

## **Appendix N   Geo-environmental Laboratory Test Results - Soil**



## Certificate of Analysis

**Certificate Number** 22-07670,22-08842,22-08843,22-10620,22-

**Issued:** 07-Jul-22

**Client** Earth Science Partnership  
33 Cardiff Road  
Taffs Well  
Cardiff  
CF15 7RB

**Our Reference** 22-07670,22-08842,22-08843,22-10620,22-10686,22-10718,22-

**Client Reference** 8053

**Order No** 10599

**Contract Title** Afan Valley

**Description** 77 Soil samples.

**Date Received** 21-Apr-22

**Date Started** 21-Apr-22

**Date Completed** 07-Jul-22

**Test Procedures** Identified by prefix DETSn (details on request).

**Notes** Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

**Approved By**

A handwritten signature in black ink, appearing to read "K. Bridgewood".

Kirk Bridgewood  
General Manager



2139

## Summary of Chemical Analysis

### Matrix Descriptions

*Our Ref* 22-07670,22-08842,22-08843,22-10620,22-10686,22-10718,22-12350

*Client Ref* 8053

*Contract Title* Afan Valley

| Sample ID | Depth | Lab No  | Completed  | Matrix Description                                                                |
|-----------|-------|---------|------------|-----------------------------------------------------------------------------------|
| Y17       | 0.1   | 2006750 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y07       | 0.1   | 2006751 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y9        | 0.1   | 2006752 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y14       | 0.2   | 2006753 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y10       | 0.05  | 2006754 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y15       | 0.1   | 2006755 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y11       | 0.1   | 2006756 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y12       | 0.1   | 2006757 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y13       | 0.1   | 2006758 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y18       | 0.05  | 2006759 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y06       | 0.1   | 2006760 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y03       | 0.1   | 2006761 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y02       | 0.1   | 2006762 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| Y32       | 0.05  | 2006763 | 17/06/2022 | Dark brown sandy CLAY including odd rootlets                                      |
| TP12      | 0.1   | 2006764 | 17/06/2022 | Dark brown slightly gravelly, sandy CLAY including odd wood and numerous rootlets |
| TP06      | 0.2   | 2006765 | 17/06/2022 | Dark brown sandy CLAY including numerous rootlets                                 |
| TP04      | 0.1   | 2006766 | 17/06/2022 | Dark brown slightly gravelly, sandy CLAY including numerous rootlets              |
| TP04      | 0.5   | 2006767 | 17/06/2022 | Brown gravelly, sandy CLAY including odd rootlets                                 |
| TP14      | 0.3   | 2006768 | 17/06/2022 | Brown gravelly, sandy CLAY including odd rootlets                                 |
| TP01      | 0.1   | 2006769 | 17/06/2022 | Dark brown sandy CLAY including odd wood and numerous rootlets                    |
| TP03      | 0.2   | 2006770 | 17/06/2022 | Brown gravelly, sandy CLAY including numerous rootlets                            |
| TP07      | 0.3   | 2006771 | 17/06/2022 | Brown very gravelly, sandy CLAY including odd rootlets                            |
| TP19      | 0.2   | 2006772 | 17/06/2022 | Brown gravelly, sandy CLAY including numerous rootlets                            |
| TP23      | 0.1   | 2006773 | 17/06/2022 | Brown gravelly, sandy CLAY including numerous rootlets                            |
| TP23      | 0.3   | 2006774 | 17/06/2022 | Brown gravelly, sandy CLAY including numerous rootlets                            |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,22-10718,22-12350

Client Ref 8053

Contract Title Afan Valley

| Lab No        | 1999518    | 1999519    | 1999520    | 1999521    | 1999522    | 1999523    |
|---------------|------------|------------|------------|------------|------------|------------|
| Sample ID     | Y16        | Y19        | Y20        | Y21        | Y22        | Y22        |
| Depth         | 0.10       | 0.10       | 0.15       | 0.10       | 0.10       | 0.20       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 14/04/2022 | 14/04/2022 | 14/04/2022 | 13/04/2022 | 14/04/2022 | 14/04/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 160    | 6.8    | 73     | 99     | 16     | 18     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 24     | 30     | 7.5    | 7.6    | 14     | 25     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | < 0.2  | < 0.2  | < 0.2  | < 0.2  | 0.3    | 0.3    |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg | 0.5    | 0.4    | < 0.2  | 1.3    | < 0.2  | < 0.2  |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.2    | < 0.1  | 0.4    | < 0.1  | 0.2    | 0.2    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 19     | 3.0    | 4.1    | 4.0    | 9.7    | 11     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 70     | 49     | 46     | 16     | 15     | 16     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 180    | 80     | 58     | 31     | 12     | 13     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.19   | 0.06   | 0.08   | < 0.05 | < 0.05 | < 0.05 |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 19     | 5.6    | 3.8    | 1.6    | 18     | 22     |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg | 1.1    | < 0.5  | 0.7    | < 0.5  | < 0.5  | < 0.5  |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg | 37     | 5.8    | 8.3    | 24     | 13     | 15     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 39     | 12     | 11     | 9.3    | 57     | 67     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      | pH    | 4.1    | 3.9    | 3.8    | 4.0    | 5.0    | 5.0    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.4    | 0.2    | 0.4    | 0.6    | 0.3    | < 0.1  |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 7.1    | 9.8    | 8.4    | 7.9    | 2.8    | 2.9    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |        |        |        |        |        |        |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        |        |        |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        |        |        |        |        |
| <b>PAHs</b>                     |             |      |       |        |        |        |        |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg | 0.08   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg | 0.08   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg | 0.07   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg | < 0.13 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| <b>Phenols</b>                  |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg | 1.1    | 1.5    | 2.1    | 1.2    | 0.5    | < 0.3  |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2  
 Client Ref 8053  
 Contract Title Afan Valley

