

APPENDIX D

- (i) Contamination Test Results
- (ii) Gas and Groundwater Monitoring Results
- (iii) Generic Assessment Criteria for Residential Scenario



Envirolab
Sandpits Business Park
Mottram Road
Hyde
SK14 3AR ATTN: Envirolab Data

CERTIFICATE OF ANALYSIS

Date: 01 September, 2008
Our Reference: 08/13955/02/01
Your Reference: 722048-4978
Location: GROVEFIELD WAY CHELTENHAM

A total of 21 samples was received for analysis on Friday, 15 August 2008 and completed on Friday, 22 August 2008. Accredited laboratory tests are defined in the log sheet, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation. We are pleased to enclose our final report, it was a pleasure to be of service to you, and we look forward to our continuing association.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials- whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Signed

Diane Whittlestone
Tech. Support Manager

David O'Hare
Project Manager

Caroline Suttie
Project Coordinator
Team Leader

Valid if signed by any of the above signatories.

Compiled By

.....
Briony Johnson



ALcontrol Laboratories

TEST SCHEDULE

JOB NUMBER : 08/13955/02
CLIENT : Envirolab
CONTACT : Envirolab Data
DATE OF RECEIPT : 15/08/08
LOCATION : GROVEFIELD WAY CHELTENHAM

BATCH NUMBER : 1
CLIENT REF/CODE : 722048-4978
ORDER NUMBER : 34613
TURNAROUND : 5 days

Numeric values indicate
 additional scheduling
 * indicates test subcontracted

| Sample Number | Sample Identity | P / V | Depth | Sample Type | UKAS Accredited ? | | | | | | | | | | | | | | | |
|------------------------------|-----------------|----------|-------|-------------|-------------------|-------------------------------------|-----------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | Metals ICP_ 9 (S) | Organic Matter Total (S) 2-1 (S) | Sulphate Soluble Kone | pH (S) | | | | | | | | | | | | |
| 1 | 90361 BH6 D5 | TUB 400g | 0.20 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 2 | 90362 BH6 D6 | TUB 400g | 0.50 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 3 | 90363 SA1 ES2 | TUB 400g | 0.20 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 4 | 90364 SA2 ES2 | TUB 400g | 0.25 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 5 | 90365 SA3 D5 | TUB (D) | 0.40 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 6 | 90366 TP1 D4 | TUB (D) | 0.80 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 7 | 90367 TP2 ES2 | TUB 400g | 0.20 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 8 | 90368 TP3 ES2 | TUB 400g | 0.15 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 9 | 90369 TP4 ES2 | TUB 400g | 0.21 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 10 | 90370 TP5 ES2 | TUB 400g | 0.15 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 11 | 90371 TP6 ES3 | TUB 400g | 0.65 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 12 | 90372 TP6 ES1 | TUB 400g | 0.15 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 13 | 90373 TP7 ES4 | TUB 400g | 0.60 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 14 | 90374 TP8 D5 | TUB 400g | 0.90 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 15 | 90375 TP9 ES4 | TUB 400g | 0.60 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 16 | 90376 TP8 ES3 | TUB 400g | 0.60 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 17 | 90377 TP9 D2 | TUB (D) | 0.20 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 18 | 90378 TP10 D3 | TUB (D) | 0.40 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 19 | 90379 TP11 ES1 | TUB 400g | 0.20 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 20 | 90380 TP12 ES2 | TUB 400g | 0.15 | SOLID | X | X | X | X | | | | | | | | | | | | |
| 21 | 90381 TP13 ES2 | TUB 400g | 0.20 | SOLID | X | X | X | X | | | | | | | | | | | | |
| Total Number of Tests | | | | | 21 | 21 | 21 | 21 | | | | | | | | | | | | |

ALcontrol Laboratories Analytical Services

Sample Descriptions

Job Number: 08/13955/02/01
Client: Envirolab
Client Ref : 722048-4978

Grain sizes
<0.063mm Very Fine
0.1mm - 0.063mm Fine
0.1mm - 2mm Medium
2mm - 10mm Coarse
>10mm Very Coarse

| Sample Identity | Depth (m) | Colour | Grain Size | Description | Batch |
|-----------------|-----------|--------|-----------------|-------------------------------------|-------|
| 90361 BH6 D5 | 0.20 | Brown | 0.1mm - 0.063mm | Loam (topsoil) with some Vegetation | 1 |
| 90362 BH6 D6 | 0.50 | Grey | 0.1mm - 0.063mm | Clay with some Stones | 1 |
| 90363 SA1 ES2 | 0.20 | Brown | 0.1mm - 0.063mm | Loam (topsoil) with some Vegetation | 1 |
| 90364 SA2 ES2 | 0.25 | Brown | 0.1mm - 0.063mm | Clay Loam with some Vegetation | 1 |
| 90365 SA3 D5 | 0.40 | Brown | <0.063mm | Clay | 1 |
| 90366 TP1 D4 | 0.80 | Grey | 0.1mm - 0.063mm | Silty Clay with some Stones | 1 |
| 90367 TP2 ES2 | 0.20 | Brown | 0.1mm - 0.063mm | Clay | 1 |
| 90368 TP3 ES2 | 0.15 | Brown | 0.1mm - 0.063mm | Silt Loam with some Vegetation | 1 |
| 90369 TP4 ES2 | 0.21 | Brown | 0.1mm - 0.063mm | Loam (topsoil) with some Vegetation | 1 |
| 90370 TP5 ES2 | 0.15 | Brown | 0.1mm - 0.063mm | Loam (topsoil) with some Vegetation | 1 |
| 90371 TP6 ES3 | 0.65 | Brown | 0.1mm - 0.063mm | Silty Clay with some Vegetation | 1 |
| 90372 TP6 ES1 | 0.15 | Brown | 0.1mm - 0.063mm | Loam (topsoil) with some Stones | 1 |
| 90373 TP7 ES4 | 0.60 | Brown | 0.1mm - 0.063mm | Clay | 1 |
| 90374 TP8 D5 | 0.90 | Grey | 0.1mm - 0.063mm | Silty Clay with some Stones | 1 |
| 90375 TP9 ES4 | 0.60 | Brown | 0.1mm - 0.063mm | Silty Clay with some Stones | 1 |
| 90376 TP8 ES3 | 0.60 | Brown | 0.1mm - 0.063mm | Clay | 1 |
| 90377 TP9 D2 | 0.20 | Brown | 0.1mm - 0.063mm | Loam (topsoil) with some Vegetation | 1 |
| 90378 TP10 D3 | 0.40 | Grey | 0.1mm - 0.063mm | Clay | 1 |
| 90379 TP11 ES1 | 0.20 | Brown | 0.1mm - 0.063mm | Clay Loam with some Vegetation | 1 |
| 90380 TP12 ES2 | 0.15 | Brown | 0.1mm - 0.063mm | Clay Loam with some Vegetation | 1 |
| 90381 TP13 ES2 | 0.20 | Brown | 0.1mm - 0.063mm | Clay Loam with some Glass | 1 |
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* These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials-whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

