Bloor Homes

Ground Investigation Report

for

Hollingworth Road, Littleborough

September 2019

REPORT NO: 18BLH008/GI

- *Desk Studies and Site Walkovers*
- *Intrusive Contaminated Land Investigations*
- *Geotechnical Appraisals and Ground Investigations*
- *Landfill Gas Assessments and Remedial Design*
- *Remediation Design and Implementation*
- *Remediation Project Management and Supervision*
- *Site Abnormal Assessments (Foundations and Contaminated Land)*

GEOTECHNICAL - CONTAMINATED LAND - FLOOD RISK

DOCUMENT ISSUE RECORD

Contract No:	18BLH008
Client:	Bloor Homes
Contract:	Hollingworth Road, Littleborough
Document:	Ground Investigation Report

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Authorised by:		B Lewis
Date:		September 2019

REVISION RECORD

Revision	Date	Description	Prepared by
0	June 2019	Draft for comment with partial gas results	LH
1	September 2019	Final updated gas monitoring	RD

CONTENTS

1 EXECUTIVE SUMMARY

Note – *The following summary is not exhaustive and is to be used for guidance purposes only. The full report should be consulted for full details.*

1. Site Location

The site is located at Hollingworth Road, Littleborough, OL15 8SA. The coordinates on the British National Grid CRS are 393416, 415496. The proposed site is approximately 16.5 hectares in total.

2. Site Description

On Site

A site reconnaissance was undertaken on the 15th January 2019 and observations are summarised below.

The site is irregular in shape and covers an area of approximately 40.6 acres (16.5 Ha) in plan area and principally comprises agricultural grazing land. The eastern third of the site comprises grass with localised areas of 'reed's' and waterlogged ground which increase in frequency as the site topography decreases from Hollingworth Road in the east.
A track runs through the centre of the site north-south and bisects Lower Cleggs Wood Farm which is located in the centre of the site. The farm comprises a number of buildings in various states of repair (but generally poor), including a stone farm house and outbuildings, timber and steel framed corrugated metal clad outbuildings and sheds.

To the north of the farm and to the west of the track a former small earth works/quarry appears to have been used to dispose of general farm waste with plastic sheeting visible at ground surface.

The western third of the site is covered in grass and the lack of 'reed's' indicates that this area of the site is better draining, residential housing borders the site to the west, with a number of roads (future access routes) terminating adjacent to the western boundary including Higher Bank Road and Brown Lodge Drive.

In the south of the site to the east of the track is a fenced area containing a static caravan and shed type building, to the east of this the land appears to be poorly draining with an increase in 'reeds' noted, to the west beyond the site boundary is a wooded area which leads into a council owned car park, which sits below the main 'dam' embankment for Hollingsworth Reservoir

The site topography is complex, however in simplified terms the site comprises a valley feature running north- south, with the western area sitting at an elevation of approximately 175m AOD, the central area approximately 161m AOD, with the eastern area sitting at a maximum elevation of 168m AOD.

The site borders and surrounds in part a small 'reservoir' located to the northeast of the site. In the north-east corner of the site to the north of the reservoir standing water was noted and just beyond this a 'crown hole' was noted possibly indicating the collapse of a culvert or drain. The former 'Clough Field Works/Refinery borders the north east of the site and is secured by 'heras' type fencing.

Currently the main vehicle access to the site is via Lake Bank Road, where the track runs through the centre of the site Further pedestrian access to site is possible via a number of public footpaths which bisect the site, with two access points located off Hollingworth Road in the east and two access points in the west via Higher Bank Road and Brown Lodge Drive and finally access to the Rochdale Canal towpath in the north of the site via Brown Bank Bridge.

3. Proposed Development

The proposed construction of residential dwellings with associated infrastructure, gardens and public open space.

4. Site History

On Site

The earliest available map of site is the 1851 1:10,560 map which shows the site comprising fields with Lower Cleggs Wood Lane dissecting site roughly orientated North-West to South-East. Three (3 No.) dwellings/farms are shown along the lane labelled as Brown Bank Top, Lower Cleggs Wood and Heald (with two (2 No.) wells). The South boundary of site is labelled Fens Bank this is assumed to be part of the dam retaining the Hollingworth Reservoir. A 'Drain or Conduit' is shown running across the east of site in roughly a North-South orientation connecting the Hollingworth Reservoir via a

culvert to the Rochdale Canal. A Sandstone Quarry is present in the West of site.

By the 1890 1:10,560 map a reservoir is shown in the Central-East of site and the conduit is no longer marked. The Quarry in the West of site is labelled as Old Quarry and a well is shown in the South-West of site. The dwelling labelled Heald has reduced in size with the nearby wells no longer shown.

By the 1928 – 1930 1:10,560 map a new dwelling located just beyond the South boundary of site labelled Water Metre House is shown possibly related to the culvert and conduit shown from the earliest mapping. Earthworks immediately to the West of the existing onsite reservoir evident from breaks of slope possibly indicating an enlargement of the reservoir.

By the 1976 1:10,000 map the old sandstone quarry in the west of site is no longer shown and is assumed to have been infilled. The dwellings Heald and Water Meter House in the South of site are no longer shown. A spring is shown at the location of former dwelling Heald with expansion of the buildings at Lower Cleggswood Farm.
No further major changes occur onsite up to present.

Surrounding Area
1851
Site surrounded with predominantly farmland with scattered industry and the Littleborough urban area to the North-East.
0m South of Site – Hollingworth Reservoir (Supply of the Rochdale Canal) shown, remains to present.
0m North of Site – Rochdale Canal with tow path, remains to present.
10m North of Site – Old Coal Pit marked with two (2 No.) shafts and Sandstone Quarry, building complex shown marked as Cleggswood Works (Grease & Size and Clough Field Works (Oil & Tallow) by 1891, Cleggswood Works marked as an Oil Distillery by circa 1907, complex expanded to the West with additional buildings, tanks and spoil heaps marked by circa 1959, further expansion to the South and West and marked as Works by circa 1976, approximately fifty (50 No.) tanks and five (5 No.) chimneys marked by circa 1987, entire complex no longer shown and site vacant by 2010 to present, assumed demolished.
10m North of Site – Lancashire & Yorkshire Railway line, remains to present.
100m South of Site – Sandstone Quarry shown, marked as Old Quarry by circa 1890, redeveloped to residential gardens by 1976 with breaks of slope still evident up to 2002.
200m North of Site – Stubley Mill (woollen) shown on River Roch with TenterGround and two (2 No.) reservoirs, marked as Stubley Mill (Glue, Grease & Manure), extended and mill race added by circa 1907, Weir marked by circa 1928, marked as Works and circular feature (tank?) shown by circa 1967, mill no longer shown by 1989, redeveloped to residential housing by 2010.
1890 – 1891
20m West of Site – Well shown, marked as Old Air Shaft by circa 1907, no longer shown by circa 1967.
200m North-West of Site – Sewage Works shown with filter bed, marked as Sewage Works (Littleborough U. D. C.) with additional Filter Tanks and building added by circa 1907, three (3 No.) additional tanks shown by circa 1928, three (3 No.) additional tanks added by 1938, marked as Works by circa 1967, no longer shown by 1989, site vacant to present.
1928 – 1930
200m North of Site – Spenwood Works (Rubber) shown with Tanks, Weighing Machine, Weir and Chimney, marked as Spenwood Tannery by circa 1938, additional buildings added by circa 1949, marked as Works by circa 1967, site redeveloped to residential housing by 2002.
1949 – 1954
200m South-West of Site – new residential development at Smithy Bridge shown, expanded up to 500m South of site by circa 1967, expanded up to 0m South-West of site enlarging the Smithy Bridge urban area by 1976.

5. Published Geology

The BGS map shows the geology (1:10,000) beneath the site as the following:

- **Artificial Ground and Landslip – Made Ground** (Undivided) & **Infilled Ground, Landslip** – North corner of site.
- **Drift – Majority of East of Site** – Till, Devensian – **Diamicton**, **West of Site** – **None Recorded** & **Projecting Spur in East of Site** – Head – **Diamicton**.
- **Bedrock – North-East and South-West Corners of Site** – Milnrow Sandstone – **Sandstone**, **Centre of Site** –

Pennine Lower Coal Measures Formation – **Mudstone, Siltstone & Sandstone** & **North-Centre-North Edge of Site** – Darwen Flags – **Sandstone.**

Coal Mining

The depth of coal workings is greater than 50m with superficial deposits anticipated to be <10m in thickness given this it is anticipated that there will be significant rock cover over any potential or recorded workings and therefore the risk from shallow mine workings is Low. There is however the possibility of unrecorded mine entries being present onsite, given the historical mine entries just to the north of site.

6. Hydrogeology and Hydrology

- The superficial deposits of the Till are designated as Secondary (Undifferentiated) aquifer with the head designated as Secondary B aquifer.
- The bedrock deposits of the Milnrow Sandstone and the Pennine Lower Coal Measures are designated as Secondary A aquifers.
- The site does not lie within Groundwater Source Protection as defined by the Environment Agency.
- There are twenty-four (24 No.) licenced water abstractions within 250m of site.
- The nearest watercourse is onsite.

7. Summary of Environmental Data

Possible Contamination Sources;

- **Current Site Use –** Lower Cleggswood Farm – Significant Risk; Possible.
- **Current Site Use –** Agricultural Land – Significant Risk; Possible.
- **Historic Site Use –** Former Dwellings – Significant Risk; Possible.
- **Historic Site Use –** Sandstone Quarry – Significant Risk; Possible.
- **Spoil Heap –** 0m North of Site – Significant Risk; Possible.
- **Car Park –** 0m South of Site – Significant Risk; Possible.
- **Derelict Brownfield Area –** 0m North of Site – Significant Risk; Yes.
- **Former Akzo Nobel Complex –** 0m North of Site – Significant Risk; Yes.
- **Electricity Substation –** 3m North-East of Site – Significant Risk; Low.
- **Old Coal Pit –** 10m North of Site – Significant Risk; Possible.
- **Former Cleggswood Works (Grease & Size) –** 10m North of Site – Significant Risk; Possible.
- **Former Cloughfield Works (Oil & Tallow) –** 10m North of Site – Significant Risk; Possible.
- **Historic Landfills –** 17-200m from Site – Significant Risk; Possible.
- **Former Sandstone Quarries –** 10-100m South of Site – Significant Risk; Possible.
- **Former Stubley Mill –** 200m North-West of Site – Significant Risk; Low.
- **Former Sewage Works –** 200m West of Site – Significant Risk; Low.
- **Former Spenwood Works –** 200m North of Site – Significant Risk; Low.
- **Former Cleggswood Colliery –** 350m North-East of Site – Significant Risk; Possible.

Pathways and Receptors:

- **Aquifers –** Below Site – Significant Risk: Yes.
- **Former Wells –** Onsite – Significant Risk: Possible.
- **Reservoirs –** 0m East and South of Site – Significant Risk; Possible.
- **Infilled Coal Pit Shafts –** 10m North of Site – Significant Risk; Possible.
- **Rochdale Canal –** Adjacent to Site – Significant Risk; Possible

In this qualitative risk assessment, a **Moderate** risk for contamination and ground gas implies that remedial action is likely to be necessary at the site, the likes of which cannot be confirmed until the geotechnical and contamination ground investigation has been completed.

8. Scope of Investigation

The fieldwork was carried out 7th – 10th May 2019 which included four days of trial pitting and two days of window sampling.

- Nine (9 No) window sampling boreholes to a maximum depth of 3.0 m bgl

- Twenty-five (25 No) machine excavated trial holes to a maximum depth of 4.0 m bgl
- Six (6 No) ground gas monitoring visits over a period of at least three months with varying barometric pressures.
- Chemical analysis (Metals, PAH's, TPH's) of forty-six (46 No) samples.
- Analysis of forty-six (46 No) samples for asbestos analysis.
- Seven (7 No) samples for geotechnical analysis.

9. Ground Conditions Encountered

Topsoil was noted at the surface across the site except for material described as made ground (full detail in 9.2.2. The topsoil was generally found to depths of 0.2 – 0.3 m bgl comprising soft dark brown very sandy gravel clay.

Made Ground was noted in three exploratory hole locations WS01, HP01/WS06 and TP07. All of these locations were adjacent to the boundary of the historical chemical works site. The Made Ground was found in the near surface soils down to 2.2 m bgl (WS01). There was peat within the area of the historical quarry within WS05 only at 2.3 – 2.5 m bgl suggesting the material above was reworked natural material.

Soft becoming firm becoming stiff sandy gravelly brown/orange/grey CLAY was encountered in the majority of trial pits between the depths of 0.2 and 3.5m+ (depth not encountered in all areas) underlain by weathered Sandstone Localised bands of sand or sand and gravel circa 1-2m in depth were encountered some areas within the clay glacial material.

The bedrock of sandstone was found very near the surface at TP09, TP10 and WS04 and therefore the trial pitting / window sampling was terminated at refusal. Weathered sandstone was also encountered within TP11, TP17, TP18, TP19 and WS1 from varying depths between 1.2-3m+. Weathered sandstone was recovered as gravel, cobbles and boulders.

10. Contamination Encountered

No elevated levels other than asbestos above residential with homegrown produce guidance (for the appropriate organic matter threshold where necessary) were evident within the Made Ground during the site investigation.

Asbestos was identified in WS01 and TP07 as amosite and chrysotile loose fibres respectively. The corresponding concentrations of asbestos present on site were 0.395 and <0.001% w/w. Both WS01 and TP07 are close to the boundary of the former chemical works site.

There is an exceedance of the lead risk assessment criteria for TP20 at 2.5 m bgl, 528mg/kg over the guidance levels of 200. There was no evidence of any Made Ground present within this trial pit and the concentration of lead in the sample from 0.4 m bgl is significantly lower. This may be an error at the laboratory or cross contamination from another source

There is an exceedance of the arsenic risk assessment criteria for TP20 at 2.5 m bgl, 52mg/kg over the guidance level of 32mg/kg there was no evidence of any Made Ground present within this trial pit and the concentration of arsenic in the sample from 0.4 m bgl is significantly lower. This may be an error at the laboratory or cross contamination from another source

11. Remedial Actions

Soils

Further investigation of asbestos impacted soils in the vicinity of TP07 require further investigation. The soils within these areas will either be delineated and removed or remain in situ along with a clean cover capping layer. Site end users will be protected in gardens by 600mm clean and inert capping in these areas if the material remains on site.

Based on the outline development plans which have been provided to date, it appears that the WS01 area will not be developed but will be in an area of public open space. As the contamination is below ground level and the ground gases are unlikely to travel upgradient without a preferential pathway being created, the risk from WS01 to end users is low.

12. Off-Site Disposal of Surplus Soil

If there is the need to remove soil/made ground off-site it is recommended that the results of the contamination testing (and possibly further testing) will.be assessed by a suitably qualified person.

An indicative waste classification assessment has been carried out on all 46 No. samples. All samples were assessed to be non-hazardous except for WS1 at 2.2 m bgl which was both chemically hazardous and hazardous with respect to asbestos.

13. Specialist Ground Gas Measures

BRE211 (2007) Radon: guidance on protective measures for new buildings shows that the site is in a low probability area, as less than 1% of homes are above the action level. Therefore, no radon protection measures are considered necessary in the construction of new dwellings or extensions.

The scheduled programme of ground gas monitoring is complete. Generally, no significantly elevated concentrations of ground gas have been identified and the majority of the site would be classified as 'Green' – with no specialist ground gas protection required. However, in the northeast area of the site elevated ground gas concentrations have been identified which classify this area of the site as Amber 2 and Red. Further investigation and assessment is therefore recommended before conclusions can be finalised in this area of the site.

14. Foundations

Loose to medium dense sands and soft-firm clays have been encountered at shallow depth across the majority of the site and therefore the adoption of standard shallow strip foundations founded at a minimum of 0.45mbgl can be designed with an allowable bearing pressure of 125kN/m2 within the sands and 75kN/m2 within the clays. Due to the soft-firm medium plasticity clay present, therefore as a precaution a minimum foundation depth of 0.9m bgl should be adopted. Given the recorded ground conditions it would be prudent to undertake further trial pitting to confirm the presence of shrinkable soils at foundation depth when a detailed layout is confirmed. Piled foundations may be required in the area around WS05 where the former quarry was located further SI required to find potential high wall and provide information on the sandstone levels in this locality.

Deepening of foundations in accordance with NHBC Standards will be required where foundations are within the zone of influence of existing or proposed trees and proposed shrub planting and shrinkable soils are encountered at foundation level.

It is recommended that a foundation zoning plan should be undertaken when proposed levels are made available and further plot by plot trial pitting has been undertaken.

15. Highway

According to the criteria of Highways Agency HD 25/95 Volume 7 Section 2 Part 2 HD 25/94, a CBR value of 3-5% on the sands/clay is anticipated, however confirming in-situ CBR's should be undertaken once layouts and levels are known. Placement of geotextiles within the areas of roads / parking could also be designed to minimise the subgrade thickness.

16. Heave / Shrinkage Potential

Low - moderate plasticity is evident across the materials tested. Foundation design for tree heave protection could be designed accordingly following discussion with the NHBC.

17. Ground Floor Construction

Given that shrinkable soils are present at shallow depth across the site suspended floor construction (e.g. either in-situ RC slabs or block and beam flooring) should be adopted in accordance with NHBC guidance.
Due to the Amber 2 and Red Ground Gas risks there will be a requirement to incorporate a ventilated subfloor void and other potential modifications to allow for adequate ground gas protection.

18. Control of Groundwater

Limited groundwater was encountered during the site investigation; however, post fieldwork monitoring has indicated groundwater levels at depths of approximately 0.8 m bgl.

It is likely that provision of pumping/shuttering will be necessary during excavation of foundation trenches during wet weather, close to surface water features and to deeper excavations for sewers etc. It is good practice to have such equipment on standby in case of seasonal / abnormal weather conditions.

Should sewers/excavations deeper than the boreholes/trial pits undertaken be required, further SI will be needed targeted to applicable depths.

19. Concrete Design

It is considered for concrete design purposes that natural ground locations and mobile groundwater conditions are applicable, and the results show a Design Sulphate Class: DS-1, ACEC Class: AC-2, Design Chemical Class: DC-2.

2 SITE DESCRIPTION

2.1 Introduction

This investigation was carried out on the instruction of Bloor Homes. The purpose of the work was to carry out a Desk Study to provide preliminary geotechnical and contamination risk assessment information to support a planning application for a proposed residential development.

The original site boundary (solid red) revised to a smaller area (dashed red) and the report has been written in line with the revised site boundary. The original and revised site boundaries can be seen below;

2.2 Site Location

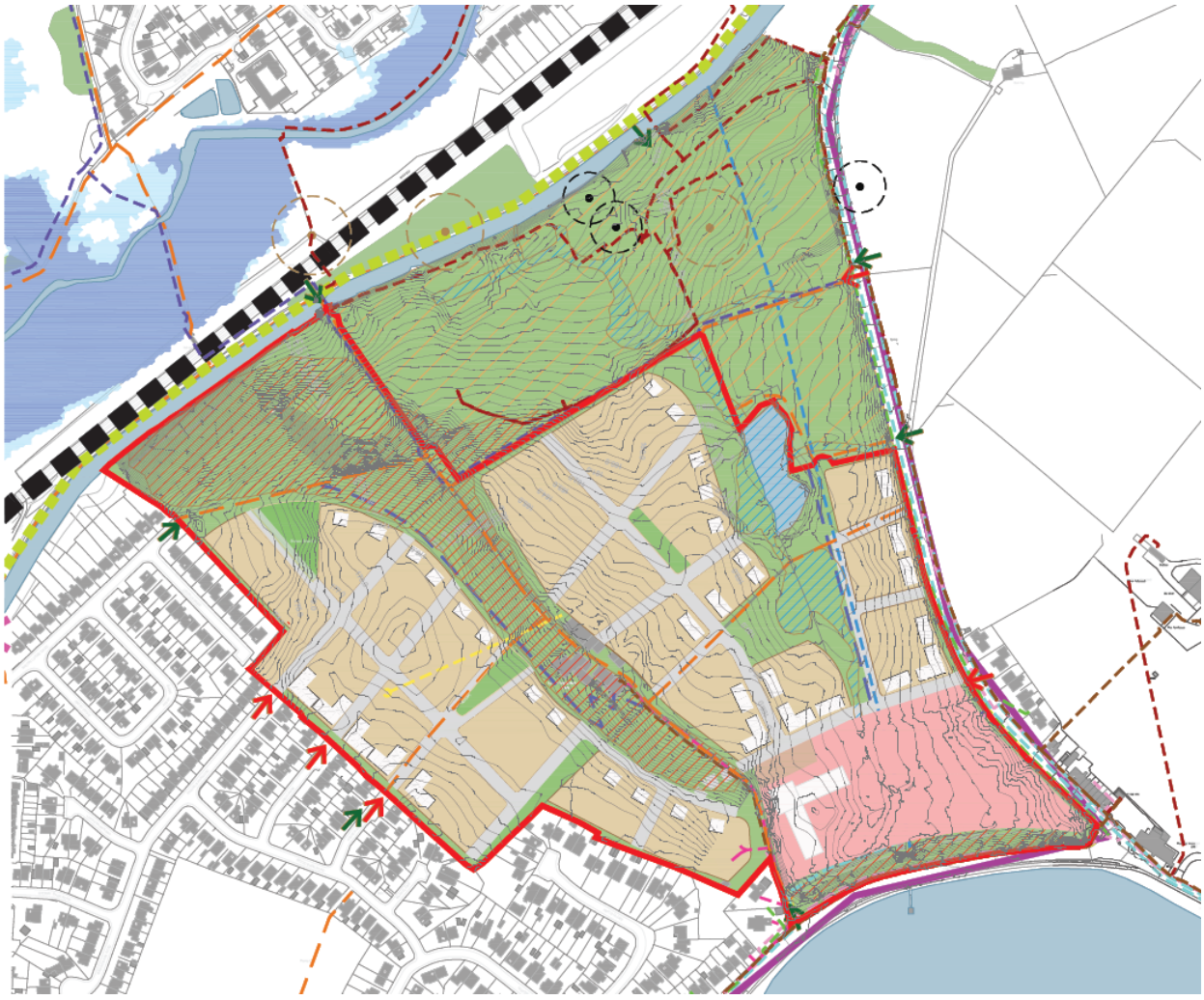
The site is located at Hollingworth Road, Littleborough, OL15 8SA. The coordinates on the British National Grid CRS are 393416, 415496. The proposed site is approximately 16.5 hectares in total. See Site Location Plan in Appendix A.

2.3 Site Description

2.3.1 On Site

The site is irregular in shape and covers an area of approximately 40.6 acres (16.5Ha) in plan area and principally comprises agricultural grazing land.

The site topography is complex, however in simplified terms the site comprises a valley feature running north- south, with the western area sitting at an elevation of approximately 175m AOD, the central area approximately 161m AOD, with the eastern area sitting at a maximum elevation of 168m AOD.



The site comprises of farmland which has a public footpath running through it as well as the farm buildings in the middle of the site. The drawing shows the topography of the land and the proposed development areas. The full drawing along with the key can be found in Appendix A.

2.3.2 Surrounding Area

Surrounding land uses for the site are as follows:

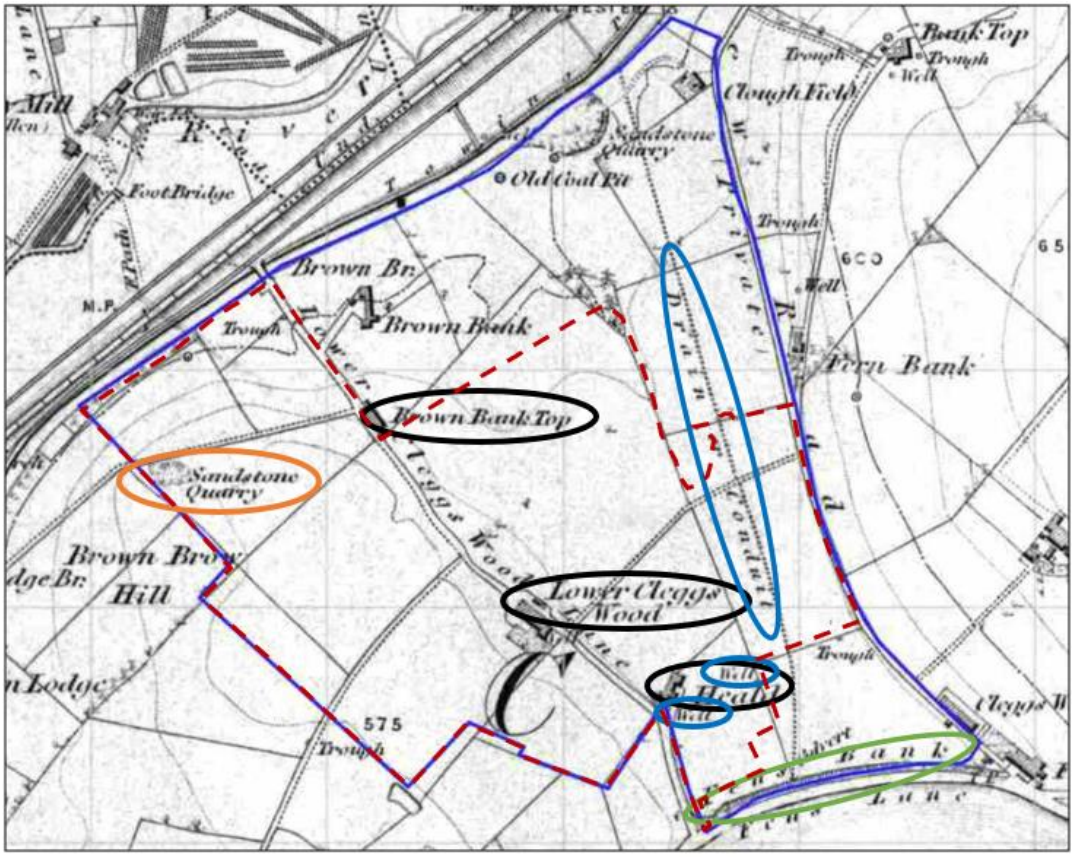
- **North** – 0m – 100m N is the former works/refinery, Rochdale canal and railway line, 100m – 500m N is residential and commercial mixed land use.
- **East** – 0m – 500m E Hollingworth Road with agricultural fields beyond.
- **South** – 0m – 500m S Car Park and Hollingworth Lake.
- **West** – 0m – 500m W is residential housing of the Smithy Bridge urban area alongside agricultural fields.

3 ENVIRONMENTAL SETTING AND DATA

3.1 Summary of Site History

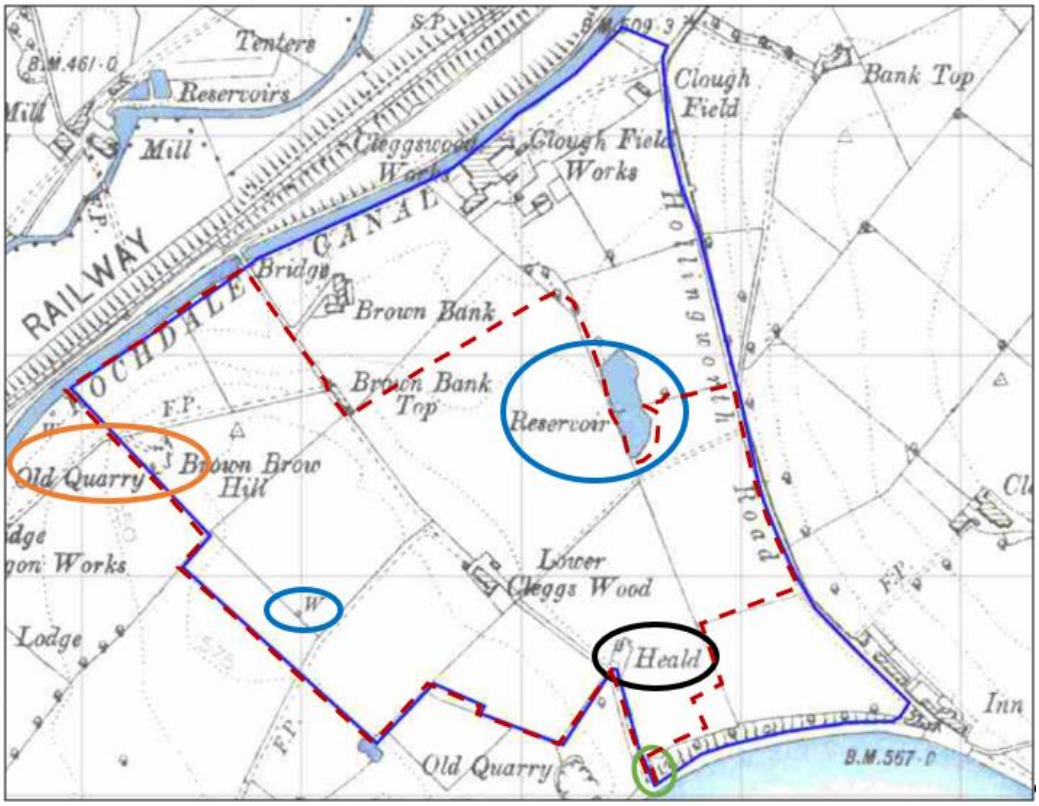
The earliest available map of site is the 1851 1:10,560 map which shows the site comprising fields with Lower Cleggs Wood Lane dissecting site roughly orientated North-West to South-East. Three (3 No.) dwellings/farms are shown along the lane labelled as Brown Bank Top, Lower Cleggs Wood and Heald (with two (2 No.) wells). The South boundary of site is labelled Fens Bank this is assumed to be part of the dam retaining the Hollingworth Reservoir. A 'Drain' or 'Conduit' is shown running across the east of site in roughly a North-South orientation connecting the Hollingworth Reservoir via a culvert to the Rochdale Canal. A Sandstone Quarry is present in the West of site. An extract of this map is shown below;

1851 1:10,560 Map



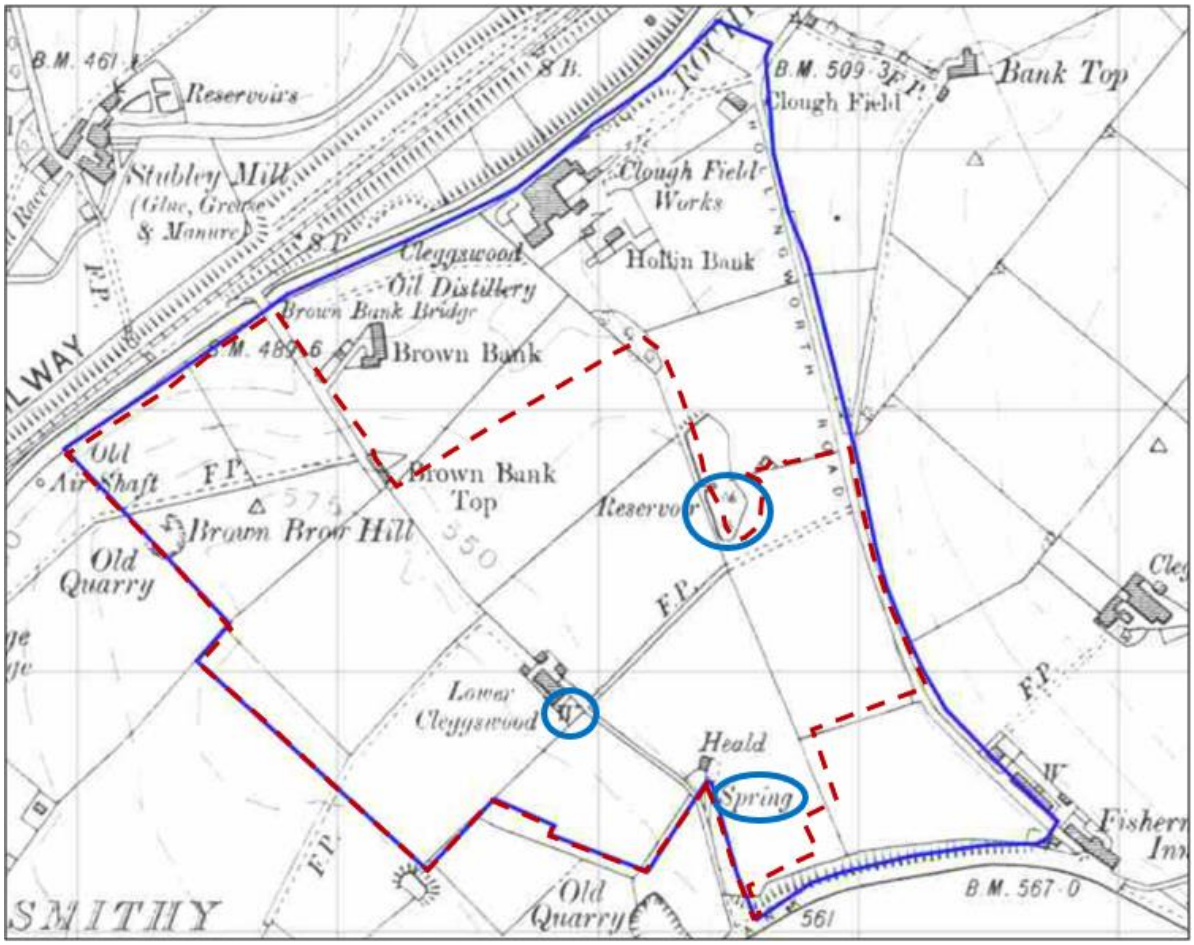
No further major changes occur onsite until the 1890 1:10,560 map when a reservoir is shown in the Central-East of site and the conduit is no longer marked. The Quarry in the West of site is labelled as Old Quarry and a well is shown in the South-West of site. The dwelling labelled Heald has reduced in size with the nearby wells no longer shown. Breaks of slope are evident in the south-east corner of site where the dam retaining the Hollingworth Reservoir is present. An extract of this map is shown below;

1890 1:10,560 Map



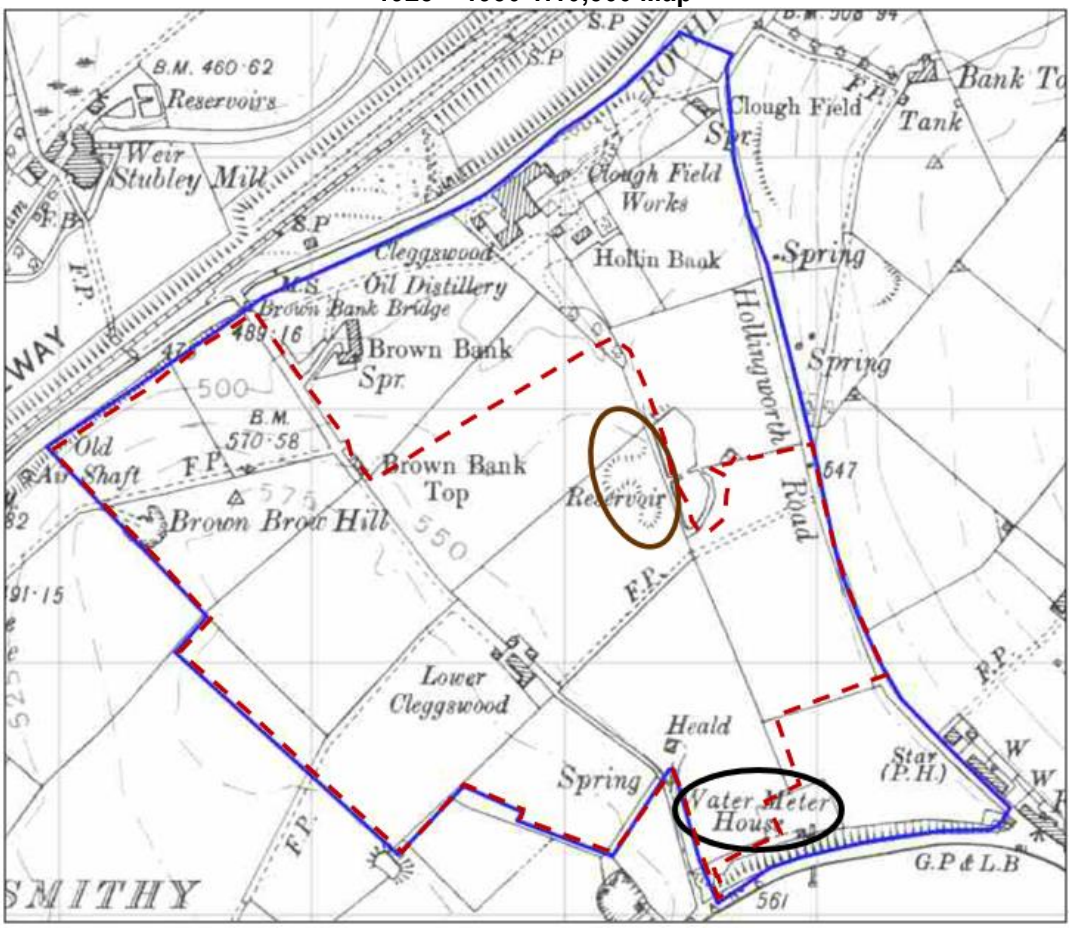
No further major changes occur onsite until the 1907 – 1909 1:10,560 map when the southern portion of the reservoir onsite appears to have silted up evidenced from vegetation. A well is marked at Lower Cleggswood and a spring is shown to the South of Heald. An extract of this map is shown below;

1907 – 1909 1:10,560 Map



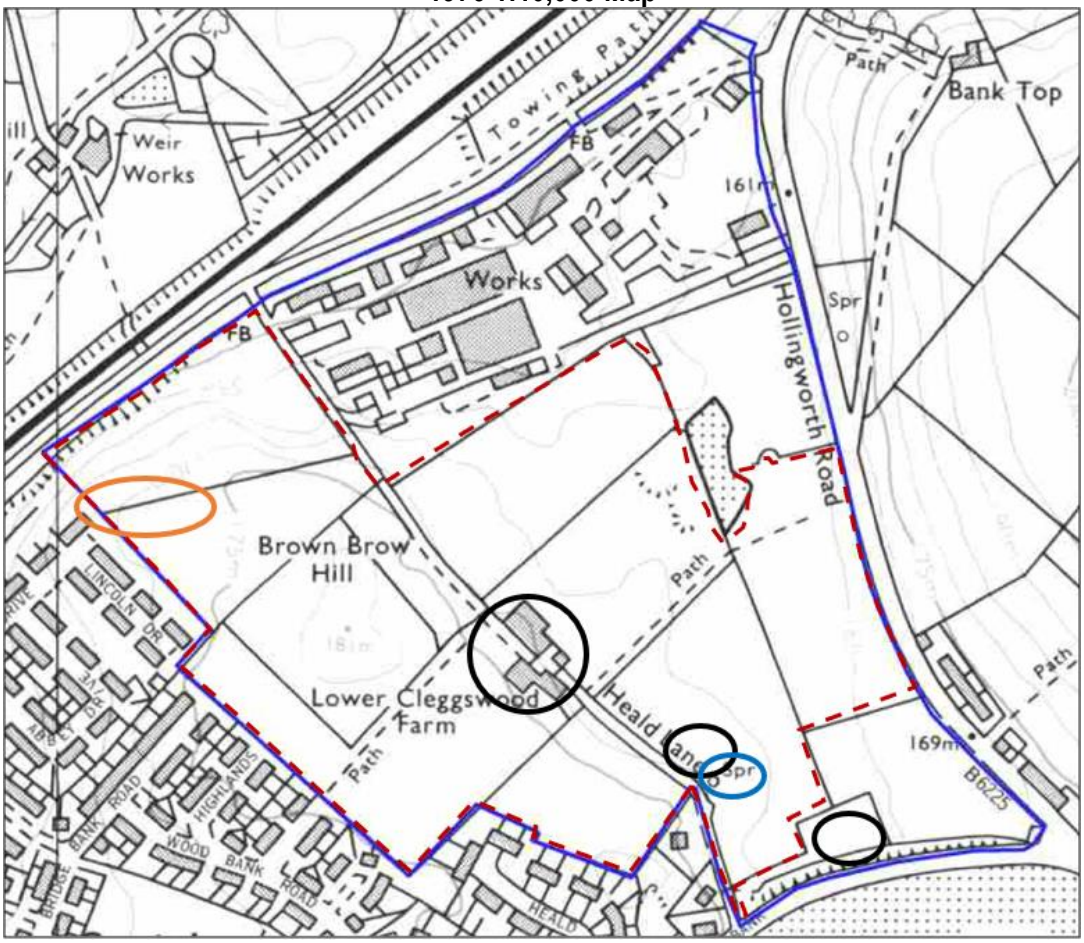
No further major changes occur onsite until the 1928 – 1930 1:10,560 map when a new dwelling located just beyond the South boundary of site labelled Water Metre House is shown possibly related to the culvert and conduit shown from the earliest mapping. Earthworks immediately to the West of the existing onsite reservoir evident from breaks of slope possibly indicating an enlargement of the reservoir. An extract of this map is shown below;

1928 – 1930 1:10,560 Map



No further major changes occur onsite until the 1976 1:10,000 map when the old sandstone quarry in the west of site is no longer shown and is assumed to have been infilled. The dwellings Heald and Water Meter House in the South of site are no longer shown. A spring is shown at the location of former dwelling Heald with expansion of the buildings at Lower Cleggswood Farm. The previously Lower Cleggs Wood Lane is now labelled as Heald lane. An extract of this map is shown below;

1976 1:10,000 Map



No further major changes occur onsite up to present.

3.2 Surrounding Area

The following table below summarises the significant changes in historical uses surrounding the site:

Date First Shown	Land Uses
1851	Site surrounded with predominantly farmland with scattered industry and the Littleborough urban area to the North-East. **0m South of Site** – Hollingworth Reservoir (Supply of the Rochdale Canal) shown, remains to present. **0m North of Site** – Rochdale Canal with tow path, remains to present. **10m North of Site** – Old Coal Pit marked with two (2 No.) shafts and Sandstone Quarry, building complex shown marked as Cleggswood Works (Grease & Size and Clough Field Works (Oil & Tallow) by 1891, Cleggswood Works marked as an Oil Distillery by circa 1907, complex expanded to the West with additional buildings, tanks and spoil heaps marked by circa 1959, further expansion to the South and West and marked as Works by circa 1976, approximately fifty (50 No.) tanks and five (5 No.) chimneys marked by circa 1987, entire complex no longer shown and site vacant by 2010 to present, assumed demolished. **10m North of Site** – Lancashire & Yorkshire Railway line, remains to present. **100m South of Site** – Sandstone Quarry shown, marked as Old Quarry by circa 1890, redeveloped to residential gardens by 1976 with breaks of slope still evident up to 2002. **200m North of Site** – Stubley Mill (woollen) shown on River Roch with TenterGround and two (2 No.) reservoirs, marked as Stubley Mill (Glue, Grease & Manure), extended and mill race added by circa 1907, Weir marked by circa 1928, marked as Works and circular feature (tank?) shown by circa 1967, mill no longer shown by 1989, redeveloped to residential housing by 2010. **350m East of Site** – Coal Pit shown, marked as Shaft by circa 1891, additional shaft marked immediately to the East and both marked as Old Shafts (Coal) by circa 1907, both shafts individually marked as Shaft (Disused) by circa 1967, both shafts no longer shown by circa 1989. **350m North-East of Site** – Cleggs Wood Colliery shown with building grouping, coal pit, coke ovens, ventilator and access track, all infrastructure except for the ventilator which is marked as Air Shaft no longer shown by circa 1890, two (2 No.) Level (Clay) shown with track connection to canal by circa 1907, levels no longer shown with one marked as Old Air Shaft with a Tank by circa 1928, only the former ventilator is shown and marked as Old Shaft by circa 1967, no longer shown by 2010. **400m North of Site** – Littleborough New Mill (Woollen) shown with Tenter Ground and reservoir, marked as Mill and Tenter Ground no longer shown and two (2 No.) reservoirs added by circa 1890, mill site redeveloped with new larger mill covering a former reservoir marked Tyne Mill (Cotton) by circa 1907, marked as Python Mill with Reservoir, Tank and Well added by circa 1928, expansion into new building shown by circa 1949, marked as Warehouse and Works and reservoirs infilled by circa 1967, original Python Mill building no longer shown by 1976, site redeveloped to three (3 No.) buildings marked as Works, remains to present. **450m South-West of Site** – Smithy marked, no longer marked by circa 1890, building remains to present. **500m West of Site** – Lower Mill (Woollen) shown with weir and gasometer, marked as Calliards Mill (Woollen) and gasometer no longer shown by circa 1907, tanks and reservoirs added by circa 1928, buildings no longer shown by 1989, site vacant to present.
1890 – 1891	**20m West of Site** – Well shown, marked as Old Air Shaft by circa 1907, no longer shown by circa 1967. **200m North-West of Site** – Sewage Works shown with filter bed, marked as Sewage Works (Littleborough U. D. C.) with additional Filter Tanks and building added by circa 1907, three (3 No.) additional tanks shown by circa 1928, three (3 No.) additional tanks added by 1938, marked as Works by circa 1967, no longer shown by 1989, site vacant to present. **300m West of Site** – Paragon Works (Steel) shown, marked as Paragon Chemical Works with two (2 No.) chimneys and spoil heap by circa 1910, marked as Works by circa 1955, marked as Industrial Estate by 2010, building remains to present. **400m North of Site** – Mill shown with reservoir, marked as Albion Mill (Cotton) by circa 1907, marked as Mill by circa 1967, site redeveloped to residential housing by 2002, reservoir remains to present.

1928 – 1930	**200m North of Site** – Spenwood Works (Rubber) shown with Tanks, Weighing Machine, Weir and Chimney, marked as Spenwood Tannery by circa 1938, additional buildings added by circa 1949, marked as Works by circa 1967, site redeveloped to residential housing by 2002. **200-300m East of Site** – three (3 No.) Tanks shown, all no longer shown by circa 1967. **400m South of Site** – depression evident from breaks of slope, developed to residential housing by circa 1967. **500m South-West of Site** – Broadfield Picker Works shown, building no longer shown by 2014.
1949 – 1954	**200m South-West of Site** – new residential development at Smithy Bridge shown, expanded up to 500m South of site by circa 1967, expanded up to 0m South-West of site enlarging the Smithy Bridge urban area by 1976.
1967 – 1968	**300m East of Site** – spoil heap shown with breaks of slope and access track, Car Park and two (2 No.) buildings shown with breaks of slope no longer evident by 1989, car park shown vegetated with tracks and Southerly building marked as a Visitor Centre by 2010, remain to present.
1989	**0m South of Site** – Car park shown, remains to present.
2010	**200m North of Site** – new residential development shown.

4 GEOLOGY

The following section details the published and available geological data available for the site and the surrounding area. For full details, please refer to the GroundSure report.

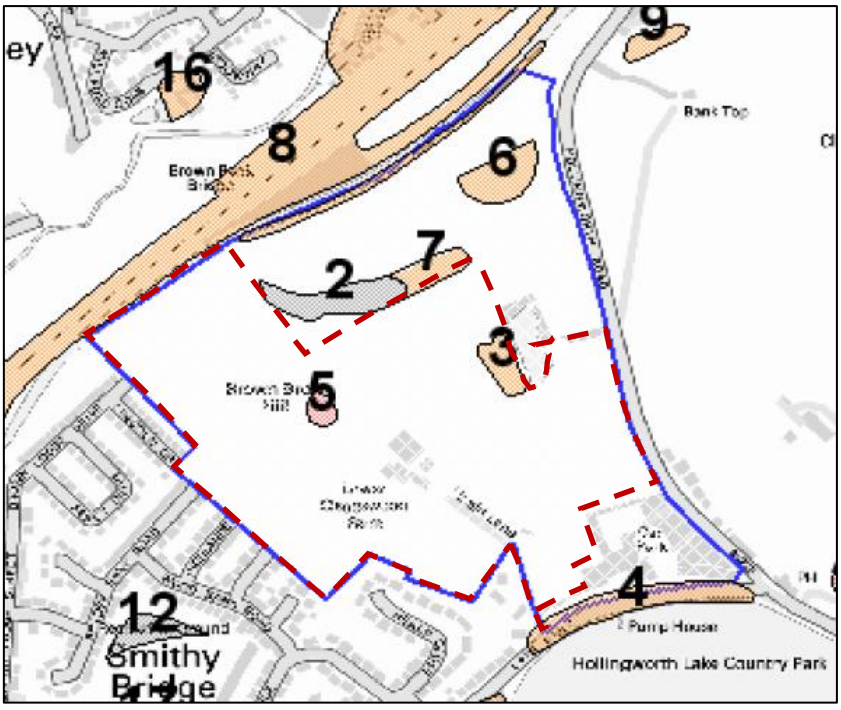
4.1 Published Geology

The documented geology of the site is summarised on the British Geological Survey map principally, with further site-specific details detailed below.