| Lab No        | 1999524    | 1999525    | 1999526    | 1999527    | 1999528    | 1999529    |
|---------------|------------|------------|------------|------------|------------|------------|
| .Sample ID    | Y23        | Y24        | Y25        | Y26        | Y27        | Y28        |
| Depth         | 0.20       | 0.10       | 0.10       | 0.10       | 0.10       | 0.10       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 13/04/2022 | 14/04/2022 | 12/04/2022 | 12/04/2022 | 12/04/2022 | 12/04/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 40     | 45     | 32     | 14     | 60     | 56     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 12     | 13     | 12     | 12     | 11     | 18     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | < 0.2  | < 0.2  | < 0.2  | < 0.2  | < 0.2  | < 0.2  |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg | 0.8    | 0.7    | < 0.2  | 0.6    | 0.4    | 0.5    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.5    | 0.3    | 0.2    | 0.2    | 0.3    | 0.2    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 4.7    | 5.8    | 9.1    | 4.6    | 5.5    | 7.9    |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 76     | 57     | 42     | 20     | 53     | 34     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 75     | 97     | 160    | 69     | 78     | 53     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.07   | 0.14   | 0.16   | 0.13   | 0.06   | 0.07   |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 4.2    | 13     | 11     | 9.8    | 4.5    | 8.0    |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg | 0.5    | < 0.5  | 0.6    | 0.9    | 0.6    | 0.7    |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg | 10     | 16     | 22     | 11     | 13     | 19     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 20     | 29     | 23     | 29     | 19     | 36     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      | pH    | 3.9    | 4.0    | 3.8    | 3.6    | 4.3    | 4.6    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.2    | 0.3    | 0.5    | 0.4    | 0.4    | 0.4    |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 6.8    | 7.0    | 5.1    | 8.5    | 7.1    | 7.5    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |        |        |        |        |        |        |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        |        |        |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        |        |        |        |        |
| <b>PAHs</b>                     |             |      |       |        |        |        |        |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.05   | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | 0.04   | 0.05   | 0.04   | < 0.03 | < 0.03 |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.08   | 0.12   | 0.07   | < 0.03 | < 0.03 |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.08   | 0.12   | 0.07   | < 0.03 | < 0.03 |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.04   | 0.07   | 0.05   | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg | < 0.10 | < 0.10 | < 0.13 | < 0.11 | < 0.10 | < 0.10 |
| <b>Phenols</b>                  |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg | 1.1    | 1.5    | 2.8    | 1.4    | 0.7    | 1.3    |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2  
 Client Ref 8053  
 Contract Title Afan Valley

| Lab No        | 1999530    | 1999531    | 1999532    | 1999533    | 1999534    | 1999535    |
|---------------|------------|------------|------------|------------|------------|------------|
| Sample ID     | Y29        | Y30        | Y33        | Y35        | Y34        | Y36        |
| Depth         | 0.10       | 0.10       | 0.10       | 0.10       | 0.10       | 0.10       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 14/04/2022 | 13/04/2022 | 12/04/2022 | 12/04/2022 | 12/04/2022 | 12/04/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 25     | 8.7    | 3.7    | 150    | 11     | 37     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 13     | 9.2    | 8.7    | 13     | 9.8    | 31     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | < 0.2  | < 0.2  | < 0.2  | < 0.2  | < 0.2  | < 0.2  |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg | 0.7    | 0.6    | 0.4    | 0.7    | 0.4    | < 0.2  |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.4    | 0.3    | 0.4    | 0.3    | 0.1    | 0.3    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 5.3    | 3.3    | 2.1    | 9.7    | 3.0    | 5.1    |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 39     | 55     | 26     | 65     | 25     | 21     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 100    | 110    | 64     | 79     | 62     | 69     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.16   | 0.09   | 0.09   | 0.08   | 0.06   | 0.08   |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 15     | 6.2    | 5.4    | 7.7    | 3.8    | 5.6    |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg | 0.9    | 0.8    | < 0.5  | 0.9    | < 0.5  | < 0.5  |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg | 12     | 7.1    | 4.6    | 25     | 5.8    | 16     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 41     | 21     | 21     | 42     | 15     | 30     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      | pH    | 3.8    | 4.4    | 3.8    | 4.1    | 4.0    | 3.8    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.4    | 0.3    | 0.4    | 0.3    | 0.5    | 0.9    |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 12     | 15     | 14     | 7.6    | 8.1    | 7.9    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |        |        |        |        |        |        |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        |        |        |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        |        |        |        |        |
| <b>PAHs</b>                     |             |      |       |        |        |        |        |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg | 0.05   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | 0.03   | < 0.03 | < 0.03 |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | 0.03   | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.04   | 0.08   | < 0.03 | < 0.03 |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg | 0.05   | < 0.03 | 0.06   | 0.16   | 0.06   | < 0.03 |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg | 0.05   | < 0.03 | 0.06   | 0.14   | 0.06   | < 0.03 |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.04   | 0.11   | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg | < 0.10 | < 0.10 | < 0.10 | < 0.31 | < 0.10 | < 0.10 |
| <b>Phenols</b>                  |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg | 2.0    | 1.3    | 1.8    | 1.1    | 1.2    | 4.1    |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2  
 Client Ref 8053  
 Contract Title Afan Valley

| Lab No        | 2006750    | 2006751    | 2006752    | 2006753    | 2006754    | 2006755    |
|---------------|------------|------------|------------|------------|------------|------------|
| Sample ID     | Y17        | Y07        | Y9         | Y14        | Y10        | Y15        |
| Depth         | 0.10       | 0.10       | 0.10       | 0.20       | 0.05       | 0.10       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 05/05/2022 | 05/05/2022 | 05/05/2022 | 05/05/2022 | 05/05/2022 | 05/05/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 38     | 250    | 44     | 42     | 58     | 74     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 17     | 14     | 12     | 43     | 24     | 17     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | < 0.2  | < 0.2  | 0.2    | 0.4    | < 0.2  | < 0.2  |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg | 0.6    | 0.2    | 0.4    | 0.4    | 0.6    | 0.6    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.3    | 0.2    | 0.7    | 0.6    | 0.2    | 0.2    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 5.9    | 5.7    | 4.3    | 22     | 10     | 12     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 29     | 95     | 31     | 35     | 32     | 35     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 48     | 130    | 35     | 54     | 54     | 87     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.05   | 0.17   | 0.06   | 0.05   | 0.07   | 0.10   |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 6.0    | 11     | 5.0    | 11     | 8.8    | 11     |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg | 0.7    | 2.0    | 1.1    | 1.6    | 1.0    | 1.0    |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg | 19     | 18     | 9.3    | 35     | 23     | 23     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 25     | 25     | 17     | 72     | 39     | 39     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      | pH    | 4.8    | 5.2    | 4.6    | 5.0    | 4.5    | 4.3    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.6    | 0.3    | 0.6    | 0.5    | 0.8    | 0.7    |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 8.9    | 18     | 18     | 3.8    | 4.2    | 1.3    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |        |        |        |        |        |        |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        |        |        |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        |        |        |        |        |
| <b>PAHs</b>                     |             |      |       |        |        |        |        |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg | 0.03   | 0.04   | 0.05   | < 0.03 | 0.03   | < 0.03 |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.05   | < 0.03 | < 0.03 | 0.09   |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | 0.06   |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | 0.05   |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | 0.05   |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.03   | < 0.03 | 0.03   | 0.16   |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg | 0.03   | < 0.03 | < 0.03 | < 0.03 | 0.03   | 0.11   |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | 0.12   |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.25 |
| <b>Phenols</b>                  |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg | 0.8    | 1.9    | 2.1    | 0.6    | 1.7    | 2.5    |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2  
 Client Ref 8053  
 Contract Title Afan Valley