¹ Sample Description supplied by client

Validated
 Preliminary

ALcontrol Laboratories Analytical Services

Table Of Results

ISO 17025 accredited
 M MCERTS accredited
 * Subcontracted test
 » Shown on prev. report

Job Number: 08/13955/02/01
Client: Envirolab
Client Ref. No.: 722048-4978

Matrix: SOLID
Location: GROVEFIELD WAY CHELTENHAM
Client Contact: Envirolab Data

| Sample Identity | 90361 BH6 D5 | 90362 BH6 D6 | 90363 SA1 ES2 | 90364 SA2 ES2 | 90365 SA3 D5 | 90366 TP1 D4 | 90367 TP2 ES2 | 90368 TP3 ES2 | 90369 TP4 ES2 | Method Code | LoD/Units |
|---|-----------------|-----------------|------------------|------------------|-----------------|-----------------|------------------|------------------|------------------|---------------------|----------------|
| Depth (m) | 0.20 | 0.50 | 0.20 | 0.25 | 0.40 | 0.80 | 0.20 | 0.15 | 0.21 | | |
| Sample Type | SOLID | SOLID | SOLID | SOLID | SOLID | SOLID | SOLID | SOLID | SOLID | | |
| Sampled Date | | | | | | | | | | | |
| Sample Received Date | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | | |
| Batch | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Sample Number(s) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| Arsenic | 8 | 6 | 9 | 11 | 6 | <3 | 8 | 10 | 11 | TM129# _M | <3.0 mg/kg |
| Cadmium | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 | 0.2 | 0.3 | 0.5 | 0.5 | TM129 | <0.2 mg/kg |
| Chromium | 40 | 44 | 42 | 41 | 55 | 41 | 38 | 38 | 36 | TM129# _M | <4.5 mg/kg |
| Copper | 36 | 29 | 29 | 35 | 37 | 23 | 25 | 30 | 30 | TM129# _M | <6 mg/kg |
| Lead | 100 | 36 | 78 | 110 | 22 | 11 | 45 | 77 | 72 | TM129# _M | <2 mg/kg |
| Mercury | 0.8 | 0.6 | 0.5 | 0.6 | <0.4 | 0.4 | <0.4 | 0.4 | 0.5 | TM129# _M | <0.4 mg/kg |
| Nickel | 30 | 37 | 31 | 39 | 58 | 34 | 32 | 32 | 33 | TM129# _M | <0.9 mg/kg |
| Selenium | <3 | <3 | <3 | <3 | <3 | <3 | <3 | <3 | <3 | TM129# _M | <3 mg/kg |
| Zinc | 140 | 100 | 130 | 130 | 99 | 68 | 86 | 120 | 120 | TM129# _M | <2.5 mg/kg |
| Water Soluble Sulphate as SO4 2:1 Extract | 0.023 | 0.044 | 0.003 | <0.003 | 0.029 | 0.067 | <0.003 | <0.003 | <0.003 | TM098# _M | <0.003 g/l |
| pH Value | 7.47 | 8.12 | 6.84 | 7.86 | 8.12 | 8.27 | 7.96 | 6.68 | 7.82 | TM133# _M | <1.00 pH Units |
| Total Organic Matter | 9.8 | 2.8 | 7.4 | 6.4 | 1.4 | 1.0 | 4.1 | 7.7 | 7.3 | TM132# | <0.35 % |
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All results expressed on a dry weight basis.

Date 01.09.2008

Validated
 Preliminary

ALcontrol Laboratories Analytical Services

Table Of Results

- # ISO 17025 accredited
- ^M MCERTS accredited
- * Subcontracted test
- » Shown on prev. report

Job Number: 08/13955/02/01
Client: Envirolab
Client Ref. No.: 722048-4978

Matrix: SOLID
Location: GROVEFIELD WAY CHELTENHAM
Client Contact: Envirolab Data

| Sample Identity | 90370 TP5 ES2 | 90371 TP6 ES3 | 90372 TP6 ES1 | 90373 TP7 ES4 | 90374 TP8 D5 | 90375 TP9 ES4 | 90376 TP8 ES3 | 90377 TP9 D2 | 90378 TP10 D3 | Method Code | LoD/Units |
|---|---------------|---------------|---------------|---------------|--------------|---------------|---------------|--------------|---------------|---------------------------------|----------------|
| Depth (m) | 0.15 | 0.65 | 0.15 | 0.60 | 0.90 | 0.60 | 0.60 | 0.20 | 0.40 | | |
| Sample Type | SOLID | SOLID | SOLID | SOLID | SOLID | SOLID | SOLID | SOLID | SOLID | | |
| Sampled Date | | | | | | | | | | | |
| Sample Received Date | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | 15.08.08 | | |
| Batch | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Sample Number(s) | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | | |
| Arsenic | 12 | 6 | 11 | 8 | 3 | 6 | 6 | 11 | 3 | TM129 [#] _M | <3.0 mg/kg |
| Cadmium | 0.5 | 0.3 | 0.7 | 0.3 | 0.2 | 0.3 | 0.3 | 0.5 | 0.4 | TM129 [#] _M | <0.2 mg/kg |
| Chromium | 42 | 42 | 33 | 45 | 43 | 37 | 50 | 39 | 54 | TM129 [#] _M | <4.5 mg/kg |
| Copper | 43 | 20 | 58 | 25 | 24 | 22 | 27 | 34 | 27 | TM129 [#] _M | <6 mg/kg |
| Lead | 130 | 23 | 280 | 19 | 12 | 11 | 18 | 100 | 14 | TM129 [#] _M | <2 mg/kg |
| Mercury | 0.7 | <0.4 | 0.5 | <0.4 | 0.4 | <0.4 | <0.4 | 0.5 | 0.5 | TM129 [#] _M | <0.4 mg/kg |
| Nickel | 38 | 29 | 33 | 42 | 34 | 34 | 50 | 36 | 43 | TM129 [#] _M | <0.9 mg/kg |
| Selenium | <3 | <3 | <3 | <3 | <3 | <3 | <3 | <3 | <3 | TM129 [#] _M | <3 mg/kg |
| Zinc | 150 | 90 | 300 | 92 | 67 | 69 | 92 | 110 | 83 | TM129 [#] _M | <2.5 mg/kg |
| Water Soluble Sulphate as SO4 2:1 Extract | <0.003 | 0.009 | 0.016 | <0.003 | 0.028 | 0.006 | 0.006 | <0.003 | 0.031 | TM098 [#] _M | <0.003 g/l |
| pH Value | 6.86 | 8.37 | 7.69 | 8.27 | 8.19 | 8.27 | 8.14 | 7.59 | 8.07 | TM133 [#] _M | <1.00 pH Units |
| Total Organic Matter | 7.9 | 1.5 | 9.2 | 1.4 | 1.0 | 0.91 | 1.2 | 6.6 | 2.0 | TM132 [#] | <0.35 % |
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All results expressed on a dry weight basis.

