

2 Rationale for the Additional Site Inspection

The results from *in-situ* PID monitoring equipment are known to be affected by changes in temperature, moisture and the presence of certain chemicals and they should therefore only be used as a tool to help make decisions about targeting of sampling and subsequent laboratory analysis. In addition, the equipment is generally designed to sample vapours in the open air rather than directly from a monitoring well.

In view of the known uncertainties around the use of field PID instruments, the additional works focused primarily on confirming:

- The geology at the southern boundary of the golf course in close proximity of Jubilee Villas and Fountains Cottages and therefore confirming whether there is a potential sub-surface vapour pathway close to the receptors.
- Whether any of the contaminants associated with the former landfill activities at the golf course are present in the vapour phase in the soil between the waste mass and the receptors (i.e. people within on-site and off-site buildings - the club house, Jubilee Villas, Mount Croft area and Fountains Cottages) at concentrations that would be deemed to be significant within the Part IIA regime.

In addition, it was also considered good practice to take an additional set of vapour samples for laboratory analysis, especially since the first set was taken in the winter.

It should be noted that if the geology confirmed that a viable vapour pathway was not present on the southern boundary between the golf course and Jubilee Villas / Fountains Cottages, additional vapour samples would not be obtained in these areas.

Although the odour issue in the vicinity of the culvert exit and public footpath on the western part of the golf course is not considered to be a significant pollutant linkage (SPL) under the Part IIA regime (Atkins 2007, Section 7.5), it was decided that extra vapour samples would be taken as part of the additional work to see if it was possible to identify the likely cause of the odour.

Groundwater and surface water samples taken for the detailed inspection (Atkins 2007) did not identify any contaminants at concentrations considered likely to cause an odour. Vapour samples were therefore taken from catch pits immediately upstream of Outfalls G and S in an attempt to obtain samples where the contaminant concentrations were likely to be 'higher'; historical data has shown elevated concentrations of volatile organic compounds in the drainage system which links drains from the waste mass via a series of catch pits to outfalls into Birchenwood Brook.