| Lab No        | 2006756    | 2006757    | 2006758    | 2006759    | 2006760    | 2006761    |
|---------------|------------|------------|------------|------------|------------|------------|
| .Sample ID    | Y11        | Y12        | Y13        | Y18        | Y06        | Y03        |
| Depth         | 0.10       | 0.10       | 0.10       | 0.05       | 0.10       | 0.10       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 05/05/2022 | 05/05/2022 | 05/05/2022 | 06/05/2022 | 06/05/2022 | 06/05/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 58     | 13     | 80     | 29     | 170    | 35     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 13     | 13     | 32     | 18     | 14     | 11     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | < 0.2  | < 0.2  | 0.3    | < 0.2  | < 0.2  | < 0.2  |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg | 0.6    | 0.3    | 0.2    | 0.5    | 0.3    | 0.7    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.2    | 0.2    | 0.5    | 0.4    | 0.1    | 0.4    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 5.8    | 4.3    | 14     | 3.5    | 5.0    | 4.3    |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 20     | 48     | 52     | 34     | 24     | 64     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 32     | 150    | 51     | 60     | 61     | 96     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | 0.17   | 0.07   | 0.07   | < 0.05 | 0.11   |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 5.6    | 16     | 11     | 6.0    | 3.9    | 12     |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg | 0.8    | 1.2    | 1.8    | 0.9    | 1.5    | 1.2    |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg | 15     | 9.5    | 26     | 8.5    | 12     | 10     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 22     | 29     | 54     | 24     | 14     | 24     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      | pH    | 4.5    | 3.9    | 4.9    | 4.3    | 4.5    | 4.1    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.7    | 0.4    | 0.5    | 0.4    | 0.6    | 0.4    |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 6.2    | 18     | 4.7    | 8.7    | 4.4    | < 0.1  |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |        |        |        |        |        |        |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        |        |        |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        |        |        |        |        |
| <b>PAHs</b>                     |             |      |       |        |        |        |        |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.03   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg | 0.03   | 0.04   | < 0.03 | 0.04   | < 0.03 | < 0.03 |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.11   | 0.05   | 0.06   | < 0.03 | 0.04   |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.09   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.15   | 0.03   | < 0.03 | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | 0.19   | < 0.03 | 0.04   | < 0.03 | 0.03   |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg | 0.03   | 0.36   | 0.07   | 0.03   | < 0.03 | < 0.03 |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.06   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg | 0.03   | 0.32   | 0.04   | < 0.03 | < 0.03 | < 0.03 |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.27   | 0.05   | < 0.03 | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg | < 0.10 | < 0.58 | < 0.13 | < 0.10 | < 0.10 | < 0.10 |
| <b>Phenols</b>                  |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg | 1.9    | 3.2    | 0.6    | 3.9    | 0.8    | 2.7    |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2

Client Ref 8053

Contract Title Afan Valley

| Lab No        | 2006762    | 2006763    | 2006764    | 2006765    | 2006766    | 2006767    |
|---------------|------------|------------|------------|------------|------------|------------|
| Sample ID     | Y02        | Y32        | TP12       | TP06       | TP04       | TP04       |
| Depth         | 0.10       | 0.05       | 0.10       | 0.20       | 0.10       | 0.50       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 06/05/2022 | 06/05/2022 | 28/04/2022 | 03/05/2022 | 03/05/2022 | 03/05/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 70     | 110    | 27     | 12     | 14     | 5.2    |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 11     | 15     | 17     | 9.9    | 11     | 15     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | < 0.2  | < 0.2  | < 0.2  | < 0.2  | < 0.2  | 0.5    |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg | 0.4    | 0.6    | 0.5    | 0.6    | 0.6    | < 0.2  |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.2    | 0.2    | 0.5    | 0.4    | 0.4    | 0.2    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 4.6    | 11     | 4.4    | 2.9    | 3.0    | 14     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 33     | 76     | 52     | 19     | 51     | 17     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 84     | 160    | 74     | 29     | 83     | 7.6    |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.10   | 0.12   | 0.06   | < 0.05 | 0.06   | < 0.05 |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 11     | 26     | 6.4    | 3.9    | 5.9    | 26     |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg | 1.1    | 1.7    | 0.7    | < 0.5  | 0.7    | < 0.5  |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg | 12     | 23     | 11     | 5.2    | 8.2    | 14     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 25     | 50     | 23     | 16     | 15     | 79     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      | pH    | 4.4    | 4.5    | 4.9    | 3.9    | 3.8    | 4.8    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.5    | 0.5    | 0.4    | 0.4    | 0.4    | < 0.1  |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 11     | 7.4    | 13     | 20     | 14     | 7.4    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |        |        |        |        |        |        |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        |        |        |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        |        |        |        |        |
| <b>PAHs</b>                     |             |      |       |        |        |        |        |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg | 0.06   | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 0.07   | 0.06   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg | 0.08   | 0.12   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg | 0.17   | 0.18   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg | 0.13   | 0.15   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg | 0.12   | 0.12   | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg | < 0.35 | < 0.48 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| <b>Phenols</b>                  |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg | 1.8    | 1.9    | 2.2    | 2.0    | 2.2    | < 0.3  |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2