Date 01.09.2008

Validated
 Preliminary

ALcontrol Laboratories Analytical Services
Table Of Results

ISO 17025 accredited
 M MCERTS accredited
 * Subcontracted test
 >> Shown on prev. report

Job Number: 08/13955/02/01
Client: Envirolab
Client Ref. No.: 722048-4978

Matrix: SOLID
Location: GROVEFIELD WAY CHELTENHAM
Client Contact: Envirolab Data

| Sample Identity | 90379 TP11 ES1 | 90380 TP12 ES2 | 90381 TP13 ES2 | | | | | | | Method Code | LoD/Units |
|---|-------------------|-------------------|-------------------|--|--|--|--|--|--|---------------------------------|----------------|
| Depth (m) | 0.20 | 0.15 | 0.20 | | | | | | | | |
| Sample Type | SOLID | SOLID | SOLID | | | | | | | | |
| Sampled Date | | | | | | | | | | | |
| Sample Received Date | 15.08.08 | 15.08.08 | 15.08.08 | | | | | | | | |
| Batch | 1 | 1 | 1 | | | | | | | | |
| Sample Number(s) | 19 | 20 | 21 | | | | | | | | |
| Arsenic | 10 | 24 | 13 | | | | | | | TM129 [#] _M | <3.0 mg/kg |
| Cadmium | 0.7 | 0.7 | 0.6 | | | | | | | TM129 [#] _M | <0.2 mg/kg |
| Chromium | 43 | 46 | 47 | | | | | | | TM129 [#] _M | <4.5 mg/kg |
| Copper | 44 | 55 | 64 | | | | | | | TM129 [#] _M | <6 mg/kg |
| Lead | 110 | 5000 | 150 | | | | | | | TM129 [#] _M | <2 mg/kg |
| Mercury | 0.6 | 0.8 | 0.8 | | | | | | | TM129 [#] _M | <0.4 mg/kg |
| Nickel | 37 | 42 | 44 | | | | | | | TM129 [#] _M | <0.9 mg/kg |
| Selenium | <3 | <3 | <3 | | | | | | | TM129 [#] _M | <3 mg/kg |
| Zinc | 160 | 170 | 190 | | | | | | | TM129 [#] _M | <2.5 mg/kg |
| Water Soluble Sulphate as SO4 2:1 Extract | 0.004 | 0.008 | 0.068 | | | | | | | TM098 [#] _M | <0.003 g/l |
| pH Value | 7.90 | 7.83 | 7.96 | | | | | | | TM133 [#] _M | <1.00 pH Units |
| Total Organic Matter | 8.1 | 1.4 | 7.6 | | | | | | | TM132 [#] | <0.35 % |
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All results expressed on a dry weight basis.

Date 01.09.2008

ALcontrol Laboratories Analytical Services

Table Of Results - Appendix

Job Number: 08/13955/02/01
Client: Envirolab
Client Ref. No.: 722048-4978

Report Key :

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10⁻⁷

| | | | |
|-----|---------------------------|----|---|
| NDP | No Determination Possible | * | Subcontracted test |
| NFD | No Fibres Detected | » | Result previously reported (Incremental reports only) |
| # | ISO 17025 accredited | M | MCERTS Accredited |
| PFD | Possible Fibres Detected | EC | Equivalent Carbon (Aromatics C8-C35) |

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

Summary of Method Codes contained within report :

| Method No. | Reference | Description | ISO 17025 Accredited | MCERTS Accredited | Wet/Dry Sample ¹ | Surrogate Corrected |
|------------|---|---|----------------------|-------------------|-----------------------------|---------------------|
| TM098 | Method 4500E, AWWA/APHA, 20th Ed., 1999 | Determination of Sulphate using the Kone Analyser | ✓ | ✓ | DRY | |
| TM129 | Method 3120B, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 3050B | Determination of Metal Cations by IRIS Emission Spectrometer | | | DRY | |
| TM129 | Method 3120B, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 3050B | Determination of Metal Cations by IRIS Emission Spectrometer | ✓ | ✓ | DRY | |
| TM132 | In - house Method | ELTRA CS800 Operators Guide | ✓ | | DRY | |
| TM133 | BS 1377: Part 3 1990;BS 6068-2.5 | Determination of pH in Soil and Water using the GLpH pH Meter | ✓ | ✓ | WET | |
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¹ Applies to Solid samples only. **DRY** indicates samples have been dried at 35°C. **NA** = not applicable.