Geology	Artificial Ground and Land Slip	Drift	Solid
1:10,000	**Made Ground** (Undivided) & **Infilled Ground, Landslip** – North corner of site	**Majority of East of Site** – Till, Devensian – **Diamicton**, **West of Site** – **None Recorded** & **Projecting Spur in East of Site** – Head – **Diamicton**.	**North-East and South-West Corners of Site** – Milnrow Sandstone – **Sandstone**, **Centre of Site** – Pennine Lower Coal Measures Formation – **Mudstone, Siltstone & Sandstone** & **North-Centre-North Edge of Site** – Darwen Flags – **Sandstone.**

Artificial Ground & Land Slip

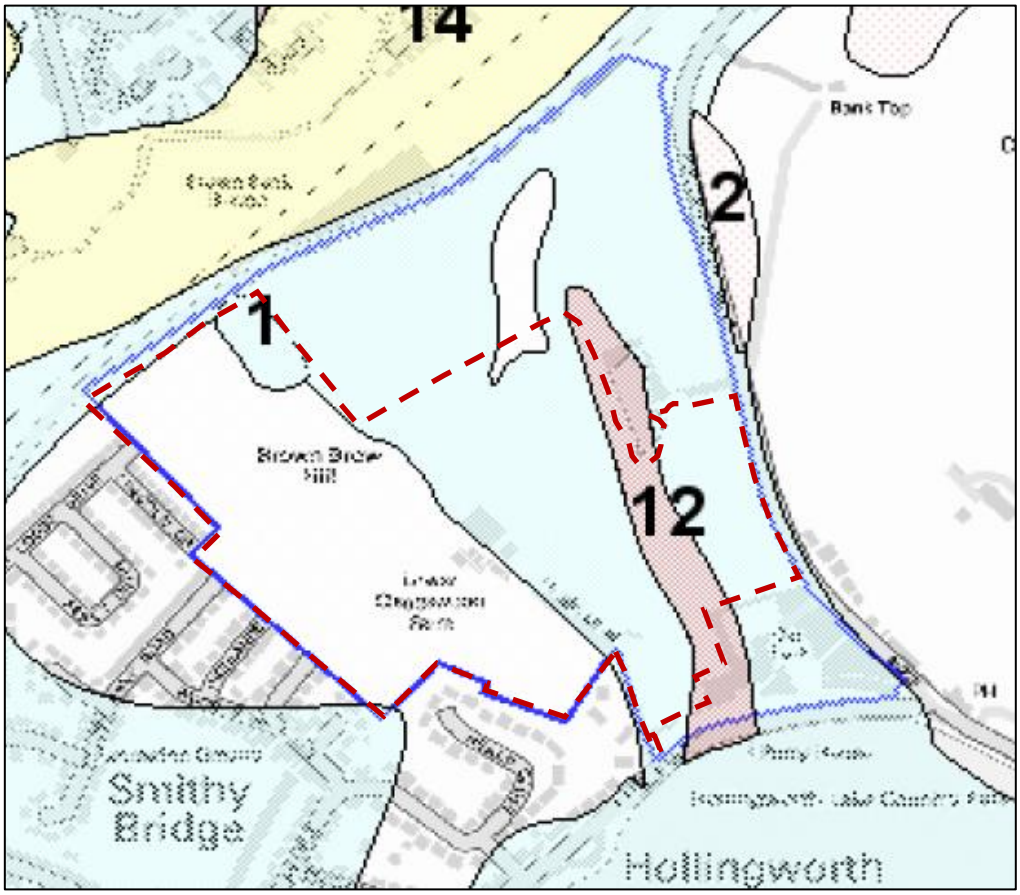
ID	Distance	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	0.0	On Site	WGR-VOID	Worked Ground (Undivided)	Void
3	0.0	On Site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	0.0	On Site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
5	0.0	On Site	WMGR-ARTDP	Infilled Ground	Artificial Deposit
6	0.0	On Site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	0.0	On Site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit



Isolated areas of infilled ground (ID 5) and made ground (ID 3 & 4) remain within the site boundary.

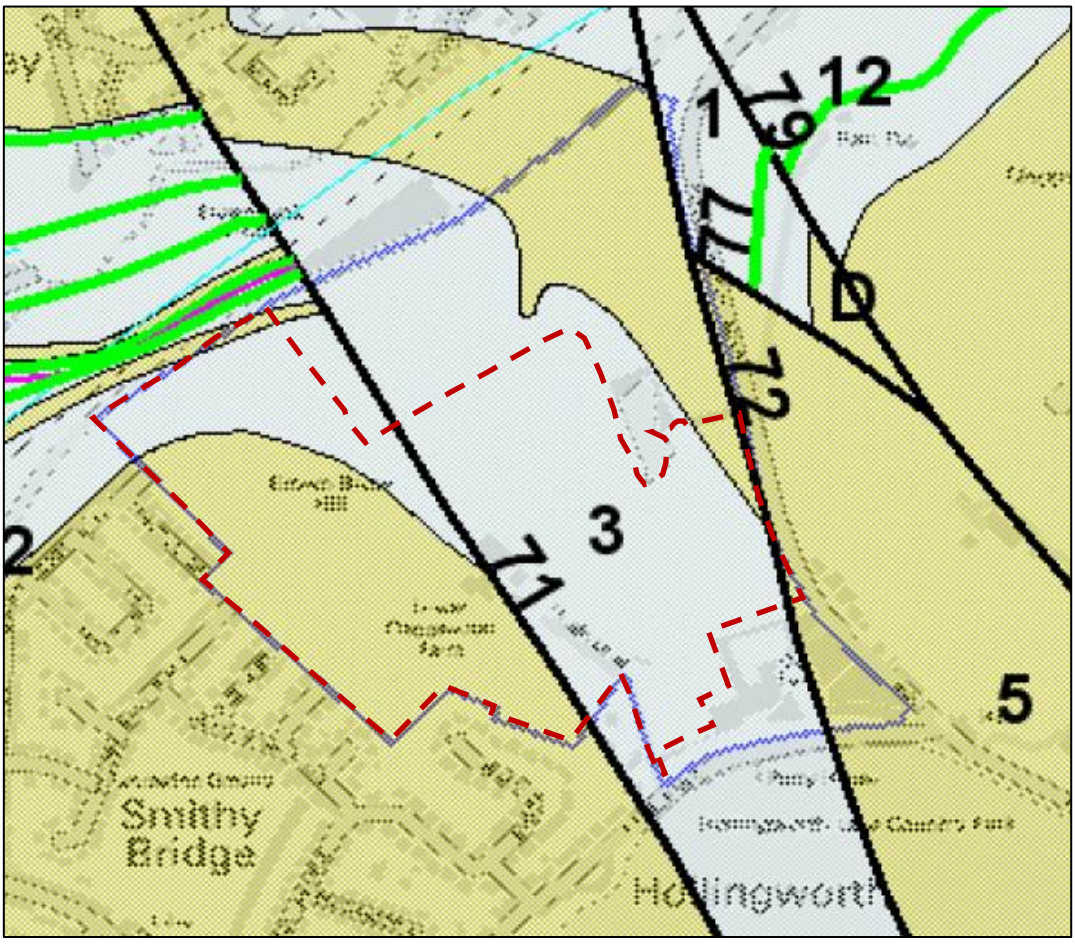
Superficial Geology

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
12	0.0	On Site	HEAD-DMTN	Head - Diamicton	Diamicton
13	0.0	On Site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
1	0.0	On Site	SLIP-UKNOWN	Landslide Deposits	Unknown/unclassified Entry



Bedrock Geology

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
2	0.0	On Site	MLRS-SDST	Milnrow Sandstone - Sandstone	Langsettian Sub-age
3	0.0	On Site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
4	0.0	On Site	DF-SDST	Darwen Flags - Sandstone	Langsettian Sub-age
5	0.0	On Site	MLRS-SDST	Milnrow Sandstone - Sandstone	Langsettian Sub-age
6	0.0	On Site	MLRS-SDST	Milnrow Sandstone - Sandstone	Langsettian Sub-age
7A	0.0	On Site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
8	0.0	On Site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age



4.2 Linear Features

There are four (4 No.) linear features comprising faults running across the centre-west and East boundary of site in a roughly North-West to South-East orientation, with a further twenty-six (26 No.) linear features

comprising Coal Seams, Faults, Landforms and Fossil Horizons up to 500m from site.

4.3 Coal Mining

The site does lie within the coal mining reporting area and so a full consultants coal mining report was requested from The Coal Authority. Detailed extract of main findings below;

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	UPPER MOUNTAIN	Coal	3X66	65	Beneath Property	8.1	South	30	1867
unnamed	LOWER MOUNTAIN	Coal	3XAD	85	North	7.1	South-West	100	1910
unnamed	LOWER MOUNTAIN	Coal	3XAN	94	Beneath Property	8.1	South	60	1886
unnamed	UPPER MOUNTAIN	Coal	3X64	101	West	8.1	South	30	1867
unnamed	LOWER MOUNTAIN	Coal	3XAP	106	Beneath Property	7.1	South-West	60	1900

Probable unrecorded shallow workings

Yes.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	392415-006	392977 415548	Records indicate that this shaft has been covered with a concrete pad at some time in the past but the details are not known.	Coal	
Shaft	393415-008	393361 415765	This shaft was found to be 4.3m by 2.7m brick lined and filled with 'Fat ty waste material'. The shaft was excavated to a depth of 5.2m through 2 m of bedrock. A reinforced concrete cap 12m square at the base increasin g to 12.5m and 1.2m thick formed over shaft. Excavation backfilled and c ompressed. Overflow pipe sited directly beneath cap, draining to existin g culvert.	Coal	
Shaft	393415-009	393380 415743	This shaft was found to be brick lined and filled with a "fatty waste material". It was excavated to a depth of 7.8m removing 2.6m of bedrock where a reinforced concrete cap was formed. The cap measures 8.5m sq at the base increasing to 10m sq at the top by 1.2m thick. The excavation was backfilled to the surface with compressed fill. An inspection pipe was installed passing through the cap and incorporating an inspection plate at the surface. Branching from this is a ventilation pipe fitted with a flame arrestor	Coal	
Adit	393415-010	393570 415773		Coal	

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

1882	16820	NW1225
PO0	6309	NW1224

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

Please refer to the 'Summary of findings' map (on separate sheet) for details of any geological faults, fissures or breaklines either within or intersecting the enquiry boundary.

Faults under or close to the property recorded.

The two capped former coal shafts fall outside the site boundary, however the risk from probable unrecorded shallow workings extending beneath site remains. The depth of coal workings is greater than 50m with superficial deposits anticipated to be <10m in thickness given this it is anticipated that there will be significant rock cover over any potential or recorded workings and therefore the risk from shallow mine workings is Low. There is however the possibility of unrecorded mine entries being present onsite, given the historical mine entries just to the north of site.

4.3.1 Radon

The site lies within a low risk area of radon less than 1% of homes are estimated to be above the action level, therefore **no radon protection measures are required for new dwellings or extensions**.

4.4 Hydrogeological and Hydrological Features

The table below summarises the presence/absence of any hydrological licences and incidents within 500m of the proposed site. If entries are present within 250m, further details are provided in the relevant

subsection below;

Data Type	On Site	0 – 250m	250 – 500m
Hydrogeology & Hydrology			
Licenced Discharge Consents	-	3	6
Red List Discharge Consents	-	-	-
Ground Water Abstraction Licences	-	-	1
Surface Water Abstraction Licences	-	24	-
Potable Water Abstraction Licences	-	-	-
Source Protection Zones	-	-	-
Ground Water Vulnerability & Soil Leaching Potential	3	-	-
Surface Water Features	Yes	Yes	Not Searched

4.4.1 Licenced Discharge Consents

There are three (3 No.) licenced discharge consents within 250m of site and comprise a discharge of final/treated effluent at Cleggswood Farm via a soakaway and two (2 No.) sewer stormwater overflows to the River Roch. Detailed extract below;

ID	Distance (m)	Direction	NGR	Details	
17	186	NE	393880 415420	Address: CLEGGSWOOD FARM, HOLLINGWORTH LAKE, LITTLEBOROUGH, ROCHDALE Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 016993939 Permit Version: 1	Receiving Water: LAND VIA SOAKAWAY Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 23/08/2007 Effective Date: 23-Aug-2007 Revocation Date: 15/09/2009
18D	201	W	392790 415590	Address: LITTLEBOROUGH SW L5, ROCHDALE, GREATER MANCHESTER Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0122 Permit Version: 1	Receiving Water: - Status: REVOKED - UNSPECIFIED Issue date: Effective Date: 01-Apr-1991 Revocation Date: 31/12/1994
19D	201	W	392790 415590	Address: SMITH BRIDGE ROAD CSO 35051, ACROSS FROM YEA BRIDGE, SMITHY ROAD, LITTLEBOROUGH, GREATER MANCHESTER, OL15 8QF Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0122 Permit Version: 2	Receiving Water: RIVER ROCH Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: Effective Date: 01-Jan-1995 Revocation Date:

4.4.2 Ground Water Vulnerability & Soil Leaching Potential

There are three (3 No.) entries for groundwater vulnerability and soil leaching potential for onsite and are classified as Minor Aquifer with one (1 No.) entry of Low Leaching Potential and two (2 No.) of High Leaching Potential. Detailed extract below;

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.
0	On Site	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
0	On Site	Minor Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.

4.4.3 Surface Water Features

There are three (3 No.) entries for surface water features onsite with a further nine (9 No.) within 250m of site. Extract below;

Distance (m)	Direction
0	On Site
0	On Site
0	On Site
15	S
111	NW
116	NW
156	NW
167	NW
170	SW
174	NW
242	N
246	N

The reservoir falls outside the site boundary lowering the number of onsite surface water features from three to two.

4.4.4 Hydrogeology

- The superficial deposits of the Till are designated as Secondary (Undifferentiated) aquifer with the head designated as Secondary B aquifer.
- The bedrock deposits of the Milnrow Sandstone and the Pennine Lower Coal Measures are designated as Secondary A aquifers.
- The site does not lie within Groundwater Source Protection as defined by the Environment Agency.
- There are twenty-four (24 No.) licenced water abstractions within 250m of site.
- The nearest watercourse is onsite.

5 ENVIRONMENTAL DATA

The following section details environmental data available for the site and the surrounding area.

The table below summarises the presence/absence of any waste, hazardous substance sites of industrial land uses within 500m of the proposed site. If entries are present within 250m, further details are provided in the relevant section below.

Data Type	On Site	0 – 250m	250 – 500m
Environmental Permits, Incidents & Registers			
Historic Integrated Pollution Control Authorisations	-	9	-
Integrated Pollution Prevention and Control Authorised Activities	-	-	-
Part A (2) & Part B Activities and Enforcements	-	1	3
Category 3 or 4 Radioactive Substances Authorisations	-	-	-
Water Industry Referrals	-	-	4
Hazardous Substance Consents & Enforcements	-	3	-
EA/NRW Recorded Pollution Incidents	-	4	9
Landfill & Other Waste Sites			
EA/NRW Registered Landfill Sites	-	-	-
EA/NRW Historic Landfill Sites	-	3	1
BGS/DoE Landfill Site Survey	-	2	1
Landfills in Local Authority & Historical Mapping Records	-	-	-
Operational & Non-operational Waste Treatment, Transfer & Disposal Sites	-	-	-
EA/NRW Licenced Waste Sites	-	-	-
Hazardous Sites			
COMAH and NIHHS Sites	-	1	-
Historical Industrial Sites			
Potentially Contaminative Uses	3	153	161
Historical Tank Database	-	72	27
Historical Energy Features Database	-	4	17
Historical Petrol & Fuel Site Database	-	-	-
Historical Garage & Motor Vehicle Repair Database	-	-	16
Historical Military Sites	-	-	-
Potentially Infilled Land	7	112	101
Current Land Use			
Current Industrial Sites Data	-	27	Not Searched
Petrol & Fuel Sites	-	-	1

National Grid Underground Electricity Cables	-	-	-
National Grid Gas Transmission Pipelines	-	-	-
Designated Environmentally Sensitive Sites			
Sites of Special Scientific Interest (SSSI)	1	-	1
National Nature Reserves (NNR)	-	-	-
Special Areas of Conservation (SAC)	1	-	1
Special Protection Areas (SPA)	-	-	-
Areas of Outstanding Natural Beauty (AONB)	-	-	-
National Parks	-	-	-
Green Belt Land	1	-	-

5.1 Environmental Permits, Incidents & Registers

5.1.1 Historic Integrated Pollution Control Authorisations

There are nine (9 No.) entries for historic integrated pollution control authorisations within 250m of site and all relate to the former Akzo Nobel Chemicals Ltd works complex located adjacent to site, processes included Chemical and Combustion Processes, Manufacture and Use of Organic chemicals and Inorganic Chemical Processes.

5.1.2 Part A (2) & Part B Activities and Enforcements

There is one (1 No.) entry for Part A (2) & Part B Activities and Enforcements within 250m of site and relates to the former Akzo Nobel Chemicals Ltd works complex onsite for Chemical & Acid Processes.

5.1.3 Hazardous Substance Consents & Enforcements

There are three (3 No.) entries for Hazardous Substance Consents & Enforcements within 250m of site and all related to the former Akzo Nobel Chemicals Ltd works complex onsite.

5.1.4 EA/NRW Recorded Pollution Incidents

There are four (4 No.) entries for EA/NRW Recorded Pollution Incidents within 250m of site and comprise category 3 (Minor) and category 4 (No Impact) incidents involving Organic Chemicals, Diesel, Crude Sewage and Construction/Demolition Materials/Wates. Detailed extract below;

ID	Distance (m)	Direction	NGR	Details	
1	20	SW	393150 415327	Incident Date: 20-Sep-2001 Incident Identification: 31831 Pollutant: Organic Chemicals/Products Pollutant Description: Other Organic Chemical or Product	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
2	128	N	393467 416024	Incident Date: 21-Jun-2001 Incident Identification: 10682 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
3	156	NW	393307 415948	Incident Date: 02-May-2001 Incident Identification: 4163 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	222	NW	393020 415860	Incident Date: 10-May-2002 Incident Identification: 82291 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

5.2 Landfill & Other Waste Sites

5.2.1 EA/NRW Historic Landfill Sites

There are three (3 No.) entries for EA/NRW Historic Landfill Sites within 250m of site and comprise sites at Clough Fields Works, Paragon Industrial Works and Rakewood Road. Detailed extract below;

ID	Distance (m)	Direction	NGR	Details	
6	17	NW		Site Address: Clough Field Works, Canal Side, Littleborough, Lancashire Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Armourthess Chemicals Limited Licence Holder: - First Recorded: 31-Dec-1835 Last Recorded: -
7	105	SW		Site Address: Paragon Industrial Works, Off Brown Lodge Drive, Smithy Bridge, Littleborough, Greater Manchester Waste Licence: Yes Site Reference: RD/LIC/321/83, D052 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 03-Apr-1984 Licence Surrendered: 04-Nov-1985 Licence Holder Address: - Operator: Salpha Kay Limited Licence Holder: MPB Auto Painters First Recorded: 01-May-1984 Last Recorded: 31-Dec-1984
8	172	SE		Site Address: Rakewood Road, Littleborough, Greater Manchester, Greater Manchester Waste Licence: - Site Reference: D058 Waste Type: Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Littleborough Urban District Council Licence Holder: - First Recorded: 31-Dec-1932 Last Recorded: -

5.2.2 BGS/DoE Landfill Site Survey

There are two (2 No.) entries for BGS/DoE Landfill Site Survey within 250m of site at Clough Field Works and Smithy Bridge. Detailed extract below;

ID	Distance (m)	Direction	NGR	Details	
1	64	NW	393400.0 415900.0	Address: Clough Field Works, Canal Side, L'borough, Lancs BGS Number: 504.0	Risk: No risk to aquifer Waste Type: N/A
2	202	W	392800.0 415500.0	Address: Para Wales, Smithy Bridge, Littleborough, Lancs BGS Number: 500.0	Risk: No risk to aquifer Waste Type: N/A

5.3 Hazardous Sites

5.3.1 COMAH and NIHHS Sites

There is one (1 No.) entry for COMAH and NIHHS sites within 250m of site and relates to the former Akzo Nobel Chemicals Ltd works complex onsite.

5.4 Historical Industrial Sites

5.4.1 Potentially Contaminative Uses

There are three (3 No.) entries for Potentially Contaminative Uses onsite with a further one hundred and fifty-three (153 No.) within 250m of site. The entries for onsite relate to the ground workings adjacent to the reservoir in the north-east of site and the former sandstone quarry in the north-west of site. The entries in the surrounding area relate to a plethora of industry types in the local area identified throughout the chronologies of the available historical mapping. Extracts below of onsite entries below;

ID	Distance [m]	Direction	Use	Date
6H	0	On Site	Unspecified Pit	1968
8C	0	On Site	Unspecified Tanks	1989
9C	0	On Site	Unspecified Tank	1989

5.4.2 Historical Tank Database

There are seventy-two (72 No.) entries from the Historical Tank Database within 250m of site and all relate to the former Akzo Nobel complex to the north of site.

5.4.3 Historical Energy Features Database

There are four (4 No.) entries for Historical Energy Features within 250m of site and all comprise Electricity Substations. Detailed extract below;

ID	Distance (m)	Direction	Use	Date
417	26	NE	Electricity Substation	1992
418	52	SW	Electricity Substation	1975
419	167	S	Electricity Substation	1975
420Z	187	N	Electricity Substation	1988

5.4.4 Potentially Infilled Land

There are seven (7 No.) entries for Potentially Infilled Land onsite with a further one hundred and twelve (112 No.) within 250m of site. The entries for onsite relate to the ground workings adjacent to the reservoir in the north-east of site and the former sandstone quarry in the north-west of site. The entries for the surrounding area relate to a plethora of industry types in the local area identified throughout the chronologies of the available historical mapping. Extracts of the onsite entries are shown below;

ID	Distance(m)	Direction	Use	Date
456H	0	On Site	Unspecified Pit	1968
464CC	0	On Site	Reservoir	1938
465CC	0	On Site	Pond	1976
466CC	0	On Site	Pond	1968
467CC	0	On Site	Pond	1989
468CC	0	On Site	Reservoir	1949
469H	0	On Site	Canal	1890

5.5 Current Land Use

5.5.1 Current Industrial Sites Data

There are thirteen (27 No.) entries for Current Industrial Sites within 250m of site. Entries relate to Tanks (Generic), electrical features and a pipeline from a range of current industrial land uses.

5.6 Designated Environmentally Sensitive Sites

5.6.1 Sites of Special Scientific Interest (SSSI)

There is one (1 No.) entry for Sites of Special Scientific Interest which relates to the Rochdale Canal in the North of site. Extract below;

ID	Distance (m)	Direction	SSSI Name	Data Source
5B	0	On Site	Rochdale Canal	Natural England

5.6.2 Special Areas of Conservation (SAC)

There is one (1 No.) entry for Special Areas of Conservation which also relates to the Rochdale Canal in the North of site. Extract below;

ID	Distance (m)	Direction	SAC Name	Data Source
1B	0	On Site	Rochdale Canal	Natural England

6 SUMMARY OF ENVIRONMENTAL SENSITIVITY

The following section is a review of the environmentally sensitivity of the site as discussed in Sections 2 - 5. Significant potential risks are discussed in the following subsections and will then be evaluated as part of the Site Conceptual Model in Section 7.

Sources are defined as where pollution comes from, pathways are a route in which the pollution travels and receptors are anything affected by a pollutant. Further details on Source-Pathway-Receptor methodology can be found in Appendix B.

The table in section 6.1 focuses on significant site-specific sources, pathways and receptors. More 'generic' pathways and receptors (such as site end uses) will be covered as part of the full Site Conceptual Model in Section 7.

6.1 Sources

Source	Distance/ Direction	Details	Significant Risk
Current Site Use – Lower Cleggswood Farm	On Site	Existing Farm onsite potential source of agriculturally related contaminants including but not limited to PAHs, TPHs, Asbestos, Heavy Metals, Manure, Organic Leachates, fuels, Agrochemicals.	**Possible**
Current Site Use – Agricultural Land	On Site	Majority of site currently used for grazing, possible agrochemical used in the form of fertilisers and pesticides, generally have low residence time in the environment. From current aerial imagery a stockpile of white material is present near to Lower Cleggswood farm in a field, this could be lime for lowering soil pH therefore is potentially a highly alkaline contaminant.	**Possible**
Historic Site Use – Former Dwellings	On Site	Former dwellings of Water Metre House, Brown Bank Top, Heald and Clough Field identified from historic maps. Potential for domestically related contaminants remaining at former positions including but not limited to PAHs, TPHs, Heavy metals, Asbestos, construction materials.	**Possible**
Historic Site Use – Sandstone Quarry	On Site	Former Sandstone Quarry are present in the North-West corner of site. Infilled by circa 1970 with a fill material of unknown composition with potential for contaminants present, difficult to qualify at this stage.	**Possible**
Spoil Heap	0m North of Site	Spoil heap identified immediately to the South of the derelict brownfield area in North-East corner of site, potentially demolition materials from older industrial buildings or site works levelling site. Difficult to qualify potential contaminants present but could include all the above-mentioned contaminants from former industrial land uses within the derelict brownfield area.	**Possible**
Car Park	0m South of Site	Potential for vehicle related hydrocarbons, PAHs and TPHs in South-East corner of site. Potential for further contamination from hardstanding material depending on source and composition.	**Possible**
Derelict Brownfield Area	0m North of Site	Derelict brownfield area in North-East corner of site, strong probability of a range of contaminants from former historical area uses including Sandstone Quarry, Old Coal Pit, Cleggswood Works (Grease & Size), Cloughfield Works (Oil & Tallow), Cleggswood Oil Distillery, spoil heap and Akzo Nobel works complex. Potential for contaminants in remaining demolition materials and made ground. See below for specific historic area use contaminants.	**Yes**

Former Akzo Nobel Complex	0m North of Site	Former Akzo Nobel complex was the most recent historic land use on the derelict brownfield area in the North-East of site identified from historical mapping and entries for historic integrated pollution control authorisations. From the historic mapping tanks and chimneys were identified with the pollution control authorisations showing processes included Chemical and Combustion Processes, Manufacture and Use of Organic chemicals and Inorganic Chemical Processes. There may be a range of contaminants remaining on site post decommissioning and demolition of the complex. These may include but are not limited to PAHs, TPHs, Acids, heavy metals, alkalis, asbestos, VOCs, PCBs, phenols, furans, carbon disulphide, dioxins, cyanides, combustion soots, ash and oxidising/reducing agents.	**Yes**
Electricity Substation	3m North-East of Site	Potential source of PAHs, TPHs and PCBs depending on age and condition. If in use ongoing maintenance will lower contamination risk.	**Low**
Old Coal Pit	10m North of Site	Old Coal Pit with two (2 No.) shafts identified from historic mapping and the Coal Authority Report. Potential for coal related contaminants including PAHs, TPHs, Heavy Metals, Asbestos, Tars, Tar Acids, coal tars, cyanides and Phenols. From the Coal Authority report the shaft capping works describe both shafts having been filled with a 'fatty waste material' that likely was deposited down the shafts from the grease, size, oil and tallow works as a cheap method of disposal. Both shafts were originally excavated to approximately 100m depth (evident from historic borehole records) with likely branching tunnels, therefore a very large quantity of this material is likely to remain beneath site. Both shafts are capped however ground gas maybe an issue from the coal works and the encapsulated 'fatty waste material' if a preferential pathway to surface is present.	**Possible**
Former Cleggswood Works (Grease & Size)	10m North of Site	Grease and Size Works identified with tanks and chimneys, potential for PAHs, TPHs, Asbestos, long-chained hydrocarbons, tar, Esters, Carboxylic Acids, Organic Fatty Acids, combustion soots, ash and a range of other organic and inorganic chemicals.	**Possible**
Former Cloughfield Works (Oil & Tallow)	10m North of Site	Oil & Tallow Works identified with tanks and chimneys, potential for PAHs, TPHs, Asbestos, long-chained hydrocarbons, tar, Esters, Carboxylic Acids, Organic Fatty Acids, combustion soots, ash and a range of other organic and inorganic chemicals.	**Possible**
Former Cleggswood Oil Distillery	10m North of Site	Oil Distillery works identified on site potential for PAHs, TPHs, Asbestos, heavy Metals, long-chained hydrocarbons, tar, cyanides, phenols, combustion soots, ash and a range of other organic and inorganic chemicals.	**Possible**
Historic Landfill – Canalside	17m North-West of Site	Historic landfill located on land between the Rochdale Canal and railway line operated by Amourthess Chemicals Ltd, no further information available. Potential source of a wide range of industrial chemical contaminants.	**Possible**
Former Sandstone Quarries	10m North and 100m South of Site	Former sandstone quarry infilled by circa 1976 and incorporated into nearby residential gardens. Potential for fill material of unknown composition with potential for contaminants present, difficult to qualify at this stage.	**Possible**
Historic Landfill – Paragon Industrial Works	105m South-West of Site	Historic landfill located at Paragon Industrial Works accepted inert and industrial wastes. Potential for PAHs, TPHs, acids, heavy metals, asbestos and a range of other contaminants dependant on materials deposited.	**Possible**

Historic Landfill – Rakewood Road	200m West of Site	Historic landfill located at Rakewood Road accepted commercial and household wastes. Potential for PAHs, TPHs, acids, heavy metals, asbestos and a range of other contaminants dependant on materials deposited.	**Possible**
Former Stubley Mill	200m North-West of Site	Former woollen mill later changed to glue, greased and manure, demolished and site later redeveloped to residential housing by circa 2010. Any contaminants from materials and processes likely effectively remediated as part of redevelopment of site.	**Low**
Former Sewage Works	200m West of Site	Former sewage works located of River Roch, site vacant by circa 1989 therefore processes ceased lowering risk of contamination.	**Low**
Former Spenwood Works	200m North of Site	Former rubber works later tannery, demolished and redeveloped to residential housing by circa 2002. Any contaminants from materials and processes likely effectively remediated as part of redevelopment of site.	**Low**
Former Cleggswood Colliery	350m North-East of Site	Former colliery with coke ovens, later used for clay levels, infrastructure gradually no longer shown on historic mapping from circa 2010. Potential for contaminants within spoil and waste materials including PAHs, TPHs, tar acids, cyanides, phenols, heavy metals and asbestos.	**Possible**

6.2 Pathways and Receptors

Pathways and Receptors	Distance/ Direction	Details	Significant Risk
Aquifers	Below Site	Superficial geology of the Till is designated as a Secondary (Undifferentiated) aquifer with the Head designated as a Secondary B aquifer. Bedrock geology of the Milnrow Sandstone and Pennine Lower Coal Measures being designated as a Secondary A aquifer, therefore contaminants entering could be highly mobile. Given the generally impermeable nature of the overlying geology the risk to the underlying geology is lowered, from onsite borehole record superficial deposits are around 6m deep. Site does not lie within ground water protection zone. Former coal shafts off site filled with 'fatty waste material' will likely be leaching into bedrock aquifer upto 100m depth over a long period of time. It is therefore likely that the aquifer is already locally contaminated from mobilizable contaminants from the 'fatty waste material'.	**Yes**
Former Wells	Onsite	Former wells shown on historical mapping from circa 1851 to 1907 could be providing a pathway in both direction if not correctly grouted/decommissioned. A well in the South of site near to former dwelling Heald is marked as a spring from circa 1907, highlighting that this well may have formed a preferential pathway and may be in hydrological continuity with the Hollingworth reservoir to the south at a higher elevation. This could be indicative of slipping plane development and future dam failure.	**Possible**
Reservoir	0m East and South of Site	Reservoirs a potential receptor to any mobilised contaminants and a pathway if in hydrological continuity with groundwater/aquifer.	**Possible**
Infilled Coal Pit Shafts	10m North of Site	Although capped, former coal pit shafts documented to be filled with 'fatty waste material' which could be polluting the groundwater and bedrock aquifer with a preferential pathway from near surface to approx. 100m depth.	**Possible**

Rochdale Canal	Adjacent to Site	Rochdale canal designated SSSI and SAC therefore a sensitive receptor to contaminants entering. Canal may also act as a pathway transporting mobilised contaminants elsewhere.	**Possible**

7 INITIAL CONCEPTUAL SITE MODEL

For details on how the conceptual model is evaluated please refer to Appendix B.

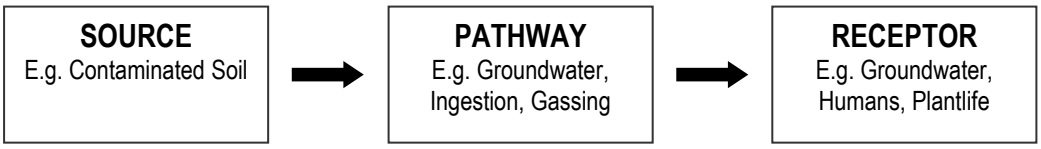
This section of the report aims to identify land which could potentially be affected by contamination, such that it could affect the value or re-use of the land, or such that mitigation would be required for certain proposed end uses of the land.

Potential contamination sources and environmentally sensitive receptors have been discussed in Section 7. Potentially significant risks are evaluated as part of the subsequent sub-sections.

7.1 Source-Pathway-Receptor Linkages

The risk assessment uses a 'Source-Pathway-Receptor' methodology for assessing whether a source of contamination could potentially lead to harmful consequences. This means that there needs to be a pollutant linkage from source to receptor for harm to be caused, this linkage consisting of: a source of pollution; a pathway for the pollutant to move along; a receptor that is affected by the pollutant.

The current potential risks to site arising from various source-pathway-receptor linkages are assessed below. A risk may be considered significant if all three of the stages are present and therefore providing a pollution linkage. The various sources, pathways and receptors are considered separately. The assessment is based on the future use, which is understood to be residential with home-grown produce.



Type of Contamination	Potential Sources	Potential Pathway	Potential Receptors	Pollution Linkage	Comment	Estimated Level of Risk
Ground Gas	Former Old Coal Pit Infilled Sandstone Quarries Spoil Heap Historic landfills	Inhalation of Vapours	Construction/ Maintenance Workers	**Potentially Active**	Gas arrestor fitted to capped shafts, however large quantity of 'fatty waste material' deposited down shafts likely to remain a ground gas source alongside coal workings, which may extend below site. Potential for ground gas from buried organics within fill and spoil materials, however due to early date of infilling circa 1970 gas emissions should have receded. Lateral migration of ground gasses from nearby historic landfills will be reduced due to cohesive Till.	**Low**
		Vapours Penetrating Unprotected Buildings	Future Site Users	**Potentially Active**	Gas arrestor fitted to capped shafts, however large quantity of 'fatty waste material' deposited down shafts likely to remain a ground gas source alongside coal workings, which may extend below site. Potential for ground gas from buried organics within fill and spoil materials, however due to early date of infilling circa 1970 gas emissions should have receded. Lateral migration of ground gasses from nearby historic landfills will be reduced due to cohesive Till.	**Low**
Surface and Near Surface Contaminants Within Soils	Infilled Sandstone Quarry Farm Former dwellings Former Cleggswood & Cloughfield Works Former Akzo Nobel Complex Historic Landfills Former Cleggswood Colliery	Ingestion, Inhalation, Dermal Contact	Current Site Users	**Potentially Active**	Localised 'hotspots' of soil contamination onsite likely at the farm, infilled quarry and former dwellings across the remainder of site. Vast potential for a plethora of contaminants from a range of current and historic land uses in surrounding area, migration to onsite will be limited due to cohesive Till (where present).	**Low - Moderate**
			Construction Workers	**Potentially Active**	Localised 'hotspots' of soil contamination onsite likely at the farm, infilled quarry and former dwellings across the remainder of site. Vast potential for a plethora of contaminants from a range of current and historic land uses in surrounding area, migration to onsite will be limited due to cohesive Till (where present). PPE to protect.	**Moderate**
			Future Site Users	**Potentially Active**	Localised 'hotspots' of soil contamination onsite likely at the farm, infilled quarry and former dwellings across the remainder of site. Vast potential for a plethora of contaminants from a range of current and historic land uses in surrounding area, migration to onsite will be limited due to cohesive Till (where present). Future site use understood to be residential with home grown produce therefore is a sensitive proposed site end use.	**Moderate**
			Adjacent Land Users	**Potentially Active**	Site surrounded with residential housing to the West and North and agricultural to the South, permeability designation of the superficial geology (secondary undifferentiated and secondary B) may limit lateral migration of contaminants therefore the risk to surrounding land users is lowered. Only localised areas of contamination anticipated.	**Low - Moderate**
		Direct Contact	Structures	**Potentially Active**	Localised 'hotspots' of soil contamination onsite likely at the farm, infilled quarry and former dwellings across the remainder of site. Vast potential for a plethora of contaminants from a range of current and historic land uses in surrounding area, migration to onsite will be limited due to cohesive Till (where present). Targeted Ground investigation to confirm.	**Low - Moderate**

Type of Contamination	Potential Sources	Potential Pathway	Potential Receptors	Pollution Linkage	Comment	Estimated Level of Risk
		Absorption in Root Zone	Plants	**Potentially Active**	Localised 'hotspots' of soil contamination onsite likely at the farm, infilled quarry and former dwellings across the remainder of site. Vast potential for a plethora of contaminants from a range of current and historic land uses in surrounding area, migration to onsite will be limited due to cohesive Till (where present). Localised potential for contaminant uptake and mobilisation.	**Low - Moderate**
Mobile Contaminants, Leachables e.g. from Pollution Sources Adjacent to Site/On Site	Infilled Sandstone Quarry Farm Former dwellings Former Cleggswood & Cloughfield Works Former Akzo Nobel Complex Historic Landfills Former Cleggswood Colliery	Leaching into Groundwater	Groundwater	**Potentially Active**	Bedrock geology designated as Secondary A Aquifer with overlying secondary (undifferentiated) and secondary B superficial deposits. Superficial deposits may limit mobilisation of contaminants laterally and vertically however former wells and capped shafts filled with 'fatty waste material' may provide preferential pathway and contamination source within bedrock aquifer. Groundwater testing to confirm.	**Moderate**
		Off-site Migration in Groundwater	Abstractions	**Potentially Active**	No groundwater abstraction identified within 250m of site. Twenty-four (24 No.) surface water abstractions within 250m of site, however the high permeability of the bedrock aquifer below will extend possible contamination spread. Site does not lie within Groundwater Source Protection Zone. Groundwater testing to confirm.	**Moderate**
			Controlled Waters	**Potentially Active**	Nearest surface water feature was identified onsite. Rochdale canal to the north of site designated SSSI and SAC therefore a highly sensitive receptor with mobilised contaminants having a large impact. Hollingworth Reservoir to the south of site a large potential receptor. Water sampling to confirm.	**Moderate**
Organic and Inorganic Contaminants Within Soils / Groundwater	Infilled Sandstone Quarry Farm Former dwellings Former Cleggswood & Cloughfield Works Former Akzo Nobel Complex Historic Landfills Former Cleggswood Colliery	Potable Water Supply Pipes	Utilities Workers	**Potentially Active**	Localised 'hotspots' of soil contamination onsite likely at the farm, infilled quarry and former dwellings across the remainder of site. Vast potential for a plethora of contaminants from a range of current and historic land uses in surrounding area, migration to onsite will be limited due to cohesive Till (where present) Ground investigation to confirm. Proposed end use understood to be residential with home grown produce.	**Low - Moderate**

7.2 Summary

In this qualitative risk assessment, a **Moderate** risk for contamination and ground gas implies that remedial action is likely to be necessary at the site, the likes of which cannot be confirmed until the geotechnical and contamination ground investigation has been completed.

7.3 Geotechnical Constraints

- Potential for tree heave should cohesive strata be encountered.
- Possible deep made ground at former dwelling locations, infilled quarry.
- Possible shallow ground water evidenced from spring.
- Shallow voids with 'fatty waste material' from historically infilled unrecorded coal workings.
- Possible landslip feature identified in Northwest corner of site.
- Historical/collapsed drainage culverts/buried watercourses.

8 FIELDWORK

8.1 Fieldwork Objectives

The objectives of the intrusive ground investigation will be to:

- Clarify the 'Initial Contamination Conceptual Model'.
- Clarify the Initial Risk Assessment.
- Benchmark the contamination status of the site.
- Provide data for the design of any remedial works that may be required.
- Provide a geotechnical appraisal for the site.

8.2 Fieldwork Scope

The fieldwork was carried out 7th – 10th May 2019 which included four days of trial pitting and two days of window sampling.

- Nine (9 No) window sampling boreholes to a maximum depth of 3.0 m bgl
- Twenty-five (25 No) machine excavated trial holes to a maximum depth of 4.0 m bgl
- Six (6 No) ground gas monitoring visits over a period of at least three months with varying barometric pressures.
- Chemical analysis (Metals, PAH's, TPH's) of forty-six (46 No) samples.
- Analysis of forty-six (46 No) samples for asbestos analysis.
- Seven (7 No) samples for geotechnical analysis.

The exploratory hole positions were selected and set out by Betts Geo Environmental Ltd (BGE) as shown on the Exploratory Hole Location Plan in Appendix C.

Prior to any intrusive works, each location was checked for services using a cable avoidance tool (CAT) and review of statutory service plans.

8.3 Targeted Investigation

The holes were positioned to achieve a general spread across the site, along with the targeting of the historical ponds, the boundary of the site with the historical chemical works and the historical sandstone quarry on site.

8.4 Fieldwork Constraints

Several areas on site were wet underfoot and inaccessible during the time of investigation, where necessary these have been placed on the exploratory hole location plan?

9 GROUND CONDITIONS

9.1 General

The exploratory holes were logged by an Engineer in general accordance with the recommendations of BS5930:2015. Detailed descriptions, together with relevant comments, are given in the exploratory hole logs included in Appendix D. The full logs should be consulted in conjunction with this summary.

9.2 Ground Conditions Summary

9.2.1 Topsoil

Topsoil was noted at the surface across the site except for material described as made ground (full detail in 9.2.2. The topsoil was generally found to depths of 0.2 – 0.3 m bgl comprising soft dark brown very sandy gravel clay.

9.2.2 Made Ground

Made Ground was noted in three exploratory hole locations WS01, HP01/WS06 and TP07. All of these locations were adjacent to the boundary of the historical chemical works site. The Made Ground was found in the near surface soils down to 2.2 m bgl (WS01). There was peat within the area of the historical quarry within WS05 only at 2.3 – 2.5 m bgl suggesting the material above was reworked natural material.

9.2.3 Glacial Till

Soft becoming firm becoming stiff sandy gravelly brown/orange/grey CLAY was encountered in the majority of trial pits between the depths of 0.2 and 3.5m+ (depth not encountered in all areas) underlain by weathered Sandstone Localised bands of sand or sand and gravel circa 1-2m in depth were encountered some areas within the clay glacial material.

Seven Atterberg tests were undertaken on cohesive samples recovered from the Trial pits which recorded a moisture content of between 13% - 30% and a Plasticity Index of between 17% - 28%. A Modified plasticity index of between 13.09% - 25.92% has been calculated, which corresponds to a material with low-medium volume change potential.

N values of between 5-18 were encountered within the clay. Indicative undrained shear strengths can be derived for the cohesive soils by applying a correlation factor to SPT 'N' values according to the material's plasticity, after Stroud. Based on typical plasticity index of 15% for the clay, a correction factor of 6 is derived. For a SPT 'N' value of 13 an indicative shear strength of 75kPa was calculated.

9.2.4 Weathered Sandstone

The bedrock of sandstone was found very near the surface at TP09, TP10 and WS04 and therefore the trial pitting / window sampling was terminated at refusal. Weathered sandstone was also encountered within

TP11, TP17, TP18, TP19 and WS1 from varying depths between 1.2-3m+. Weathered sandstone was recovered as gravel, cobbles and boulders.

9.3 Visual and Olfactory Contamination

Other than the Made Ground mentioned above, no visual or olfactory contamination was encountered on site during the ground investigation.

9.4 Obstructions

No obstructions were located during the site investigation with exception of the near surface bedrock and the cobbles of sandstone.

9.5 Groundwater – Fieldwork

The following exploratory holes encountered groundwater during the fieldwork:

Exploratory Hole	Depth (mbgl)	Strata	Remark
TP02	1.0	CLAY	Slight seepage
TP03	1.2	CLAY	Slight seepage
TP04	2.5	CLAY	Slight seepage
TP07	3.3	CLAY	Slight seepage
TP15	2.8	SAND	Slight seepage
TP20	2.2	CLAY	Slow groundwater entry
TP21	3.2	CLAY	Slight seepage
TP23	2.5	CLAY/ GRAVEL	Slight seepage
TP24	2.9	CLAY	Slight seepage

9.6 Groundwater – Post-Field Work Monitoring

The table below indicates groundwater encountered during the monitoring post fieldwork (6/6 visits has been undertaken);

Exploratory Hole	Depth to Water (m bgl)		Borehole Depth (m bgl)	
	Min	Max	Min	Max
WS01	2.65	Dry	3.00	3.00
WS02	0.70	1.45	3.00	3.00
WS03	0.56	0.90	2.98	3.00
WS05	2.55	Dry	2.92	3.00
WS07	2.90	Dry	3.00	3.02
WS08	2.91	Dry	2.85	3.00
WS09	2.70	Dry	2.98	3.00
WS10	0.70	1.30	2.98	3.00

10 LABORATORY TESTING

10.1 General

An assessment of potential determinants associated with the current/former site uses has been undertaken. Determinants originating from the current/former site uses may include metals, polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPHs) and asbestos.

10.2 Scheduled Chemical Testing: Soils

Soil was sent to a UKAS accredited laboratory and were generally analysed in accordance with ISO 17025 and/or MCERTS accreditation. The results are summarised in tabular and/or graphical form in Appendix E.

Chemical Test	No. of Samples	Comment/Method
pH Values	53	Determination of pH (using Cyberscan pH meter).
Sulphate - Soluble 2:1 Extract	53	Dionex.
Arsenic, Cadmium, Chromium VI, Lead, Mercury, Selenium, Copper, Nickel, Complex and Free Cyanide and Zinc.	46	Soil samples were analysed in accordance with UKAS/MCERTS standards Inductively coupled plasma atomic emission spectroscopy (ICP-OES)
Speciated Polycyclic Aromatic Hydrocarbons (PAH),	46	Determination of Polycyclic Aromatic Hydrocarbons by GC-MS. End/end extraction using DCM on as received sample. In house method modified USEPA 8270. Include coronene if required.
TPH CWG	46	TPH CWG (Aliphatics C5-6,>6-8,>8-10,>10-12,>12-16,>16-21,>2-35) (aromatics >C5-7,>7-8,>8-10,>10-12,>12-16,>16-21,>21-35) C5-8 fractions by Headspace GC-MS (003S). C8-35 fractions on as received sample extracted with hexane/acetone, aliphatic/aromatic splits run by GC-FID (005S), banded as listed above.
GRO/BTEX/MTBE by GC-FID (C5-10; C10-C12)	46	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12).
Organic Matter	46	Determination of Organic Matter by combustion.
Asbestos Screen	46	Visual Screening for Fibres and PLM
Asbestos Quantification	2	Microscopy
Atterburg Limits	7	BS1377 Part 2. 1990, 4.3,5.3,5.4
Moisture Content	7	BS1377 Part 2. 1990, 3.2

11 CONTAMINATION ASSESSMENT

11.1 General

Contaminants of concern recorded at concentrations above relevant screening values are summarised below. For ease of description, the identification of contaminant sources and possible re-use of material, Made Ground, Natural Strata and Groundwater will be dealt with in separate sub-headings in this section of the report where required.