Client Ref 8053

Contract Title Afan Valley

| Lab No        | 2006768    | 2006769    | 2006770    | 2006771    | 2006772    | 2006773    |
|---------------|------------|------------|------------|------------|------------|------------|
| Sample ID     | TP14       | TP01       | TP03       | TP07       | TP19       | TP23       |
| Depth         | 0.30       | 0.10       | 0.20       | 0.30       | 0.20       | 0.10       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 03/05/2022 | 03/05/2022 | 03/05/2022 | 04/05/2022 | 04/05/2022 | 04/05/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 6.7    | 37     | 20     | 11     | 35     | 13     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 11     | 23     | 21     | 25     | 16     | 17     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 0.3    | 0.2    | 0.5    | 0.8    | 0.3    | 0.3    |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg | < 0.2  | 0.4    | < 0.2  | < 0.2  | 0.4    | 0.4    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | < 0.1  | 0.2    | 0.3    | 0.1    | 0.1    | < 0.1  |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 13     | 6.9    | 12     | 22     | 12     | 14     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 7.4    | 24     | 20     | 37     | 22     | 19     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 7.9    | 31     | 20     | 22     | 39     | 13     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 0.05   | < 0.05 |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 13     | 8.3    | 17     | 35     | 13     | 9.2    |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg | < 0.5  | < 0.5  | 0.8    | < 0.5  | 0.6    | 1.1    |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg | 16     | 9.6    | 17     | 22     | 24     | 21     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 43     | 28     | 53     | 90     | 42     | 27     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      | pH    | 4.5    | 4.7    | 5.0    | 5.8    | 4.6    | 4.7    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.2    | 0.4    | 0.2    | < 0.1  | 0.5    | 0.3    |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 11     | 12     | 1.7    | 0.4    | 2.2    | 0.9    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |        |        |        |        |        |        |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        |        |        |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        |        |        |        |        |
| <b>PAHs</b>                     |             |      |       |        |        |        |        |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| <b>Phenols</b>                  |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg | < 0.3  | 2.3    | 0.8    | < 0.3  | 0.9    | 0.6    |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2  
 Client Ref 8053  
 Contract Title Afan Valley

| Lab No        | 2006774    | 2017265    | 2017266    | 2017267    | 2017268    | 2017269    |
|---------------|------------|------------|------------|------------|------------|------------|
| .Sample ID    | TP23       | Y03        | Y17        | Y14        | Y10        | TP11       |
| Depth         | 0.30       | 0.30       | 0.30       | 0.40       | 0.20       | 0.05       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 04/05/2022 | 06/05/2022 | 05/05/2022 | 05/05/2022 | 05/05/2022 | 28/04/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |        |      |      |      |      |      |
|---------------------------------|-------------|------|-------|--------|------|------|------|------|------|
| <b>Metals</b>                   |             |      |       |        |      |      |      |      |      |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 19     |      |      |      |      |      |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 22     |      |      |      |      |      |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 0.4    |      |      |      |      |      |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg | 0.3    |      |      |      |      |      |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.1    |      |      |      |      |      |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 19     |      |      |      |      |      |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  |      |      |      |      |      |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 20     |      |      |      |      |      |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 18     |      |      |      |      |      |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.05   |      |      |      |      |      |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 20     |      |      |      |      |      |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg | 2.1    |      |      |      |      |      |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg | 29     |      |      |      |      |      |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 38     |      |      |      |      |      |
| <b>Inorganics</b>               |             |      |       |        |      |      |      |      |      |
| pH                              | DETSC 2008# |      | pH    | 4.5    | 4.7  | 5.0  | 5.1  | 5.1  | 5.7  |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.3    |      |      |      |      |      |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 1.7    |      |      |      |      |      |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |        | 25   | 15   | 12   | 15   | 34   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        | 0.02 | 0.02 | 0.03 | 0.02 | 0.08 |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        | 0.07 | 0.06 | 0.08 | 0.05 | 0.30 |
| <b>PAHs</b>                     |             |      |       |        |      |      |      |      |      |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg | < 0.03 |      |      |      |      |      |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg | < 0.10 |      |      |      |      |      |
| <b>Phenols</b>                  |             |      |       |        |      |      |      |      |      |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg | < 0.3  |      |      |      |      |      |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2

Client Ref 8053

Contract Title Afan Valley

| Lab No        | 2017270    | 2017271    | 2017272    | 2017273    | 2017274    | 2017617    |
|---------------|------------|------------|------------|------------|------------|------------|
| .Sample ID    | TP13       | TP24       | TP26       | TP05       | TP20       | Y01        |
| Depth         | 0.30       | 0.50       | 0.40       | 1.20       | 0.80       | 0.20       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 28/04/2022 | 29/04/2022 | 29/04/2022 | 03/05/2022 | 04/05/2022 | 27/05/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |      |      |      |        |      |        |
|---------------------------------|-------------|------|-------|------|------|------|--------|------|--------|
| <b>Metals</b>                   |             |      |       |      |      |      |        |      |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg |      |      |      |        |      | 58     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |      |      |      |        |      | 13     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |      |      |      |        |      | 0.2    |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg |      |      |      |        |      | 0.4    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg |      |      |      |        |      | < 0.1  |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg |      |      |      |        |      | 8.1    |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |      |      |      |        |      | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg |      |      |      |        |      | 30     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg |      |      |      |        |      | 41     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg |      |      |      |        |      | 0.06   |
| Nickel                          | DETSC 2301# | 1    | mg/kg |      |      |      |        |      | 6.8    |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg |      |      |      |        |      | 1.0    |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg |      |      |      |        |      | 21     |
| Zinc                            | DETSC 2301# | 1    | mg/kg |      |      |      |        |      | 39     |
| <b>Inorganics</b>               |             |      |       |      |      |      |        |      |        |
| pH                              | DETSC 2008# |      | pH    | 4.8  | 4.8  | 5.1  | 5.2    | 5.2  | 4.3    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg |      |      |      |        |      | 0.5    |
| Organic matter                  | DETSC 2002# | 0.1  | %     |      |      |      |        |      | 6.1    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 14   | 16   | 14   | 11     | 18   |        |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.02 | 0.03 | 0.02 | < 0.01 | 0.01 |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.06 | 0.10 | 0.05 | 0.01   | 0.03 |        |
| <b>PAHs</b>                     |             |      |       |      |      |      |        |      |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg |      |      |      |        |      | < 0.03 |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg |      |      |      |        |      | < 0.10 |
| <b>Phenols</b>                  |             |      |       |      |      |      |        |      |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg |      |      |      |        |      | < 0.3  |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2  
 Client Ref 8053  
 Contract Title Afan Valley