ALcontrol Laboratories Analytical Services

Table Of Results - Appendix

Job Number: 08/13955/02/01
Client: Envirolab
Client Ref. No.: 722048-4978

Summary of Coolbox temperatures

| Batch No. | Coolbox Temperature (°C) |
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APPENDIX

APPENDIX

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH₄ by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.
2. Samples will be run in duplicate upon request, but an additional charge may be incurred.
3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during a fibre screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.
4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.
5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.
6. When requested, the soil sample will be screened for the presence of fibres in-house and if no fibres are found will be reported as NFD – no fibres detected. If fibres are detected, they will be removed and analysed by our documented in house method based on HSG 248(2005). If a sample is suspected of containing asbestos, then further preparation and analysis will be suspended on that sample until the asbestos result is known. If asbestos is present, then no further analysis will be undertaken.
7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample – similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.
8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.
9. NDP – No determination possible due to insufficient/unsuitable sample.
10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals – total metals must be requested separately.
11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.
12. **Surrogate recoveries** – Currently the only analysis, which is surrogate corrected, is PAHs on soils. For EPH on soils the result is not surrogate corrected, but a percentage recovery is quoted.
13. **Product analyses** – Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.
14. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).
15. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).
16. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.
17. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not accredited.
18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.
19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.
20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.
21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.
22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials – whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

| LIQUID MATRICES EXTRACTION SUMMARY | | | |
|------------------------------------|--------------------|-------------------------------|----------|
| ANALYSIS | EXTRACTION SOLVENT | EXTRACTION METHOD | ANALYSIS |
| PAH MS | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC MS |
| EPH | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC FID |
| EPH CWG | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC FID |
| MINERAL OIL | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC FID |
| PCB 7 CONGENERS | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC MS |
| PCB TOTAL | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GS MS |
| SVOC | DCM | LIQUID/LIQUID SHAKEN SVOC | GC MS |
| FREE SULPHUR | DCM | SOLID PHASE EXTRACTION | HPLC |
| PEST OCP/OPP | DCM/EA | SOLID PHASE EXTRACTION | GC MS |
| TRIAZINE HERBS | DCM/EA | SOLID PHASE EXTRACTION | GC MS |
| PHENOLS MS | DCM | SOLID PHASE EXTRACTION | GC MS |
| TPH by INFRA RED (IR) | TCE | LIQUID/LIQUID EXTRACTION | HPLC |
| MINERAL OIL by IR | TCE | LIQUID/LIQUID EXTRACTION | HPLC |
| SAPONIFIABLE | TCE | LIQUID/LIQUID EXTRACTION | HPLC |
| UNSAAPONIFIABLE | TCE | LIQUID/LIQUID EXTRACTION | HPLC |
| GLYCOLS | DCM | LIQUID/LIQUID EXTRACTION | EZ FLASH |

| SOLID MATRICES EXTRACTION SUMMARY | | | | |
|------------------------------------|------------|--------------------|-------------------|-------------|
| ANALYSIS | D/C OR WET | EXTRACTION SOLVENT | EXTRACTION METHOD | ANALYSIS |
| Solvent Extractable Matter | D&C | DCM | SOX THERM | GRAVIMETRIC |
| Cyclohexanes Ext. Matter | D&C | CYCLOHEXANE | SOX THERM | GRAVIMETRIC |
| Thin Layer Chromatography | D&C | DCM | SOX THERM | IATROSCAN |
| Elemental Sulphur | D&C | DCM | SOX THERM | HPLC |
| Phenols by GCMS | WET | DCM | SOX THERM | GC-MS |
| Herbicides | D&C | HEXANE:ACETONE | SOX THERM | GC-MS |
| Pesticides | D&C | HEXANE:ACETONE | SOX THERM | GC-MS |
| EPH (DRO) | D&C | HEXANE:ACETONE | END OVER END | GC-FID |
| EPH (Min oil) | D&C | HEXANE:ACETONE | END OVER END | GC-FID |
| EPH (Cleaned up) | D&C | HEXANE:ACETONE | END OVER END | GC-FID |
| EPH CWG by GC | D&C | HEXANE:ACETONE | END OVER END | GC-FID |
| PCB tot / PCB con | D&C | HEXANE:ACETONE | END OVER END | GC-MS |
| Polyaromatic Hydrocarbons (MS) | D&C | HEXANE:ACETONE | END OVER END | GC-MS |
| Polyaromatic Hydrocarbons (FID) | D&C | HEXANE:ACETONE | END OVER END | GC-FID |
| C8-C40 (C6-C40)EZ Flash | WET | HEXANE:ACETONE | SHAKER | GC-EZ |
| Polyaromatic Hydrocarbons Rapid GC | WET | HEXANE:ACETONE | SHAKER | GC-EZ |
| Semi Volatile Organic compounds | WET | DCM:ACETONE | SONICATE | GC-MS |

Date: 26 August 2008
Your Ref: 722048 - PO. 520151
Our Ref: 722048-(4978)-010
Project Manager: Margaret Baker
Report to: Margaret Baker

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

Final Test Report

Sample(s) of Soil from Grovefield Way, Cheltenham.
Received from Structural Soils Ltd
The Old School, Stillhouse Lane, Bristol, BS3 4EB

Date of receipt: 15 August 2008
Date analysis commenced: 15 August 2008
Date analysis completed: 26 August 2008

Method Statement

Speciated TPH analysis is performed in accordance with procedures A-T-022 using GC-MS with Head Space & A-T-023 using GC-FID.

Banded TPH analysis is performed in accordance with procedure A-T-007.

PAH analysis is performed in accordance with procedure A-T-019.

Loss on drying analysis is performed in accordance with procedure A-T-020.

Subcontract analysis was submitted to a laboratory on Envirolab's approved vendors list.

A copy of the report is attached, accreditation status is detailed on the report.

Prepared by:



Melanie Marshall
Laboratory Co-ordinator

Approved by:



Thi McNabb
Reporting Analytical Chemist



Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
Tests marked "****" in this report are not included in the UKAS Accreditation Schedule for Envirolab.
Analytical results reflect the quality of the sample at the time of analysis only.



