

FACTUAL REPORT – INITIAL TRIAL PITTING.

## SSI REDCAR – SSI 2

*Prepared for*

South Tees Site Company

November 2017



Dunedin House Riverside  
Teesdale Business Park  
Stockton-on-Tees,  
TS17 6BJ  
GB  
+44 1642 632 800

## Exploratory hole Location Plan



NOTES

1. POSITIONS SUBJECT TO CHANGE ON SITE, INDICATIVE ONLY.
2. DIMENSIONS SHOWN IN METRES.
3. TRIAL PIT DIMENSIONS SUBJECT TO GROUND CONDITIONS ENCOUNTERED.

KEY

- AS DUG TRIAL PITS MAXIMUM 4.5M DEEP, 4M LONG, 1.5M WIDE  
TOTAL = 68 HOLES

| Rev | By | Chkd | Apprvd | Date | Description |
|-----|----|------|--------|------|-------------|
|     |    |      |        |      |             |

Client



Homes & Communities Agency

CH2M  
Dunedin House, Riverside, Stockton-on-Tees  
Tel +44 (0)1642 632800  
www.CH2M.com



Project

SSI REDCAR

Drawing

Ground Investigation  
As Dug Exploratory  
Hole Location Plan - SSI 2

Drawn by: KW  
Checked by: IDK  
Approved by: IDK

Date: 2/08/2017  
Date: 2/08/2017  
Date: 2/08/2017

Drawing No.

678079\_600\_011

Revision

-

Drawing Scale: 1:2500 @ A1; 1:5000 @A3

## Exploratory hole logs

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 456151.00 - 526139.00  
Level:Date  
30/05/2017

Location: SSI Redcar

Dimensions  
(m):

5

Scale  
1:25

Client: Homes and Communities Agency

Depth  
4.80

2.3

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                         |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                             |
|                 | 0.30                        | ES   |         |              |              |        | MADE GROUND: Loose dark brown very sandy fine to coarse, angular to subangular GRAVEL with low cobble and boulder content. Gravel consists of slag, concrete, rare scrap metal and refractory brick.<br>MGR |
|                 |                             |      |         |              |              |        | From 1.5m: Rare steel wire/bars and plastics with low to medium cobble content, low cobble content.                                                                                                         |
|                 |                             |      |         |              |              |        | From 2.5m: rare large boulders (>600mm) and timber fragments.                                                                                                                                               |
|                 |                             |      |         |              |              |        | From 3.2m: Dense to very dense slag.                                                                                                                                                                        |
|                 | 3.40                        | LB   |         |              |              |        |                                                                                                                                                                                                             |
|                 |                             |      |         | 4.80         |              |        | End of pit at 4.80 m                                                                                                                                                                                        |

1

2

3

4

5

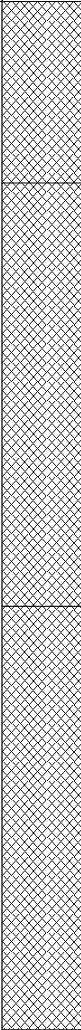
Remarks:

Stability:



|                                                                                   |  |  |  |                                                    |  |                                                                                            |                                               |                    |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|--------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                            | Trialpit No<br><b>S2-TP07</b><br>Sheet 1 of 1 |                    |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 456377.00 - 526040.00<br>Level:                                                   |                                               | Date<br>25/05/2017 |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):                                    |  | <div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto;"></div> |                                               | Scale<br>1:25      |  |
| Client: Homes and Communities Agency                                              |  |  |  | Depth<br>3.40                                      |  |                                                                                            |                                               | Logged<br>JNB      |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                             | Stratum Description                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                          |  |
|--------------|-----------------------------|------|---------|-----------|-----------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|              | Depth                       | Type | Results |           |           |                                                                                    |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                          |  |
|              | 0.80                        | ES   |         | 0.60      |           |  | MADE GROUND: Loose black slightly silty very sandy medium to coarse, angular to subrounded GRAVEL of various lithologies and occasional coal/coke.<br>MGR<br>                                                                                   | <div style="margin-bottom: 100px;">1</div> <div style="margin-bottom: 100px;">2</div> <div style="margin-bottom: 100px;">3</div> <div style="margin-bottom: 100px;">4</div> <div>5</div> |  |
|              |                             |      |         | 2.00      |           |                                                                                    | MADE GROUND: Loose brown very sandy fine to coarse, angular to subangular GRAVEL of slag and brick and occasional layer of clinker and metalliferous aerated slag with low to medium cobble content of brick, with rare steel sheet.<br>MGR<br> |                                                                                                                                                                                          |  |
|              | 2.50 - 3.00                 | B    |         | 3.40      |           |                                                                                    | MADE GROUND: Loose yellowish brown slightly gravelly, fine to coarse SAND (Possible Natural).<br>MGR<br>                                                                                                                                      |                                                                                                                                                                                          |  |
|              |                             |      |         |           |           |                                                                                    | End of pit at 3.40 m                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                          |  |

|            |  |                                                                                       |
|------------|--|---------------------------------------------------------------------------------------|
| Remarks:   |  |  |
| Stability: |  |                                                                                       |

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 456430.00 - 526037.00

Level:

Date

25/05/2017

Location: SSI Redcar

Dimensions  
(m):

4.2

Scale

1:25

Client: Homes and Communities Agency

Depth  
4.60

2.2

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                             |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                                                 |   |
|                 |                             |      |         | 0.05         |              |        | TOPSOIL<br>TPS<br>MADE GROUND: Loose brown gravelly fine to coarse SAND with low cobble content. Gravel is fine to coarse, angular to subangular of slag, brick fragments and aerated slag.<br>MGR                                                              |   |
|                 |                             |      |         | 0.60         |              |        | MADE GROUND: Loose light grey sandy fine to coarse, angular to subangular GRAVEL with low cobble and boulder content of aerated slag.<br>MGR                                                                                                                    |   |
|                 |                             |      |         | 1.10         |              |        | MADE GROUND: Loose black slightly silty very sandy fine to coarse GRAVEL with low cobble content.<br>MGR                                                                                                                                                        | 1 |
|                 |                             |      |         | 1.30         |              |        | MADE GROUND: Loose yellowish red sandy fine to coarse, angular to subangular GRAVEL of refractory brick with medium to high cobble content of refractory brick.<br>MGR                                                                                          |   |
|                 |                             |      |         | 1.80         |              |        | MADE GROUND: Loose light grey sandy fine to coarse, angular to subangular GRAVEL of aerated slag with low cobble content of refractory brick.<br>MGR                                                                                                            | 2 |
|                 |                             |      |         | 2.40         |              |        | MADE GROUND: Loose to medium dense brown very sandy, fine to coarse angular to subangular GRAVEL of slag and refractory brick with high cobble content of refractory brick. Rare pockets of firm to stiff black sandy clay with odour of tar and manure.<br>MGR | 3 |
|                 | 4.00                        | ES   |         |              |              |        |                                                                                                                                                                                                                                                                 | 4 |
|                 | 4.60                        | ES   |         | 4.60         |              |        | End of pit at 4.60 m                                                                                                                                                                                                                                            | 5 |

Remarks:

Stability:

## Trial Pit Log

Trialpit No  
**S2-TP100**

Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

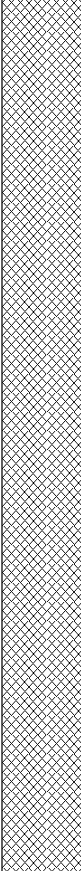
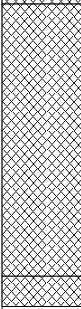
Project No.  
678079Co-ords: 457219.00 - 525178.00  
Level:Date  
02/05/2017

Location: SSI Redcar

Dimensions  
(m):Scale  
1:25

Client: Homes and Communities Agency

Depth  
4.10Logged  
JNB

| Water<br>Strike                                                                     | Samples and In Situ Testing |         |         | Depth<br>(m) | Level<br>(m) | Legend                                                                              | Stratum Description                                                                                                                                                                                                                                                                                                                                                    |   |
|-------------------------------------------------------------------------------------|-----------------------------|---------|---------|--------------|--------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                                                                                     | Depth                       | Type    | Results |              |              |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                        |   |
|                                                                                     | 0.20 - 0.50<br>0.20 - 0.50  | B<br>ES |         | 0.20         |              |    | <p>TOPSOIL: Grass over loose black slightly silty gravelly SAND with low cobble content and abundant rootlets.<br/>TPS</p> <p>MADE GROUND: Loose black slightly silty very gravelly SAND with low cobble and boulder content. Gravel is angular to subrounded, fine to coarse of clinker, red and refractory brick, aerated slag, slag and lumps of steel.<br/>MGR</p> | 1 |
|                                                                                     | 3.10 - 4.00                 | B       |         | 3.10         |              |   | <p>MADE GROUND: Loose yellowish brown gravelly medium to coarse SAND. Gravel is fine to coarse of cemented coal dust.<br/>MGR</p>                                                                                                                                                                                                                                      | 2 |
|  | 4.00 - 4.10                 | ES      |         | 4.00<br>4.10 |              |  | <p>MADE GROUND: Loose blackish brown sandy fine to coarse GRAVEL of clinker with low to medium cobble content.<br/>MGR</p> <p>End of pit at 4.10 m</p>                                                                                                                                                                                                                 | 3 |
|                                                                                     |                             |         |         |              |              |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                        | 4 |
|                                                                                     |                             |         |         |              |              |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                        | 5 |

Remarks:

Stability:

|  |                             |      |         | <h1 style="text-align: center;">Trial Pit Log</h1> |              |                                                                                                                                                                                                                | Trialpit No<br><b>S2-TP11</b><br>Sheet 1 of 1                                                                                                                                                                                                                                                                                           |                    |  |
|-----------------------------------------------------------------------------------|-----------------------------|------|---------|----------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| Project Name: Redcar DVA Initial Ground Investigation                             |                             |      |         | Project No.<br>678079                              |              | Co-ords: 456134.00 - 526100.00<br>Level:                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                         | Date<br>31/05/2017 |  |
| Location: SSI Redcar                                                              |                             |      |         | Dimensions (m):                                    |              | 4.5<br><div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto;"></div>                                                                                                              |                                                                                                                                                                                                                                                                                                                                         | Scale<br>1:25      |  |
| Client: Homes and Communities Agency                                              |                             |      |         | Depth<br>4.10                                      |              | <div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto; position: relative;"> <div style="position: absolute; left: -20px; top: 50%; transform: translateY(-50%);">2.6</div> </div> |                                                                                                                                                                                                                                                                                                                                         | Logged<br>JNB      |  |
| Water<br>Strike                                                                   | Samples and In Situ Testing |      |         | Depth<br>(m)                                       | Level<br>(m) | Legend                                                                                                                                                                                                         | Stratum Description                                                                                                                                                                                                                                                                                                                     |                    |  |
|                                                                                   | Depth                       | Type | Results |                                                    |              |                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                         |                    |  |
|                                                                                   |                             |      |         |                                                    |              |                                                                                                                                                                                                                | <div style="background-color: #f0f0f0; padding: 5px;">           MADE GROUND: Loose to medium dense light brown very sandy fine to coarse, angular to subangular GRAVEL of slag and aerated slag with medium cobble content and low boulder content both of slag and aerated slag with rare plastic and scrap metal. MGR         </div> |                    |  |
|                                                                                   |                             |      |         |                                                    |              |                                                                                                                                                                                                                | <div style="background-color: #f0f0f0; padding: 5px;">           MADE GROUND: Medium dense reddish brown slightly silty very gravelly SAND with medium cobble content. Gravel is fine to coarse, angular to subrounded of slag. MGR         </div>                                                                                      |                    |  |
|                                                                                   | 2.50                        | ES   |         | 2.00                                               |              |                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                         |                    |  |
|                                                                                   |                             |      |         | 4.10                                               |              |                                                                                                                                                                                                                | <div style="border-top: 1px dashed black; padding-top: 10px;">           End of pit at 4.10 m         </div>                                                                                                                                                                                                                            |                    |  |
| Remarks:                                                                          |                             |      |         |                                                    |              |                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                         |                    |  |
| Stability:                                                                        |                             |      |         |                                                    |              |                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                         |                    |  |



Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 456168.00 - 526089.00

Level:

Date

31/05/2017

Location: SSI Redcar

Dimensions  
(m):

5

Scale

1:25

Client: Homes and Communities Agency

Depth  
4.10

2.5

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                          |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                              |   |
|                 |                             |      |         | 1.20         |              |        | MADE GROUND: Loose to medium dense, light grey slightly clayey SAND AND GRAVEL of slag with medium cobble content and low boulder content both of slag. MGR                  | 1 |
|                 |                             |      |         |              |              |        | MADE GROUND: Medium dense light grey very sandy GRAVEL of slag with medium cobble content and low boulder content both of slag and pockets of orange metalliferous slag. MGR | 2 |
|                 | 3.50                        | ES   |         | 3.40         |              |        | MADE GROUND: Very dense black brown slightly silty very gravelly SAND. (Pecker u MGR                                                                                         | 3 |
|                 |                             |      |         | 3.80         |              |        | MADE GROUND: Loose yellow brown, slightly gravelly SAND. MGR                                                                                                                 | 4 |
|                 |                             |      |         | 4.10         |              |        | End of pit at 4.10 m                                                                                                                                                         | 5 |

Remarks:

Stability:

## Trial Pit Log

Trialpit No  
**S2-TP13**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 456218.00 - 526066.00  
Level:

Date  
26/05/2017

Location: SSI Redcar

Dimensions  
(m):

4.4

Scale

1:25

Client: Homes and Communities Agency

Depth  
4.40

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                 |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                     |   |
|                 | 0.30                        | ES   |         |              |              |        | MADE GROUND: Loose to medium dense light brown very sandy fine to coarse, angular to subangular GRAVEL with low cobble content of slag. MGR      |   |
|                 |                             |      |         | 0.60         |              |        | MADE GROUND: Loose to medium dense light reddish brown very sandy very gravelly BOBBLES with medium boulder content of slag. MGR                 |   |
|                 |                             |      |         | 0.90         |              |        | NOT RECORDED<br>MGR                                                                                                                              | 1 |
|                 |                             |      |         | 2.00         |              |        | MADE GROUND: Loose brownish red very gravelly fine to coarse SAND with medium cobble content and low boulder content of slag, rare brick. MGR  | 2 |
|                 | 2.50                        | ES   |         |              |              |        |                                                                                                                                                                                                                                     |   |
|                 |                             |      |         | 2.70         |              |        | MADE GROUND: Firm brown gravelly sandy CLAY. Gravel is fine to coarse of slag, possibly coal/coke. MGR                                         | 3 |
|                 | 3.00                        | D    |         |              |              |        |                                                                                                                                                                                                                                     |   |
|                 |                             |      |         | 3.20         |              |        | MADE GROUND: Loose yellow slightly gravelly medium to coarse SAND. Gravel is fine to coarse of slag. MGR                                                                                                                            |   |
|                 | 3.50                        | ES   |         |              |              |        |                                                                                                                                                                                                                                     |   |
|                 | 4.00 - 4.40                 | B    |         |              |              |        |                                                                                                                                                                                                                                     | 4 |
|                 |                             |      |         | 4.40         |              |        | End of pit at 4.40 m                                                                                                                                                                                                                | 5 |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 456273.00 - 526038.00  
Level:Date  
30/05/2017

Location: SSI Redcar

Dimensions  
(m):

4.1

Scale  
1:25

Client: Homes and Communities Agency

Depth  
3.80

2.4

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                         |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                             |   |
|                 |                             |      |         | 0.10         |              |        | MADE GROUND: Loose to medium dense black slightly silty gravelly fine to coarse SAND with low cobble content of compacted sand with gravel, coke and slag. Fine material is predominantly coal dust.<br>MGR |   |
|                 |                             |      |         |              |              |        | MADE GROUND: Medium dense orangish brown very sandy fine to coarse, angular to subangular GRAVEL with medium cobble and low boulder content of slag.<br>MGR                                                 |   |
|                 |                             |      |         |              |              |        | Becoming greyish brown with high cobble content with occasional slight tar odour.                                                                                                                           | 1 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                             |   |
|                 |                             |      |         |              |              |        | Becoming reddish brown.                                                                                                                                                                                     | 2 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                             |   |
|                 |                             |      |         |              |              |        | Becoming dark brown.                                                                                                                                                                                        |   |
|                 |                             |      |         | 2.80         |              |        | MADE GROUND: Loose yellow slightly gravelly fine to coarse SAND (Possible Natural).<br>MGR                                                                                                                  | 3 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                             |   |
|                 |                             |      |         | 3.80         |              |        | End of pit at 3.80 m                                                                                                                                                                                        | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                             | 5 |

Remarks:

Stability:



Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 456420.00 - 526007.00  
Level:Date  
24/07/2017

Location: SSI Redcar

Dimensions  
(m):

3.9

Client: Homes and Communities Agency

Depth  
4.30

2.4

Scale  
1:25  
Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |         |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                         |   |
|-----------------|-----------------------------|---------|---------|--------------|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type    | Results |              |              |        |                                                                                                                                                                                                                                                             |   |
|                 | 0.30                        | ES      |         |              |              |        | MADE GROUND: Loose to medium dense light brown slightly silty very gravelly fine to coarse SAND with low cobble content of brick. Gravel is fine to coarse, angular to subrounded of aerated slag, slag, brick fragments, coke and possible clinker.<br>MGR | 1 |
|                 | 1.50                        | ES      |         | 1.40         |              |        | MADE GROUND: Up to 1m of loose black slightly silty very sandy GRAVEL of coke interbedded with up to 1m loose to medium dense greyish brown very sandy fine to coarse GRAVEL with medium cobble content of slag and bricks.<br>MGR                          | 2 |
|                 | 4.20<br>4.20 - 4.30         | ES<br>B |         | 4.10<br>4.30 |              |        | MADE GROUND: Loose yellow fine to coarse SAND with occasional shells and shell fragments (Possible Natural).<br>MGR                                                                                                                                         | 4 |
|                 |                             |         |         |              |              |        | End of pit at 4.30 m                                                                                                                                                                                                                                        | 5 |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 456120.00 - 526061.00  
Level:Date  
31/05/2017

Location: SSI Redcar

Dimensions  
(m):

4.5

Scale

1:25

Client: Homes and Communities Agency

Depth  
4.10

2.4

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                 |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                     |   |
|                 |                             |      |         | 0.05         |              |        | MADE GROUND: Loose black silty very gray SAND of coke and coal.<br>MGR                                                                                                                                                              |   |
|                 | 1.50                        | ES   |         |              |              |        | MADE GROUND: Loose to medium dense, light brown very sandy fine to coarse, angular to subrounded GRAVEL of slag with high cobble and medium boulder content of slag. Rare refractory brick and iron discs (~400mm diameter).<br>MGR | 1 |
|                 |                             |      |         | 2.20         |              |        |                                                                                                                                                                                                                                     | 2 |
|                 |                             |      |         |              |              |        | MADE GROUND: Loose to medium dense brown and locally red and light grey, very gravelly SAND with low to medium cobble content and low boulder content all of slag.<br>MGR                                                           | 3 |
|                 | 4.00                        | ES   |         |              |              |        |                                                                                                                                                                                                                                     | 4 |
|                 |                             |      |         | 4.10         |              |        | End of pit at 4.10 m                                                                                                                                                                                                                | 5 |

Remarks:

Stability:

Date  
01/06/2017

Scale  
1:25

Logged  
JNB

5

## Trial Pit Log

Trialpit No  
**S2-TP30**  
Sheet 1 of 2

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 456028.00 - 525987.00  
Level:

Date  
02/06/2017

Location: SSI Redcar

Dimensions  
(m):

5

Scale  
1:25

Client: Homes and Communities Agency

Depth  
5.80

2.5

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                          |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                              |   |
|                 | 0.05                        |      |         |              |              |        | MADE GROUND: Loose black silty very gravelly SAND of coke and coal.<br>MGR                                                                                                                                   |   |
|                 | 1.00 - 1.50                 | LB   |         |              |              |        | MADE GROUND: Medium dense, light greyish brown very sandy fine to coarse, angular to subangular GRAVEL AND COBBLES with medium boulder content of slag.<br>MGR                                               | 1 |
|                 |                             |      |         | 2.40         |              |        |                                                                                                                                                                                                              | 2 |
|                 | 3.00                        | ES   |         |              |              |        | MADE GROUND: Loose to medium dense, orangish brown very sandy GRAVEL with high cobble content and low boulder content, all of slag.<br>MGR                                                                   | 3 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                              | 4 |
|                 | 4.50                        | ES   |         | 4.40         |              |        | MADE GROUND: Medium dense becoming loose black silty very gravelly SAND. Gravel is fine to coarse, angular to subangular of slag, brick fragments and clinker. Slight tar odour. Rare scrap and wire.<br>MGR | 5 |

Continued on next sheet

Remarks:

Stability:





## Trial Pit Log

Trialpit No  
**S2-TP38**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 455970.00 - 525969.00  
Level:

Date  
01/06/2017

Location: SSI Redcar

Dimensions  
(m):

3.9

Client: Homes and Communities Agency

Depth  
3.70

2.2

Scale  
1:25  
Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |
|                 |                             |      |         | 0.05         |              |        | <p>MADE GROUND: Loose black silty  gravelly SAND of coke and coal.<br/>MGR</p> <p>MADE GROUND: Medium dense grey very sandy fine to coarse, angular to subangular GRAVEL with medium cobble and high boulder content, all of slag and occasional red and refractory brick. Sulfur odour when slag broken.<br/>MGR<br/><u>Becoming orangeish brown.</u></p> <p></p> | 1 |
|                 |                             |      |         | 2.00         |              |        | <p>MADE GROUND: Loose brown very gravelly SAND with medium cobble and low boulder content of slag, clinker and brick.<br/>MGR</p>                                                                                                                                                                                                                                                                                                                                                                                                        | 2 |
|                 | 3.00 - 3.20                 | LB   |         | 2.90         |              |        | <p>MADE GROUND: Loose dark brown  very gravelly SAND. Gravel is fine to coarse, angular to subrounded of slag and rare brick.<br/>MGR</p>                                                                                                                                                                                                                                                                                                           | 3 |
|                 | 3.60                        | ES   |         | 3.70         |              |        | <p>End of pit at 3.70 m</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5 |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 456812.00 - 525861.00  
Level:Date  
23/05/2017

Location: SSI Redcar

Dimensions  
(m):Depth  
3.30Scale  
1:25Logged  
JNB

Client: Homes and Communities Agency

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                       |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                           |   |
|                 | 0.20 - 0.30                 | LB   |         |              |              |        | MADE GROUND: Very dense to dense semi-continuous layer, recovered as dense, greyish brown very sandy fine to coarse angular GRAVEL of slag with medium cobble content of slag. Gravel also includes slag pebbles and aerated slag.<br>MGR |   |
|                 | 0.80                        | ES   |         | 0.60         |              |        | MADE GROUND: Medium dense greyish brown sandy fine to coarse, angular to subangular GRAVEL AND COBBLES of slag and aerated slag with rare metal scraps.<br>MGR                                                                            | 1 |
|                 |                             |      |         | 2.00         |              |        | MADE GROUND: Medium dense grey slightly sandy fine to coarse, angular to subangular GRAVEL of slag and aerated slag with low cobble content.<br>MGR                                                                                       | 2 |
|                 |                             |      |         | 3.30         |              |        | End of pit at 3.30 m                                                                                                                                                                                                                      | 3 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                           | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                           | 5 |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 456833.00 - 525832.00  
Level:Date  
11/05/2017

Location: SSI Redcar

Dimensions  
(m):

3.2

1.8

Client: Homes and Communities Agency

Depth  
4.20Scale  
1:25  
Logged  
AC

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                       |
|                 |                             |      |         | 0.05         |              |        | TOPSOIL                                                                                                                                                               |
|                 |                             |      |         | 0.20         |              |        | TPS                                                                                                                                                                   |
|                 |                             |      |         |              |              |        | Concrete.                                                                                                                                                             |
|                 |                             |      |         |              |              |        | MGR                                                                                                                                                                   |
|                 |                             |      |         |              |              |        | MADE GROUND: Greyish brown sandy gravelly<br>COBBLES AND BOULDERS of subangular grey slag.<br>Gravel is fine to coarse, angular to subangular of grey<br>slag.<br>MGR |
|                 | 2.20                        | ES   |         |              |              |        |                                                                                                                                                                       |
|                 |                             |      |         | 2.60         |              |        |                                                                                                                                                                       |
|                 |                             |      |         |              |              |        | MADE GROUND: Yellow gravelly SAND. Gravel is fine<br>to medium, subangular to subrounded of slag.<br>MGR                                                              |
|                 | 4.00                        | B    |         |              |              |        |                                                                                                                                                                       |
|                 | 4.20                        | ES   |         | 4.20         |              |        |                                                                                                                                                                       |
|                 |                             |      |         |              |              |        | End of pit at 4.20 m                                                                                                                                                  |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 456940.00 - 525800.00  
Level:

Date  
11/05/2017

Location: SSI Redcar

Dimensions (m):

4

Scale  
1:25

Client: Homes and Communities Agency

Depth  
3.30

2.5

Logged  
LK

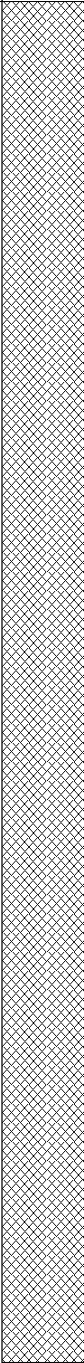
| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend | Stratum Description                                                                                                                                                                       |   |
|--------------|-----------------------------|------|---------|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|              | Depth                       | Type | Results |           |           |        |                                                                                                                                                                                           |   |
|              |                             |      |         | 0.10      |           |        | TOPSOIL<br>TPS<br>MADE GROUND: Medium dense brown very gravelly SAND with medium cobble content of slag. Gravel is angular to subrounded. Slight hydrocarbon odour. MGR                   |   |
|              |                             |      |         | 0.70      |           |        | MADE GROUND: Medium dense becoming dense with depth, brown sandy to very sandy fine to coarse, angular to subangular GRAVEL of slag with high cobble and low boulder content of slag. MGR | 1 |
|              |                             |      |         | 3.30      |           |        | End of pit at 3.30 m                                                                                                                                                                      | 5 |

Remarks:

Stability:

|                                                                                   |  |  |  |                                                    |  |                                          |  |                                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|------------------------------------------|--|-----------------------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                          |  | Trialpit No<br><b>S2-TP46</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 456991.00 - 525785.00<br>Level: |  | Date<br>11/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  |                                                    |  | Dimensions (m):                          |  | Scale<br>1:25                                 |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  | Depth<br>4.50                            |  | Logged<br>AC                                  |  |

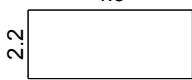
| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                             | Stratum Description                                                                                                                                                                                                                                                 |   |
|--------------|-----------------------------|------|---------|-----------|-----------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|              | Depth                       | Type | Results |           |           |                                                                                    |                                                                                                                                                                                                                                                                     |   |
|              | 0.70 - 1.00                 | B    |         |           |           |  | MADE GROUND: Greyish brown very sandy fine to coarse, angular to subangular GRAVEL of slag with high cobble content and medium boulder content with a slight Sulfur odour.<br>MGR<br><i>Occasional fine to medium, angular to subangular fragments of red brick</i> | 1 |
|              | 2.00                        | ES   |         |           |           |                                                                                    |                                                                                                                                                                                                                                                                     | 2 |
|              |                             |      |         |           |           |                                                                                    |                                                                                                                                                                                                                                                                     | 3 |
|              |                             |      |         |           |           |                                                                                    |                                                                                                                                                                                                                                                                     | 4 |
|              |                             |      |         | 4.50      |           |                                                                                    | End of pit at 4.50 m                                                                                                                                                                                                                                                | 5 |

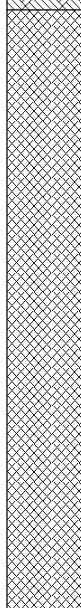
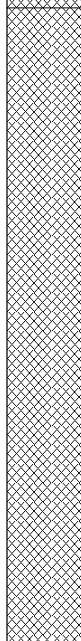
Remarks:
 



Stability:

|                                                                                   |  |  |  |                        |  |                                                                                     |                                               |                    |  |
|-----------------------------------------------------------------------------------|--|--|--|------------------------|--|-------------------------------------------------------------------------------------|-----------------------------------------------|--------------------|--|
|  |  |  |  | <h1>Trial Pit Log</h1> |  |                                                                                     | Trialpit No<br><b>S2-TP47</b><br>Sheet 1 of 1 |                    |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079  |  | Co-ords: 457064.00 - 525786.00<br>Level:                                            |                                               | Date<br>11/05/2017 |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):        |  | 4.3                                                                                 |                                               | Scale<br>1:25      |  |
| Client: Homes and Communities Agency                                              |  |  |  | Depth<br>4.30          |  |  |                                               | Logged<br>LK       |  |

| Water Strike                                                                        | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                                                                                                                                                                                                                                                                                  | Stratum Description                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------|-----------------------------|------|---------|-----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     | Depth                       | Type | Results |           |           |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                       |
|  |                             |      |         | 0.20      |           |  TOPSOIL<br>TPS                                                                                                                                                                                                                                        |  MADE GROUND: Medium brown very gravelly SAND with medium cobble, medium boulder and low large boulder content, all of slag. Gravel is fine to coarse, angular to subangular of slag. Rare brick fragments and scrap metal.<br>MGR |
|                                                                                     | 0.50                        | ES   |         |           |           |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                       |
|                                                                                     |                             |      |         | 2.20      |           |  MADE GROUND: Medium dense greyish brown sandy fine to coarse, angular to subangular GRAVEL with high cobble and medium boulder content, both of slag. With rare small red and refractory brick fragments and rare scrap metal. Sulfur odour.<br>MGR |                                                                                                                                                                                                                                  |
|                                                                                     | 4.00                        | ES   |         |           |           |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                       |
|                                                                                     |                             |      |         | 4.30      |           | End of pit at 4.30 m                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                       |

|            |  |                                                                                       |
|------------|--|---------------------------------------------------------------------------------------|
| Remarks:   |  |  |
| Stability: |  |                                                                                       |



Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457175.00 - 525726.00  
Level:Date  
12/05/2017

Location: SSI Redcar

Dimensions  
(m):

4

Scale  
1:25

Client: Homes and Communities Agency

Depth  
4.00Logged  
LK

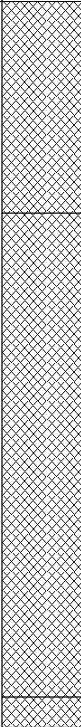
| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                                      |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                                                          |   |
|                 | 0.40                        | ES   |         | 0.10         |              |        | TOPSOIL<br>TPS<br>MADE GROUND: Loose brown very gravelly SAND with medium cobble and boulder content with low boulder content, all of slag. Gravel is fine to coarse, angular to subrounded of slag.<br>MGR                                                              |   |
|                 |                             |      |         | 0.90         |              |        | MADE GROUND: Layer of solid slag with frequent refractory whole/fragmented refractory<br>MGR                                                                                                                                                                             | 1 |
|                 | 2.00                        | ES   |         | 1.30         |              |        | MADE GROUND: Loose slightly reddish dark grey slightly gravelly SAND with low cobble content of slag. Gravel is fine to coarse, subangular to subrounded of slag. Occasional refractory brick/brick fragments. Rare scrap metal, plastic bags and wood fragments.<br>MGR | 2 |
|                 |                             |      |         | 4.00         |              |        | End of pit at 4.00 m                                                                                                                                                                                                                                                     | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                                                          | 5 |