| Lab No        | 2017618    | 2017619    | 2017620    | 2017621    | 2017622    | 2017623    |
|---------------|------------|------------|------------|------------|------------|------------|
| .Sample ID    | Y04        | Y05        | Y08        | Y08        | Y31        | Y31        |
| Depth         | 0.10       | 0.10       | 0.10       | 0.40       | 0.10       | 0.30       |
| Other ID      |            |            |            |            |            |            |
| Sample Type   | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sampling Date | 27/05/2022 | 27/05/2022 | 27/05/2022 | 27/05/2022 | 27/05/2022 | 27/05/2022 |
| Sampling Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 110    | 9.2    | 380    | 63     | 170    | 50     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 9.5    | 15     | 17     | 8.6    | 13     | 19     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | < 0.2  | < 0.2  | 0.5    | 0.2    | 0.2    | 0.6    |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg | 0.5    | 0.3    | 0.4    | < 0.2  | 0.3    | < 0.2  |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | < 0.1  | 0.1    | 0.2    | < 0.1  | 0.1    | 0.1    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 4.6    | 4.8    | 6.3    | 9.2    | 7.6    | 9.7    |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 46     | 41     | 61     | 19     | 40     | 32     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 52     | 88     | 110    | 27     | 110    | 29     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.06   | 0.17   | 0.14   | < 0.05 | 0.14   | 0.06   |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 1.9    | 16     | 12     | 16     | 9.2    | 18     |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg | < 0.5  | 0.6    | 1.8    | < 0.5  | 0.7    | 0.6    |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg | 18     | 9.9    | 20     | 12     | 17     | 15     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 9.8    | 33     | 30     | 35     | 22     | 44     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      | pH    | 4.2    | 3.7    | 4.4    | 4.4    | 4.3    | 4.9    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.1    | 0.4    | 0.7    | 0.5    | 0.6    | 0.3    |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 5.1    | 19     | 20     | 7.5    | 12     | 2.9    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |        |        |        | < 10   |        | < 10   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        |        | 0.03   |        | 0.03   |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        |        | 0.07   |        | 0.07   |
| <b>PAHs</b>                     |             |      |       |        |        |        |        |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg | < 0.03 | 0.04   | 0.04   | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.04   | 0.04   | < 0.03 | < 0.03 | < 0.03 |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| <b>Phenols</b>                  |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg | < 0.3  | 0.7    | 1.6    | 0.6    | 0.9    | < 0.3  |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2  
 Client Ref 8053  
 Contract Title Afan Valley

| Lab No        | 2017857    | 2027147 | 2027148 | 2027149 | 2027150 | 2027151 |
|---------------|------------|---------|---------|---------|---------|---------|
| .Sample ID    | Y04        | BH02    | BH02    | BH02    | BH02    | BH4     |
| Depth         | 0.30       | 0.70    | 1.80    | 3.00    | 7.00    | 0.50    |
| Other ID      |            |         |         |         |         |         |
| Sample Type   | SOIL       | SOIL    | SOIL    | SOIL    | SOIL    | SOIL    |
| Sampling Date | 27/05/2022 | n/s     | n/s     | n/s     | n/s     | n/s     |
| Sampling Time | n/s        | n/s     | n/s     | n/s     | n/s     | n/s     |

| Test                            | Method      | LOD  | Units |      |        |        |      |        |        |
|---------------------------------|-------------|------|-------|------|--------|--------|------|--------|--------|
| <b>Metals</b>                   |             |      |       |      |        |        |      |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg |      |        |        |      |        |        |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |      |        |        |      |        |        |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |      |        |        |      |        |        |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg |      |        |        |      |        |        |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg |      |        |        |      |        |        |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg |      |        |        |      |        |        |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |      |        |        |      |        |        |
| Copper                          | DETSC 2301# | 0.2  | mg/kg |      |        |        |      |        |        |
| Lead                            | DETSC 2301# | 0.3  | mg/kg |      |        |        |      |        |        |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg |      |        |        |      |        |        |
| Nickel                          | DETSC 2301# | 1    | mg/kg |      |        |        |      |        |        |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg |      |        |        |      |        |        |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg |      |        |        |      |        |        |
| Zinc                            | DETSC 2301# | 1    | mg/kg |      |        |        |      |        |        |
| <b>Inorganics</b>               |             |      |       |      |        |        |      |        |        |
| pH                              | DETSC 2008# |      | pH    | 4.7  | 7.3    | 7.5    | 6.6  | 7.2    | 7.0    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg |      |        |        |      |        |        |
| Organic matter                  | DETSC 2002# | 0.1  | %     |      |        |        |      |        |        |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | < 10 | 44     | 27     | 41   | 28     | 19     |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.02 | < 0.01 | < 0.01 | 0.01 | < 0.01 | < 0.01 |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.04 | 0.01   | 0.01   | 0.03 | < 0.01 | < 0.01 |
| <b>PAHs</b>                     |             |      |       |      |        |        |      |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg |      |        |        |      |        |        |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg |      |        |        |      |        |        |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg |      |        |        |      |        |        |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg |      |        |        |      |        |        |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg |      |        |        |      |        |        |
| <b>Phenols</b>                  |             |      |       |      |        |        |      |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg |      |        |        |      |        |        |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2