Our assessment is based on the following assumptions:

- The proposed site end use in of a high-risk rating (residential housing with gardens). For analysis purposes, 'residential with home grown produce' is deemed most appropriate end use.
- The superficial geology across the site is classed as low permeability and the bedrock across the site is classed as moderate - high permeability.
- It is deemed that some statistical analysis is appropriate. Where sample data numbers are low and/or targeted, each determinant result is however reviewed further as an individual result as opposed to an average across the site.
- Site history has indicated a **Moderate** risk of contamination.
- Statistical analysis of the chemical test results has been undertaken in general accordance with Environment Agency 2009 SGV Guidance and AtRisk 2017 using the combined assessment criterion given by CLEA (Note: all SSVs for EA derivation are for a SOM of 6%, in line with Environment Agency Report SC050021/SR4 – this figure is deemed representative as an average value for a sandy loam soil). AtRisk 2017 are used to the nearest SOM percentage deemed appropriate. Where appropriate C4SL's could be utilised, when the site is not grossly contaminated.
- No free product was noted within the exploratory holes.
- Following the withdrawal of CLR 7-10 Guidance documents by the Environment Agency, statistical analysis has been undertaken in accordance with the CIEH/CL:AIRE 'Guidance on Comparing Soil Contamination Data with a Critical Concentration' (May 2008). As such, the use of the mean value test alone is not considered.

A full risk assessment is detailed within Section 14 of this report.

11.2 Soils Contamination Summary

There are only a small number of exceedances of the AtRisk2017 assessment criteria for asbestos in made ground and lead, arsenic within natural ground identified on site. These exceedances are further detailed below.

11.2.1 Made Ground

No elevated levels other than asbestos above residential with homegrown produce guidance (for the appropriate organic matter threshold where necessary) were evident within the Made Ground during the site investigation.

Asbestos

Asbestos was identified in WS01 and TP07 as amosite and chrysotile loose fibres respectively. The corresponding concentrations of asbestos present on site were 0.395 and <0.001% w/w. Both WS01 and TP07 are close to the boundary of the former chemical works site.

11.2.2 Natural Strata

Lead

There is an exceedance of the lead risk assessment criteria for TP20 at 2.5 m bgl, 528mg/kg over the guidance levels of 200. There was no evidence of any Made Ground present within this trial pit and the concentration of lead in the sample from 0.4 m bgl is significantly lower. This may be an error at the laboratory or cross contamination from another source

Arsenic

There is an exceedance of the arsenic risk assessment criteria for TP20 at 2.5 m bgl, 52mg/kg over the guidance level of 32mg/kg there was no evidence of any Made Ground present within this trial pit and the concentration of arsenic in the sample from 0.4 m bgl is significantly lower. This may be an error at the laboratory or cross contamination from another source

11.2.3 Asbestos

No asbestos was detected within any of the natural samples screened for asbestos.

11.2.4 Groundwater Contamination

No groundwater testing was undertaken within this phase of works as no significant risks to groundwater/surface water were encountered during the SI.

12 ENVIRONMENTAL RISK ASSESSMENT

12.1 General

This section assesses likely risks to the identified receptors, arising from potential contamination sources. It provides a final qualitative assessment of the risks involved, indicating whether (where appropriate) any immediate action is required to mitigate certain risks.

In assessing the risk qualitatively, it is appropriate to use the methods outlined in the CIRIA document C552, "Contaminated Land Risk Assessment a Guide to Good Practice". It uses a classification of risk based on the magnitude of the potential consequence or severity of risk occurring, compared with the magnitude of the probability or likelihood of the risk occurring. These are indicated on the attached tables in Appendix B.

The superficial deposits are classed as being of low permeability and the bedrock is classed as moderate - high permeability. Therefore, the site's environmental setting is considered to be a moderate environmental sensitivity. With respect to human health, the proposed end use (residential use with home-grown produce) is of high sensitivity. Transient risks to construction workers can be addressed by the adoption of appropriate health and safety measures (see Section 12.2), therefore, the primary residual risks that require assessment are Site End Users. The following sections are split into soils and groundwater for clarity.

12.2 Assessment of Soil Contamination Results

Slightly elevated contamination within natural soils (TP20) and Made Ground was encountered in only a small number of locations across site (three locations: 0.0 – 0.3, 0.2 – 1.2 and 2.0 – 2.2 m bgl). The soil analysis results show elevated lead, arsenic and asbestos present. Further risk assessment is required.

12.2.1 Soils – Lead and Arsenic TP20

The lead and arsenic exceedances in TP20 are deemed to be a hotspot as the value is an outlier within the dataset. When the outlier is removed from the dataset there is no longer any outliers. Further risk assessment is required as the elevated lead is within what appears to be natural strata. The historical maps show this area was never developed therefore the reasons for the elevated lead are unknown. Given that the shallow chemical tests show no elevated levels, and the generally cohesive nature of the soil on site, lateral and vertical migration of these determinants are unlikely. No further assessment is required.

12.2.2 Soils – Asbestos

Asbestos was identified in two locations WS01 and TP07 at 0.395% and <0.001 % respectively.

The asbestos was found at 2.2 m bgl in WS01 within material which was relic topsoil / Made Ground. Upon assessment of the large-scale historical maps it appears that this corner of site contained woodland on the first map in 1891. In 1959 the area no longer contains woodland but appears to contain a stockpile of

material which is no longer visible on the 1992 map. It is therefore likely that the stockpiled material has been spread across this corner of the site.

During the remediation of the adjacent Akzo site there was a capping layer placed across the site which appears to have been spread across the WS01 area This explains why there appears to be reworked natural ground above the Made Ground at 2.0 m bgl and then further Made Ground at the surface. Though the exact extent of the below surface Made Ground material is currently unknown however the levels in this area indicate this is localised and no Made Ground was noted within TP05.

The asbestos in WS01 was found at 0.395% as amosite loose fibres, as the asbestos was found in material >2.0 m bgl it is not likely to impact future site users therefore no further investigation is required. Any works which take place within the WS01 area and within the Made Ground at 2.0 m bgl may fall under the Control of Asbestos Regulations 2012 (CAR:SOIL™).

There was also asbestos present at <0.001% of chrysotile loose fibres within TP07 which is approximately 15 m from the boundary of the former Akzo site. This trial pit was also found to contain Made Ground although the asbestos was found within the topsoil above the Made Ground. Further investigation is required to assess the extent of the asbestos contamination within the topsoil to allow for segregation of this material to take place.

12.2.3 Groundwater and Aquifer Risk

No significant risks to groundwater and aquifers are anticipated due to the thickness of the cohesive superficial deposits encountered during the site investigation.

Due to the depths of the natural clay encountered underlying the contaminated material (proven to 3 m bgl on average), it is considered unlikely that significant vertical or lateral migration of contamination into the underlying aquifer will happen.

12.2.4 Surface Water Risk

The Rochdale Canal is located along the northern site boundary and the Hollingworth Reservoir to the south of the site, both of which are connected via a culvert running across site. In the middle of the L-shape of the site boundary is a small surface water feature which the culvert feeds into the site and then the outfall carries the water to the canal. It is assumed this culvert runs underneath the former Akzo site once it has reached the surface water feature. The underlying cohesive clay should limit any contamination migration into the canal. Furthermore, the canal is likely to be clay lined, lowering the migration risk.

Given that the former Akzo site was on the northern boundary of the site and this has been remediated it is assumed that the contamination within the canal is already monitored.

12.2.5 Assessment Summary

Further investigation into the asbestos within the topsoil in TP07 is required in order to determine the extent

of the asbestos contamination. The contaminated soils in WS01 at 2.0 m bgl do not require further assessment as they are outside of the proposed development area. This is subject to further ground gas risk assessment.

Any imported soils will be required on site and any imported soils should be tested for contamination to ensure that they are suitable for the proposed use. It is generally advisable to test a minimum of three samples, or one sample per 150 m^3 (greenfield source- topsoil) and 250 m^3 (greenfield source- subsoil) so that a representative mean value can be calculated.

13 GROUND GAS ASSESSMENT

13.1 Ground Gas Requirements – Radon

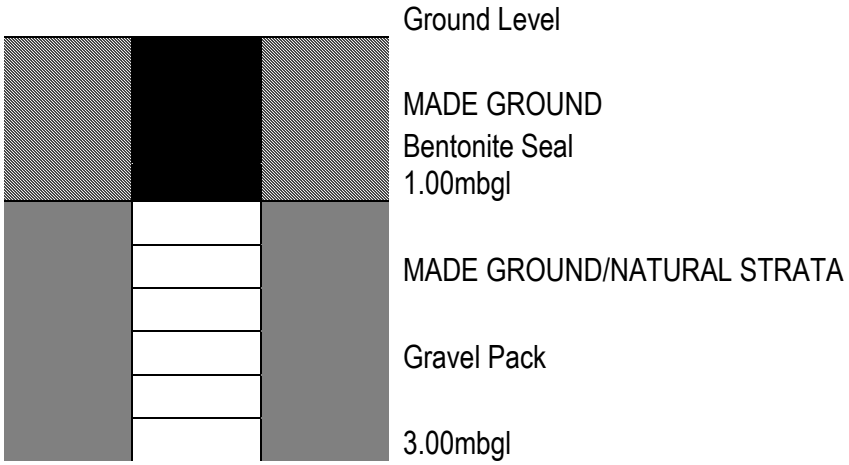
BRE211 (2007) Radon: guidance on protective measures for new buildings shows it is in a lower probability area, as less than 1% of homes are above the action level. Therefore, no Radon protective measures are necessary in the construction of new dwellings or extensions.

13.2 Ground Gas Assessment

There is evidence of below surface historical topsoil / Made Ground in WS01 and further evidence of Made Ground in TP07. Also due to the proximity of WS01 and WS03 to the former Akzo site there is the potential for offsite gases to be migrating onto site.

13.2.1 Ground Gas Boreholes Installations

A total of eight (8 No.) boreholes were installed to a maximum depth of 3.00 m bgl. A typical installation is shown below;



13.2.2 Summary of Results

Gas monitoring is complete (6/6 visits undertaken) and the results are summarised below. Where the gas flow rate is <0.1 the value of 0.1 has been used for the Gas Screening Value (GSV) calculation as a worst case. See Appendix F for full results;

Borehole Number	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Atmospheric Pressure (mB)	Peak Flow (l/hr)	CO (ppm)	GSV CH_4	GSV CO_2
WS01	8.2 – 65.1	2.8 – 8.0	1.9 – 14.6	985 – 1003	0.1	2.0	0.065	0.008
WS02	0.0	0.1 – 2.3	15.2 – 20.7	985 – 1003	0.1	2.0	0.000	0.002
WS03	0.0 – 16.3	0.3 – 2.7	15.4 – 19.6	985 – 1003	0.1	2.0	0.016	0.003

WS05*	0.0 – 0.1	2.1 – 2.1	18.0 – 19.7	996 – 998	0.1	1.0	0.000	0.002
WS07	0.0	0.7 – 25.1	3.6 – 20.2	985 – 1003	0.1	1.0	0.000	0.025
WS08*	0.0	2.0 – 3.1	15.1 – 19.5	996 – 998	0.0	0.0	0.000	0.000
WS09	0.0 – 0.1	0.8 – 3.2	19.1 – 20.	985 – 1004	0.1	1.0	0.000	0.003
WS10	0.0	0.1 – 2.3	18.9 – 20.8	985 – 1004	0.5	2.0	0.000	0.012

*Theses boreholes have been repeatedly vandalised during the course of the monitoring programme, therefore any results from these locations are not deemed representative of the gas regime in these areas.

13.2.3 Guidance

Three current publications are used for ground gas risk assessment:

- 'Guidance on Evaluation of Development Proposals on Sites Where Methane and Carbon Dioxide are Present', Report Edition No.04 March 2007 NHBC – designed for use with low rise residential properties
- CIRIA C665 'Assessing risks posed by hazardous ground gases for buildings' 2007 - for high rise residential / flats
- BS8485:2015 'Code of practice for the characterization and remediation from ground gas in affected developments'

Further details / accompanying notes for the following gas risk assessment are enclosed in Appendix G. The proposed development at the site is private residential two-storey houses, therefore assessments using the NHBC Guidance are deemed most appropriate.

13.2.4 Ground Gas Summary

After six visits, depleted concentrations of oxygen have been identified in WS01 (1.9%) and WS07 (3.6%), as well as elevated carbon dioxide of 8.0% and 25.1% respectively. Significantly elevated concentrations of methane have been identified from WS01 and WS03 of 65.1% and 16.3% respectively. The ground gas assessment below based on six rounds of ground gas monitoring.

No visual or olfactory evidence was present during the site investigation to suggest the ground may contain volatile contaminants. High organic matter within the soils in WS01 suggest a biogenic ground gas source in this area.

WS01 and WS03 border the former chemical works and also lie close to an area that has been identified as historically being infilled.

TP05 showed no made ground and the underlying clay suggests that migration of ground gas to the proposed development areas may be limited by the presence of low permeability clay, however this requires further investigation and monitoring to confirm.

There were no elevated gases in WS05 where peat was noted on site. This borehole has been repeatedly tampered with so the results of the monitoring in WS05 may not be representative.

Due to significant elevated concentrations of ground gas being identified during the gas monitoring visits, the following preliminary* ground gas assessment has been made:

Site Area	Site Classification	Recommended Ground Gas Protection Measures
Majority of Site	Green	No specialist ground gas protection measures required.
Vicinity of WS03 & WS07	Amber 2	High-level ground gas protection measures are required, creating a permeability contrast to prevent ingress of gas into buildings. Gas protection measures are to be installed as prescribed in BRE 414. **Membranes used should always be fitted by a specialist contractor and should be fully certified (see Appendix E).** As with Amber 1, ventilation of the sub-floor void should be designed to provide a minimum of one complete volume change per 24 hours.
Vicinity of WS01	Red	Standard residential housing is not normally acceptable without further Ground Gas Risk Assessment and/or possible remedial mitigation measures to reduce/remove the source of the ground gasses. In certain circumstances, active protection methods could be applied, but only when there is a legal agreement assuring the management and maintenance of the system for the life of the property.

Zoning of ground gas protection measures will require Local Authority approval.

Given the elevated ground gas concentrations recorded in the northeast of the site it is recommended that further monitoring wells are installed to better delineate the ground gas classification of the site and allow a more robust ground gas risk assessment to be completed. It is recommended that any wells which have been vandalised are either re-furbished or re-installed.

A drawing showing the Ground Gas Protection Requirements has been provided in Appendix F.

14 REVISED CONCEPTUAL SITE MODEL

14.1 General

The Initial Conceptual Site Model has been amended in light of data obtained during the ground investigation, most notably the presence of some significantly contaminated soil in relation to the screening criteria for the proposed end use.

14.2 Final Conceptual Site Model

This section reassesses likely risks to the identified receptors, arising from potential contamination sources. It provides a final qualitative assessment of the risks involved, indicating whether (where appropriate) any immediate action is required to mitigate certain risks. It also discusses (where appropriate) what longer term measures or remedial works may be required in the future if the site were to be developed. It is considered that the site has not been assessed by the Local Authority as a contaminated site under the terms of the Environmental Protection Act 1990 Part IIa.

Target (Receptor)	Potential Source-Pathway Linkage	Remedial Action Required (where appropriate)	Est. Degree of Risk to Target Following Remedial Action Where Necessary
Site End Users	Inhalation of soil gases, odours or dust.	Ground gas monitoring complete. Red – vicinity of WS01, Amber 2 – vicinity of WS03 & WS07. The rest of the site is Green.	Low
Site End Users	Ingestion of, and skin contact with, contaminated soil.	Further investigation required in vicinity of TP07 and WS01 if this encroaches on the development area	Low
Site End Users	Ingestion of contaminants in vegetables etc. or in soils adhering to vegetables, etc	Further investigation required in vicinity of TP07 and WS01 if this encroaches on the development area	Low
Construction/ Maintenance Workers.	Inhalation of soil gases, odours or dust.	PPE. Asbestos risk assessment when segregating soils in vicinity of TP07	Low **
Construction/ Maintenance Workers.	Ingestion of, and skin contact with, contaminated soil	PPE Asbestos risk assessment when segregating soils in vicinity of TP07	Low **
Plants	Adverse effects on growth caused by presence of contaminants in soil	Further investigation required in vicinity of WS01. 300mm growing medium comprising debris free soil with no dig layer at the bottom for all gardens and landscaped areas.	Low
Buildings and Structures	Flow of ground gas into buildings. Asphyxiation, toxicity, explosion and fire hazards	Ground gas monitoring complete. Red – vicinity of WS01, Amber 2 – vicinity of WS03 & WS07. The rest of the site is Green.	Low
Foundations	Sulphate attack of foundations	Foundations to be designed as per section 16.4	Low
Water Supplies	Hydrocarbons penetrating plastic water supply pipes.	United Utilities pipeline risk assessment required.	Low

Groundwater	Migration of soluble contaminants into groundwater on or off site	No significant risk anticipated	Low
Surface Water	Migration of soluble contaminants and/or direct run-off of contaminants	Surface water sampling is not required as there are no near surface contaminants which may affect the nearby surface waters.	Very Low

** assumes basic PPE is used

15 OUTLINE STRATEGY FOR RISK REDUCTION/REMEDIATION STRATEGY

15.1 General

The following section details any recommendations and to reduce risk on site and recommended remedial actions (as per the previous sections of this report). For clarity, the section is split into sub-sections as per the conceptual site model (Section 14).

15.2 Construction/Maintenance Workers

Localised slightly elevated levels of contamination were encountered on site; therefore, the following recommendations should be adhered to during site works:

- Site workers should wear gloves, boots and overalls and wash their hands before eating, drinking and smoking. Excessive dust generation should be avoided.
- It is recommended that during all excavations adequate ventilation should be maintained. If man entry is required, gas monitoring should be carried out as a precaution.
- If areas of suspected contamination are found then a suitably qualified person should undertake appropriate sampling, testing and further risk assessment.

15.3 Site-End Users

Localised slightly elevated levels of contamination were encountered on site.

Further investigation of asbestos impacted soils in the vicinity of TP07 require further investigation. The soils within these areas will either be delineated and removed or remain in situ along with a clean cover capping layer. Site end users will be protected in gardens by 600mm clean and inert capping in these areas if the material remains on site.

Based on the outline development plans which have been provided to date, it appears that the WS01 area will not be developed but will be in an area of public open space. As the contamination is below ground level and the ground gases are unlikely to travel upgradient without a preferential pathway being created, the risk from WS01 to end users is low.

15.4 Piped Drinking Water Supplies

A UU risk assessment should be completed to confirm what pipeline material will be required.

15.5 Ground Gas Protection Measures

BRE211 (2007) Radon: guidance on protective measures for new buildings shows that the site is in a low probability area, as less than 1% of homes are above the action level. Therefore, no radon protection measures are considered necessary in the construction of new dwellings or extensions.

The original ground gas monitoring programme is complete and the majority of the site is classified as

Green with no special ground gas protection measures required. However, given the elevated ground gas concentrations recorded in the northeast of the site, further investigation and monitoring is recommended within this area to allow a robust ground gas risk assessment to be completed.

15.6 Off-Site Disposal of Surplus Soil

15.6.1 General

If there is the need to remove soil/Made Ground off-site (including the segregated hotspot of lead contamination), it is recommended that the number of results required have been met using the sampling density requirements given in the Environment Agency (EA) *Waste Sampling and Testing for Disposal to Landfill 2013*. Additional samples of segregated soils whilst in stockpiles may be required before waste classification assessment can be carried out. A minimum of five (5 No.) samples of heterogenous material are required for offsite disposal.

Once an adequate number of samples have been analysed then the results of the chemical analysis will need to be assessed in order to classify the materials as non-hazardous or hazardous. The waste classification of soils is carried out in line with the *Guidance on the classification and assessment of waste (1st edition v1.1), Technical Guidance WM3*, published by the EA, SEPA, NIEA and NRW. Betts Geo can provide a cost for the testing of any additional samples and a waste classification report, if materials will be disposed of offsite.

If the materials are classified as non-hazardous then the materials will not require any further assessment, unless there is possibility of disposal at an inert landfill. In order to dispose of material at an inert landfill the material must meet certain criteria physically and the leachable contamination must be below the inert Waste Acceptance Criteria (WAC) thresholds. WAC (single stage leachate, unless requested otherwise) analysis will therefore need to be carried out on the material. Due to time constraints or the availability of storage on site it may be advised to dispose of the material at a non-hazardous landfill, to allow materials to be removed from site quickly.

If the waste classification determines that there is hazardous material to be disposed of then hazardous WAC testing must be carried out on the material before it can be removed from site. This will determine whether the material requires treatment before being disposed at a hazardous landfill. Any exceedances of the hazardous WAC thresholds will need to be discussed with the receiving landfill.

It should also be noted that asbestos has not been found within any of the samples tested to date. If asbestos is found during the earthworks on site then quantification of asbestos is required prior to waste

disposal. The hazardous waste threshold for asbestos is 0.1% or any materials which contain visible asbestos containing materials. Materials which are chemically non-hazardous but hazardous with respect to asbestos can potentially be disposed of at a non-hazardous landfill within a Stable Non-Reactive Hazardous (SNRW) cell.

Segregation of Made Ground and Natural Strata should be possible given the chemical analysis and very different visual identification. It is assumed that natural material is inert and therefore doesn't require waste classification assessment, which can be confirmed with a small number of samples.

If moved to other sites for re-use, it is proposed to use the results of the contamination testing to determine if it is deemed suitable for re-use as fill material. Re-using the material at another site could reduce costs.

There is the potential for further contamination to be found across site when further investigation is carried out and during the earthworks. Any materials containing unforeseen contamination such as free product or asbestos will need to be analysed and assessed for waste classification if the material is to be removed from site.

Further information about disposal of soils offsite is provided in Appendix H.

15.6.2 Indicative Waste Classification Assessment

The HazWasteOnline toolkit was used to undertake a Hazard Assessment Screen, to establish whether the sampled soils should be considered as representative of either hazardous or non-hazardous waste. This classification process is in accordance with technical guidance document WM3, Guidance on the classification and assessment of waste (1st edition 2015), published jointly by Natural Resources Wales / Cyfoeth Naturiol Cymru, the Scottish Environment Protection Agency, the Environment Agency and the Northern Ireland Environment Agency (WM3, 2015).

The HazWasteOnline output sheets for 45 No. samples collected gives an initial waste classification as non-hazardous waste (all samples except for WS1 at 2.2 m bgl which is chemically hazardous), based on the chemical properties of the material. The output sheets are presented in Appendix H.

Based on the results of the analysis, and the assessment described above, the List of Waste code for all samples except for WS1 at 2.2 m bgl '17 05 04 Soil and stones other than those mentioned in 17 05 03, i.e. non-hazardous waste.

As the sample from WS1 at 2.2 m bgl also contains asbestos at a concentration of 0.395% w/w, based on the assessment described above, the List of Waste code for the material in WS1 at 2.2 m bgl is considered to be '17 05 03* Soil and stones containing hazardous substances AND 17 06 05* Construction material containing asbestos, i.e. a mixed hazardous waste.

Further waste classification may be required depending on the volume of material to be removed from site.

16 GEOTECHNICAL ASSESSMENT

16.1 Introduction

It is understood that the proposed development will consist of the construction of low-rise residential properties with associated rear gardens, associated infrastructure and public open space. No structural loadings are known at this time however it is anticipated that any proposed loadings will be low to moderate.

It is understood that the valley area to the east of site, steep area in the centre of site and the northern area close to the canal are unlikely to be developable due to existing site levels and such no houses will be constructed in these areas.

It is anticipated that cut and fill works will be required however, additional review and assessment is advised upon clarification of site levels, layout and earthworks methodology.

16.2 Site Preparation and Excavation

All excavations should be planned, and due consideration should be given to providing temporary support or suitable battering. Excavations should be regularly inspected by a competent person to ensure continued safety. Further advice on the safety of excavations is given *in Health and Safety in Construction.* Shallow (<1.20mbgl) excavations for service trenches could be complicated by collapsing sands, silts/clays, and care should be taken. Obstructions are not anticipated although there is likely to be shallow bedrock.

General care and due diligence is required adjacent to the canal and culverts although the development constraints plan provided to date shows there will not be development near these areas due to the topography. Off set distances and earthworks plans will need to be agreed with relevant service providers.

Excavation in close proximity to mains services (it is assumed these are to be kept live for the majority of the works) will need to ensure that the excavation walls are stable or appropriately battered to a safe angle, temporary slope stability works may be required in any deep excavations. Liaison with service provider (UU and National Grid/Cadent) is advised.

No buried obstructions were encountered during this investigation, however the possibility of buried obstructions being encountered cannot be discounted and an allowance should be made for breaking out, for example provision of pneumatic breakers for site plant. Following breaking out of any obstructions, excavations of shallow soils should not present any difficulty for conventional plant and equipment.

Topsoil and unsuitable Made Ground should be removed from beneath all building and hard standing areas.

Spoil resulting from excavations within the Made Ground will likely not be suitable for reuse as engineered fill and should be placed beneath a cover system or disposed of off-site. Note that made ground in the vicinity of WS01 contained amosite asbestos and is subject to CAR-SOIL regulations if earthworks extends into this area. Made ground from this area will not be suitable to remain on site under clean cover.

Excavations undertaken during site works greater than 2.0m bgl were generally stable.

Shallow sandstone was encountered in the north of site, should significant earthworks be required in this area, assessment into the plant required to undertake the works will be required, while shallow excavations with large machines are likely to be suitable up to 1.5m, deeper will likely require specialise machines.

All excavations should be planned, and due consideration should be given to providing temporary support or suitable battering. Excavations should be regularly inspected by a competent person to ensure continued safety. Further advice on the safety of excavations is given *in Health and Safety in Construction.* Shallow (<1.20mbgl) excavations for service trenches could be complicated by collapsing sands, silts/clays, and care should be taken.

16.3 Control of Groundwater

Limited groundwater was encountered during the site investigation; however, post fieldwork monitoring has indicated groundwater levels at depths of approximately 0.8 m bgl.

It is likely that provision of pumping/shuttering will be necessary during excavation of foundation trenches during wet weather, close to surface water features and to deeper excavations for sewers etc. It is good practice to have such equipment on standby in case of seasonal / abnormal weather conditions.

Should sewers/excavations deeper than the boreholes/trial pits undertaken be required, further SI will be needed targeted to applicable depths.

16.4 Foundations

Loose to medium dense sands and soft-firm clays have been encountered at shallow depth across the majority of the site and therefore the adoption of standard shallow strip foundations founded at a minimum of 0.45mbgl can be designed with an allowable bearing pressure of 125kN/m^2 within the sands and 75kN/m^2 within the clays. This should limit total foundation settlement to less than 25mm and differential to less than 15mm for foundation widths up to 1m.

Due to the soft-firm medium plasticity clay present, therefore as a precaution a minimum foundation depth of 0.9m bgl should be adopted. Given the recorded ground conditions it would be prudent to undertake further trial pitting to confirm the presence of shrinkable soils at foundation depth when a detailed layout is confirmed.

Piled foundations may be required in the area around WS05 where the former quarry was located further SI required to find potential high wall and provide information on the sandstone levels in this locality.

Deepening of foundations in accordance with NHBC Standards will be required where foundations are within the zone of influence of existing or proposed trees and proposed shrub planting and shrinkable soils are encountered at foundation level.

Where foundations are within the influence of trees and are deeper than 1.5m bgl, a suitable compressible

material or void former will be required.

Where foundations require deepening to greater than 2.5m below ground level, they must be designed by an engineer, as specified in NHBC Technical Requirement R5.

Foundations should be excavated wholly on one stratum. Should proposed foundations span different strata, trenching and stepping of foundations and/or nominal reinforcement will be required.

It is recommended that a foundation zoning plan should be undertaken when proposed levels are made available and further plot by plot trial pitting has been undertaken.

16.5 Ground Floor Construction

Given that shrinkable soils are present at shallow depth across the site suspended floor construction (e.g. either in-situ RC slabs or block and beam flooring) should be adopted in accordance with NHBC guidance.

Due to the Amber 2 and Red Ground Gas risks there will be a requirement to incorporate a ventilated subfloor void and other potential modifications to allow for adequate ground gas protection.

16.6 Soakaways

Given the generally cohesive strata encountered on site, along with the levels and localised perched groundwater, the use of infiltration is not deemed to be a suitable surface water drainage option. A full drainage strategy should be undertaken for the site.

16.7 Heave / Shrinkage Potential

A summary of Atterburg limit tests is shown below. Full results are located in Appendix E.

Exploratory Position ID	Depth (m)	Plasticity Index %	% <425um	Modified Plasticity Index %	NHBC Volume Change Level
TP02	2.0	17	88	14.96	LOW
TP16	3.0	27	96	25.92	MODERATE
TP24	3.0	21	92	19.32	LOW - MODERATE
WS01	2.4	19	70	13.3	LOW
WS02	2.0	15	91	13.65	LOW
WS05	1.0	28	92	25.76	MODERATE
WS10	2.5	17	77	13.09	LOW

LOW - MODERATE plasticity is evident across the materials tested. Foundation design for tree heave protection could be designed accordingly following discussion with the NHBC.

16.8 Highway

According to the criteria of Highways Agency HD 25/95 Volume 7 Section 2 Part 2 HD 25/94, a CBR value of 3-5% on the sands/clay is anticipated, however confirming in-situ CBR's should be undertaken once

layouts and levels are known. Placement of geotextiles within the areas of roads / parking could also be designed to minimise the subgrade thickness.

16.9 Protection of Buried Concrete

It is considered for concrete design purposes that natural ground locations and mobile groundwater conditions are applicable. The results are summarised in the table overleaf:

Concrete Classification	
Design Sulphate Class	DS-1
ACEC Class	AC-2
Design Chemical Class	DC-2

17 ADDITIONAL WORKS REQUIRED

The following works are required on site before the development can commence:

- Foundation assessment and zoning plan
- Delineation of the extent of the asbestos found within the topsoil in TP07
- Installation of further ground gas monitoring wells in the northeast of the site, along with a programme of monitoring.
- Former wells on site were not noted during the walkover or fieldwork, however when earthworks begin in the vicinity these locations should be investigated to confirm.
- Further SI in the vicinity of the former quarry to assess potential high wall scenarios and sandstone depth.

A validation report may be required for the removal of any contamination hotspots found, notes are provided in Appendix I.

Notes on the limitations of this report are provided in Appendix J.

18 REFERENCES

1. *Desk Study Report Hollingworth Road, Littleborough by Betts Geo (Report reference: 18BLH008/DS).*
2. *BS 5930:2015 Code of Practice for Site Investigation.*
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4. *Assessment of risks to human health from land contamination: an overview of the development of guideline values and related research. EA, 2002*
5. *Contaminated Land Risk Assessment; A Guide to Good Practice; CIRIA C552: 2001.*
6. *Health and Safety in Construction, HSG150, HSE, 1996.*
7. *Hazardous Waste: Interpretation of the Definition and Classification of Hazardous Waste, Environment Agency, WM2 Version 1.0, June 2003.*
8. *DoE (1991), The Building Regulations Approved Document C, Site Preparation and Resistance to Moisture, HMSO*
9. *Baker W (1987), Investigation Strategy - lecture at City of Birmingham Development Department Symposium on Methane Generating Sites, 9 December 1987, Industrial Research Laboratories, Birmingham*
10. *NHBC Standards, Chapter 4.2, 2017 Building Near Trees*
11. *Highways Agency HD 25/95 volume 7 section 2 Part 2 HD 25/94*
12. *Water Regulations Advisory Scheme (2002) The selection of materials for water supply pipes to be laid in contaminated land*
13. *Anon (1997) Dutch in Policy Retreat on Contaminated Land ENDS (Environmental Data Services), 269, 46*
14. *Water Regulations Advisory Scheme (2002) The selection of materials for water supply pipes to be laid in contaminated land*
15. *Piling In Layered Ground: Risks to Groundwater and Archaeology Science Report SC020074/SR Environment Agency October 2006*
16. *Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention National Groundwater & Contaminated Land Centre report NC/99/73 F J Westcott, C M B Lean & M L Cunningham May 2001*
17. *'Guidance on Evaluation of Development Proposals on Sites Where Methane and Carbon Dioxide are Present', Report Edition No.04 March 2007 NHBC – designed for use with low rise residential properties*
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21. *BS 8500- 1:2006 'Concrete – Complementary British Standard to BS EN 206-1 – Part 1: Method of specifying and guidance for the specifier' November 2006*
22. *'Planning Policy 23: Planning and Pollution Control' Office of the Deputy Prime Minister 2004*
23. *CLR11 'Model Procedures for the Management of Land Contamination' DEFRA 2004*
24. *BRE 465 'Cover Systems for Land Regeneration' 2004*

25. *'The UK Approach for Evaluating the Human Health Risks from Petroleum Hydrocarbons in Soils, Environment Agency Science Report P5-080/TR3', Environment Agency (May 2005)*

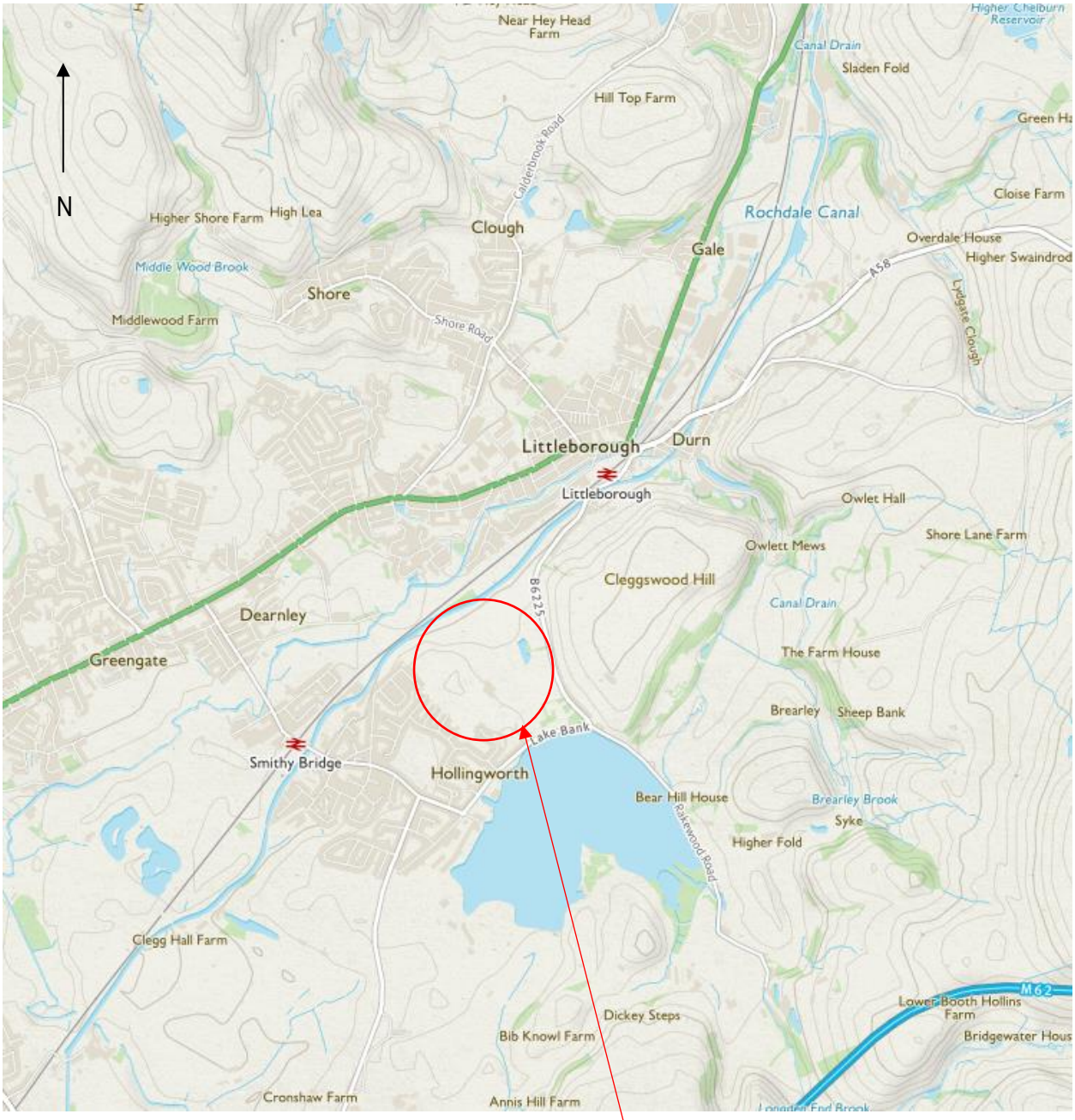
26. *TOX12- Contaminants in Soil: Collation of Toxicological Data and Intake Values for Humans. Dioxins, Furans and Dioxin-like PCBs' Environment Agency 2003*

27. *The LQM/CIEH GAC for Human Health Risk Assessment 2009 second edition*

28. *Atkins AtRisksoil.co.uk SSV's derived using CLEA for 1 or 6% SOM. Residential with home grown produce.2017*

APPENDIX A

(i) Site Location Plan



Site Location Plan

The site is located at Hollingworth Road, Littleborough, OL15 8SA. The coordinates on the British National Grid CRS are 393416, 415496. The proposed site is approximately 16.5 hectares in total.

(ii) Development Outline and Topographic drawing

The scaling of this drawing cannot be assured

Revision		Date	Drn	Ckd
A	Layout Updated	14.01.19	DR	BW

N

- LP Gas mains
- MP Gas mains
- Lake to canal water pipeline
- UU clean water distribution pressurised main
- LV electricity cable
- 6-6.6kv electricity cable
- Well and water pipeline
- Sewer
- High Point
- Rochdale Council Carpark Site
- Contours (0.5m)

Site Boundary	19.45 Ha	
Residential	10.79 Ha	
School	02.11 Ha	
Public Open Space	06.55 Ha	
Existing Pond		
Green Squares		
Vehicular access		
Pedestrian / Cycle Access		
Homes England Application Site		
Potential vehicular link		
Railway / Railway station		
National cycle route		
Existing PROW		
Proposed Pedestrian - Cycle way		
National flood zone 2		
National flood zone 3		
High probability to flood 1 in 30 years		
Existing watercourse		
SSSI		
Existing woodland		
Indicative mine shaft location (20m offset)		
Indicative badger set location (30m offset)		
Very steep topography		

N

0 20 40 60 80 100m

Project
Land at Littleborough Rochdale

Drawing Title
Concept Plan

Date	Scale	Drawn by	Check by
10.12.18	1:2500@A2	KT	JS

Project No	Drawing No	Revision
29855	9400	A

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APPENDIX B

(i) Conceptual Model

The report aims to identify land which could potentially be affected by contamination, such that it could affect the value or re-use of the land, or such that mitigation would be required for certain proposed end uses of the land.

The assessment also aims to identify land which would be regarded as 'contaminated land' under the terms of the Environmental Protection Act 1990, Part IIa. This act includes a stricter test for contaminated land than that outlined above. Land is considered to be contaminated if either:

- the land is causing significant harm to people, ecosystems or infrastructure; or
- there is a significant possibility that such harm could be caused; or
- Pollution of controlled waters is being, or is likely to be, caused.

The following situations are defined as being where harm is to be regarded as significant:

- chronic or quite toxic effect, serious injury or death to humans;
- irreversible or other adverse harm to the ecological system;
- substantial damage to or failure of buildings;
- death of, or disease or other physical damage affecting, livestock or crops;
- Pollution of controlled waters.

The risk assessment uses a 'Source-Pathway-Receptor' methodology for assessing whether a source of contamination could potentially lead to harmful consequences. This means that there needs to be a pollutant linkage from source to receptor for harm to be caused, this linkage consisting of:

- a source of pollution;
- a pathway for the pollutant to move along;
- A receptor that is affected by the pollutant.

As an example, the pollutant source could be an identified leak of oil or an area of dumped waste.

SOURCE	→	**PATHWAY**	→	**RECEPTOR**
E.g. Contaminated		E.g. Groundwater,		E.g. Groundwater,

The pathways could include transport of the contaminant by groundwater, surface water, windblown dust, or

vapours, and for human receptors will include the means, by which contaminants enter the body, for example skin contact, ingestion and inhalation.

Receptors include people, other living organisms, the built environment and groundwater and surface waters (these latter two also being contaminant pathways).

The source-pathway-receptor methodology relationship allows an assessment of the environmental risk to be determined, based on the nature of the source, the degree of exposure of the receptor to the source and the sensitivity of the receptor.

This section of the report is based on the information set out in the previous sections of the report and should not be read independently of such sections.

Initial Conceptual Model
From the available information the preliminary conceptual model is visualised as follows:

Target (Receptor)	**POTENTIAL SOURCE-PATHWAY LINKAGE**
Site users / residents	Inhalation of soil gas, odours or dust.
	Ingestion of, and skin contact with, contaminated soil.
	Ingestion of contaminants in vegetables etc. or in soils adhering to vegetables, etc.
Construction/ maintenance workers.	Inhalation of soil gas, odours or dust
	Ingestion of, and skin contact with, contaminated soil
Plants	Adverse effects on growth caused by presence of contaminants in soil
Buildings and Structures	Flow of ground gas into buildings. Asphyxiation, toxicity, explosion and fire hazards
	Sulphate attack of foundations
	Hydrocarbons penetrating plastic water supply pipes
Groundwater	Migration of soluble contaminants into groundwater on or off site. Migration of oils into groundwater on or off site.
Surface water	Migration of soluble contaminants and/or direct run-off of contaminants. Migration of oils into groundwater on or off site.

Initial Environmental Risk Assessment

General

It is accepted that an environmental risk assessment can be based on a source-pathway-target model. An examination is carried out as to whether a target will be at risk from a contamination source, that a source exists, and whether there are any pathways (routes of exposure) which might actually link the source to the target.

Environmental risk assessments rely heavily on numerical trigger concentrations or guidelines because exposure of targets to contamination is difficult to quantify directly. Quantification of risk is therefore mainly undertaken for general scenarios in order to derive trigger levels. These are derived for various contaminants for particular targets and routes of exposure. An example of a sensitive target would be users of a domestic back garden, where routes of exposure might be skin contact, dust inhalation, direct ingestion and indirect ingestion via cultivation and consumption of fruit and vegetables.

In March 2002, the first parts of the new CLEA risk assessment guidance were released by DEFRA/Environment Agency.

The risk assessment approach is an extension of the 'fit for use' concept whereby land is cleaned up to a standard fit for the proposed use, that is, so all remaining risks are acceptable. However, as well as being 'fit for use', the environmental risk assessment approach also addresses the soil and water environment so that these are also safeguarded where necessary. For example if a site was contaminated with heavy metals and the development comprised the proposed construction of hard standings and buildings only, the fit-for-use approach might require no remediation for the site. However, consideration of the wider environment needs to address whether groundwater is being contaminated, and if so whether remediation is required for this reason.

The following classification presented by CIRIA has been used in the assessment of risk:

Estimation of risk from consideration of magnitude, consequences and probabilities				
Probability	**Consequences**			
	Severe	**Moderate**	**Mild**	**Minor**
High	Very high	High	Moderate	Moderate / Low
Medium	High	Moderate	Moderate / Low	Low
Low	Moderate	Moderate / Low	Low	Very Low
Unlikely	Moderate / Low	Low	Very Low	Very Low

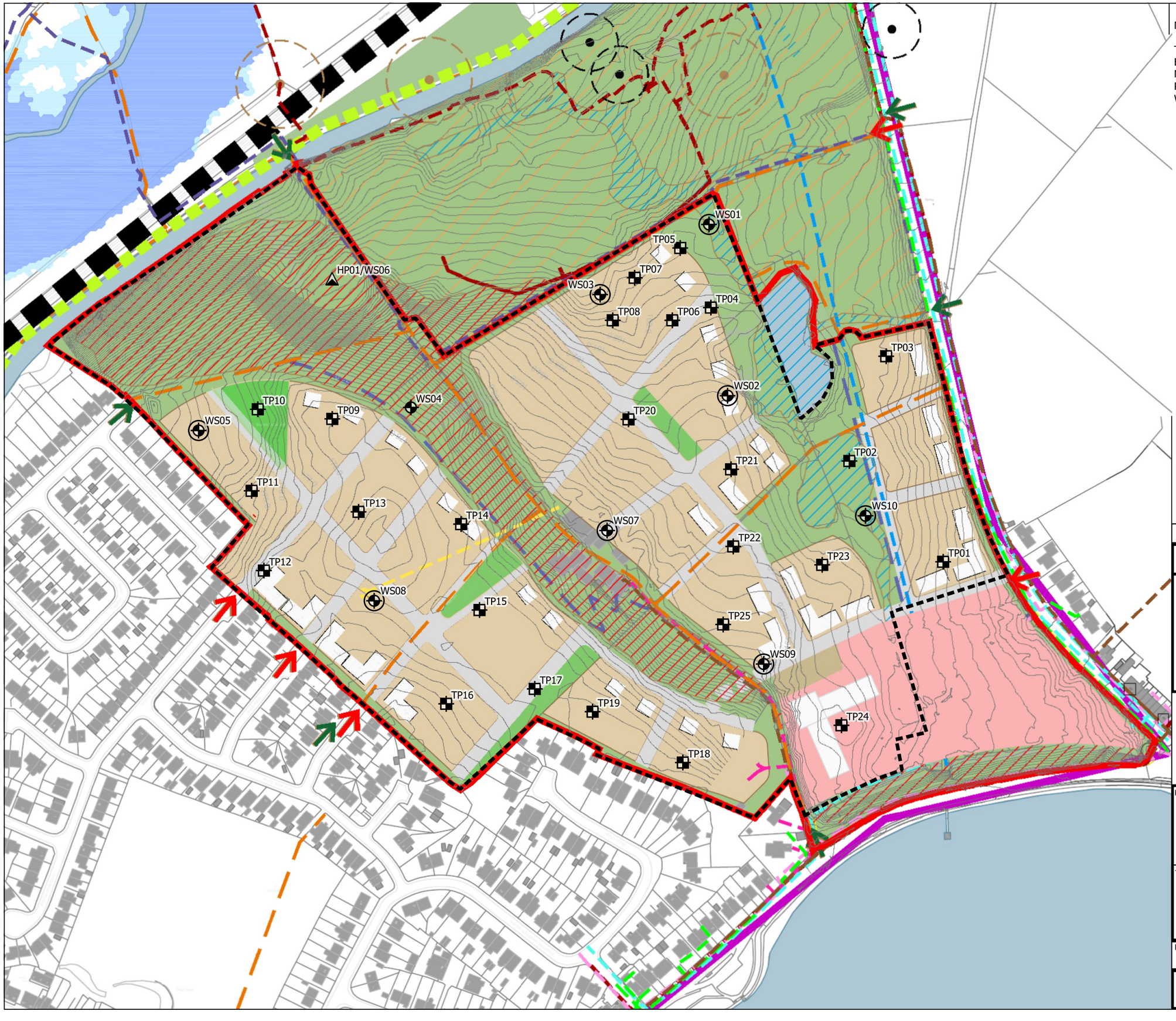
Reference: Contaminated Land Risk Management; A Guide to Good Practice, CIRIA C552:2001

CIRIA C665 Situation A Ground Gas Conceptual Model

The risk table contained in C665 is basically a modified risk assessment from CIRIA 152 1995, by which a conceptual model and semi-quantitative risk assessment can be made.

APPENDIX C

(i) Betts Exploratory Hole Location Plan



NOTES

DO NOT SCALE

THIS SKETCH SHOWS THE INDICATIVE LOCATIONS OF EXPLORATORY HOLES UNDERTAKEN BY BETTS GEO IN MAY 2019 OVERLAIN THE CONCEPT PLAN (Dwg; Concept Plan, No.; 9400, Rev; A, Dated; 10.12.18, By; Barton Willmore).