Remarks:

Stability:

|                                                                                   |  |  |  |                                                    |  |                                                                                          |                                               |                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                          | Trialpit No<br><b>S2-TP50</b><br>Sheet 1 of 1 |                               |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457227.00 - 525688.00<br>Level:                                                 |                                               | Date<br>15/05/2017            |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):<br>Depth 2.40                      |  | <div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div> |                                               | Scale<br>1:25<br>Logged<br>FM |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  |                                                                                          |                                               |                               |  |

| Water Strike | Samples and In Situ Testing |         |         | Depth (m)    | Level (m) | Legend                                                                             | Stratum Description                                                                                                                                                                                                                          |   |
|--------------|-----------------------------|---------|---------|--------------|-----------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|              | Depth                       | Type    | Results |              |           |                                                                                    |                                                                                                                                                                                                                                              |   |
|              | 0.30 - 0.70                 | ES      |         | 0.70         |           |  | MADE GROUND: Loose brown slightly gravelly SAND with low cobble content of slag. Gravel is fine to coarse, angular of slag, aerate slag and iron.<br>MGR  |   |
|              |                             |         |         |              |           |                                                                                    | <i>Localised pockets of gravels and cobbles of slag.</i>                                                                                                                                                                                     |   |
|              | 1.20 - 1.40<br>1.20 - 1.40  | B<br>ES |         |              |           |                                                                                    | MADE GROUND: Loose yellow SAND with occasional gravel of slag. Gravel is fine to coarse, angular to subangular of slag (Possible hydraulic fill).<br>MGR  | 1 |
|              |                             |         |         | 2.30<br>2.40 |           |                                                                                    | Loose dark yellow slightly gravelly SAND. Gravel is of shell and occasional coal.<br>MGR                                                                | 2 |
|              |                             |         |         |              |           |                                                                                    | End of pit at 2.40 m                                                                                                                                                                                                                         | 3 |
|              |                             |         |         |              |           |                                                                                    |                                                                                                                                                                                                                                              | 4 |
|              |                             |         |         |              |           |                                                                                    |                                                                                                                                                                                                                                              | 5 |

|            |  |                                                                                       |
|------------|--|---------------------------------------------------------------------------------------|
| Remarks:   |  |  |
| Stability: |  |                                                                                       |

# Trial Pit Log

Trialpit No  
**S2-TP51**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457267.00 - 525672.00  
Level:

Date  
16/05/2017

Location: SSI Redcar

Dimensions (m):

3.9

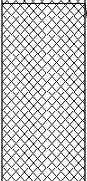
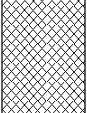
Scale  
1:25

Client: Homes and Communities Agency

Depth  
2.20

2.5

Logged  
LK

| Water Strike                                                                        | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                              | Stratum Description                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------|-----------------------------|------|---------|-----------|-----------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     | Depth                       | Type | Results |           |           |                                                                                     |                                                                                                                                                                                                                                                          |
|  |                             |      |         | 0.10      |           |    | MADE GROUND: Topsoil TPS                                                                                                                                                                                                                                 |
|                                                                                     |                             |      |         | 0.40      |           |    | MADE GROUND: Loose brown very gravelly SAND with medium cobble and medium boulder content. Gravel is fine to coarse subangular to angular of slag. Cobbles and boulders of slag. Rare brick fragments (refractory) Rare plastic bag, wood fragments. MGR |
|                                                                                     | 1.40 - 1.50                 | ES   |         |           |           |    | MADE GROUND: Loose brown very sandy fine to coarse, angular to subangular GRAVEL of slag with medium cobble and medium boulder content, both of slag. Occasional brick fragments (red, refractory 50/50). MGR                                            |
|                                                                                     |                             |      |         |           |           |    | Animal bone                                                                                                                                                                                                                                              |
|                                                                                     | 1.90 - 2.30                 | LB   |         | 1.80      |           |  | MADE GROUND: Medium dense brownish grey slightly sandy fine to coarse, angular to subangular GRAVEL of slag with high cobble and medium boulder content both of slag. MGR                                                                                |
|                                                                                     |                             |      |         | 2.20      |           |                                                                                     | End of pit at 2.20 m                                                                                                                                                                                                                                     |

1

2

3

4

5

Remarks:

Stability:



Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457327.00 - 525661.00  
Level:Date  
15/05/2017

Location: SSI Redcar

Dimensions  
(m):

3.9

Scale  
1:25

Client: Homes and Communities Agency

Depth  
2.40

2.4

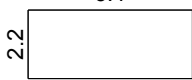
Logged  
LK

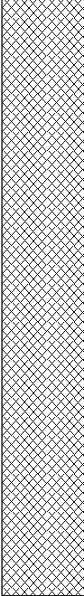
| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                               |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                   |   |
| ▼               | 0.50                        | ES   |         | 0.10         |              |        | MADE GROUND: Topsoil<br>TPS                                                                                                                                                                                                       | 1 |
|                 |                             |      |         |              |              |        | MADE GROUND: Loose greyish brown very sandy fine to coarse, angular to subangular GRAVEL of slag with medium to high cobble, medium boulder and low large boulder content, all of slag.<br>MGR                                    |   |
|                 | 1.70 - 1.80                 | D    |         | 1.50         |              |        | MADE GROUND: Soft brown mottled orange slightly sandy gravelly CLAY. Gravel is fine to coarse subrounded to angular of various lithologies including slag, sandstone, grey rock (igneous) Occasional brick fragments (red)<br>MGR |   |
|                 |                             |      |         | 2.30<br>2.40 |              |        | MADE GROUND: Medium dense dark grey slightly clayey slightly sandy fine to coarse angular to subangular GRAVEL of slag with fabric.<br>MGR                                                                                        | 2 |
|                 |                             |      |         |              |              |        | End of pit at 2.40 m                                                                                                                                                                                                              | 3 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                   | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                   | 5 |

Remarks:

Stability:



|                                                                                   |  |  |  |                                                    |  |                                                                                            |                                               |                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|--------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                            | Trialpit No<br><b>S2-TP54</b><br>Sheet 1 of 1 |                               |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 456928.00 - 525748.00<br>Level:                                                   |                                               | Date<br>12/05/2017            |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):<br>Depth 2.10                      |  | 3.4<br> |                                               | Scale<br>1:25<br>Logged<br>LK |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  |                                                                                            |                                               |                               |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                                           | Stratum Description                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|-----------------------------|------|---------|-----------|-----------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Depth                       | Type | Results |           |           |                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |
|              | 0.20 - 0.30                 | ES   |         | 0.10      |           |  TOPSOIL<br>TPS | <br>MADE GROUND: Dense to very dense brownish grey slightly sandy to sandy gravelly to very gravelly COBBLES AND BOULDERS of slag. Gravel is fine to coarse, angular to subangular of slag. Rare red brick fragments.<br>MGR<br> |
|              |                             |      |         | 2.10      |           |                |                                                                                                                                                                                                                                                                                                                                                                                                        |
|              |                             |      |         |           |           |                                                                                                  | End of pit at 2.10 m                                                                                                                                                                                                                                                                                                                                                                                   |

Remarks: Hydrocarbon odour in area of pit  
  
 Stability:



Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 456995.00 - 525723.00  
Level:Date  
23/05/2017

Location: SSI Redcar

Dimensions  
(m):Depth  
4.60Scale  
1:25Logged  
JNB

Client: Homes and Communities Agency

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                   |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                       |   |
|                 | 0.50                        | LB   |         |              |              |        | MADE GROUND: Medium dense light grey sandy fine to coarse, angular to subangular GRAVEL AND COBBLES with medium to high boulder content. Sulfur odour noted. MGR      | 1 |
|                 |                             |      |         | 1.80         |              |        | MADE GROUND: Medium dense light grey sandy fine to coarse, angular to subangular GRAVEL AND COBBLES with low boulder content of aerated slag. Sulfur odour noted. MGR | 2 |
|                 |                             |      |         | 3.80         |              |        | MADE GROUND: Loose yellowish brown slightly gravelly, fine to coarse SAND with rare interbeds of black medium to coarse sand. (Possible Natural). MGR                 | 4 |
|                 | 4.40                        | ES   |         | 4.60         |              |        | End of pit at 4.60 m                                                                                                                                                  | 5 |

Remarks:

Stability:

## Trial Pit Log

Trialpit No  
**S2-TP56**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457022.00 - 525716.00  
Level:

Date  
12/05/2017

Location: SSI Redcar

Dimensions  
(m):

5

Scale  
1:25

Client: Homes and Communities Agency

Depth  
4.00

2.6

Logged  
AC

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                            |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                |   |
|                 | 0.10 - 0.60                 | LB   |         |              |              |        | MADE GROUND: Greyish brown sandy gravelly COBBLES AND BOULDERS of subangular grey slag. Gravel is fine to coarse, angular to subangular of grey slag. MGR      | 1 |
|                 | 2.60                        | ES   |         | 2.80         |              |        |                                                                                                                                                                | 2 |
|                 |                             |      |         | 4.00         |              |        | MADE GROUND: Dark grey very sandy very gravelly COBBLES with medium boulder content both of slag. Gravel is fine to coarse, angular to subangular of slag. MGR | 3 |
|                 |                             |      |         |              |              |        | End of pit at 4.00 m                                                                                                                                           | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                | 5 |

Remarks:

Stability:



|                                                                                   |  |  |  |                                                    |  |                                                                                                                                                                                                                     |  |                                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                                                                                                                                                     |  | Trialpit No<br><b>S2-TP57</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457083.00 - 525694.00<br>Level:                                                                                                                                                                            |  | Date<br>17/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  |                                                    |  | Dimensions (m): <div style="display: inline-block; vertical-align: middle; text-align: center;">           4.5<br/> <div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div> </div> |  | Scale<br>1:25                                 |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  | Depth<br>4.30                                                                                                                                                                                                       |  | Logged<br>JNB                                 |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend | Stratum Description                                                                                                                                 |   |
|--------------|-----------------------------|------|---------|-----------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---|
|              | Depth                       | Type | Results |           |           |        |                                                                                                                                                     |   |
|              | 0.30                        | ES   |         | 0.40      |           | X      | MADE GROUND: Loose brown very sandy fine to coarse, angular to subangular GRAVEL of slag. MGR                                                       | 1 |
|              |                             |      |         |           |           |        | MADE GROUND: Loose to medium dense blueish grey sandy fine to coarse angular to subangular GRAVEL AND COBBLES of slag with slight Sulfur odour. MGR |   |
|              | 4.00 - 4.30                 | LB   |         | 4.30      |           | X      |                                                                                                                                                     | 2 |
|              |                             |      |         |           |           |        |                                                                                                                                                     |   |
|              |                             |      |         |           |           |        |                                                                                                                                                     | 3 |
|              |                             |      |         |           |           |        |                                                                                                                                                     | 4 |
|              |                             |      |         |           |           |        |                                                                                                                                                     | 5 |



End of pit at 4.30 m

Remarks:
 



Stability:

## Trial Pit Log

Trialpit No  
**S2-TP58**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457126.00 - 525675.00  
Level:

Date  
17/05/2017

Location: SSI Redcar

Dimensions  
(m):

Scale  
1:25

Client: Homes and Communities Agency

Depth  
4.30

Logged  
LK

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                                                           |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                                                                               |   |
|                 | 0.10                        |      |         | 0.10         |              |        | MADE GROUND: Topsoil<br>TPS                                                                                                                                                                                                                                                                   |   |
|                 |                             |      |         | 0.60         |              |        | MADE GROUND: Medium dense greyish brown very gravelly SAND with medium cobble and low boulder content both of slag. Gravel is fine to coarse, subangular to angular of slag. Rare brick fragments (refractory).<br>MGR<br><i>Layer of grey slag.</i>                                          |   |
|                 | 1.20                        | ES   |         |              |              |        | MADE GROUND: Loose dark grey slightly silty gravelly SAND with low cobble content of slag. Gravel is fine to coarse, subrounded to angular of slag. Occasional brick fragments (refractory/red 80/20%).<br>MGR<br><i>Occasional pockets of soft dark grey silty clay (hydrocarbon odour).</i> | 1 |
|                 | 3.60 - 3.70                 | ES   |         |              |              |        | <i>From 2.5: Turning reddish brown with more frequent red brick fragments</i>                                                                                                                                                                                                                 | 2 |
|                 |                             |      |         | 3.80         |              |        | MADE GROUND: Medium dense yellow SAND with pockets of grey silty sand (Possible Natural).<br>MGR                                                                                                                                                                                              | 3 |
|                 |                             |      |         | 4.30         |              |        | End of pit at 4.30 m                                                                                                                                                                                                                                                                          | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                                                                               | 5 |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457197.00 - 525630.00  
Level:Date  
16/05/2017

Location: SSI Redcar

Dimensions  
(m):

3.6

Scale  
1:25

Client: Homes and Communities Agency

Depth  
3.10

2.4

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                        |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                            |   |
|                 |                             |      |         | 0.20         |              |        | MADE GROUND: Loose brown gravelly SAND. Gravel is fine to coarse, angular to subangular of slag.<br>MGR                                                                                                                    |   |
|                 |                             |      |         | 0.70         |              |        | MADE GROUND: Medium dense to dense very gravelly SAND with low cobble content of slag and rare fragments of refractory brick. Gravel is fine to coarse angular to subangular.<br>MGR                                       |   |
|                 |                             |      |         | 1.80         |              |        | MADE GROUND: Loose orangish brown gravelly SAND. Gravel is fine to coarse, angular to rounded of slag, flint (?) and aerated slag.<br>MGR                                                                                  | 1 |
|                 |                             |      |         |              |              |        | <i>Becoming very gravelly with low cobble content of slag.</i>                                                                                                                                                             |   |
|                 |                             |      |         |              |              |        | MADE GROUND: Loose black and grey and orangish brown, medium to coarse gravelly SAND. Gravel is fine to coarse of slag with rare cobbles. Strong hydrocarbon odour and black layer of coal dust/coal tar fragments.<br>MGR | 2 |
|                 | 2.50 - 3.00                 | B    |         |              |              |        |                                                                                                                                                                                                                            |   |
| ▼               | 3.00                        | ES   |         | 3.10         |              |        |                                                                                                                                                                                                                            | 3 |
|                 |                             |      |         |              |              |        | End of pit at 3.10 m                                                                                                                                                                                                       |   |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                            | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                            | 5 |

Remarks:

Stability:

|                                                                                   |  |  |  |                                                    |  |                                          |  |                                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|------------------------------------------|--|-----------------------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                          |  | Trialpit No<br><b>S2-TP60</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457232.00 - 525623.00<br>Level: |  | Date<br>16/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  |                                                    |  | Dimensions (m):<br>Depth 2.20            |  | Scale<br>1:25<br>Logged<br>LK                 |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  |                                          |  |                                               |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                                                                                                                                                                                                                                                                          | Stratum Description                                                                  |   |                                                                                                                                                                                              |
|--------------|-----------------------------|------|---------|-----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Depth                       | Type | Results |           |           |                                                                                                                                                                                                                                                                                                                                 |                                                                                      |   |                                                                                                                                                                                              |
| ▼            | 0.70 - 1.00                 | B    |         | 0.20      |           | <br>MADE GROUND: Slag and building rubble (gravel, cobbles, boulders, bricks, scrap metal, plastic fragments) over dark brown gravelly sand. Gravel is fine to coarse, subrounded to angular of slag. Rare small brick fragments (red).<br>MGR |   | 1 |                                                                                                                                                                                              |
|              |                             |      |         | 1.20      |           |                                                                                                                                                                                                                                                                                                                                 |                                                                                      |   | MADE GROUND: Loose to medium dense greyish brown very gravelly SAND with medium cobble and low boulder content, both of slag. Gravel is fine to coarse subangular to angular of slag.<br>MGR |
|              |                             |      |         | 1.70      |           |                                                                                                                                                                                                                                                                                                                                 |                                                                                      |   | MADE GROUND: Medium dense brownish grey very sandy fine to coarse, angular to subangular GRAVEL of slag with low cobble content of slag.<br>MGR                                              |
|              | 2.00                        | ES   |         | 2.20      |           | <br>MADE GROUND: Dense grey slightly sandy fine to coarse, angular to subangular GRAVEL of slag with medium cobble and medium boulder content, both of slag.<br>MGR                                                                           |  | 2 |                                                                                                                                                                                              |
|              |                             |      |         |           |           | End of pit at 2.20 m                                                                                                                                                                                                                                                                                                            |                                                                                      |   | 3                                                                                                                                                                                            |
|              |                             |      |         |           |           |                                                                                                                                                                                                                                                                                                                                 |                                                                                      |   | 4                                                                                                                                                                                            |
|              |                             |      |         |           |           |                                                                                                                                                                                                                                                                                                                                 |                                                                                      |   | 5                                                                                                                                                                                            |

|            |  |                                                                                       |
|------------|--|---------------------------------------------------------------------------------------|
| Remarks:   |  |  |
| Stability: |  |                                                                                       |

|                                                                                   |  |  |  |                                                    |  |                                                                                                      |  |                                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|------------------------------------------------------------------------------------------------------|--|-----------------------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                                      |  | Trialpit No<br><b>S2-TP61</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457294.00 - 525588.00<br>Level:                                                             |  | Date<br>16/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  |                                                    |  | Dimensions (m): <div style="display: inline-block; border: 1px solid black; padding: 2px;">2.4</div> |  | Scale<br>1:25                                 |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  | Depth<br>2.20                                                                                        |  | Logged<br>JNB                                 |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m)    | Level (m) | Legend | Stratum Description                                                                                                                                                                                                                              |   |
|--------------|-----------------------------|------|---------|--------------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|              | Depth                       | Type | Results |              |           |        |                                                                                                                                                                                                                                                  |   |
| ▼            | 0.20                        | ES   |         | 1.20         |           |        | MADE GROUND: Loose dark brown slightly silty gravelly SAND. Gravel is fine to coarse angular to subangular of slag, iron and rare small lumps of coal t...<br>MGR<br><i>Becoming greyish brown and very gravelly with medium cobble content.</i> | 1 |
|              |                             |      |         |              |           |        | MADE GROUND: Medium dense, greyish brown very sandy fine to coarse, angular to subangular GRAVEL with medium to high cobble content of aerated slag and slag.<br>MGR                                                                             |   |
|              | 2.10                        | ES   |         | 2.10<br>2.20 |           |        | MADE GROUND: Loose dark blackish grey gravelly SAND with low boulder content and rare wood. Gravel is fine to coarse, angular to subangular... Slight hydrocarbon sheen on samples.<br>MGR<br><i>End of pit at 2.20 m</i>                        | 2 |
|              |                             |      |         |              |           |        |                                                                                                                                                                                                                                                  | 3 |
|              |                             |      |         |              |           |        |                                                                                                                                                                                                                                                  | 4 |
|              |                             |      |         |              |           |        |                                                                                                                                                                                                                                                  | 5 |

|            |  |                                                                                       |
|------------|--|---------------------------------------------------------------------------------------|
| Remarks:   |  |  |
| Stability: |  |                                                                                       |

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457349.00 - 525563.00  
Level:Date  
16/05/2017

Location: SSI Redcar

Dimensions  
(m):Depth  
2.50Scale  
1:25Logged  
LK

Client: Homes and Communities Agency

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                                              |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                                                                  |   |
|                 | 0.50                        | ES   |         | 0.05         |              |        | MADE GROUND: Topsoil<br>TPS                                                                                                                                                                                                                                                      |   |
|                 |                             |      |         |              |              |        | MADE GROUND: Medium dense light brownish grey<br>sandy fine to coarse, angular to subangular GRAVEL of<br>slag with high cobble and high boulder content, both of<br>slag and occasional red brick fragments.<br>MGR                                                             |   |
|                 |                             |      |         | 0.90         |              |        | MADE GROUND: Dense brown grey slightly sandy<br>very gravelly COBBLES AND BOULDERS of slag with<br>occasional large boulders. Gravel is fine to coarse<br>subangular to angular of slag.<br>MGR<br><i>Slight oil sheen at water level. Cannot sample due to soil too coarse.</i> | 1 |
|                 | 2.00 - 2.50                 | LB   |         |              |              |        |                                                                                                                                                                                                                                                                                  | 2 |
|                 |                             |      |         | 2.50         |              |        | End of pit at 2.50 m                                                                                                                                                                                                                                                             | 3 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                                                                  | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                                                                  | 5 |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 456968.00 - 525704.00  
Level:

Date  
10/05/2017

Location: SSI Redcar

Dimensions (m):

5

Scale  
1:25

Client: Homes and Communities Agency

Depth  
3.50

2.7

Logged  
LK

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend | Stratum Description                                                                                                                                                                                                                                 |
|--------------|-----------------------------|------|---------|-----------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Depth                       | Type | Results |           |           |        |                                                                                                                                                                                                                                                     |
|              |                             |      |         | 0.10      |           |        | MADE GROUND: Topsoil<br>TPS                                                                                                                                                                                                                         |
|              |                             |      |         | 0.50      |           |        | MADE GROUND: Medium dense grey sandy gravel to very gravelly SAND with medium cobble and boulder content, both of slag with small red brick fragments. Gravel is fine to coarse subangular to angular of slag. Cobbles and boulders of slag.<br>MGR |
|              |                             |      |         |           |           |        | MADE GROUND: Dense to very dense grey slightly sandy fine to coarse, angular to subangular GRAVEL of slag with high cobble, medium boulder and low to medium large boulder content all of slag with rare scrap metal fragments.<br>MGR              |
|              | 1.90                        | ES   |         |           |           |        | Occasional red brick fragments.                                                                                                                                                                                                                     |
|              |                             |      |         | 3.50      |           |        | End of pit at 3.50 m                                                                                                                                                                                                                                |

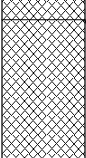
1  
2  
3  
4  
5

Remarks:

Stability:

|                                                                                   |  |  |  |                                                    |  |                                          |  |                                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|------------------------------------------|--|-----------------------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                          |  | Trialpit No<br><b>S2-TP64</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 456998.00 - 525666.00<br>Level: |  | Date<br>17/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  |                                                    |  | Dimensions (m):                          |  | Scale<br>1:25                                 |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  | Depth<br>4.00                            |  | Logged                                        |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                                                                                                                   | Stratum Description                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                   |
|--------------|-----------------------------|------|---------|-----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Depth                       | Type | Results |           |           |                                                                                                                                                                          |                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                   |
|              | 0.30                        | ES   |         | 0.20      |           | <br>MADE GROUND: TOPSOIL with rubble including timber, scrap metal and plastics.<br>MGR | <br>MADE GROUND: Medium dense to very dense light grey slightly silty fine to coarse sand to subangular SAND AND GRAVEL with medium cobble content and low boulder content of slag.<br>MGR |                                                                                                                                                                                                                                                                   |
|              |                             |      |         | 0.50      |           |                                                                                                                                                                          |                                                                                                                                                                                                                                                                             | <br>MADE GROUND: Dense to very dense greyish brown sandy fine to coarse, angular to subangular GRAVEL with high cobble content and low to medium boulder content of slag.<br>MGR |
|              | 3.50 - 4.00                 | LB   |         |           |           |                                                                                                                                                                          |                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                   |
|              |                             |      |         | 4.00      |           |                                                                                                                                                                          | End of pit at 4.00 m                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                   |

|            |  |                                                                                       |
|------------|--|---------------------------------------------------------------------------------------|
| Remarks:   |  |  |
| Stability: |  |                                                                                       |

## Trial Pit Log

Trialpit No  
**S2-TP65**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457056.00 - 525650.00  
Level:

Date  
17/05/2017

Location: SSI Redcar

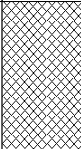
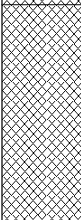
Dimensions  
(m):

Scale  
1:25

Client: Homes and Communities Agency

Depth  
3.20

Logged  
LK

| Water<br>Strike                                                                     | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend                                                                            | Stratum Description                                                                                                                                                                                                                                                   |   |
|-------------------------------------------------------------------------------------|-----------------------------|------|---------|--------------|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                                                                                     | Depth                       | Type | Results |              |              |                                                                                   |                                                                                                                                                                                                                                                                       |   |
|  |                             |      |         | 0.50         |              |  | MADE GROUND: Slag rubble over medium dense brownish grey sandy fine to coarse, angular to subrounded GRAVEL of slag with medium cobble and low boulder content, both of slag. MGR  |   |
|                                                                                     |                             |      |         |              |              |  | MADE GROUND: Dense slightly browning grey slightly sandy fine to coarse, angular to subangular GRAVEL of slag with high cobble and low boulder content, both of slag. MGR          | 1 |
|                                                                                     | 2.00                        | ES   |         |              |              |                                                                                   | <i>Very dense with medium boulder content</i>                                                                                                                                                                                                                         | 2 |
|                                                                                     | 2.70                        | ES   |         | 2.50         |              |                                                                                   | MADE GROUND: Medium dense orangish yellow SAND (Possible Natural). MGR                                                                                                           | 3 |
|                                                                                     |                             |      |         | 3.20         |              |                                                                                   | End of pit at 3.20 m                                                                                                                                                                                                                                                  | 4 |
|                                                                                     |                             |      |         |              |              |                                                                                   |                                                                                                                                                                                                                                                                       | 5 |

Remarks:

Stability:

# Trial Pit Log

Trialpit No  
**S2-TP66**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457116.00 - 525598.00  
Level:

Date  
18/05/2017

Location: SSI Redcar

Dimensions (m):

Scale  
1:25

Client: Homes and Communities Agency

Depth  
2.90

Logged  
LK

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend | Stratum Description                                                                                                                                                                                                            |
|--------------|-----------------------------|------|---------|-----------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Depth                       | Type | Results |           |           |        |                                                                                                                                                                                                                                |
|              |                             |      |         | 0.10      |           |        | MADE GROUND: Topsoil TPS                                                                                                                                                                                                       |
|              |                             |      |         |           |           |        | MADE GROUND: Medium dense to very dense brownish grey sandy fine to coarse, angular to subangular GRAVEL of slag with high cobble and low boulder content, both of slag and rare refractory brick fragments. Sulfur odour. MGR |
|              |                             |      |         | 2.90      |           |        | End of pit at 2.90 m                                                                                                                                                                                                           |

1

2

3

4

5

Remarks:

Stability:



|                                                                                   |  |  |  |                                                    |  |                                                                                                                                                                                                                                                                                      |  |                                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                                                                                                                                                                                                                      |  | Trialpit No<br><b>S2-TP67</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457168.00 - 525594.00<br>Level:                                                                                                                                                                                                                                             |  | Date<br>18/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  |                                                    |  | Dimensions (m): <div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">2.2</div> <div style="border: 1px solid black; width: 100px; height: 40px; margin: 0 10px;"></div> <div>4</div> </div> |  | Scale<br>1:25                                 |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  | Depth<br>1.90                                                                                                                                                                                                                                                                        |  | Logged                                        |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                                                                                                                                                                                                                                                                                                                                                    | Stratum Description                                                                      |
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|              | Depth                       | Type | Results |           |           |                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                          |
|              |                             |      |         | 0.30      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); width: 40px; height: 40px; margin-bottom: 5px;"></div> MADE GROUND: Loose dark brown slightly silty gravelly fine to coarse SAND. Gravel is fine to coarse, angular to subangular of slag.<br>MGR                                                                                           |       |
|              |                             |      |         |           |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); width: 40px; height: 40px; margin-bottom: 5px;"></div> MADE GROUND: Loose dark brown slightly silty gravelly fine to coarse SAND with low cobble content, timber, occasional plastics and dead pieces of cable. Gravel is fine to coarse, angular to subangular of slag, rare brick.<br>MGR |                                                                                          |
|              | 1.50                        | ES   |         |           |           |                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                          |
|              |                             |      |         | 1.90      |           |                                                                                                                                                                                                                                                                                                                                                                                                           | <div style="border-top: 1px dashed black; padding-top: 10px;">End of pit at 1.90 m</div> |

Remarks:



Stability:

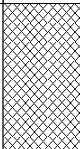
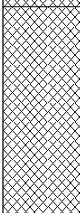
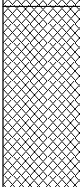
Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457220.00 - 525580.00  
Level:Date  
18/05/2017

Location: SSI Redcar

Dimensions  
(m):Depth  
1.80Scale  
1:25Logged  
LK

Client: Homes and Communities Agency

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend                                                                             | Stratum Description                                                                                                                                                              |
|-----------------|-----------------------------|------|---------|--------------|--------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | Depth                       | Type | Results |              |              |                                                                                    |                                                                                                                                                                                  |
| ▼               | 0.70 - 1.00                 | B    |         | 0.50         |              |   | MADE GROUND: Loose yellowish brown gravelly SAND with low cobble content of slag. Gravel is fine to coarse subangular to angular of slag and some iron pieces. MGR               |
|                 |                             |      |         | 1.20         |              |   | MADE GROUND: Medium dense to dense grey very gravelly SAND with medium cobble and low boulder content, both of slag. Gravel is subrounded to angular of slag. MGR                |
|                 | 1.50                        | ES   |         |              |              |  | MADE GROUND: Dense to very dense grey very sandy fine to coarse, angular to subangular GRAVEL of slag with medium cobble and low boulder content of slag. Hydrocarbon odour. MGR |
|                 | 1.80                        |      |         |              |              |                                                                                    | End of pit at 1.80 m                                                                                                                                                             |
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Remarks:

Stability:

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|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                                   |  | Trialpit No<br><b>S2-TP69</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457253.00 - 525528.00<br>Level:                                                          |  | Date<br>16/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):                                    |  | 4.1<br><div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto;"></div> |  | Scale<br>1:25                                 |  |
| Client: Homes and Communities Agency                                              |  |  |  | Depth<br>3.00                                      |  | <div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto;"></div>        |  | Logged<br>JNB                                 |  |

