise risk.

<b>Name</b>	<b>Hangatiki:</b> Matthew Curran <b>Kawerau:</b> John Sutherland	<b>Enviro Group</b>	<a href="mailto:environment@transpower.co.nz">environment@transpower.co.nz</a>
<b>Position</b>	Environmental Planner	<b>Incident Date and Maximo Number</b>	<b>Hangatiki:</b> 12/09/2018 #117574 <b>Kawerau:</b> 26/09/2018 #117762
<b>Email</b>	<a href="mailto:Matthew.Curran@transpower.co.nz">Matthew.Curran@transpower.co.nz</a> <a href="mailto:John.Sutherland@transpower.co.nz">John.Sutherland@transpower.co.nz</a>		