SITE BOUNDARY

TP1 TRIAL PIT [25]

WS1 WINDOW SAMPLE WITH GAS INSTALL [8]

WS4 WINDOW SAMPLE [1]

HP1/WS6 HANDPIT [1]

REV	DATE	BY	DESCRIPTION	CHK

DRAWING STATUS: DRAFT

BETTS GEO
CONSULTING ENGINEERS
Unit 6, Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire CH5 2LY
Tel: 01244 288178 enquiries@betts-associates.co.uk

BLOOR HOMES®

PROJECT:
HOLLINGWORTH ROAD
LITTLEBOROUGH

TITLE:
EXPLORATORY HOLE
LOCATION PLAN

DATE:	SCALE @ SIZE:	DRAWN:	CHECKED:
21/05/19	1:2500 @ A3	RD	LH

PROJECT No:	DRAWING No:	REV:
18BLH008	1	-

APPENDIX D

(i) Betts Exploratory Hole Logs

Betts Geo Ltd

BOREHOLE LOG

Project				BOREHOLE No
Hollingworth Road, Littleborough				**WS01**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1

SAMPLES & TESTS			STRATA						
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION	Geology	Instrument/ Backfill
0.00-0.20	ES					0.20	Grass over brown slightly sandy very gravelly CLAY with rare cobble of brick and porcelain. Gravel of fine to course subrounded to subangular yellow Sandstone. [MADE GROUND]		
						(0.80)			
						1.00	Firm dark brown mottled pink slightly sandy gravelly CLAY. Gravel of angular to subrounded mixed lithologies including Sandstone. [REWORKED CLAY]		
1.20		N1				(0.40)			
						1.40	Firm dark brown mottled cream very sandy CLAY. [REWORKED CLAY]		
						1.70	Soft light brown slightly sandy slightly gravelly CLAY. Gravel of fine to medium subrounded mixed lithologies. [REWORKED CLAY]		
						2.00	No recovery - assumed pushing cobble down.		
2.00-2.20	ES					(0.40)			
2.00		N5				2.40	Firm dark brown mottled dark grey sandy very gravelly CLAY with rare rootlets.		
2.40-2.60	D					2.60	Gravel of fine to medium rounded to subangular mixed lithologies including yellow Sandstone. [RELIC TOPSOIL?]		
						(0.40)			
						3.00	Firm light brown slightly sandy slightly gravelly CLAY. Gravel of fine to medium subrounded mixed lithologies. [GLACIAL TILL]		
3.00		N5					No recovery.		

Boring Progress and Water Observations					
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt

Chiselling			Water Added	
From	To	Hours	From	To

GENERAL REMARKS

Terminated at target depth. No visual or olfactory evidence of contamination. Dry.

All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used Competitor Rig	Logged By RD

AGS3 UK BH 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

BOREHOLE LOG

Project				BOREHOLE No
Hollingworth Road, Littleborough				**WS02**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.20-0.40	ES					(0.40) 0.40	Grass over dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel of fine angular to subrounded mixed lithologies including Shale and yellow Sandstone. [TOPSOIL]		
1.20		N7				(1.10) 1.50	Firm orange brown mottled grey slightly sandy slightly gravelly CLAY. Gravel fine to medium subrounded yellow Sandstone. [GLACIAL TILL]		
2.00-2.20	D						Stiff becoming soft with depth dark brown grey mottle blue grey slightly sandy CLAY with rare gravel of coarse subrounded to subangular mixed lithologies. [GLACIAL TILL]		
2.00		N13				(1.50)			
3.00		N14				3.00			

Boring Progress and Water Observations					
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt

Chiselling			Water Added	
From	To	Hours	From	To

GENERAL REMARKS

Terminated at target depth. No visual or olfactory evidence of contamination. Dry.

All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used Competitor Rig	Logged By RD

AGS3 UK BH 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

BOREHOLE LOG

Project				BOREHOLE No
Hollingworth Road, Littleborough				**WS03**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1

SAMPLES & TESTS			STRATA						
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION	Geology	Instrument/ Backfill
						0.20	Grass over dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel of fine angular to subrounded mixed lithologies including Shale and yellow Sandstone. [TOPSOIL]		
0.50-0.70	ES					(0.50) 0.70	Soft grey very sandy CLAY with rare coarse subsounded gravel of mixed lithologies. [GLACIAL TILL]		
1.20		N8				(0.50) 1.20	Soft light brown mottled orange slightly gravelly sandy CLAY. Gravel of medium to coarse subrounded to subangular mixed lithologies including yellow Sandstone. [GLACIAL TILL]		
2.00		N12				(1.80)	Firm to stiff brown mottled blue grey slightly sandy gravelly CLAY. Gravel of fine to coarse angular to rounded mixed lithologies including yellow Sandstone. [GLACIAL TILL]		
3.00		N18				3.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	Terminated at target depth. No visual or olfactory evidence of contamination. Dry

All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used Competitor Rig	Logged By RD

AGS3 UK BH 18BLH008 - HOLLINGWORTH ROAD LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

BOREHOLE LOG

Project				BOREHOLE No
Hollingworth Road, Littleborough				**WS04**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.00-0.20	ES					0.20	Grass over dark brown slightly sandy slightly gravelly CLAY with frequent rootlets.		
						(0.40)	Gravel of fine angular to subrounded mixed lithologies including Shale and yellow Sandstone.		
						0.60	[TOPSOIL]		
0.60		N50/ 150 mm					Loose orange slightly clayey very gravelly SAND. Gravel of fine to coarse angular yellow Sandstone. [WEATHERED MILNROW SANDSTONE]		

Boring Progress and Water Observations					
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt

Chiselling			Water Added	
From	To	Hours	From	To

GENERAL REMARKS

Refused at 0.6mbgl due to shallow Sandstone bedrock. No visual or olfactory evidence of contamination. Dry.

All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used Competitor Rig	Logged By RD

AGS3 UK BH 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

BOREHOLE LOG

Project				BOREHOLE No
Hollingworth Road, Littleborough				**WS05**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1

SAMPLES & TESTS			STRATA							
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION	Geology	Instrument/ Backfill
0.00-0.20	ES					0.20	Grass over dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel of fine angular to subrounded mixed lithologies including Shale and yellow Sandstone. [TOPSOIL]		
						(0.80)			
						1.00	Loose orange brown slightly clayey slightly gravelly SAND. Gravel of fine to medium angular to subrounded mixed lithologies including Sandstone. [GLACIAL TILL]		
1.00-1.20	D								
1.20		N2				(0.70)			
						1.70	Soft becoming firm brown slightly sandy slightly gravelly CLAY. Gravel of fine to coarse subrounded mixed lithologies. [GLACIAL TILL]		
						2.00	No recovery - pushing cobble down.		
2.00		N6				2.10	Fine angular cobble of yellow Sandstone. [GLACIAL TILL]		
						2.30			
2.30-2.50	ES					2.50	Fine to coarse angular gravel of yellow Sandstone. [GLACIAL TILL]		
						2.80	Soft black fiberous gravelly sandy PEAT. Gravel of fine subrounded mixed lithologies.		
						3.00	Soft light brown slightly sandy slightly gravelly CLAY. Gravel of fine to medium angular mixed lithologies. [GLACIAL TILL]		
3.00		N7					No recovery.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	Terminated at target depth. No visual or olfactory evidence of contamination. Dry.

All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used Competitor Rig	Logged By RD

AGS3 UK BH 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

BOREHOLE LOG

Project				BOREHOLE No
Hollingworth Road, Littleborough				**WS07**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1

SAMPLES & TESTS			STRATA						
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION	Geology	Instrument/ Backfill
0.40-0.60	ES					(0.50) 0.50	Grass over dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel of fine angular to subrounded mixed lithologies including Shale and yellow Sandstone. [TOPSOIL]		
1.20		N8				(0.50) 1.00 1.30	Soft light brown mottled orange brecoming blue grey mottled orange slightly gravelly very sandy CLAY. Gravel of medium to coarse subrounded to subangular mixed lithologies. [GLACIAL TILL]		
2.00		N9				(0.70) 2.00	No recovery.		
2.40-2.60	D					(0.40) 2.40	Firm becoming soft brown mottled grey slightly sandy slightly gravelly CLAY with rare cobble. Gravel of fine to medium subrounded to subangular mixed lithologies including coal and Sandstone. Cobble of medium subangular Sandstone. [GLACIAL TILL]		
3.00		N5				(0.40) 2.80 3.00	Very soft brown slightly gravelly sandy CLAY. Gravel of fine rounded mixed lithologies. [GLACIAL TILL]		
							Stiff brown slightly gravelly CLAY. Gravel of fine to medium subrounded to subangular mixed lithologies. [GLACIAL TILL]		
							Loose to medium brown fine to coarse clayey SAND. [GLACIAL TILL]		

Boring Progress and Water Observations					
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt

Chiselling			Water Added	
From	To	Hours	From	To

GENERAL REMARKS

Terminated at target depth. No visual or olfactory evidence of contamination. Dry.

All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used Competitor Rig	Logged By RD

AGS3 UK BH 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

BOREHOLE LOG

Project				BOREHOLE No
Hollingworth Road, Littleborough				**WS08**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1

SAMPLES & TESTS			STRATA						
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION	Geology	Instrument/ Backfill
0.10-0.30	ES					0.30	Grass over dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel of fine angular to subrounded mixed lithologies including Shale and yellow Sandstone. [TOPSOIL]		
						(0.70)			
						1.00	Soft brown slightly gravelly very sandy CLAY. Gravel of medium to coarse rounded to subrounded mixed lithologies. [GLACIAL TILL]		
1.20		N6				(0.50)			
						1.50	Firm to stiff orange brown mottled grey and brown slightly sandy slightly gravelly CLAY. Gravel of fine angular to subrounded mixed lithologies including Shale. [GLACIAL TILL]		
2.00		N8				(1.40)	Firm brown slightly sandy slightly gravelly CLAY. Gravel of fine to medium angular to subrounded mixed lithologies including Shale. [GLACIAL TILL]		
2.50-2.60	D						Loose grey purple fine to medium SAND layer @ 2.4mbgl.		
						2.90			
3.00		N13				3.00	Loose brown fine to coarse very gravelly SAND. Gravek of fine to coarse rounded to subrounded mixed lithologies. [GLACIAL TILL]		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	Terminated at target depth. No visual or olfactory evidence of contamination. Dry.

All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used Competitor Rig	Logged By RD

AGS3 UK BH 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

BOREHOLE LOG

Project				BOREHOLE No
Hollingworth Road, Littleborough				**WS09**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.20	Grass over dark brown slightly sandy slightly gravelly CLAY with frequent rootlets.		
0.50-0.60	ES					(0.40) 0.60	Gravel of fine angular to subrounded mixed lithologies including Shale and yellow Sandstone. [TOPSOIL]		
1.20		N10				(1.80)	Soft light orange brown mottled grey slightly sandy slightly gravelly CLAY. Gravel of fine to coarse subrounded to subangular mixed lithologies including Sandstone. [GLACIAL TILL]		
2.00		N17				2.40	Firm to stiff brown with occasional grey mottling slightly sandy CLAY with rare fine subrounded gravel. [GLACIAL TILL] No mottling below 1.5mbgl. Below 1.7mbgl greater gravel proportion of coarse subangular mixed lithologies including Sandstone.		
3.00		N50/ 210 mm				(0.60) 3.00	Loose to medium yellow and brown very sandy GRAVEL of fine to medium angular Shale. [WEATHERED LOWER PENNINE COAL MEASURES]		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	Terminated at target depth. No visual or olfactory evidence of contamination. Dry.

All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used Competitor Rig	Logged By RD

AGS3 UK BH 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

BOREHOLE LOG

Project				BOREHOLE No
Hollingworth Road, Littleborough				**WS10**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1

SAMPLES & TESTS			STRATA						
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION	Geology	Instrument/ Backfill
0.00-0.20	ES					0.30	Grass over dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel of fine angular to subrounded mixed lithologies including Shale and yellow Sandstone. [TOPSOIL]		
						(0.70)			
						1.00	Soft light grey mottled brown very sandy CLAY. [GLACIAL TILL]		
						1.20	No recovery.		
1.20		N3				1.50	Loose to medium brown fine to medium SAND. [GLACIAL TILL]		
							Firm brown slightly sandy slightly gravelly CLAY. Gravel of fine subrounded mixed lithologies. [GLACIAL TILL]		
2.00		N10				(1.50)			
2.50-2.60	D								
						3.00			
3.00		N11							

Boring Progress and Water Observations						Chiselling			Water Added	
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To

GENERAL REMARKS

Terminated at target depth. No visual or olfactory evidence of contamination. Dry.

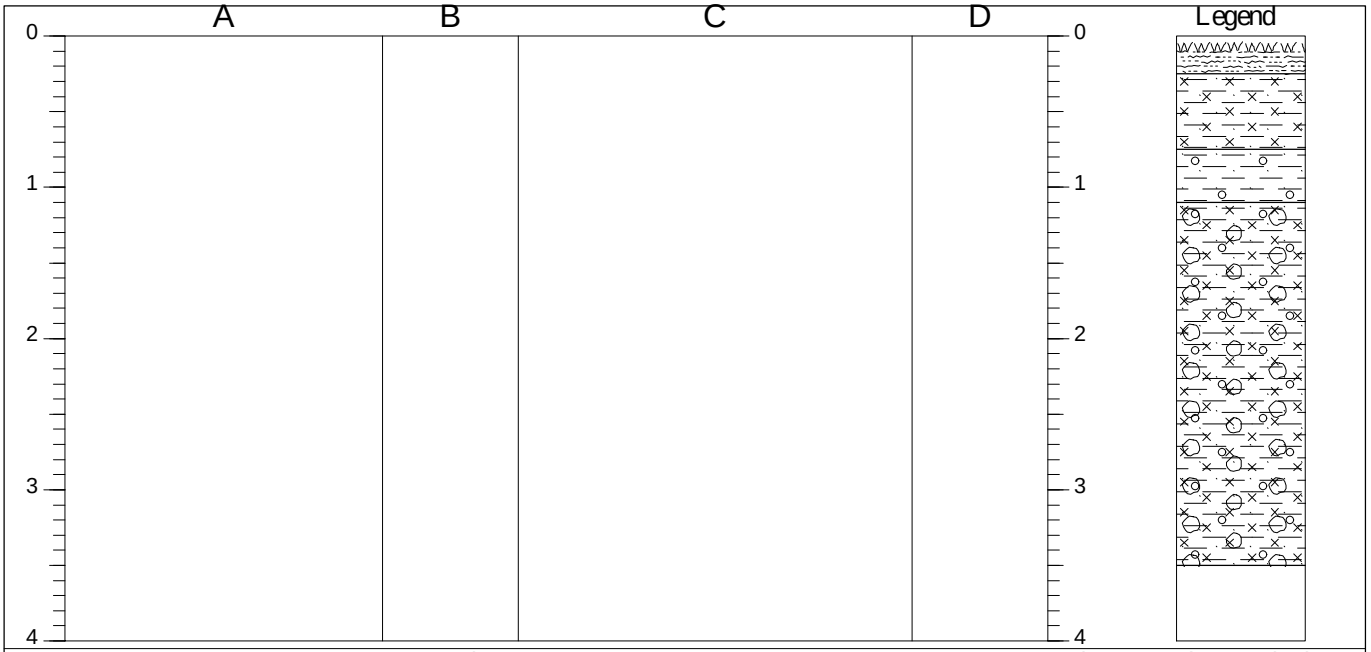
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used Competitor Rig	Logged By RD

AGS3 UK BH 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

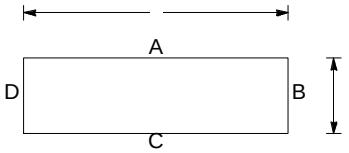
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP01**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	07-05-19 07-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.25		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.	0.10	ES1	
0.25-0.75		Soft light brown and orange silty sandy CLAY.			
0.75-1.10		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.	0.90	ES2	
1.10-3.50		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies. 1.10 - 3.50 Becomes more cobbly with depth			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

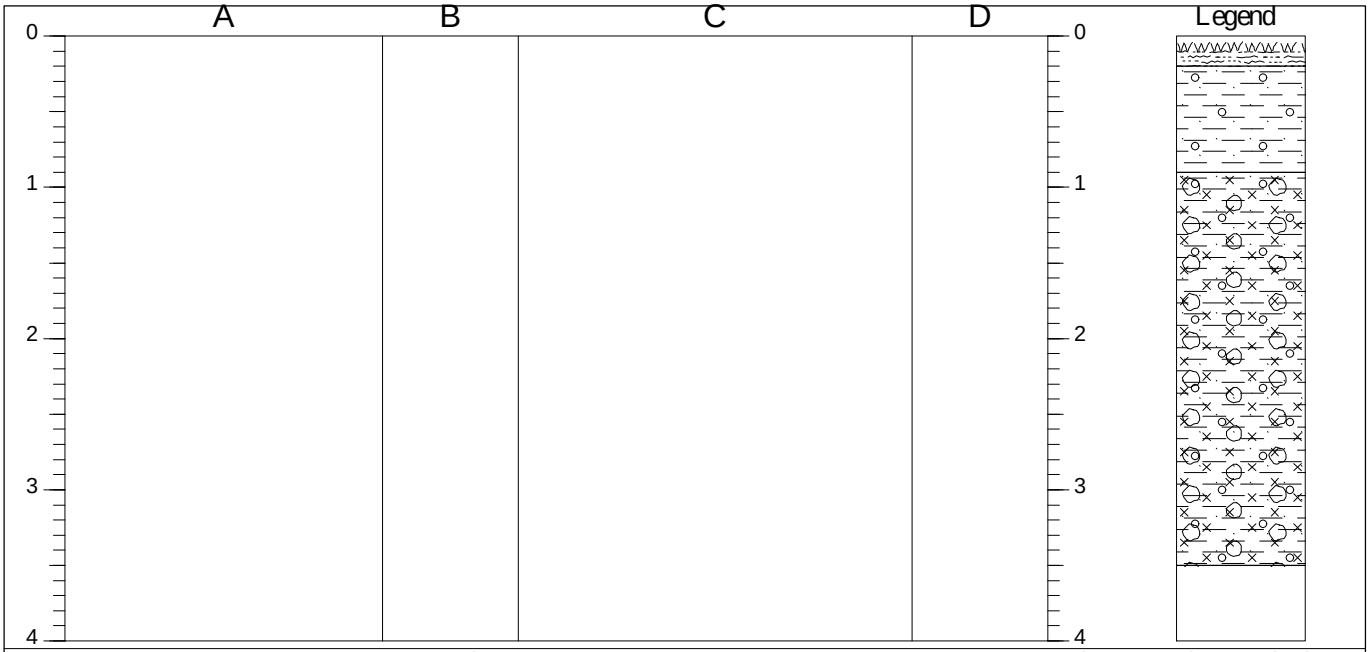
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

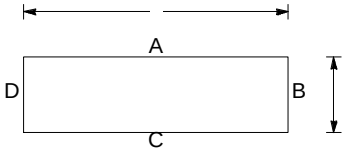
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP02**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	07-05-19 07-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.20-0.90		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
0.90-3.50		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies.	2.00 2.00	D1 ES1	

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Slight groundwater seepage at 1.0 m bgl

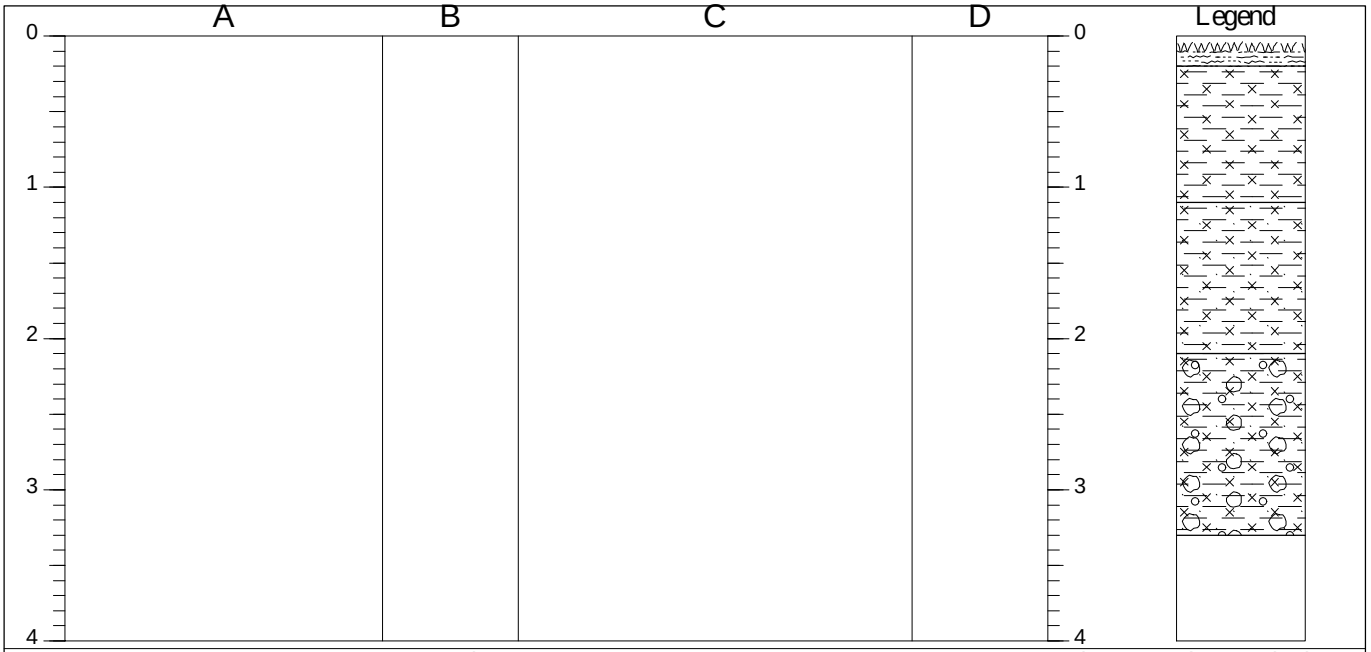
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

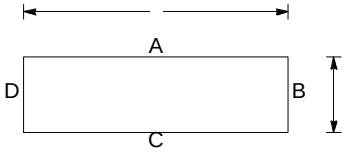
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP03**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	07-05-19 07-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.20-1.10		Soft yellowish brown and grey slightly silty CLAY			
1.10-2.10		Soft to firm grey very sandy slightly gravelly CLAY. Gravel is subangular to rounded, fine to coarse of various lithologies.	1.50	ES1	
2.10-3.30		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies.			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Slight groundwater seepage at 1.2 m bgl

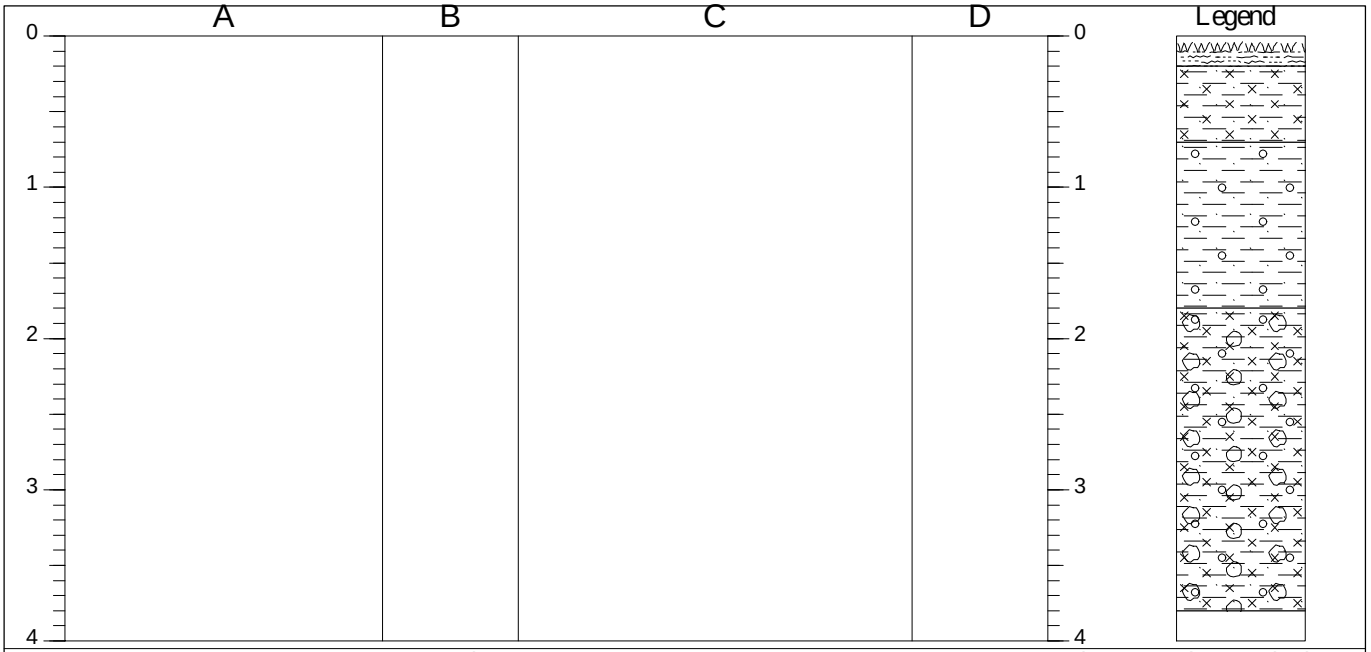
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

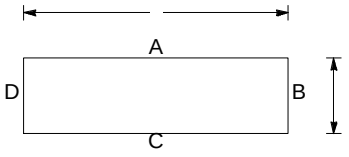
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP04**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	07-05-19 07-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.	0.10	ES1	
0.20-0.70		Soft light brown and orange silty sandy CLAY.			
0.70-1.80		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.	1.50	ES2	
1.80-3.80		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies.			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Slight groundwater seepage at 2.5 m bgl

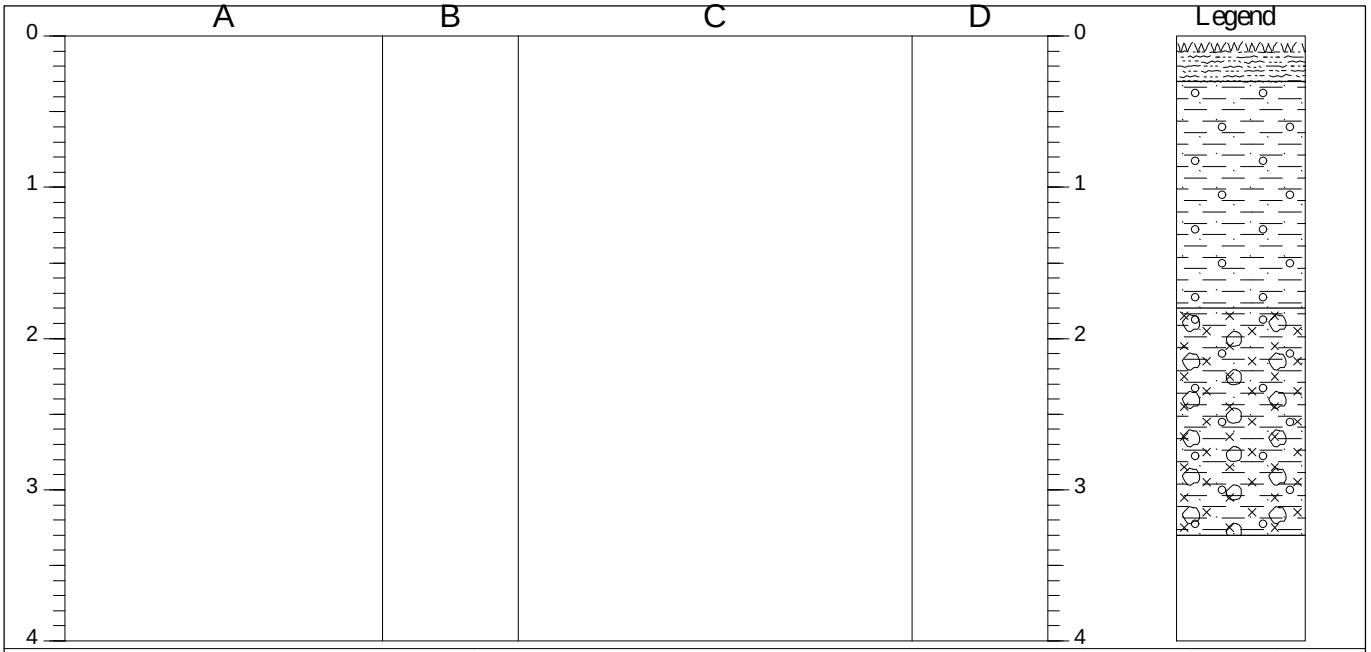
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP05**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	07-05-19 07-05-19			
Contractor				Sheet
				1 of 1

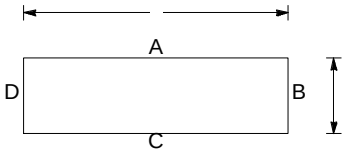


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.30-1.80		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
1.80-3.30		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies.	3.00	ES1	

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

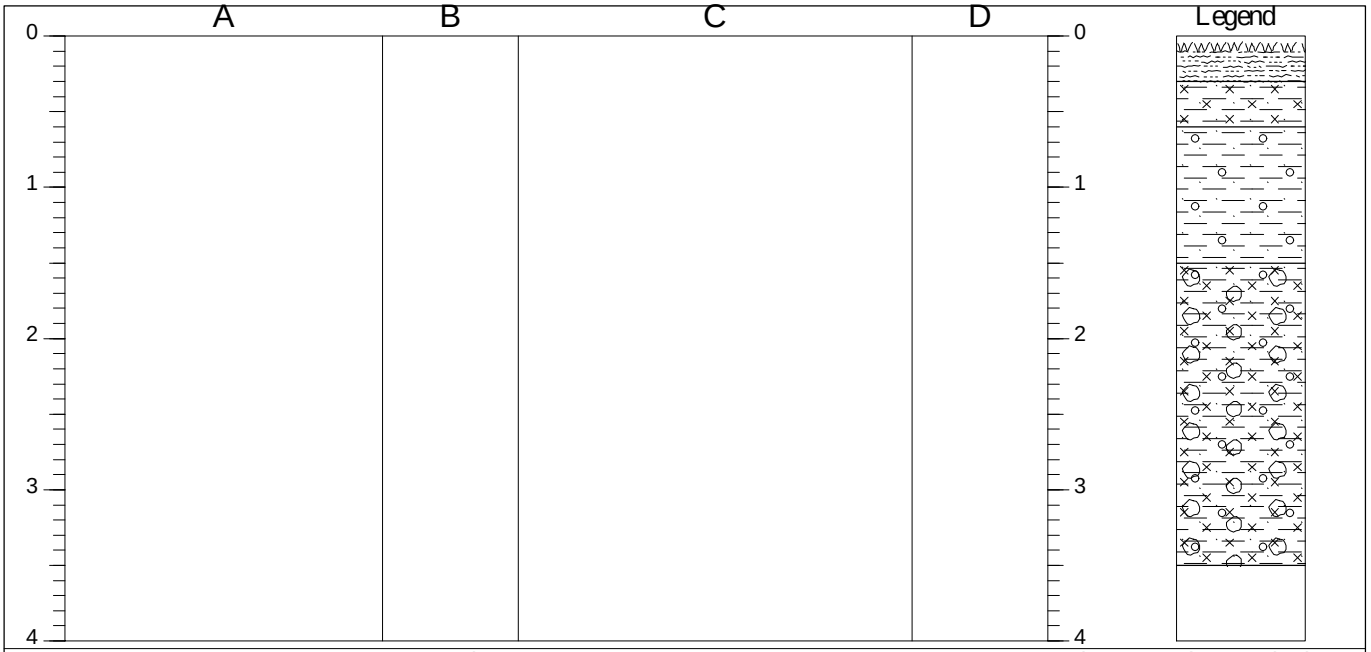
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP06**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1

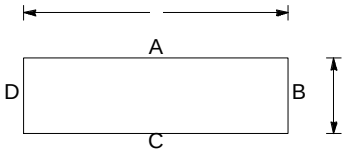


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.30-0.60		Soft light brown and orange silty sandy CLAY.	0.50	ES1	
0.60-1.50		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
1.50-3.50		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies.			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

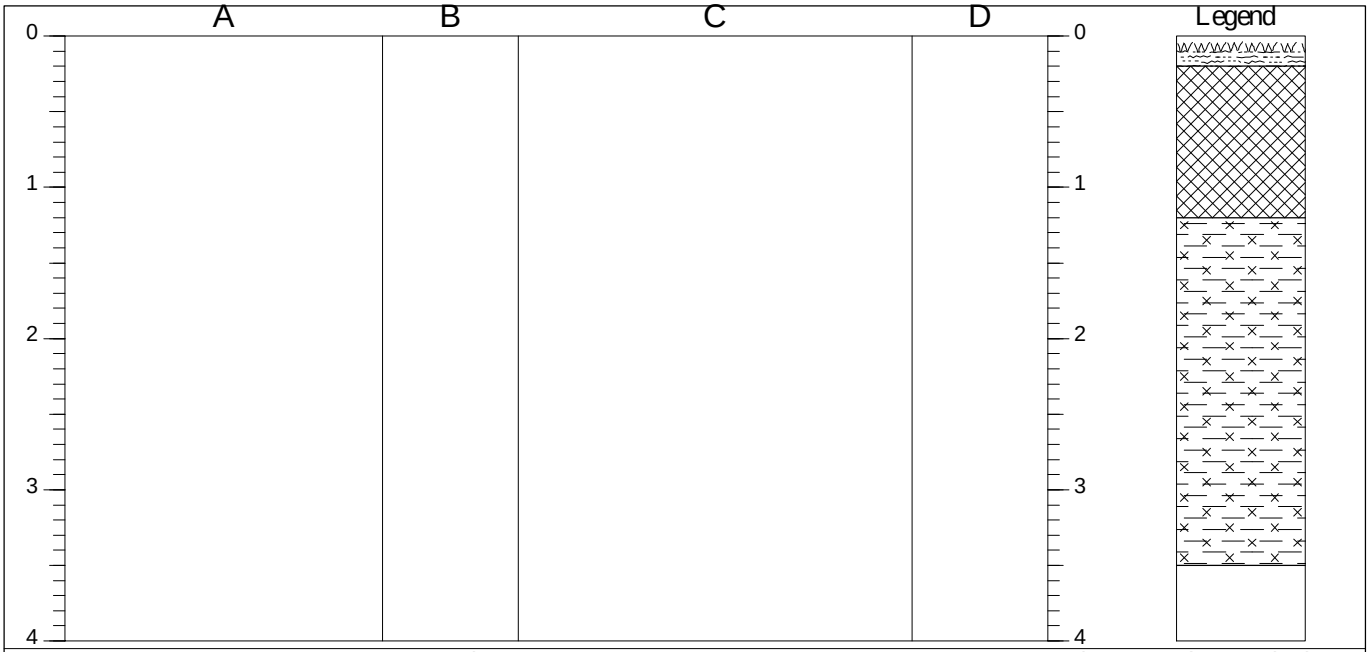
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP07**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1

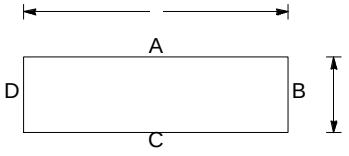


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.	0.10	ES1	
0.20-1.20		MADE GROUND: Firm yellowish brown and grey sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of concrete. Cobles are subangular to subrounded of concrete.	1.00	ES2	
1.20-3.50		Soft to firm light greyish brown silty CLAY. 1.20 - 3.50 Becomes sandy with depth			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Slight groundwater seepage at 3.3 m bgl

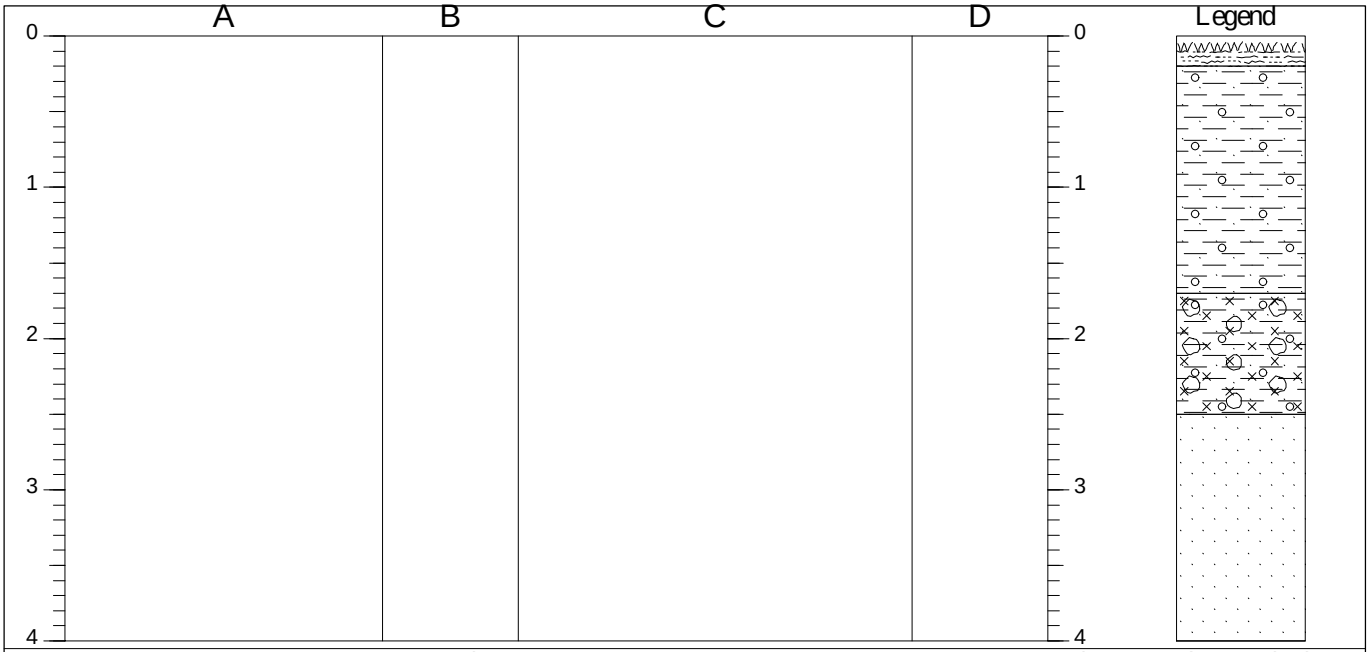
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

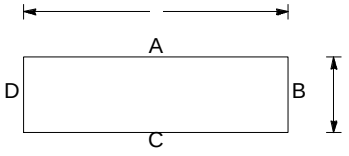
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP08**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.20-1.70		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
1.70-2.50		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies.	2.00	ES1	
2.50-4.00		Yellowish brown fine to coarse SAND.			

Shoring/Support:
Stability: Collapsing > 2.5 m bgl



GENERAL REMARKS

Dry

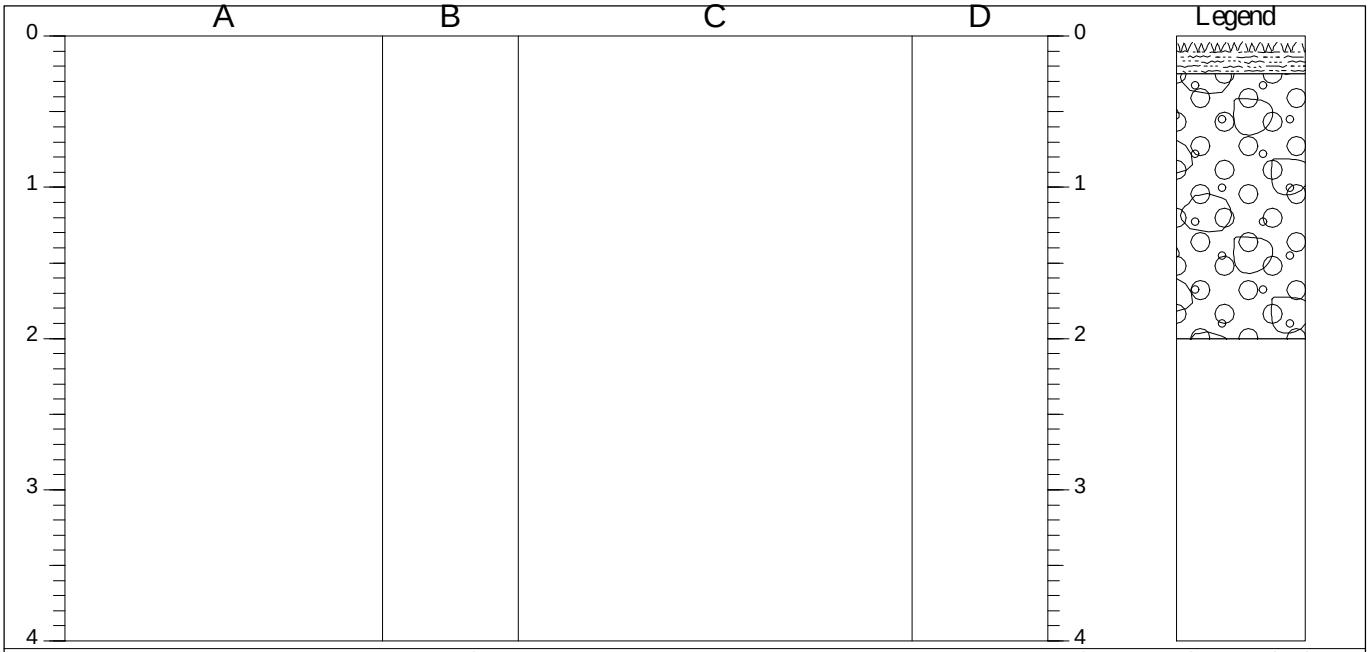
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

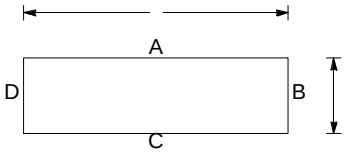
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP09**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1



STRATA				SAMPLES & TESTS		
Depth	No	DESCRIPTION		Depth	No	Remarks/Tests
0.00-0.25		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.		0.10	ES1	
0.25-2.00		Yellowish brown subangular sandy gravelly cobbly BOULDERS of sandstone. Weathered sandstone.				

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry. Trial pit terminated due to reaching bedrock.

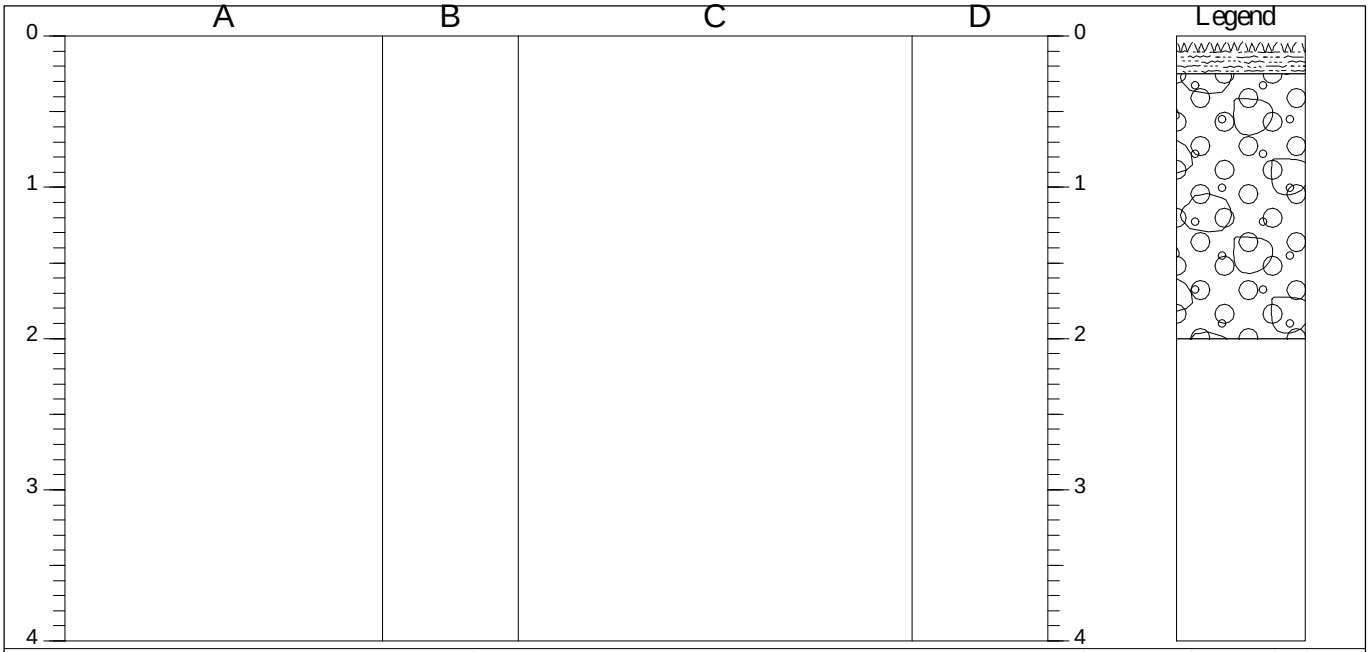
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

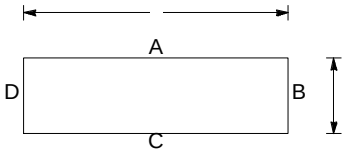
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP10**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1



STRATA				SAMPLES & TESTS		
Depth	No	DESCRIPTION		Depth	No	Remarks/Tests
0.00-0.25		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.		0.10	ES1	
0.25-2.00		Yellowish brown subangular sandy gravelly cobbly BOULDERS of sandstone. Weathered sandstone.				

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry. Trial pit terminated due to reaching bedrock.

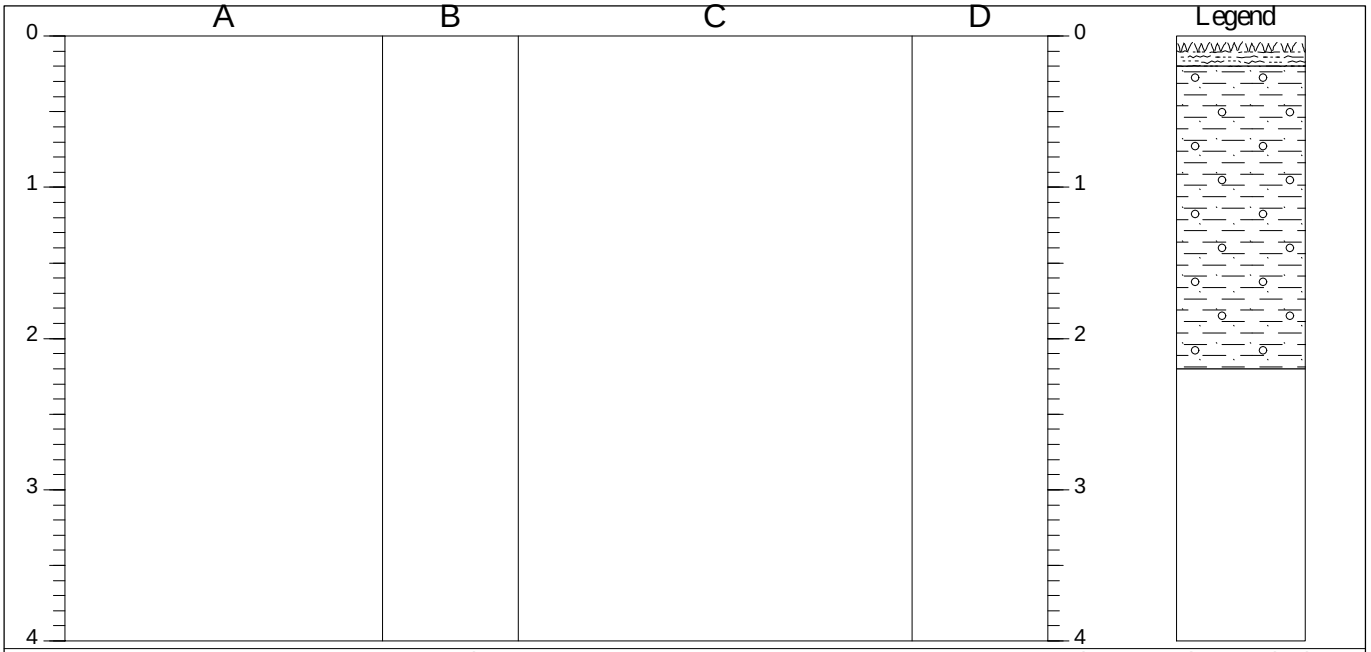
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP11**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	08-05-19 08-05-19			
Contractor				Sheet
				1 of 1

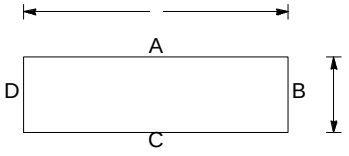


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.20-2.20		Soft to firm reddish brown sandy gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of sandstone and various lithologies. 0.20 - 2.20 Becomes more gravelly with depth	1.50	ES1	
		Reddish brown sandstone at base of pit			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry. Trial pit terminated due to reaching bedrock.