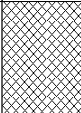
| Water Strike                                                                                                                                                                                                          | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                                                                                            | Stratum Description                                                                                                                                                                                               |                                         |
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|                                                                                                                                                                                                                       | Depth                       | Type | Results |           |           |                                                                                                                                                   |                                                                                                                                                                                                                   |                                         |
| <div style="text-align: center;"> <br/>  </div> | 2.00                        | ES   |         | 1.80      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); background-size: 10px 10px;"></div> | MADE GROUND: Medium dense dark brown slightly silty gravelly SAND with low cobble content and rare refractory brick fragments. Gravel is fine to coarse, angular to subrounded of slag, dark blue dense slag. MGR | <div style="text-align: right;">1</div> |
|                                                                                                                                                                                                                       |                             |      |         |           |           |                                                                                                                                                   | <i>Becoming medium dense to dense, blueish grey/brown very gravelly SAND with medium cobble content of slag.</i>                                                                                                  |                                         |
|                                                                                                                                                                                                                       |                             |      |         |           |           |                                                                                                                                                   | <i>Becoming dense to very dense.</i>                                                                                                                                                                              |                                         |
|                                                                                                                                                                                                                       |                             |      |         | 2.10      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); background-size: 10px 10px;"></div> | MADE GROUND: Medium dense to dense black very sandy GRAVEL with low cobble content of slag. Tar odour and appearance. MGR                                                                                         | <div style="text-align: right;">2</div> |
|                                                                                                                                                                                                                       |                             |      |         | 3.00      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); background-size: 10px 10px;"></div> | MADE GROUND: Loose black and grey gravelly SAND with low cobble content. Gravel of slag. Slight hydrocarbon odour. MGR                                                                                            | <div style="text-align: right;">3</div> |
|                                                                                                                                                                                                                       |                             |      |         |           |           |                                                                                                                                                   | End of pit at 3.00 m                                                                                                                                                                                              | <div style="text-align: right;">4</div> |
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|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                               |  | Trialpit No<br><b>S2-TP70</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457406.00 - 525545.00<br>Level:                                                      |  | Date<br>22/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):                                    |  | 4<br><div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div> |  | Scale<br>1:25                                 |  |
| Client: Homes and Communities Agency                                              |  |  |  | Depth<br>2.70                                      |  | <div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div>      |  | Logged<br>JNB                                 |  |

| Water Strike                                                                        | Samples and In Situ Testing |         |         | Depth (m)    | Level (m) | Legend                                                                            | Stratum Description                                                                                                                                                                                      |
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|                                                                                     | Depth                       | Type    | Results |              |           |                                                                                   |                                                                                                                                                                                                          |
|  | 0.60                        | ES      |         | 0.40         |           |  | MADE GROUND/TOPSOIL: Loose brown slightly silty very gravelly SAND with low cobble content. Gravel is fine to coarse, angular to subangular of slag and rare brick. MGR                                  |
|                                                                                     |                             |         |         |              |           |                                                                                   | MADE GROUND: Loose slightly silty gravelly fine to coarse SAND with medium cobble and low boulder content. Gravel is fine to coarse, angular to subangular of slag and brick. MGR                        |
|                                                                                     | 2.60<br>2.60 - 2.70         | ES<br>B |         | 2.60<br>2.70 |           |                                                                                   | MADE GROUND: Loose yellowish dark brown slightly gravelly medium coarse SAND with pockets of loose black fibrous organic silty sand. Gravel is fine to coarse of shell fragments (POSSIBLE NATURAL). MGR |
|                                                                                     |                             |         |         |              |           |                                                                                   | End of pit at 2.70 m                                                                                                                                                                                     |

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|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                                                                                                                                                                                                                              | Trialpit No<br><b>S2-TP71</b><br>Sheet 1 of 1 |                                |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 456935.00 - 525618.00<br>Level:                                                                                                                                                                                                                                                     |                                               | Date<br>22/05/2017             |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):<br>Depth 4.20                      |  | <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); margin-right: 5px;">2.4</div> <div style="border: 1px solid black; width: 100px; height: 40px; margin-left: 10px;"></div> <div style="margin-left: 10px;">4</div> </div> |                                               | Scale<br>1:25<br>Logged<br>JNB |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  |                                                                                                                                                                                                                                                                                              |                                               |                                |  |

| Water Strike | Samples and In Situ Testing |          |         | Depth (m) | Level (m) | Legend | Stratum Description                                                                                                                                                                                                                                                                                                                                            |   |
|--------------|-----------------------------|----------|---------|-----------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|              | Depth                       | Type     | Results |           |           |        |                                                                                                                                                                                                                                                                                                                                                                |   |
|              | 0.30                        | ES       |         |           |           |        | MADE GROUND: Loose dark brown silty very gravelly SAND with low cobble content. Gravel is fine to coarse of slag and brick fragments.<br>MGR                                                                                                                                                                                                                   | 1 |
|              |                             |          |         |           |           |        |                                                                                                                                                                                                                                                                                                                                                                | 2 |
|              |                             |          |         |           |           |        |                                                                                                                                                                                                                                                                                                                                                                | 3 |
|              |                             |          |         | 3.40      |           |        |                                                                                                                                                                                                                                                                                                                                                                | 4 |
|              | 4.00<br>4.00 - 4.20         | ES<br>LB |         | 4.20      |           |        | MADE GROUND: Loose greyish brown very sandy fine to coarse, angular to subangular GRAVEL with high cobble content and rare boulders of slag.<br>MGR                                                                                                                                                                                                            | 5 |
|              |                             |          |         |           |           |        | <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center; margin-top: 20px;">           End of pit at 4.20 m         </div> |   |

Remarks:

Stability:



## Trial Pit Log

Trialpit No  
**S2-TP72**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 456973.00 - 525599.00  
Level:

Date  
10/05/2017

Location: SSI Redcar

Dimensions  
(m):

4.5

Scale  
1:25

Client: Homes and Communities Agency

Depth  
2.80

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                         |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                             |   |
|                 |                             |      |         | 0.40         |              |        | MADE GROUND: Loose grey sandy angular to subangular fine to coarse GRAVEL of slag with rootlets and grass on top.<br>MGR                    |   |
|                 |                             |      |         | 0.60         |              |        | Concrete slab with rebar and pipes.<br>MGR                                                                                                  |   |
|                 |                             |      |         |              |              |        | MADE GROUND: Loose to medium dense sandy gravelly COBBLES AND BOULDERS of steel, brick and wires. Large >2m sheets, pipes and beams.<br>MGR | 1 |
|                 |                             |      |         | 2.00         |              |        |                                                                                                                                             |   |
|                 |                             |      |         | 2.20         |              |        | MADE GROUND: Relict refractory brick floor.<br>MGR                                                                                          | 2 |
|                 | 2.30                        | ES   |         |              |              |        | MADE GROUND: Loose grey sandy medium to coarse GRAVEL of slag with high cobble content of brick.<br>MGR                                     |   |
|                 |                             |      |         | 2.80         |              |        | End of pit at 2.80 m                                                                                                                        | 3 |
|                 |                             |      |         |              |              |        |                                                                                                                                             | 4 |
|                 |                             |      |         |              |              |        |                                                                                                                                             | 5 |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457107.00 - 525539.00  
Level:Date  
10/05/2017

Location: SSI Redcar

Dimensions  
(m):

4.5

Scale

1:25

Client: Homes and Communities Agency

Depth  
2.50

2.5

Logged  
LK

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                         |  |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                             |  |
| ▼               | 0.30                        | ES   |         | 0.10         |              |        | TOPSOIL: Brown silty gravelly S with frequent rootlets. Gravel is fine to coarse s rounded to angular of slag.<br>TPS                                                                                                       |  |
|                 |                             |      |         | 0.50         |              |        | MADE GROUND: Medium dense brown very sandy fine to coarse, angular to subangular GRAVEL of slag with high cobble and medium boulder content, both of slag and occasional brick fragments (red/b refractory 90%/10%).<br>MGR |  |
|                 | 1.70 - 2.00                 | LB   |         | 2.50         |              |        | MADE GROUND: Very dense grey slightly sandy angular to subangular GRAVEL of with high cobble, high boulder and low to medium large boulder content, all of slag.<br>MGR                                                     |  |
|                 |                             |      |         |              |              |        | End of pit at 2.50 m                                                                                                                                                                                                        |  |

Remarks:

Stability:

## Trial Pit Log

Trialpit No  
**S2-TP74**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457176.00 - 525546.00  
Level:

Date  
18/05/2017

Location: SSI Redcar

Dimensions  
(m):

3.6

Scale  
1:25

Client: Homes and Communities Agency

Depth  
4.10

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |          |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                     |   |
|-----------------|-----------------------------|----------|---------|--------------|--------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type     | Results |              |              |        |                                                                                                                                                                                                                                                         |   |
|                 | 1.00<br>1.00 - 1.50         | ES<br>ES |         | 0.40         |              |        | MADE GROUND: Loose dark brown silty gravelly fine to coarse SAND with low cobble content. Gravel is angular to subangular, fine to coarse of slag, iron slag and aerated slag.<br>MGR                                                                   |   |
|                 |                             |          |         |              |              |        | MADE GROUND: Interbeds dark and light gravels dipping at 30° to the north. Loose black and grey slightly silty very sandy fine to coarse, angular to subrounded GRAVEL of highly aerated slag, clinker, coke and coal fragments (darker layers).<br>MGR | 1 |
|                 |                             |          |         | 1.70         |              |        |                                                                                                                                                                                                                                                         |   |
|                 | 2.50 - 3.00                 | B        |         |              |              |        | MADE GROUND: Loose to very loose, yellowish brown slightly gravelly fine to coarse SAND. Gravel is fine to coarse of slag.<br>MGR                                                                                                                       | 2 |
|                 |                             |          |         |              |              |        |                                                                                                                                                                                                                                                         | 3 |
|                 |                             |          |         | 4.10         |              |        | End of pit at 4.10 m                                                                                                                                                                                                                                    | 4 |
|                 |                             |          |         |              |              |        |                                                                                                                                                                                                                                                         | 5 |

Remarks:

Stability:

|                                                                                   |  |  |  |                                                    |  |                                          |                                               |                    |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|------------------------------------------|-----------------------------------------------|--------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                          | Trialpit No<br><b>S2-TP75</b><br>Sheet 1 of 1 |                    |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457226.00 - 525483.00<br>Level: |                                               | Date<br>18/05/2017 |  |
| Location: SSI Redcar                                                              |  |  |  |                                                    |  | Dimensions (m):                          |                                               | Scale<br>1:25      |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  | Depth<br>3.70                            |                                               | Logged<br>LK       |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                                                                                                                                                                                                                                                                                                                                                                          | Stratum Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------|-----------------------------|------|---------|-----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Depth                       | Type | Results |           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ▼            | 0.50                        | ES   |         | 0.10      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); width: 100px; height: 20px;"></div> TOPSOIL<br>TPS                                                                                                                                                                                                                                                                | <div style="position: relative; height: 400px;"> <div style="position: absolute; top: 0; right: 0; width: 10px; height: 10px; border: 1px solid black; background: white;"></div> <div style="position: absolute; top: 100px; right: 0; width: 10px; height: 10px; border: 1px solid black; background: white;"></div> <div style="position: absolute; top: 200px; right: 0; width: 10px; height: 10px; border: 1px solid black; background: white;"></div> <div style="position: absolute; top: 300px; right: 0; width: 10px; height: 10px; border: 1px solid black; background: white;"></div> <div style="position: absolute; top: 400px; right: 0; width: 10px; height: 10px; border: 1px solid black; background: white;"></div> </div> |
|              |                             |      |         | 0.50      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); width: 100px; height: 20px;"></div> MADE GROUND: Dense to  dense brownish grey very gravelly SAND with medium cobble and medium boulder content, both of slag. Gravel is fine to coarse, subrounded to angular of slag.<br>MGR |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|              |                             |      |         | 1.30      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); width: 100px; height: 20px;"></div> MADE GROUND: Dense brownish grey sandy GRAVEL with high cobble and medium boulder content.<br>MGR                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|              |                             |      |         | 3.70      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); width: 100px; height: 20px;"></div> MADE GROUND: Dense bl  sh grey very sandy GRAVEL with high cobble and medium boulder content.<br>MGR                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|              |                             |      |         |           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                 | End of pit at 3.70 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

|            |  |                                                                                       |
|------------|--|---------------------------------------------------------------------------------------|
| Remarks:   |  |  |
| Stability: |  |                                                                                       |

|                                                                                   |  |  |  |                                                    |  |                                                                                            |                                               |                    |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|--------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                            | Trialpit No<br><b>S2-TP76</b><br>Sheet 1 of 1 |                    |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457272.00 - 525477.00<br>Level:                                                   |                                               | Date<br>19/05/2017 |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):                                    |  | <div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto;"></div> |                                               | Scale<br>1:25      |  |
| Client: Homes and Communities Agency                                              |  |  |  | Depth<br>3.00                                      |  |                                                                                            |                                               | Logged<br>JNB      |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend | Stratum Description                                                                                                                                                                                                                                                                                                                                                                                                                 |   |
|--------------|-----------------------------|------|---------|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|              | Depth                       | Type | Results |           |           |        |                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |
|              |                             |      |         | 0.50      |           |        | MADE GROUND: Loose to medium dense, dark brown silty gravelly SAND. Gravel is fine to coarse, angular to subangular of slag.<br>MGR <div style="background-color: yellow; border: 1px solid black; width: 20px; height: 20px; margin: 5px auto; display: flex; align-items: center; justify-content: center;">  </div>                           |   |
|              |                             |      |         |           |           |        | MADE GROUND: Dense greyish brown very sandy GRAVEL with medium cobble content and very low boulder content of slag and lightweight metalliferous slag.<br>MGR <div style="background-color: yellow; border: 1px solid black; width: 20px; height: 20px; margin: 5px auto; display: flex; align-items: center; justify-content: center;">  </div> | 1 |
|              | 2.80                        | ES   |         | 3.00      |           |        | <div style="border-top: 1px dashed black; padding-top: 5px;">End of pit at 3.00 m</div>                                                                                                                                                                                                                                                                                                                                             | 2 |
|              |                             |      |         |           |           |        |                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3 |
|              |                             |      |         |           |           |        |                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4 |
|              |                             |      |         |           |           |        |                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5 |

|            |                                                                                       |
|------------|---------------------------------------------------------------------------------------|
| Remarks:   |  |
| Stability: |                                                                                       |

# Trial Pit Log

Trialpit No  
**S2-TP77**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457322.00 - 525458.00  
Level:

Date  
19/05/2017

Location: SSI Redcar

Dimensions (m):

4

Scale  
1:25

Client: Homes and Communities Agency

Depth  
2.70

2.4

Logged  
LK

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend | Stratum Description                                                                                                                                                            |   |
|--------------|-----------------------------|------|---------|-----------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|              | Depth                       | Type | Results |           |           |        |                                                                                                                                                                                |   |
|              | 0.60 - 0.80                 | ES   |         |           |           |        | MADE GROUND: Dense to very dense brownish grey very sandy fine to coarse, subangular to angular GRAVEL of slag with cobbles and boulders of slag and rare brick fragments. MGR |   |
|              | 1.00 - 1.50                 | LB   |         |           |           |        | From 0.7: becoming sandy gravel, high cobble and low large boulder content.                                                                                                    | 1 |
|              |                             |      |         | 2.10      |           |        | MADE GROUND: Grey solid SLAG MGR                                                                                                                                               | 2 |
|              |                             |      |         | 2.70      |           |        | End of pit at 2.70 m                                                                                                                                                           | 3 |
|              |                             |      |         |           |           |        |                                                                                                                                                                                | 4 |
|              |                             |      |         |           |           |        |                                                                                                                                                                                | 5 |

Remarks:

Stability:





Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 456976.00 - 525535.00  
Level:Date  
09/05/2017

Location: SSI Redcar

Dimensions  
(m):Depth  
3.80Scale  
1:25Logged  
LK

Client: Homes and Communities Agency

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |
| ▼               |                             |      |         | 0.10         |              |        | <p>TOPSOIL: Glass/railway ballast over loose brown silty very gravelly SAND. Gravel is fine to coarse subrounded to angular of slag and railway ballast.</p> <p>TPS</p> <p>MADE GROUND: Loose to medium dense, greyish brown very gravelly SAND with medium cobble and low boulder content of slag. Gravel is fine to coarse, subangular to angular of slag and rare coke. Frequent bricks/brick fragments (red/refractory 60%/40%). Occasional scrap metal fragments (including railway plates) and rare plastic bag fragments.</p> <p>MGR</p> <p><u>Pocket of grey sandy gravel.</u></p> <p><u>Concrete foundations on right hand side of pit.</u></p> | 1 |
|                 | 2.50                        | ES   |         |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4 |
|                 |                             |      |         | 3.90         |              |        | End of pit at 3.80 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5 |

Remarks:

Stability:

|                                                                                   |  |  |  |                                                    |  |                                                                                                   |  |                                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|---------------------------------------------------------------------------------------------------|--|-----------------------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                                   |  | Trialpit No<br><b>S2-TP81</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457026.00 - 525516.00<br>Level:                                                          |  | Date<br>09/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):                                    |  | 3.9<br><div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto;"></div> |  | Scale<br>1:25                                 |  |
| Client: Homes and Communities Agency                                              |  |  |  | Depth<br>1.60                                      |  | <div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto;"></div>        |  | Logged<br>JNB                                 |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                                                                                                                      | Stratum Description                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                            |
|--------------|-----------------------------|------|---------|-----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Depth                       | Type | Results |           |           |                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                            |
|              | 0.50                        | ES   |         | 0.10      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); width: 100px; height: 100px; border: 1px solid black;"></div> | TOPSOIL: Grass over loose dark brown silty gravelly SAND with abundant rootlets.<br>TPS<br>MADE GROUND: Medium dense brownish red and yellow very gravelly SAND with high cobble, low boulder content, rare metal plates (1900x900mm) and bars with pockets of coal and coke and black sand. Gravel consists of red and refractory bricks and slag.<br>MGR | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); width: 100px; height: 100px; border: 1px solid black;"></div> <div style="text-align: center; margin-top: 20px;">  </div> |
|              |                             |      |         | 1.60      |           |                                                                                                                                                                             | End of pit at 1.60 m                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                            |

|            |  |  |  |  |  |  |  |                                                                                       |
|------------|--|--|--|--|--|--|--|---------------------------------------------------------------------------------------|
| Remarks:   |  |  |  |  |  |  |  |  |
| Stability: |  |  |  |  |  |  |  |                                                                                       |

|                                                                                   |  |  |  |                                                    |  |                                                                                                   |  |                                               |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|---------------------------------------------------------------------------------------------------|--|-----------------------------------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                                                   |  | Trialpit No<br><b>S2-TP82</b><br>Sheet 1 of 1 |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457084.00 - 525504.00<br>Level:                                                          |  | Date<br>10/05/2017                            |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):                                    |  | 3.9<br><div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto;"></div> |  | Scale<br>1:25                                 |  |
| Client: Homes and Communities Agency                                              |  |  |  | Depth<br>3.00                                      |  | 1.9<br><div style="border: 1px solid black; width: 100px; height: 30px; margin: 5px auto;"></div> |  | Logged<br>JNB                                 |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                                                                                            | Stratum Description                                                                                                                                                                                                                   |  |
|--------------|-----------------------------|------|---------|-----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|              | Depth                       | Type | Results |           |           |                                                                                                                                                   |                                                                                                                                                                                                                                       |  |
|              | 0.30                        | ES   |         | 0.05      |           | <div style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); height: 100px; width: 50px;"></div> | TOPSOIL<br>TPS<br><i>Concrete wall running perpendicular to railway (?)</i><br>MADE GROUND: Loose black silty gravelly SAND.<br>Gravel is fine to coarse, angular to subrounded of cemented coal dust and various lithologies.<br>MGR |  |
|              |                             |      |         | 0.40      |           |                                                                                                                                                   | MADE GROUND: Loose to medium dense, greyish brown sandy gravelly COBBLES AND BOULDERS of limestone.<br>MGR                                                                                                                            |  |
|              | 2.50                        | B    |         |           |           |                                                                                                                                                   |                                                                                                                                                                                                                                       |  |
|              |                             |      |         | 3.00      |           |                                                                                                                                                   | End of pit at 3.00 m                                                                                                                                                                                                                  |  |

Remarks:  
  
 Stability:



Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457301.00 - 525406.00  
Level:

Date  
22/05/2017

Location: SSI Redcar

Dimensions (m):

4.9

Scale  
1:25

Client: Homes and Communities Agency

Depth  
3.40

2.4

Logged  
JNB

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend | Stratum Description                                                                                                                                                                                                                                                                                                   |   |
|--------------|-----------------------------|------|---------|-----------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|              | Depth                       | Type | Results |           |           |        |                                                                                                                                                                                                                                                                                                                       |   |
|              | 0.20                        | ES   |         | 0.30      |           |        | <p>TOPSOIL: Loose brown slightly silty <del>fine</del> gravelly SAND with medium cobble and low boulder content. </p> <p>TPS</p>                                                                                                                                                                                      | 1 |
|              | 3.00                        | ES   |         | 3.40      |           |        | <p>MADE GROUND: Loose dark brown slightly silty very sandy fine to coarse, angular to subangular GRAVEL with medium cobble and low boulder content of red and refractory brick, timber, slag rare glassy black crystallised tar, rare steel wire and iron sheet with tar odour. Rare cobbles of lime. </p> <p>MGR</p> | 2 |
|              |                             |      |         |           |           |        | End of pit at 3.40 m                                                                                                                                                                                                                                                                                                  | 3 |
|              |                             |      |         |           |           |        |                                                                                                                                                                                                                                                                                                                       | 4 |
|              |                             |      |         |           |           |        |                                                                                                                                                                                                                                                                                                                       | 5 |

Remarks:

Stability:

|                                                                                   |  |  |  |                                                    |  |                                                                          |                                               |                    |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|--------------------------------------------------------------------------|-----------------------------------------------|--------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                                                          | Trialpit No<br><b>S2-TP84</b><br>Sheet 1 of 1 |                    |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 456894.00 - 525494.00<br>Level:                                 |                                               | Date<br>08/05/2017 |  |
| Location: SSI Redcar                                                              |  |  |  | Dimensions (m):                                    |  | <div style="border: 1px solid black; width: 100px; height: 30px;"></div> |                                               | Scale<br>1:25      |  |
| Client: Homes and Communities Agency                                              |  |  |  | Depth<br>3.90                                      |  | <div style="border: 1px solid black; width: 100px; height: 30px;"></div> |                                               | Logged<br>JNB      |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                            | Stratum Description                                                                                                                                                                                                                                      |
|--------------|-----------------------------|------|---------|-----------|-----------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Depth                       | Type | Results |           |           |                                                                                   |                                                                                                                                                                                                                                                          |
|              |                             |      |         | 0.20      |           |  | MADE GROUND: Loose black brown, slightly silty gravelly SAND. Gravel is fine to coarse, angular to subangular.<br>MGR                                                                                                                                    |
|              | 0.50                        | ES   |         | 0.40      |           |                                                                                   | MADE GROUND: Very dense, light grey continuous layer of slag. Recovered as fine to coarse angular GRAVEL.<br>MGR                                                                                                                                         |
|              | 1.00 - 1.50                 | B    |         |           |           |                                                                                   | MADE GROUND: Loose to medium dense dark brown to black slightly silty very gravelly fine to coarse SAND with medium cobble and low boulder content. Gravel, cobbles and boulders are of brick, slag, iron rich slag and rare concrete. Steel RSJ.<br>MGR |
|              |                             |      |         | 3.90      |           |                                                                                   | <div style="text-align: center;">  </div>                                                                                                                             |

1

2

3

4

5

End of pit at 3.90 m

Remarks:

Stability:





Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457009.00 - 525456.00  
Level:Date  
08/05/2017

Location: SSI Redcar

Dimensions  
(m):

3.9

Scale  
1:25

Client: Homes and Communities Agency

Depth  
3.10Logged  
LK

| Water<br>Strike | Samples and In Situ Testing |         |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                                                                                                                                                       |                       |
|-----------------|-----------------------------|---------|---------|--------------|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                 | Depth                       | Type    | Results |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                           |                       |
| ▼               | 0.40                        | ES      |         | 0.10         |              |        | TOPSOIL: Grass over brown slightly silty slightly gravelly SAND with abundant rootlets. Gravel is fine to medium subangular of slag.<br>TPS                                                                                                                                                                                                                                               |                       |
|                 |                             |         |         | 0.60         |              |        | MADE GROUND: Medium dense brown silty gravelly SAND with low cobble and medium boulder content of slag. Gravel is fine to coarse, rounded to subangular of slag, iron pellets. Occasional red and refractory brick fragments (red/refractory 70%/30%).<br>MGR                                                                                                                             |                       |
|                 | 2.50 - 2.80<br>2.50 - 3.00  | ES<br>B |         | 3.10         |              |        | MADE GROUND: Dense dark brownish grey, slightly clayey slightly sandy fine to coarse, angular to subangular of GRAVEL of slag with high cobble, medium boulder and medium large boulder content, all of slag. Abundant bricks/brick fragments (red/refractory 25%/75%). Pockets/layers of grey cobbles and boulders and pockets/layers of firm brown slightly sandy gravelly clay.<br>MGR | 1<br>2<br>3<br>4<br>5 |
|                 |                             |         |         |              |              |        | Concrete foundations at the bottom and at side.                                                                                                                                                                                                                                                                                                                                           |                       |
|                 |                             |         |         |              |              |        | End of pit at 3.10 m                                                                                                                                                                                                                                                                                                                                                                      |                       |

Remarks:

Stability:

# Trial Pit Log

Trialpit No  
**S2-TP87**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457123.00 - 525414.00  
Level:

Date  
08/05/2017

Location: SSI Redcar

Dimensions  
(m):

Depth  
2.60

Scale  
1:25

Logged  
JNB

Client: Homes and Communities Agency

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                                            |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                                                                |
|                 | 0.30 - 0.80                 | ES   |         | 0.05         |              |        | <p>TOPSOIL<br/>TPS</p> <p>MADE GROUND: Loose to medium dense, sandy fine to coarse GRAVEL of slag with high cobble and low boulder content of aerated slag and two iron railway sleepers.<br/>MGR</p> <p>Becoming grey and more iron rich slag</p> <p>End of pit at 2.60 m</p> |
|                 | 1.20 - 1.50                 | LB   |         | 2.60         |              |        |                                                                                                                                                                                                                                                                                |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457224.00 - 525358.00

Level:

Date

09/05/2017

Location: SSI Redcar

Dimensions  
(m):

Depth  
2.60

Scale  
1:25

Logged  
LK

Client: Homes and Communities Agency

| Water<br>Strike | Samples and In Situ Testing |          |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                                                                                                                                                                                 |   |
|-----------------|-----------------------------|----------|---------|--------------|--------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type     | Results |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                     |   |
| ▼               | 1.00                        | ES       |         | 0.20         |              |        | TOPSOIL: Grass over brown silty slightly gravelly sand with abundant rootlets. Gravel is fine to coarse rounded to subangular of slag and iron pellets.<br>TPS<br>MADE GROUND: Medium dense brown very sandy fine to coarse, angular to subrounded GRAVEL of slag with high cobble, medium boulder and low large boulder content, all of slag with abundant bricks/brick fragments (red/refractory 10%/90%).<br>MGR | 1 |
|                 | 2.00<br>2.00 - 2.50         | ES<br>LB |         | 1.60         |              |        | MADE GROUND: Very dense grey slightly sandy fine to coarse, angular to subrounded GRAVEL of slag with high cobble and low boulder content, both of slag and occasional refractory brick fragments.<br>MGR                                                                                                                                                                                                           | 2 |
|                 |                             |          |         | 2.60         |              |        | End of pit at 2.60 m                                                                                                                                                                                                                                                                                                                                                                                                | 3 |
|                 |                             |          |         |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                     | 4 |
|                 |                             |          |         |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                     | 5 |

Remarks:

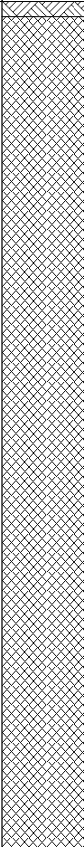
Stability:





|                                                                                   |  |  |  |                                                    |  |                                          |                                               |                    |  |
|-----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------|--|------------------------------------------|-----------------------------------------------|--------------------|--|
|  |  |  |  | <h1 style="text-align: center;">Trial Pit Log</h1> |  |                                          | Trialpit No<br><b>S2-TP91</b><br>Sheet 1 of 1 |                    |  |
| Project Name: Redcar DVA Initial Ground Investigation                             |  |  |  | Project No.<br>678079                              |  | Co-ords: 457152.00 - 525334.00<br>Level: |                                               | Date<br>05/05/2017 |  |
| Location: SSI Redcar                                                              |  |  |  |                                                    |  | Dimensions (m):                          |                                               | Scale<br>1:25      |  |
| Client: Homes and Communities Agency                                              |  |  |  |                                                    |  | Depth<br>2.80                            |                                               | Logged<br>JNB      |  |

| Water Strike | Samples and In Situ Testing |      |         | Depth (m) | Level (m) | Legend                                                                             | Stratum Description                                                                                                                                                                                                         |                                                                                     |
|--------------|-----------------------------|------|---------|-----------|-----------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|              | Depth                       | Type | Results |           |           |                                                                                    |                                                                                                                                                                                                                             |                                                                                     |
|              | 0.05                        | ES   |         | 0.05      |           |  | TOPSOIL<br>TPS                                                                                                                                                                                                              |  |
|              | 0.50 - 1.00                 | B    |         |           |           |                                                                                    | MADE GROUND: Loose to medium dense brownish grey, very sandy fine to coarse, angular to subangular GRAVEL of slag, aerated slag and possibly railway ballast with medium cobble and low boulder content of the same.<br>MGR |                                                                                     |
|              |                             |      |         | 2.80      |           |                                                                                    | End of pit at 2.80 m                                                                                                                                                                                                        |                                                                                     |

Remarks:  
  
 Stability:



Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457194.00 - 525320.00  
Level:Date  
08/05/2017

Location: SSI Redcar

Dimensions  
(m):

3.5

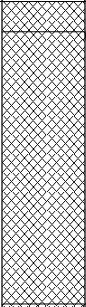
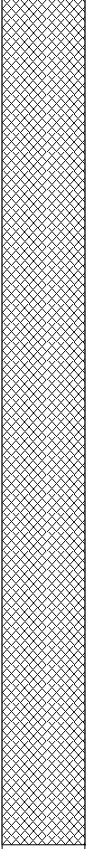
Scale  
1:25

Client: Homes and Communities Agency

Depth  
3.80

2.1

Logged  
LK

| Water<br>Strike | Samples and In Situ Testing |         |         | Depth<br>(m) | Level<br>(m) | Legend                                                                             | Stratum Description                                                                                                                                                                                                                                                                                                                           |        |
|-----------------|-----------------------------|---------|---------|--------------|--------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                 | Depth                       | Type    | Results |              |              |                                                                                    |                                                                                                                                                                                                                                                                                                                                               |        |
| ▼               | 0.40<br>0.50 - 0.80         | ES<br>B |         | 0.10         |              |   | TOPSOIL: Grass over brown slightly silty sandy gravel with frequent rootlets. Gravel is fine to coarse subangular of slag.<br>MGR<br>MADE GROUND: Medium dense brown silty very sandy fine to coarse, angular to subangular GRAVEL of slag with medium cobble and medium boulder content, both of slag and rare scrap metal fragments.<br>MGR |        |
|                 |                             |         |         | 1.00         |              |                                                                                    | MADE GROUND: Dense grey slightly sandy fine to coarse, angular to subangular GRAVEL of slag with high cobble, high boulder and low large boulder content, all of slag. Fine to coarse subangular to angular of slag. Slight Sulfur odour at base.<br>MGR                                                                                      | 1      |
|                 | 3.00 - 3.50                 | LB      |         | 3.80         |              |  |                                                                                                                                                                                                                                                          | 2<br>3 |
|                 |                             |         |         |              |              |                                                                                    | End of pit at 3.80 m                                                                                                                                                                                                                                                                                                                          | 4<br>5 |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457079.00 - 525305.00  
Level:Date  
04/05/2017

Location: SSI Redcar

Dimensions  
(m):