| Envirolab Ref. | PROCEDURE | ISO17025 | MCERTS | 90361 | 90364 | 90365 | 90367 | 90368 | | | | | |
|----------------------------------|-----------|----------|--------|-------|-------|-------|-------|-------|--|--|--|--|--|
| Location | | | | BH6 | SA2 | SA3 | TP2 | TP3 | | | | | |
| Depth (m) | | | | 0.20 | 0.25 | 0.40 | 0.20 | 0.15 | | | | | |
| Sample Ref | | | | 5 | 2 | 5 | 2 | 2 | | | | | |
| Sample Type | | | | D | ES | D | ES | ES | | | | | |
| MTBE _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Benzene _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Toluene _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Ethyl Benzene _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| m & p Xylene _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| o Xylene _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Aliphatics C5-C6 _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Aliphatics >C6-C8 _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Aliphatics >C8-C10 _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Aliphatics >C10-C12 _R | A-T-023 | Y | N | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | |
| Aliphatics >C12-C16 _R | A-T-023 | Y | N | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | |
| Aliphatics >C16-C21 _R | A-T-023 | Y | N | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | |
| Aliphatics >C21-C35 _R | A-T-023 | Y | N | <0.1 | <0.1 | <0.1 | 6.6 | <0.1 | | | | | |
| Total Aliphatics | | Y | N | <0.1 | <0.1 | <0.1 | 6.60 | <0.1 | | | | | |
| Aromatics >C5-C7 _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Aromatics >C7-C8 _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Aromatics >C8-C9 _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Aromatics >C9-C10 _R | A-T-022 | Y | N | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | |
| Aromatics >C10-C12 _R | A-T-023 | Y | N | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | |
| Aromatics >C12-C16 _R | A-T-023 | Y | N | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | |
| Aromatics >C16-C21 _R | A-T-023 | Y | N | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | |
| Aromatics >C21-C35 _R | A-T-023 | Y | N | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | |
| Total Aromatics | | Y | N | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | |
| TPH (Aliphatics & Aromatics) | | Y | N | <0.1 | <0.1 | <0.1 | 6.60 | <0.1 | | | | | |

Table 1 - Soil Speciated TPH Results (mg/kg)

| Envirolab Ref. | PROCEDURE | ISO17025 | MCERTS | 90361 | 90362 | 90363 | 90364 | 90365 | 90366 | 90367 | 90368 | 90369 | 90370 |
|---|-----------|----------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Location | | | | BH6 | BH6 | SA1 | SA2 | SA3 | TP1 | TP2 | TP3 | TP4 | TP5 |
| Depth (m) | | | | 0.20 | 0.50 | 0.20 | 0.25 | 0.40 | 0.80 | 0.20 | 0.15 | 0.21 | 0.15 |
| Sample Ref | | | | 5 | 6 | 2 | 2 | 5 | 4 | 2 | 2 | 2 | 2 |
| Sample Type | | | | D | D | ES | ES | D | D | ES | ES | ES | ES |
| Naphthalene _R | A-T-019 | Y | Y | 0.05 | 0.01 | <0.01 | 0.01 | <0.01 | <0.01 | 0.05 | 0.03 | 0.29 | 0.12 |
| Acenaphthylene _R | A-T-019 | Y | N | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 |
| Acenaphthene _R | A-T-019 | Y | Y | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 |
| Fluorene _R | A-T-019 | Y | Y | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | 0.03 | <0.01 | 0.01 | <0.01 |
| Phenanthrene _R | A-T-019 | Y | Y | 0.09 | 0.02 | <0.01 | 0.15 | <0.01 | 0.04 | 0.36 | 0.04 | 0.11 | 0.04 |
| Anthracene _R | A-T-019 | Y | Y | 0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | 0.06 | <0.01 | 0.01 | <0.01 |
| Fluoranthene _R | A-T-019 | Y | Y | 0.18 | 0.07 | 0.02 | 0.32 | <0.01 | 0.06 | 0.42 | 0.07 | 0.16 | 0.13 |
| Pyrene _R | A-T-019 | Y | Y | 0.17 | <0.01 | <0.01 | 0.28 | 0.04 | 0.05 | 0.36 | 0.07 | 0.14 | 0.10 |
| Benz [a] anthracene _R | A-T-019 | Y | Y | 0.07 | <0.01 | <0.01 | 0.12 | <0.01 | <0.01 | 0.10 | <0.01 | 0.05 | 0.02 |
| Chrysene _R | A-T-019 | Y | Y | 0.11 | <0.01 | <0.01 | 0.28 | <0.01 | 0.01 | 0.21 | 0.02 | 0.11 | 0.07 |
| Benzo [b] fluoranthene _R Benzo [k] fluoranthene # _R | A-T-019 | Y | Y | 0.26 | <0.01 | <0.01 | 0.26 | <0.01 | 0.01 | 0.20 | <0.01 | 0.06 | <0.01 |
| Benzo [a] pyrene _R | A-T-019 | Y | Y | 0.12 | <0.01 | <0.01 | 0.10 | <0.01 | <0.01 | 0.1 | <0.01 | 0.0 | <0.01 |
| Indeno [123-cd] pyrene _R | A-T-019 | Y | Y | 0.10 | <0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.04 | 0.02 |
| Dibenz [ah] anthracene _R | A-T-019 | Y | Y | 0.03 | 0.02 | 0.01 | <0.01 | <0.01 | 0.03 | <0.01 | 0.01 | 0.01 | <0.01 |
| Benzo [ghi] perylene _R | A-T-019 | Y | Y | 0.16 | 0.03 | 0.03 | 0.12 | <0.01 | <0.01 | 0.04 | 0.04 | 0.08 | 0.03 |
| Total 16 PAH Reported | | Y | N | 1.36 | 0.15 | 0.08 | 1.69 | 0.05 | 0.21 | 1.96 | 0.29 | 1.08 | 0.53 |

Due to coelution Benzo [b] fluoranthene and Benzo [k] fluoranthene are reported as one value.

Table 2 - Soil PAH Results (mg/kg, expressed on a dry weight basis)