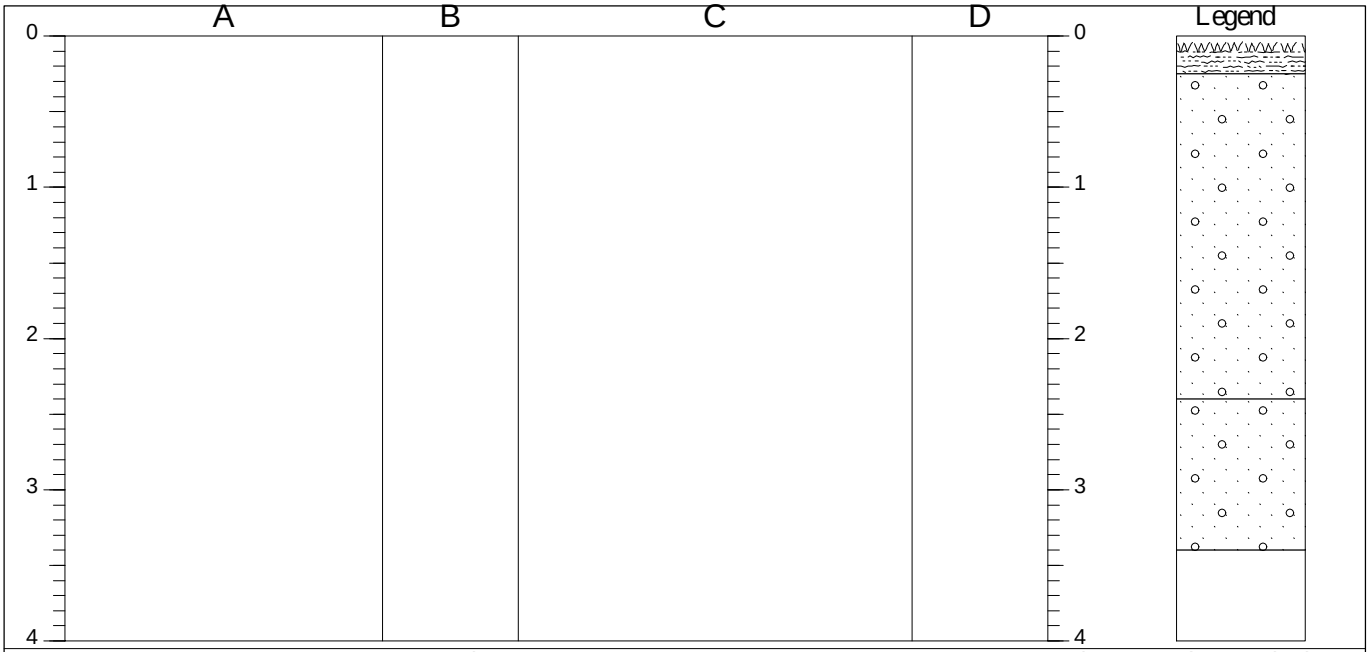
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP12**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1

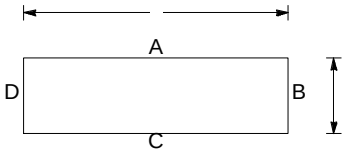


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.25		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.25-2.40		Reddish brown gravelly SAND. Gravel is subangular to subrounded, fine to coarse of various lithologies. Weathered sandstone.	1.00	ES1	
2.40-3.40		Orangish brown slightly gravelly SAND. Gravel is subangular to subrounded, fine to coarse of various lithologies. Weathered sandstone.	3.00	ES2	

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

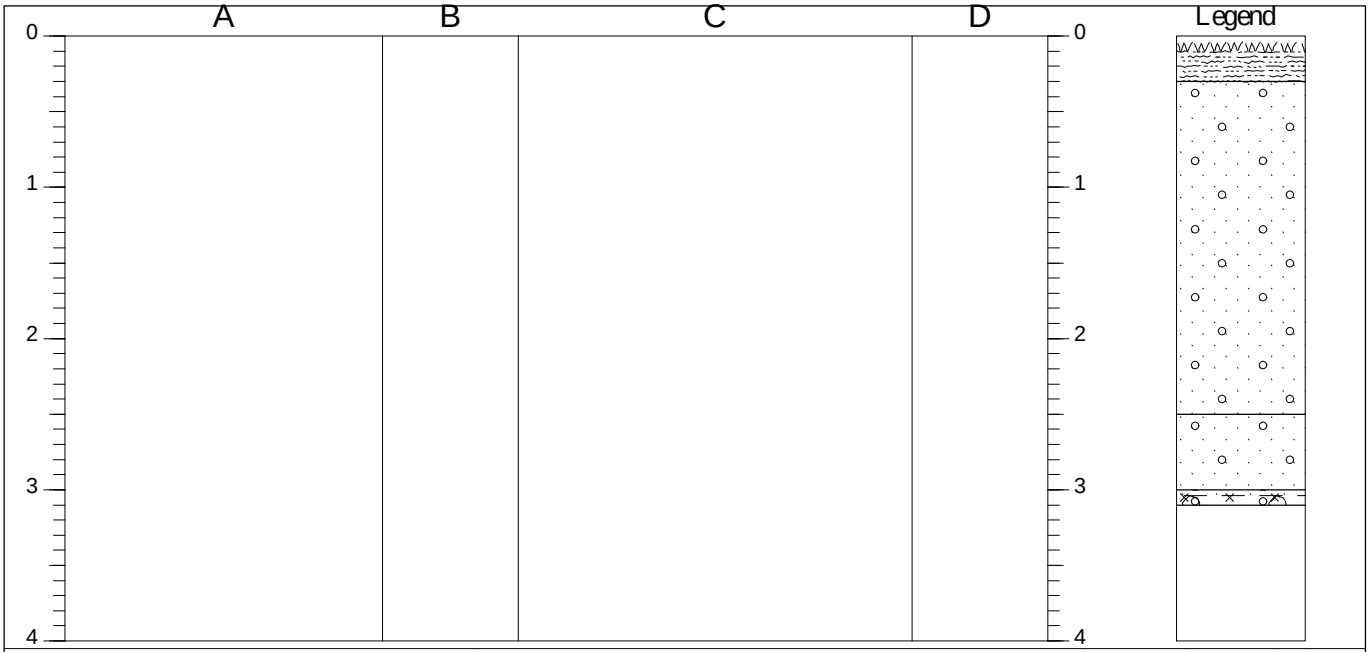
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP13**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1

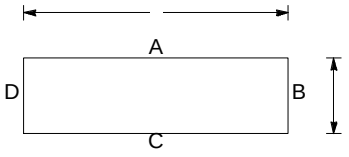


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.30-2.50		Reddish brown gravelly SAND. Gravel is subangular to subrounded, fine to coarse of various lithologies. Weathered sandstone.	0.50	ES1	
2.50-3.00		Orangish brown slightly gravelly SAND. Gravel is subangular to subrounded, fine to coarse of various lithologies. Weathered sandstone.			
3.00-3.10		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies.			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

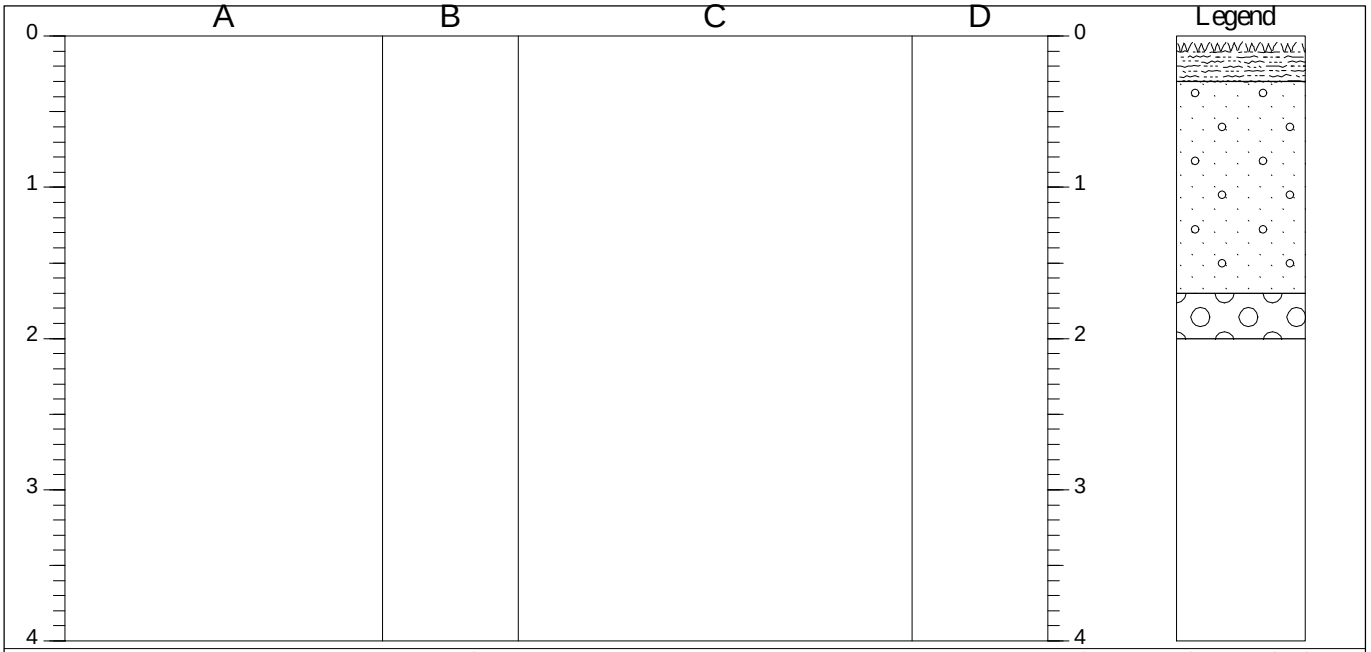
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP14**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1

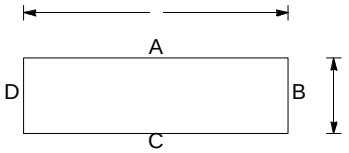


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.	0.10	ES1	
0.30-1.70		Reddish brown gravelly SAND. Gravel is subangular to subrounded, fine to coarse of various lithologies. Weathered sandstone.			
1.70-2.00		Yellowish brown SANDSTONE recovered as cobbles. Weathered sandstone.			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

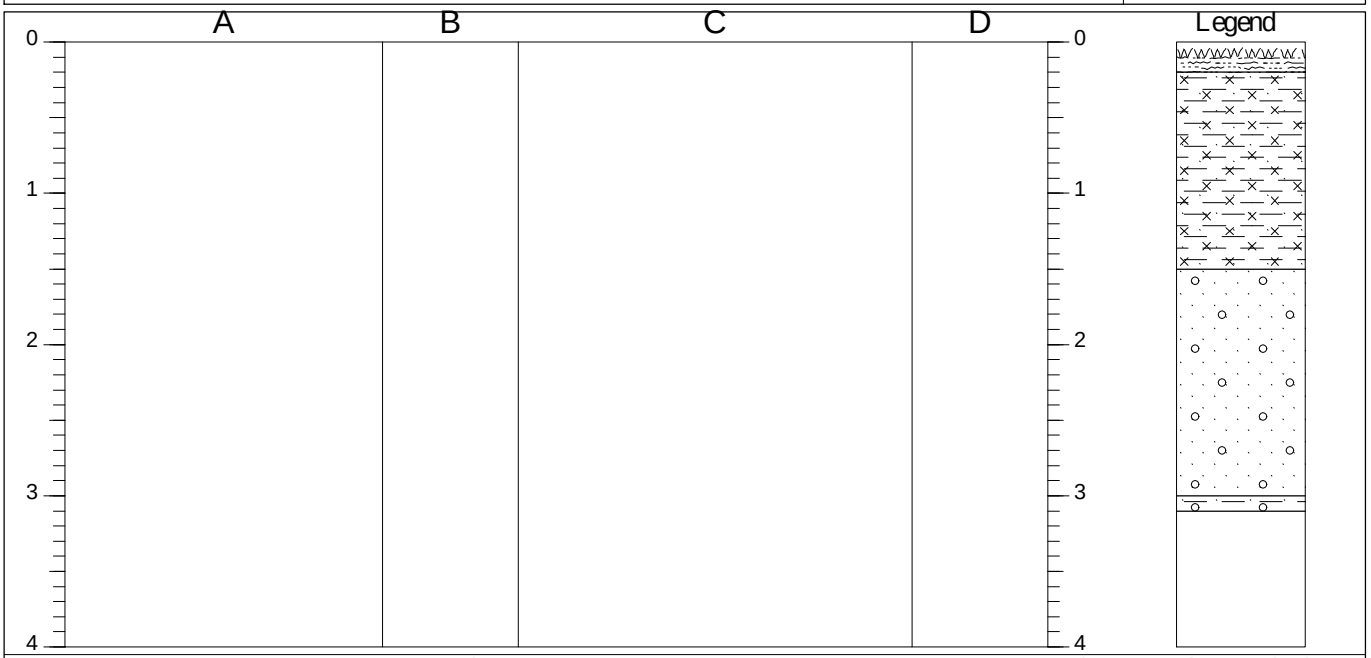
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP15**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1

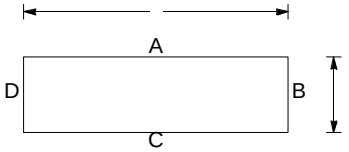


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of sandstone. Frequent rootlets.			
0.20-1.50		Soft light brown and orange silty sandy CLAY.	0.50	ES1	
1.50-3.00		Orangish brown slightly gravelly SAND. Gravel is subangular to subrounded, fine to coarse of various lithologies. Weathered sandstone.			
3.00-3.10		Firm orangish brown sandy gravelly CLAY. Gravel is subangular to rounded, fine to coarse of various lithologies.			

Shoring/Support:
Stability: Unstable > 2.5 m bgl



GENERAL REMARKS

Slight groundwater seepage at 2.8 m bgl

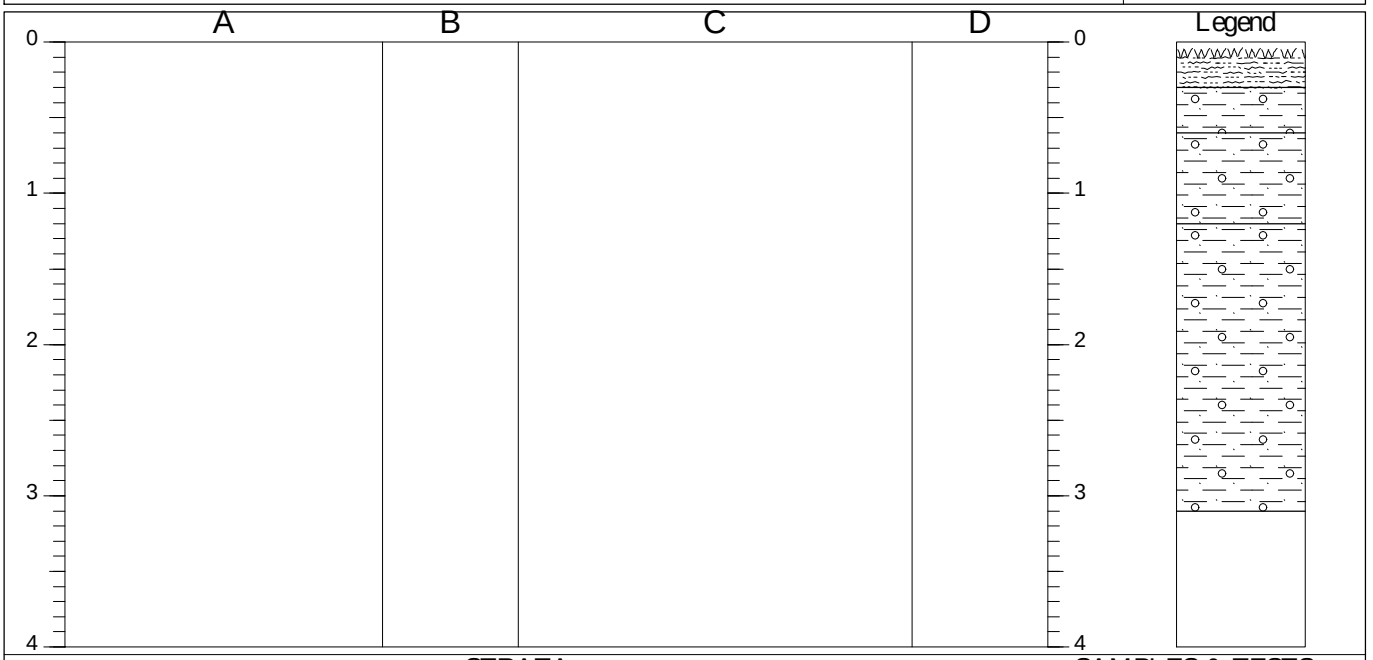
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

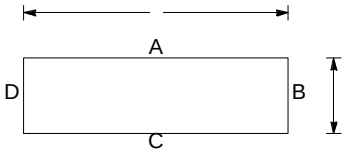
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP16**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1



STRATA				SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.	0.10	ES1	
0.30-0.60		Soft grey mottled orange orange slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies including sandstone.			
0.60-1.20		Firm orangish brown mottled grey slightly sandy lightly gravelly CLAY. Gravel is subangualr to rounded, fine to coarse of various lithologies including sandstone. Rare cobbles of medium rounded sandstone.			
1.20-3.10		Stiff brown with rare orange and blueish grey mottling slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, angular to subrounded of mixed lithologies including shale and sandstone.	3.00	D1	

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

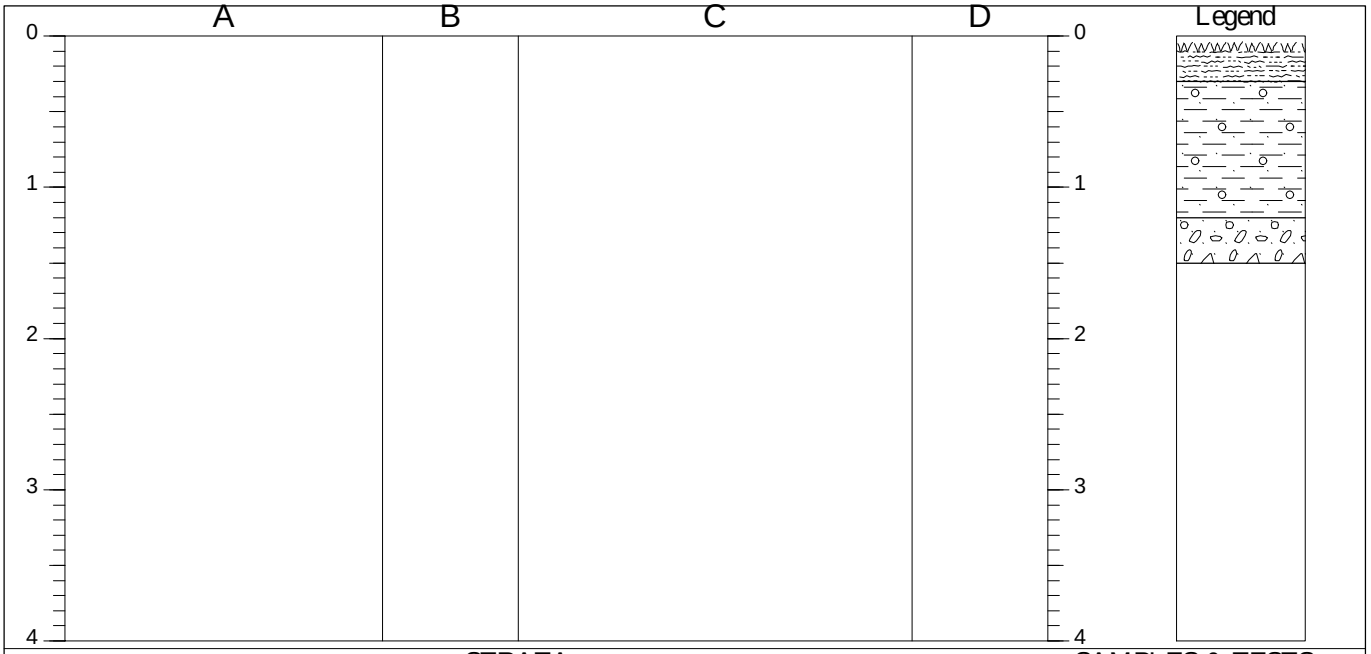
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By RD

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

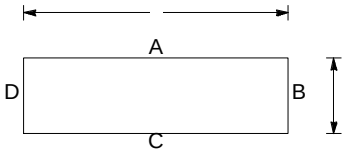
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP17**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.30-1.20		Soft to firm orangish brown and grey slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. 0.30 - 1.20 Becomes more gravelly with depth	0.80	ES1	
1.20-1.50		Yellowish brown SAND & GRAVEL of weathered sandstone.			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

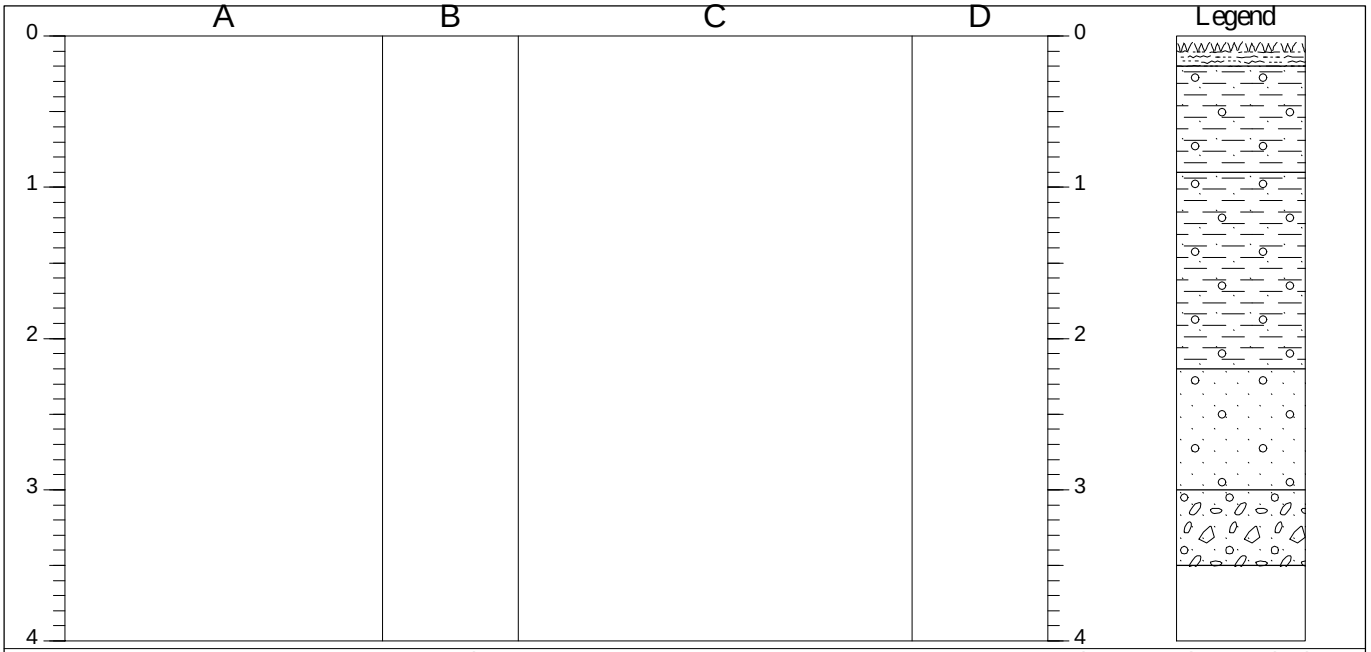
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

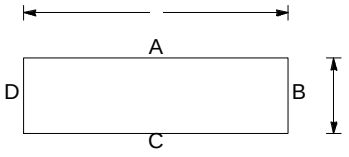
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP18**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.	0.10	ES1	
0.20-0.90		Soft to firm yellowish brown and brown sandy gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
0.90-2.20		Soft to firm orangish brown and grey slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.	1.50	ES2	
2.20-3.00		Reddish brown slightly gravelly SAND. Gravel is subangular to subrounded, fine to coarse of various lithologies. Possible weathered sandstone.			
3.00-3.50		Orangish brown SAND & GRAVEL of weathered sandstone.			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

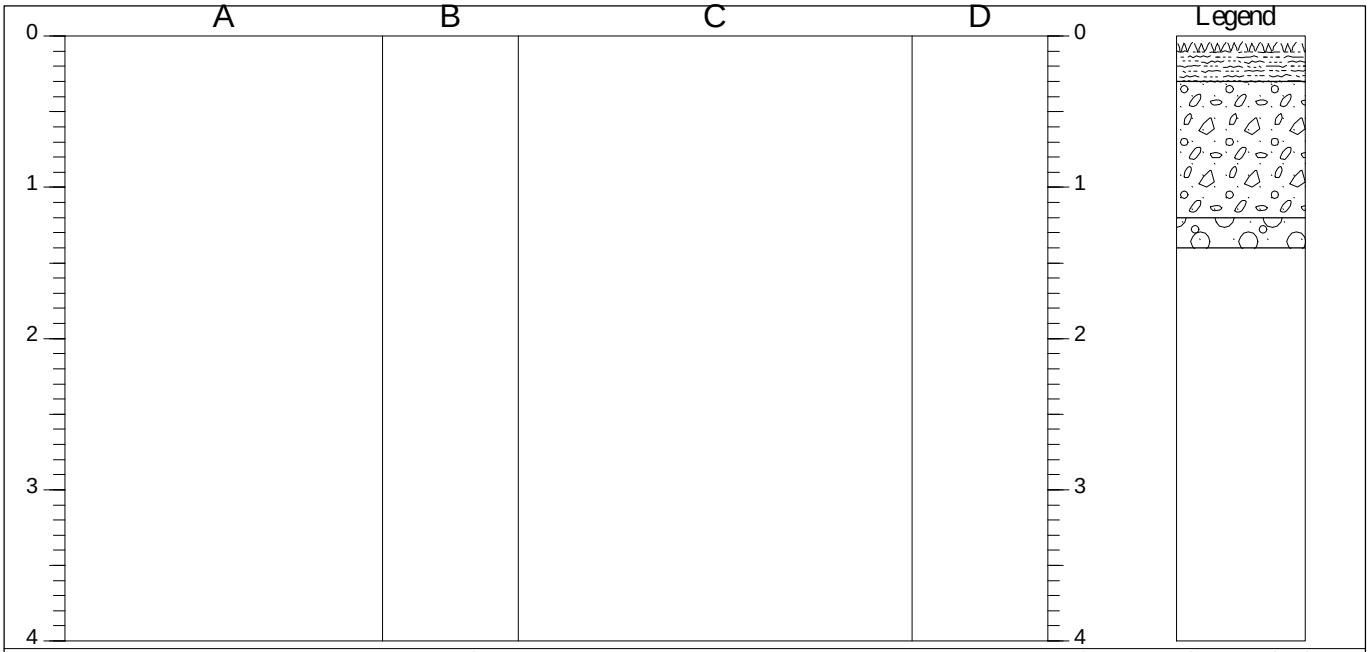
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

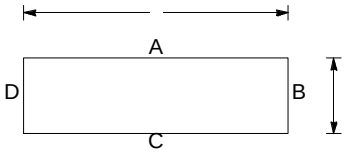
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP19**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	09-05-19 09-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.30-1.20		Orangish brown SAND & GRAVEL. Weathered sandstone.	0.50	ES1	
1.20-1.40		Reddish brown sandy gravelly COBBLES of weathered sandstone.			

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

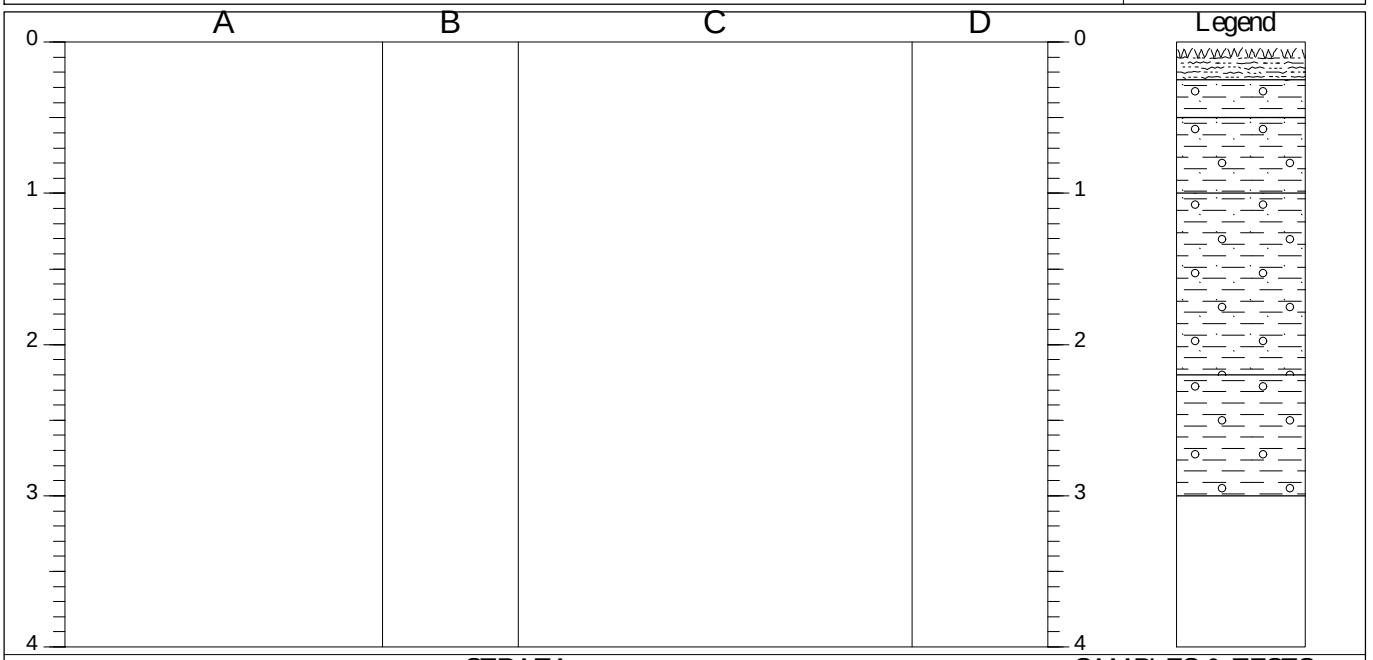
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP20**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	10-05-19 10-05-19			
Contractor				Sheet
				1 of 1

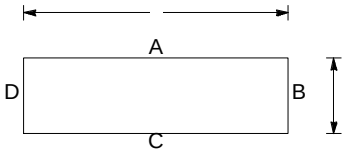


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.25		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.25-0.50		Soft to firm yellowish brown and brown sandy gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.	0.40	ES1	
0.50-1.00		Soft to firm orangish brown and grey slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
1.00-2.20		Soft to firm reddish brown and grey slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
2.20-3.00		Soft yellowish brown and grey wet very gravelly CLAY. Gravel is subangular to rounded, fine to coarse of various lithologies including sandstone. Occasional rounded cobbles of sandstone.	2.50	ES2	

Shoring/Support:
Stability: Unstable >2.2 m bgl



GENERAL REMARKS

Groundwater entry at 2.2 m bgl

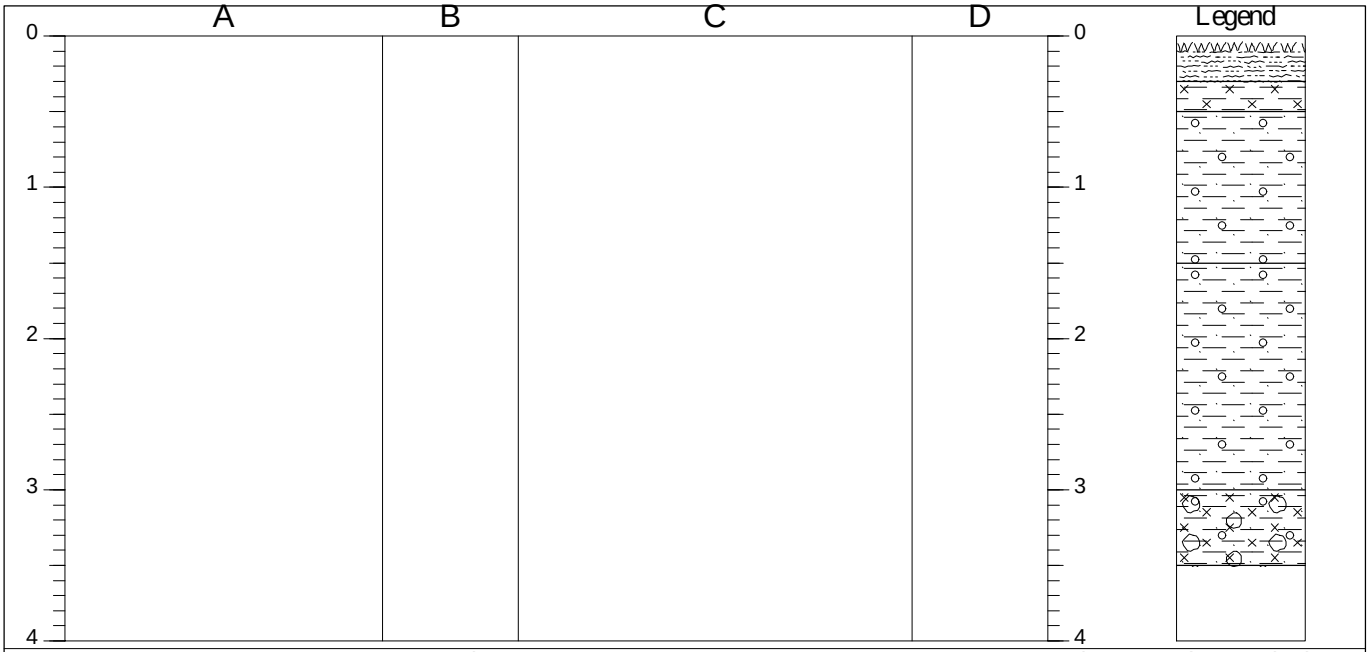
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

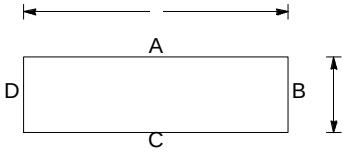
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP21**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	10-05-19 10-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.	0.10	ES1	
0.30-0.50		Soft yellowish brown and grey slightly silty CLAY			
0.50-1.50		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
1.50-3.00		Stiff brown with rare orange and blueish grey mottling slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, angular to subrounded of mixed lithologies including shale and sandstone.			
3.00-3.50		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies.			
		3.00 - 3.50 Becomes more sandy with depth			

Shoring/Support:
Stability: Unstable >3.0 m bgl



GENERAL REMARKS

Slight groundwater seepage at 3.2 m bgl

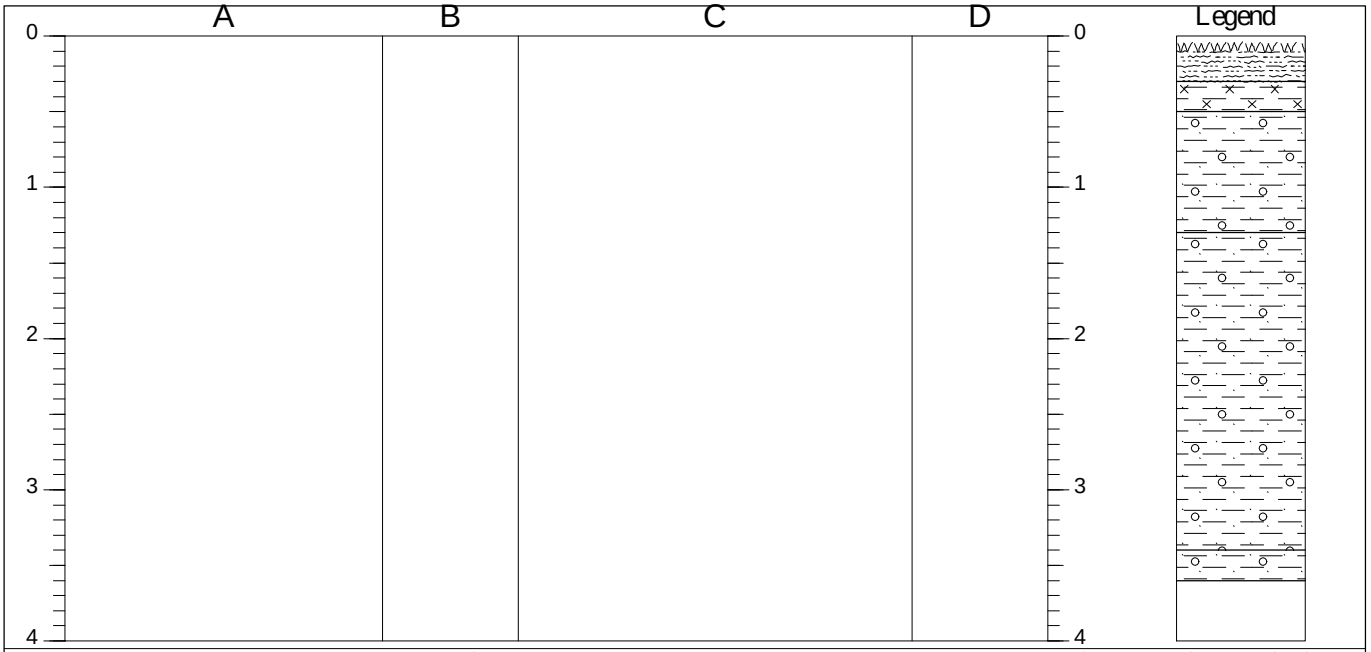
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

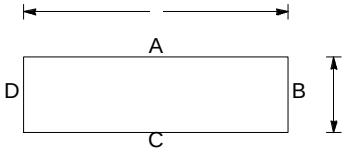
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP22**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	10-05-19 10-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.30-0.50		Soft yellowish brown and grey slightly silty CLAY			
0.50-1.30		Soft to firm reddish brown and grey slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
			1.00	ES1	
1.30-3.40		Firm to stiff yellowish brown and grey very sandy gravelly CLAY, Gravel is subangular to subrounded, fine to coarse of various lithologies.			
3.40-3.60		Soft to firm reddish brown and grey slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.	3.50	ES2	

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

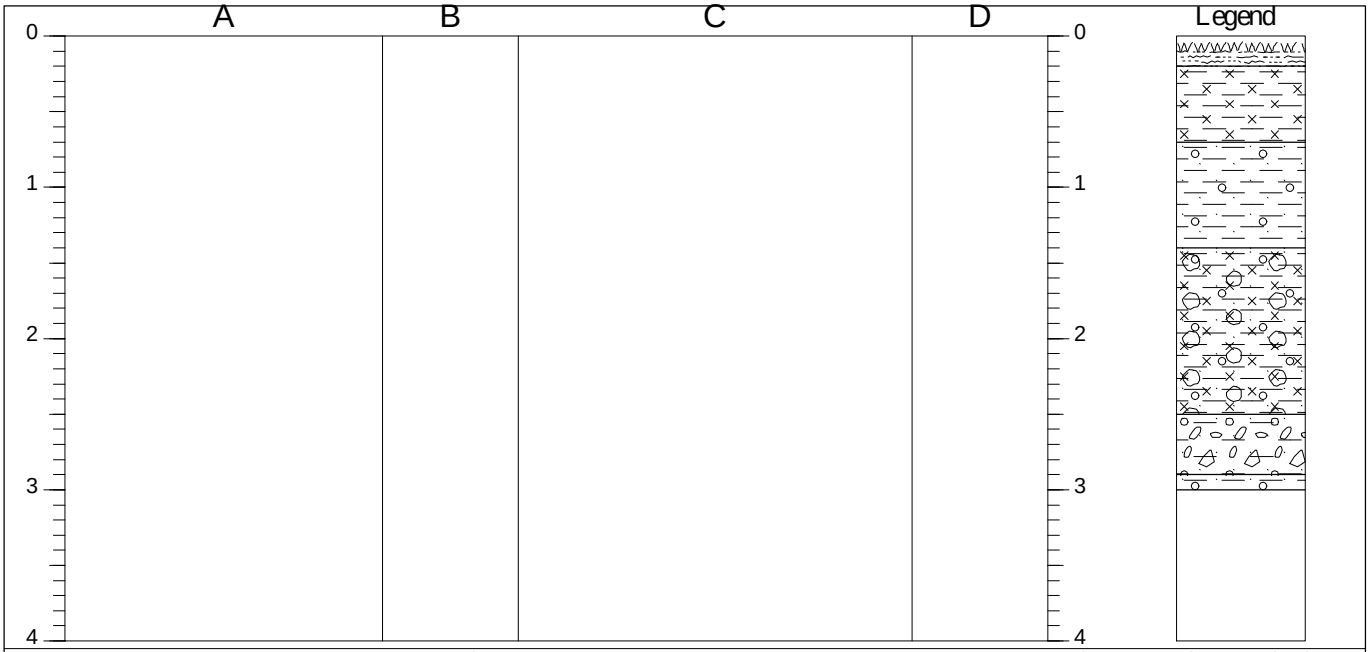
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP23**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	10-05-19 10-05-19			
Contractor				Sheet
				1 of 1

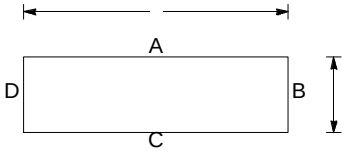


STRATA

SAMPLES & TESTS

Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.20-0.70		Soft yellowish brown and grey slightly silty CLAY			
0.70-1.40		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
1.40-2.50		Firm to stiff greyish brown friable silty sandy gravelly cobbly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.. Cobbles are subangular to rounded of various lithologies.			
2.50-2.90		Yellowish brown clayey sandy GRAVEL. Gravel is subangular to rounded, fine to coarse of various lithologies.	2.70	ES1	
2.90-3.00		Soft to firm reddish brown and grey slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			

Shoring/Support:
Stability: Unstable >2.5 m bgl



GENERAL REMARKS

Slight groundwater seepage at 2.5 m bgl

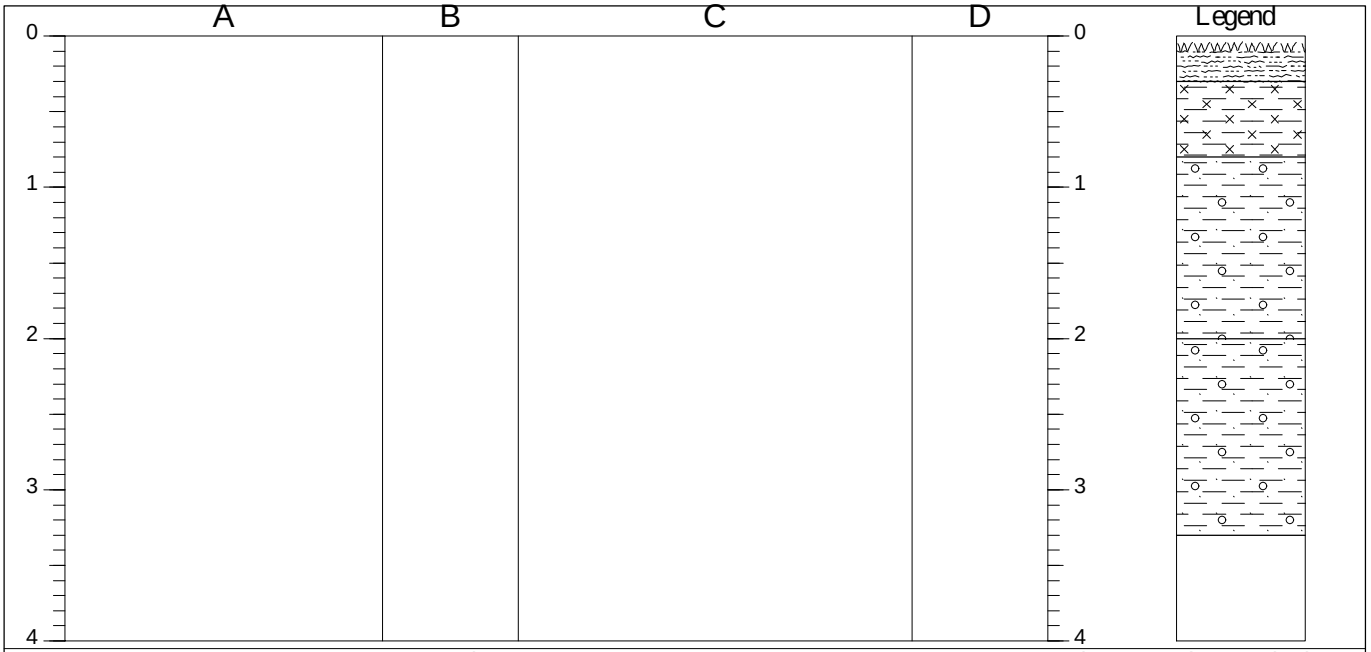
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

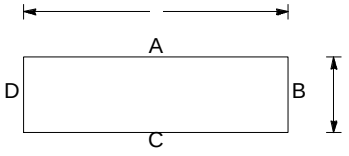
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP24**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	10-05-19 10-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.30-0.80		Soft yellowish brown and grey slightly silty CLAY			
0.80-2.00		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.	1.50	ES1	
2.00-3.30		Soft to firm reddish brown and grey slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies.			
		3.00 - 3.30 Boulder of sandstone	3.00	D1	
			3.00	ES2	

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Slight groundwater seepage at 2.9 m bgl

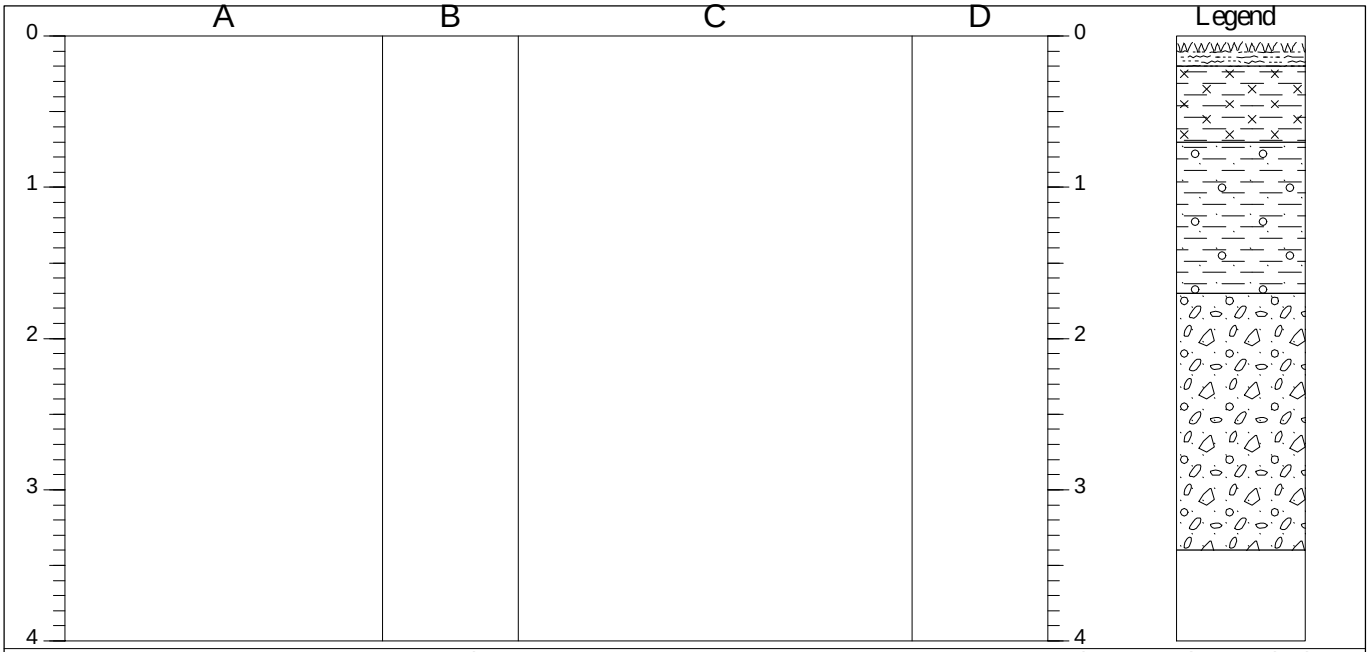
All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