4.4

Scale  
1:25

Client: Homes and Communities Agency

Depth  
4.40

2.2

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |
|                 | 0.05                        | ES   |         | 0.05         |              |        | <p>TOPSOIL: Loose dark brown  very gravelly fine to coarse SAND. Gravel is fine  coarse, angular to subangular predominantly of slag.</p> <p>TPS</p> <p>MADE GROUND: Medium dense to dense, grey sandy fine to coarse, angular to subangular GRAVEL AND COBBLES with low to medium boulder content. Gravel to boulders are of slag and rare brick, rare slabs of iron/steel (500x400x60mm), rare iron pipe.</p> <p>MGR</p> <p>Becoming sandy fine to coarse, angular to subangular GRAVEL with medium to high cobble content.</p> <p></p> | 1 |
|                 | 3.50 - 4.00                 | B    |         |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3 |
|                 |                             |      |         |              |              |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4 |
|                 |                             |      |         | 4.40         |              |        | End of pit at 4.40 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5 |

Remarks:

Stability:

## Trial Pit Log

Trialpit No  
**S2-TP96**  
Sheet 1 of 1

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079

Co-ords: 457012.00 - 525263.00  
Level:

Date  
03/05/2017

Location: SSI Redcar

Dimensions  
(m):

Depth  
4.10

Scale  
1:25

Logged  
JNB

Client: Homes and Communities Agency

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                         |  |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                             |  |
|                 |                             |      |         | 0.05         |              |        | TOPSOIL<br>TPS<br>MADE GROUND: Dense to very dense light grey sandy fine to coarse, angular to subangular GRAVEL of slag with high cobble content and occasional layers/sheets of metallic slag/iron (hard digging).<br>MGR |  |
|                 | 3.00 - 4.00                 | LB   |         |              |              |        |                                                                                                                                                                                                                             |  |
|                 |                             |      |         | 4.10         |              |        | End of pit at 4.10 m                                                                                                                                                                                                        |  |

Remarks:

Stability:

Project Name: Redcar DVA Initial Ground Investigation

Project No.  
678079Co-ords: 457049.00 - 525248.00  
Level:Date  
03/05/2017

Location: SSI Redcar

Dimensions  
(m):

4.3

Scale  
1:25

Client: Homes and Communities Agency

Depth  
4.10

2.6

Logged  
JNB

| Water<br>Strike | Samples and In Situ Testing |      |         | Depth<br>(m) | Level<br>(m) | Legend | Stratum Description                                                                                                                                                                                                                                         |   |
|-----------------|-----------------------------|------|---------|--------------|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Depth                       | Type | Results |              |              |        |                                                                                                                                                                                                                                                             |   |
|                 | 0.50                        | ES   |         | 0.05         |              |        | TOPSOIL<br>TPS<br>MADE GROUND: Loose brownish grey fine to coarse SAND AND GRAVEL with medium cobble to low boulder content. Gravel is fine to coarse, angular to subangular of slag, aerated slag, coke, refractory brick, polished iron rich slag.<br>MGR |   |
|                 | 1.50 - 2.00                 | B    |         | 1.00         |              |        | MADE GROUND: Loose to medium dense, red very sandy fine to coarse, angular to subangular GRAVEL of red brick and slag.<br>MGR                                                                                                                               | 1 |
|                 |                             |      |         | 1.50         |              |        | MADE GROUND: Loose to medium dense white slightly sandy GRAVEL AND COBBLES with low boulder content. Gravel to boulders are of white slag.<br>MGR                                                                                                           |   |
|                 |                             |      |         | 2.00         |              |        | MADE GROUND: Loose to medium dense red slightly sandy GRAVEL AND COBBLES with low boulder content. Gravel to boulders are of white slag.<br>MGR                                                                                                             | 2 |
|                 |                             |      |         | 2.50         |              |        | MADE GROUND: Loose to medium dense white slightly sandy GRAVEL AND COBBLES with low boulder content. Gravel to boulders are of white slag.<br>MGR                                                                                                           |   |
|                 |                             |      |         | 3.10         |              |        | MADE GROUND: Loose to medium dense red slightly sandy GRAVEL AND COBBLES with low boulder content. Gravel to boulders are of white slag.<br>MGR                                                                                                             | 3 |
|                 |                             |      |         | 3.80         |              |        | MADE GROUND: Loose to medium dense, dark brown sandy fine to coarse, angular to subangular GRAVEL of slag and brick with low cobble content.<br>MGR                                                                                                         | 4 |
| ▼               | 4.00                        | ES   |         | 4.10         |              |        | End of pit at 4.10 m                                                                                                                                                                                                                                        | 5 |

Remarks:

Stability:

## Chemical laboratory results



## Certificate of Analysis

**Certificate Number** 17-00243-2

19-Jun-17

**Client** Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

**Our Reference** 17-00243-2

**Client Reference** SLS1015

**Order No** CH-1375

**Contract Title** SSI REDCAR

**Description** 13 Soil samples, 6 Leachate samples.

**Date Received** Saturday, May 20, 2017

**Date Started** Saturday, May 20, 2017

**Date Completed** Monday, June 19, 2017

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

**Notes** **This report supersedes 17-00243. Extra testing**

Opinions and interpretations are outside the laboratory's scope of ISO 10725 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 "A. Fenwick", is written over a light blue horizontal line.

Adam Fenwick  
Contracts Manager





## Summary of Chemical Analysis

### Matrix Descriptions

*Our Ref* 17-00243-2

*Client Ref* SLS1015

*Contract Title* SSI REDCAR

| Sample ID | Other ID | Depth     | Lab No  | Completed | Matrix Description         |
|-----------|----------|-----------|---------|-----------|----------------------------|
| S2TPA64   | E1       | 0.3       | 1176845 | 15-Jun-17 | Grey gravelly and SAND     |
| S2TPA50   | E1       | 0.20-0.70 | 1177270 | 15-Jun-17 | Brown gravelly, sandy CLAY |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-00243-2

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1176070   | 1176071   | 1176073   | 1176074   | 1176076   | 1176077   | 1176078   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA48   | S2TPA48   | S2TPA49   | S2TPA50   | S2TPA53   | S2TPA54   | S2TPA56   |
| Depth         | 0.80      | 4.20      | 2.00      | 1.20-1.40 | 2.20      | 0.20-0.30 | 2.60      |
| Other ID      | E1        | E3        | E2        | E2        | E3        | E1        | E2        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 12-May-17 | 12-May-17 | 12-May-17 | 17-May-17 | 17-May-17 | 12-May-17 | 12-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                            | Method      | LOD  | Units |        |        |        |        |         |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|---------|--------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       |        |        | Y      |        |         |        |        |
| <b>Metals</b>                   |             |      |       |        |        |        |        |         |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg | 13     | 10     |        |        | 11      |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 24     | 22     | 46     | 8.8    | 13      | 6.1    | 6.2    |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 160    | 430    |        |        | 230     |        |        |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 0.3    | 1.4    |        |        | 2.9     |        |        |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 2.6    | 3.5    | 3.3    | 0.5    | 0.4     | 2.2    | 1.0    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 1.0    | 2.2    | 1.8    | 0.2    | 1.6     | 0.1    | < 0.1  |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 640    | 490    | 130    | 13     | 21      | 6.5    | 19     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  |        |        | < 1.0   |        |        |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 220    | 58     | 67     | 6.8    | 72      | 5.9    | 8.7    |
| Iron                            | DETSC 2301  | 25   | mg/kg | 250000 | 170000 |        | 15000  | 21000   | 3000   |        |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 110    | 460    | 410    | 46     | 320     | 4.1    | 7.6    |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.30   | 1.3    | 2.3    | 0.08   | 0.09    | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg | 12     | 4.4    |        |        | 4.8     |        |        |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 71     | 24     | 43     | 4.3    | 14      | 1.1    | 4.6    |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg | 2800   | 2100   |        |        | 55      |        |        |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 140    | 1800   | 1900   | 110    | 270     | 17     | 36     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |         |        |        |
| pH                              | DETSC 2008# |      |       | 11.7   | 12.0   | 11.3   | 11.2   | 7.7     | 9.9    | 9.8    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.4    | 59     | 70     | 3.2    | 0.3     | 0.9    | 0.9    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg | < 0.1  | 0.2    |        |        | < 0.1   | < 0.1  |        |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg | 0.4    | 59     |        |        | 0.3     | 0.9    |        |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg | < 0.6  | 1.0    |        |        | < 0.6   | 1.9    |        |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 4.0    | 0.3    | 1.5    | 0.6    | 6.6     | 0.4    | 0.7    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 19     | 29     | 420    | 110    | 95      | 1500   | 1700   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.16   | 0.13   |        | 0.03   | 0.75    | 0.59   |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.32   | 0.27   |        | 0.06   | 0.51    | 1.3    |        |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |        |        |         |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.10  | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.10  | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.10  | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | 4.3    | < 1.5  | < 1.5  | < 1.5  | < 500.0 | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | 73     | 4.0    | < 1.2  | < 1.2  | 880     | 3.5    | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | 810    | 51     | 4.4    | < 1.5  | 4900    | 16     | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | 4700   | 300    | 39     | < 3.4  | 27000   | 78     | < 3.4  |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | 5600   | 360    | 44     | < 10   | 34000   | 97     | < 10   |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.10  | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.10  | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.10  | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | < 0.9  | < 0.9  | < 0.9  | < 500.0 | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | 16     | < 0.5  | < 0.5  | < 0.5  | < 500.0 | 0.7    | < 0.5  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-00243-2

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1176070   | 1176071   | 1176073   | 1176074   | 1176076   | 1176077   | 1176078   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA48   | S2TPA48   | S2TPA49   | S2TPA50   | S2TPA53   | S2TPA54   | S2TPA56   |
| Depth         | 0.80      | 4.20      | 2.00      | 1.20-1.40 | 2.20      | 0.20-0.30 | 2.60      |
| Other ID      | E1        | E3        | E2        | E2        | E3        | E1        | E2        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 12-May-17 | 12-May-17 | 12-May-17 | 17-May-17 | 17-May-17 | 12-May-17 | 12-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                    | Method      | LOD  | Units |        |        |        |        |         |        |        |
|-------------------------|-------------|------|-------|--------|--------|--------|--------|---------|--------|--------|
| Aromatic C16-C21        | DETSC 3072# | 0.6  | mg/kg | 160    | 8.5    | < 0.6  | < 0.6  | 2700    | 10     | < 0.6  |
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | 1100   | 60     | < 1.4  | < 1.4  | 14000   | 40     | < 1.4  |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | 1300   | 69     | < 10   | < 10   | 18000   | 50     | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | 6900   | 430    | 44     | < 10   | 51000   | 150    | < 10   |
| <b>PAHs</b>             |             |      |       |        |        |        |        |         |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | 0.33   | 0.06   | 0.10   | < 0.03 | < 0.30  | < 0.03 | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | < 0.30 | < 0.03 | < 0.03 | < 0.03 | < 0.30  | < 0.03 | < 0.03 |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | < 0.30 | 0.08   | < 0.03 | < 0.03 | 0.39    | < 0.03 | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | < 0.30 | 0.05   | < 0.03 | < 0.03 | < 0.30  | < 0.03 | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 2.2    | 0.96   | 0.28   | < 0.03 | 0.94    | < 0.03 | < 0.03 |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | < 0.30 | 0.16   | < 0.03 | < 0.03 | < 0.30  | < 0.03 | < 0.03 |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 1.8    | 1.3    | 0.14   | < 0.03 | 2.0     | < 0.03 | < 0.03 |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 2.0    | 1.1    | 0.22   | < 0.03 | 4.7     | < 0.03 | < 0.03 |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 0.55   | 0.62   | 0.07   | < 0.03 | 0.72    | < 0.03 | < 0.03 |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 1.0    | 0.78   | 0.09   | < 0.03 | 2.3     | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.94   | 0.82   | 0.15   | < 0.03 | 2.0     | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.34   | 0.37   | 0.03   | < 0.03 | 0.62    | < 0.03 | < 0.03 |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | < 0.30 | 0.57   | < 0.03 | < 0.03 | 0.71    | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 0.39   | 0.29   | 0.03   | < 0.03 | 0.62    | < 0.03 | < 0.03 |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | < 0.30 | 0.10   | < 0.03 | < 0.03 | < 0.30  | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | 0.49   | 0.37   | 0.07   | < 0.03 | 0.94    | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 10     | 7.7    | 1.2    | < 0.10 | < 15.73 | < 0.10 | < 0.10 |
| <b>Phenols</b>          |             |      |       |        |        |        |        |         |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | < 0.3  | < 0.3  | < 0.3  | < 0.3  | < 0.3   | 1.0    | < 0.3  |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-00243-2

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1176079   | 1176080   | 1176081   | 1176082   | 1176845   | 1177270   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA59   | S2TPA61   | S2TPA61   | S2TPA69   | S2TPA64   | S2TPA50   |
| Depth         | 3.00      | 0.20      | 2.10      | 2.00      | 0.30      | 0.20-0.70 |
| Other ID      | E2        | E1        | E2        | E1        | E1        | E1        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 17-May-17 | 17-May-17 | 17-May-17 | 17-May-17 | 17-May-17 | 17-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       |        |        |        |        |        |        |
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg | < 1.0  |        |        | 1.1    |        |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 6.2    | 6.1    | 6.5    | 9.8    | 2.3    | 8.1    |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 31     |        |        | 300    |        |        |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 0.2    |        |        | 1.2    |        |        |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 0.8    | 1.0    | 0.3    | 2.6    | 7.2    | 1.5    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.2    | 0.4    | 0.1    | 0.2    | 0.1    | 0.5    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 3.7    | 150    | 7.6    | 22     | 55     | 160    |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  |        |        | < 1.0  |        |        |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 6.1    | 29     | 9.1    | 35     | 7.6    | 28     |
| Iron                            | DETSC 2301  | 25   | mg/kg | 5300   |        |        |        |        |        |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 21     | 23     | 27     | 90     | 4.9    | 48     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | 0.06   | < 0.05 | 0.06   |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg | < 0.4  |        |        | 1.8    |        |        |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 2.5    | 13     | 5.7    | 24     | 1.8    | 13     |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg | 11     |        |        | 57     |        |        |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 49     | 100    | 41     | 92     | 190    | 240    |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      |       | 8.7    | 11.5   | 10.4   | 11.0   | 8.8    | 9.7    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | < 0.1  | 0.2    | 0.1    | 0.1    | 0.2    | 1.9    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg | < 0.1  |        |        | < 0.1  |        |        |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg | < 0.2  |        |        | < 0.2  |        |        |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg | < 0.6  |        |        | 1.9    |        |        |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 5.3    | 1.5    | 0.8    | 1.4    | 0.6    | 2.4    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 430    | 440    | 400    | 890    | 600    | 740    |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.22   |        |        | 0.06   |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.12   |        |        | 0.50   |        |        |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |        |        |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | 0.09   | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | 11     | < 1.5  | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | 150    | < 1.2  | < 1.2  | < 1.2  | < 1.2  | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | 160    | < 1.5  | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | 54     | 18     | < 3.4  | < 3.4  | < 3.4  | 5.9    |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | 380    | 19     | < 10   | < 10   | < 10   | < 10   |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | 0.16   | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | 2.1    | < 0.9  | < 0.9  | < 0.9  | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | 83     | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-00243-2

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1176079   | 1176080   | 1176081   | 1176082   | 1176845   | 1177270   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA59   | S2TPA61   | S2TPA61   | S2TPA69   | S2TPA64   | S2TPA50   |
| Depth         | 3.00      | 0.20      | 2.10      | 2.00      | 0.30      | 0.20-0.70 |
| Other ID      | E2        | E1        | E2        | E1        | E1        | E1        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 17-May-17 | 17-May-17 | 17-May-17 | 17-May-17 | 17-May-17 | 17-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                    | Method      | LOD  | Units |        |        |        |        |        |        |
|-------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| Aromatic C16-C21        | DETSC 3072# | 0.6  | mg/kg | 130    | < 0.6  | < 0.6  | < 0.6  | < 0.6  | < 0.6  |
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | 56     | < 1.4  | < 1.4  | < 1.4  | < 1.4  | < 1.4  |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | 280    | < 10   | < 10   | < 10   | < 10   | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | 650    | 19     | < 10   | < 10   | < 10   | < 10   |
| <b>PAHs</b>             |             |      |       |        |        |        |        |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.04   | < 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 |
| Acenaphthene            | 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 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 0.14   | 0.13   | < 0.03 | < 0.03 | < 0.03 | 0.08   |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | 0.06   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 0.54   | 0.16   | < 0.03 | 0.11   | 0.12   | 0.11   |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 0.50   | 0.13   | < 0.03 | 0.10   | 0.10   | 0.09   |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 0.17   | 0.07   | < 0.03 | < 0.03 | 0.05   | 0.06   |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 0.20   | 0.11   | < 0.03 | < 0.03 | 0.06   | 0.09   |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.17   | 0.14   | < 0.03 | < 0.03 | 0.06   | 0.09   |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.06   | 0.05   | < 0.03 | < 0.03 | 0.03   | 0.04   |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | 0.13   | 0.07   | < 0.03 | < 0.03 | 0.04   | 0.05   |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 0.07   | 0.07   | < 0.03 | < 0.03 | 0.04   | 0.05   |
| Dibenzo(a,h)anthracene  | 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 | 0.08   | 0.08   | < 0.03 | < 0.03 | 0.04   | 0.06   |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 2.1    | 1.1    | < 0.10 | 0.20   | 0.56   | 0.75   |
| <b>Phenols</b>          |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | < 0.3  | < 0.3  | < 0.3  | < 0.3  | < 0.3  | < 0.3  |

# Summary of Chemical Analysis

## Soil VOC/SVOC Samples

Our Ref 17-00243-2

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1176070   | 1176076   | 1176079   | 1176080   | 1176082   |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA48   | S2TPA53   | S2TPA59   | S2TPA61   | S2TPA69   |
| Depth         | 0.80      | 2.20      | 3.00      | 0.20      | 2.00      |
| Other ID      | E1        | E3        | E2        | E1        | E1        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 12-May-17 | 17-May-17 | 17-May-17 | 17-May-17 | 17-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                       | Method      | LOD  | Units |        |        |        |        |        |
|----------------------------|-------------|------|-------|--------|--------|--------|--------|--------|
| <b>VOCs</b>                |             |      |       |        |        |        |        |        |
| Vinyl Chloride             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 2,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromochloromethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chloroform                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloropropene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | 0.01   | < 0.01 | < 0.01 |
| Carbon tetrachloride       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Trichloroethylene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibromomethane             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromodichloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Toluene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Tetrachloroethylene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,3-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibromochloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromoethane          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chlorobenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Ethylbenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| m+p-Xylene                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| o-Xylene                   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Styrene                    | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromoform                  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Isopropylbenzene           | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromobenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| n-propylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 2-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 4-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Tert-butylbenzene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | 0.02   | < 0.01 | < 0.01 | < 0.01 | < 0.01 |

# Summary of Chemical Analysis

## Soil VOC/SVOC Samples

Our Ref 17-00243-2

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1176070   | 1176076   | 1176079   | 1176080   | 1176082   |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA48   | S2TPA53   | S2TPA59   | S2TPA61   | S2TPA69   |
| Depth         | 0.80      | 2.20      | 3.00      | 0.20      | 2.00      |
| Other ID      | E1        | E3        | E2        | E1        | E1        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 12-May-17 | 17-May-17 | 17-May-17 | 17-May-17 | 17-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                        | Method      | LOD  | Units |        |        |        |        |        |
|-----------------------------|-------------|------|-------|--------|--------|--------|--------|--------|
| sec-butylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| p-isopropyltoluene          | DETSC 3431  | 0.01 | mg/kg | 0.01   | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| n-butylbenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Hexachlorobutadiene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | 0.03   | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| MTBE                        | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| <b>SVOCs</b>                |             |      |       |        |        |        |        |        |
| Phenol                      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | 0.1    | < 0.1  | < 0.1  | < 0.1  |
| Aniline                     | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2-Chlorophenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| Benzyl Alcohol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2-Methylphenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 3&4-Methylphenol            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | 0.2    | < 0.1  | < 0.1  | < 0.1  |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 3-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 4-Nitrophenol               | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| Dibenzofuran                | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| Diethylphthalate            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | 0.2    | < 0.1  | < 0.1  |
| 4-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 2-Methyl-4,6-Dinitrophenol  | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| Diphenylamine               | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| 4-Bromophenylphenylether    | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-00243-2

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1176070   | 1176076   | 1176079   | 1176080   | 1176082   |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA48   | S2TPA53   | S2TPA59   | S2TPA61   | S2TPA69   |
| Depth         | 0.80      | 2.20      | 3.00      | 0.20      | 2.00      |
| Other ID      | E1        | E3        | E2        | E1        | E1        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 12-May-17 | 17-May-17 | 17-May-17 | 17-May-17 | 17-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                       | Method      | LOD | Units |       |       |       |       |       |
|----------------------------|-------------|-----|-------|-------|-------|-------|-------|-------|
| Hexachlorobenzene          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Pentachlorophenol          | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Di-n-butylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Butylbenzylphthalate       | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Di-n-octylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dimethylphthalate          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Azobenzene                 | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Carbazole                  | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | 0.2   | < 0.1 |

## Summary of Chemical Analysis

### Leachate Samples

Our Ref 17-00243-2

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1176083   | 1176084   | 1176085   | 1176086   | 1176087   | 1176088   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA48   | S2TPA48   | S2TPA50   | S2TPA53   | S2TPA54   | S2TPA59   |
| Depth         | 0.80      | 4.20      | 1.20-1.40 | 2.20      | 0.20-0.30 | 3.00      |
| Other ID      | E1        | E3        | E2        | E3        | E1        | E2        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 12-May-17 | 12-May-17 | 17-May-17 | 17-May-17 | 12-May-17 | 17-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                     | Method      | LOD   | Units |        |        |        |        |        |        |
|--------------------------|-------------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Preparation</b>       |             |       |       |        |        |        |        |        |        |
| NRA Leachate Preparation | DETS 036*   |       |       | Y      | Y      | Y      | Y      | Y      | Y      |
| <b>Metals</b>            |             |       |       |        |        |        |        |        |        |
| Arsenic, Dissolved       | DETSC 2306  | 0.16  | ug/l  | 1.2    | 0.87   | 0.82   | 0.87   | 1.7    | 1.2    |
| Barium, Dissolved        | DETSC 2306  | 0.26  | ug/l  | 13     | 10     | 51     | 6.8    | 44     | 6.6    |
| Beryllium, Dissolved     | DETSC 2306* | 0.1   | ug/l  | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| Boron                    | DETSC 2123  | 100   | ug/l  | 180    | 180    | 200    | 240    | 280    | 240    |
| Cadmium, Dissolved       | DETSC 2306  | 0.03  | ug/l  | < 0.03 | 0.05   | 0.80   | < 0.03 | < 0.03 | < 0.03 |
| Chromium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | 1.0    | < 0.25 | < 0.25 | < 0.25 | 1.4    | < 0.25 |
| Copper, Dissolved        | DETSC 2306  | 0.4   | ug/l  | 2.2    | 7.2    | < 0.4  | 3.6    | 0.5    | < 0.4  |
| Lead, Dissolved          | DETSC 2306  | 0.09  | ug/l  | 1.2    | 0.40   | 0.18   | 0.50   | 0.19   | < 0.09 |
| Manganese, Dissolved     | DETSC 2306  | 0.22  | ug/l  | 7.2    | 5.7    | 150    | 4.3    | 190    | 22     |
| Mercury, Dissolved       | DETSC 2306  | 0.01  | ug/l  | 0.02   | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Nickel, Dissolved        | DETSC 2306  | 0.5   | ug/l  | < 0.5  | 1.1    | 3.2    | 0.7    | 5.6    | 0.9    |
| Selenium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | 1.3    | 0.82   | 0.75   | 0.51   | 0.65   | 0.36   |
| Vanadium, Dissolved      | DETSC 2306  | 0.6   | ug/l  | < 0.6  | 1.3    | < 0.6  | 0.9    | < 0.6  | < 0.6  |
| Zinc, Dissolved          | DETSC 2306  | 1.3   | ug/l  | 6.7    | 57     | 240    | 12     | 7.8    | 4.4    |
| <b>Inorganics</b>        |             |       |       |        |        |        |        |        |        |
| pH                       | DETSC 2008  |       |       | 11.2   | 11.9   | 8.4    | 7.8    | 8.8    | 9.3    |
| Ammoniacal Nitrogen as N | DETSC 2207  | 0.015 | mg/l  | 0.11   | 0.13   | 0.13   | 0.26   | 0.31   | 0.45   |
| Chloride                 | DETSC 2055  | 0.1   | mg/l  | 3.0    | 7.2    | 2.7    | 6.0    | 2.4    | 5.9    |

## Summary of Asbestos Analysis

### Soil Samples

Our Ref 17-00243-2  
 Client Ref SLS1015  
 Contract Title SSI REDCAR

| Lab No  | Sample ID            | Material Type | Result  | Comment*                       | Analyst       |
|---------|----------------------|---------------|---------|--------------------------------|---------------|
| 1176070 | S2TPA48 E1 0.80      | SOIL          | NAD     | none                           | Colin Patrick |
| 1176071 | S2TPA48 E3 4.20      | SOIL          | NAD     | none                           | Colin Patrick |
| 1176073 | S2TPA49 E2 2.00      | SOIL          | Amosite | small bundle of Amosite fibres | Colin Patrick |
| 1176074 | S2TPA50 E2 1.20-1.40 | SOIL          | NAD     | none                           | Colin Patrick |
| 1176076 | S2TPA53 E3 2.20      | SOIL          | NAD     | none                           | Colin Patrick |
| 1176077 | S2TPA54 E1 0.20-0.30 | SOIL          | NAD     | none                           | Colin Patrick |
| 1176078 | S2TPA56 E2 2.60      | SOIL          | NAD     | none                           | Colin Patrick |
| 1176079 | S2TPA59 E2 3.00      | SOIL          | NAD     | none                           | Colin Patrick |
| 1176080 | S2TPA61 E1 0.20      | SOIL          | NAD     | none                           | Colin Patrick |
| 1176081 | S2TPA61 E2 2.10      | SOIL          | NAD     | none                           | Colin Patrick |
| 1176082 | S2TPA69 E1 2.00      | SOIL          | NAD     | none                           | Colin Patrick |
| 1176845 | S2TPA64 E1 0.30      | SOIL          | NAD     | none                           | Colin Patrick |
| 1177270 | S2TPA50 E1 0.20-0.70 | SOIL          | NAD     | none                           | Colin Patrick |

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.

## Summary of Asbestos Quantification Analysis

### Soil Samples

Our Ref 17-00243-2

Client Ref SLS1015

Contract Title SSI REDCAR

|               |           |
|---------------|-----------|
| Lab No        | 1176073   |
| Sample ID     | S2TPA49   |
| Depth         | 2.00      |
| Other ID      | E2        |
| Sample Type   | SOIL      |
| Sampling Date | 12-May-17 |
| Sampling Time |           |

| Test                                    | Method     | Units    |         |
|-----------------------------------------|------------|----------|---------|
| Total Mass% Asbestos (a+b+c)            | DETSC 1102 | Mass %   | < 0.001 |
| Gravimetric Quantification (a)          | DETSC 1102 | Mass %   | na      |
| Detailed Gravimetric Quantification (b) | DETSC 1102 | Mass %   | <0.001  |
| Quantification by PCOM (c)              | DETSC 1102 | Mass %   | na      |
| Potentially Respirable Fibres (d)       | DETSC 1102 | Fibres/g | na      |

#### Breakdown of Gravimetric Analysis (a)

|                       |  |      |        |
|-----------------------|--|------|--------|
| Mass of Sample        |  | g    | 659.00 |
| ACMs present*         |  | type |        |
| Mass of ACM in sample |  | g    |        |
| % ACM by mass         |  | %    |        |
| % asbestos in ACM     |  | %    |        |
| % asbestos in sample  |  | %    |        |

#### Breakdown of Detailed Gravimetric Analysis (b)

|                                |  |        |        |
|--------------------------------|--|--------|--------|
| % Amphibole bundles in sample  |  | Mass % | <0.001 |
| % Chrysotile bundles in sample |  | Mass % | na     |

#### Breakdown of PCOM Analysis (c)

|                               |  |        |    |
|-------------------------------|--|--------|----|
| % Amphibole fibres in sample  |  | Mass % | na |
| % Chrysotile fibres in sample |  | Mass % | na |

#### Breakdown of Potentially Respirable Fibre Analysis (d)

|                   |  |          |    |
|-------------------|--|----------|----|
| Amphibole fibres  |  | Fibres/g | na |
| Chrysotile fibres |  | Fibres/g | na |

\* Denotes test or material description outside of UKAS accreditation.  
 % asbestos in Asbestos Containing Materials (ACMs) is determined by  
 by reference to HSG 264.  
 Recommended sample size for quantification is approximately 1kg  
 # denotes deviating sample

## Information in Support of the Analytical Results

Our Ref 17-00243-2

Client Ref SLS1015

Contract SSI REDCAR

### Containers Received & Deviating Samples

| Lab No  | Sample ID                  | Date Sampled | Containers Received         | Holding time exceeded for tests | Inappropriate container for tests |
|---------|----------------------------|--------------|-----------------------------|---------------------------------|-----------------------------------|
| 1176070 | S2TPA48 0.80 SOIL          | 12-05-17     | GJ 60ml x6, PT 1L           | pH + Conductivity (7 days)      |                                   |
| 1176071 | S2TPA48 4.20 SOIL          | 12-05-17     | GJ 60ml x6, PT 1L           | pH + Conductivity (7 days)      |                                   |
| 1176072 | S2TPA49 0.40 SOIL          | 12-05-17     | GJ 60ml x6, PT 1L           |                                 |                                   |
| 1176073 | S2TPA49 2.00 SOIL          | 12-05-17     | GJ 60ml x6, PT 1L           | pH + Conductivity (7 days)      |                                   |
| 1176074 | S2TPA50 1.20-1.40 SOIL     | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176075 | S2TPA53 0.80 SOIL          | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176076 | S2TPA53 2.20 SOIL          | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176077 | S2TPA54 0.20-0.30 SOIL     | 12-05-17     | GJ 60ml x6, PT 1L           | pH + Conductivity (7 days)      |                                   |
| 1176078 | S2TPA56 2.60 SOIL          | 12-05-17     | GJ 60ml x6, PT 1L           | pH + Conductivity (7 days)      |                                   |
| 1176079 | S2TPA59 3.00 SOIL          | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176080 | S2TPA61 0.20 SOIL          | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176081 | S2TPA61 2.10 SOIL          | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176082 | S2TPA69 2.00 SOIL          | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176083 | S2TPA48 0.80 LEACHATE      | 12-05-17     | GJ 60ml x6, PT 1L           |                                 |                                   |
| 1176084 | S2TPA48 4.20 LEACHATE      | 12-05-17     | GJ 60ml x6, PT 1L           |                                 |                                   |
| 1176085 | S2TPA50 1.20-1.40 LEACHATE | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176086 | S2TPA53 2.20 LEACHATE      | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176087 | S2TPA54 0.20-0.30 LEACHATE | 12-05-17     | GJ 60ml x6, PT 1L           |                                 |                                   |
| 1176088 | S2TPA59 3.00 LEACHATE      | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1176845 | S2TPA64 0.30 SOIL          | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1177270 | S2TPA50 0.20-0.70 SOIL     | 17-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |

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 | Ali/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.



