

1 Introduction

The Environment Agency has been requested by Congleton Borough Council (Congleton BC) to undertake a detailed inspection of land at Malkins Bank Golf Course as a potential special site (PSS) under Part IIA of the Environmental Protection Act 1990 and in accordance with the framework and procedural steps of the statutory guidance (Defra Circular 01/2006).

The purpose of a detailed inspection (Defra Circular 02/2006 paragraphs B20(a)-(c)) is to establish the significance of any pollutant linkages (source-pathway-receptor) resulting from the presence of historical contamination at the golf course and to establish whether it meets the definition of contaminated land and a special site.

The Environment Agency commissioned consultants (Atkins) to undertake the detailed inspection at the golf course which was subsequently carried out in a number of phases:

- The collation and assessment of documentary information ('Desk Study') (Atkins 2005).
- Visual inspection and detailed design for further work (Atkins 2006).
- Intrusive investigations and surface water sampling (Atkins 2007).

This supplementary report presents the findings of additional work that was carried out by the Environment Agency to complete the detailed inspection of the golf course under the Part IIA regime; this report should be read in conjunction with the Detailed Intrusive Inspection Report (Atkins 2007).

1.1 Objectives

The primary objectives and purpose of the detailed inspection are to obtain sufficient information for Congleton BC to determine whether the land appears to be contaminated land, and to decide whether the land falls within the definition of a special site.

The main objective of the additional work is to assess the pathways associated with the inhalation of indoor air in buildings on-site and off-site to complete the detailed inspection and therefore allow the Environment Agency to make recommendations to Congleton BC as noted above.

1.2 Background

Following a review of the Detailed Intrusive Inspection Report (Atkins 2007), the Environment Agency and Congleton BC wanted to look more closely at the vapour sample results that were obtained as part of the intrusive works to assess pollutant linkages 12, 14 and 22 associated with migration of vapours through the ground and subsequent inhalation of indoor air in buildings on-site and off-site (Atkins 2007, Sections 7.4 and 8.3).

This is because there is a variation between field and laboratory results and although this is not unusual for this type of sampling it was considered that further investigation should be undertaken to complete the inspection under the Part IIA regime. Also, it was considered that additional vapour samples should be taken for laboratory analysis as part of this work; it is good practice to take more than one set of vapour samples, especially when the first set was taken in the winter.

The variation noted between the field and laboratory results is that the field results (taken directly from the monitoring wells with a hand held *in-situ* photo-ionisation detector (PID)) are