Betts Geo Ltd

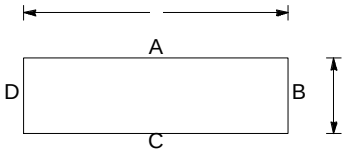
TRIAL PIT LOG

Project				TRIAL PIT No
Hollingworth Road, Littleborough				**TP25**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
18BLH008	10-05-19 10-05-19			
Contractor				Sheet
				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft dark brown very sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies. Frequent rootlets.			
0.20-0.70		Soft yellowish brown and grey slightly silty CLAY			
0.70-1.70		Soft to firm grey and orange sandy slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of various lithologies including sandstone. Rare medium subangular to subrounded cobbles of sandstone.	1.00	ES1	
1.70-3.40		Greyish brown clayey SAND & GRAVEL. Gravel is subangular to subrounded of various lithologies. Occasional medium subangular to subrounded cobbles of sandstone. Weathered sandstone.	3.00	ES2	

Shoring/Support:
Stability: Stable



GENERAL REMARKS

Dry

All dimensions in metres Scale 1:50	Client Bloor Homes	Method/ Plant Used JCB 3CX	Logged By LH

AGS3 UK TP 18BLH008 - HOLLINGWORTH ROAD, LITTLEBOROUGH.GPJ GINT STD AGS 3_1.GDT 6/18/19

APPENDIX E

(i) Contamination Test Results

(ii) Geotechnical Test Results

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 19/04590
Issue Number: 1 **Date:** 29 May, 2019

Client:
Betts Geo Environmental
Old Marsh Farm Barns
Welsh Road
Sealand
Flintshire
UK
CH5 2LY

Project Manager: Betts Geolab/Lucy Hayes
Project Name: Hollingworth Road Little Borough
Project Ref: 18BLH008
Order No: BG3318
Date Samples Received: 13/05/19
Date Instructions Received: 14/05/19
Date Analysis Completed: 29/05/19

Prepared by:

[redacted]
Melanie Marshall
Laboratory Coordinator

Approved by:

[redacted]
Georgia King
Admin & Client Services Supervisor

Envirolab Job Number: 19/04590

Client Project Name: Hollingworth Road Little Borough

Client Project Ref: 18BLH008

Lab Sample ID	19/04590/1	19/04590/2	19/04590/3	19/04590/4	19/04590/5	19/04590/6	19/04590/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	2	1				
Client Sample ID	TP20	TP20	TP21	TP22	TP22	TP23	TP24			
Depth to Top	0.40	2.50	0.10	1.00	3.50	2.70	1.50			
Depth To Bottom										
Date Sampled	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	4A	4AE	4A	5A	4AE	4A			
% Stones >10mm$_A$	2.9	<0.1	<0.1	<0.1	<0.1	5.3	<0.1	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	6.34	6.29	6.17	4.61	6.89	7.96	4.73	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.08	0.02	<0.01	0.01	0.01	<0.01	0.02	g/l	0.01	A-T-026s
Organic matter$_D$$^{M\#}$	1.1	1.0	6.9	1.7	1.9	1.4	0.8	% w/w	0.1	A-T-032 OM
Arsenic$_D$$^{M\#}$	2	52	14	<1	3	4	6	mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	<0.5	2.4	1.0	<0.5	<0.5	0.6	0.7	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	19	302	86	6	21	45	11	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	42	528	169	36	77	152	17	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	0.26	<0.17	<0.17	<0.17	0.58	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	22	128	52	8	18	38	15	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	9	3	<1	2	<1	1	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	45	619	206	23	62	113	27	mg/kg	5	A-T-024s
VPH total (>C5-C10)	<1	<1	1	<1	<1	<1	<1	mg/kg	1	Calc-stone+mois

Envirolab Job Number: 19/04590

Client Project Name: Hollingworth Road Little Borough

Client Project Ref: 18BLH008

Lab Sample ID	19/04590/1	19/04590/2	19/04590/3	19/04590/4	19/04590/5	19/04590/6	19/04590/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	2	1				
Client Sample ID	TP20	TP20	TP21	TP22	TP22	TP23	TP24			
Depth to Top	0.40	2.50	0.10	1.00	3.50	2.70	1.50			
Depth To Bottom										
Date Sampled	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	4A	4AE	4A	5A	4AE	4A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_D^{\#}$	NAD	NAD	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A			

Envirolab Job Number: 19/04590

Client Project Name: Hollingworth Road Little Borough

Client Project Ref: 18BLH008

Lab Sample ID	19/04590/1	19/04590/2	19/04590/3	19/04590/4	19/04590/5	19/04590/6	19/04590/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	2	1				
Client Sample ID	TP20	TP20	TP21	TP22	TP22	TP23	TP24			
Depth to Top	0.40	2.50	0.10	1.00	3.50	2.70	1.50			
Depth To Bottom										
Date Sampled	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	4A	4AE	4A	5A	4AE	4A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	<0.04	0.11	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	<0.04	0.10	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	<0.05	0.10	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	<0.06	0.14	<0.06	<0.06	<0.06	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	<0.08	0.27	<0.08	<0.08	<0.08	<0.08	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	<0.03	0.09	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	<0.03	0.19	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	<0.07	0.23	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	<0.08	1.37	<0.08	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/04590

Client Project Name: Hollingworth Road Little Borough

Client Project Ref: 18BLH008

Lab Sample ID	19/04590/1	19/04590/2	19/04590/3	19/04590/4	19/04590/5	19/04590/6	19/04590/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	2	1				
Client Sample ID	TP20	TP20	TP21	TP22	TP22	TP23	TP24			
Depth to Top	0.40	2.50	0.10	1.00	3.50	2.70	1.50			
Depth To Bottom										
Date Sampled	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19	10-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	4A	4AE	4A	5A	4AE	4A			
TPH CWG										
Ali >C5-C6$_A^{\#}$	0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A$	<1	<1	11	<1	<1	<1	<1	mg/kg	1	A-T-055s
Total Aliphatics$_A$	<1	<1	11	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	<1	3	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	<1	3	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	<1	<1	34	<1	<1	<1	<1	mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	<1	41	<1	<1	<1	<1	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	<1	<1	52	<1	<1	<1	<1	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 19/04590

Client Project Name: Hollingworth Road Little Borough

Client Project Ref: 18BLH008

Lab Sample ID	19/04590/8	19/04590/9	19/04590/10					Units	Limit of Detection	Method ref
Client Sample No	2	1	2							
Client Sample ID	TP24	TP25	TP25							
Depth to Top	3.00	1.00	3.00							
Depth To Bottom										
Date Sampled	10-May-19	10-May-19	10-May-19							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	4A	4A							
% Stones >10mm$_A$	5.8	2.0	<0.1					% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	6.91	6.26	6.82					pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	<0.01	<0.01	0.01					g/l	0.01	A-T-026s
Organic matter$_D$$^{M\#}$	2.5	1.4	0.6					% w/w	0.1	A-T-032 OM
Arsenic$_D$$^{M\#}$	4	4	3					mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	0.7	<0.5	0.6					mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	16	18	16					mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1					mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	15	28	11					mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17					mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	23	17	25					mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1					mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	50	44	49					mg/kg	5	A-T-024s
VPH total (>C5-C10)	<1	<1	<1					mg/kg	1	Calc-stone+mois
1.01 % Moisture BS1377 1990 pt2 cl3.2$_D$$^{\#}$	Appended	-	-						0.1	Subcon SS
1.02 Atterburg 4Pt BS1377 1990 pt2 cl4.4,5.3+5.4$_D$$^{\#}$	Appended	-	-						1	Subcon SS

Envirolab Job Number: 19/04590

Client Project Name: Hollingworth Road Little Borough

Client Project Ref: 18BLH008

Lab Sample ID	19/04590/8	19/04590/9	19/04590/10					Units	Limit of Detection	Method ref
Client Sample No	2	1	2							
Client Sample ID	TP24	TP25	TP25							
Depth to Top	3.00	1.00	3.00							
Depth To Bottom										
Date Sampled	10-May-19	10-May-19	10-May-19							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	4A	4A							
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_D^{\#}$	NAD	NAD	NAD							A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A							

Envirolab Job Number: 19/04590

Client Project Name: Hollingworth Road Little Borough

Client Project Ref: 18BLH008

Lab Sample ID	19/04590/8	19/04590/9	19/04590/10					Units	Limit of Detection	Method ref
Client Sample No	2	1	2							
Client Sample ID	TP24	TP25	TP25							
Depth to Top	3.00	1.00	3.00							
Depth To Bottom										
Date Sampled	10-May-19	10-May-19	10-May-19							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	4A	4A							
PAH-16MS										
Acenaphthene$_{A}^{M\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene$_{A}^{M\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene$_{A}^{M\#}$	<0.02	<0.02	<0.02					mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_{A}^{M\#}$	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_{A}^{M\#}$	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_{A}^{M\#}$	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_{A}^{M\#}$	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_{A}^{M\#}$	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene$_{A}^{M\#}$	<0.06	<0.06	<0.06					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_{A}^{M\#}$	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene$_{A}^{M\#}$	<0.08	<0.08	<0.08					mg/kg	0.08	A-T-019s
Fluorene$_{A}^{M\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_{A}^{M\#}$	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Naphthalene $_{A}^{M\#}$	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene$_{A}^{M\#}$	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Pyrene$_{A}^{M\#}$	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Total PAH-16MS$_{A}^{M\#}$	<0.08	<0.08	<0.08					mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/04590

Client Project Name: Hollingworth Road Little Borough

Client Project Ref: 18BLH008

Lab Sample ID	19/04590/8	19/04590/9	19/04590/10					Units	Limit of Detection	Method ref
Client Sample No	2	1	2							
Client Sample ID	TP24	TP25	TP25							
Depth to Top	3.00	1.00	3.00							
Depth To Bottom										
Date Sampled	10-May-19	10-May-19	10-May-19							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	4A	4A							
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C21-C35$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Total Aliphatics$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C10-C12$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	<1	<1					mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	<1	<1	<1					mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.02	<0.01	<0.01					mg/kg	0.01	A-T-022s

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Soil chemical analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:
Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis.
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:
IS indicates Insufficient Sample for analysis.
US indicates Unsuitable Sample for analysis.
NDP indicates No Determination Possible.
NAD indicates No Asbestos Detected.
N/A indicates Not Applicable.
Superscript # indicates method accredited to ISO 17025.
Superscript "M" indicates method accredited to MCERTS.
Subscript "A" indicates analysis performed on the sample as received.
Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Betts Geo Environmental, Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire, UK, CH5 2LY

Project: Hollingworth Road Little Borough

Clients Project No: 18BLH008

Project No: 19/04590

Date Received: 14/05/2019 (am)

Cool Box Temperatures (°C): 21.9

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 19/04522
Issue Number: 1 **Date:** 24 May, 2019

Client:
Betts Geo Environmental
Old Marsh Farm Barns
Welsh Road
Sealand
Flintshire
UK
CH5 2LY

Project Manager: Betts Geolab/Robert Davies
Project Name: Hollingsworth Rd, Littleborough
Project Ref: 18BLH008
Order No: BG3309
Date Samples Received: 10/05/19
Date Instructions Received: 13/05/19
Date Analysis Completed: 24/05/19

Prepared by:

[redacted]

Gill Walker
Director/Laboratory Manager

Approved by:

[redacted]

Danielle Brierley
Client Manager

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/1	19/04522/2	19/04522/3	19/04522/4	19/04522/5	19/04522/6	19/04522/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS1	WS2	WS3	WS4	WS5	WS5			
Depth to Top	0.00	2.00	0.20	0.50	0.00	0.00	2.30			
Depth To Bottom	0.20	2.20	0.40	0.70	0.20	0.20	2.50			
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4ABE	4AE	5A	4AE	4AE	5A			
% Stones >10mm$_A$	1.6	<0.1	3.7	<0.1	5.5	31.0	5.0	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	5.44	7.31	6.06	6.50	6.64	6.90	6.65	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.07	0.03	<0.01	0.03	0.02	<0.01	0.28	g/l	0.01	A-T-026s
Organic matter$_D$$^{M\#}$	7.2	14.4	8.0	1.2	4.8	3.6	5.2	% w/w	0.1	A-T-032 OM
Arsenic$_D$$^{M\#}$	8	15	7	<1	11	4	10	mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	0.9	1.0	<0.5	<0.5	0.7	<0.5	0.6	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	31	76	20	2	27	28	32	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	56	120	50	10	55	89	63	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	0.75	<0.17	<0.17	<0.17	<0.17	0.26	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	50	362	18	14	32	25	31	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1	<1	2	<1	<1	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	89	824	56	29	71	50	54	mg/kg	5	A-T-024s
VPH total (>C5-C10)	1	23	<1	<1	1	2	1	mg/kg	1	Calc-stone+mois

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/1	19/04522/2	19/04522/3	19/04522/4	19/04522/5	19/04522/6	19/04522/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS1	WS2	WS3	WS4	WS5	WS5			
Depth to Top	0.00	2.00	0.20	0.50	0.00	0.00	2.30			
Depth To Bottom	0.20	2.20	0.40	0.70	0.20	0.20	2.50			
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4ABE	4AE	5A	4AE	4AE	5A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	Amosite & Chrysotile	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	Loose Fibres	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing)$_{D}$	-	0.395	-	-	-	-	-	% w/w	0.001	A-T-054

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Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/1	19/04522/2	19/04522/3	19/04522/4	19/04522/5	19/04522/6	19/04522/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS1	WS2	WS3	WS4	WS5	WS5			
Depth to Top	0.00	2.00	0.20	0.50	0.00	0.00	2.30			
Depth To Bottom	0.20	2.20	0.40	0.70	0.20	0.20	2.50			
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4ABE	4AE	5A	4AE	4AE	5A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	0.40	<0.01	<0.01	<0.01	0.02	0.02	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	0.19	<0.02	<0.02	<0.02	0.03	0.03	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.10	0.31	<0.04	<0.04	0.06	0.20	0.18	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.10	0.19	<0.04	<0.04	0.06	0.19	0.15	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.16	0.36	<0.05	<0.05	0.09	0.27	0.39	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.09	0.15	<0.05	<0.05	<0.05	0.13	0.15	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	0.13	<0.07	<0.07	<0.07	0.10	0.13	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.16	0.43	<0.06	<0.06	0.08	0.24	0.36	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.24	1.06	<0.08	<0.08	0.11	0.39	0.53	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	0.38	<0.01	<0.01	<0.01	<0.01	0.02	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.09	0.16	<0.03	<0.03	0.03	0.14	0.16	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	1.37	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.11	1.23	<0.03	<0.03	0.04	0.15	0.24	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.21	1.00	<0.07	<0.07	0.11	0.37	0.46	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	1.26	7.39	<0.08	<0.08	0.58	2.23	2.82	mg/kg	0.01	A-T-019s

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Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/1	19/04522/2	19/04522/3	19/04522/4	19/04522/5	19/04522/6	19/04522/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS1	WS2	WS3	WS4	WS5	WS5			
Depth to Top	0.00	2.00	0.20	0.50	0.00	0.00	2.30			
Depth To Bottom	0.20	2.20	0.40	0.70	0.20	0.20	2.50			
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4ABE	4AE	5A	4AE	4AE	5A			
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.08	0.11	<0.08	<0.08	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<10	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	44	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	244	<1	<1	<1	<1	1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	5	592	<1	<1	<1	2	7	mg/kg	1	A-T-055s
Ali >C21-C35$_A$	30	1320	6	1	8	8	37	mg/kg	1	A-T-055s
Total Aliphatics$_A$	35	2210	6	1	8	9	46	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	1	<10	<1	<1	1	2	1	mg/kg	1	A-T-055s
Aro >C10-C12$_A^{M\#}$	<1	30	1	<1	1	2	2	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	1	323	4	<1	4	4	6	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	5	496	1	<1	2	5	11	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	51	518	17	2	15	42	166	mg/kg	1	A-T-055s
Total Aromatics$_A$	60	1380	23	2	25	55	188	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	95	3590	29	5	33	64	233	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/8	19/04522/9	19/04522/10	19/04522/11	19/04522/12	19/04522/13	19/04522/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS6	WS7	WS8	WS9	WS10	WS1	WS2			
Depth to Top	0.80	0.40	0.10	0.50	0.00	2.40	2.00			
Depth To Bottom	1.00	0.60	0.30	0.60	0.20	2.60	2.20			
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - D	Soil - D			
Sample Matrix Code	5AE	4ABE	4AE	5A	4AE	4ABE	5A			
% Stones >10mm$_A$	0.2	4.3	22.1	2.5	1.9	13.1	<0.1	% w/w	0.1	A-T-044
pH$_D^{M\#}$	6.12	6.43	6.36	6.43	6.37	7.68	5.15	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	0.06	0.08	<0.01	0.09	<0.01	0.02	0.02	g/l	0.01	A-T-026s
Organic matter$_D^{M\#}$	1.8	5.9	3.1	1.5	15.4	-	-	% w/w	0.1	A-T-032 OM
Arsenic$_D^{M\#}$	3	4	4	3	12	-	-	mg/kg	1	A-T-024s
Cadmium$_D^{M\#}$	0.6	0.6	<0.5	1.0	0.9	-	-	mg/kg	0.5	A-T-024s
Copper$_D^{M\#}$	14	22	16	3	42	-	-	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1	<1	-	-	mg/kg	1	A-T-040s
Lead$_D^{M\#}$	19	34	26	21	83	-	-	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17	<0.17	0.26	-	-	mg/kg	0.17	A-T-024s
Nickel$_D^{M\#}$	17	16	15	17	27	-	-	mg/kg	1	A-T-024s
Selenium$_D^{M\#}$	<1	<1	<1	2	2	-	-	mg/kg	1	A-T-024s
Zinc$_D^{M\#}$	37	78	41	62	98	-	-	mg/kg	5	A-T-024s
VPH total (>C5-C10)	1	1	<1	<1	1	-	-	mg/kg	1	Calc-stone+mois
1.01 % Moisture BS1377 1990 pt2 cl3.2$_D^{\#}$	-	-	-	-	-	Appended	Appended		0.1	Subcon SS
1.02 Atterburg 4Pt BS1377 1990 pt2 cl4.4,5.3+5.4$_D^{\#}$	-	-	-	-	-	Appended	Appended		1	Subcon SS

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

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Lab Sample ID	19/04522/8	19/04522/9	19/04522/10	19/04522/11	19/04522/12	19/04522/13	19/04522/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS6	WS7	WS8	WS9	WS10	WS1	WS2			
Depth to Top	0.80	0.40	0.10	0.50	0.00	2.40	2.00			
Depth To Bottom	1.00	0.60	0.30	0.60	0.20	2.60	2.20			
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - D	Soil - D			
Sample Matrix Code	5AE	4ABE	4AE	5A	4AE	4ABE	5A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_D$#	NAD	NAD	NAD	NAD	NAD	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	-	-			

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/8	19/04522/9	19/04522/10	19/04522/11	19/04522/12	19/04522/13	19/04522/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS6	WS7	WS8	WS9	WS10	WS1	WS2			
Depth to Top	0.80	0.40	0.10	0.50	0.00	2.40	2.00			
Depth To Bottom	1.00	0.60	0.30	0.60	0.20	2.60	2.20			
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - D	Soil - D			
Sample Matrix Code	5AE	4ABE	4AE	5A	4AE	4ABE	5A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	0.01	<0.01	<0.01	0.01	-	-	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	0.02	<0.02	<0.02	0.07	-	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.04	0.10	0.08	<0.04	0.18	-	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	0.11	0.07	<0.04	0.15	-	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.07	0.16	0.12	<0.05	0.21	-	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	0.10	0.06	<0.05	0.08	-	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	<0.07	<0.07	<0.07	<0.07	-	-	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	0.13	0.12	<0.06	0.22	-	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.11	0.21	0.19	<0.08	0.45	-	-	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01	0.01	-	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	0.10	0.06	<0.03	0.09	-	-	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.07	0.11	0.09	<0.03	0.26	-	-	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.10	0.20	0.17	<0.07	0.40	-	-	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	0.39	1.25	0.96	<0.08	2.13	-	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/8	19/04522/9	19/04522/10	19/04522/11	19/04522/12	19/04522/13	19/04522/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS6	WS7	WS8	WS9	WS10	WS1	WS2			
Depth to Top	0.80	0.40	0.10	0.50	0.00	2.40	2.00			
Depth To Bottom	1.00	0.60	0.30	0.60	0.20	2.60	2.20			
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - D	Soil - D			
Sample Matrix Code	5AE	4ABE	4AE	5A	4AE	4ABE	5A			
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.08	<0.08	<0.08	<0.08	<0.08	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	-	-	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	-	-	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	2	1	<1	<1	<1	-	-	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	2	9	<1	<1	1	-	-	mg/kg	1	A-T-055s
Ali >C21-C35$_A$	7	50	8	<1	20	-	-	mg/kg	1	A-T-055s
Total Aliphatics$_A$	10	60	9	<1	22	-	-	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	1	1	<1	<1	1	-	-	mg/kg	1	A-T-055s
Aro >C10-C12$_A^{M\#}$	1	1	<1	<1	3	-	-	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	9	5	4	1	5	-	-	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	29	11	8	<1	5	-	-	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	65	87	35	2	74	-	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	106	106	50	4	88	-	-	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	117	166	59	4	111	-	-	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/15	19/04522/16	19/04522/17	19/04522/18	19/04522/19	19/04522/20	19/04522/21	Units	Limit of Detection	Method ref
Client Sample No					1	2	1			
Client Sample ID	WS5	WS7	WS8	WS10	TP12	TP12	TP13			
Depth to Top	1.00	2.50	2.50	2.50	1.00	3.00	0.50			
Depth To Bottom	1.20	2.60	2.60	2.60						
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	09-May-19	09-May-19	09-May-19			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	5	5A	5AE	4A	4	4A			
% Stones >10mm$_A$	1.3	<0.1	<0.1	2.3	18.7	2.2	15.8	% w/w	0.1	A-T-044
pH$_D^{M\#}$	7.41	5.91	5.23	7.91	6.65	5.38	5.93	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	0.02	0.07	0.01	0.02	<0.01	<0.01	<0.01	g/l	0.01	A-T-026s
Organic matter$_D^{M\#}$	-	-	-	-	1.3	0.3	0.9	% w/w	0.1	A-T-032 OM
Arsenic$_D^{M\#}$	-	-	-	-	4	2	7	mg/kg	1	A-T-024s
Cadmium$_D^{M\#}$	-	-	-	-	0.7	<0.5	1.0	mg/kg	0.5	A-T-024s
Copper$_D^{M\#}$	-	-	-	-	17	10	31	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-040s
Lead$_D^{M\#}$	-	-	-	-	12	9	13	mg/kg	1	A-T-024s
Mercury$_D$	-	-	-	-	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D^{M\#}$	-	-	-	-	22	17	28	mg/kg	1	A-T-024s
Selenium$_D^{M\#}$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D^{M\#}$	-	-	-	-	54	37	55	mg/kg	5	A-T-024s
VPH total (>C5-C10)	-	-	-	-	<1	<1	<1	mg/kg	1	Calc-stone+mois
1.01 % Moisture BS1377 1990 pt2 cl3.2$_D^{\#}$	Appended	-	-	Appended	-	-	-		0.1	Subcon SS
1.02 Atterburg 4Pt BS1377 1990 pt2 cl4.4,5.3+5.4$_D^{\#}$	Appended	Insufficient Sample	Insufficient Sample	Appended	-	-	-		1	Subcon SS

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/15	19/04522/16	19/04522/17	19/04522/18	19/04522/19	19/04522/20	19/04522/21	Units	Limit of Detection	Method ref
Client Sample No					1	2	1			
Client Sample ID	WS5	WS7	WS8	WS10	TP12	TP12	TP13			
Depth to Top	1.00	2.50	2.50	2.50	1.00	3.00	0.50			
Depth To Bottom	1.20	2.60	2.60	2.60						
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	09-May-19	09-May-19	09-May-19			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	5	5A	5AE	4A	4	4A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_D^{\#}$	-	-	-	-	NAD	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	-	-	-	-	N/A	N/A	N/A			

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/15	19/04522/16	19/04522/17	19/04522/18	19/04522/19	19/04522/20	19/04522/21	Units	Limit of Detection	Method ref
Client Sample No					1	2	1			
Client Sample ID	WS5	WS7	WS8	WS10	TP12	TP12	TP13			
Depth to Top	1.00	2.50	2.50	2.50	1.00	3.00	0.50			
Depth To Bottom	1.20	2.60	2.60	2.60						
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	09-May-19	09-May-19	09-May-19			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	5	5A	5AE	4A	4	4A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	-	-	-	-	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	-	-	-	-	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	-	-	-	-	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	-	-	-	-	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	-	-	-	-	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	-	-	-	-	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	-	-	-	-	<0.06	<0.06	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	-	-	-	-	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	-	-	-	-	<0.08	<0.08	<0.08	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	-	-	-	-	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	-	-	-	-	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	-	-	-	-	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	-	-	-	-	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	-	-	-	-	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/15	19/04522/16	19/04522/17	19/04522/18	19/04522/19	19/04522/20	19/04522/21	Units	Limit of Detection	Method ref
Client Sample No					1	2	1			
Client Sample ID	WS5	WS7	WS8	WS10	TP12	TP12	TP13			
Depth to Top	1.00	2.50	2.50	2.50	1.00	3.00	0.50			
Depth To Bottom	1.20	2.60	2.60	2.60						
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	09-May-19	09-May-19	09-May-19			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	5	5A	5AE	4A	4	4A			
TPH CWG										
Ali >C5-C6$_A^{\#}$	-	-	-	-	0.10	0.13	<0.04	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	-	-	-	-	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Total Aliphatics$_A$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A^{M\#}$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
Total Aromatics$_A$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	-	-	-	-	<1	<1	<1	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	-	-	-	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/22	19/04522/23	19/04522/24	19/04522/25	19/04522/26	19/04522/27	19/04522/28	Units	Limit of Detection	Method ref
Client Sample No	1	1	1	1	1	2	1			
Client Sample ID	TP14	TP15	TP16	TP17	TP18	TP18	TP19			
Depth to Top	0.10	0.50	0.10	0.80	0.10	1.50	0.50			
Depth To Bottom										
Date Sampled	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4A	4AE	4A	4AE	5A	4A			
% Stones >10mm$_A$	<0.1	<0.1	<0.1	11.5	10.3	11.2	10.0	% w/w	0.1	A-T-044
pH$_D^{M\#}$	5.51	5.75	6.01	5.94	5.89	4.87	5.48	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	0.01	0.03	0.02	0.02	0.02	0.02	0.03	g/l	0.01	A-T-026s
Organic matter$_D^{M\#}$	4.3	0.7	5.7	0.8	6.3	1.4	2.0	% w/w	0.1	A-T-032 OM
Arsenic$_D^{M\#}$	12	3	12	4	4	4	2	mg/kg	1	A-T-024s
Cadmium$_D^{M\#}$	0.7	0.8	0.6	0.8	0.6	0.6	0.6	mg/kg	0.5	A-T-024s
Copper$_D^{M\#}$	28	26	21	24	17	18	21	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Lead$_D^{M\#}$	62	13	60	29	39	14	30	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D^{M\#}$	21	28	19	25	13	21	18	mg/kg	1	A-T-024s
Selenium$_D^{M\#}$	1	<1	1	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D^{M\#}$	68	63	66	65	39	49	68	mg/kg	5	A-T-024s
VPH total (>C5-C10)	2	<1	2	<1	1	<1	<1	mg/kg	1	Calc-stone+mois

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/22	19/04522/23	19/04522/24	19/04522/25	19/04522/26	19/04522/27	19/04522/28	Units	Limit of Detection	Method ref
Client Sample No	1	1	1	1	1	2	1			
Client Sample ID	TP14	TP15	TP16	TP17	TP18	TP18	TP19			
Depth to Top	0.10	0.50	0.10	0.80	0.10	1.50	0.50			
Depth To Bottom										
Date Sampled	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4A	4AE	4A	4AE	5A	4A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_D^{\#}$	NAD	NAD	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A			

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/22	19/04522/23	19/04522/24	19/04522/25	19/04522/26	19/04522/27	19/04522/28	Units	Limit of Detection	Method ref
Client Sample No	1	1	1	1	1	2	1			
Client Sample ID	TP14	TP15	TP16	TP17	TP18	TP18	TP19			
Depth to Top	0.10	0.50	0.10	0.80	0.10	1.50	0.50			
Depth To Bottom										
Date Sampled	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4A	4AE	4A	4AE	5A	4A			
PAH-16MS										
Acenaphthene$_{A}^{M\#}$	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_{A}^{M\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_{A}^{M\#}$	0.05	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_{A}^{M\#}$	0.22	<0.04	0.17	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_{A}^{M\#}$	0.20	<0.04	0.14	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_{A}^{M\#}$	0.30	<0.05	0.21	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_{A}^{M\#}$	0.13	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_{A}^{M\#}$	0.11	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_{A}^{M\#}$	0.28	<0.06	0.22	<0.06	<0.06	<0.06	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_{A}^{M\#}$	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_{A}^{M\#}$	0.46	<0.08	0.41	<0.08	<0.08	<0.08	<0.08	mg/kg	0.08	A-T-019s
Fluorene$_{A}^{M\#}$	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_{A}^{M\#}$	0.14	<0.03	0.10	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Naphthalene $_{A}^{M\#}$	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_{A}^{M\#}$	0.19	<0.03	0.17	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene$_{A}^{M\#}$	0.42	<0.07	0.36	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS$_{A}^{M\#}$	2.53	<0.08	1.92	<0.08	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/22	19/04522/23	19/04522/24	19/04522/25	19/04522/26	19/04522/27	19/04522/28	Units	Limit of Detection	Method ref
Client Sample No	1	1	1	1	1	2	1			
Client Sample ID	TP14	TP15	TP16	TP17	TP18	TP18	TP19			
Depth to Top	0.10	0.50	0.10	0.80	0.10	1.50	0.50			
Depth To Bottom										
Date Sampled	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19	09-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4A	4AE	4A	4AE	5A	4A			
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.04	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.08	<0.08	<0.08	<0.08	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A$	6	<1	15	2	3	<1	<1	mg/kg	1	A-T-055s
Total Aliphatics$_A$	6	<1	16	2	3	<1	<1	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	2	<1	2	<1	1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A^{M\#}$	2	<1	2	1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	5	<1	7	3	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	10	<1	6	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	31	<1	48	2	4	<1	<1	mg/kg	1	A-T-055s
Total Aromatics$_A$	49	<1	66	7	5	<1	<1	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	57	<1	82	9	10	<1	<1	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 19/04522

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04522/29							Units	Limit of Detection	Method ref
Client Sample No	1									
Client Sample ID	TP16									
Depth to Top	3.00									
Depth To Bottom										
Date Sampled	09-May-19									
Sample Type	Soil - D									
Sample Matrix Code	5A									
% Stones >10mm$_A$	<0.1							% w/w	0.1	A-T-044
pH$_D^{M\#}$	6.22							pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	0.01							g/l	0.01	A-T-026s
1.01 % Moisture BS1377 1990 pt2 cl3.2$_D^{\#}$	Appended								0.1	Subcon SS
1.02 Atterburg 4Pt BS1377 1990 pt2 cl4.4,5.3+5.4$_D^{\#}$	Appended								1	Subcon SS

REPORT NOTES

General
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Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Soil chemical analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:
Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis.
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:
IS indicates Insufficient Sample for analysis.
US indicates Unsuitable Sample for analysis.
NDP indicates No Determination Possible.
NAD indicates No Asbestos Detected.
N/A indicates Not Applicable.
Superscript # indicates method accredited to ISO 17025.
Superscript "M" indicates method accredited to MCERTS.
Subscript "A" indicates analysis performed on the sample as received.
Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Betts Geo Environmental, Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire, UK, CH5 2LY

Project: Hollingsworth Rd, Littleborough

Clients Project No: 18BLH008

Project No: 19/04522

Date Received: 13/05/2019 (am)

Cool Box Temperatures (°C): 13.3, 13.7, 14.1, 14.2

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 19/04451
Issue Number: 1 **Date:** 21 May, 2019

Client:
Betts Geo Environmental
Old Marsh Farm Barns
Welsh Road
Sealand
Flintshire
UK
CH5 2LY

Project Manager: Betts Geolab/Lucy Hayes
Project Name: Hollingsworth Rd, Littleborough
Project Ref: 18BLH008
Order No: BG3309
Date Samples Received: 09/05/19
Date Instructions Received: 10/05/19
Date Analysis Completed: 20/05/19

Prepared by:

[redacted]
Melanie Marshall
Laboratory Coordinator

Approved by:

[redacted]
Richard Wong
Client Manager

mCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME
UKAS TESTING 1247

Envirolab Job Number: 19/04451

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04451/1	19/04451/2	19/04451/3	19/04451/4	19/04451/5	19/04451/6	19/04451/7	Units	Limit of Detection	Method ref
Client Sample No	1	1	2	1	1	1	1			
Client Sample ID	TP05	TP07	TP07	TP08	TP09	TP10	TP11			
Depth to Top	0.50	0.10	1.00	2.00	0.10	0.10	1.50			
Depth To Bottom										
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	4AE	4AE	5A	4AE	4AE	4AE			
% Stones >10mm$_A$	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.1	% w/w	0.1	A-T-044
pH$_D^{M\#}$	5.45	5.38	6.39	5.98	6.23	6.85	6.70	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	0.12	0.01	0.01	0.03	<0.01	<0.01	0.02	g/l	0.01	A-T-026s
Organic matter$_D^{M\#}$	1.1	5.8	2.5	1.3	4.1	5.4	1.5	% w/w	0.1	A-T-032 OM
Arsenic$_D^{M\#}$	6	8	13	5	5	9	4	mg/kg	1	A-T-024s
Cadmium$_D^{M\#}$	0.7	<0.5	0.8	0.9	0.9	0.8	0.6	mg/kg	0.5	A-T-024s
Copper$_D^{M\#}$	9	40	15	18	20	22	10	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<2	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Lead$_D^{M\#}$	9	68	23	11	50	69	18	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D^{M\#}$	14	35	22	34	28	35	13	mg/kg	1	A-T-024s
Selenium$_D^{M\#}$	<1	<1	1	<1	1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D^{M\#}$	29	74	47	57	112	70	46	mg/kg	5	A-T-024s
VPH total (>C5-C10)	<1	3	1	<1	2	1	<1	mg/kg	1	Calc-stone+mois

Envirolab Job Number: 19/04451

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04451/1	19/04451/2	19/04451/3	19/04451/4	19/04451/5	19/04451/6	19/04451/7	Units	Limit of Detection	Method ref
Client Sample No	1	1	2	1	1	1	1			
Client Sample ID	TP05	TP07	TP07	TP08	TP09	TP10	TP11			
Depth to Top	0.50	0.10	1.00	2.00	0.10	0.10	1.50			
Depth To Bottom										
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	4AE	4AE	5A	4AE	4AE	4AE			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	Chrysotile	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	Loose fibres	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing)$_{D}$	-	<0.001	-	-	-	-	-	% w/w	0.001	A-T-054

Envirolab Job Number: 19/04451

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04451/1	19/04451/2	19/04451/3	19/04451/4	19/04451/5	19/04451/6	19/04451/7	Units	Limit of Detection	Method ref
Client Sample No	1	1	2	1	1	1	1			
Client Sample ID	TP05	TP07	TP07	TP08	TP09	TP10	TP11			
Depth to Top	0.50	0.10	1.00	2.00	0.10	0.10	1.50			
Depth To Bottom										
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	4AE	4AE	5A	4AE	4AE	4AE			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	0.09	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	0.91	0.10	<0.04	0.09	0.08	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	0.82	0.07	<0.04	0.09	0.07	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	1.22	0.12	<0.05	0.16	0.12	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	0.47	<0.05	<0.05	0.06	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	0.42	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	1.07	0.11	<0.06	0.13	0.12	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	0.11	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	1.95	0.17	<0.08	0.19	0.17	<0.08	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	0.59	0.06	<0.03	0.08	0.07	<0.03	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	0.95	0.07	<0.03	0.08	0.07	<0.03	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	1.75	0.16	<0.07	0.18	0.15	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	10.6	0.86	<0.08	1.06	0.85	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/04451

Client Project Name: Hollingsworth Rd, Littleborough

Client Project Ref: 18BLH008

Lab Sample ID	19/04451/1	19/04451/2	19/04451/3	19/04451/4	19/04451/5	19/04451/6	19/04451/7	Units	Limit of Detection	Method ref
Client Sample No	1	1	2	1	1	1	1			
Client Sample ID	TP05	TP07	TP07	TP08	TP09	TP10	TP11			
Depth to Top	0.50	0.10	1.00	2.00	0.10	0.10	1.50			
Depth To Bottom										
Date Sampled	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19	08-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5A	4AE	4AE	5A	4AE	4AE	4AE			
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	3	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A$	<1	17	5	<1	6	6	<1	mg/kg	1	A-T-055s
Total Aliphatics$_A$	<1	20	5	<1	6	6	<1	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	3	1	<1	2	1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	3	1	<1	1	1	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	14	2	<1	2	2	<1	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	<1	57	10	<1	13	11	<1	mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	79	13	<1	19	17	<1	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	<1	99	18	<1	26	23	<1	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

REPORT NOTES

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For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:
Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis.
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:
IS indicates Insufficient Sample for analysis.
US indicates Unsuitable Sample for analysis.
NDP indicates No Determination Possible.
NAD indicates No Asbestos Detected.
N/A indicates Not Applicable.
Superscript # indicates method accredited to ISO 17025.
Superscript "M" indicates method accredited to MCERTS.
Subscript "A" indicates analysis performed on the sample as received.
Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Betts Geo Environmental, Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire, UK, CH5 2LY

Project: Hollingsworth Rd, Littleborough

Clients Project No: 18BLH008

Project No: 19/04451

Date Received: 10/05/2019 (am)

Cool Box Temperatures (°C): 11.6

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 19/04390
Issue Number: 1 **Date:** 23 May, 2019

Client:
Betts Geo Environmental
Old Marsh Farm Barns
Welsh Road
Sealand
Flintshire
UK
CH5 2LY

Project Manager: Betts Geolab/Lucy Hayes
Project Name: Hollingworth Road, Little - Borough
Project Ref: 18BLLI008
Order No: BG3309
Date Samples Received: 08/05/19
Date Instructions Received: 09/05/19
Date Analysis Completed: 22/05/19

Prepared by:

[redacted]

Gill Walker
Director/Laboratory Manager

Approved by:

[redacted]

John Gustafson
Managing Director

Envirolab Job Number: 19/04390

Client Project Name: Hollingworth Road, Little - Borough

Client Project Ref: 18BLLI008

Lab Sample ID	19/04390/1	19/04390/2	19/04390/3	19/04390/4	19/04390/5	19/04390/6	19/04390/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	1	2	1			
Client Sample ID	TP01	TP01	TP02	TP03	TP04	TP04	TP05			
Depth to Top	0.10	0.90	2.00	1.50	0.10	1.50	3.0			
Depth To Bottom										
Date Sampled	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4E	5A	5A	4A	4AE	4AE	4A			
% Stones >10mm$_A$	10.8	<0.1	<0.1	<0.1	<0.1	14.8	5.0	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	7.19	5.32	6.67	7.09	6.53	6.09	8.14	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.02	<0.01	0.01	0.01	0.02	0.02	0.02	g/l	0.01	A-T-026s
Organic matter$_D$$^{M\#}$	12.2	1.2	2.0	1.9	5.7	0.8	1.0	% w/w	0.1	A-T-032 OM
Arsenic$_D$$^{M\#}$	12	4	<1	<1	12	4	3	mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	0.9	1.0	1.1	1.0	0.9	0.9	1.0	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	41	13	20	19	26	12	14	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	94	9	12	11	57	9	10	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	23	23	24	25	20	19	23	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	2	1	1	<1	2	<1	<1	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	95	50	55	52	63	33	44	mg/kg	5	A-T-024s
VPH total (>C5-C10)	2	<1	<1	<1	1	<1	<1	mg/kg	1	Calc-stone+mois
1.01 % Moisture BS1377 1990 pt2 cl3.2$_D$$^{\#}$	-	-	Appended	-	-	-	-		0.1	Subcon SS
1.02 Atterburg 4Pt BS1377 1990 pt2 cl4.4,5.3+5.4$_D$$^{\#}$	-	-	Appended	-	-	-	-		1	Subcon SS

Envirolab Job Number: 19/04390

Client Project Name: Hollingworth Road, Little - Borough

Client Project Ref: 18BLLI008

Lab Sample ID	19/04390/1	19/04390/2	19/04390/3	19/04390/4	19/04390/5	19/04390/6	19/04390/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	1	2	1			
Client Sample ID	TP01	TP01	TP02	TP03	TP04	TP04	TP05			
Depth to Top	0.10	0.90	2.00	1.50	0.10	1.50	3.0			
Depth To Bottom										
Date Sampled	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4E	5A	5A	4A	4AE	4AE	4A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_D^{\#}$	NAD	NAD	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A			

Envirolab Job Number: 19/04390

Client Project Name: Hollingworth Road, Little - Borough

Client Project Ref: 18BLLI008

Lab Sample ID	19/04390/1	19/04390/2	19/04390/3	19/04390/4	19/04390/5	19/04390/6	19/04390/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	1	2	1			
Client Sample ID	TP01	TP01	TP02	TP03	TP04	TP04	TP05			
Depth to Top	0.10	0.90	2.00	1.50	0.10	1.50	3.0			
Depth To Bottom										
Date Sampled	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4E	5A	5A	4A	4AE	4AE	4A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.05	<0.01	<0.01	<0.01	0.06	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.12	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.55	<0.04	<0.04	<0.04	0.29	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.62	<0.04	<0.04	<0.04	0.27	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.69	<0.05	<0.05	<0.05	0.29	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.23	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.21	<0.07	<0.07	<0.07	0.09	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.72	<0.06	<0.06	<0.06	0.38	<0.06	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	1.18	<0.08	<0.08	<0.08	0.57	<0.08	<0.08	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.06	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.25	<0.03	<0.03	<0.03	0.17	<0.03	<0.03	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.60	<0.03	<0.03	<0.03	0.42	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.76	<0.07	<0.07	<0.07	0.53	<0.07	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	6.09	<0.08	<0.08	<0.08	3.28	<0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/04390

Client Project Name: Hollingworth Road, Little - Borough

Client Project Ref: 18BLLI008

Lab Sample ID	19/04390/1	19/04390/2	19/04390/3	19/04390/4	19/04390/5	19/04390/6	19/04390/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	1	2	1			
Client Sample ID	TP01	TP01	TP02	TP03	TP04	TP04	TP05			
Depth to Top	0.10	0.90	2.00	1.50	0.10	1.50	3.0			
Depth To Bottom										
Date Sampled	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19	07-May-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4E	5A	5A	4A	4AE	4AE	4A			
TPH CWG										
Ali >C5-C6$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	2	<1	<1	<1	2	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	2	<1	2	1	<1	<1	2	mg/kg	1	A-T-055s
Ali >C21-C35$_A$	14	<1	2	1	10	<1	2	mg/kg	1	A-T-055s
Total Aliphatics$_A$	16	<1	8	2	10	<1	6	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A^{M\#}$	2	<1	<1	<1	1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	2	<1	2	<1	3	<1	2	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	11	<1	3	<1	6	<1	2	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	54	<1	4	2	31	<1	3	mg/kg	1	A-T-055s
Total Aromatics$_A$	69	<1	11	2	41	<1	7	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	85	<1	19	5	51	<1	14	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Soil chemical analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:
Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis.
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed.
Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:
IS indicates Insufficient Sample for analysis.
US indicates Unsuitable Sample for analysis.
NDP indicates No Determination Possible.
NAD indicates No Asbestos Detected.
N/A indicates Not Applicable.
Superscript # indicates method accredited to ISO 17025.
Superscript "M" indicates method accredited to MCERTS.
Subscript "A" indicates analysis performed on the sample as received.
Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Betts Geo Environmental, Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire, UK, CH5 2LY

Project: Hollingworth Road, Little - Borough

Clients Project No: 18BLLI008

Project No: 19/04390

Date Received: 09/05/2019 (am)

Cool Box Temperatures (°C): 11.2

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

STRUCTURAL SOILS LTD

TEST REPORT

Report No. 783888 R1

1774

Date 29-May-2019 Contract 19/04590

Client Envirolab Ltd
Address Units 7 & 8 Sandpits Business Park
Mottram Road
Hyde
SK14 3AR

For the Attention of Iain Haslock

Samples submitted by client	14/05/2019	Client Reference	19/04590
Testing Started	21/05/2019	Client Order No.	P0741004
Testing Completed	29/05/2019	Instruction Type	Written

Tests marked 'Not UKAS Accredited' in this report are not included in the UKAS Accreditation Schedule for our Laboratory.

UKAS Accredited Tests Undertaken

Moisture Content (oven drying method) BS1377:Part 2:1990,clause 3.2
Liquid Limit (definitive method) BS1377:Part 2:1990,clause 4.3
Plastic Limit BS1377:Part 2:1990,clause 5.3
Plasticity Index Derivation BS1377:Part 2:1990,clause 5.4

* This clause of BS1377 is no longer the most up to date method due to the publication of ISO17892

Please Note: Remaining samples will be retained for a period of one month from today and will then be disposed of.
Test were undertaken on samples 'as received' unless otherwise stated.
Opinions and interpretations expressed in this report are outside the scope of accreditation for this laboratory.

Structural Soils Ltd, The Potteries, Pottery Street, Castleford, WF10 1NJ Tel.01977 552255. E-mail mark.athorne@soils.co.uk

SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
TP24	19/04590/8	D	3.00	19	39	18	21	92	Dark brown slightly sandy slightly gravelly CLAY

STRUCTURAL SOILS LTD

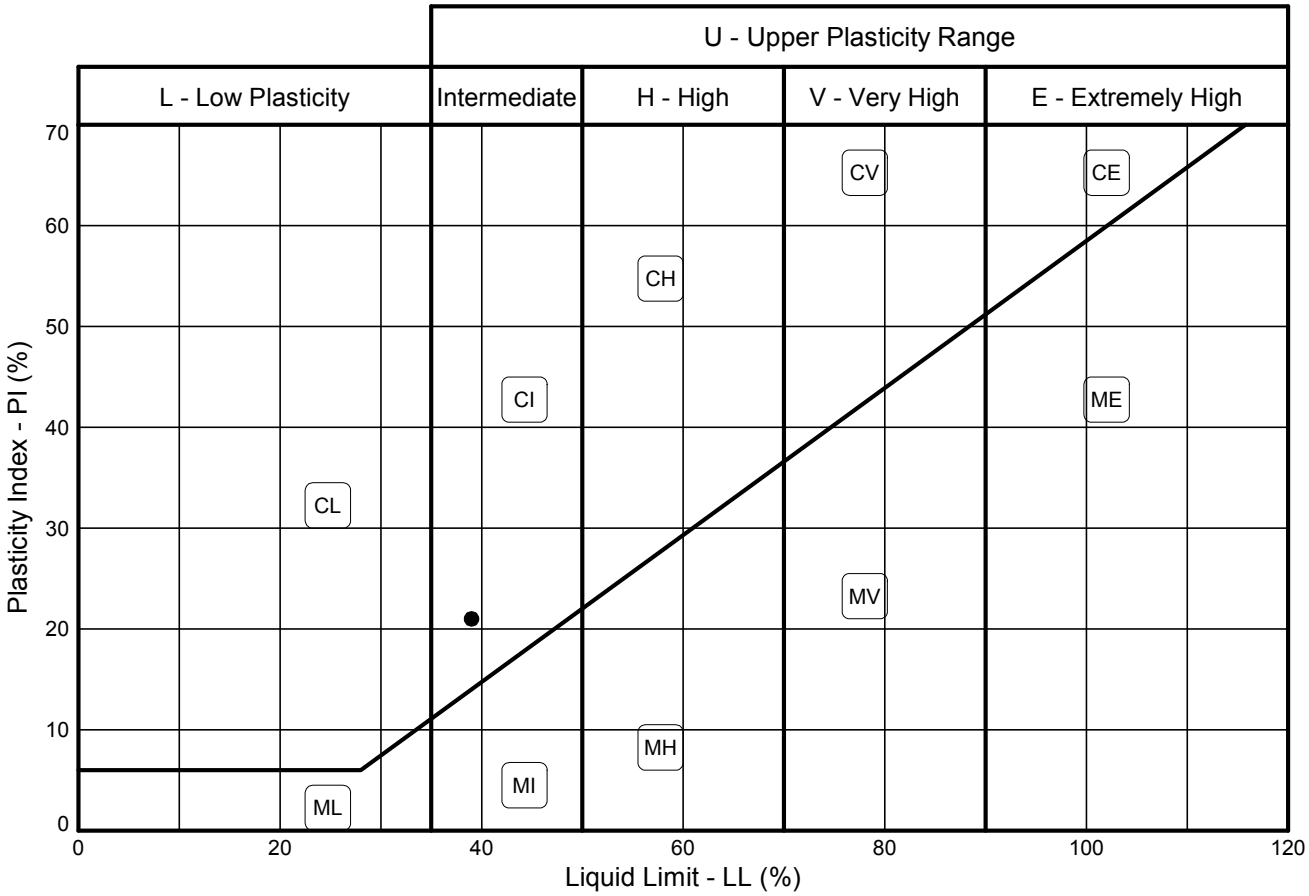
Contract: **19/04590**

Contract Ref: **783888**

AGS

PLASTICITY CHART - PI Vs LL

In accordance with BS5930:2015
Testing in accordance with BS1377-2:1990



Sample Identification				BS Test Method #	Preparation Method +	MC %	LL %	PL %	PI %	<425um %	Lab location
	Exploratory Position ID	Sample	Depth (m)								
●	TP24	19/04590/8D	3.00	3.2/4.3/5.3/5.4	4.2.4	19	39	18	21	92	C

Tested in accordance with the following clauses of BS1377-2:1990.