## Certificate of Analysis

**Certificate Number** 17-00352

30-May-17

**Client** Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

**Our Reference** 17-00352

**Client Reference** SLS1015

**Order No** CH-1332

**Contract Title** Redcar Site

**Description** 3 Soil samples, 1 Leachate sample.

**Date Received** 22-May-17

**Date Started** 22-May-17

**Date Completed** 30-May-17

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

**Notes** Opinions and interpretations are outside the laboratory's scope of ISO 10725 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**

Adam Fenwick  
Contracts Manager



## Summary of Chemical Analysis

### Matrix Descriptions

*Our Ref* 17-00352

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Sample ID | Other ID | Depth     | Lab No  | Completed  | Matrix Description              |
|-----------|----------|-----------|---------|------------|---------------------------------|
| S2-TPA47  | 1        | 0.5       | 1176722 | 30/05/2017 | Brown very gravelly, sandy CLAY |
| S2-TPA45  | 1        | 0.40-0.60 | 1176723 | 30/05/2017 | Brown very gravelly, sandy CLAY |
| S2-TPA76  | 1        | 2.8       | 1176724 | 30/05/2017 | Brown very gravelly, sandy CLAY |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-00352

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1176722  | 1176724  |
| Sample ID     | S2-TPA47 | S2-TPA76 |
| Depth         | 0.50     | 2.80     |
| Other ID      | 1        | 1        |
| Sample Type   | ES       | ES       |
| Sampling Date | 12/05/17 | 18/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                            | Method      | LOD  | Units |        |        |
|---------------------------------|-------------|------|-------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg |        | < 1.0  |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 10     | 4.3    |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |        | 220    |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |        | 4.4    |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 2.5    | 6.3    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.2    | < 0.1  |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 14     | 8.7    |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |        | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 22     | 3.7    |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 29     | 2.6    |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg |        | < 0.4  |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 7.4    | < 1.0  |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg |        | 46     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 100    | 7.0    |
| <b>Inorganics</b>               |             |      |       |        |        |
| pH                              | DETSC 2008# |      |       | 9.9    | 10.3   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.3    | < 0.1  |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg |        | < 0.1  |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg |        | < 0.2  |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg |        | 0.8    |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 1.2    | 0.4    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 340    | 1800   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        | 0.61   |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        | 2.1    |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | < 1.2  | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | < 3.4  | < 3.4  |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | < 10   | < 10   |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | < 0.5  | < 0.5  |
| Aromatic C16-C21                | DETSC 3072# | 0.6  | mg/kg | < 0.6  | < 0.6  |
| Aromatic C21-C35                | DETSC 3072# | 1.4  | mg/kg | < 1.4  | < 1.4  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-00352

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1176722  | 1176724  |
| Sample ID     | S2-TPA47 | S2-TPA76 |
| Depth         | 0.50     | 2.80     |
| Other ID      | 1        | 1        |
| Sample Type   | ES       | ES       |
| Sampling Date | 12/05/17 | 18/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                    | Method      | LOD  | Units |        |        |
|-------------------------|-------------|------|-------|--------|--------|
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | < 10   | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | < 10   | < 10   |
| <b>PAHs</b>             |             |      |       |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | 0.04   | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | 0.03   | < 0.03 |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 0.15   | < 0.03 |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | 0.04   | < 0.03 |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 0.23   | < 0.03 |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 0.26   | < 0.03 |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 0.13   | < 0.03 |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 0.13   | < 0.03 |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.15   | < 0.03 |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.05   | < 0.03 |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | 0.11   | < 0.03 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 0.07   | < 0.03 |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | 0.09   | < 0.03 |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 1.5    | < 0.10 |
| <b>Phenols</b>          |             |      |       |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | 1.0    | 1.2    |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-00352

Client Ref SLS1015

Contract Title Redcar Site

|               |           |
|---------------|-----------|
| Lab No        | 1176723   |
| Sample ID     | S2-TPA45  |
| Depth         | 0.40-0.60 |
| Other ID      | 1         |
| Sample Type   | ES        |
| Sampling Date | 12/05/17  |
| Sampling Time | n/s       |

| Test                       | Method      | LOD  | Units |        |
|----------------------------|-------------|------|-------|--------|
| <b>VOCs</b>                |             |      |       |        |
| Vinyl Chloride             | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 2,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Bromochloromethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Chloroform                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1-dichloropropene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Carbon tetrachloride       | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Benzene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Trichloroethylene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Dibromomethane             | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Bromodichloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Toluene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Tetrachloroethylene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,3-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Dibromochloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dibromoethane          | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Chlorobenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Ethylbenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| m+p-Xylene                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| o-Xylene                   | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Styrene                    | DETSC 3431* | 0.01 | mg/kg | < 0.01 |
| Bromoform                  | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Isopropylbenzene           | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Bromobenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| n-propylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 2-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 4-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Tert-butylbenzene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-00352

Client Ref SLS1015

Contract Title Redcar Site

|               |           |
|---------------|-----------|
| Lab No        | 1176723   |
| Sample ID     | S2-TPA45  |
| Depth         | 0.40-0.60 |
| Other ID      | 1         |
| Sample Type   | ES        |
| Sampling Date | 12/05/17  |
| Sampling Time | n/s       |

| Test                        | Method      | LOD  | Units |        |
|-----------------------------|-------------|------|-------|--------|
| sec-butylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| p-isopropyltoluene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| n-butylbenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Hexachlorobutadiene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Naphthalene                 | DETSC 3431  | 0.01 | mg/kg | 0.02   |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| MTBE                        | DETSC 3431* | 0.01 | mg/kg | < 0.01 |
| <b>SVOCs</b>                |             |      |       |        |
| Phenol                      | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| Aniline                     | DETSC 3433* | 0.1  | mg/kg | < 0.1  |
| 2-Chlorophenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| Benzyl Alcohol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 2-Methylphenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 3&4-Methylphenol            | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1  | mg/kg | < 0.1  |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1  | mg/kg | < 0.1  |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 2-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1  | mg/kg | < 0.1  |
| Acenaphthylene              | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 3-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  |
| Acenaphthene                | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 4-Nitrophenol               | DETSC 3433* | 0.1  | mg/kg | < 0.1  |
| Dibenzofuran                | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1  | mg/kg | < 0.1  |
| Diethylphthalate            | DETSC 3433  | 0.1  | mg/kg | < 0.1  |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1  | mg/kg | < 0.1  |
| Fluorene                    | DETSC 3433  | 0.1  | mg/kg | < 0.1  |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-00352

Client Ref SLS1015

Contract Title Redcar Site

|               |           |
|---------------|-----------|
| Lab No        | 1176723   |
| Sample ID     | S2-TPA45  |
| Depth         | 0.40-0.60 |
| Other ID      | 1         |
| Sample Type   | ES        |
| Sampling Date | 12/05/17  |
| Sampling Time | n/s       |

| Test                       | Method      | LOD | Units |       |
|----------------------------|-------------|-----|-------|-------|
| 4-Nitroaniline             | DETSC 3433* | 0.1 | mg/kg | < 0.1 |
| 2-Methyl-4,6-Dinitrophenol | DETSC 3433* | 0.1 | mg/kg | < 0.1 |
| Diphenylamine              | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| 4-Bromophenylphenylether   | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Hexachlorobenzene          | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Pentachlorophenol          | DETSC 3433* | 0.1 | mg/kg | < 0.1 |
| Phenanthrene               | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Anthracene                 | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Di-n-butylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Fluoranthene               | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Pyrene                     | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Butylbenzylphthalate       | DETSC 3433* | 0.1 | mg/kg | < 0.1 |
| Benzo(a)anthracene         | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Chrysene                   | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Di-n-octylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Benzo(b)fluoranthene       | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Benzo(k)fluoranthene       | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Benzo(a)pyrene             | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Indeno(123cd)pyrene        | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Dibenzo(ah)anthracene      | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Benzo(ghi)perylene         | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 |
| Dimethylphthalate          | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1 | mg/kg | < 0.1 |
| Azobenzene                 | DETSC 3433  | 0.1 | mg/kg | < 0.1 |
| Carbazole                  | DETSC 3433* | 0.1 | mg/kg | < 0.1 |

## Summary of Chemical Analysis

### Leachate Samples

Our Ref 17-00352

Client Ref SLS1015

Contract Title Redcar Site

|               |          |
|---------------|----------|
| Lab No        | 1176725  |
| Sample ID     | S2-TPA76 |
| Depth         | 2.80     |
| Other ID      | 1        |
| Sample Type   | ES       |
| Sampling Date | 18/05/17 |
| Sampling Time | n/s      |

| Test                     | Method      | LOD   | Units |         |
|--------------------------|-------------|-------|-------|---------|
| <b>Preparation</b>       |             |       |       |         |
| Leachate 10:1            | DETS 036*   |       |       | Y       |
| <b>Metals</b>            |             |       |       |         |
| Arsenic, Dissolved       | DETSC 2306  | 0.16  | ug/l  | 7.0     |
| Barium, Dissolved        | DETSC 2306  | 0.26  | ug/l  | 9.9     |
| Beryllium, Dissolved     | DETSC 2306* | 0.1   | ug/l  | < 0.1   |
| Boron                    | DETSC 2123  | 100   | ug/l  | 190     |
| Cadmium, Dissolved       | DETSC 2306  | 0.03  | ug/l  | 0.98    |
| Chromium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | < 0.25  |
| Copper, Dissolved        | DETSC 2306  | 0.4   | ug/l  | 16      |
| Iron, Dissolved          | DETSC 2306  | 5.5   | ug/l  | 8.2     |
| Lead, Dissolved          | DETSC 2306  | 0.09  | ug/l  | < 0.09  |
| Manganese, Dissolved     | DETSC 2306  | 0.22  | ug/l  | 26      |
| Mercury, Dissolved       | DETSC 2306  | 0.01  | ug/l  | < 0.01  |
| Nickel, Dissolved        | DETSC 2306  | 0.5   | ug/l  | 1.3     |
| Selenium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | 0.59    |
| Vanadium, Dissolved      | DETSC 2306  | 0.6   | ug/l  | < 0.6   |
| Zinc, Dissolved          | DETSC 2306  | 1.3   | ug/l  | 450     |
| <b>Inorganics</b>        |             |       |       |         |
| pH                       | DETSC 2008  |       |       | 8.3     |
| Ammoniacal Nitrogen as N | DETSC 2207  | 0.015 | mg/l  | < 0.015 |
| Chloride                 | DETSC 2055  | 0.1   | mg/l  | 3.4     |

## Summary of Asbestos Analysis

### Soil Samples

*Our Ref* 17-00352

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Lab No  | Sample ID       | Material Type | Result | Comment* | Analyst     |
|---------|-----------------|---------------|--------|----------|-------------|
| 1176722 | S2-TPA47 1 0.50 | SOIL          | NAD    | none     | Chris Samms |
| 1176724 | S2-TPA76 1 2.80 | SOIL          | NAD    | none     | Chris Samms |

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 17-00352  
 Client Ref SLS1015  
 Contract Redcar Site

### Containers Received & Deviating Samples

| Lab No  | Sample ID               | Date Sampled | Containers Received            | Holding time exceeded for tests | Inappropriate container for tests |
|---------|-------------------------|--------------|--------------------------------|---------------------------------|-----------------------------------|
| 1176722 | S2-TPA47 0.50 SOIL      | 12/05/17     | GJ 250ml x2, GJ 60ml x4, PT 1L | pH + Conductivity (7 days)      |                                   |
| 1176723 | S2-TPA45 0.40-0.60 SOIL | 12/05/17     | GJ 250ml, GJ 60ml x4, PT 1L    |                                 |                                   |
| 1176724 | S2-TPA76 2.80 SOIL      | 18/05/17     | GJ 250ml x2, GJ 60ml, PT 1L    |                                 |                                   |
| 1176725 | S2-TPA76 2.80 LEACHATE  | 18/05/17     | GJ 250ml x2, GJ 60ml, PT 1L    |                                 |                                   |

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 | Ali/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.



## Certificate of Analysis

**Certificate Number** 17-00608

31-May-17

**Client** Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

**Our Reference** 17-00608

**Client Reference** SLS1015

**Order No** CH-1332

**Contract Title** Redcar Site

**Description** 14 Soil samples, 7 Leachate samples.

**Date Received** 24-May-17

**Date Started** 24-May-17

**Date Completed** 31-May-17

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

**Notes** Opinions and interpretations are outside the laboratory's scope of ISO 10725 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 blue ink, appearing to read "A. Fenwick", is written over a light blue horizontal line.

Adam Fenwick  
Contracts Manager



## Summary of Chemical Analysis

### Matrix Descriptions

Our Ref 17-00608

Client Ref SLS1015

Contract Title Redcar Site

| Sample ID | Other ID | Depth | Lab No  | Completed  | Matrix Description                                                                    |
|-----------|----------|-------|---------|------------|---------------------------------------------------------------------------------------|
| S2TPA51   | E1       | 1     | 1178039 | 31/05/2017 | Dark brown gravelly, sandy CLAY                                                       |
| S2TPA51   | E1       | 1.4   | 1178040 | 31/05/2017 | Brown gravelly, sandy CLAY                                                            |
| S2TPA52   | E1       | 0.5   | 1178041 | 31/05/2017 | Brown clayey, sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)      |
| S2TPA58   | E1       | 1.2   | 1178042 | 31/05/2017 | Black gravelly, sandy CLAY                                                            |
| S2TPA58   | E2       | 3.6   | 1178043 | 31/05/2017 | Black gravelly, sandy CLAY                                                            |
| S2TPA60   | E2       | 2     | 1178044 | 31/05/2017 | Dark grey clayey, sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)  |
| S2TPA62   | E1       | 0.5   | 1178045 | 31/05/2017 | Grey clayey, sandy GRAVEL dark grey, clayey, gravelly and SAND (Made ground - brick)  |
| S2TPA65   | E1       | 2     | 1178046 | 31/05/2017 | Brown gravelly, sandy CLAY                                                            |
| S2TPA65   | E2       | 2.7   | 1178047 | 31/05/2017 | Brown gravelly SAND                                                                   |
| S2TPA66   | E1       | 2.7   | 1178048 | 31/05/2017 | Dark brown clayey, sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA67   | E1       | 1.5   | 1178049 | 31/05/2017 | Dark brown clayey, sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA68   | E2       | 1.5   | 1178050 | 31/05/2017 | Dark brown clayey, sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA74   | E1       | 1     | 1178051 | 31/05/2017 | Dark brown clayey, sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA75   | E1       | 0.5   | 1178052 | 31/05/2017 | Dark brown clayey, sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-00608

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1178039  | 1178040  | 1178041  | 1178042  | 1178043  | 1178044  | 1178045  |
|---------------|----------|----------|----------|----------|----------|----------|----------|
| Sample ID     | S2TPA51  | S2TPA51  | S2TPA52  | S2TPA58  | S2TPA58  | S2TPA60  | S2TPA62  |
| Depth         | 1.00     | 1.40     | 0.50     | 1.20     | 3.60     | 2.00     | 0.50     |
| Other ID      | E1       | E1       | E1       | E1       | E2       | E2       | E1       |
| Sample Type   | ES       | ES       | ES       | ES       | ES       | ES       | ES       |
| Sampling Date | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 |
| Sampling Time | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      |

| Test                            | Method      | LOD  | Units |      |        |        |        |        |        |      |
|---------------------------------|-------------|------|-------|------|--------|--------|--------|--------|--------|------|
| <b>Metals</b>                   |             |      |       |      |        |        |        |        |        |      |
| Antimony                        | DETSC 2301* | 1    | mg/kg |      |        | < 1.0  |        |        | 8.8    |      |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg |      | 2.7    | 5.6    | 10     | 87     | 45     |      |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |      |        | 460    |        |        | 250    |      |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |      |        | 2.7    |        |        | 1.5    |      |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg |      | 2.8    | 3.7    | 0.9    | 1.4    | 5.3    |      |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg |      | 0.2    | 0.1    | 1.1    | 0.8    | 1.9    |      |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg |      | 200    | 9.8    | 22     | 170    | 200    |      |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |      |        | < 1.0  |        |        | < 1.0  |      |
| Copper                          | DETSC 2301# | 0.2  | mg/kg |      | 14     | 6.9    | 27     | 710    | 190    |      |
| Lead                            | DETSC 2301# | 0.3  | mg/kg |      | 20     | 19     | 180    | 390    | 600    |      |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg |      | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 0.23   |      |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg |      |        | < 0.4  |        |        | 11     |      |
| Nickel                          | DETSC 2301# | 1    | mg/kg |      | 7.0    | 1.8    | 6.2    | 300    | 84     |      |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg |      |        | 32     |        |        | 300    |      |
| Zinc                            | DETSC 2301# | 1    | mg/kg |      | 96     | 37     | 250    | 110    | 1200   |      |
| <b>Inorganics</b>               |             |      |       |      |        |        |        |        |        |      |
| pH                              | DETSC 2008# |      |       | 11.1 | 9.9    | 10.6   | 8.0    | 10.8   | 11.0   | 9.5  |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg |      | < 0.1  | 0.5    | 0.1    | 160    | 0.4    |      |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg |      |        | < 0.1  |        |        | < 0.1  |      |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg |      |        | 0.5    |        |        | 0.4    |      |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg |      |        | 0.9    |        |        | 0.9    |      |
| Organic matter                  | DETSC 2002# | 0.1  | %     |      | 0.1    | 0.5    | 4.1    | 2.0    | 0.5    |      |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 1300 | 1200   | 1600   | 240    | 430    | 1500   | 1400 |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.46 |        |        |        |        |        | 0.55 |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.48 |        |        |        |        |        | 1.4  |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |      |        |        |        |        |        |      |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg |      | < 0.01 | < 0.01 | 0.04   | < 0.01 | < 0.01 |      |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg |      | < 1.5  | < 1.5  | 13     | < 1.5  | < 1.5  |      |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg |      | < 1.2  | < 1.2  | 140    | 9.2    | 6.9    |      |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg |      | < 1.5  | < 1.5  | 1500   | 110    | 13     |      |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg |      | < 3.4  | < 3.4  | 10000  | 810    | 8.5    |      |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg |      | < 10   | < 10   | 12000  | 930    | 29     |      |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg |      | < 0.01 | < 0.01 | 0.06   | < 0.01 | < 0.01 |      |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg |      | < 0.9  | < 0.9  | 2.1    | < 0.9  | < 0.9  |      |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg |      | < 0.5  | < 0.5  | 79     | < 0.5  | < 0.5  |      |
| Aromatic C16-C21                | DETSC 3072# | 0.6  | mg/kg |      | < 0.6  | < 0.6  | 1000   | 11     | < 0.6  |      |
| Aromatic C21-C35                | DETSC 3072# | 1.4  | mg/kg |      | < 1.4  | < 1.4  | 6300   | 170    | < 1.4  |      |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-00608

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1178039  | 1178040  | 1178041  | 1178042  | 1178043  | 1178044  | 1178045  |
|---------------|----------|----------|----------|----------|----------|----------|----------|
| Sample ID     | S2TPA51  | S2TPA51  | S2TPA52  | S2TPA58  | S2TPA58  | S2TPA60  | S2TPA62  |
| Depth         | 1.00     | 1.40     | 0.50     | 1.20     | 3.60     | 2.00     | 0.50     |
| Other ID      | E1       | E1       | E1       | E1       | E2       | E2       | E1       |
| Sample Type   | ES       | ES       | ES       | ES       | ES       | ES       | ES       |
| Sampling Date | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 |
| Sampling Time | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      |

| Test                    | Method      | LOD  | Units |  |        |        |        |        |        |
|-------------------------|-------------|------|-------|--|--------|--------|--------|--------|--------|
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg |  | < 10   | < 10   | 7500   | 180    | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg |  | < 10   | < 10   | 19000  | 1100   | 29     |
| <b>PAHs</b>             |             |      |       |  |        |        |        |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | < 0.03 | < 0.30 | < 0.03 | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | < 0.03 | < 0.30 | < 0.03 | < 0.03 |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | < 0.03 | < 0.30 | < 0.03 | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg |  | < 0.03 | < 0.03 | < 0.30 | < 0.03 | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg |  | 0.03   | 0.03   | 1.0    | 0.27   | < 0.03 |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg |  | < 0.03 | 0.03   | < 0.30 | 0.03   | < 0.03 |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg |  | 0.08   | 0.03   | 0.33   | 0.43   | < 0.03 |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg |  | 0.06   | 0.03   | 0.82   | 0.35   | < 0.03 |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg |  | 0.05   | < 0.03 | < 0.30 | 0.15   | < 0.03 |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg |  | 0.05   | < 0.03 | 0.55   | 0.33   | < 0.03 |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg |  | 0.08   | < 0.03 | < 0.30 | 0.33   | < 0.03 |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | 0.03   | < 0.30 | 0.10   | < 0.03 |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg |  | 0.05   | < 0.03 | < 0.30 | 0.22   | < 0.03 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg |  | 0.04   | < 0.03 | < 0.30 | 0.11   | < 0.03 |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | < 0.03 | < 0.30 | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg |  | 0.04   | < 0.03 | < 0.30 | 0.14   | < 0.03 |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg |  | 0.49   | 0.16   | < 2.46 | 2.5    | < 0.10 |
| <b>Phenols</b>          |             |      |       |  |        |        |        |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg |  | < 0.3  | < 0.3  | < 0.3  | < 0.3  | < 0.3  |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-00608

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1178046  | 1178047  | 1178048  | 1178049  | 1178051  | 1178052  |
|---------------|----------|----------|----------|----------|----------|----------|
| Sample ID     | S2TPA65  | S2TPA65  | S2TPA66  | S2TPA67  | S2TPA74  | S2TPA75  |
| Depth         | 2.00     | 2.70     | 2.70     | 1.50     | 1.00     | 0.50     |
| Other ID      | E1       | E2       | E1       | E1       | E1       | E1       |
| Sample Type   | ES       | ES       | ES       | ES       | ES       | ES       |
| Sampling Date | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 18/05/17 | 18/05/17 |
| Sampling Time | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg | < 1.0  |        | < 1.0  | < 1.0  |        | 2.1    |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 11     | 4.7    | 6.2    | 7.9    | 6.5    | 7.8    |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 230    |        | 290    | 340    |        | 230    |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 6.4    |        | 5.9    | 5.2    |        | 2.7    |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 7.7    | 1.3    | 5.1    | 2.9    | 5.1    | 2.0    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | 0.3    | 0.1    | 0.2    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 19     | 2.5    | 16     | 19     | 13     | 26     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  |        | < 1.0  | < 1.0  |        | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 7.1    | 4.3    | 8.7    | 18     | 6.6    | 35     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 13     | 15     | 11     | 57     | 13     | 22     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg | < 0.4  |        | 0.9    | 0.8    |        | 2.9    |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 7.1    | 1.5    | 4.4    | 7.9    | 3.0    | 18     |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg | 74     |        | 48     | 62     |        | 62     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 22     | 24     | 32     | 130    | 34     | 52     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      |       | 10.2   | 9.3    | 10.5   | 11.8   | 10.2   | 9.0    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.4    | 0.8    | 0.4    | 0.7    | 0.3    | 0.3    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg | < 0.1  |        | < 0.1  | < 0.1  |        | < 0.1  |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg | 0.4    |        | 0.4    | 0.7    |        | 0.3    |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg | < 0.6  |        | 0.6    | 0.6    |        | < 0.6  |
| Organic matter                  | DETSC 2002# | 0.1  | %     | < 0.1  | < 0.1  | 0.3    | < 0.1  | 0.2    | 0.3    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 1700   | 1300   | 1600   | 900    | 1600   | 930    |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        | 0.71   | 0.62   | 0.46   |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        | 1.5    | 0.59   | 1.0    |        |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |        |        |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | < 1.2  | < 1.2  | < 1.2  | 5.7    | < 1.2  | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  | < 1.5  | 14     | 6.3    | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | < 3.4  | < 3.4  | < 3.4  | 120    | 39     | 20     |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | < 10   | < 10   | < 10   | 140    | 46     | 20     |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | < 0.9  | < 0.9  | < 0.9  | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5  |
| Aromatic C16-C21                | DETSC 3072# | 0.6  | mg/kg | < 0.6  | < 0.6  | < 0.6  | < 0.6  | 3.6    | < 0.6  |
| Aromatic C21-C35                | DETSC 3072# | 1.4  | mg/kg | < 1.4  | < 1.4  | < 1.4  | < 1.4  | 6.9    | < 1.4  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-00608

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1178046  | 1178047  | 1178048  | 1178049  | 1178051  | 1178052  |
|---------------|----------|----------|----------|----------|----------|----------|
| Sample ID     | S2TPA65  | S2TPA65  | S2TPA66  | S2TPA67  | S2TPA74  | S2TPA75  |
| Depth         | 2.00     | 2.70     | 2.70     | 1.50     | 1.00     | 0.50     |
| Other ID      | E1       | E2       | E1       | E1       | E1       | E1       |
| Sample Type   | ES       | ES       | ES       | ES       | ES       | ES       |
| Sampling Date | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 18/05/17 | 18/05/17 |
| Sampling Time | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      |

| Test                    | Method      | LOD  | Units |        |        |        |        |        |        |
|-------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | < 10   | < 10   | < 10   | < 10   | 11     | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | < 10   | < 10   | < 10   | 140    | 56     | 20     |
| <b>PAHs</b>             |             |      |       |        |        |        |        |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.03   | 0.14   | < 0.03 | 0.17   |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | 0.03   |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.05   | < 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 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.13   | 0.53   | 0.13   | 0.27   |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.03   | 0.05   | < 0.03 | 0.10   |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.16   | 0.86   | 0.28   | 1.1    |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.13   | 0.65   | 0.22   | 0.99   |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.09   | 0.26   | 0.12   | 0.71   |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.11   | 0.39   | 0.13   | 0.69   |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.14   | 0.45   | 0.18   | 0.82   |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.04   | 0.15   | 0.07   | 0.29   |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.09   | 0.18   | 0.10   | 0.44   |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.05   | 0.17   | 0.08   | 0.29   |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | 0.06   | < 0.03 | 0.09   |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.07   | 0.21   | 0.09   | 0.32   |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | < 0.10 | < 0.10 | 1.1    | 4.1    | 1.4    | 6.4    |
| <b>Phenols</b>          |             |      |       |        |        |        |        |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | < 0.3  | < 0.3  | < 0.3  | < 0.3  | < 0.3  | < 0.3  |

# Summary of Chemical Analysis

## Soil VOC/SVOC Samples

Our Ref 17-00608

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |          |
|---------------|----------|----------|----------|
| Lab No        | 1178042  | 1178050  | 1178052  |
| Sample ID     | S2TPA58  | S2TPA68  | S2TPA75  |
| Depth         | 1.20     | 1.50     | 0.50     |
| Other ID      | E1       | E2       | E1       |
| Sample Type   | ES       | ES       | ES       |
| Sampling Date | 17/05/17 | 18/05/17 | 18/05/17 |
| Sampling Time | n/s      | n/s      | n/s      |

| Test                       | Method      | LOD  | Units |        |        |        |
|----------------------------|-------------|------|-------|--------|--------|--------|
| <b>VOCs</b>                |             |      |       |        |        |        |
| Vinyl Chloride             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 2,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Bromochloromethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Chloroform                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloropropene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Carbon tetrachloride       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Benzene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Trichloroethylene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Dibromomethane             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Bromodichloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Toluene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Tetrachloroethylene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,3-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Dibromochloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromoethane          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Chlorobenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Ethylbenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| m+p-Xylene                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| o-Xylene                   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Styrene                    | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Bromoform                  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Isopropylbenzene           | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Bromobenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| n-propylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 2-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 4-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Tert-butylbenzene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | 0.02   | < 0.01 | < 0.01 |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-00608

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |          |
|---------------|----------|----------|----------|
| Lab No        | 1178042  | 1178050  | 1178052  |
| Sample ID     | S2TPA58  | S2TPA68  | S2TPA75  |
| Depth         | 1.20     | 1.50     | 0.50     |
| Other ID      | E1       | E2       | E1       |
| Sample Type   | ES       | ES       | ES       |
| Sampling Date | 17/05/17 | 18/05/17 | 18/05/17 |
| Sampling Time | n/s      | n/s      | n/s      |

| Test                        | Method      | LOD  | Units |        |        |        |
|-----------------------------|-------------|------|-------|--------|--------|--------|
| sec-butylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| p-isopropyltoluene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| n-butylbenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Hexachlorobutadiene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Naphthalene                 | DETSC 3431  | 0.01 | mg/kg |        | 0.01   |        |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| MTBE                        | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| <b>SVOCs</b>                |             |      |       |        |        |        |
| Phenol                      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Aniline                     | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2-Chlorophenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Benzyl Alcohol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2-Methylphenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 3&4-Methylphenol            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Acenaphthylene              | DETSC 3433  | 0.1  | mg/kg |        | < 0.1  |        |
| 3-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Acenaphthene                | DETSC 3433  | 0.1  | mg/kg |        | < 0.1  |        |
| 4-Nitrophenol               | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Dibenzofuran                | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Diethylphthalate            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  |
| Fluorene                    | DETSC 3433  | 0.1  | mg/kg |        | < 0.1  |        |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-00608

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |          |
|---------------|----------|----------|----------|
| Lab No        | 1178042  | 1178050  | 1178052  |
| Sample ID     | S2TPA58  | S2TPA68  | S2TPA75  |
| Depth         | 1.20     | 1.50     | 0.50     |
| Other ID      | E1       | E2       | E1       |
| Sample Type   | ES       | ES       | ES       |
| Sampling Date | 17/05/17 | 18/05/17 | 18/05/17 |
| Sampling Time | n/s      | n/s      | n/s      |

| Test                       | Method      | LOD | Units |       |       |       |
|----------------------------|-------------|-----|-------|-------|-------|-------|
| 4-Nitroaniline             | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| 2-Methyl-4,6-Dinitrophenol | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Diphenylamine              | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| 4-Bromophenylphenylether   | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Hexachlorobenzene          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Pentachlorophenol          | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Phenanthrene               | DETSC 3433  | 0.1 | mg/kg |       | < 0.1 |       |
| Anthracene                 | DETSC 3433  | 0.1 | mg/kg |       | < 0.1 |       |
| Di-n-butylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Fluoranthene               | DETSC 3433  | 0.1 | mg/kg |       | 0.2   |       |
| Pyrene                     | DETSC 3433  | 0.1 | mg/kg |       | 0.2   |       |
| Butylbenzylphthalate       | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)anthracene         | DETSC 3433  | 0.1 | mg/kg |       | < 0.1 |       |
| Chrysene                   | DETSC 3433  | 0.1 | mg/kg |       | < 0.1 |       |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Di-n-octylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene       | DETSC 3433  | 0.1 | mg/kg |       | 0.3   |       |
| Benzo(k)fluoranthene       | DETSC 3433  | 0.1 | mg/kg |       | 0.1   |       |
| Benzo(a)pyrene             | DETSC 3433  | 0.1 | mg/kg |       | 0.2   |       |
| Indeno(123cd)pyrene        | DETSC 3433  | 0.1 | mg/kg |       | < 0.1 |       |
| Dibenzo(ah)anthracene      | DETSC 3433  | 0.1 | mg/kg |       | < 0.1 |       |
| Benzo(ghi)perylene         | DETSC 3433  | 0.1 | mg/kg |       | < 0.1 |       |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Dimethylphthalate          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Azobenzene                 | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Carbazole                  | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |

## Summary of Chemical Analysis

### Leachate Samples

Our Ref 17-00608

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1178053  | 1178054  | 1178055  | 1178056  | 1178057  | 1178058  | 1178059  |
|---------------|----------|----------|----------|----------|----------|----------|----------|
| Sample ID     | S2TPA52  | S2TPA58  | S2TPA60  | S2TPA65  | S2TPA65  | S2TPA66  | S2TPA74  |
| Depth         | 0.50     | 3.60     | 2.00     | 2.00     | 2.70     | 2.70     | 1.00     |
| Other ID      | E1       | E2       | E2       | E1       | E2       | E1       | E1       |
| Sample Type   | ES       | ES       | ES       | ES       | ES       | ES       | ES       |
| Sampling Date | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 17/05/17 | 18/05/17 |
| Sampling Time | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      |

| Test                     | Method      | LOD   | Units |        |        |        |        |      |        |        |
|--------------------------|-------------|-------|-------|--------|--------|--------|--------|------|--------|--------|
| <b>Preparation</b>       |             |       |       |        |        |        |        |      |        |        |
| Leachate 10:1            | DETS 036*   |       |       | Y      | Y      | Y      | Y      | Y    | Y      | Y      |
| <b>Metals</b>            |             |       |       |        |        |        |        |      |        |        |
| Arsenic, Dissolved       | DETSC 2306  | 0.16  | ug/l  | 0.84   | 1.3    | 1.8    | 0.73   | 2.6  | 2.6    | 2.6    |
| Barium, Dissolved        | DETSC 2306  | 0.26  | ug/l  | 10     | 10     |        | 6.4    |      | 26     |        |
| Beryllium, Dissolved     | DETSC 2306* | 0.1   | ug/l  | < 0.1  | < 0.1  |        | < 0.1  |      | 0.2    |        |
| Boron                    | DETSC 2123  | 100   | ug/l  | < 100  | 150    | < 100  | < 100  | 100  | 100    | < 100  |
| Cadmium, Dissolved       | DETSC 2306  | 0.03  | ug/l  | < 0.03 | < 0.03 | < 0.03 | < 0.03 | 0.03 | < 0.03 | < 0.03 |
| Chromium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | < 0.25 | < 0.25 | 0.59   | < 0.25 | 7.1  | 7.9    | 7.5    |
| Copper, Dissolved        | DETSC 2306  | 0.4   | ug/l  | 1.9    | 1.9    | 3.1    | 1.6    | 3.5  | 4.1    | 3.7    |
| Iron, Dissolved          | DETSC 2306  | 5.5   | ug/l  | 260    | 370    |        | 260    |      | 4400   |        |
| Lead, Dissolved          | DETSC 2306  | 0.09  | ug/l  | 0.29   | 0.65   | 1.3    | 0.44   | 3.2  | 3.2    | 3.1    |
| Manganese, Dissolved     | DETSC 2306  | 0.22  | ug/l  | 4.5    | 18     |        | 6.9    |      | 45     |        |
| Mercury, Dissolved       | DETSC 2306  | 0.01  | ug/l  | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.01 | 0.01   | 0.02   |
| Nickel, Dissolved        | DETSC 2306  | 0.5   | ug/l  | 0.7    | 0.7    | 0.6    | < 0.5  | 5.7  | 5.7    | 5.3    |
| Selenium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | 0.95   | 1.0    | 0.61   | 0.34   | 0.45 | 0.47   | 0.37   |
| Vanadium, Dissolved      | DETSC 2306  | 0.6   | ug/l  | 0.9    | 0.8    |        | 0.6    |      | 11     |        |
| Zinc, Dissolved          | DETSC 2306  | 1.3   | ug/l  | 3.2    | 2.2    | 9.4    | 2.5    | 19   | 19     | 24     |
| <b>Inorganics</b>        |             |       |       |        |        |        |        |      |        |        |
| pH                       | DETSC 2008  |       |       | 7.0    | 9.0    | 8.2    | 7.2    | 7.1  | 7.4    | 7.5    |
| Ammoniacal Nitrogen as N | DETSC 2207  | 0.015 | mg/l  | 0.032  | 0.022  |        | 0.028  |      | 0.027  |        |
| Chloride                 | DETSC 2055  | 0.1   | mg/l  | 1.7    | 2.6    |        | 1.6    |      | 1.5    |        |

## Summary of Asbestos Analysis

### Soil Samples

*Our Ref* 17-00608

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Lab No  | Sample ID       | Material Type | Result | Comment* | Analyst     |
|---------|-----------------|---------------|--------|----------|-------------|
| 1178040 | S2TPA51 E1 1.40 | SOIL          | NAD    | none     | Chris Samms |
| 1178041 | S2TPA52 E1 0.50 | SOIL          | NAD    | none     | Chris Samms |
| 1178042 | S2TPA58 E1 1.20 | SOIL          | NAD    | none     | Chris Samms |
| 1178043 | S2TPA58 E2 3.60 | SOIL          | NAD    | none     | Chris Samms |
| 1178044 | S2TPA60 E2 2.00 | SOIL          | NAD    | none     | Chris Samms |
| 1178046 | S2TPA65 E1 2.00 | SOIL          | NAD    | none     | Chris Samms |
| 1178047 | S2TPA65 E2 2.70 | SOIL          | NAD    | none     | Chris Samms |
| 1178048 | S2TPA66 E1 2.70 | SOIL          | NAD    | none     | Chris Samms |
| 1178049 | S2TPA67 E1 1.50 | SOIL          | NAD    | none     | Chris Samms |
| 1178051 | S2TPA74 E1 1.00 | SOIL          | NAD    | none     | Chris Samms |
| 1178052 | S2TPA75 E1 0.50 | SOIL          | NAD    | none     | Chris Samms |

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 17-00608  
Client Ref SLS1015  
Contract Redcar Site

### Containers Received & Deviating Samples

| Lab No  | Sample ID             | Date Sampled | Containers Received         | Holding time exceeded for tests | Inappropriate container for tests |
|---------|-----------------------|--------------|-----------------------------|---------------------------------|-----------------------------------|
| 1178039 | S2TPA51 1.00 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178040 | S2TPA51 1.40 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178041 | S2TPA52 0.50 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178042 | S2TPA58 1.20 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178043 | S2TPA58 3.60 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178044 | S2TPA60 2.00 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178045 | S2TPA62 0.50 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178046 | S2TPA65 2.00 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178047 | S2TPA65 2.70 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178048 | S2TPA66 2.70 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178049 | S2TPA67 1.50 SOIL     | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178050 | S2TPA68 1.50 SOIL     | 18/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178051 | S2TPA74 1.00 SOIL     | 18/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178052 | S2TPA75 0.50 SOIL     | 18/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178053 | S2TPA52 0.50 LEACHATE | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178054 | S2TPA58 3.60 LEACHATE | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178055 | S2TPA60 2.00 LEACHATE | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178056 | S2TPA65 2.00 LEACHATE | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178057 | S2TPA65 2.70 LEACHATE | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178058 | S2TPA66 2.70 LEACHATE | 17/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1178059 | S2TPA74 1.00 LEACHATE | 18/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |

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 | Ali/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.



## Certificate of Analysis

**Certificate Number** 17-01039-2

16-Jun-17

**Client** Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

**Our Reference** 17-01039-2

**Client Reference** SLS1015

**Order No** CH1332

**Contract Title** Redcar Site

**Description** 7 Soil samples, 2 Leachate samples.

**Date Received** 27-May-17

**Date Started** 27-May-17

**Date Completed** 16-Jun-17

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

**Notes** **This report supersedes 17-01039-1, extra testing carried out**

Opinions and interpretations are outside the laboratory's scope of ISO 10725 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 "A. Fenwick", is written over a light blue horizontal line.

Adam Fenwick  
Contracts Manager



## Summary of Chemical Analysis

### Matrix Descriptions

*Our Ref* 17-01039-2

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Sample ID | Other ID | Depth | Lab No  | Completed  | Matrix Description                                              |
|-----------|----------|-------|---------|------------|-----------------------------------------------------------------|
| S2TPA83   | E2       | 3     | 1180014 | 15/06/2017 | Dark brown clayey, gravelly SAND (Possible made ground - brick) |
| S2TPA70   | E1       | 0.6   | 1180015 | 15/06/2017 | Grey sandy CLAY                                                 |
| S2TPA70   | E2       | 2.6   | 1180016 | 15/06/2017 | Light brown clayey SAND                                         |
| S2TPA71   | E2       | 4     | 1180017 | 15/06/2017 | Black cream gravelly, sandy CLAY                                |
| S2TPA55   | E2       | 4.4   | 1180018 | 15/06/2017 | Brown clayey SAND                                               |
| S2TPA43   | E2       | 0.8   | 1180019 | 15/06/2017 | Brown gravelly SAND (Made ground - brick, slag)                 |
| S2TPA16   | E2       | 1.5   | 1180020 | 15/06/2017 | Dark grey gravelly SAND (Made ground - brick, slag)             |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-01039-2

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1180014  | 1180015  | 1180016  | 1180017  | 1180018  | 1180019  | 1180020  |
|---------------|----------|----------|----------|----------|----------|----------|----------|
| Sample ID     | S2TPA83  | S2TPA70  | S2TPA70  | S2TPA71  | S2TPA55  | S2TPA43  | S2TPA16  |
| Depth         | 3.00     | 0.60     | 2.60     | 4.00     | 4.40     | 0.80     | 1.50     |
| Other ID      | E2       | E1       | E2       | E2       | E2       | E2       | E2       |
| Sample Type   | ES       | ES       | ES       | ES       | ES       | ES       | ES       |
| Sampling Date | 22/05/17 | 22/05/17 | 22/05/17 | 22/05/17 | 23/05/17 | 23/05/17 | 26/05/17 |
| Sampling Time | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       | Y      |        |        |        |        |        |        |
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg | 6.3    | 5.3    |        |        |        | < 1.0  | 5.4    |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 23     | 93     | 6.9    | 3.6    | 7.1    | 11     | 64     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 530    | 240    |        |        |        | 290    | 840    |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 5.3    | 3.6    |        |        |        | 6.5    | 2.1    |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 2.0    | 5.5    | 1.6    | 9.3    | 1.1    | 3.2    | 3.7    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 8.3    | 1.2    | 0.2    | < 0.1  | < 0.1  | 0.2    | 1.8    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 250    | 120    | 7.8    | 22     | 4.1    | 67     | 97     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  |        |        |        | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 110    | 83     | 8.1    | 33     | 5.9    | 24     | 78     |
| Iron                            | DETSC 2301  | 25   | mg/kg |        | 83000  |        | 13000  |        |        |        |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 510    | 140    | 36     | 5.2    | 26     | 20     | 770    |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.10   | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg | 3.4    | 2.7    |        |        |        | 1.1    | 4.9    |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 25     | 34     | 3.9    | 15     | 3.0    | 9.8    | 38     |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg | 410    | 480    |        |        |        | 200    | 310    |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 1500   | 630    | 61     | 16     | 33     | 44     | 700    |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      |       | 11.1   | 9.3    | 9.7    | 12.6   | 12.5   | 11.6   | 12.3   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 3.4    | 0.1    | 0.2    | < 0.1  | < 0.1  | 0.4    | 0.2    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg | < 0.1  | < 0.1  |        |        |        | < 0.1  | < 0.1  |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg | 3.4    | < 0.2  |        |        |        | 0.4    | < 0.2  |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg | < 0.6  | < 0.6  |        |        |        | < 0.6  | < 0.6  |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 4.0    | 0.7    | 0.7    | 5.0    | 4.6    | 0.5    | 7.0    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 1600   | 1800   | 350    | 20     | 280    | 1600   | 930    |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        | 0.05   | 0.34   | 0.06   |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        | 0.12   | 1.3    | 0.09   |        |        |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |        |        |        |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  | < 1.5  | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | < 1.2  | 1.8    | < 1.2  | < 1.2  | < 1.2  | < 1.2  | 3.7    |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | 6.7    | 2.8    | < 1.5  | < 1.5  | < 1.5  | < 1.5  | 13     |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | 120    | < 3.4  | < 3.4  | < 3.4  | < 3.4  | < 3.4  | 160    |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | 130    | < 10   | < 10   | < 10   | < 10   | < 10   | 180    |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | 3.2    | 2.4    | < 0.9  | < 0.9  | 10     | < 0.9  | 2.5    |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | 9.8    | 4.7    | < 0.5  | < 0.5  | 6.5    | < 0.5  | 5.0    |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-01039-2

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1180014  | 1180015  | 1180016  | 1180017  | 1180018  | 1180019  | 1180020  |
|---------------|----------|----------|----------|----------|----------|----------|----------|
| Sample ID     | S2TPA83  | S2TPA70  | S2TPA70  | S2TPA71  | S2TPA55  | S2TPA43  | S2TPA16  |
| Depth         | 3.00     | 0.60     | 2.60     | 4.00     | 4.40     | 0.80     | 1.50     |
| Other ID      | E2       | E1       | E2       | E2       | E2       | E2       | E2       |
| Sample Type   | ES       | ES       | ES       | ES       | ES       | ES       | ES       |
| Sampling Date | 22/05/17 | 22/05/17 | 22/05/17 | 22/05/17 | 23/05/17 | 23/05/17 | 26/05/17 |
| Sampling Time | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      |

| Test                    | Method      | LOD  | Units |        |        |        |        |        |        |        |
|-------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|--------|
| Aromatic C16-C21        | DETSC 3072# | 0.6  | mg/kg | 140    | 13     | < 0.6  | < 0.6  | 17     | < 0.6  | 19     |
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | 350    | 22     | < 1.4  | 14     | 8.4    | 1.9    | 190    |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | 500    | 42     | < 10   | 14     | 42     | < 10   | 210    |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | 620    | 46     | < 10   | 14     | 42     | < 10   | 390    |
| <b>PAHs</b>             |             |      |       |        |        |        |        |        |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | 0.49   | 0.03   | < 0.03 | 0.88   | 0.05   | < 0.03 | 0.04   |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | < 0.30 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 | 0.04   |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | 7.3    | 0.04   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | 8.4    | 0.07   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 110    | 1.5    | < 0.03 | 0.06   | 0.28   | 0.05   | 0.15   |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | 26     | 0.49   | < 0.03 | < 0.03 | 0.07   | < 0.03 | 0.08   |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 130    | 2.3    | < 0.03 | 0.10   | 0.40   | 0.16   | 0.73   |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 97     | 1.8    | < 0.03 | 0.06   | 0.33   | 0.14   | 0.56   |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 62     | 1.2    | < 0.03 | < 0.03 | 0.20   | 0.10   | 0.34   |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 55     | 0.91   | < 0.03 | < 0.03 | 0.15   | 0.09   | 0.34   |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 60     | 1.1    | < 0.03 | < 0.03 | 0.15   | 0.13   | 0.47   |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 22     | 0.41   | < 0.03 | < 0.03 | 0.05   | 0.04   | 0.21   |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | 45     | 0.74   | < 0.03 | < 0.03 | 0.09   | 0.08   | 0.22   |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 19     | 0.31   | < 0.03 | < 0.03 | < 0.03 | 0.05   | 0.17   |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | 6.1    | 0.10   | < 0.03 | < 0.03 | < 0.03 | < 0.03 | 0.04   |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | 21     | 0.33   | < 0.03 | < 0.03 | < 0.03 | 0.05   | 0.17   |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 670    | 11     | < 0.10 | 1.1    | 1.8    | 0.89   | 3.6    |
| <b>Phenols</b>          |             |      |       |        |        |        |        |        |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | 0.4    | < 0.3  | < 0.3  | < 0.3  | < 0.3  | < 0.3  | < 0.3  |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-01039-2

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1180014  | 1180020  |
| Sample ID     | S2TPA83  | S2TPA16  |
| Depth         | 3.00     | 1.50     |
| Other ID      | E2       | E2       |
| Sample Type   | ES       | ES       |
| Sampling Date | 22/05/17 | 26/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                       | Method      | LOD  | Units |        |        |
|----------------------------|-------------|------|-------|--------|--------|
| <b>VOCs</b>                |             |      |       |        |        |
| Vinyl Chloride             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 2,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromochloromethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Chloroform                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1-dichloropropene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Carbon tetrachloride       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Benzene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Trichloroethylene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Dibromomethane             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromodichloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Toluene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Tetrachloroethylene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Dibromochloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dibromoethane          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Chlorobenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Ethylbenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| m+p-Xylene                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| o-Xylene                   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Styrene                    | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromoform                  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Isopropylbenzene           | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromobenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| n-propylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 2-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 4-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Tert-butylbenzene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-01039-2

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1180014  | 1180020  |
| Sample ID     | S2TPA83  | S2TPA16  |
| Depth         | 3.00     | 1.50     |
| Other ID      | E2       | E2       |
| Sample Type   | ES       | ES       |
| Sampling Date | 22/05/17 | 26/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                        | Method      | LOD  | Units |        |        |
|-----------------------------|-------------|------|-------|--------|--------|
| sec-butylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| p-isopropyltoluene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| n-butylbenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Hexachlorobutadiene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| MTBE                        | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| <b>SVOCs</b>                |             |      |       |        |        |
| Phenol                      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Aniline                     | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Chlorophenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Benzyl Alcohol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methylphenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 3&4-Methylphenol            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1  | mg/kg | 0.2    | < 0.1  |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 3-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Nitrophenol               | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Dibenzofuran                | DETSC 3433  | 0.1  | mg/kg | 1.3    | < 0.1  |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Diethylphthalate            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methyl-4,6-Dinitrophenol  | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Diphenylamine               | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Bromophenylphenylether    | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-01039-2

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1180014  | 1180020  |
| Sample ID     | S2TPA83  | S2TPA16  |
| Depth         | 3.00     | 1.50     |
| Other ID      | E2       | E2       |
| Sample Type   | ES       | ES       |
| Sampling Date | 22/05/17 | 26/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                       | Method      | LOD | Units |       |       |
|----------------------------|-------------|-----|-------|-------|-------|
| Hexachlorobenzene          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Pentachlorophenol          | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Di-n-butylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Butylbenzylphthalate       | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Di-n-octylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Dimethylphthalate          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Azobenzene                 | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Carbazole                  | DETSC 3433* | 0.1 | mg/kg | 12    | < 0.1 |

## Summary of Chemical Analysis

### Leachate Samples

Our Ref 17-01039-2

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1180021  | 1180022  |
| Sample ID     | S2TPA83  | S2TPA70  |
| Depth         | 3.00     | 2.60     |
| Other ID      | E2       | E2       |
| Sample Type   | ES       | ES       |
| Sampling Date | 22/05/17 | 22/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                     | Method      | LOD   | Units |        |         |
|--------------------------|-------------|-------|-------|--------|---------|
| <b>Preparation</b>       |             |       |       |        |         |
| Leachate 10:1            | DETS 036*   |       |       | Y      | Y       |
| <b>Metals</b>            |             |       |       |        |         |
| Arsenic, Dissolved       | DETSC 2306  | 0.16  | ug/l  | 0.90   | 1.1     |
| Barium, Dissolved        | DETSC 2306  | 0.26  | ug/l  | 45     | 7.4     |
| Beryllium, Dissolved     | DETSC 2306* | 0.1   | ug/l  | < 0.1  | < 0.1   |
| Boron                    | DETSC 2123  | 100   | ug/l  | 320    | 160     |
| Cadmium, Dissolved       | DETSC 2306  | 0.03  | ug/l  | 0.39   | < 0.03  |
| Chromium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | 1.3    | < 0.25  |
| Copper, Dissolved        | DETSC 2306  | 0.4   | ug/l  | 1.1    | 0.6     |
| Iron, Dissolved          | DETSC 2306  | 5.5   | ug/l  | 6.9    | 15      |
| Lead, Dissolved          | DETSC 2306  | 0.09  | ug/l  | 0.50   | 0.32    |
| Manganese, Dissolved     | DETSC 2306  | 0.22  | ug/l  | 18     | 8.2     |
| Mercury, Dissolved       | DETSC 2306  | 0.01  | ug/l  | < 0.01 | < 0.01  |
| Nickel, Dissolved        | DETSC 2306  | 0.5   | ug/l  | 1.5    | < 0.5   |
| Selenium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | 2.7    | 0.65    |
| Vanadium, Dissolved      | DETSC 2306  | 0.6   | ug/l  | 1.2    | 2.9     |
| Zinc, Dissolved          | DETSC 2306  | 1.3   | ug/l  | 32     | 4.2     |
| <b>Inorganics</b>        |             |       |       |        |         |
| pH                       | DETSC 2008  |       |       | 6.7    | 6.9     |
| Ammoniacal Nitrogen as N | DETSC 2207  | 0.015 | mg/l  | 0.070  | < 0.015 |
| Chloride                 | DETSC 2055  | 0.1   | mg/l  | 1.1    | 2.3     |

## Summary of Asbestos Analysis Soil Samples

*Our Ref* 17-01039-2

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Lab No  | Sample ID       | Material Type | Result     | Comment*                                            | Analyst      |
|---------|-----------------|---------------|------------|-----------------------------------------------------|--------------|
| 1180014 | S2TPA83 E2 3.00 | SOIL          | Chrysotile | Chrysotile present as loose fibrous asbestos debris | Jeff Cruddas |
| 1180015 | S2TPA70 E1 0.60 | SOIL          | NAD        | none                                                | Jeff Cruddas |
| 1180016 | S2TPA70 E2 2.60 | SOIL          | NAD        | none                                                | Jeff Cruddas |
| 1180017 | S2TPA71 E2 4.00 | SOIL          | NAD        | none                                                | Jeff Cruddas |
| 1180018 | S2TPA55 E2 4.40 | SOIL          | NAD        | none                                                | Jeff Cruddas |
| 1180019 | S2TPA43 E2 0.80 | SOIL          | NAD        | none                                                | Jeff Cruddas |
| 1180020 | S2TPA16 E2 1.50 | SOIL          | NAD        | none                                                | Jeff Cruddas |

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.

## Summary of Asbestos Quantification Analysis

### Soil Samples

Our Ref 17-01039-2

Client Ref SLS1015

Contract Title Redcar Site

|               |          |
|---------------|----------|
| Lab No        | 1180014  |
| Sample ID     | S2TPA83  |
| Depth         | 3.00     |
| Other ID      | E2       |
| Sample Type   | SOIL     |
| Sampling Date | 22/05/17 |
| Sampling Time |          |

| Test                                    | Method     | Units    |       |
|-----------------------------------------|------------|----------|-------|
| Total Mass% Asbestos (a+b+c)            | DETSC 1102 | Mass %   | 0.333 |
| Gravimetric Quantification (a)          | DETSC 1102 | Mass %   | 0.333 |
| Detailed Gravimetric Quantification (b) | DETSC 1102 | Mass %   | na    |
| Quantification by PCOM (c)              | DETSC 1102 | Mass %   | na    |
| Potentially Respirable Fibres (d)       | DETSC 1102 | Fibres/g | na    |

#### Breakdown of Gravimetric Analysis (a)

|                       |  |      |       |
|-----------------------|--|------|-------|
| Mass of Sample        |  | g    | 45.35 |
| ACMs present*         |  | type | LFAD  |
| Mass of ACM in sample |  | g    | 0.18  |
| % ACM by mass         |  | %    | 0.39  |
| % asbestos in ACM     |  | %    | 85.00 |
| % asbestos in sample  |  | %    | 0.33  |

#### Breakdown of Detailed Gravimetric Analysis (b)

|                                |  |        |    |
|--------------------------------|--|--------|----|
| % Amphibole bundles in sample  |  | Mass % | na |
| % Chrysotile bundles in sample |  | Mass % | na |

#### Breakdown of PCOM Analysis (c)

|                               |  |        |    |
|-------------------------------|--|--------|----|
| % Amphibole fibres in sample  |  | Mass % | na |
| % Chrysotile fibres in sample |  | Mass % | na |

#### Breakdown of Potentially Respirable Fibre Analysis (d)

|                   |  |          |    |
|-------------------|--|----------|----|
| Amphibole fibres  |  | Fibres/g | na |
| Chrysotile fibres |  | Fibres/g | na |

\* Denotes test or material description outside of UKAS accreditation.  
 % asbestos in Asbestos Containing Materials (ACMs) is determined by  
 by reference to HSG 264.  
 Recommended sample size for quantification is approximately 1kg  
 # denotes deviating sample

## Information in Support of the Analytical Results

Our Ref 17-01039-2

Client Ref SLS1015

Contract Redcar Site

### Containers Received & Deviating Samples

| Lab No  | Sample ID             | Date Sampled | Containers Received         | Holding time exceeded for tests | Inappropriate container for tests |
|---------|-----------------------|--------------|-----------------------------|---------------------------------|-----------------------------------|
| 1180014 | S2TPA83 3.00 SOIL     | 22/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1180015 | S2TPA70 0.60 SOIL     | 22/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1180016 | S2TPA70 2.60 SOIL     | 22/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1180017 | S2TPA71 4.00 SOIL     | 22/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1180018 | S2TPA55 4.40 SOIL     | 23/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1180019 | S2TPA43 0.80 SOIL     | 23/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1180020 | S2TPA16 1.50 SOIL     | 26/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1180021 | S2TPA83 3.00 LEACHATE | 22/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1180022 | S2TPA70 2.60 LEACHATE | 22/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |

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 | Ali/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.



## Certificate of Analysis

*Certificate Number* 17-01523-1

23-Jun-17

*Client* Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

*Our Reference* 17-01523-1

*Client Reference* SLS1015

*Order No* CH-1332

*Contract Title* Redcar Site

*Description* One Soil sample.

*Date Received* 03-Jun-17

*Date Started* 03-Jun-17

*Date Completed* 23-Jun-17

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

**Notes This report supersedes 17-01523. Extra testing**

Opinions and interpretations are outside the laboratory's scope of ISO 10725 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 "A Fenwick", is written over a light blue horizontal line.

Adam Fenwick  
Contracts Manager





## Summary of Chemical Analysis

### Matrix Descriptions

*Our Ref* 17-01523-1

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Sample ID | Other ID | Depth | Lab No  | Completed  | Matrix Description                                          |
|-----------|----------|-------|---------|------------|-------------------------------------------------------------|
| S2-TPA08  | E1       | 4     | 1182665 | 12/06/2017 | Dark brown sandy CLAY (Made ground - filter cake composite) |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-01523-1

Client Ref SLS1015

Contract Title Redcar Site

|               |          |
|---------------|----------|
| Lab No        | 1182665  |
| Sample ID     | S2-TPA08 |
| Depth         | 4.00     |
| Other ID      | E1       |
| Sample Type   | ES       |
| Sampling Date | 25/05/17 |
| Sampling Time | n/s      |

| Test                                 | Method      | LOD   | Units |        |
|--------------------------------------|-------------|-------|-------|--------|
| <b>Metals</b>                        |             |       |       |        |
| Antimony mg/kg                       | DETSC 2301* | 1     | mg/kg | 9.9    |
| Arsenic mg/kg                        | DETSC 2301# | 0.2   | mg/kg | 200    |
| Barium mg/kg                         | DETSC 2301# | 1.5   | mg/kg | 13     |
| Beryllium mg/kg                      | DETSC 2301# | 0.2   | mg/kg | < 0.2  |
| Boron, Water Soluble mg/kg           | DETSC 2123# | 0.2   | mg/kg | 0.4    |
| Cadmium mg/kg                        | DETSC 2301# | 0.1   | mg/kg | 0.2    |
| Chromium mg/kg                       | DETSC 2301# | 0.15  | mg/kg | 24     |
| Chromium, Hexavalent mg/kg           | DETSC 2204* | 1     | mg/kg | < 1.0  |
| Copper mg/kg                         | DETSC 2301# | 0.2   | mg/kg | 23000  |
| Lead mg/kg                           | DETSC 2301# | 0.3   | mg/kg | 520    |
| Mercury mg/kg                        | DETSC 2325# | 0.05  | mg/kg | < 0.05 |
| Molybdenum mg/kg                     | DETSC 2301# | 0.4   | mg/kg | 2.0    |
| Nickel mg/kg                         | DETSC 2301# | 1     | mg/kg | 130    |
| Vanadium mg/kg                       | DETSC 2301  | 0.8   | mg/kg | 12     |
| Zinc mg/kg                           | DETSC 2301# | 1     | mg/kg | 180    |
| <b>Inorganics</b>                    |             |       |       |        |
| pH                                   | DETSC 2008# |       |       | 7.5    |
| Cyanide, Total mg/kg                 | DETSC 2130# | 0.1   | mg/kg | 0.2    |
| Cyanide, Free mg/kg                  | DETSC 2130# | 0.1   | mg/kg | < 0.1  |
| Cyanide, Complex mg/kg               | DETSC 2130* | 0.2   | mg/kg | < 0.2  |
| Thiocyanate mg/kg                    | DETSC 2130# | 0.6   | mg/kg | < 0.6  |
| FOC                                  | DETSC 2002  | 0.001 |       | 0.090  |
| Organic matter %                     | DETSC 2002# | 0.1   | %     | 16     |
| Sulphate Aqueous Extract as SO4 mg/l | DETSC 2076# | 10    | mg/l  | 140    |
| <b>Petroleum Hydrocarbons</b>        |             |       |       |        |
| Aliphatic C5-C6 mg/kg                | DETSC 3321* | 0.01  | mg/kg | < 0.01 |
| Aliphatic C6-C8 mg/kg                | DETSC 3321* | 0.01  | mg/kg | < 0.01 |
| Aliphatic C8-C10 mg/kg               | DETSC 3321* | 0.01  | mg/kg | < 0.01 |
| Aliphatic C10-C12 mg/kg              | DETSC 3072# | 1.5   | mg/kg | 79     |
| Aliphatic C12-C16 mg/kg              | DETSC 3072# | 1.2   | mg/kg | 590    |
| Aliphatic C16-C21 mg/kg              | DETSC 3072# | 1.5   | mg/kg | 2500   |
| Aliphatic C21-C35 mg/kg              | DETSC 3072# | 3.4   | mg/kg | 10000  |
| Aliphatic C5-C35 mg/kg               | DETSC 3072* | 10    | mg/kg | 14000  |
| Aromatic C5-C7 mg/kg                 | DETSC 3321* | 0.01  | mg/kg | < 0.01 |
| Aromatic C7-C8 mg/kg                 | DETSC 3321* | 0.01  | mg/kg | < 0.01 |
| Aromatic C8-C10 mg/kg                | DETSC 3321* | 0.01  | mg/kg | < 0.01 |
| Aromatic C10-C12 mg/kg               | DETSC 3072# | 0.9   | mg/kg | < 50.0 |
| Aromatic C12-C16 mg/kg               | DETSC 3072# | 0.5   | mg/kg | 310    |
| Aromatic C16-C21 mg/kg               | DETSC 3072# | 0.6   | mg/kg | 1700   |
| Aromatic C21-C35 mg/kg               | DETSC 3072# | 1.4   | mg/kg | 9600   |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-01523-1

