

APPENDIX 8.5
GROUNDWATER MONITORING
LETTER

23rd October 2014
Project GCU0124024

Nestle UK LTD
4 Vernon Street
Derby, DE1 1FR

Attention: **Heather Fox - Legal (By email only)**

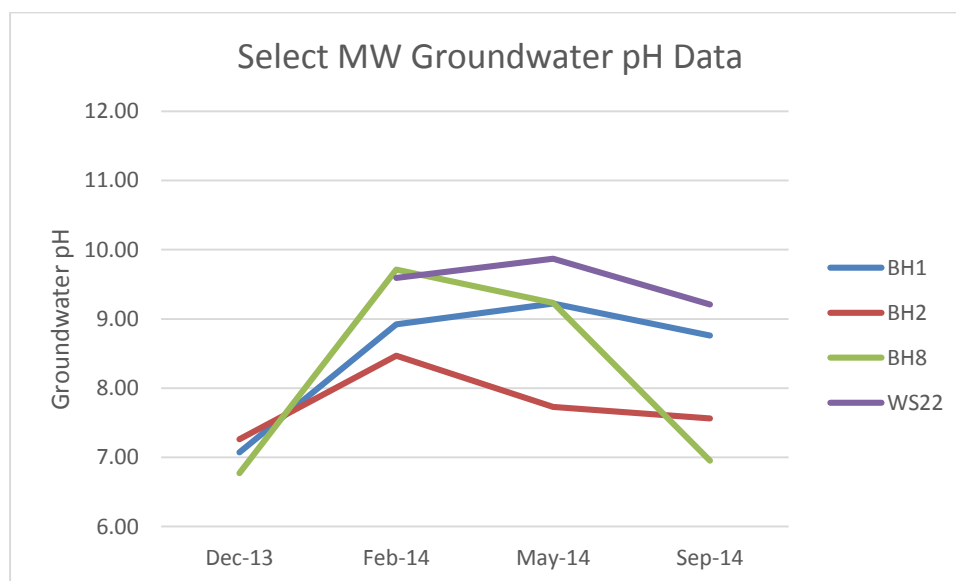
Re: Update on Groundwater Monitoring Results post September-14 round

Dear Heather

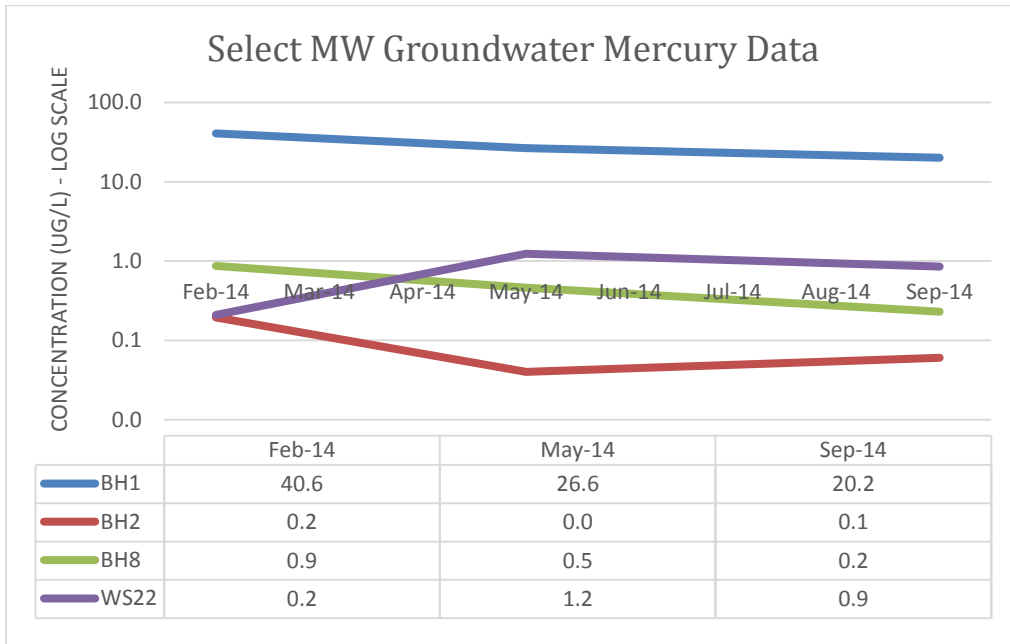
We have recently completed our second, and possible final, 2014 extra groundwater monitoring round. The laboratory data is just in and we thought it useful to give you feedback on this.