3.2 - Moisture Content
4.3 - Cone Penetrometer Method
4.4 - One Point Cone Penetrometer Method
4.6 - One Point Casagrande Method
5.3 - Plastic Limit Method
5.4 - Plasticity Index

+ Tested in accordance with the following clauses of BS1377-2:1990.

4.2.3 - Natural State
4.2.4 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic.

Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)

STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
M. Fisher.	MAUREEN FISHER	29/05/19

Contract	Contract Ref:
19/04590	783888

AGS

STRUCTURAL SOILS LTD

TEST REPORT

Report No. 783887 R1

1774

Date 24-May-2019 Contract 19/04522

Client Envirolab Ltd
Address Units 7 & 8 Sandpits Business Park
Mottram Road
Hyde
SK14 3AR

For the Attention of Iain Haslock

Samples submitted by client	13/05/2019	Client Reference	19/04522
Testing Started	17/05/2019	Client Order No.	P0740985
Testing Completed	24/05/2019	Instruction Type	Written

Tests marked 'Not UKAS Accredited' in this report are not included in the UKAS Accreditation Schedule for our Laboratory.

UKAS Accredited Tests Undertaken

Moisture Content (oven drying method) BS1377:Part 2:1990,clause 3.2
Liquid Limit (definitive method) BS1377:Part 2:1990,clause 4.3
Liquid Limit (one point method) BS1377:Part 2:1990,clause 4.4
Plastic Limit BS1377:Part 2:1990,clause 5.3
Plasticity Index Derivation BS1377:Part 2:1990,clause 5.4

* This clause of BS1377 is no longer the most up to date method due to the publication of ISO17892

Please Note: Remaining samples will be retained for a period of one month from today and will then be disposed of.
Test were undertaken on samples 'as received' unless otherwise stated.
Opinions and interpretations expressed in this report are outside the scope of accreditation for this laboratory.

Structural Soils Ltd, The Potteries, Pottery Street, Castleford, WF10 1NJ Tel.01977 552255. E-mail mark.athorne@soils.co.uk

SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
TP16	19/04522/29	D	3.00	24	48	21	27	96	Brown slightly sandy slightly gravelly CLAY
WS1	19/04522/13	D	2.40	30	41	22	19	70	Brown grey slightly sandy slightly gravelly CLAY
WS2	19/04522/14	D	2.00	15	30	15	15	91	Dark brown slightly sandy slightly gravelly slightly silty CLAY
WS5	19/04522/15	D	1.00	28	49	21	28	92	Brown slightly sandy slightly gravelly CLAY
WS10	19/04522/18	D	2.50	12	31	14	17	77	Dark brown slightly sandy slightly gravelly CLAY

STRUCTURAL SOILS LTD

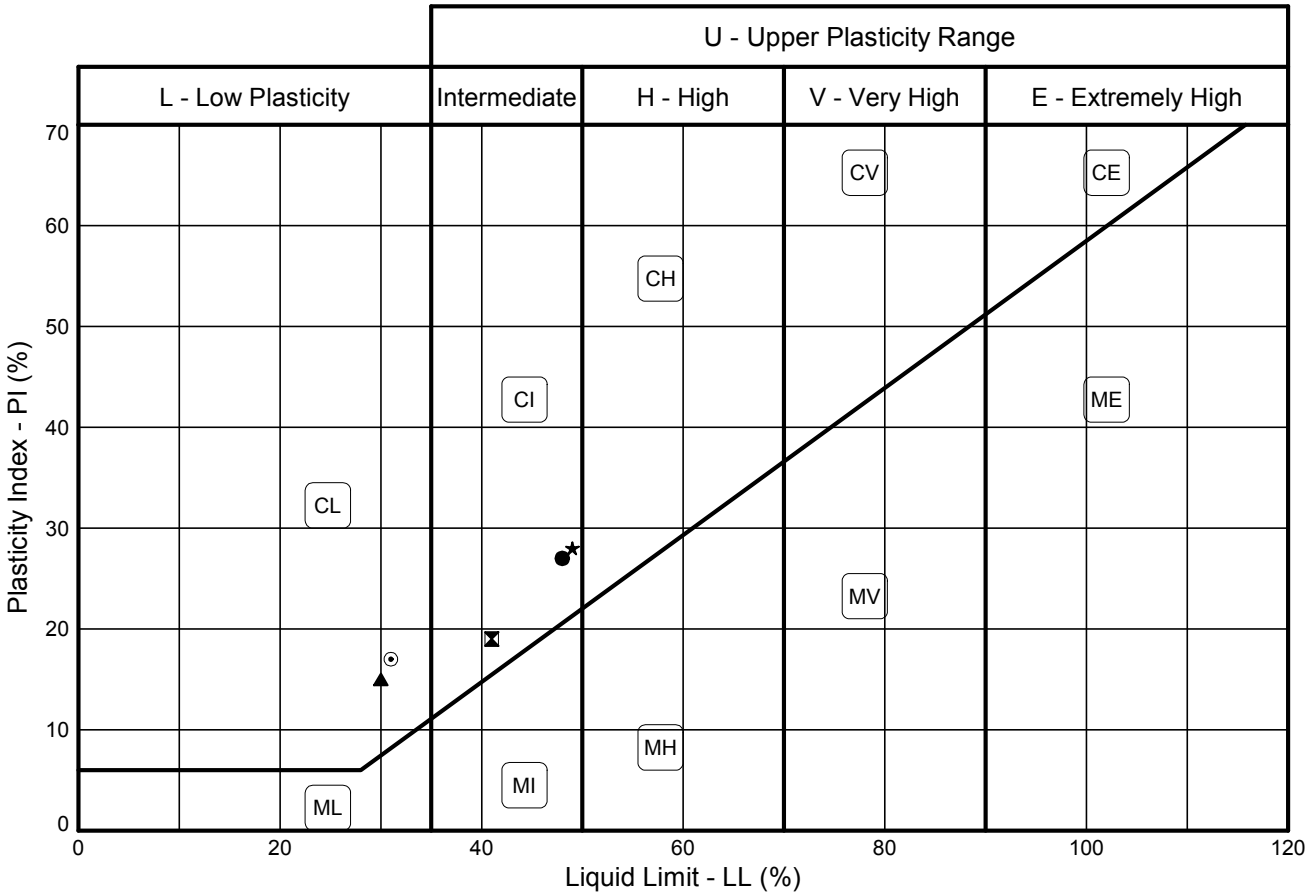
Contract: **19/04522**

Contract Ref: **783887**

AGS

PLASTICITY CHART - PI Vs LL

In accordance with BS5930:2015
Testing in accordance with BS1377-2:1990



Sample Identification				BS Test Method #	Preparation Method +	MC	LL	PL	PI	<425um	Lab location
Exploratory Position ID	Sample		Depth (m)			%	%	%	%	%	
● TP16	19/04522/29	D	3.00	3.2/4.3/5.3/5.4	4.2.4	24	48	21	27	96	C
⊠ WS1	19/04522/13	D	2.40	3.2/4.4/5.3/5.4	4.2.4	30	41	22	19	70	C
▲ WS2	19/04522/14	D	2.00	3.2/4.3/5.3/5.4	4.2.4	15	30	15	15	91	C
★ WS5	19/04522/15	D	1.00	3.2/4.3/5.3/5.4	4.2.4	28	49	21	28	92	C
⊙ WS10	19/04522/18	D	2.50	3.2/4.4/5.3/5.4	4.2.4	12	31	14	17	77	C

Tested in accordance with the following clauses of BS1377-2:1990.

3.2 - Moisture Content
4.3 - Cone Penetrometer Method
4.4 - One Point Cone Penetrometer Method
4.6 - One Point Casagrande Method
5.3 - Plastic Limit Method
5.4 - Plasticity Index

+ Tested in accordance with the following clauses of BS1377-2:1990.

4.2.3 - Natural State
4.2.4 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic.

Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)

STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
M. Fisher	MAUREEN FISHER	24/05/19
Contract: 19/04522	Contract Ref: 783887	

STRUCTURAL SOILS LTD

TEST REPORT

Report No. 783882 R1

1774

Date 22-May-2019 Contract 19/04390

Client Envirolab Ltd
Address Units 7 & 8 Sandpits Business Park
Mottram Road
Hyde
SK14 3AR

For the Attention of Iain Haslock

Samples submitted by client	09/05/2019	Client Reference	19/04390
Testing Started	14/05/2019	Client Order No.	P0740961
Testing Completed	22/05/2019	Instruction Type	Written

Tests marked 'Not UKAS Accredited' in this report are not included in the UKAS Accreditation Schedule for our Laboratory.

UKAS Accredited Tests Undertaken

Moisture Content (oven drying method) BS1377:Part 2:1990,clause 3.2
Liquid Limit (definitive method) BS1377:Part 2:1990,clause 4.3
Plastic Limit BS1377:Part 2:1990,clause 5.3
Plasticity Index Derivation BS1377:Part 2:1990,clause 5.4

* This clause of BS1377 is no longer the most up to date method due to the publication of ISO17892

Please Note: Remaining samples will be retained for a period of one month from today and will then be disposed of.
Test were undertaken on samples 'as received' unless otherwise stated.
Opinions and interpretations expressed in this report are outside the scope of accreditation for this laboratory.

Structural Soils Ltd, The Potteries, Pottery Street, Castleford, WF10 1NJ Tel.01977 552255. E-mail mark.athorne@soils.co.uk

SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
TP02	19/04390/3	D	2.00	12	30	13	17	88	Dark brown slightly gravelly CLAY

STRUCTURAL SOILS LTD

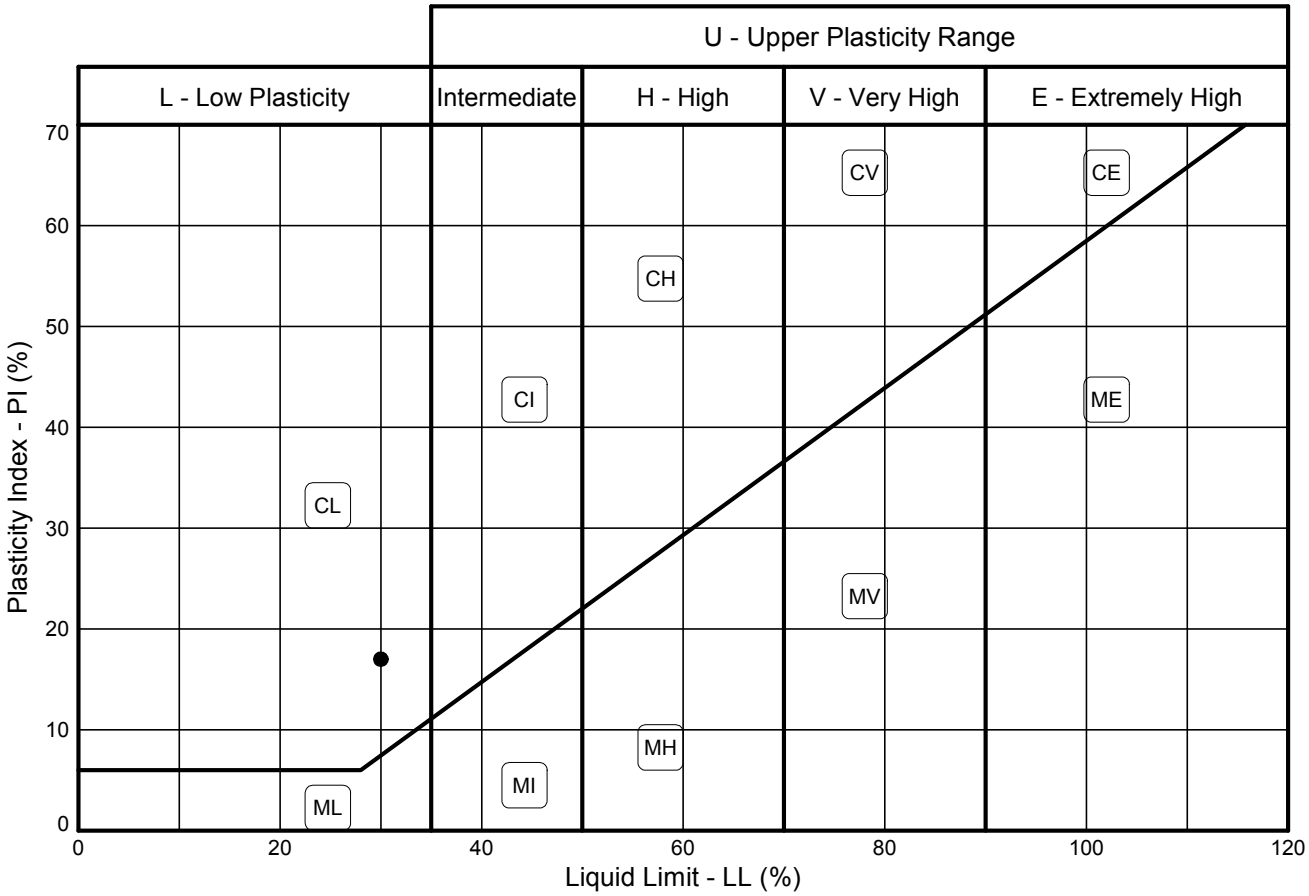
Contract: **19/04390**

Contract Ref: **783882**

AGS

PLASTICITY CHART - PI Vs LL

In accordance with BS5930:2015
Testing in accordance with BS1377-2:1990



Sample Identification				BS Test Method #	Preparation Method +	MC %	LL %	PL %	PI %	<425um %	Lab location	
	Exploratory Position ID	Sample	Depth (m)									
●	TP02	19/04390/3D	2.00	3.2/4.3/5.3/5.4	4.2.4	12	30	13	17	88	C	

Tested in accordance with the following clauses of BS1377-2:1990.

3.2 - Moisture Content
4.3 - Cone Penetrometer Method
4.4 - One Point Cone Penetrometer Method
4.6 - One Point Casagrande Method
5.3 - Plastic Limit Method
5.4 - Plasticity Index

+ Tested in accordance with the following clauses of BS1377-2:1990.

4.2.3 - Natural State
4.2.4 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic.

Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)

STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
M. Fisher	MAUREEN FISHER	22/05/19

Contract	Contract Ref:
19/04390	783882

AGS

APPENDIX F

(i) Gas Monitoring Data

(ii) Exploratory Hole Location Plan showing Ground Gas Protection Requirements

Site: Hollingworth Road, Littleborough
Job Number: 18BLH008
Date of Monitoring: 29/05/19

Ground Gas Monitoring Round 1

BETTS ASSOCIATES
GEO ENVIRONMENTAL

Borehole	Gas Flow (l/hr)	Atmospheric Pressure (mB)	Methane CH_4(%v/v)		Carbon Dioxide CO_2 (% v/v)		Oxygen (%v/v)		Other Gases			Depth to Water	
			Peak	Steady	Peak	Steady	Min	Steady	PID	H_2S	CO	(mbgl)	BH depth
WS01	0.1	996	32.5	32.1	7.4	7.3	6.6	6.9	-	-	1.0	Dry	3.00
WS02	0.1	996	0.0	0.0	1.2	1.1	19.9	20.1	-	-	-	1.45	3.00
WS03	0.1	996	0.0	0.0	1.6	0.2	17.8	21.2	-	-	1.0	0.80	2.98
WS05	0.0	996	0.0	0.0	2.1	2.1	19.7	19.7	-	-	1.0	Dry	2.95
WS07	0.0	996	0.0	0.0	2.1	1.9	20.1	20.2	-	-	-	2.95	3.00
WS08	0.0	996	0.0	0.0	2.0	2.0	19.5	19.6	-	-	-	2.91	2.95
WS09	0.1	996	0.0	0.0	0.8	0.7	20.3	20.4	-	-	1.0	Dry	3.00
WS10	0.0	996	0.0	0.0	0.4	0.2	20.8	20.9	-	-	1.0	1.08	2.98

Notes:
Monitoring order is left to right across the table
Monitoring should be for **not less** than 3 minutes. However, if high concentrations of gases are initially recorded, monitoring should be for up to 10 minutes
Gas flow values in red were less than the detection limit of 0.1 l/hr. The value of 0.1 used for calculation purposes.

Relevant Information at the Time of Monitoring	
Monitored by:	RD
Weather:	Overcast with moderate cloud, occasional drizzle, slight breeze, cool.
Equipment Used:	GA5000
	Solinst Mini Interface Meter
Visible signs of damage/stress:	WS05 - Concrete smashed - well head no longer secure.
Other Comments/Observations:	Pressure falling.

Site: Hollingworth Road, Littleborough
Job Number: 18BLH008
Date of Monitoring: 21/06/19

Ground Gas Monitoring Round 2

BETTS ASSOCIATES
GEO ENVIRONMENTAL

Borehole	Gas Flow (l/hr)	Atmospheric Pressure (mB)	Methane CH_4(%v/v)		Carbon Dioxide CO_2 (% v/v)		Oxygen (%v/v)		Other Gases			Depth to Water	
			Peak	Steady	Peak	Steady	Min	Steady	PID	H_2S	CO	(mbgl)	BH depth
WS01	0.1	998	8.2	6.6	2.8	2.3	14.6	15.5	-	-	1.0	2.65	3.00
WS02	0.0	998	0.0	0.0	0.1	0.1	20.7	20.7	-	-	1.0	0.80	3.00
WS03	0.1	998	1.1	0.0	0.3	0.3	19.6	20.6	-	-	-	0.56	3.00
WS05	0.1	998	0.1	0.0	2.1	2.0	18.0	18.2	-	-	1.0	Dry	2.96
WS07	0.1	998	0.0	0.0	0.7	0.6	20.2	20.8	-	-	-	Dry	3.02
WS08	0.0	998	0.0	0.0	3.1	3.0	15.1	15.5	-	-	-	Dry	3.00
WS09	0.0	998	0.0	0.0	1.5	1.2	20.0	20.1	-	-	-	Dry	3.00
WS10	0.1	988	0.0	0.0	0.1	0.1	20.6	20.6	-	-	-	0.77	3.00

Notes:
Monitoring order is left to right across the table
Monitoring should be for **not less** than 3 minutes. However, if high concentrations of gases are initially recorded, monitoring should be for up to 10 minutes

Relevant Information at the Time of Monitoring	
Monitored by:	RD
Weather:	Overcast with moderate cloud, cool, dry, calm.
Equipment Used:	GA5000
	Solinst Mini Interface Meter
Visible signs of damage/stress:	N/A
Other Comments/Observations:	Pressure rising.

Site: Hollingworth Road, Littleborough
Job Number: 18BLH008
Date of Monitoring: 08/07/19

Ground Gas Monitoring Round 3

BETTS ASSOCIATES
GEO ENVIRONMENTAL

Borehole	Gas Flow (l/hr)	Atmospheric Pressure (mB)	Methane CH_4(%v/v)		Carbon Dioxide CO_2 (% v/v)		Oxygen (%v/v)		Other Gases			Depth to Water	
			Peak	Steady	Peak	Steady	Min	Steady	PID	H_2S	CO	(mbgl)	BH depth
WS01	0.1	1003	50.5	50.3	8.0	8.0	2.4	4.0	-	-	2.0	2.95	3.00
WS02	0.1	1003	0.0	0.0	0.1	0.2	20.2	20.3	-	-	1.0	1.20	3.00
WS03	0.1	1003	12.8	0.0	2.1	0.3	15.8	20.3	-	-	2.0	0.90	3.00
WS05	Bung Stolen - Replaced											Dry	2.95
WS07	0.0	1003	0.0	0.0	1.0	1.0	19.7	19.7	-	1.0	1.0	2.90	3.00
WS08	Not Accessable - Bulls in Field												
WS09	0.0	1003	0.1	0.1	1.6	1.5	19.9	20.0	-	-	1.0	Dry	2.98
WS10	0.1	1003	0.0	0.0	2.3	2.1	18.9	19.1	-	1.0	1.0	1.30	3.00

Notes:
Monitoring order is left to right across the table
Monitoring should be for **not less** than 3 minutes. However, if high concentrations of gases are initially recorded, monitoring should be for up to 10 minutes

Relevant Information at the Time of Monitoring	
Monitored by:	RD
Weather:	Overcast with light cloud, sunny intervals, dry, calm, warm.
Equipment Used:	GA5000
	Solinst Mini Interface Meter
Visible signs of damage/stress:	WS05 - Bung stolen as well head not secure, WS08 avoided due to bulls next to well head.
Other Comments/Observations:	Pressure falling.

Site: Hollingworth Road, Littleborough
Job Number: 18BLH008
Date of Monitoring: 6/8/19

Ground Gas Monitoring Round 4

BETTS ASSOCIATES
GEO ENVIRONMENTAL

Borehole	Gas Flow (l/hr)	Atmospheric Pressure (mB)	Methane CH_4(%v/v)		Carbon Dioxide CO_2 (% v/v)		Oxygen (%v/v)		Other Gases			Depth to Water	
			Peak	Steady	Peak	Steady	Min	Steady	PID	H_2S	CO	(mbgl)	BH depth
WS01	0.1	985	65.1	64.8	7.9	7.9	1.9	3.5	-	-	2.0	2.95	3.00
WS02	0.1	985	0.0	0.0	2.3	0.2	15.2	19.9	-	-	2.0	0.70	3.00
WS03	0.1	985	16.3	0.0	2.7	1.4	15.4	18.0	-	-	1.0	0.62	3.00
WS05	Well Head Vandalised											Dry	2.92
WS07	0.1	985	0.0	0.0	25.1	23.5	3.6	5.0	-	-	1.0	2.90	3.00
WS08	Not Accessable - Bulls in Field												
WS09	0.0	985	0.0	0.0	3.2	3.1	19.1	19.4	-	-	1.0	Dry	3.00
WS10	0.2	985	0.0	0.0	0.5	0.4	20.1	20.2	-	-	2.0	0.85	3.00

Notes:
Monitoring order is left to right across the table
Monitoring should be for **not less** than 3 minutes. However, if high concentrations of gases are initially recorded, monitoring should be for up to 10 minutes

Relevant Information at the Time of Monitoring	
Monitored by:	RD
Weather:	Sunny intervals with blue sky and moderate cloud, occasional drizzle, slight breeze, cool.
Equipment Used:	GA5000
	Solinst Mini Interface Meter
Visible signs of damage/stress:	WS05 - Cover lifted off, bung missing and top of pipe snapped off - bung replaced and cover secured with rubble.
Other Comments/Observations:	Pressure stable.

Site: Hollingworth Road, Littleborough
Job Number: 18BLH008
Date of Monitoring: 29/8/19

Ground Gas Monitoring Round 5

BETTS ASSOCIATES
GEO ENVIRONMENTAL

Borehole	Gas Flow (l/hr)	Atmospheric Pressure (mB)	Methane CH_4(%v/v)		Carbon Dioxide CO_2 (% v/v)		Oxygen (%v/v)		Other Gases			Depth to Water	
			Peak	Steady	Peak	Steady	Min	Steady	PID	H_2S	CO	(mbgl)	BH depth
WS01	Not Accessable - Bulls in Field												
WS02	Not Accessable - Bulls in Field												
WS03	Not Accessable - Bulls in Field												
WS05	Well Head Vandalised											2.55	3.00
WS07	0.0	998	0.0	0.0	6.0	5.5	16.5	17.3	-	-	-	Dry	3.00
WS08	Well Head Vandalised											Dry	2.85
WS09	0.0	998	0.0	0.0	1.7	1.6	20.1	20.3	-	-	1.0	2.70	3.00
WS10	0.1	998	0.0	0.0	0.3	0.1	20.5	20.6	-	-	1.0	0.80	3.00

Notes:
Monitoring order is left to right across the table
Monitoring should be for **not less** than 3 minutes. However, if high concentrations of gases are initially recorded, monitoring should be for up to 10 minutes

Relevant Information at the Time of Monitoring	
Monitored by:	RD
Weather:	Overcast with moderate cloud with sunny intervals, slight breeze, cool, dry.
Equipment Used:	GA5000
	Solinst Mini Interface Meter
Visible signs of damage/stress:	WS05 and WS08 well heads removed, concrete smashed, bungs missing and upstanding pipe broken off and missing. Unable to resecure well heads.
Other Comments/Observations:	Pressure rising.

Site: Hollingworth Road, Littleborough
Job Number: 18BLH008
Date of Monitoring: 16/09/19

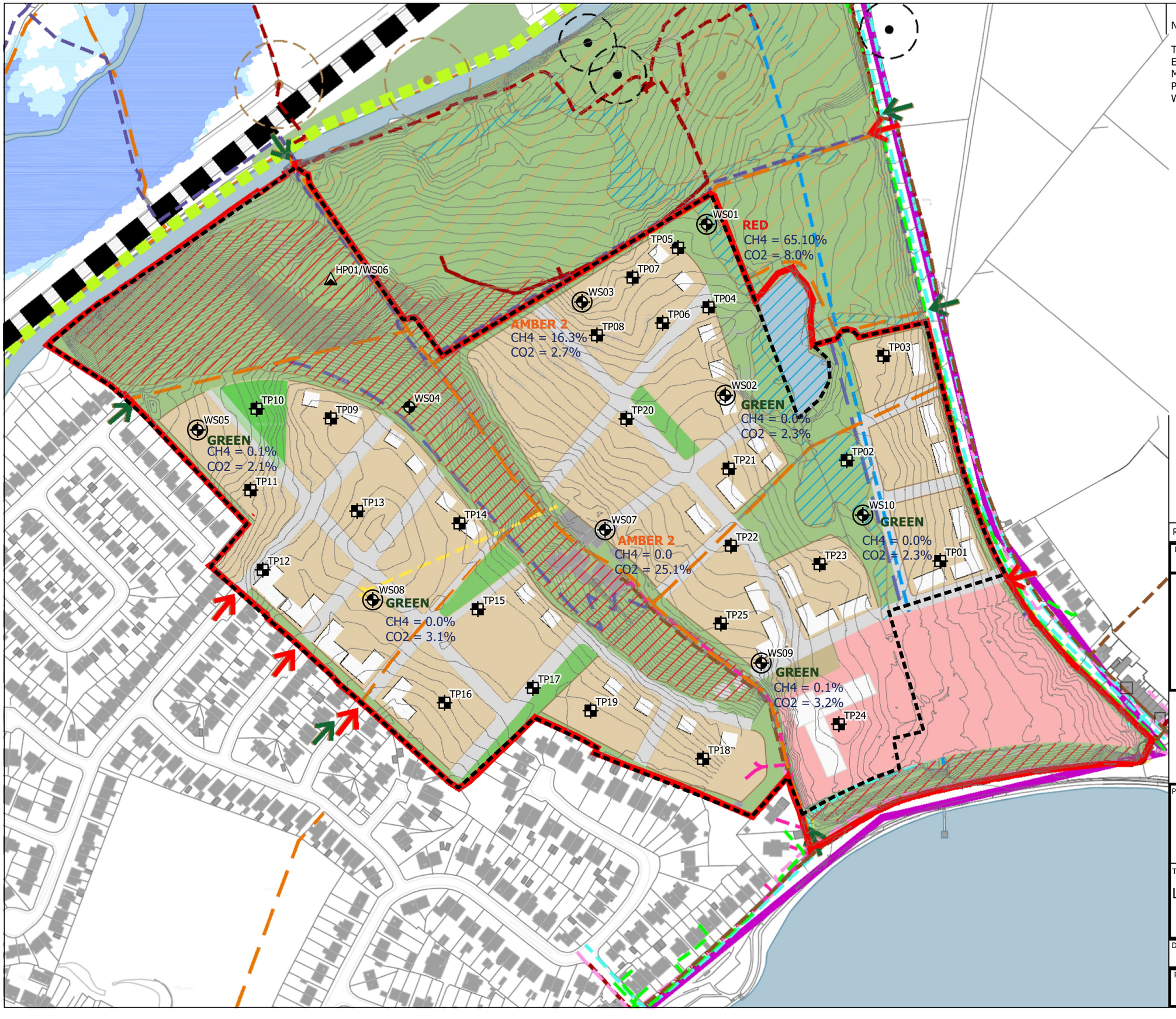
Ground Gas Monitoring Round 6

BETTS ASSOCIATES
GEO ENVIRONMENTAL

Borehole	Gas Flow (l/hr)	Atmospheric Pressure (mB)	Methane CH_4(%v/v)		Carbon Dioxide CO_2 (% v/v)		Oxygen (%v/v)		Other Gases			Depth to Water	
			Peak	Steady	Peak	Steady	Min	Steady	PID	H_2S	CO	(mbgl)	BH depth
WS01	Not Accessable - Bulls in Field												
WS02	Not Accessable - Bulls in Field												
WS03	Not Accessable - Bulls in Field												
WS05	Well Head Vandalised												
WS07	Not Accessable - Bulls in Field												
WS08	Well Head Vandalised												
WS09	0.0	1004	0.0	0.0	2.2	2.1	19.8	19.9	-	-	-	2.70	3.00
WS10	0.5	1004	0.0	0.0	0.6	0.6	20.2	20.3	-	-	1	0.70	3.00

Notes:
Monitoring order is left to right across the table
Monitoring should be for **not less** than 3 minutes. However, if high concentrations of gases are initially recorded, monitoring should be for up to 10 minutes

Relevant Information at the Time of Monitoring	
Monitored by:	RD
Weather:	Sunny with blue sky and light cloud, calm, cool, damp.
Equipment Used:	GA5000
	Solinst Mini Interface Meter
Visible signs of damage/stress:	WS08 previously vandalised. WS05 - Concrete fragment rammed down well head. Unable to resecure well heads.
Other Comments/Observations:	Pressure rising.



NOTES

DO NOT SCALE

THIS SKETCH SHOWS THE INDICATIVE LOCATIONS OF EXPLORATORY HOLES UNDERTAKEN BY BETTS GEO IN MAY 2019 OVERLAIN THE CONCEPT PLAN (Dwg; Concept Plan, No.; 9400, Rev; A, Dated; 10.12.18, By; Barton Willmore).

- SITE BOUNDARY
- TRIAL PIT [25]
- TP1 WINDOW SAMPLE WITH GAS INSTALL [8]
- WS1 WINDOW SAMPLE [1]
- HP01 HANDPIT [1]

Worst case methane and carbon dioxide concentrations and gas protection classification provided adjacent to window sample locations.

PRELIMINARY GROUND GAS PROTECTION REQUIREMENTS

WS01: CH4 = RED, CO2 = AMBER 1
WS03: CH4 = AMBER 2, CO2 = GREEN
WS07: CH4 = GREEN, CO2 = AMBER 2

REV	DATE	BY	DESCRIPTION	CHK

DRAWING STATUS: DRAFT

BETTS GEO
CONSULTING ENGINEERS
Unit 6, Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire CH5 2LY
Tel: 01244 288178 enquiries@betts-associates.co.uk

BLOOR HOMES®

PROJECT:
HOLLINGWORTH ROAD
LITTLEBOROUGH

TITLE:
EXPLORATORY HOLE
LOCATION PLAN SHOWING PRELIMINARY GROUND GAS PROTECTION REQUIREMENTS

DATE:	SCALE @ SIZE:	DRAWN:	CHECKED:
27/09/19	1:2500 @ A3	LH	DK

PROJECT No:	DRAWING No:	REV:
18BLH008	2	-

APPENDIX G

(i) Notes on Ground Gas

Ground Gas

The Building Regulations and BRE Report 212 state that precautions are not mandatory against carbon dioxide unless 5.0% volume is exceeded. These documents do not give a threshold level for methane, but Baker suggests that this level is 0.1% volume. For methane up to 1.0% volume, and carbon dioxide above 5.0% volume, the Building Regulations and BRE Report state that passive measures may be adopted. Above 1.0% methane further specific guidance must be sought.

CIRIA Report 149 gives further guidance on the appropriate precautions for various gas regimes, called characteristic situations in this report. In the DETR Guide for Design by Ove Arup, various types of passive measures are assessed for performance with different gas regimes. The assessments used computational fluid dynamic (CFD) modelling.

A gas regime is essentially defined by two parameters:

i) The concentration of the gas (e.g. % methane)

ii) The emission rate of the gas from the ground.

The fact that two parameters are used is problematic if the site is to be classified on the basis of Table 28 in CIRIA Report 149. This is because high gas concentrations are often encountered which fall into an onerous gas regime; whereas the low flow rates which are also frequently encountered fall into less onerous gas regimes.

In order to use the Guide for Design to decide if passive measures are suitable, it is necessary to combine the gas concentration and the emission rate.

Three recent publications are used for ground gas risk assessment:

- CIRIA C665 for high rise residential / flats
- 'Guidance on Evaluation of Development Proposals on Sites Where Methane and Carbon Dioxide are Present' Report Edition No.04 March 2007 NHBC – designed for use with low rise residential properties
- BS8485:2007 'Code of practice for the characterization and remediation from ground gas in affected developments'

These documents improve upon the approach used in previous CIRIA and Wilson /Card Papers, by placing emphasis on gas flow rates, but still retain some reliance on the gas concentrations themselves.

CIRIA C665 Situation A Ground Gas Conceptual Model

The risk table contained in C665 is basically a modified risk assessment from CIRIA 152 1995, by which a conceptual model and semi-quantitative risk assessment can be made.

High Rise / Flats (CIRIA 665 Table 8.5)

Characteristic Situation (CIRIA Report 149)	Risk Classification	Gas Screening Value (CH4 or CO2) (l/hr) [1]	Additional factors	Typical source of generation
1	Very low risk	**<0.07**	Typically methane ≤1%v/v and/or carbon dioxide ≤5%v/v. Otherwise consider increase to Situation 2	Natural soils with low Organic content. "Typical" Made Ground
2	Low risk	**<0.7**	Borehole flow rate not to exceed 70l/hr. Otherwise consider increase to Situation 3	Natural soil, high peat/organic content. "Typical" Made Ground
3	Moderate risk	**<3.5**		Old landfill, inert waste, mineworking flooded
4	Moderate to high risk	**<15**	Quantitative risk assessment required to evaluate scope of protective measures	Mineworking susceptible to flooding, completed landfill (WMP 26B criteria)
5	High risk	**<70**		Mineworking unflooded inactive with shallow workings near surface
6	Very high risk	**>70**		Recent landfill site

Notes:
1. Gas screening value: litres of gas/hour is calculated by multiplying the gas concentration (%) by the measured borehole flow rate (l/hr);
2. Site characterisation should be based on gas monitoring of concentrations and borehole flow rates for the minimum periods as defined within within CIRIA Report 665;
3. Source of gas and generation potential/performance must be identified;
4. Soil gas investigation to be in accordance with guidance contained within CIRIA Report 665;
5. If there is no detectable flow, use the limit of detection of the instrument;
6. The boundaries between the Partners in Technology classifications do not fit exactly with the

boundaries for the above classification.

Typical scope of protective measures (extract from CIRIA Report 665 Table 8.6)

Characteristic Situation (from Table 8.5)	Number of levels of protection	Typical scope of protective measures for residential building (not low-rise traditional housing)[1]
1	None	No special precautions
2	2	a) Reinforced concrete cast in situ floor slab (suspended, non-suspended or raft) with at least 1200g DPM and under-floor venting b) Beam and block or pre-cast concrete and 2000 g DPM/reinforced gas membrane and under-floor venting. All joints and penetrations sealed.
3	2	All types of floor slab as above. All joints and penetrations sealed. Proprietary gas resistant membrane and passively ventilated or positively pressurised under-floor sub-space.
4	3	All types of floor slab as above. All joints and penetrations sealed. Proprietary gas resistant membrane and passively ventilated under-floor subspace or positively pressurised under-floor sub-space, over-site capping or blinding and in ground venting layer
5	4	Reinforced concrete cast in situ floor slab (suspended, non-suspended or raft). All joints and penetrations sealed. Proprietary gas resistant membrane and ventilated or positively pressurised under-floor sub-space, over-site capping and in ground venting layer and in ground venting wells or barriers.
6	5	Not suitable unless gas regime is reduced first and quantitative risk assessment carried out to assess design of protection measures in conjunction with foundation design.

Notes:

1. Not suitable for use with low rise traditional housing. (Use the NHBC document instead);
2. Typical scope of protective measures may be rationalised for specific developments on the basis of quantitative risk assessments;
3. Note the type of protection is given for illustration purposes only. Information on the detailing and construction of passive protection measures is given in BR414 (Johnson, 2001). Individual site specific designs should provide the same number of separate protective methods for any given characteristic situation. See CIRIA Report 49;
4. In all cases there should be minimum penetration of ground slabs by services and minimum number of confined spaces such as cupboards above the ground slab. Any confined spaces should be ventilated;
5. Foundation design must minimise differential settlement particularly between structural elements and ground-bearing slabs;
6. Commercial buildings with basement car parks, provided with ventilation in accordance with the Building Regulations, may not require gas protection for Characteristic Situations 3 and 4;
7. Floor slabs should provide an acceptable formation on which to lay the gas membrane. If a block beam floor is used it should be well detailed so it has no voids in it that membranes have to span, and all holes for service penetrations should be filled. The minimum density of the blocks should be 600kg/m3 and the top surface should have a 4:1 ratio sand to cement grout brushed into all joints before placing any membrane (this is also good practice to stabilise the floor and should be carried out regardless of the need for ground gas membranes);
8. The ground gas-resistant membrane can also act as the damp-proof membrane;
9. Based on Building Regulations Approved Document C (Office of the Deputy Prime Minister, 2004a),which states that "a membrane below the concrete could be formed with a sheet of polyethylene, which should be at least

300mu thick (1200 gauge)". Please note the alteration from 300mm (as stated in the Approved Document C) to 300mu, as 300mm is a typographical error that has been recognised and corrected for within this report and CIRIA Report 665.

Low Rise Residential (NHBC)

Table 14.1: Gas Risk Assessment - Traffic Lights with Typical Maximum Concentrations and Gas Screening Values

	Methane [1]		Carbon Dioxide [1]	
Classification	**Typical Maximum Concentration** [3] (%v/v)	**Gas Screening Value** [2,4] (l/hr)	**Typical Maximum Concentration** [3] (%v/v)	**Gas Screening Value** [2,4] (l/hr)
Green				
Amber 1	1	**0.13**	5	**0.78**
	5	**0.63**	10	**1.60**
Amber 2	20	**1.60**	30	**3.10**
Red				

Notes:

1. The worst-case ground gas regime identified on the site, either methane or carbon dioxide, at the worst case temporal conditions that the site may be expected to encounter will be the decider as to what Traffic Light is allocated;
2. Borehole Gas Volume Flow Rate, in litres per hour as defined in Wilson and Card (1999), is the borehole flow rate multiplied by the concentration in the air stream of the particular gas being considered;
3. The Typical Maximum Concentrations can be exceeded in certain circumstances should the Conceptual Site Model indicate it is safe to do so;
4. The Gas Screening Value thresholds should not generally be exceeded without the completion of a detailed ground gas risk assessment taking into account site-specific conditions.

Table 14.2: Ground Gas Protection Measures Required for the Traffic Lights

Traffic Light	Ground Gas Protection Measures Required
Green	Ground gas protection measures are not required. (note based on standard NHBC house detail with 150mm void space under suspended floor)
Amber 1	Low-level ground gas protection measures are required, using a membrane and ventilated sub-floor void that creates a permeability contrast to limit the ingress of gas into buildings. Gas protection measures are to be installed as prescribed in BRE 414. Ventilation of the sub-floor void should be designed to provide a minimum of one complete volume change per 24 hours.
Amber 2	High-level ground gas protection measures are required, creating a permeability contrast to prevent ingress of gas into buildings. Gas protection measures are to be installed as prescribed in BRE 414.

	Membranes used should always be fitted by a specialist contractor and should be fully certified (see Appendix G). As with Amber 1, ventilation of the sub-floor void should be designed to provide a minimum of one complete volume change per 24 hours.
Red	Standard residential housing is not normally acceptable without further Ground Gas Risk Assessment and/or possible remedial mitigation measures to reduce/remove the source of the ground gases. In certain circumstances, active protection methods could be applied, but only when there is a legal agreement assuring the management and maintenance of the system for the life of the property.

BS8485: 2007

Table 2: Required Gas Protection By Characteristic Gas Situation & Type Of Building

Characteristic gas situation, CS	NHBC traffic light	Required gas protection			
		Non-managed property, e.g. private housing	Public building A)	Commercial buildings	Industrial buildings B)
1	Green	0	0	0	0
2	Amber 1	3	3	2	1 C)
3	Amber 2	4	3	2	2
4	Red	6 D)	5 D)	4	3
5			6 E)	5	4
6				7	6

NOTE Traffic light indications are taken from NHBC Report no.: 10627-R01 (04) [3] and are mainly applicable to low-rise residential housing. These are for comparative purposes but the boundaries between the traffic light indications and CS values do not coincide.

A) Public buildings include, for example, managed apartments, schools and hospitals.
B) Industrial buildings are generally open and well ventilated. However, areas such as office pods might require a separate assessment and may be classified as commercial buildings and require a different scope of gas protection to the main building.
C) Maximum methane concentration 20% otherwise consider an increase to CS3.
D) Residential building on higher traffic light/CS sites is not recommended unless the type of construction or site circumstances allow additional levels of protection to be incorporated, e.g. high-performance ventilation or pathway intervention measures, and an associated sustainable system of management of maintenance of the gas control system, e.g. in institutional and/or fully serviced contractual situations.
E) Consideration of issues such as ease of evacuation and how false alarms will be handled are needed when completing the design specification of any protection scheme.

Table 3: Solutions Scores

PROTECTION ELEMENT/SYSTEM		SCORE	COMMENTS
a) Venting/dilution (See Annex A)			
Passive sub floor ventilation (venting layer can be a clear void or formed using gravel, geocomposites, polystyrene void formers, etc.) A)	Very good performance	2.5	Ventilation performance in accordance with Annex A. If passive ventilation is poor this is generally unacceptable, and some form of active system will be required.
	Good performance	1	
Subfloor ventilation with active abstraction/pressurization (venting layer can be a clear void or formed using gravel, geocomposites, polystyrene void formers, etc.) A)		2.5	There have to be robust management systems in place to ensure the continued maintenance of any ventilation system. Active ventilation can always be designed to meet good performance. Mechanically assisted systems come in two main forms: extraction and positive pressurization.
Ventilated car park (basement or undercroft)		4	Assumes car park is vented to deal with car exhaust fumes, designed to Building Regulations Document F [5] and IStructE guidance [6].
b) Barriers			
Floor slabs			It is good practice to install ventilation in all foundation systems to effect pressure relief as a minimum. Breaches in floor slabs such as joints have to be effectively sealed against gas ingress in order to maintain these performances.
Block and beam floor slab		0	
Reinforced concrete ground bearing floor slab		0.5	
Reinforced concrete ground bearing foundation raft with limited service penetrations that are cast into slab		1.5	
Reinforced concrete cast in situ suspended slab with minimal service penetrations and water bars around all slab penetrations and at joints		1.5	
Fully tanked basement		2	
c) Membranes			
Taped and sealed membrane to reasonable levels of workmanship/in line with current good practice with validation B), C)		0.5	The performance of membranes is heavily dependent on the quality and design of the installation, resistance to damage after installation, and the integrity of joints
Proprietary gas resistant membrane to reasonable levels of workmanship/in line with current good practice under independent inspection (CQA) B), C)		1	
Proprietary gas resistant membrane installed to reasonable levels of workmanship/in line with current good practice under CQA with integrity testing and independent validation		2	
d) Monitoring and detection (not applicable to non-managed property, or in isolation)			
Intermittent monitoring using hand held equipment		0.5	
Permanent monitoring and alarm system A)	Installed in the underfloor venting/ dilution system	2	Where fitted, permanent monitoring systems ought to be installed in the underfloor venting/dilution system in the first instance but can also be provided within the occupied space as a fail safe
	Installed in the building	1	
e) Pathway Intervention			
Pathway intervention		-	This can consist of site protection measures for off-site or on-site sources (see Annex A).

NOTE In practice the choice of materials might well rely on factors such as construction method and the risk of damage after installation. It is important to ensure that the chosen combination gives an appropriate level of

protection

A) It is possible to test ventilation systems by installing monitoring probes for post installation validation.

B) If a 1 200 g DPM material is to function as a gas barrier it should be installed according to BRE 212 [8]/BRE 414 [9], being taped and sealed to all penetrations.

C) Polymeric Materials >1 200 g can be used to improve confidence in the barrier. Remember that their gas resistance is robust and resistant to site damage.

APPENDIX I

(i) Validation Report Guidance Notes

Unforeseen Hotspots of Contamination
Given the existence of made ground on the site it would be prudent to maintain vigilance during site clearance and construction, in case any further areas of suspected contamination are encountered.

If areas are found then a suitably qualified person should undertake appropriate sampling, testing and further risk assessment.

Any hotspots encountered during site clearance, not previously encountered in the ground investigation, are to be removed to a suitably licensed landfill site.

A validation report (see below) will be produced on completion of these works. This report will serve to confirm that the works were undertaken in accordance with the relevant legislation, the method statement, specification and planning conditions.

Validation Report Recommendations
It is suggested that the following records will be kept on site to provide a basis for the validation report:

- Daily record sheets of the remediation works to include a summary of the day's activities
- Weather conditions
- Plant, personnel and visitors to the remediation site
- Aspects relating to Health & Safety, environmental control or non-compliance with the specification or the Method Statements.
- All in situ and laboratory testing results.

All requirements of the remediation specification should be complied with; on completion of the remediation a validation report should be provided. This report will comprise the relevant site records and act as certification that the remedial and ground preparation works have been carried out in accordance with the specification.