Client Ref SLS1015

Contract Title Redcar Site

|               |          |
|---------------|----------|
| Lab No        | 1182665  |
| Sample ID     | S2-TPA08 |
| Depth         | 4.00     |
| Other ID      | E1       |
| Sample Type   | ES       |
| Sampling Date | 25/05/17 |
| Sampling Time | n/s      |

| Test                          | Method      | LOD  | Units |       |
|-------------------------------|-------------|------|-------|-------|
| Aromatic C5-C35 mg/kg         | DETSC 3072* | 10   | mg/kg | 12000 |
| TPH Ali/Aro Total mg/kg       | DETSC 3072* | 10   | mg/kg | 25000 |
| <b>PAHs</b>                   |             |      |       |       |
| Naphthalene mg/kg             | DETSC 3303# | 0.03 | mg/kg | 2.9   |
| Acenaphthylene mg/kg          | DETSC 3303# | 0.03 | mg/kg | 0.55  |
| Acenaphthene mg/kg            | DETSC 3303# | 0.03 | mg/kg | 2.6   |
| Fluorene mg/kg                | DETSC 3303  | 0.03 | mg/kg | 4.9   |
| Phenanthrene mg/kg            | DETSC 3303# | 0.03 | mg/kg | 29    |
| Anthracene mg/kg              | DETSC 3303  | 0.03 | mg/kg | 6.9   |
| Fluoranthene mg/kg            | DETSC 3303# | 0.03 | mg/kg | 41    |
| Pyrene mg/kg                  | DETSC 3303# | 0.03 | mg/kg | 39    |
| Benzo(a)anthracene mg/kg      | DETSC 3303# | 0.03 | mg/kg | 18    |
| Chrysene mg/kg                | DETSC 3303  | 0.03 | mg/kg | 21    |
| Benzo(b)fluoranthene mg/kg    | DETSC 3303# | 0.03 | mg/kg | 19    |
| Benzo(k)fluoranthene mg/kg    | DETSC 3303# | 0.03 | mg/kg | 6.9   |
| Benzo(a)pyrene mg/kg          | DETSC 3303# | 0.03 | mg/kg | 15    |
| Indeno(1,2,3-c,d)pyrene mg/kg | DETSC 3303# | 0.03 | mg/kg | 7.8   |
| Dibenzo(a,h)anthracene mg/kg  | DETSC 3303# | 0.03 | mg/kg | 2.8   |
| Benzo(g,h,i)perylene mg/kg    | DETSC 3303# | 0.03 | mg/kg | 9.1   |
| PAH - USEPA 16, Total mg/kg   | DETSC 3303  | 0.1  | mg/kg | 230   |
| <b>Phenols</b>                |             |      |       |       |
| Phenol - Monohydric mg/kg     | DETSC 2130# | 0.3  | mg/kg | 0.4   |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-01523-1

Client Ref SLS1015

Contract Title Redcar Site

|               |          |
|---------------|----------|
| Lab No        | 1182665  |
| Sample ID     | S2-TPA08 |
| Depth         | 4.00     |
| Other ID      | E1       |
| Sample Type   | ES       |
| Sampling Date | 25/05/17 |
| Sampling Time | n/s      |

| Test                             | Method      | LOD  | Units |        |
|----------------------------------|-------------|------|-------|--------|
| <b>VOCs</b>                      |             |      |       |        |
| Vinyl Chloride mg/kg             | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1 Dichloroethylene mg/kg       | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Trans-1,2-dichloroethylene mg/kg | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1-dichloroethane mg/kg         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Cis-1,2-dichloroethylene mg/kg   | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 2,2-dichloropropane mg/kg        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Bromochloromethane mg/kg         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Chloroform mg/kg                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1,1-trichloroethane mg/kg      | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1-dichloropropene mg/kg        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Carbon tetrachloride mg/kg       | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Benzene mg/kg                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dichloroethane mg/kg         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Trichloroethylene mg/kg          | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dichloropropane mg/kg        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Dibromomethane mg/kg             | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Bromodichloromethane mg/kg       | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| cis-1,3-dichloropropene mg/kg    | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Toluene mg/kg                    | DETSC 3431  | 0.01 | mg/kg | 0.01   |
| trans-1,3-dichloropropene mg/kg  | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1,2-trichloroethane mg/kg      | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Tetrachloroethylene mg/kg        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,3-dichloropropane mg/kg        | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Dibromochloromethane mg/kg       | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dibromoethane mg/kg          | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Chlorobenzene mg/kg              | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,1,1,2-tetrachloroethane mg/kg  | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Ethylbenzene mg/kg               | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| m+p-Xylene mg/kg                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| o-Xylene mg/kg                   | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Styrene mg/kg                    | DETSC 3431* | 0.01 | mg/kg | < 0.01 |
| Bromoform mg/kg                  | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Isopropylbenzene mg/kg           | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Bromobenzene mg/kg               | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2,3-trichloropropane mg/kg     | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| n-propylbenzene mg/kg            | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 2-chlorotoluene mg/kg            | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,3,5-trimethylbenzene mg/kg     | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 4-chlorotoluene mg/kg            | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Tert-butylbenzene mg/kg          | DETSC 3431  | 0.01 | mg/kg | < 0.01 |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-01523-1

Client Ref SLS1015

Contract Title Redcar Site

|               |          |
|---------------|----------|
| Lab No        | 1182665  |
| Sample ID     | S2-TPA08 |
| Depth         | 4.00     |
| Other ID      | E1       |
| Sample Type   | ES       |
| Sampling Date | 25/05/17 |
| Sampling Time | n/s      |

| Test                              | Method      | LOD  | Units |        |
|-----------------------------------|-------------|------|-------|--------|
| 1,2,4-trimethylbenzene mg/kg      | DETSC 3431  | 0.01 | mg/kg | 0.02   |
| sec-butylbenzene mg/kg            | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| p-isopropyltoluene mg/kg          | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,3-dichlorobenzene mg/kg         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,4-dichlorobenzene mg/kg         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| n-butylbenzene mg/kg              | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dichlorobenzene mg/kg         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2-dibromo-3-chloropropane mg/kg | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2,4-trichlorobenzene mg/kg      | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| Hexachlorobutadiene mg/kg         | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| 1,2,3-trichlorobenzene mg/kg      | DETSC 3431  | 0.01 | mg/kg | < 0.01 |
| MTBE mg/kg                        | DETSC 3431* | 0.01 | mg/kg | < 0.01 |
| <b>SVOCs</b>                      |             |      |       |        |
| Phenol mg/kg                      | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| Aniline mg/kg                     | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| 2-Chlorophenol mg/kg              | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| Benzyl Alcohol mg/kg              | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 2-Methylphenol mg/kg              | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| Bis(2-chloroisopropyl)ether mg/kg | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 3&4-Methylphenol mg/kg            | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 2,4-Dimethylphenol mg/kg          | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| Bis-(dichloroethoxy)methane mg/kg | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 2,4-Dichlorophenol mg/kg          | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 1,2,4-Trichlorobenzene mg/kg      | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 4-Chloro-3-methylphenol mg/kg     | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 2-Methylnaphthalene mg/kg         | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| Hexachlorocyclopentadiene mg/kg   | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| 2,4,6-Trichlorophenol mg/kg       | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 2,4,5-Trichlorophenol mg/kg       | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| 2-Chloronaphthalene mg/kg         | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 2-Nitroaniline mg/kg              | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| 2,4-Dinitrotoluene mg/kg          | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| 3-Nitroaniline mg/kg              | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| 4-Nitrophenol mg/kg               | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| Dibenzofuran mg/kg                | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 2,6-Dinitrotoluene mg/kg          | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 2,3,4,6-Tetrachlorophenol mg/kg   | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| Diethylphthalate mg/kg            | DETSC 3433  | 0.1  | mg/kg | < 10.0 |
| 4-Chlorophenylphenylether mg/kg   | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| 4-Nitroaniline mg/kg              | DETSC 3433* | 0.1  | mg/kg | < 10.0 |
| 2-Methyl-4,6-Dinitrophenol mg/kg  | DETSC 3433* | 0.1  | mg/kg | < 10.0 |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-01523-1

Client Ref SLS1015

Contract Title Redcar Site

|               |          |
|---------------|----------|
| Lab No        | 1182665  |
| Sample ID     | S2-TPA08 |
| Depth         | 4.00     |
| Other ID      | E1       |
| Sample Type   | ES       |
| Sampling Date | 25/05/17 |
| Sampling Time | n/s      |

| Test                             | Method      | LOD | Units |        |
|----------------------------------|-------------|-----|-------|--------|
| Diphenylamine mg/kg              | DETSC 3433  | 0.1 | mg/kg | < 10.0 |
| 4-Bromophenylphenylether mg/kg   | DETSC 3433  | 0.1 | mg/kg | < 10.0 |
| Hexachlorobenzene mg/kg          | DETSC 3433  | 0.1 | mg/kg | < 10.0 |
| Pentachlorophenol mg/kg          | DETSC 3433* | 0.1 | mg/kg | < 10.0 |
| Di-n-butylphthalate mg/kg        | DETSC 3433  | 0.1 | mg/kg | < 10.0 |
| Butylbenzylphthalate mg/kg       | DETSC 3433* | 0.1 | mg/kg | < 10.0 |
| Bis(2-ethylhexyl)phthalate mg/kg | DETSC 3433  | 0.1 | mg/kg | < 10.0 |
| Di-n-octylphthalate mg/kg        | DETSC 3433  | 0.1 | mg/kg | < 10.0 |
| 1,4-Dinitrobenzene mg/kg         | DETSC 3433* | 0.1 | mg/kg | < 10.0 |
| Dimethylphthalate mg/kg          | DETSC 3433  | 0.1 | mg/kg | < 10.0 |
| 1,3-Dinitrobenzene mg/kg         | DETSC 3433* | 0.1 | mg/kg | < 10.0 |
| 1,2-Dinitrobenzene mg/kg         | DETSC 3433* | 0.1 | mg/kg | < 10.0 |
| 2,3,5,6-Tetrachlorophenol mg/kg  | DETSC 3433* | 0.1 | mg/kg | < 10.0 |
| Azobenzene mg/kg                 | DETSC 3433  | 0.1 | mg/kg | < 10.0 |
| Carbazole mg/kg                  | DETSC 3433* | 0.1 | mg/kg | < 10.0 |
| <b>Subcontracted Analysis</b>    |             |     |       |        |
| Clostridium                      | \$*         |     | cfu/g | <10    |
| Total Coliforms                  | \$*         |     | cfu/g | <20    |
| Enterococci                      | \$*         |     | cfu/g | <20    |
| Faecal Coliforms                 | \$*         |     | cfu/g | <20    |
| Faecal Streptococci              | \$*         |     | cfu/g | <20    |

## Summary of Asbestos Analysis Soil Samples

*Our Ref* 17-01523-1

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Lab No  | Sample ID        | Material Type | Result | Comment* | Analyst     |
|---------|------------------|---------------|--------|----------|-------------|
| 1182665 | S2-TPA08 E1 4.00 | SOIL          | NAD    | none     | Chris Samms |

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 17-01523-1

Client Ref SLS1015

Contract Redcar Site

### Containers Received & Deviating Samples

| Lab No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Sample ID          | Date     |  | Containers Received         | Holding time exceeded for tests | Inappropriate container for tests |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|--|-----------------------------|---------------------------------|-----------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    | Sampled  |  |                             |                                 |                                   |
| 1182665                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | S2-TPA08 4.00 SOIL | 25/05/17 |  | GJ 250ml x2, GJ 60ml, PT 1L | pH + Conductivity (7 days)      |                                   |
| <p>Key: G-Glass P-Plastic J-Jar T-Tub</p> <p>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.</p> |                    |          |  |                             |                                 |                                   |

### Soil Analysis Notes

|                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.</p> <p>Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.</p> <p>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.</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Disposal

|                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>From the issue date of this test certificate, samples will be held for the following times prior to disposal :-</p> <p>Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 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 | Ali/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.



## Certificate of Analysis

**Certificate Number** 17-01547

19-Jun-17

**Client** Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

**Our Reference** 17-01547

**Client Reference** SLS1015

**Order No** CH-1332

**Contract Title** Redcar Site

**Description** 8 Soil samples, 3 Leachate samples.

**Date Received** 03-Jun-17

**Date Started** 03-Jun-17

**Date Completed** 19-Jun-17

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

**Notes** Opinions and interpretations are outside the laboratory's scope of ISO 10725 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 blue ink, appearing to read "A. Fenwick", is written over a light blue horizontal line.

Adam Fenwick  
Contracts Manager



## Summary of Chemical Analysis

### Matrix Descriptions

*Our Ref* 17-01547

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Sample ID | Other ID | Depth | Lab No  | Completed  | Matrix Description                                                            |
|-----------|----------|-------|---------|------------|-------------------------------------------------------------------------------|
| S2TPA02   | E1       | 0.3   | 1182938 | 16/06/2017 | Dark brown gravelly SAND (Possible made ground - slag) including odd rootlets |
| S2TPA11   | E1       | 2.5   | 1182939 | 16/06/2017 | Brown clayey, gravelly SAND                                                   |
| S2TPA14   | E1       | 2.6   | 1182940 | 16/06/2017 | Dark brown clayey, gravelly SAND (Made ground - brick)                        |
| S2TPA15   | E1       | 1.5   | 1182941 | 16/06/2017 | Dark brown gravelly SAND                                                      |
| S2TPA15   | E3       | 4.4   | 1182942 | 16/06/2017 | Brown gravelly SAND                                                           |
| S2TPA19   | E1       | 1.5   | 1182943 | 16/06/2017 | Dark brown clayey, gravelly SAND (Possible made ground - brick)               |
| S2TPA19   | E2       | 4     | 1182944 | 16/06/2017 | Dark brown gravelly SAND                                                      |
| S2-TPA12  | E1       | 3.5   | 1185528 | 16/06/2017 | Dark brown grey gravelly SAND (Possible made ground - slag)                   |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-01547

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1182938  | 1182939  | 1182940  | 1182941  | 1182942  | 1182943  |
|---------------|----------|----------|----------|----------|----------|----------|
| Sample ID     | S2TPA02  | S2TPA11  | S2TPA14  | S2TPA15  | S2TPA15  | S2TPA19  |
| Depth         | 0.30     | 2.50     | 2.60     | 1.50     | 4.40     | 1.50     |
| Other ID      | E1       | E1       | E1       | E1       | E3       | E1       |
| Sample Type   | ES       | ES       | ES       | ES       | ES       | ES       |
| Sampling Date | 30/05/17 | 31/05/17 | 30/05/17 | 30/05/17 | 30/05/17 | 31/05/17 |
| Sampling Time | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      |

| Test                            | Method      | LOD  | Units |  |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--|--------|--------|--------|--------|--------|
| <b>Metals</b>                   |             |      |       |  |        |        |        |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg |  |        | 2.1    |        |        | 1.1    |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg |  | 47     | 45     | 15     | 11     | 61     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |  |        | 99     |        |        | 87     |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |  |        | 5.3    |        |        | 6.5    |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg |  | 4.8    | 4.5    | 4.3    | 2.8    | 5.2    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg |  | 1.1    | 1.7    | 0.4    | 0.4    | 2.8    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg |  | 37     | 110    | 40     | 66     | 66     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |  |        | < 1.0  |        |        | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg |  | 16     | 51     | 9.1    | 15     | 19     |
| Iron                            | DETSC 2301  | 25   | mg/kg |  | 24000  | 39000  |        |        |        |
| Lead                            | DETSC 2301# | 0.3  | mg/kg |  | 67     | 110    | 24     | 38     | 150    |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg |  | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg |  |        | 2.5    |        |        | 2.5    |
| Nickel                          | DETSC 2301# | 1    | mg/kg |  | 11     | 15     | 5.2    | 6.0    | 21     |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg |  |        | 260    |        |        | 210    |
| Zinc                            | DETSC 2301# | 1    | mg/kg |  | 420    | 560    | 170    | 140    | 1200   |
| <b>Inorganics</b>               |             |      |       |  |        |        |        |        |        |
| pH                              | DETSC 2008# |      |       |  | 10.2   | 10.1   | 10.7   | 10.7   | 11.2   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg |  |        | 0.2    | 2.6    | 0.8    | 0.6    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg |  |        |        | < 0.1  |        | < 0.1  |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg |  |        |        | 2.6    |        | 0.6    |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg |  |        |        | 0.7    |        | 0.6    |
| Organic matter                  | DETSC 2002# | 0.1  | %     |  |        | 1.2    | 1.0    | 0.8    | 0.7    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  |  | 750    | 960    | 2500   | 820    | 2400   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |  | 0.40   |        |        | 1.1    |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |  | 0.33   |        |        | 2.5    |        |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |  |        |        |        |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg |  |        | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg |  |        | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg |  |        | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg |  |        | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg |  |        | 1.6    | < 1.2  | 2.0    | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg |  |        | 3.2    | 2.1    | 5.6    | 2.7    |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg |  |        | 28     | 32     | 18     | 17     |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg |  |        | 33     | 35     | 26     | 21     |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg |  |        | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg |  |        | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg |  |        | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg |  |        | < 0.9  | < 0.9  | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg |  |        | < 0.5  | 0.5    | < 0.5  | < 0.5  |
| Aromatic C16-C21                | DETSC 3072# | 0.6  | mg/kg |  |        | < 0.6  | 2.6    | 2.4    | < 0.6  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-01547

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1182938  | 1182939  | 1182940  | 1182941  | 1182942  | 1182943  |
|---------------|----------|----------|----------|----------|----------|----------|
| Sample ID     | S2TPA02  | S2TPA11  | S2TPA14  | S2TPA15  | S2TPA15  | S2TPA19  |
| Depth         | 0.30     | 2.50     | 2.60     | 1.50     | 4.40     | 1.50     |
| Other ID      | E1       | E1       | E1       | E1       | E3       | E1       |
| Sample Type   | ES       | ES       | ES       | ES       | ES       | ES       |
| Sampling Date | 30/05/17 | 31/05/17 | 30/05/17 | 30/05/17 | 30/05/17 | 31/05/17 |
| Sampling Time | n/s      | n/s      | n/s      | n/s      | n/s      | n/s      |

| Test                    | Method      | LOD  | Units |  |        |        |        |        |        |
|-------------------------|-------------|------|-------|--|--------|--------|--------|--------|--------|
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg |  | 10     | 14     | < 1.4  | < 1.4  | < 1.4  |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg |  | 10     | 17     | < 10   | < 10   | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg |  | 44     | 52     | 29     | 21     | < 10   |
| <b>PAHs</b>             |             |      |       |  |        |        |        |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | 0.09   | 0.05   | < 0.03 | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | 0.07   | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | 0.23   | < 0.03 | < 0.03 | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg |  | < 0.03 | 0.08   | 0.05   | < 0.03 | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg |  | 0.06   | 0.27   | 0.14   | 0.08   | 0.04   |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg |  | < 0.03 | 0.12   | 0.85   | < 0.03 | < 0.03 |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg |  | 0.10   | 1.0    | 0.14   | 0.17   | 0.07   |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg |  | 0.08   | 0.89   | 0.14   | 0.14   | 0.07   |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg |  | 0.04   | 0.42   | 0.10   | 0.07   | 0.03   |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg |  | 0.05   | 0.54   | 0.22   | 0.09   | < 0.03 |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg |  | 0.05   | 0.60   | 0.13   | 0.08   | 0.04   |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | 0.25   | 0.04   | 0.03   | < 0.03 |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg |  | 0.03   | 0.32   | 0.07   | 0.05   | < 0.03 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg |  | 0.03   | 0.19   | 0.06   | 0.03   | < 0.03 |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg |  | < 0.03 | 0.07   | < 0.03 | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg |  | 0.04   | 0.23   | 0.07   | 0.03   | < 0.03 |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg |  | 0.50   | 5.4    | 2.1    | 0.77   | 0.25   |
| <b>PCBs</b>             |             |      |       |  |        |        |        |        |        |
| PCB 28 + PCB 31         | DETSC 3401# | 0.01 | mg/kg |  |        | < 0.01 |        |        |        |
| PCB 52                  | DETSC 3401# | 0.01 | mg/kg |  |        | < 0.01 |        |        |        |
| PCB 101                 | DETSC 3401# | 0.01 | mg/kg |  |        | < 0.01 |        |        |        |
| PCB 118                 | DETSC 3401# | 0.01 | mg/kg |  |        | < 0.01 |        |        |        |
| PCB 153                 | DETSC 3401# | 0.01 | mg/kg |  |        | < 0.01 |        |        |        |
| PCB 138                 | DETSC 3401# | 0.01 | mg/kg |  |        | < 0.01 |        |        |        |
| PCB 180                 | DETSC 3401# | 0.01 | mg/kg |  |        | < 0.01 |        |        |        |
| PCB 7 Total             | DETSC 3401# | 0.01 | mg/kg |  |        | < 0.01 |        |        |        |
| <b>Phenols</b>          |             |      |       |  |        |        |        |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg |  | < 0.3  | < 0.3  | < 0.3  | 0.6    | < 0.3  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-01547

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1182944  | 1185528  |
| Sample ID     | S2TPA19  | S2-TPA12 |
| Depth         | 4.00     | 3.50     |
| Other ID      | E2       | E1       |
| Sample Type   | ES       | ES       |
| Sampling Date | 31/05/17 | 31/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                            | Method      | LOD  | Units |        |        |
|---------------------------------|-------------|------|-------|--------|--------|
| <b>Metals</b>                   |             |      |       |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg |        | 1.4    |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 42     | 9.4    |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |        | 320    |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |        | 2.8    |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 4.2    | 4.1    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 4.0    | 0.5    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 160    | 74     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |        | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 35     | 51     |
| Iron                            | DETSC 2301  | 25   | mg/kg |        | 18000  |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 99     | 75     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg |        | 1.0    |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 22     | 8.8    |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg |        | 200    |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 680    | 120    |
| <b>Inorganics</b>               |             |      |       |        |        |
| pH                              | DETSC 2008# |      |       | 11.3   | 10.3   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.4    | 1.2    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg |        | < 0.1  |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg |        | 1.2    |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg |        | < 0.6  |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 1.2    | 0.3    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 1600   | 1300   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.91   |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 2.5    |        |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | 2.1    | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | 8.6    | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | 36     | < 3.4  |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | 47     | < 10   |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | 0.7    | < 0.5  |
| Aromatic C16-C21                | DETSC 3072# | 0.6  | mg/kg | 9.8    | < 0.6  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-01547

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1182944  | 1185528  |
| Sample ID     | S2TPA19  | S2-TPA12 |
| Depth         | 4.00     | 3.50     |
| Other ID      | E2       | E1       |
| Sample Type   | ES       | ES       |
| Sampling Date | 31/05/17 | 31/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                    | Method      | LOD  | Units |        |        |
|-------------------------|-------------|------|-------|--------|--------|
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | 54     | < 1.4  |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | 64     | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | 110    | < 10   |
| <b>PAHs</b>             |             |      |       |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | 0.04   | 0.04   |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | 0.06   |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | 0.12   | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | 0.06   | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 0.71   | 0.29   |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | 0.14   | 0.10   |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 2.1    | 0.58   |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 2.4    | 0.50   |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 1.7    | 0.28   |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 2.1    | 0.29   |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 3.1    | 0.36   |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 1.4    | 0.14   |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | 2.4    | 0.22   |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 1.4    | 0.17   |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | 0.40   | 0.06   |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | 1.8    | 0.18   |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 20     | 3.3    |
| <b>PCBs</b>             |             |      |       |        |        |
| PCB 28 + PCB 31         | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 52                  | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 101                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 118                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 153                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 138                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 180                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 7 Total             | DETSC 3401# | 0.01 | mg/kg |        |        |
| <b>Phenols</b>          |             |      |       |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | < 0.3  | < 0.3  |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-01547

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1182938  | 1182940  |
| Sample ID     | S2TPA02  | S2TPA14  |
| Depth         | 0.30     | 2.60     |
| Other ID      | E1       | E1       |
| Sample Type   | ES       | ES       |
| Sampling Date | 30/05/17 | 30/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                       | Method      | LOD  | Units |        |        |
|----------------------------|-------------|------|-------|--------|--------|
| <b>VOCs</b>                |             |      |       |        |        |
| Vinyl Chloride             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 2,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromochloromethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Chloroform                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1-dichloropropene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Carbon tetrachloride       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Benzene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Trichloroethylene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Dibromomethane             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromodichloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Toluene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Tetrachloroethylene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Dibromochloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dibromoethane          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Chlorobenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Ethylbenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| m+p-Xylene                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| o-Xylene                   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Styrene                    | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromoform                  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Isopropylbenzene           | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromobenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| n-propylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 2-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 4-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Tert-butylbenzene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-01547

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1182938  | 1182940  |
| Sample ID     | S2TPA02  | S2TPA14  |
| Depth         | 0.30     | 2.60     |
| Other ID      | E1       | E1       |
| Sample Type   | ES       | ES       |
| Sampling Date | 30/05/17 | 30/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                        | Method      | LOD  | Units |        |        |
|-----------------------------|-------------|------|-------|--------|--------|
| sec-butylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| p-isopropyltoluene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| n-butylbenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | 0.03   | < 0.01 |
| Hexachlorobutadiene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Naphthalene                 | DETSC 3431  | 0.01 | mg/kg | 0.11   |        |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | 0.03   | < 0.01 |
| MTBE                        | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| <b>SVOCs</b>                |             |      |       |        |        |
| Phenol                      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Aniline                     | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Chlorophenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Benzyl Alcohol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methylphenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 3&4-Methylphenol            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1  | mg/kg | 0.2    | < 0.1  |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Acenaphthylene              | DETSC 3433  | 0.1  | mg/kg | 2.6    |        |
| 3-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Acenaphthene                | DETSC 3433  | 0.1  | mg/kg | 1.1    |        |
| 4-Nitrophenol               | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Dibenzofuran                | DETSC 3433  | 0.1  | mg/kg | 0.8    | < 0.1  |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | 0.1    |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Diethylphthalate            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Fluorene                    | DETSC 3433  | 0.1  | mg/kg | 1.6    |        |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-01547

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1182938  | 1182940  |
| Sample ID     | S2TPA02  | S2TPA14  |
| Depth         | 0.30     | 2.60     |
| Other ID      | E1       | E1       |
| Sample Type   | ES       | ES       |
| Sampling Date | 30/05/17 | 30/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                       | Method      | LOD | Units |       |       |
|----------------------------|-------------|-----|-------|-------|-------|
| 4-Nitroaniline             | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 2-Methyl-4,6-Dinitrophenol | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Diphenylamine              | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 4-Bromophenylphenylether   | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Hexachlorobenzene          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Pentachlorophenol          | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Phenanthrene               | DETSC 3433  | 0.1 | mg/kg | 12    |       |
| Anthracene                 | DETSC 3433  | 0.1 | mg/kg | 4.7   |       |
| Di-n-butylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Fluoranthene               | DETSC 3433  | 0.1 | mg/kg | 18    |       |
| Pyrene                     | DETSC 3433  | 0.1 | mg/kg | 15    |       |
| Butylbenzylphthalate       | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Benzo(a)anthracene         | DETSC 3433  | 0.1 | mg/kg | 6.9   |       |
| Chrysene                   | DETSC 3433  | 0.1 | mg/kg | 7.1   |       |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Di-n-octylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene       | DETSC 3433  | 0.1 | mg/kg | 9.2   |       |
| Benzo(k)fluoranthene       | DETSC 3433  | 0.1 | mg/kg | 3.7   |       |
| Benzo(a)pyrene             | DETSC 3433  | 0.1 | mg/kg | 6.7   |       |
| Indeno(123cd)pyrene        | DETSC 3433  | 0.1 | mg/kg | 4.5   |       |
| Dibenzo(ah)anthracene      | DETSC 3433  | 0.1 | mg/kg | 1.0   |       |
| Benzo(ghi)perylene         | DETSC 3433  | 0.1 | mg/kg | 5.0   |       |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Dimethylphthalate          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Azobenzene                 | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Carbazole                  | DETSC 3433* | 0.1 | mg/kg | 0.8   | < 0.1 |

## Summary of Chemical Analysis

### Leachate Samples

Our Ref 17-01547

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |          |
|---------------|----------|----------|----------|
| Lab No        | 1182945  | 1182946  | 1185529  |
| Sample ID     | S2TPA11  | S2TPA14  | S2-TPA12 |
| Depth         | 2.50     | 2.60     | 3.50     |
| Other ID      | E1       | E1       | E1       |
| Sample Type   | ES       | ES       | ES       |
| Sampling Date | 31/05/17 | 30/05/17 | 31/05/17 |
| Sampling Time | n/s      | n/s      | n/s      |

| Test                     | Method      | LOD   | Units |         |         |        |
|--------------------------|-------------|-------|-------|---------|---------|--------|
| <b>Preparation</b>       |             |       |       |         |         |        |
| Leachate 10:1            | DETS 036*   |       |       | Y       | Y       | N      |
| <b>Metals</b>            |             |       |       |         |         |        |
| Arsenic, Dissolved       | DETSC 2306  | 0.16  | ug/l  | 1.8     | 1.2     | 1.4    |
| Barium, Dissolved        | DETSC 2306  | 0.26  | ug/l  | 66      | 70      | 140    |
| Beryllium, Dissolved     | DETSC 2306* | 0.1   | ug/l  | < 0.1   | < 0.1   | < 0.1  |
| Boron                    | DETSC 2123  | 100   | ug/l  | < 100   | 100     | 100    |
| Cadmium, Dissolved       | DETSC 2306  | 0.03  | ug/l  | < 0.03  | < 0.03  | < 0.03 |
| Chromium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | < 0.25  | 0.33    | 0.38   |
| Copper, Dissolved        | DETSC 2306  | 0.4   | ug/l  | 0.8     | 0.6     | 0.6    |
| Iron, Dissolved          | DETSC 2306  | 5.5   | ug/l  | < 5.5   | < 5.5   |        |
| Lead, Dissolved          | DETSC 2306  | 0.09  | ug/l  | < 0.09  | < 0.09  | < 0.09 |
| Manganese, Dissolved     | DETSC 2306  | 0.22  | ug/l  | 68      | 22      | 4.2    |
| Mercury, Dissolved       | DETSC 2306  | 0.01  | ug/l  | 0.01    | 0.01    | < 0.01 |
| Nickel, Dissolved        | DETSC 2306  | 0.5   | ug/l  | 0.7     | < 0.5   | < 0.5  |
| Selenium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | 3.6     | 2.0     | 1.7    |
| Vanadium, Dissolved      | DETSC 2306  | 0.6   | ug/l  | < 0.6   | < 0.6   | 8.2    |
| Zinc, Dissolved          | DETSC 2306  | 1.3   | ug/l  | 5.1     | 16      | < 1.3  |
| <b>Inorganics</b>        |             |       |       |         |         |        |
| pH                       | DETSC 2008  |       |       | 6.7     | 6.8     | 7.4    |
| Ammoniacal Nitrogen as N | DETSC 2207  | 0.015 | mg/l  | < 0.015 | < 0.015 | 0.15   |
| Chloride                 | DETSC 2055  | 0.1   | mg/l  |         |         | 2.7    |

## Summary of Asbestos Analysis

### Soil Samples

*Our Ref* 17-01547

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Lab No  | Sample ID        | Material Type | Result | Comment* | Analyst         |
|---------|------------------|---------------|--------|----------|-----------------|
| 1182939 | S2TPA11 E1 2.50  | SOIL          | NAD    | none     | A Christodoulou |
| 1182940 | S2TPA14 E1 2.60  | SOIL          | NAD    | none     | A Christodoulou |
| 1182941 | S2TPA15 E1 1.50  | SOIL          | NAD    | none     | A Christodoulou |
| 1182942 | S2TPA15 E3 4.40  | SOIL          | NAD    | none     | A Christodoulou |
| 1182943 | S2TPA19 E1 1.50  | SOIL          | NAD    | none     | A Christodoulou |
| 1182944 | S2TPA19 E2 4.00  | SOIL          | NAD    | none     | A Christodoulou |
| 1185528 | S2-TPA12 E1 3.50 | SOIL          | NAD    | none     | D Wilkinson     |

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 17-01547  
Client Ref SLS1015  
Contract Redcar Site

### Containers Received & Deviating Samples

| Lab No  | Sample ID              | Date Sampled | Containers Received         | Holding time exceeded for tests | Inappropriate container for tests |
|---------|------------------------|--------------|-----------------------------|---------------------------------|-----------------------------------|
| 1182938 | S2TPA02 0.30 SOIL      | 30/05/17     | GJ 250ml, PT 1L             |                                 |                                   |
| 1182939 | S2TPA11 2.50 SOIL      | 31/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1182940 | S2TPA14 2.60 SOIL      | 30/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1182941 | S2TPA15 1.50 SOIL      | 30/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1182942 | S2TPA15 4.40 SOIL      | 30/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1182943 | S2TPA19 1.50 SOIL      | 31/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1182944 | S2TPA19 4.00 SOIL      | 31/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1182945 | S2TPA11 2.50 LEACHATE  | 31/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1182946 | S2TPA14 2.60 LEACHATE  | 30/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1185528 | S2-TPA12 3.50 SOIL     | 31/05/17     | GJ 250ml x2, GJ 60ml, PT 1L | pH + Conductivity (7 days)      |                                   |
| 1185529 | S2-TPA12 3.50 LEACHATE | 31/05/17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |

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 | Ali/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 |
|-----------|-------------------------|-------|--------------------|--------------------|----------------|------|--------|
| DETS 3303 | Acenaphthene            | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Acenaphthylene          | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Benzo(a)pyrene          | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Benzo(a)anthracene      | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Benzo(b)fluoranthene    | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Benzo(k)fluoranthene    | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Benzo(g,h,i)perylene    | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Dibenzo(a,h)anthracene  | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Fluoranthene            | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Indeno(1,2,3-c,d)pyrene | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Naphthalene             | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Phenanthrene            | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3303 | Pyrene                  | mg/kg | 0.03               | As Received        | No             | Yes  | Yes    |
| DETS 3401 | PCB 28 + PCB 31         | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 3401 | PCB 52                  | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 3401 | PCB 101                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 3401 | PCB 118                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 3401 | PCB 153                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 3401 | PCB 138                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 3401 | PCB 180                 | mg/kg | 0.01               | As Received        | No             | Yes  | Yes    |
| DETS 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.