The three main aspects to focus on are groundwater pH, mercury and PAHs (hydrocarbons). Our view on what the respective groundwater datasets are telling us can be summarised as follows:

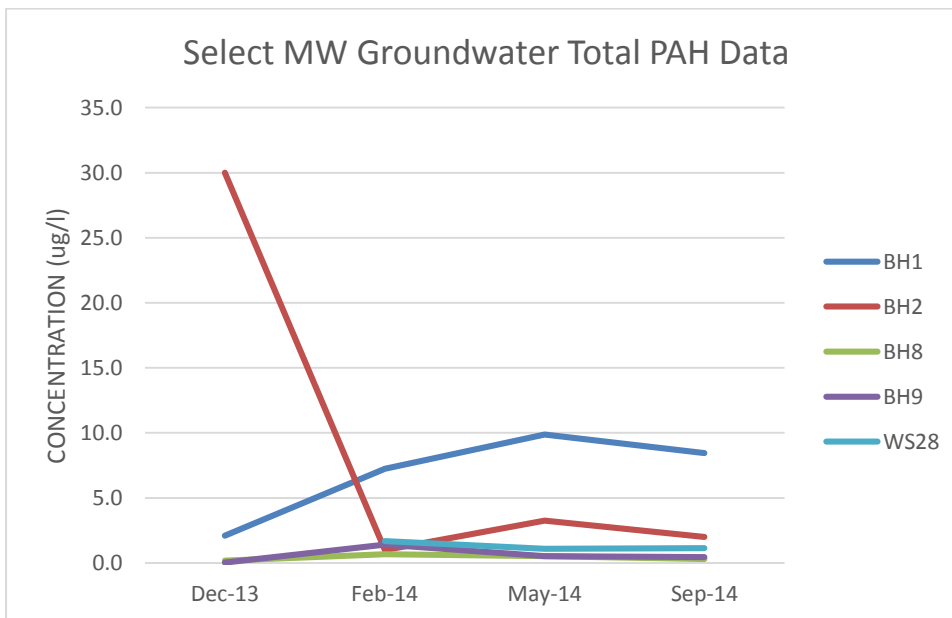
Groundwater pH - as indicated in the graph below, this data highlights that groundwater pH is improving again (dropping down again from highs pH9-pH10), but remaining quite elevated in WS22 and BH1 in the northern canal boundary area, with BH1 being key due to the presence of mercury.



With respect to **groundwater mercury**, as summarised in the table/graph below (noting a log scale is used), the BH1 concentration has approximately halved from a high of about 41 µg/l in February to around 20 µg/l in September 2014. This is expected to mainly reflect the fact that pH is now falling again (the higher pH mobilising mercury). The Generic Assessment criteria (based on the drinking water standard DWS) is 1 µg/l (EQS lower again at 0.05 µg/l). In all other wells reporting trace levels of mercury in groundwater the concentration has been close to or below 1 µg/l. So the standout result remains BH1.



Groundwater PAHs - groundwater sampled from certain wells (mainly in the northern area where residual hydrocarbon contamination in shallow soils is reported) has contained low levels of PAHs. Concentrations are significantly down on the BH2 peak of about 30 $\mu\text{g}/\text{l}$ in December 2013. There is no GAC for total PAHs but GACs for certain individual PAHs flag concentrations in the fraction of $\mu\text{g}/\text{l}$ to very low $\mu\text{g}/\text{l}$ to be worthy of further consideration. Their presence is almost certainly linked to the historic hydrocarbons releases and associated residual contamination in this northern canal side area.



In conclusion it is unlikely that any of these concentrations pose any significant risk to a wider environment. It is noted that the sand and gravel aquifer is a Principal Aquifer so could be considered a receptor in its own right by the EA (PAHs and mercury are hazardous substances so entry into groundwater should be prevented).

Should you have any queries regarding the latest groundwater monitoring data then please do not hesitate to contact the undersigned.

Yours sincerely for
Geosyntec Consultants

A handwritten signature in black ink, appearing to read "Marcus Ford". The signature is written in a cursive style with a large, prominent loop at the top.

Dr. Marcus Ford
Project Director