The validation report will include the following:

- A description of the works undertaken.
- Records of any remediation works, including daily diary sheets.
- Progress photographs.
- Any chemical and geotechnical validation test results.
- As built surveys, including base excavations and top and bottom of capping layer.
- A statement that the works have been undertaken in accordance with the agreed specification

(ii) HazWasteOnline Output Sheets

Waste Classification Report

V4GL4-2A286-FP4FB

Job name

18BLH008

Description/Comments

Project

18BLH008

Site

Hollingworth Road, Littleborough

Related Documents

#	Name	Description
None		

Waste Stream Template

Betts Geo Core Contaminated Land Waste Suite WM3

Classified by

Name:
Beverley Lewis
Date:
19 Jun 2019 07:46 GMT
Telephone:
01244 288 179

Company:
betts geoenvironmental ltd
Unit 6-7, Old Marsh Farm Barn
Welsh Rd, Sealand
Deeside
CH5 2LY

Report

Created by: Beverley Lewis
Created date: 19 Jun 2019 07:46 GMT

Job summary

Classification of sample: WS1

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:	LoW Code:
WS1	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	
0.20 m	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		8	mg/kg		8	mg/kg	0.0008 %		
2		cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	0.9	mg/kg		0.9	mg/kg	0.00009 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		31	mg/kg	1.126	34.903	mg/kg	0.00349 %		
5		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	56	mg/kg	1.56	87.35	mg/kg	0.0056 %		
6		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		50	mg/kg	1.579	78.975	mg/kg	0.0079 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		89	mg/kg	2.469	219.767	mg/kg	0.022 %		
10		pH			PH		5.44	pH		5.44	pH	5.44 pH		
11		TPH (C6 to C40) petroleum group			TPH		95	mg/kg		95	mg/kg	0.0095 %		
12		acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.1	mg/kg		0.1	mg/kg	0.00001 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
		601-034-00-4	205-911-9	205-99-2									
18	•	benzo[ghi]perylene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	•	fluoranthene				0.24	mg/kg		0.24	mg/kg	0.000024 %		
			205-912-4	206-44-0									
23	•	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	•	indeno[123-cd]pyrene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	•	phenanthrene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
			201-581-5	85-01-8									
27	•	pyrene				0.21	mg/kg		0.21	mg/kg	0.000021 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	•	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.05 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0095%)

Classification of sample: WS1[2]

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample Name:	LoW Code:	
WS1[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
2.20 m	Entry:	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.359%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.359%)

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
1		arsenic trioxide				15	mg/kg		15	mg/kg	0.0015 %		
		033-003-00-0	215-481-4	1327-53-3									
2		cadmium sulfide			1	1	mg/kg		1	mg/kg	0.0001 %		
		048-010-00-4	215-147-8	1306-23-6									
3		chromium in chromium(VI) compounds { chromium(VI) oxide }				<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		**<LOD**
		024-001-00-0	215-607-8	1333-82-0									
4		copper { dicopper oxide; copper (I) oxide }				76	mg/kg	1.126	85.568	mg/kg	0.00856 %		
		029-002-00-X	215-270-7	1317-39-1									
5		lead { lead chromate }			1	120	mg/kg	1.56	187.178	mg/kg	0.012 %		
		082-004-00-2	231-846-0	7758-97-6									
6		mercury { mercury dichloride }				0.75	mg/kg	1.353	1.015	mg/kg	0.000102 %		
		080-010-00-X	231-299-8	7487-94-7									
7		nickel { nickel dihydroxide }				362	mg/kg	1.579	571.779	mg/kg	0.0572 %		
		028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
		034-002-00-8											
9		zinc { zinc sulphate }				824	mg/kg	2.469	2034.7	mg/kg	0.203 %		
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
10		pH				7.31	pH		7.31	pH	7.31 pH		
				PH									
11		TPH (C6 to C40) petroleum group				3590	mg/kg		3590	mg/kg	0.359 %		
				TPH									
12		acenaphthene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
			201-469-6	83-32-9									
13		acenaphthylene				0.03	mg/kg		0.03	mg/kg	0.000003 %		
			205-917-1	208-96-8									
14		anthracene				0.19	mg/kg		0.19	mg/kg	0.000019 %		
			204-371-1	120-12-7									
15		benzo[a]anthracene				0.31	mg/kg		0.31	mg/kg	0.000031 %		
		601-033-00-9	200-280-6	56-55-3									
16		benzo[a]pyrene; benzo[def]chrysene				0.19	mg/kg		0.19	mg/kg	0.000019 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.36	mg/kg		0.36	mg/kg	0.000036 %		
		601-034-00-4	205-911-9	205-99-2									
18		benzo[ghi]perylene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.43	mg/kg		0.43	mg/kg	0.000043 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22		fluoranthene				1.06	mg/kg		1.06	mg/kg	0.000106 %		
			205-912-4	206-44-0									
23		fluorene				0.38	mg/kg		0.38	mg/kg	0.000038 %		
			201-695-5	86-73-7									
24		indeno[123-cd]pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
			205-893-2	193-39-5									
25		naphthalene				1.37	mg/kg		1.37	mg/kg	0.000137 %		
		601-052-00-2	202-049-5	91-20-3									
26		phenanthrene				1.23	mg/kg		1.23	mg/kg	0.000123 %		
			201-581-5	85-01-8									
27		pyrene				1	mg/kg		1	mg/kg	0.0001 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.643 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.359%)
xylene: (conc.: 7.0e-06%)

Classification of sample: WS2

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS2
Sample Depth:
0.40 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		7 mg/kg		7 mg/kg	0.0007 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	<0.5 mg/kg		<0.5 mg/kg	<0.00005 %		<**LOD**
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		20 mg/kg	1.126	22.518 mg/kg	0.00225 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	50 mg/kg	1.56	77.991 mg/kg	0.005 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		18 mg/kg	1.579	28.431 mg/kg	0.00284 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		56 mg/kg	2.469	138.281 mg/kg	0.0138 %		
10		pH PH		6.06 pH		6.06 pH	6.06 pH		
11		TPH (C6 to C40) petroleum group TPH		29 mg/kg		29 mg/kg	0.0029 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0281 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0029%)

Classification of sample: WS3

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS3
Sample Depth:
0.70 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	<0.5 mg/kg		<0.5 mg/kg	<0.00005 %		<LOD
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	10 mg/kg	1.56	15.598 mg/kg	0.001 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		14 mg/kg	1.579	22.113 mg/kg	0.00221 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		29 mg/kg	2.469	71.61 mg/kg	0.00716 %		
10		pH PH		6.5 pH		6.5 pH	6.5 pH		
11		TPH (C6 to C40) petroleum group TPH		5 mg/kg		5 mg/kg	0.0005 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0118 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: WS4

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS4
Sample Depth:
0.20 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		11	mg/kg		11	mg/kg	0.0011 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.7	mg/kg		0.7	mg/kg	0.00007 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		27	mg/kg	1.126	30.399	mg/kg	0.00304 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	55	mg/kg	1.56	85.79	mg/kg	0.0055 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		32	mg/kg	1.579	50.544	mg/kg	0.00505 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		2	mg/kg	2.554	5.107	mg/kg	0.000511 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		71	mg/kg	2.469	175.32	mg/kg	0.0175 %		
10		pH PH		6.64	pH		6.64	pH	6.64 pH		
11		TPH (C6 to C40) petroleum group TPH		33	mg/kg		33	mg/kg	0.0033 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.06	mg/kg		0.06	mg/kg	0.000006 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.03	mg/kg		0.03	mg/kg	0.000003 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.04	mg/kg		0.04	mg/kg	0.000004 %		
			201-581-5	85-01-8									
27	●	pyrene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0364 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0033%)

Classification of sample: WS5

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS5
Sample Depth:
0.20 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	<0.5	mg/kg		<0.5	mg/kg	<0.00005 %		<**LOD**
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		28	mg/kg	1.126	31.525	mg/kg	0.00315 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	89	mg/kg	1.56	138.824	mg/kg	0.0089 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		25	mg/kg	1.579	39.487	mg/kg	0.00395 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		50	mg/kg	2.469	123.465	mg/kg	0.0123 %		
10		pH PH		6.9	pH		6.9	pH	6.9 pH		
11		TPH (C6 to C40) petroleum group TPH		64	mg/kg		64	mg/kg	0.0064 %		
12		acenaphthene 201-469-6 / 83-32-9		0.02	mg/kg		0.02	mg/kg	0.000002 %		
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		0.03	mg/kg		0.03	mg/kg	0.000003 %		
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.2	mg/kg		0.2	mg/kg	0.00002 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.19	mg/kg		0.19	mg/kg	0.000019 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.27	mg/kg		0.27	mg/kg	0.000027 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.24	mg/kg		0.24	mg/kg	0.000024 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.39	mg/kg		0.39	mg/kg	0.000039 %		
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.14	mg/kg		0.14	mg/kg	0.000014 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			201-581-5	85-01-8									
27	●	pyrene				0.37	mg/kg		0.37	mg/kg	0.000037 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0359 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0064%)

Classification of sample: WS5[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS5[2]
Sample Depth:
2.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		10	mg/kg		10	mg/kg	0.001 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.6	mg/kg		0.6	mg/kg	0.00006 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		32	mg/kg	1.126	36.028	mg/kg	0.0036 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	63	mg/kg	1.56	98.268	mg/kg	0.0063 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		0.26	mg/kg	1.353	0.352	mg/kg	0.0000352 %		
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		31	mg/kg	1.579	48.964	mg/kg	0.0049 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		54	mg/kg	2.469	133.342	mg/kg	0.0133 %		
10		pH PH		6.65	pH		6.65	pH	6.65 pH		
11		TPH (C6 to C40) petroleum group TPH		233	mg/kg		233	mg/kg	0.0233 %		
12		acenaphthene 201-469-6 / 83-32-9		0.02	mg/kg		0.02	mg/kg	0.000002 %		
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		0.03	mg/kg		0.03	mg/kg	0.000003 %		
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.18	mg/kg		0.18	mg/kg	0.000018 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.39	mg/kg		0.39	mg/kg	0.000039 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.36	mg/kg		0.36	mg/kg	0.000036 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.53	mg/kg		0.53	mg/kg	0.000053 %		
			205-912-4	206-44-0									
23	●	fluorene				0.02	mg/kg		0.02	mg/kg	0.000002 %		
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.24	mg/kg		0.24	mg/kg	0.000024 %		
			201-581-5	85-01-8									
27	●	pyrene				0.46	mg/kg		0.46	mg/kg	0.000046 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0533 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0233%)

Classification of sample: WS6

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS6
Sample Depth:
1.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		3 mg/kg		3 mg/kg	0.0003 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.6 mg/kg		0.6 mg/kg	0.00006 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		14 mg/kg	1.126	15.762 mg/kg	0.00158 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	19 mg/kg	1.56	29.636 mg/kg	0.0019 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		17 mg/kg	1.579	26.851 mg/kg	0.00269 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		37 mg/kg	2.469	91.364 mg/kg	0.00914 %		
10		pH PH		6.12 pH		6.12 pH	6.12 pH		
11		TPH (C6 to C40) petroleum group TPH		117 mg/kg		117 mg/kg	0.0117 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.04 mg/kg		0.04 mg/kg	0.000004 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
			201-581-5	85-01-8									
27	●	pyrene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0279 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0117%)

Classification of sample: WS7

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS7
Sample Depth:
0.60 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.6	mg/kg		0.6	mg/kg	0.00006 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		22	mg/kg	1.126	24.77	mg/kg	0.00248 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	34	mg/kg	1.56	53.034	mg/kg	0.0034 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		16	mg/kg	1.579	25.272	mg/kg	0.00253 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		78	mg/kg	2.469	192.605	mg/kg	0.0193 %		
10		pH PH		6.43	pH		6.43	pH	6.43 pH		
11		TPH (C6 to C40) petroleum group TPH		166	mg/kg		166	mg/kg	0.0166 %		
12		acenaphthene 201-469-6 / 83-32-9		0.01	mg/kg		0.01	mg/kg	0.000001 %		
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		0.02	mg/kg		0.02	mg/kg	0.000002 %		
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.1	mg/kg		0.1	mg/kg	0.00001 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.21	mg/kg		0.21	mg/kg	0.000021 %		
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
			201-581-5	85-01-8									
27	●	pyrene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0453 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0166%)

Classification of sample: WS8

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS8
Sample Depth:
0.30 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2	cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg		<0.5	mg/kg	<0.00005 %		<**LOD**
3	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16	mg/kg	1.126	18.014	mg/kg	0.0018 %		
5	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	26	mg/kg	1.56	40.555	mg/kg	0.0026 %		
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		15	mg/kg	1.579	23.692	mg/kg	0.00237 %		
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9	zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		41	mg/kg	2.469	101.241	mg/kg	0.0101 %		
10	pH			PH		6.36	pH		6.36	pH	6.36 pH		
11	TPH (C6 to C40) petroleum group			TPH		59	mg/kg		59	mg/kg	0.0059 %		
12	acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13	acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14	anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.08	mg/kg		0.08	mg/kg	0.000008 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.19	mg/kg		0.19	mg/kg	0.000019 %		
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
			201-581-5	85-01-8									
27	●	pyrene				0.17	mg/kg		0.17	mg/kg	0.000017 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0238 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0059%)

Classification of sample: WS9

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS9
Sample Depth:
0.60 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		3	mg/kg		3	mg/kg	0.0003 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	1	mg/kg		1	mg/kg	0.0001 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	21	mg/kg	1.56	32.756	mg/kg	0.0021 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		17	mg/kg	1.579	26.851	mg/kg	0.00269 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		2	mg/kg	2.554	5.107	mg/kg	0.000511 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		62	mg/kg	2.469	153.096	mg/kg	0.0153 %		
10		pH PH		6.43	pH		6.43	pH	6.43 pH		
11		TPH (C6 to C40) petroleum group TPH		4	mg/kg		4	mg/kg	0.0004 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.022 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: WS10

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS10
Sample Depth:
0.20 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		12 mg/kg		12 mg/kg	0.0012 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.9 mg/kg		0.9 mg/kg	0.00009 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		42 mg/kg	1.126	47.287 mg/kg	0.00473 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	83 mg/kg	1.56	129.465 mg/kg	0.0083 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		0.26 mg/kg	1.353	0.352 mg/kg	0.0000352 %		
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		27 mg/kg	1.579	42.646 mg/kg	0.00426 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		2 mg/kg	2.554	5.107 mg/kg	0.000511 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		98 mg/kg	2.469	241.991 mg/kg	0.0242 %		
10		pH PH		6.37 pH		6.37 pH	6.37 pH		
11		TPH (C6 to C40) petroleum group TPH		111 mg/kg		111 mg/kg	0.0111 %		
12		acenaphthene 201-469-6 / 83-32-9		0.01 mg/kg		0.01 mg/kg	0.000001 %		
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		0.07 mg/kg		0.07 mg/kg	0.000007 %		
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.18 mg/kg		0.18 mg/kg	0.000018 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.21	mg/kg		0.21	mg/kg	0.000021 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.22	mg/kg		0.22	mg/kg	0.000022 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.45	mg/kg		0.45	mg/kg	0.000045 %		
			205-912-4	206-44-0									
23	●	fluorene				0.01	mg/kg		0.01	mg/kg	0.000001 %		
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.26	mg/kg		0.26	mg/kg	0.000026 %		
			201-581-5	85-01-8									
27	●	pyrene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0549 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0111%)

Classification of sample: TP01

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP01
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		12	mg/kg		12	mg/kg	0.0012 %		
2		cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	0.9	mg/kg		0.9	mg/kg	0.00009 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		41	mg/kg	1.126	46.161	mg/kg	0.00462 %		
5		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	94	mg/kg	1.56	146.623	mg/kg	0.0094 %		
6		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		23	mg/kg	1.579	36.328	mg/kg	0.00363 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				2	mg/kg	2.554	5.107	mg/kg	0.000511 %		
9		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		95	mg/kg	2.469	234.583	mg/kg	0.0235 %		
10		pH			PH		7.19	pH		7.19	pH	7.19 pH		
11		TPH (C6 to C40) petroleum group			TPH		85	mg/kg		85	mg/kg	0.0085 %		
12		acenaphthene		201-469-6	83-32-9		0.05	mg/kg		0.05	mg/kg	0.000005 %		
13		acenaphthylene		205-917-1	208-96-8		0.01	mg/kg		0.01	mg/kg	0.000001 %		
14		anthracene		204-371-1	120-12-7		0.12	mg/kg		0.12	mg/kg	0.000012 %		
15		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.55	mg/kg		0.55	mg/kg	0.000055 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.62	mg/kg		0.62	mg/kg	0.000062 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.69	mg/kg		0.69	mg/kg	0.000069 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.23	mg/kg		0.23	mg/kg	0.000023 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				0.21	mg/kg		0.21	mg/kg	0.000021 %		
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.72	mg/kg		0.72	mg/kg	0.000072 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				1.18	mg/kg		1.18	mg/kg	0.000118 %		
			205-912-4	206-44-0									
23	●	fluorene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.25	mg/kg		0.25	mg/kg	0.000025 %		
			205-893-2	193-39-5									
25		naphthalene				0.04	mg/kg		0.04	mg/kg	0.000004 %		
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.6	mg/kg		0.6	mg/kg	0.00006 %		
			201-581-5	85-01-8									
27	●	pyrene				0.76	mg/kg		0.76	mg/kg	0.000076 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0522 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0085%)

Classification of sample: TP01[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP01[2]
Sample Depth:
0.90 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	1	mg/kg		1	mg/kg	0.0001 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		13	mg/kg	1.126	14.637	mg/kg	0.00146 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	9	mg/kg	1.56	14.038	mg/kg	0.0009 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		23	mg/kg	1.579	36.328	mg/kg	0.00363 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		1	mg/kg	2.554	2.554	mg/kg	0.000255 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		50	mg/kg	2.469	123.465	mg/kg	0.0123 %		
10		pH PH		5.32	pH		5.32	pH	5.32 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0195 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP02

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP02
Sample Depth:
2.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	1.1 mg/kg		1.1 mg/kg	0.00011 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		20 mg/kg	1.126	22.518 mg/kg	0.00225 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	12 mg/kg	1.56	18.718 mg/kg	0.0012 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		24 mg/kg	1.579	37.908 mg/kg	0.00379 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		1 mg/kg	2.554	2.554 mg/kg	0.000255 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		55 mg/kg	2.469	135.811 mg/kg	0.0136 %		
10		pH PH		6.67 pH		6.67 pH	6.67 pH		
11		TPH (C6 to C40) petroleum group TPH		19 mg/kg		19 mg/kg	0.0019 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0235 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0019%)

Classification of sample: TP03

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP03
Sample Depth:
1.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	1 mg/kg		1 mg/kg	0.0001 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		19 mg/kg	1.126	21.392 mg/kg	0.00214 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	11 mg/kg	1.56	17.158 mg/kg	0.0011 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		25 mg/kg	1.579	39.487 mg/kg	0.00395 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		52 mg/kg	2.469	128.403 mg/kg	0.0128 %		
10		pH PH		7.09 pH		7.09 pH	7.09 pH		
11		TPH (C6 to C40) petroleum group TPH		5 mg/kg		5 mg/kg	0.0005 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0213 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: TP04

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP04
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		12	mg/kg		12	mg/kg	0.0012 %		
2		cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	0.9	mg/kg		0.9	mg/kg	0.00009 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		26	mg/kg	1.126	29.273	mg/kg	0.00293 %		
5		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	57	mg/kg	1.56	88.909	mg/kg	0.0057 %		
6		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		20	mg/kg	1.579	31.59	mg/kg	0.00316 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				2	mg/kg	2.554	5.107	mg/kg	0.000511 %		
9		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		63	mg/kg	2.469	155.566	mg/kg	0.0156 %		
10		pH			PH		6.53	pH		6.53	pH	6.53 pH		
11		TPH (C6 to C40) petroleum group			TPH		51	mg/kg		51	mg/kg	0.0051 %		
12		acenaphthene		201-469-6	83-32-9		0.06	mg/kg		0.06	mg/kg	0.000006 %		
13		acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene		204-371-1	120-12-7		0.06	mg/kg		0.06	mg/kg	0.000006 %		
15		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.29	mg/kg		0.29	mg/kg	0.000029 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.27	mg/kg		0.27	mg/kg	0.000027 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.29	mg/kg		0.29	mg/kg	0.000029 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.38	mg/kg		0.38	mg/kg	0.000038 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.57	mg/kg		0.57	mg/kg	0.000057 %		
			205-912-4	206-44-0									
23	●	fluorene				0.04	mg/kg		0.04	mg/kg	0.000004 %		
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.17	mg/kg		0.17	mg/kg	0.000017 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.42	mg/kg		0.42	mg/kg	0.000042 %		
			201-581-5	85-01-8									
27	●	pyrene				0.53	mg/kg		0.53	mg/kg	0.000053 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0348 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0051%)

Classification of sample: TP04[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP04[2]
Sample Depth:
1.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.9	mg/kg		0.9	mg/kg	0.00009 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		12	mg/kg	1.126	13.511	mg/kg	0.00135 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	9	mg/kg	1.56	14.038	mg/kg	0.0009 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		19	mg/kg	1.579	30.01	mg/kg	0.003 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		33	mg/kg	2.469	81.487	mg/kg	0.00815 %		
10		pH PH		6.09	pH		6.09	pH	6.09 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0145 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP05

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP05
Sample Depth:
0.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		6	mg/kg		6	mg/kg	0.0006 %		
2		cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	0.7	mg/kg		0.7	mg/kg	0.00007 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<2	mg/kg	1.923	<3.846	mg/kg	<0.000385 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9	mg/kg	1.126	10.133	mg/kg	0.00101 %		
5		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	9	mg/kg	1.56	14.038	mg/kg	0.0009 %		
6		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		14	mg/kg	1.579	22.113	mg/kg	0.00221 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		29	mg/kg	2.469	71.61	mg/kg	0.00716 %		
10		pH			PH		5.45	pH		5.45	pH	5.45 pH		
11		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0128 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP05[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP05[2]
Sample Depth:
3.0 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		3	mg/kg		3	mg/kg	0.0003 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	1	mg/kg		1	mg/kg	0.0001 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		14	mg/kg	1.126	15.762	mg/kg	0.00158 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	10	mg/kg	1.56	15.598	mg/kg	0.001 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		23	mg/kg	1.579	36.328	mg/kg	0.00363 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		44	mg/kg	2.469	108.649	mg/kg	0.0109 %		
10		pH PH		8.14	pH		8.14	pH	8.14 pH		
11		TPH (C6 to C40) petroleum group TPH		14	mg/kg		14	mg/kg	0.0014 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0194 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0014%)

Classification of sample: TP07

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP07
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		8 mg/kg		8 mg/kg	0.0008 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	<0.5 mg/kg		<0.5 mg/kg	<0.00005 %		<**LOD**
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		40 mg/kg	1.126	45.036 mg/kg	0.0045 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	68 mg/kg	1.56	106.067 mg/kg	0.0068 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		35 mg/kg	1.579	55.282 mg/kg	0.00553 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		74 mg/kg	2.469	182.728 mg/kg	0.0183 %		
10		pH PH		5.38 pH		5.38 pH	5.38 pH		
11		TPH (C6 to C40) petroleum group TPH		99 mg/kg		99 mg/kg	0.0099 %		
12		acenaphthene 201-469-6 / 83-32-9		0.09 mg/kg		0.09 mg/kg	0.000009 %		
13		acenaphthylene 205-917-1 / 208-96-8		0.02 mg/kg		0.02 mg/kg	0.000002 %		
14		anthracene 204-371-1 / 120-12-7		0.19 mg/kg		0.19 mg/kg	0.000019 %		
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.91 mg/kg		0.91 mg/kg	0.000091 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.82	mg/kg		0.82	mg/kg	0.000082 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				1.22	mg/kg		1.22	mg/kg	0.000122 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.47	mg/kg		0.47	mg/kg	0.000047 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				0.42	mg/kg		0.42	mg/kg	0.000042 %		
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				1.07	mg/kg		1.07	mg/kg	0.000107 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				1.95	mg/kg		1.95	mg/kg	0.000195 %		
			205-912-4	206-44-0									
23	●	fluorene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.59	mg/kg		0.59	mg/kg	0.000059 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.95	mg/kg		0.95	mg/kg	0.000095 %		
			201-581-5	85-01-8									
27	●	pyrene				1.75	mg/kg		1.75	mg/kg	0.000175 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0474 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0099%)

Classification of sample: TP07[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP07[2]
Sample Depth:
1.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		13	mg/kg		13	mg/kg	0.0013 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.8	mg/kg		0.8	mg/kg	0.00008 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		15	mg/kg	1.126	16.888	mg/kg	0.00169 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	23	mg/kg	1.56	35.876	mg/kg	0.0023 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		22	mg/kg	1.579	34.749	mg/kg	0.00347 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		1	mg/kg	2.554	2.554	mg/kg	0.000255 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		47	mg/kg	2.469	116.057	mg/kg	0.0116 %		
10		pH PH		6.39	pH		6.39	pH	6.39 pH		
11		TPH (C6 to C40) petroleum group TPH		18	mg/kg		18	mg/kg	0.0018 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.1	mg/kg		0.1	mg/kg	0.00001 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.17	mg/kg		0.17	mg/kg	0.000017 %		
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
			201-581-5	85-01-8									
27	●	pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0228 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0018%)

Classification of sample: TP08

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP08
Sample Depth:
2.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		5	mg/kg		5	mg/kg	0.0005 %		
2		cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	0.9	mg/kg		0.9	mg/kg	0.00009 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		18	mg/kg	1.126	20.266	mg/kg	0.00203 %		
5		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	11	mg/kg	1.56	17.158	mg/kg	0.0011 %		
6		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		34	mg/kg	1.579	53.703	mg/kg	0.00537 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		57	mg/kg	2.469	140.75	mg/kg	0.0141 %		
10		pH			PH		5.98	pH		5.98	pH	5.98 pH		
11		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
12		acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13		acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0238 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP09

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP09
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		5	mg/kg		5	mg/kg	0.0005 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.9	mg/kg		0.9	mg/kg	0.00009 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		20	mg/kg	1.126	22.518	mg/kg	0.00225 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	50	mg/kg	1.56	77.991	mg/kg	0.005 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		28	mg/kg	1.579	44.226	mg/kg	0.00442 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		1	mg/kg	2.554	2.554	mg/kg	0.000255 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		112	mg/kg	2.469	276.561	mg/kg	0.0277 %		
10		pH PH		6.23	pH		6.23	pH	6.23 pH		
11		TPH (C6 to C40) petroleum group TPH		26	mg/kg		26	mg/kg	0.0026 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.09	mg/kg		0.09	mg/kg	0.000009 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.19	mg/kg		0.19	mg/kg	0.000019 %		
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
			201-581-5	85-01-8									
27	●	pyrene				0.18	mg/kg		0.18	mg/kg	0.000018 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0431 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0026%)

Classification of sample: TP10

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP10
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		9	mg/kg		9	mg/kg	0.0009 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.8	mg/kg		0.8	mg/kg	0.00008 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		22	mg/kg	1.126	24.77	mg/kg	0.00248 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	69	mg/kg	1.56	107.627	mg/kg	0.0069 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		35	mg/kg	1.579	55.282	mg/kg	0.00553 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		70	mg/kg	2.469	172.851	mg/kg	0.0173 %		
10		pH PH		6.85	pH		6.85	pH	6.85 pH		
11		TPH (C6 to C40) petroleum group TPH		23	mg/kg		23	mg/kg	0.0023 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.08	mg/kg		0.08	mg/kg	0.000008 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.17	mg/kg		0.17	mg/kg	0.000017 %		
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
			201-581-5	85-01-8									
27	●	pyrene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0361 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0023%)

Classification of sample: TP11

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP11
Sample Depth:
1.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.6	mg/kg		0.6	mg/kg	0.00006 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		10	mg/kg	1.126	11.259	mg/kg	0.00113 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	18	mg/kg	1.56	28.077	mg/kg	0.0018 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		13	mg/kg	1.579	20.533	mg/kg	0.00205 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		46	mg/kg	2.469	113.588	mg/kg	0.0114 %		
10		pH PH		6.7	pH		6.7	pH	6.7 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0174 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP12

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP12
Sample Depth:
1.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.7	mg/kg		0.7	mg/kg	0.00007 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		17	mg/kg	1.126	19.14	mg/kg	0.00191 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	12	mg/kg	1.56	18.718	mg/kg	0.0012 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		22	mg/kg	1.579	34.749	mg/kg	0.00347 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		54	mg/kg	2.469	133.342	mg/kg	0.0133 %		
10		pH PH		6.65	pH		6.65	pH	6.65 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.021 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP12[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP12[2]
Sample Depth:
3.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		2	mg/kg		2	mg/kg	0.0002 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	<0.5	mg/kg		<0.5	mg/kg	<0.00005 %		<LOD
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		10	mg/kg	1.126	11.259	mg/kg	0.00113 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	9	mg/kg	1.56	14.038	mg/kg	0.0009 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		17	mg/kg	1.579	26.851	mg/kg	0.00269 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		37	mg/kg	2.469	91.364	mg/kg	0.00914 %		
10		pH PH		5.38	pH		5.38	pH	5.38 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0147 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP13

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP13
Sample Depth:
0.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		7	mg/kg		7	mg/kg	0.0007 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	1	mg/kg		1	mg/kg	0.0001 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		31	mg/kg	1.126	34.903	mg/kg	0.00349 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	13	mg/kg	1.56	20.278	mg/kg	0.0013 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		28	mg/kg	1.579	44.226	mg/kg	0.00442 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		55	mg/kg	2.469	135.811	mg/kg	0.0136 %		
10		pH PH		5.93	pH		5.93	pH	5.93 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0242 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP14

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP14
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		12	mg/kg		12	mg/kg	0.0012 %		
2	cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	0.7	mg/kg		0.7	mg/kg	0.00007 %		
3	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		28	mg/kg	1.126	31.525	mg/kg	0.00315 %		
5	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	62	mg/kg	1.56	96.709	mg/kg	0.0062 %		
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
7	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		21	mg/kg	1.579	33.169	mg/kg	0.00332 %		
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				1	mg/kg	2.554	2.554	mg/kg	0.000255 %		
9	zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		68	mg/kg	2.469	167.912	mg/kg	0.0168 %		
10	pH			PH		5.51	pH		5.51	pH	5.51 pH		
11	TPH (C6 to C40) petroleum group			TPH		57	mg/kg		57	mg/kg	0.0057 %		
12	acenaphthene		201-469-6	83-32-9		0.02	mg/kg		0.02	mg/kg	0.000002 %		
13	acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14	anthracene		204-371-1	120-12-7		0.05	mg/kg		0.05	mg/kg	0.000005 %		
15	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.22	mg/kg		0.22	mg/kg	0.000022 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.3	mg/kg		0.3	mg/kg	0.00003 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.28	mg/kg		0.28	mg/kg	0.000028 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.46	mg/kg		0.46	mg/kg	0.000046 %		
			205-912-4	206-44-0									
23	●	fluorene				0.01	mg/kg		0.01	mg/kg	0.000001 %		
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.14	mg/kg		0.14	mg/kg	0.000014 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.19	mg/kg		0.19	mg/kg	0.000019 %		
			201-581-5	85-01-8									
27	●	pyrene				0.42	mg/kg		0.42	mg/kg	0.000042 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0372 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0057%)

Classification of sample: TP15

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP15
Sample Depth:
0.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		3	mg/kg		3	mg/kg	0.0003 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.8	mg/kg		0.8	mg/kg	0.00008 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		26	mg/kg	1.126	29.273	mg/kg	0.00293 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	13	mg/kg	1.56	20.278	mg/kg	0.0013 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		28	mg/kg	1.579	44.226	mg/kg	0.00442 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		63	mg/kg	2.469	155.566	mg/kg	0.0156 %		
10		pH PH		5.75	pH		5.75	pH	5.75 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0252 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP16

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP16
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		12	mg/kg		12	mg/kg	0.0012 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.6	mg/kg		0.6	mg/kg	0.00006 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		21	mg/kg	1.126	23.644	mg/kg	0.00236 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	60	mg/kg	1.56	93.589	mg/kg	0.006 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		19	mg/kg	1.579	30.01	mg/kg	0.003 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		1	mg/kg	2.554	2.554	mg/kg	0.000255 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		66	mg/kg	2.469	162.974	mg/kg	0.0163 %		
10		pH PH		6.01	pH		6.01	pH	6.01 pH		
11		TPH (C6 to C40) petroleum group TPH		82	mg/kg		82	mg/kg	0.0082 %		
12		acenaphthene 201-469-6 / 83-32-9		0.01	mg/kg		0.01	mg/kg	0.000001 %		
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		0.04	mg/kg		0.04	mg/kg	0.000004 %		
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.17	mg/kg		0.17	mg/kg	0.000017 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.14	mg/kg		0.14	mg/kg	0.000014 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.21	mg/kg		0.21	mg/kg	0.000021 %		
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.22	mg/kg		0.22	mg/kg	0.000022 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				0.41	mg/kg		0.41	mg/kg	0.000041 %		
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				0.17	mg/kg		0.17	mg/kg	0.000017 %		
			201-581-5	85-01-8									
27	●	pyrene				0.36	mg/kg		0.36	mg/kg	0.000036 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0378 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0082%)

Classification of sample: TP17

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP17
Sample Depth:
0.80 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2	cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	0.8	mg/kg		0.8	mg/kg	0.00008 %		
3	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		24	mg/kg	1.126	27.021	mg/kg	0.0027 %		
5	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	29	mg/kg	1.56	45.235	mg/kg	0.0029 %		
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
7	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		25	mg/kg	1.579	39.487	mg/kg	0.00395 %		
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
9	zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		65	mg/kg	2.469	160.504	mg/kg	0.0161 %		
10	pH			PH		5.94	pH		5.94	pH	5.94 pH		
11	TPH (C6 to C40) petroleum group			TPH		9	mg/kg		9	mg/kg	0.0009 %		
12	acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13	acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14	anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
15	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0275 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0009%)

Classification of sample: TP18

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP18
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4 mg/kg		4 mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.6 mg/kg		0.6 mg/kg	0.00006 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		17 mg/kg	1.126	19.14 mg/kg	0.00191 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	39 mg/kg	1.56	60.833 mg/kg	0.0039 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		13 mg/kg	1.579	20.533 mg/kg	0.00205 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		39 mg/kg	2.469	96.303 mg/kg	0.00963 %		
10		pH PH		5.89 pH		5.89 pH	5.89 pH		
11		TPH (C6 to C40) petroleum group TPH		10 mg/kg		10 mg/kg	0.001 %		
12		acenaphthene 201-469-6 / 83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0195 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: TP18[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP18[2]
Sample Depth:
1.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.6	mg/kg		0.6	mg/kg	0.00006 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		18	mg/kg	1.126	20.266	mg/kg	0.00203 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	14	mg/kg	1.56	21.837	mg/kg	0.0014 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		21	mg/kg	1.579	33.169	mg/kg	0.00332 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		49	mg/kg	2.469	120.996	mg/kg	0.0121 %		
10		pH PH		4.87	pH		4.87	pH	4.87 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0199 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP19

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP19
Sample Depth:
0.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		2	mg/kg		2	mg/kg	0.0002 %		
2		cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	0.6	mg/kg		0.6	mg/kg	0.00006 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		21	mg/kg	1.126	23.644	mg/kg	0.00236 %		
5		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	30	mg/kg	1.56	46.794	mg/kg	0.003 %		
6		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		18	mg/kg	1.579	28.431	mg/kg	0.00284 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		68	mg/kg	2.469	167.912	mg/kg	0.0168 %		
10		pH			PH		5.48	pH		5.48	pH	5.48 pH		
11		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0259 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP20

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP20
Sample Depth:
0.40 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		2 mg/kg		2 mg/kg	0.0002 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	<0.5 mg/kg		<0.5 mg/kg	<0.00005 %		<**LOD**
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		19 mg/kg	1.126	21.392 mg/kg	0.00214 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	42 mg/kg	1.56	65.512 mg/kg	0.0042 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		22 mg/kg	1.579	34.749 mg/kg	0.00347 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		45 mg/kg	2.469	111.118 mg/kg	0.0111 %		
10		pH PH		6.34 pH		6.34 pH	6.34 pH		
11		TPH (C6 to C40) petroleum group TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0218 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP20[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP20[2]
Sample Depth:
2.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		52	mg/kg		52	mg/kg	0.0052 %		
2	cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	2.4	mg/kg		2.4	mg/kg	0.00024 %		
3	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		302	mg/kg	1.126	340.018	mg/kg	0.034 %		
5	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	528	mg/kg	1.56	823.582	mg/kg	0.0528 %		
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.26	mg/kg	1.353	0.352	mg/kg	0.0000352 %		
7	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		128	mg/kg	1.579	202.176	mg/kg	0.0202 %		
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				9	mg/kg	2.554	22.982	mg/kg	0.0023 %		
9	zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		619	mg/kg	2.469	1528.494	mg/kg	0.153 %		
10	pH			PH		6.29	pH		6.29	pH	6.29 pH		
11	TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
12	acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13	acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14	anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
15	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.268 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP21

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP21
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		14 mg/kg		14 mg/kg	0.0014 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	1 mg/kg		1 mg/kg	0.0001 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		86 mg/kg	1.126	96.826 mg/kg	0.00968 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	169 mg/kg	1.56	263.609 mg/kg	0.0169 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		52 mg/kg	1.579	82.134 mg/kg	0.00821 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		3 mg/kg	2.554	7.661 mg/kg	0.000766 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		206 mg/kg	2.469	508.675 mg/kg	0.0509 %		
10		pH PH		6.17 pH		6.17 pH	6.17 pH		
11		TPH (C6 to C40) petroleum group TPH		52 mg/kg		52 mg/kg	0.0052 %		
12		acenaphthene 201-469-6 / 83-32-9		0.03 mg/kg		0.03 mg/kg	0.000003 %		
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		0.04 mg/kg		0.04 mg/kg	0.000004 %		
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		0.11 mg/kg		0.11 mg/kg	0.000011 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-034-00-4	205-911-9	205-99-2									
18		benzo[ghi]perylene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				0.14	mg/kg		0.14	mg/kg	0.000014 %		
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22		fluoranthene				0.27	mg/kg		0.27	mg/kg	0.000027 %		
			205-912-4	206-44-0									
23		fluorene				0.01	mg/kg		0.01	mg/kg	0.000001 %		
			201-695-5	86-73-7									
24		indeno[123-cd]pyrene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26		phenanthrene				0.19	mg/kg		0.19	mg/kg	0.000019 %		
			201-581-5	85-01-8									
27		pyrene				0.23	mg/kg		0.23	mg/kg	0.000023 %		
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0935 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The hazard phase HP3(i) refers to flammable liquids however as the material is a solid this is not applicable and has been discounted

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0052%)

Classification of sample: TP22

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP22
Sample Depth:
1.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg		<0.5	mg/kg	<0.00005 %		<LOD
3		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %		
5		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	36	mg/kg	1.56	56.153	mg/kg	0.0036 %		
6		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		8	mg/kg	1.579	12.636	mg/kg	0.00126 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
9		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		23	mg/kg	2.469	56.794	mg/kg	0.00568 %		
10		pH			PH		4.61	pH		4.61	pH	4.61 pH		
11		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
12		acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13		acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.012 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP22[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP22[2]
Sample Depth:
3.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		3	mg/kg		3	mg/kg	0.0003 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	<0.5	mg/kg		<0.5	mg/kg	<0.00005 %		<LOD
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		21	mg/kg	1.126	23.644	mg/kg	0.00236 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	77	mg/kg	1.56	120.106	mg/kg	0.0077 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		18	mg/kg	1.579	28.431	mg/kg	0.00284 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		2	mg/kg	2.554	5.107	mg/kg	0.000511 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		62	mg/kg	2.469	153.096	mg/kg	0.0153 %		
10		pH PH		6.89	pH		6.89	pH	6.89 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0295 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP23

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP23
Sample Depth:
2.70 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic trioxide	033-003-00-0	215-481-4	1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2	cadmium sulfide	048-010-00-4	215-147-8	1306-23-6	1	0.6	mg/kg		0.6	mg/kg	0.00006 %		
3	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		45	mg/kg	1.126	50.665	mg/kg	0.00507 %		
5	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	152	mg/kg	1.56	237.092	mg/kg	0.0152 %		
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.58	mg/kg	1.353	0.785	mg/kg	0.0000785 %		
7	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		38	mg/kg	1.579	60.021	mg/kg	0.006 %		
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
9	zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		113	mg/kg	2.469	279.03	mg/kg	0.0279 %		
10	pH			PH		7.96	pH		7.96	pH	7.96 pH		
11	TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
12	acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13	acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14	anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
15	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0553 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP24

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP24
Sample Depth:
1.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		6	mg/kg		6	mg/kg	0.0006 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.7	mg/kg		0.7	mg/kg	0.00007 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		11	mg/kg	1.126	12.385	mg/kg	0.00124 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	17	mg/kg	1.56	26.517	mg/kg	0.0017 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		15	mg/kg	1.579	23.692	mg/kg	0.00237 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		1	mg/kg	2.554	2.554	mg/kg	0.000255 %		
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		27	mg/kg	2.469	66.671	mg/kg	0.00667 %		
10		pH PH		4.73	pH		4.73	pH	4.73 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0133 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP24[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP24[2]
Sample Depth:
3.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4	mg/kg		4	mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.7	mg/kg		0.7	mg/kg	0.00007 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		16	mg/kg	1.126	18.014	mg/kg	0.0018 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	15	mg/kg	1.56	23.397	mg/kg	0.0015 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		23	mg/kg	1.579	36.328	mg/kg	0.00363 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		50	mg/kg	2.469	123.465	mg/kg	0.0123 %		
10		pH PH		6.91	pH		6.91	pH	6.91 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0204 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP25

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP25
Sample Depth:
1.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		4 mg/kg		4 mg/kg	0.0004 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	<0.5 mg/kg		<0.5 mg/kg	<0.00005 %		<**LOD**
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		18 mg/kg	1.126	20.266 mg/kg	0.00203 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	28 mg/kg	1.56	43.675 mg/kg	0.0028 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17 mg/kg	1.353	<0.23 mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		17 mg/kg	1.579	26.851 mg/kg	0.00269 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		44 mg/kg	2.469	108.649 mg/kg	0.0109 %		
10		pH PH		6.26 pH		6.26 pH	6.26 pH		
11		TPH (C6 to C40) petroleum group TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0195 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP25[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
TP25[2]
Sample Depth:
3.00 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number									
1		arsenic trioxide 033-003-00-0 / 215-481-4 / 1327-53-3		3	mg/kg		3	mg/kg	0.0003 %		
2		cadmium sulfide 048-010-00-4 / 215-147-8 / 1306-23-6	1	0.6	mg/kg		0.6	mg/kg	0.00006 %		
3		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		16	mg/kg	1.126	18.014	mg/kg	0.0018 %		
5		lead { lead chromate } 082-004-00-2 / 231-846-0 / 7758-97-6	1	11	mg/kg	1.56	17.158	mg/kg	0.0011 %		
6		mercury { mercury dichloride } 080-010-00-X / 231-299-8 / 7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<**LOD**
7		nickel { nickel dihydroxide } 028-008-00-X / 235-008-5 [1] 234-348-1 [2] / 12054-48-7 [1] 11113-74-9 [2]		25	mg/kg	1.579	39.487	mg/kg	0.00395 %		
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
9		zinc { zinc sulphate } 030-006-00-9 / 231-793-3 [1] 231-793-3 [2] / 7446-19-7 [1] 7733-02-0 [2]		49	mg/kg	2.469	120.996	mg/kg	0.0121 %		
10		pH PH		6.82	pH		6.82	pH	6.82 pH		
11		TPH (C6 to C40) petroleum group TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
12		acenaphthene 201-469-6 / 83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
13		acenaphthylene 205-917-1 / 208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		anthracene 204-371-1 / 120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
15		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
17		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
19		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
23	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
25		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
27	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
										Total:	0.0199 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Aquatic Chronic 2 H411 , Repr. 2 H361d , Carc. 1B H350 , Muta. 1B H340 , STOT RE 2 H373 , Asp. Tox. 1 H304 , Flam. Liq. 3 H226

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Aquatic Chronic 2 H411 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 1 H310 , Acute Tox. 1 H330 , Acute Tox. 4 H302

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Carc. 2 H351 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

Appendix B: Rationale for selection of metal species

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case species based on hazard statements

copper {dicopper oxide; copper (I) oxide}

Worst case species based on hazard statements

lead {lead chromate}

Worst case species based on hazard statements

mercury {mercury dichloride}

Worst case species based on hazard statements

nickel {nickel dihydroxide}

Worst case species based on hazard statements

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Worst case species based on hazard statements

zinc {zinc sulphate}

Chromium VI not detected therefore species unlikely to be Zinc Chromate

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2019.163.3889.7904 (12 Jun 2019)
HazWasteOnline Database: 2019.163.3889.7904 (12 Jun 2019)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010

APPENDIX I

(i) Validation Report Guidance Notes

Unforeseen Hotspots of Contamination
Given the existence of made ground on the site it would be prudent to maintain vigilance during site clearance and construction, in case any further areas of suspected contamination are encountered.

If areas are found then a suitably qualified person should undertake appropriate sampling, testing and further risk assessment.

Any hotspots encountered during site clearance, not previously encountered in the ground investigation, are to be removed to a suitably licensed landfill site.

A validation report (see below) will be produced on completion of these works. This report will serve to confirm that the works were undertaken in accordance with the relevant legislation, the method statement, specification and planning conditions.

Validation Report Recommendations
It is suggested that the following records will be kept on site to provide a basis for the validation report:

- Daily record sheets of the remediation works to include a summary of the day's activities
- Weather conditions
- Plant, personnel and visitors to the remediation site
- Aspects relating to Health & Safety, environmental control or non-compliance with the specification or the Method Statements.
- All in situ and laboratory testing results.

All requirements of the remediation specification should be complied with; on completion of the remediation a validation report should be provided. This report will comprise the relevant site records and act as certification that the remedial and ground preparation works have been carried out in accordance with the specification.

The validation report will include the following:

- A description of the works undertaken.
- Records of any remediation works, including daily diary sheets.
- Progress photographs.
- Any chemical and geotechnical validation test results.
- As built surveys, including base excavations and top and bottom of capping layer.
- A statement that the works have been undertaken in accordance with the agreed specification

APPENDIX J

(i) Notes on Limitations

This report does not consider ecological impacts (e.g. bats) or botanical risks (e.g. Japanese knotweed). It is recommended that these are considered as part of the assessment of development constraints for the site.

The assessment and judgements given in this report are directed by both the finite data on which they are based and the proposed works to which they are addressed. The data essentially comprised a study of available documented information from various sources (including Client Furnished reports) together with discussions with relevant authorities and other interested parties. There may also be circumstances at the site that are not documented. The information reviewed is not exhaustive and has been accepted in good faith as providing representative and true data pertaining to site conditions. If additional information becomes available which might impact our environmental conclusions, we request the opportunity to review the information, reassess the potential concerns and modify our opinion if warranted.

It should be noted that any risks identified in this report are perceived risks based on the available information. Actual risks can only be assessed following a physical investigation of the site.

The site investigation has been carried out to provide information concerning the type and degree of contamination, and ground and groundwater conditions to allow a reasonable risk assessment to be made. Betts Geo Environmental Ltd undertake to exercise all reasonable skill, care and due diligence in the exercise of the investigation with respect to sampling techniques, sample storage and report interpretation.

The assessments and judgement given in this report are directed by both the finite data on which they are based and the proposed works to which they are addressed. Data acquisition is subject to the limitations of the methods of investigation used. Exploratory holes undertaken during fieldwork investigate small a small volume of ground in relation to the size of the site and as such can only provide an indication of site conditions. There may be conditions pertaining to the site and the proposed development i.e. localised “hotspots” of contamination, which have not been disclosed by the investigations.

The findings and opinions are relevant to the dates of our site works and should not be relied upon to represent conditions at substantially later dates. Conditions at the site will change over time due to natural variations and anthropogenic activities. Groundwater, surface water and soil gas conditions should be anticipated to change with diurnal, seasonal and meteorological variations.

The opinions expressed in this report regarding any contamination are based on simple statistical analysis and comparison with available guidance values. No liability can be accepted for the retrospective effects of any changes or amendments to these values.

This report was prepared by Betts Geo Environmental Ltd for the sole and exclusive use of Bloor Homes. In response to particular instructions, any other parties using the information contained in this report do so at their own risk and any duty of care to those parties is excluded.

This document has been prepared for the titled project only and should any third party wish to use or rely upon the contents of the report, written approval from Betts Geo Environmental Ltd must be sought. Betts Geo Environmental Ltd accepts no responsibility or liability for the consequences of this document being used for the purpose other than that for which it was commissioned and for this document to any other party other than the person by whom it was commissioned.