Client Ref 8053

Contract Title Afan Valley

| Lab No        | 2027152 | 2027153 | 2027154 | 2027155 | 2027156 | 2027157 |
|---------------|---------|---------|---------|---------|---------|---------|
| .Sample ID    | BH4     | BH4     | BH4     | BH7     | BH7     | BH7     |
| Depth         | 1.00    | 4.50    | 5.10    | 4.30    | 5.60    | 7.00    |
| Other ID      |         |         |         |         |         |         |
| Sample Type   | SOIL    | SOIL    | SOIL    | SOIL    | SOIL    | SOIL    |
| Sampling Date | n/s     | n/s     | n/s     | n/s     | n/s     | n/s     |
| Sampling Time | n/s     | n/s     | n/s     | n/s     | n/s     | n/s     |

| Test                            | Method      | LOD  | Units |        |        |        |      |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |      |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg |        |        |        |      |        |        |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |        |        |        |      |        |        |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |        |        |        |      |        |        |
| Boron, Water Soluble            | DETSC 2311# | 0.2  | mg/kg |        |        |        |      |        |        |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg |        |        |        |      |        |        |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg |        |        |        |      |        |        |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |        |        |        |      |        |        |
| Copper                          | DETSC 2301# | 0.2  | mg/kg |        |        |        |      |        |        |
| Lead                            | DETSC 2301# | 0.3  | mg/kg |        |        |        |      |        |        |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg |        |        |        |      |        |        |
| Nickel                          | DETSC 2301# | 1    | mg/kg |        |        |        |      |        |        |
| Selenium                        | DETSC 2301# | 0.5  | mg/kg |        |        |        |      |        |        |
| Vanadium                        | DETSC 2301# | 0.8  | mg/kg |        |        |        |      |        |        |
| Zinc                            | DETSC 2301# | 1    | mg/kg |        |        |        |      |        |        |
| <b>Inorganics</b>               |             |      |       |        |        |        |      |        |        |
| pH                              | DETSC 2008# |      | pH    | 6.4    | 8.3    | 8.4    | 5.7  | 6.5    | 5.8    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg |        |        |        |      |        |        |
| Organic matter                  | DETSC 2002# | 0.1  | %     |        |        |        |      |        |        |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 13     | 19     | 15     | 12   | 11     | < 10   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | < 0.01 | 0.01   | 0.01   | 0.01 | < 0.01 | < 0.01 |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.01   | < 0.01 | < 0.01 | 0.02 | 0.01   | 0.01   |
| <b>PAHs</b>                     |             |      |       |        |        |        |      |        |        |
| Acenaphthene                    | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Acenaphthylene                  | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Anthracene                      | DETSC 3303  | 0.03 | mg/kg |        |        |        |      |        |        |
| Benzo(a)anthracene              | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Benzo(a)pyrene                  | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Benzo(b)fluoranthene            | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Benzo(g,h,i)perylene            | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Benzo(k)fluoranthene            | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Chrysene                        | DETSC 3303  | 0.03 | mg/kg |        |        |        |      |        |        |
| Dibenzo(a,h)anthracene          | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Fluoranthene                    | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Fluorene                        | DETSC 3303  | 0.03 | mg/kg |        |        |        |      |        |        |
| Indeno(1,2,3-c,d)pyrene         | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Naphthalene                     | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Phenanthrene                    | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| Pyrene                          | DETSC 3303# | 0.03 | mg/kg |        |        |        |      |        |        |
| PAH - USEPA 16, Total           | DETSC 3303  | 0.1  | mg/kg |        |        |        |      |        |        |
| <b>Phenols</b>                  |             |      |       |        |        |        |      |        |        |
| Phenol - Monohydric             | DETSC 2130# | 0.3  | mg/kg |        |        |        |      |        |        |

## Summary of Chemical Analysis Soil Samples

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,2

Client Ref 8053

Contract Title Afan Valley

| Lab No        | 2027158 | 2027159 | 2027160 | 2027161 | 2027162 |
|---------------|---------|---------|---------|---------|---------|
| Sample ID     | BH7     | BH11    | BH11    | BH11    | BH11    |
| Depth         | 8.20    | 1.10    | 3.50    | 5.00    | 6.50    |
| Other ID      |         |         |         |         |         |
| Sample Type   | SOIL    | SOIL    | SOIL    | SOIL    | SOIL    |
| Sampling Date | n/s     | n/s     | n/s     | n/s     | n/s     |
| Sampling Time | n/s     | n/s     | n/s     | n/s     | n/s     |

| Test                            | Method     | LOD  | Units |        |        |        |        |        |
|---------------------------------|------------|------|-------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |            |      |       |        |        |        |        |        |
| Arsenic                         | DETS 2301# | 0.2  | mg/kg |        |        |        |        |        |
| Barium                          | DETS 2301# | 1.5  | mg/kg |        |        |        |        |        |
| Beryllium                       | DETS 2301# | 0.2  | mg/kg |        |        |        |        |        |
| Boron, Water Soluble            | DETS 2311# | 0.2  | mg/kg |        |        |        |        |        |
| Cadmium                         | DETS 2301# | 0.1  | mg/kg |        |        |        |        |        |
| Chromium                        | DETS 2301# | 0.15 | mg/kg |        |        |        |        |        |
| Chromium, Hexavalent            | DETS 2204* | 1    | mg/kg |        |        |        |        |        |
| Copper                          | DETS 2301# | 0.2  | mg/kg |        |        |        |        |        |
| Lead                            | DETS 2301# | 0.3  | mg/kg |        |        |        |        |        |
| Mercury                         | DETS 2325# | 0.05 | mg/kg |        |        |        |        |        |
| Nickel                          | DETS 2301# | 1    | mg/kg |        |        |        |        |        |
| Selenium                        | DETS 2301# | 0.5  | mg/kg |        |        |        |        |        |
| Vanadium                        | DETS 2301# | 0.8  | mg/kg |        |        |        |        |        |
| Zinc                            | DETS 2301# | 1    | mg/kg |        |        |        |        |        |
| <b>Inorganics</b>               |            |      |       |        |        |        |        |        |
| pH                              | DETS 2008# |      | pH    | 5.7    | 7.1    | 6.8    | 7.0    | 7.5    |
| Cyanide, Total                  | DETS 2130# | 0.1  | mg/kg |        |        |        |        |        |
| Organic matter                  | DETS 2002# | 0.1  | %     |        |        |        |        |        |
| Sulphate Aqueous Extract as SO4 | DETS 2076# | 10   | mg/l  | 12     | 11     | < 10   | < 10   | < 10   |
| Sulphur as S, Total             | DETS 2320  | 0.01 | %     | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sulphate as SO4, Total          | DETS 2321# | 0.01 | %     | 0.02   | < 0.01 | 0.03   | < 0.01 | < 0.01 |
| <b>PAHs</b>                     |            |      |       |        |        |        |        |        |
| Acenaphthene                    | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Acenaphthylene                  | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Anthracene                      | DETS 3303  | 0.03 | mg/kg |        |        |        |        |        |
| Benzo(a)anthracene              | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Benzo(a)pyrene                  | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Benzo(b)fluoranthene            | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Benzo(g,h,i)perylene            | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Benzo(k)fluoranthene            | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Chrysene                        | DETS 3303  | 0.03 | mg/kg |        |        |        |        |        |
| Dibenzo(a,h)anthracene          | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Fluoranthene                    | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Fluorene                        | DETS 3303  | 0.03 | mg/kg |        |        |        |        |        |
| Indeno(1,2,3-c,d)pyrene         | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Naphthalene                     | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Phenanthrene                    | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| Pyrene                          | DETS 3303# | 0.03 | mg/kg |        |        |        |        |        |
| PAH - USEPA 16, Total           | DETS 3303  | 0.1  | mg/kg |        |        |        |        |        |
| <b>Phenols</b>                  |            |      |       |        |        |        |        |        |
| Phenol - Monohydric             | DETS 2130# | 0.3  | mg/kg |        |        |        |        |        |

