



Warwick Chemicals
Mostyn, Holywell, Flintshire

Groundwater Assessment Report

December 2014

INTRODUCTION

In 2003, following the site condition report, Warwick Chemicals proposed to carry out monitoring of the, then, four boreholes installed on the Mostyn site. Warwick then, following further guidance from the (then) Environment Agency (EA), installed a further two boreholes on the Northern edge of the site. The sampling schedule was initially twice a year based on the history of the site operations, the containment arrangements for all the materials on site and the results of the site survey.

The annual sampling continued with some high results for hydrocarbons being seen in a few of the boreholes at the East end of the site. Following discussions with the Environment Agency it was decided to increase the frequency of sampling to get a better understanding of the level of hydrocarbons in the groundwater. Alternative methods of sampling were also employed to ensure that the sample taken was representative of the material in the borehole.

The Environment Agency were showing a level of concern for the hydrocarbon levels in some of the boreholes but, following some additional monitoring in 2011 and 2012, it was seen that the levels had declined and a joint decision was then made to monitor to ensure that the levels remained at the reduced levels.

REVIEW

Sampling and analysis of the six boreholes at the Mostyn site has been continued twice a year using the preferred 'low flow sampling' method

The sampling periods are usually round May and September, with the analytical schedule as seen in the table below.

Date	Locations Sampled	Laboratory analysis required
April/May	BH1 to BH6 inclusive	pH Conductivity Ammoniacal Nitrogen (as N) Copper (Total) Total Petroleum Hydrocarbons (TPH)
September/October	BH1 to BH6 inclusive	pH Conductivity Ammoniacal Nitrogen (as N) Copper (Total) Total Petroleum Hydrocarbons (TPH)

CONCLUSION

The results from the analysis for the majority of the determinants have remained, on average, relatively steady. In boreholes 1 and 2 there had been a rise in the level of THP in the first sample but this level had fallen back to the original level (or lower) when the next sample was analysed. In boreholes 3, 5 and 6 there had been a rise in the THP levels in 2013 but the results in 2014 have shown a fall in the THP levels down to the previous levels.

On average the results are not showing any consistent variations or increases that would lead to an increase in the sampling frequency. There have been no reports of loss of containment that would also require a variation in the sampling frequency.

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APPENDIX 1

















