

LEGEND

CONCENTRATIONS (mg/kg)

Log Scale

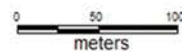


- As
- Cr
- Cd
- Cu
- Pb
- Zn

NOTES

METAL CONCENTRATIONS MEASURED IN SOIL SAMPLES

SCALE



Environmental Management Services

IED Compliant Baseline Assessment Case Study

Summary

In line with the requirements of The Industrial Emissions Directive (IED) and The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 our client, a metal fabricating company, commissioned us to undertake a baseline assessment review for their site.

An updated baseline report was compiled which quantified the locations, type and extent of contamination. This will provide a quantifiable target for any potential remediation necessary.



Stages 1 & 2

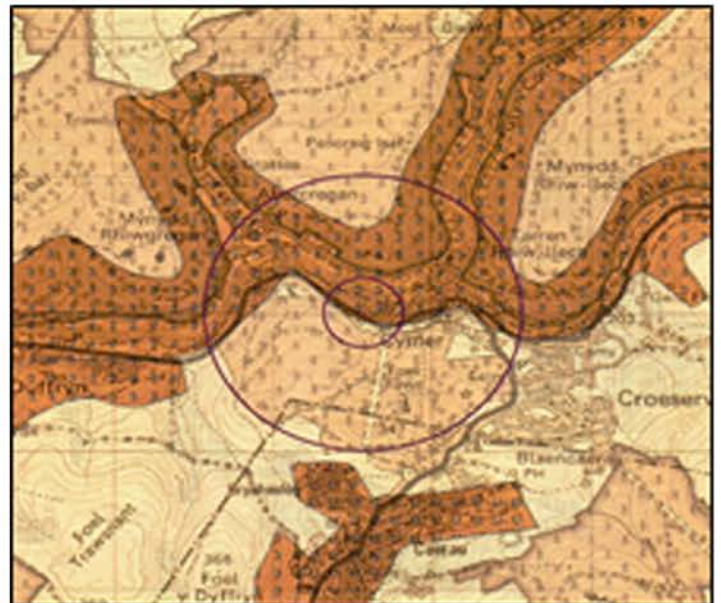
In order to review a baseline report in line with the requirements of the IED we initially assessed what hazardous substances could cause soil or groundwater pollution as a result of site processes.

The initial baseline assessment compiled a list of potential pollutants which were classed as relevant hazardous substances under the IED, predominantly heavy metals and hydrocarbons. This allowed us to confirm the Chemicals of Concern (COCs) for the latter stages of the investigation.

Stages 3, 4, 5 & 6

Following a review of the potential pollutants we undertook a Phase I site investigation to evaluate current and historic land use and found that several previous and current processes on site had the potential to cause contamination to both ground and groundwater.

We constructed a conceptual site model (CSM) using the source – pathway – receptor model to identify how the continued use of the site could pose risks to the soil and groundwater.





Stages 7 & 8

Combining the desktop study and the CSM we were able to design a suitable strategy for undertaking an intrusive Phase II site investigation. A variety of exploratory methods including boreholes and trial pits were utilised allowing the collection of groundwater and soil samples from Potential Areas of Concern (POACs) identified in the Phase I survey.

The collected samples were sent for targeted chemical analysis to test for the presence and extent of contamination for the COCs identified in the Phase I investigation.

We found that due to the nature of the site usage there was already significant contamination present in the soil and groundwater including Copper, Chromium & Zinc, this was in line with the findings of previous investigations.

Our report quantified the locations and extent of contamination so that when our client ceases activity on site they can identify if further contamination has taken place and have a quantifiable target for any potential remediation necessary.