## Summary of Asbestos Analysis Soil Samples

*Our Ref* 22-07670,22-08842,22-08843,22-10620,22-10686,22-10718,22-12350

*Client Ref* 8053

*Contract Title* Afan Valley

| Lab No  | Sample ID | Material Type | Result | Comment* | Analyst         |
|---------|-----------|---------------|--------|----------|-----------------|
| 1999518 | Y16 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999519 | Y19 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999520 | Y20 0.15  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999521 | Y21 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999522 | Y22 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999523 | Y22 0.20  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999524 | Y23 0.20  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999525 | Y24 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999526 | Y25 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999527 | Y26 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999528 | Y27 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999529 | Y28 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999530 | Y29 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999531 | Y30 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999532 | Y33 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999533 | Y35 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999534 | Y34 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 1999535 | Y36 0.10  | SOIL          | NAD    | none     | Darryl Fletcher |
| 2006750 | Y17 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006751 | Y07 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006752 | Y9 0.10   | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006753 | Y14 0.20  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006754 | Y10 0.05  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006755 | Y15 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006756 | Y11 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006757 | Y12 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006758 | Y13 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006759 | Y18 0.05  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006760 | Y06 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006761 | Y03 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006762 | Y02 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006763 | Y32 0.05  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006764 | TP12 0.10 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006765 | TP06 0.20 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006766 | TP04 0.10 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006767 | TP04 0.50 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006768 | TP14 0.30 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006769 | TP01 0.10 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006770 | TP03 0.20 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006771 | TP07 0.30 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006772 | TP19 0.20 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006773 | TP23 0.10 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2006774 | TP23 0.30 | SOIL          | NAD    | none     | Lee Kerridge    |
| 2017617 | Y01 0.20  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2017618 | Y04 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |
| 2017619 | Y05 0.10  | SOIL          | NAD    | none     | Lee Kerridge    |

## Summary of Asbestos Analysis Soil Samples

*Our Ref* 22-07670,22-08842,22-08843,22-10620,22-10686,22-10718,22-12350

*Client Ref* 8053

*Contract Title* Afan Valley

| Lab No  | Sample ID | Material Type | Result | Comment* | Analyst      |
|---------|-----------|---------------|--------|----------|--------------|
| 2017620 | Y08 0.10  | SOIL          | NAD    | none     | Lee Kerridge |
| 2017621 | Y08 0.40  | SOIL          | NAD    | none     | Lee Kerridge |
| 2017622 | Y31 0.10  | SOIL          | NAD    | none     | Lee Kerridge |
| 2017623 | Y31 0.30  | SOIL          | NAD    | none     | Lee Kerridge |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* - not included in laboratory scope of accreditation.

## Information in Support of the Analytical Results

Our Ref 22-07670,22-08842,22-08843,22-10620,22-10686,22-10718,22-12350  
 Client Ref 8053  
 Contract Afan Valley

### Containers Received & Deviating Samples

| Lab No  | Sample ID     | Date Sampled | Containers Received | Holding time exceeded for tests | Inappropriate container for tests |
|---------|---------------|--------------|---------------------|---------------------------------|-----------------------------------|
| 1999518 | Y16 0.10 SOIL | 14/04/22     | GJ 250ml, PT 1L     |                                 |                                   |
| 1999519 | Y19 0.10 SOIL | 14/04/22     | GJ 250ml, PT 1L     |                                 |                                   |
| 1999520 | Y20 0.15 SOIL | 14/04/22     | GJ 250ml, PT 1L     |                                 |                                   |
| 1999521 | Y21 0.10 SOIL | 13/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999522 | Y22 0.10 SOIL | 14/04/22     | GJ 250ml, PT 1L     |                                 |                                   |
| 1999523 | Y22 0.20 SOIL | 14/04/22     | GJ 250ml, PT 1L     |                                 |                                   |
| 1999524 | Y23 0.20 SOIL | 13/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999525 | Y24 0.10 SOIL | 14/04/22     | GJ 250ml, PT 1L     |                                 |                                   |
| 1999526 | Y25 0.10 SOIL | 12/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999527 | Y26 0.10 SOIL | 12/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999528 | Y27 0.10 SOIL | 12/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999529 | Y28 0.10 SOIL | 12/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999530 | Y29 0.10 SOIL | 14/04/22     | GJ 250ml, PT 1L     |                                 |                                   |
| 1999531 | Y30 0.10 SOIL | 13/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999532 | Y33 0.10 SOIL | 12/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999533 | Y35 0.10 SOIL | 12/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999534 | Y34 0.10 SOIL | 12/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |
| 1999535 | Y36 0.10 SOIL | 12/04/22     | GJ 250ml, PT 1L     | pH + Conductivity (7 days)      |                                   |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

### Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

## Appendix A - Details of Analysis

| Method     | Parameter                                   | Units    | Limit of Detection | Sample Preparation | Sub-Contracted | UKAS | MCERTS |
|------------|---------------------------------------------|----------|--------------------|--------------------|----------------|------|--------|
| DETSC 2002 | Organic matter                              | %        | 0.1                | Air Dried          | No             | Yes  | Yes    |
| DETSC 2003 | Loss on ignition                            | %        | 0.01               | Air Dried          | No             | Yes  | Yes    |
| DETSC 2008 | pH                                          | pH Units | 1                  | Air Dried          | No             | Yes  | Yes    |
| DETSC 2024 | Sulphide                                    | mg/kg    | 10                 | Air Dried          | No             | Yes  | Yes    |
| DETSC 2076 | Sulphate Aqueous Extract as SO <sub>4</sub> | mg/l     | 10                 | Air Dried          | No             | Yes  | Yes    |
| DETSC 2084 | Total Carbon                                | %        | 0.5                | Air Dried          | No             | Yes  | Yes    |
| DETSC 2084 | Total Organic Carbon                        | %        | 0.5                | Air Dried          | No             | Yes  | Yes    |
| DETSC 2119 | Ammoniacal Nitrogen as N                    | mg/kg    | 0.5                | Air Dried          | No             | Yes  | Yes    |
| DETSC 2130 | Cyanide free                                | mg/kg    | 0.1                | Air Dried          | No             | Yes  | Yes    |
| DETSC 2130 | Cyanide total                               | mg/kg    | 0.1                | Air Dried          | No             | Yes  | Yes    |
| DETSC 2130 | Phenol - Monohydric                         | mg/kg    | 0.3                | Air Dried          | No             | Yes  | Yes    |
| DETSC 2130 | Thiocyanate                                 | mg/kg    | 0.6                | Air Dried          | No             | Yes  | Yes    |
| DETSC 2321 | Total Sulphate as SO <sub>4</sub>           | %        | 0.01               | Air Dried          | No             | Yes  | Yes    |
| DETSC 2325 | Mercury                                     | mg/kg    | 0.05               | Air Dried          | No             | Yes  | Yes    |
| DETSC 3049 | Sulphur (free)                              | mg/kg    | 0.75               | Air Dried          | No             | Yes  | Yes    |
| DETSC2123  | Boron (water soluble)                       | mg/kg    | 0.2                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Arsenic                                     | mg/kg    | 0.2                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Barium                                      | mg/kg    | 1.5                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Beryllium                                   | mg/kg    | 0.2                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Cadmium Available                           | mg/kg    | 0.1                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Cadmium                                     | mg/kg    | 0.1                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Cobalt                                      | mg/kg    | 0.7                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Chromium                                    | mg/kg    | 0.15               | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Copper                                      | mg/kg    | 0.2                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Manganese                                   | mg/kg    | 20                 | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Molybdenum                                  | mg/kg    | 0.4                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Nickel                                      | mg/kg    | 1                  | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Lead                                        | mg/kg    | 0.3                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Selenium                                    | mg/kg    | 0.5                | Air Dried          | No             | Yes  | Yes    |
| DETSC2301  | Zinc                                        | mg/kg    | 1                  | Air Dried          | No             | Yes  | Yes    |
| DETSC 3072 | Alk/Aro C10-C35                             | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aliphatic C10-C12                           | mg/kg    | 1.5                | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aliphatic C10-C12                           | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aliphatic C10-C35                           | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aliphatic C12-C16                           | mg/kg    | 1.2                | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aliphatic C12-C16                           | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aliphatic C16-C21                           | mg/kg    | 1.5                | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aliphatic C16-C21                           | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aliphatic C21-C35                           | mg/kg    | 3.4                | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aliphatic C21-C35                           | mg/kg    | 3.4                | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aromatic C10-C12                            | mg/kg    | 0.9                | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aromatic C10-C12                            | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aromatic C10-C35                            | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aromatic C12-C16                            | mg/kg    | 0.5                | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aromatic C12-C16                            | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aromatic C16-C21                            | mg/kg    | 0.6                | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aromatic C16-C21                            | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aromatic C21-C35                            | mg/kg    | 1.4                | As Received        | No             | Yes  | Yes    |
| DETSC 3072 | Aromatic C21-C35                            | mg/kg    | 1.4                | As Received        | No             | Yes  | Yes    |
| DETS 062   | Benzene                                     | mg/kg    | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 062   | Ethylbenzene                                | mg/kg    | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 062   | Toluene                                     | mg/kg    | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 062   | Xylene                                      | mg/kg    | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 062   | m+p Xylene                                  | mg/kg    | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 062   | o Xylene                                    | mg/kg    | 0.01               | As Received        | No             | Yes  | Yes    |
| DETSC 3311 | C10-C24 Diesel Range Organics (DRO)         | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3311 | C24-C40 Lube Oil Range Organics (LORO)      | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |
| DETSC 3311 | EPH (C10-C40)                               | mg/kg    | 10                 | As Received        | No             | Yes  | Yes    |

## Appendix A - Details of Analysis

| Method     | Parameter               | Units | Limit of Detection | Sample Preparation | Sub-Contracted | UKAS | MCERTS |
|------------|-------------------------|-------|--------------------|--------------------|----------------|------|--------|
| DETSC 3303 | Acenaphthene            | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Acenaphthylene          | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Benzo(a)pyrene          | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Benzo(a)anthracene      | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Benzo(b)fluoranthene    | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Benzo(k)fluoranthene    | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Benzo(g,h,i)perylene    | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Dibenzo(a,h)anthracene  | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Fluoranthene            | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Indeno(1,2,3-c,d)pyrene | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Naphthalene             | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Phenanthrene            | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3303 | Pyrene                  | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETSC 3401 | PCB 28 + PCB 31         | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETSC 3401 | PCB 52                  | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETSC 3401 | PCB 101                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETSC 3401 | PCB 118                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETSC 3401 | PCB 153                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETSC 3401 | PCB 138                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETSC 3401 | PCB 180                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETSC 3401 | PCB Total               | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

End of Report