| Envirolab Ref. | PROCEDURE | ISO17025 | MCERTS | 90371 | 90372 | 90373 | 90374 | 90375 | 90376 | 90377 | 90378 | 90379 | 90380 |
|---|-----------|----------|--------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Location | | | | TP6 | TP6 | TP7 | TP8 | TP9 | TP8 | TP9 | TP10 | TP11 | TP12 |
| Depth (m) | | | | 0.65 | 0.15 | 0.60 | 0.90 | 0.60 | 0.60 | 0.20 | 0.40 | 0.20 | 0.15 |
| Sample Ref | | | | 3 | 1 | 4 | 5 | 4 | 3 | 2 | 3 | 1 | 2 |
| Sample Type | | | | ES | ES | ES | D | ES | ES | D | D | ES | ES |
| Naphthalene _R | A-T-019 | Y | Y | <0.01 | 0.20 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Acenaphthylene _R | A-T-019 | Y | N | <0.01 | 0.16 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Acenaphthene _R | A-T-019 | Y | Y | <0.01 | 0.06 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Fluorene _R | A-T-019 | Y | Y | <0.01 | 0.07 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| Phenanthrene _R | A-T-019 | Y | Y | <0.01 | 1.35 | 0.01 | <0.01 | 0.03 | 0.01 | 0.06 | <0.01 | 0.03 | 0.20 |
| Anthracene _R | A-T-019 | Y | Y | <0.01 | 0.35 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.04 |
| Fluoranthene _R | A-T-019 | Y | Y | <0.01 | 3.33 | 0.04 | <0.01 | 0.07 | 0.07 | 0.13 | <0.01 | 0.10 | 0.34 |
| Pyrene _R | A-T-019 | Y | Y | <0.01 | 3.05 | 0.03 | 0.03 | 0.06 | 0.05 | 0.11 | <0.01 | 0.10 | 0.30 |
| Benz [a] anthracene _R | A-T-019 | Y | Y | <0.01 | 1.95 | <0.01 | <0.01 | 0.03 | <0.01 | 0.02 | <0.01 | <0.01 | 0.14 |
| Chrysene _R | A-T-019 | Y | Y | <0.01 | 3.35 | <0.01 | <0.01 | 0.07 | <0.01 | 0.09 | <0.01 | 0.04 | 0.31 |
| Benzo [b] fluoranthene _R Benzo [k] fluoranthene # _R | A-T-019 | Y | Y | <0.01 | 2.55 | <0.01 | <0.01 | <0.01 | <0.01 | 0.06 | <0.01 | <0.01 | 0.35 |
| Benzo [a] pyrene _R | A-T-019 | Y | Y | <0.01 | 1.81 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.05 |
| Indeno [123-cd] pyrene _R | A-T-019 | Y | Y | 0.01 | 1.16 | 0.02 | <0.01 | 0.01 | 0.02 | <0.01 | 0.01 | 0.02 | 0.16 |
| Dibenz [ah] anthracene _R | A-T-019 | Y | Y | <0.01 | 0.08 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.02 | <0.01 |
| Benzo [ghi] perylene _R | A-T-019 | Y | Y | 0.02 | 1.93 | <0.01 | 0.02 | 0.01 | <0.01 | 0.02 | <0.01 | 0.02 | 0.22 |
| Total 16 PAH Reported | | Y | N | 0.03 | 21.40 | 0.11 | 0.05 | 0.30 | 0.15 | 0.49 | 0.02 | 0.34 | 2.12 |

Due to coelution Benzo [b] fluoranthene and Benzo [k] fluoranthene are reported as one value.

Table 3 - Soil PAH Results (mg/kg, expressed on a dry weight basis)

| Envirolab Ref. | PROCEDURE | ISO17025 | MCERTS | 90381 | | | | | | | | | |
|---|-----------|----------|--------|-------|--|--|--|--|--|--|--|--|--|
| Location | | | | TP13 | | | | | | | | | |
| Depth (m) | | | | 0.20 | | | | | | | | | |
| Sample Ref | | | | 2 | | | | | | | | | |
| Sample Type | | | | ES | | | | | | | | | |
| Naphthalene _R | A-T-019 | Y | Y | 0.01 | | | | | | | | | |
| Acenaphthylene _R | A-T-019 | Y | N | <0.01 | | | | | | | | | |
| Acenaphthene _R | A-T-019 | Y | Y | 0.02 | | | | | | | | | |
| Fluorene _R | A-T-019 | Y | Y | <0.01 | | | | | | | | | |
| Phenanthrene _R | A-T-019 | Y | Y | <0.01 | | | | | | | | | |
| Anthracene _R | A-T-019 | Y | Y | <0.01 | | | | | | | | | |
| Fluoranthene _R | A-T-019 | Y | Y | 0.07 | | | | | | | | | |
| Pyrene _R | A-T-019 | Y | Y | 0.07 | | | | | | | | | |
| Benzo [a] anthracene _R | A-T-019 | Y | Y | 0.06 | | | | | | | | | |
| Chrysene _R | A-T-019 | Y | Y | 0.12 | | | | | | | | | |
| Benzo [b] fluoranthene _R Benzo [k] fluoranthene # _R | A-T-019 | Y | Y | 0.01 | | | | | | | | | |
| Benzo [a] pyrene _R | A-T-019 | Y | Y | 0.03 | | | | | | | | | |
| Indeno [123-cd] pyrene _R | A-T-019 | Y | Y | 0.08 | | | | | | | | | |
| Dibenz [ah] anthracene _R | A-T-019 | Y | Y | <0.01 | | | | | | | | | |
| Benzo [ghi] perylene _R | A-T-019 | Y | Y | <0.01 | | | | | | | | | |
| Total 16 PAH Reported | | Y | N | 0.47 | | | | | | | | | |

Due to coelution Benzo [b] fluoranthene and Benzo [k] fluoranthene are reported as one value.

Table 4 - Soil PAH Results (mg/kg, expressed on a dry weight basis)

| Envirolab Ref. | PROCEDURE | ISO17025 | MCERTS | 90362 | 90363 | 90366 | 90369 | 90370 | 90371 | 90372 | 90373 | 90374 | 90375 |
|-----------------------|-----------|----------|--------|-------|-------|-------|-------|-------|-------|--------------|-------|-------|-------|
| Location | | | | BH6 | SA1 | TP1 | TP4 | TP5 | TP6 | TP6 | TP7 | TP8 | TP9 |
| Depth (m) | | | | 0.50 | 0.20 | 0.80 | 0.21 | 0.15 | 0.65 | 0.15 | 0.6 | 0.9 | 0.6 |
| Sample Ref | | | | 6 | 2 | 4 | 2 | 2 | 3 | 1 | 4 | 5 | 4 |
| Sample Type | | | | D | ES | D | ES | ES | ES | ES | ES | D | ES |
| >C6-C10 _R | A-T-007 | Y | N | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| >C10-C25 _R | A-T-007 | Y | N | <10 | <10 | <10 | <10 | <10 | <10 | 77 | <10 | <10 | <10 |
| >C25-C36 _R | A-T-007 | Y | N | <10 | <10 | <10 | <10 | <10 | <10 | 47 | <10 | <10 | <10 |
| Comments | A-T-007 | N | N | - | - | - | - | - | - | Possible PAH | - | - | - |

