Slingsby Plant Hire Ltd

Phase 1 Laboratory Testing and Review

Pollington Site Investigation

Report Reference: CE-POL0231-RP01
April 2010
Version 1.0

Application prepared on behalf of:

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1 INTRODUCTION

At the request of Slingsby Plant Hire, five number trial pits were excavated into materials brought onto Middleton Quarry, Pollington and deposited adjacent to the road in the north of the site. For site location see drawing number CE-POL0231-DW01.

The trial pits were excavated with a wheeled 360^{o} excavator to depths of up to three metres and samples taken at various depths using appropriate containers for the schedule of testing. The schedule of testing and works were agreed in advance by Mr Edward Wrathmell of the Environment Agency and Crestwood environmental Ltd. The EA were notified when the works were scheduled to take place and were invited to witness the works being carried out at the time.

Details of the materials present within the trial pits and depths tested are included in the trial pit logs Appendix A.

The samples were sent to testing laboratories at Scientifics, Bretby for analysis the following day and the results presented in Appendix B of this report.

The investigation comprised five samples which were tested for the following determinants:

- Moisture content
- TOC
- BTEX
- PCB
- TPH (C_8 to C_{40})
- PAHs
- pH
- LOI @450^{o}C
- Acid neutralisation capacity
- Metal suite dissolved BS EN12457-3LS2-10 two stage
- Sulphate
- Phenol index
- Dissolved organic carbon
- Asbestos screen
- Triazine herbicides
- Organochlorine pesticides
- Organophosphorous pesticides
- SVOCs
- VOCs

Upon completion of the trial pits the ground was reinstated by infilling in layers and compacting the grounds using the back of the excavator bucket.

2 FIELDWORK

The trial pits were excavated using equipment supplied by Slingsby Plant Hire under the direction and supervision of Crestwood environmental Ltd on the 8th March 2010. Samples were taken by a representative of Crestwood environmental Ltd using appropriate storage bottles supplied by the testing laboratory. The samples were brought to the offices of Crestwood environmental Ltd the day of sampling and were couriered to the testing laboratories the following day.

Because the sources of materials were unknown and there was anecdotal evidence of asbestos being deposited on the site, the site was given a temporary red classification. Suitable health and safety measures were then taken during the site investigation process.

In general the materials excavated were typical of what would be expected of inert waste from construction and demolition sites. The material consisted predominantly of sandy and gravely clays or clayey sands. A considerable amount of concrete with reinforcing bars was present within trial pits 4 and 5 but there was no indication of odours, no discolouration , or evidence of fluids within the mass of material, see Appendix C 'photos'

No evidence of water in the excavations was encountered during the works.

An area of standing water to the North East of the deposited materials was sampled and tested for inorganic leachable materials (for sampling point see drawing number CE-POL0231-DW02).

3 RESULTS

Results indicate the following at the time of testing:

- elevated pH levels in TP1, TP3 and TP4
- elevated levels of SVOCs within TP1 over a number of determinants
- elevated level of VOC (naphthalene) within TP4
- elevated level of fluoride within TP4
- elevated level of sulphate within TP5
- elevated levels of total dissolved solids within TP4 and TP5

The sample of standing water tested for leachable inorganic compounds indicated that levels showed a very low probability that compounds were being leached from the deposited materials into this surface water body at the time of testing.

4 RECOMMENDATIONS

Further analysis of these elevated determinants will need to be addressed within the CQA Plan for removal of the materials from site.

No asbestos was identified during this initial investigation, anecdotal evidence from people working on-site also suggests that asbestos products identified during the initial site walkover by Crestwood environmental Ltd and the Environment Agency were on-site before materials were deposited, however occasional screening would be an appropriate test during removal of the materials.

DRAWINGS

CE-POL0231-DW01 Site Location Plan

CE-POL0231-DW02 Trial Pit Location Plan

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APPENDICES

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Appendix A Trial Pit Logs

Trial Pit 1 (TP1) 2.7m
Brown mottled grey slightly gravely CLAY. Sand is brown and fine gravel is angular fine to medium of sandstone and brick with occasional rootlets and plastic.

Trial Pit 2 (TP2) 2.8m
Dark brown slightly gravely slightly clayey fine SAND. Gravel is angular fine to medium of concrete and brick. Occasional cobbles of concrete and brick.

Trial Pit 3 (TP3) 2.6m
Grey mottled brown slightly sandy slightly gravely CLAY. Sand is brown and fine gravel is angular fine to medium of concrete sandstone and brick.

Trial Pit 4 (TP4) 2.1m
Grey mottled brown slightly sandy slightly gravely CLAY. Sand is brown and fine gravel is angular medium to large of sandstone concrete and brick. Occasional timber rootlets ceramics glass and cobbles of concrete with reinforcing bars.

Trial Pit 5 (TP5) 2.5m
Dark grey slightly sandy slightly gravely CLAY. Sand is brown and fine gravel is well rounded of quartz with many plant rootlets plastic timber and cobbles of concrete with reinforcing bar.

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Appendix B Laboratory Test Results

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Appendix C Photographs

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Photographs

Detail of Trial Pit 1

Detail of Trial Pit 2

Detail of Trial Pit 3

Detail of Trial Pit 4

Detail of Trial Pit 5

Standing water to north east of site, sample taken

Existing condition of site prior to deposition of materials.

Existing condition of site prior to deposition of materials – Evidence of historic tipping of inert waste materials.