Table 5 - Soil Banded TPH Results (mg/kg, expressed on a dry weight basis)

| Envirolab Ref. | PROCEDURE | ISO17025 | MCERTS | 90376 | 90377 | 90378 | 90379 | 90380 | 90381 | | | | |
|-----------------------|-----------|----------|--------|-------|-------|-------|-------|-------|-------|--|--|--|--|
| Location | | | | TP8 | TP9 | TP10 | TP11 | TP12 | TP13 | | | | |
| Depth (m) | | | | 0.6 | 0.2 | 0.4 | 0.2 | 0.15 | 0.20 | | | | |
| Sample Ref | | | | 3 | 2 | 3 | 1 | 2 | 2 | | | | |
| Sample Type | | | | ES | D | D | ES | ES | ES | | | | |
| >C6-C10 _R | A-T-007 | Y | N | <10 | <10 | <10 | <10 | <10 | <10 | | | | |
| >C10-C25 _R | A-T-007 | Y | N | <10 | <10 | <10 | <10 | <10 | <10 | | | | |
| >C25-C36 _R | A-T-007 | Y | N | <10 | <10 | <10 | <10 | <10 | <10 | | | | |
| Comments | A-T-007 | N | N | - | - | - | - | - | - | | | | |

Table 6 - Soil Banded TPH Results (mg/kg, expressed on a dry weight basis)

| Envirolab Ref. | 90361 | 90362 | 90363 | 90364 | 90365 | 90366 | 90367 | 90368 | 90369 | 90370 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Location | BH6 | BH6 | SA1 | SA2 | SA3 | TP1 | TP2 | TP3 | TP4 | TP5 |
| Depth (m) | 0.20 | 0.50 | 0.20 | 0.25 | 0.40 | 0.80 | 0.20 | 0.15 | 0.21 | 0.15 |
| Sample Ref | 5 | 6 | 2 | 2 | 5 | 4 | 2 | 2 | 2 | 2 |
| Sample Type | D | D | ES | ES | D | D | ES | ES | ES | ES |
| Type | Loam | Clay | Clay | Loam | Clay | Clay | Clay | Loam | Loam | Loam |
| Colour | Brown | Grey | Brown | Brown | Brown | Brown | Brown | Brown | Brown | Brown |
| Consistency | Loose | Firm | Firm | Loose | Firm | Firm | Firm | Loose | Loose | Loose |
| Some Stones | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| >50 Stones | No | No | No | No | No | No | No | No | No | No |
| Some Vegetation | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Very Wet | No | No | No | No | No | No | No | No | No | No |
| Strong Odour | No | No | No | No | No | No | No | No | No | No |

Table 7 - Soil Matrix Table

| Envirolab Ref. | 90371 | 90372 | 90373 | 90374 | 90375 | 90376 | 90377 | 90378 | 90379 | 90380 |
|-----------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|-------|
| Location | TP6 | TP6 | TP7 | TP8 | TP9 | TP8 | TP9 | TP10 | TP11 | TP12 |
| Depth (m) | 0.65 | 0.15 | 0.60 | 0.90 | 0.60 | 0.60 | 0.20 | 0.40 | 0.20 | 0.15 |
| Sample Ref | 3 | 1 | 4 | 5 | 4 | 3 | 2 | 3 | 1 | 2 |
| Sample Type | ES | ES | ES | D | ES | ES | D | D | ES | ES |
| Type | Clay | Loam | Clay | Clay | Clay | Clay | Clay | Clay | Loam | Clay |
| Colour | Brown | Black | Light Brown | Mixed | Mixed | Mixed | Mixed | Mixed | Brown | Brown |
| Consistency | Firm | Loose | Firm | Firm | Firm | Firm | Firm | Firm | Loose | Loose |
| Some Stones | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| >50 Stones | No | No | No | No | No | No | No | No | No | No |
| Some Vegetation | Yes | Yes | Yes | No | No | Yes | Yes | No | Yes | Yes |
| Very Wet | No | No | No | No | No | No | No | No | No | No |
| Strong Odour | No | No | No | No | No | No | No | No | No | No |

Table 8 - Soil Matrix Table

| | | | | | | | | | | |
|-----------------|-------|--|--|--|--|--|--|--|--|--|
| Envirolab Ref. | 90381 | | | | | | | | | |
| Location | TP13 | | | | | | | | | |
| Depth (m) | 0.20 | | | | | | | | | |
| Sample Ref | 2 | | | | | | | | | |
| Sample Type | ES | | | | | | | | | |
| Type | Clay | | | | | | | | | |
| Colour | Brown | | | | | | | | | |
| Consistency | Firm | | | | | | | | | |
| Some Stones | Yes | | | | | | | | | |
| >50 Stones | No | | | | | | | | | |
| Some Vegetation | Yes | | | | | | | | | |
| Very Wet | No | | | | | | | | | |
| Strong Odour | No | | | | | | | | | |

Table 9 - Soil Matrix Table

Appendix

| Code | Description |
|-------|---|
| + | Increased detection limit due to sample interference |
| # | Increased detection limit due to sample dilution |
| \$ | Analysis subcontracted |
| IS | Insufficient sample for analysis |
| IS-QC | Insufficient sample to retest following QC fail |
| NDP | No determination possible |
| ~ | Sample type outside the scope of our MCERTS accreditation since matrix not included in method validation |
| " | Analytes are associated with failed AQC targets for MCERTS, but passed UKAS AQC |
| ^ | Sample result is not covered under Envirolab's accreditation schedule for MCERTS as the result exceeds the validated range. See notes 1-3. |
| F | Analysis suffixed "F" were performed on the filtered sample |
| D | Analysis suffixed "D" were performed on the sample air dried at <30°C |
| O | Analysis suffixed "O" were performed on the sample oven dried at 95°C |
| R | Analysis suffixed "R" were performed on the sample as received. Where results are expressed on a dry weight basis, the samples were air dried at 95°C |
| Notes | |
| 1 | For MCERTS the validated range covers up to 15mg/kg for individual PAHs, 200mg/kg for totals. |
| 2 | For MCERTS the validated range covers up to 3000mg/kg for Total TPH analysis. |
| 3 | For MCERTS the validated range covers up to 0.2mg/kg for individual PCBs, and 1.5mg/kg for the total reported as araclor. |
| 4 | Natural stones and debris are excluded from analyses |
| 5 | Coarse granular material such as concrete, gravel and brick are not MCERTS accredited if they comprise the major part of the sample. Envirolab are currently accredited for MCERTS on soil types Sand, Clay and Loam only |



Envirolab
Sandpits Business Park
Mottram Road
Hyde
SK14 3AR ATTN: Subcon

CERTIFICATE OF ANALYSIS

Date: 11 September, 2008
Our Reference: 08/14520/02/01
Your Reference: 722048-5020
Location: GROVEFIELD WAY

A total of 2 samples was received for analysis on Wednesday, 27 August 2008 and completed on Wednesday, 03 September 2008. Accredited laboratory tests are defined in the log sheet, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation. We are pleased to enclose our final report, it was a pleasure to be of service to you, and we look forward to our continuing association.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials- whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Signed

Diane Whittlestone
Tech. Support Manager

David O'Hare
Project Manager

Caroline Suttie
Project Coordinator
Team Leader

Valid if signed by any of the above signatories.

Compiled By

.....
Briony Johnson



ALcontrol Laboratories TEST SCHEDULE

JOB NUMBER : 08/14520/02

BATCH NUMBER : 1

Numeric values indicate additional scheduling

CLIENT : Envirolab

CLIENT REF/CODE : 722048-5020

CONTACT : Subcon

ORDER NUMBER : 34708

* indicates test subcontracted

DATE OF RECEIPT : 27/08/08

TURNAROUND : 5 days

LOCATION : GROVEFIELD WAY

| | | UKAS Accredited ? | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|-----------------|-------------------|-------|-------------|---------------------|------------------------------|-------------------|----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Sample Number | Sample Identity | P / V | Depth | Sample Type | Metals ICP-MS 9 (W) | Mercury Dissolved (W) (CVAF) | Sulphate Kone (W) | pH (W) | | | | | | | | | | | | | | | |
| | | | | | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | |
| 1 | 90759 BH5 EW1 | 1 plastic | 5.75 | LIQUID | X | X | X | X | | | | | | | | | | | | | | | |
| 2 | 90760 BH8 EW1 | 1 plastic | 2.55 | LIQUID | X | X | X | X | | | | | | | | | | | | | | | |
| Total Number of Tests | | | | | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | |

Validated
Preliminary

ALcontrol Laboratories Analytical Services

Table Of Results

ISO 17025 accredited
M MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 08/14520/02/01
Client: Envirolab
Client Ref. No.: 722048-5020

Matrix: LIQUID
Location: GROVEFIELD WAY
Client Contact: Subcon

| Sample Identity | 90759 BH5 EW1 | 90760 BH8 EW1 | | | | | | | | | Method Code | LoD/Units |
|-----------------------------|------------------|------------------|--|--|--|--|--|--|--|--|--------------------|----------------|
| Depth (m) | 5.75 | 2.55 | | | | | | | | | | |
| Sample Type | LIQUID | LIQUID | | | | | | | | | | |
| Sampled Date | 21.08.08 | 21.08.08 | | | | | | | | | | |
| Sample Received Date | 27.08.08 | 27.08.08 | | | | | | | | | | |
| Batch | 1 | 1 | | | | | | | | | | |
| Sample Number(s) | 1 | 2 | | | | | | | | | | |
| Arsenic Dissolved (ICP-MS) | 6.2 | 2.7 | | | | | | | | | TM152 [#] | <0.75 ug/l |
| Boron Dissolved (ICP-MS) | 2500 | 1400 | | | | | | | | | TM152 [#] | <20 ug/l |
| Cadmium Dissolved (ICP-MS) | <0.22 | <0.22 | | | | | | | | | TM152 [#] | <0.22 ug/l |
| Chromium Dissolved (ICP-MS) | 7 | 8 | | | | | | | | | TM152 [#] | <1 ug/l |
| Copper Dissolved (ICP-MS) | 7.5 | 8.1 | | | | | | | | | TM152 [#] | <1.6 ug/l |
| Lead Dissolved (ICP-MS) | <0.4 | <0.4 | | | | | | | | | TM152 [#] | <0.4 ug/l |
| Nickel Dissolved (ICP-MS) | 30 | 23 | | | | | | | | | TM152 [#] | <1.5 ug/l |
| Selenium Dissolved (ICP-MS) | 31 | 9 | | | | | | | | | TM152 [#] | <1 ug/l |
| Zinc Dissolved (ICP-MS) | 8 | 7 | | | | | | | | | TM152 [#] | <5 ug/l |
| Mercury Dissolved (CVAF) | <0.01 | <0.01 | | | | | | | | | TM183 [#] | <0.01 ug/l |
| Sulphate (soluble) | 3200 | 3800 | | | | | | | | | TM098 [#] | <3 mg/l |
| pH Value | 8.28 | 8.27 | | | | | | | | | TM133 [#] | <1.00 pH Units |
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Date 11.09.2008

ALcontrol Laboratories Analytical Services

Table Of Results - Appendix

Job Number: 08/14520/02/01
Client: Envirolab
Client Ref. No.: 722048-5020

Report Key :

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10⁻⁷

NDP No Determination Possible * Subcontracted test
 NFD No Fibres Detected » Result previously reported (Incremental reports only)
 # ISO 17025 accredited M MCERTS Accredited
 PFD Possible Fibres Detected EC Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

Summary of Method Codes contained within report :

| Method No. | Reference | Description | ISO 17025 Accredited | MCERTS Accredited | Wet/Dry Sample ¹ | Surrogate Corrected |
|------------|--|--|----------------------|-------------------|-----------------------------|---------------------|
| TM098 | Method 4500E, AWWA/APHA, 20th Ed., 1999 | Determination of Sulphate using the Kone Analyser | ✓ | | NA | |
| TM133 | BS 1377: Part 3 1990;BS 6068-2.5 | Determination of pH in Soil and Water using the GLpH pH Meter | ✓ | | NA | |
| TM152 | Method 3125B, AWWA/APHA, 20th Ed., 1999 | Analysis of Aqueous Samples by ICP-MS | ✓ | | NA | |
| TM183 | BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3 | Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry | ✓ | | NA | |
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¹ Applies to Solid samples only. **DRY** indicates samples have been dried at 35°C. **NA** = not applicable.