## Certificate of Analysis

*Certificate Number* 17-02082-1

28-Jun-17

*Client* Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

*Our Reference* 17-02082-1

*Client Reference* SLS1015

*Order No* CH-1332

*Contract Title* SSI REDCAR

*Description* 7 Soil samples, 3 Leachate samples.

*Date Received* Friday, June 9, 2017

*Date Started* Friday, June 9, 2017

*Date Completed* Wednesday, June 28, 2017

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

*Notes* **This report supersedes 17-02082. Extra testing**

Opinions and interpretations are outside the laboratory's scope of ISO 10725 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*

Adam Fenwick  
Contracts Manager



# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-02082-1

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1185966   | 1185967   | 1185968   | 1185969   | 1185971   | 1185972   | 1185973   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2-TPA29  | S2-TPA29  | S2-TPA29  | S2-TPA38  | S2-TPA30  | S2-TPA30  | S2-TPA30  |
| Depth         | 1.60      | 4.80      | 4.90      | 3.60      | 4.50      | 5.40      | 5.60      |
| Other ID      | E1        | E2        | E3        | E2        | E3        | E4        | E5        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 01-Jun-17 | 01-Jun-17 | 01-Jun-17 | 01-Jun-17 | 02-Jun-17 | 02-Jun-17 | 02-Jun-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                            | Method      | LOD  | Units |        |        |  |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--|--------|--------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       |        |        |  | Y      |        |        |
| <b>Metals</b>                   |             |      |       |        |        |  |        |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg | 11     |        |  | 4.4    | 7.7    |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 23     | 5.9    |  | 78     | 48     | 53     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 960    |        |  | 320    | 450    |        |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 1.1    |        |  | 5.3    | 1.0    |        |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 2.9    | 21     |  | 5.4    | 2.4    | 2.5    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.4    | 1.9    |  | 1.8    | 3.0    | 0.3    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 890    | 250    |  | 53     | 200    | 12     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  |        |  | < 1.0  | < 1.0  |        |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 46     | 35     |  | 33     | 130    | 11     |
| Iron                            | DETSC 2301  | 25   | mg/kg |        | 34000  |  | 36000  |        | 17000  |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 16     | 77     |  | 200    | 190    | 48     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | 0.07   |  | 0.10   | 0.15   | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg | 1.4    |        |  | 3.2    | 7.7    |        |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 18     | 13     |  | 22     | 74     | 8.8    |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg | 3600   |        |  | 170    | 710    |        |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 52     | 130    |  | 580    | 390    | 98     |
| <b>Inorganics</b>               |             |      |       |        |        |  |        |        |        |
| pH                              | DETSC 2008# |      |       | 12.4   | 12.6   |  | 10.4   | 11.0   | 8.2    |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 1.0    | 46     |  | 8.3    | 0.6    | 0.4    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg | < 0.1  | 0.4    |  | < 0.1  | < 0.1  |        |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg | 1.0    | 46     |  | 8.3    | 0.6    |        |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg | < 0.6  | 1.1    |  | < 0.6  | < 0.6  |        |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 0.5    | 0.6    |  | 1.3    | 1.9    | < 0.1  |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 31     | 1000   |  | 1500   | 810    | 1700   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.22   |        |  | 0.77   |        | 0.61   |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.49   |        |  | 1.7    |        | 1.7    |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |  |        |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |  | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |  | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |  | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  |  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | < 1.2  | < 1.2  |  | < 1.2  | < 1.2  | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | 3.4    |  | < 1.5  | 4.3    | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | < 3.4  | < 3.4  |  | < 3.4  | 28     | < 3.4  |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | < 10   | < 10   |  | < 10   | 33     | < 10   |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |  | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |  | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |  | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | < 0.9  |  | < 0.9  | 1.3    | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | < 0.5  | < 0.5  |  | < 0.5  | 4.7    | < 0.5  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-02082-1

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1185966   | 1185967   | 1185968   | 1185969   | 1185971   | 1185972   | 1185973   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2-TPA29  | S2-TPA29  | S2-TPA29  | S2-TPA38  | S2-TPA30  | S2-TPA30  | S2-TPA30  |
| Depth         | 1.60      | 4.80      | 4.90      | 3.60      | 4.50      | 5.40      | 5.60      |
| Other ID      | E1        | E2        | E3        | E2        | E3        | E4        | E5        |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 01-Jun-17 | 01-Jun-17 | 01-Jun-17 | 01-Jun-17 | 02-Jun-17 | 02-Jun-17 | 02-Jun-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                    | Method     | LOD  | Units |        |       |        |       |       |       |
|-------------------------|------------|------|-------|--------|-------|--------|-------|-------|-------|
| Aromatic C16-C21        | DETS 3072# | 0.6  | mg/kg | < 0.6  | 5.0   |        | 4.2   | 17    | < 0.6 |
| Aromatic C21-C35        | DETS 3072# | 1.4  | mg/kg | < 1.4  | < 1.4 |        | 20    | 65    | < 1.4 |
| Aromatic C5-C35         | DETS 3072* | 10   | mg/kg | < 10   | < 10  |        | 24    | 88    | < 10  |
| TPH Ali/Aro Total       | DETS 3072* | 10   | mg/kg | < 10   | 11    |        | 24    | 120   | < 10  |
| <b>PAHs</b>             |            |      |       |        |       |        |       |       |       |
| Naphthalene             | DETS 3303# | 0.03 | mg/kg | < 0.03 | 0.27  |        | 0.13  | 0.37  | 0.38  |
| Acenaphthylene          | DETS 3303# | 0.03 | mg/kg | < 0.03 | 0.10  |        | 0.22  | 1.6   | 1.5   |
| Acenaphthene            | DETS 3303# | 0.03 | mg/kg | < 0.03 | 0.34  |        | 0.08  | 2.4   | 2.5   |
| Fluorene                | DETS 3303  | 0.03 | mg/kg | < 0.03 | 0.16  |        | 0.19  | 2.7   | 2.5   |
| Phenanthrene            | DETS 3303# | 0.03 | mg/kg | 0.11   | 12    |        | 1.7   | 7.7   | 8.0   |
| Anthracene              | DETS 3303  | 0.03 | mg/kg | < 0.03 | 1.7   |        | 0.47  | 1.9   | 1.9   |
| Fluoranthene            | DETS 3303# | 0.03 | mg/kg | 0.16   | 9.4   |        | 2.7   | 12    | 13    |
| Pyrene                  | DETS 3303# | 0.03 | mg/kg | 0.14   | 6.2   |        | 2.0   | 11    | 11    |
| Benzo(a)anthracene      | DETS 3303# | 0.03 | mg/kg | 0.07   | 1.8   |        | 1.3   | 7.1   | 7.5   |
| Chrysene                | DETS 3303  | 0.03 | mg/kg | 0.08   | 2.0   |        | 1.3   | 6.8   | 7.2   |
| Benzo(b)fluoranthene    | DETS 3303# | 0.03 | mg/kg | 0.08   | 1.1   |        | 1.7   | 8.2   | 9.1   |
| Benzo(k)fluoranthene    | DETS 3303# | 0.03 | mg/kg | 0.04   | 0.53  |        | 0.72  | 3.4   | 3.9   |
| Benzo(a)pyrene          | DETS 3303# | 0.03 | mg/kg | 0.06   | 0.69  |        | 1.1   | 6.7   | 7.7   |
| Indeno(1,2,3-c,d)pyrene | DETS 3303# | 0.03 | mg/kg | 0.04   | 0.34  |        | 0.86  | 3.4   | 3.7   |
| Dibenzo(a,h)anthracene  | DETS 3303# | 0.03 | mg/kg | < 0.03 | 0.08  |        | 0.23  | 1.1   | 1.1   |
| Benzo(g,h,i)perylene    | DETS 3303# | 0.03 | mg/kg | 0.04   | 0.32  |        | 0.93  | 3.8   | 4.1   |
| PAH - USEPA 16, Total   | DETS 3303  | 0.1  | mg/kg | 0.83   | 37    |        | 16    | 80    | 85    |
| <b>PCBs</b>             |            |      |       |        |       |        |       |       |       |
| PCB 28 + PCB 31         | DETS 3401# | 0.01 | mg/kg |        |       | < 0.01 |       |       |       |
| PCB 52                  | DETS 3401# | 0.01 | mg/kg |        |       | < 0.01 |       |       |       |
| PCB 101                 | DETS 3401# | 0.01 | mg/kg |        |       | < 0.01 |       |       |       |
| PCB 118                 | DETS 3401# | 0.01 | mg/kg |        |       | < 0.01 |       |       |       |
| PCB 153                 | DETS 3401# | 0.01 | mg/kg |        |       | < 0.01 |       |       |       |
| PCB 138                 | DETS 3401# | 0.01 | mg/kg |        |       | < 0.01 |       |       |       |
| PCB 180                 | DETS 3401# | 0.01 | mg/kg |        |       | < 0.01 |       |       |       |
| PCB 7 Total             | DETS 3401# | 0.01 | mg/kg |        |       | < 0.01 |       |       |       |
| <b>Phenols</b>          |            |      |       |        |       |        |       |       |       |
| Phenol - Monohydric     | DETS 2130# | 0.3  | mg/kg | < 0.3  | < 0.3 |        | < 0.3 | < 0.3 | < 0.3 |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-02082-1

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1185968   | 1185969   | 1185972   |
|---------------|-----------|-----------|-----------|
| Sample ID     | S2-TPA29  | S2-TPA38  | S2-TPA30  |
| Depth         | 4.90      | 3.60      | 5.40      |
| Other ID      | E3        | E2        | E4        |
| Sample Type   | ES        | ES        | ES        |
| Sampling Date | 01-Jun-17 | 01-Jun-17 | 02-Jun-17 |
| Sampling Time | n/s       | n/s       | n/s       |

| Test                       | Method      | LOD  | Units |        |        |        |
|----------------------------|-------------|------|-------|--------|--------|--------|
| <b>VOCs</b>                |             |      |       |        |        |        |
| Vinyl Chloride             | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,1-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 2,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Bromochloromethane         | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Chloroform                 | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,1-dichloropropene        | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Carbon tetrachloride       | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Benzene                    | DETSC 3431  | 0.01 | mg/kg | 8.5    | < 0.01 | < 0.01 |
| 1,2-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Trichloroethylene          | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Dibromomethane             | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Bromodichloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Toluene                    | DETSC 3431  | 0.01 | mg/kg | 19     | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Tetrachloroethylene        | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,3-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Dibromochloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,2-dibromoethane          | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Chlorobenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Ethylbenzene               | DETSC 3431  | 0.01 | mg/kg | 0.51   | < 0.01 | < 0.01 |
| m+p-Xylene                 | DETSC 3431  | 0.01 | mg/kg | 17     | < 0.01 | < 0.01 |
| o-Xylene                   | DETSC 3431  | 0.01 | mg/kg | 12     | < 0.01 | < 0.01 |
| Styrene                    | DETSC 3431* | 0.01 | mg/kg | 11     | < 0.01 | < 0.01 |
| Bromoform                  | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Isopropylbenzene           | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Bromobenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| n-propylbenzene            | DETSC 3431  | 0.01 | mg/kg | 0.11   | < 0.01 | < 0.01 |
| 2-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | 0.16   | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 4-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| Tert-butylbenzene          | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.10 | < 0.01 | < 0.01 |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-02082-1

Client Ref SLS1015

Contract Title SSI REDCAR

|               |           |           |           |
|---------------|-----------|-----------|-----------|
| Lab No        | 1185968   | 1185969   | 1185972   |
| Sample ID     | S2-TPA29  | S2-TPA38  | S2-TPA30  |
| Depth         | 4.90      | 3.60      | 5.40      |
| Other ID      | E3        | E2        | E4        |
| Sample Type   | ES        | ES        | ES        |
| Sampling Date | 01-Jun-17 | 01-Jun-17 | 02-Jun-17 |
| Sampling Time | n/s       | n/s       | n/s       |

| Test                        | Method      | LOD  | Units |         |        |        |
|-----------------------------|-------------|------|-------|---------|--------|--------|
| sec-butylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| p-isopropyltoluene          | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| n-butylbenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| Hexachlorobutadiene         | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| Naphthalene                 | DETSC 3431  | 0.01 | mg/kg | 29000   |        | 0.20   |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| MTBE                        | DETSC 3431* | 0.01 | mg/kg | < 0.10  | < 0.01 | < 0.01 |
| <b>SVOCs</b>                |             |      |       |         |        |        |
| Phenol                      | DETSC 3433  | 0.1  | mg/kg | 2200    | < 0.1  | < 0.1  |
| Aniline                     | DETSC 3433* | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2-Chlorophenol              | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| Benzyl Alcohol              | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2-Methylphenol              | DETSC 3433  | 0.1  | mg/kg | 1100    | < 0.1  | < 0.1  |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 3&4-Methylphenol            | DETSC 3433  | 0.1  | mg/kg | 2800    | < 0.1  | < 0.1  |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1  | mg/kg | 980     | < 0.1  | < 0.1  |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1  | mg/kg | 13000   | 0.3    | 0.3    |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| Acenaphthylene              | DETSC 3433  | 0.1  | mg/kg | 20000   |        | 0.4    |
| 3-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| Acenaphthene                | DETSC 3433  | 0.1  | mg/kg | 1700    |        | 0.4    |
| 4-Nitrophenol               | DETSC 3433* | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| Dibenzofuran                | DETSC 3433  | 0.1  | mg/kg | 11000   | 0.3    | 0.5    |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| Diethylphthalate            | DETSC 3433  | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1  | mg/kg | < 100.0 | < 0.1  | < 0.1  |
| Fluorene                    | DETSC 3433  | 0.1  | mg/kg | 16000   |        | 0.6    |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-02082-1

Client Ref SLS1015

Contract Title SSI REDCAR

| Lab No        | 1185968   | 1185969   | 1185972   |
|---------------|-----------|-----------|-----------|
| Sample ID     | S2-TPA29  | S2-TPA38  | S2-TPA30  |
| Depth         | 4.90      | 3.60      | 5.40      |
| Other ID      | E3        | E2        | E4        |
| Sample Type   | ES        | ES        | ES        |
| Sampling Date | 01-Jun-17 | 01-Jun-17 | 02-Jun-17 |
| Sampling Time | n/s       | n/s       | n/s       |

| Test                       | Method      | LOD | Units |         |       |       |
|----------------------------|-------------|-----|-------|---------|-------|-------|
| 4-Nitroaniline             | DETSC 3433* | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| 2-Methyl-4,6-Dinitrophenol | DETSC 3433* | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Diphenylamine              | DETSC 3433  | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| 4-Bromophenylphenylether   | DETSC 3433  | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Hexachlorobenzene          | DETSC 3433  | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Pentachlorophenol          | DETSC 3433* | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Phenanthrene               | DETSC 3433  | 0.1 | mg/kg | 47000   |       | 3.2   |
| Anthracene                 | DETSC 3433  | 0.1 | mg/kg | 13000   |       | 1.0   |
| Di-n-butylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Fluoranthene               | DETSC 3433  | 0.1 | mg/kg | 30000   |       | 5.7   |
| Pyrene                     | DETSC 3433  | 0.1 | mg/kg | 20000   |       | 4.3   |
| Butylbenzylphthalate       | DETSC 3433* | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Benzo(a)anthracene         | DETSC 3433  | 0.1 | mg/kg | 10000   |       | 2.8   |
| Chrysene                   | DETSC 3433  | 0.1 | mg/kg | 8300    |       | 2.7   |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Di-n-octylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene       | DETSC 3433  | 0.1 | mg/kg | 9200    |       | 3.0   |
| Benzo(k)fluoranthene       | DETSC 3433  | 0.1 | mg/kg | 4100    |       | 1.2   |
| Benzo(a)pyrene             | DETSC 3433  | 0.1 | mg/kg | 8100    |       | 2.2   |
| Indeno(123cd)pyrene        | DETSC 3433  | 0.1 | mg/kg | 4500    |       | 1.3   |
| Dibenzo(ah)anthracene      | DETSC 3433  | 0.1 | mg/kg | 1300    |       | 0.4   |
| Benzo(ghi)perylene         | DETSC 3433  | 0.1 | mg/kg | 5100    |       | 1.5   |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Dimethylphthalate          | DETSC 3433  | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Azobenzene                 | DETSC 3433  | 0.1 | mg/kg | < 100.0 | < 0.1 | < 0.1 |
| Carbazole                  | DETSC 3433* | 0.1 | mg/kg | 7100    | 0.2   | 0.2   |

## Summary of Chemical Analysis

### Leachate Samples

Our Ref 17-02082-1

Client Ref SLS1015

Contract Title SSI REDCAR

|               |           |           |           |
|---------------|-----------|-----------|-----------|
| Lab No        | 1185974   | 1185975   | 1185976   |
| Sample ID     | S2-TPA29  | S2-TPA38  | S2-TPA30  |
| Depth         | 4.80      | 3.60      | 5.60      |
| Other ID      | E2        | E2        | E5        |
| Sample Type   | ES        | ES        | ES        |
| Sampling Date | 01-Jun-17 | 01-Jun-17 | 02-Jun-17 |
| Sampling Time | n/s       | n/s       | n/s       |

| Test                     | Method      | LOD   | Units |        |        |        |
|--------------------------|-------------|-------|-------|--------|--------|--------|
| <b>Preparation</b>       |             |       |       |        |        |        |
| NRA Leachate Preparation | DETS 036*   |       |       | Y      | Y      | Y      |
| <b>Metals</b>            |             |       |       |        |        |        |
| Arsenic, Dissolved       | DETSC 2306  | 0.16  | ug/l  | < 0.16 | 1.6    | 0.66   |
| Barium, Dissolved        | DETSC 2306  | 0.26  | ug/l  | 17     | 19     | 5.3    |
| Beryllium, Dissolved     | DETSC 2306* | 0.1   | ug/l  | < 0.1  | < 0.1  | < 0.1  |
| Boron                    | DETSC 2123  | 100   | ug/l  | < 100  | < 100  | < 100  |
| Cadmium, Dissolved       | DETSC 2306  | 0.03  | ug/l  | < 0.03 | < 0.03 | < 0.03 |
| Chromium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | < 0.25 | < 0.25 | < 0.25 |
| Copper, Dissolved        | DETSC 2306  | 0.4   | ug/l  | 2.1    | 0.9    | 0.6    |
| Iron, Dissolved          | DETSC 2306  | 5.5   | ug/l  | < 5.5  | < 5.5  | < 5.5  |
| Lead, Dissolved          | DETSC 2306  | 0.09  | ug/l  | 0.27   | < 0.09 | < 0.09 |
| Manganese, Dissolved     | DETSC 2306  | 0.22  | ug/l  | 0.28   | 4.5    | 2.2    |
| Mercury, Dissolved       | DETSC 2306  | 0.01  | ug/l  | 0.02   | < 0.01 | < 0.01 |
| Nickel, Dissolved        | DETSC 2306  | 0.5   | ug/l  | < 0.5  | 0.6    | < 0.5  |
| Selenium, Dissolved      | DETSC 2306  | 0.25  | ug/l  | 2.7    | 2.5    | 0.65   |
| Vanadium, Dissolved      | DETSC 2306  | 0.6   | ug/l  | 1.0    | < 0.6  | < 0.6  |
| Zinc, Dissolved          | DETSC 2306  | 1.3   | ug/l  | < 1.3  | < 1.3  | < 1.3  |
| <b>Inorganics</b>        |             |       |       |        |        |        |
| pH                       | DETSC 2008  |       |       | 11.2   | 9.1    | 9.5    |
| Ammoniacal Nitrogen as N | DETSC 2207  | 0.015 | mg/l  | 0.092  | 0.11   | 0.15   |

## Summary of Asbestos Analysis

### Soil Samples

*Our Ref* 17-02082-1  
*Client Ref* SLS1015  
*Contract Title* SSI REDCAR

| Lab No  | Sample ID        | Material Type | Result     | Comment*                                            | Analyst      |
|---------|------------------|---------------|------------|-----------------------------------------------------|--------------|
| 1185966 | S2-TPA29 E1 1.60 | SOIL          | NAD        | none                                                | Jeff Cruddas |
| 1185967 | S2-TPA29 E2 4.80 | SOIL          | NAD        | none                                                | Jeff Cruddas |
| 1185969 | S2-TPA38 E2 3.60 | SOIL          | Chrysotile | Chrysotile present as loose fibrous asbestos debris | Jeff Cruddas |
| 1185971 | S2-TPA30 E3 4.50 | SOIL          | NAD        | none                                                | Jeff Cruddas |
| 1185973 | S2-TPA30 E5 5.60 | SOIL          | NAD        | none                                                | Jeff Cruddas |

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.

## Summary of Asbestos Quantification Analysis

### Soil Samples

Our Ref 17-02082-1

Client Ref SLS1015

Contract Title SSI REDCAR

|               |           |
|---------------|-----------|
| Lab No        | 1185969   |
| Sample ID     | S2-TPA38  |
| Depth         | 3.60      |
| Other ID      | E2        |
| Sample Type   | SOIL      |
| Sampling Date | 01-Jun-17 |
| Sampling Time |           |

| Test                                    | Method     | Units    |       |
|-----------------------------------------|------------|----------|-------|
| Total Mass% Asbestos (a+b+c)            | DETSC 1102 | Mass %   | 0.038 |
| Gravimetric Quantification (a)          | DETSC 1102 | Mass %   | 0.038 |
| Detailed Gravimetric Quantification (b) | DETSC 1102 | Mass %   | na    |
| Quantification by PCOM (c)              | DETSC 1102 | Mass %   | na    |
| Potentially Respirable Fibres (d)       | DETSC 1102 | Fibres/g | na    |

#### Breakdown of Gravimetric Analysis (a)

|                       |  |      |        |
|-----------------------|--|------|--------|
| Mass of Sample        |  | g    | 519.01 |
| ACMs present*         |  | type | LFAD   |
| Mass of ACM in sample |  | g    | 0.23   |
| % ACM by mass         |  | %    | 0.04   |
| % asbestos in ACM     |  | %    | 85.00  |
| % asbestos in sample  |  | %    | 0.04   |

#### Breakdown of Detailed Gravimetric Analysis (b)

|                                |  |        |    |
|--------------------------------|--|--------|----|
| % Amphibole bundles in sample  |  | Mass % | na |
| % Chrysotile bundles in sample |  | Mass % | na |

#### Breakdown of PCOM Analysis (c)

|                               |  |        |    |
|-------------------------------|--|--------|----|
| % Amphibole fibres in sample  |  | Mass % | na |
| % Chrysotile fibres in sample |  | Mass % | na |

#### Breakdown of Potentially Respirable Fibre Analysis (d)

|                   |  |          |    |
|-------------------|--|----------|----|
| Amphibole fibres  |  | Fibres/g | na |
| Chrysotile fibres |  | Fibres/g | na |

\* Denotes test or material description outside of UKAS accreditation.  
 % asbestos in Asbestos Containing Materials (ACMs) is determined by  
 by reference to HSG 264.  
 Recommended sample size for quantification is approximately 1kg  
 # denotes deviating sample

## Information in Support of the Analytical Results

Our Ref 17-02082-1

Client Ref SLS1015

Contract SSI REDCAR

### Containers Received & Deviating Samples

| Lab No  | Sample ID              | Date Sampled | Containers Received         | Holding time exceeded for tests | Inappropriate container for tests |
|---------|------------------------|--------------|-----------------------------|---------------------------------|-----------------------------------|
| 1185966 | S2-TPA29 1.60 SOIL     | 01-06-17     | GJ 250ml x2, GJ 60ml, PT 1L | pH + Conductivity (7 days)      |                                   |
| 1185967 | S2-TPA29 4.80 SOIL     | 01-06-17     | GJ 250ml x2, GJ 60ml, PT 1L | pH + Conductivity (7 days)      |                                   |
| 1185968 | S2-TPA29 4.90 SOIL     | 01-06-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1185969 | S2-TPA38 3.60 SOIL     | 01-06-17     | GJ 250ml x2, GJ 60ml, PT 1L | pH + Conductivity (7 days)      |                                   |
| 1185970 | S2-TPA30 3.00 SOIL     | 02-06-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1185971 | S2-TPA30 4.50 SOIL     | 02-06-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1185972 | S2-TPA30 5.40 SOIL     | 02-06-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1185973 | S2-TPA30 5.60 SOIL     | 02-06-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1185974 | S2-TPA29 4.80 LEACHATE | 01-06-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1185975 | S2-TPA38 3.60 LEACHATE | 01-06-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1185976 | S2-TPA30 5.60 LEACHATE | 02-06-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |

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



## Certificate of Analysis

*Certificate Number* 17-99027-1

15-May-17

*Client* Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

*Our Reference* 17-99027-1

*Client Reference* SLS1015

*Order No* CH1332

*Contract Title* Redcar Site

*Description* 4 Soil samples.

*Date Received* Monday, May 8, 2017

*Date Started* Monday, May 8, 2017

*Date Completed* Monday, May 15, 2017

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

**Notes This report supersedes 17-99027. Extra testing**

Opinions and interpretations are outside the scope of UKAS 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. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

*Approved By*

Adam Fenwick  
Contracts Manager



## Summary of Chemical Analysis

### Matrix Descriptions

*Our Ref* 17-99027-1

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Sample ID | Other ID | Depth     | Lab No  | Completed | Matrix Description                                     |
|-----------|----------|-----------|---------|-----------|--------------------------------------------------------|
| S2TPA100  | E1       | 0.20-0.50 | 1169361 | 11-May-17 | Dark brown gravelly SAND (Possible made ground - slag) |
| S2TPA100  | E4       | 4.00-4.10 | 1169362 | 11-May-17 | Dark brown gravelly SAND                               |
| S2TPA97   | E1       | 0.5       | 1169363 | 11-May-17 | Dark dark brown gravelly SAND                          |
| S2TPA97   | E3       | 4         | 1169364 | 11-May-17 | Dark brown very gravelly SAND                          |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-99027-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1169361   | 1169362   | 1169363   | 1169364   |
|---------------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA10   | S2TPA10   | S2TPA97   | S2TPA97   |
| Depth         | 0.20-0.50 | 4.00-4.10 | 0.50      | 4.00      |
| Other ID      | E1        | E4        | E1        | E3        |
| Sample Type   | ES        | ES        | ES        | ES        |
| Sampling Date | 04-May-17 | 04-May-17 | 04-May-17 | 04-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       |

| Test                            | Method      | LOD  | Units |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       | Y      |        |        |        |
| <b>Metals</b>                   |             |      |       |        |        |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg | 3.0    | 1.1    |        | 2.5    |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 20     | 8.9    | 52     | 18     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 300    | 250    |        | 210    |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 2.0    | 1.9    |        | 1.9    |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 1.0    | 1.1    | < 0.2  | 8.7    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 5.2    | 31     | 1.1    | 1.0    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 110    | 16     | 55     | 53     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  |        | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 82     | 81     | 97     | 90     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 180    | 20     | 110    | 86     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg | 5.5    | 7.7    |        | 3.6    |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 29     | 34     | 28     | 37     |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg | 440    | 110    |        | 230    |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 610    | 640    | 360    | 120    |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |
| pH                              | DETSC 2008# |      |       | 10.2   | 9.3    | 10.7   | 11.2   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.2    | < 0.1  | 8.1    | 0.8    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg | 0.2    | < 0.2  | 8.1    | 0.8    |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg | < 0.6  | < 0.6  | < 0.6  | < 0.6  |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 2.6    | 10     | 1.3    | 2.8    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 140    | 180    | 120    | 290    |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.12   |        |        | 0.20   |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.17   |        |        | 0.51   |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | < 1.2  | < 1.2  | < 1.2  | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | < 3.4  | < 3.4  | < 3.4  | < 3.4  |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | < 10   | < 10   | < 10   | < 10   |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | < 0.9  | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | < 0.5  | < 0.5  | < 0.5  | < 0.5  |
| Aromatic C16-C21                | DETSC 3072# | 0.6  | mg/kg | 2.5    | < 0.6  | < 0.6  | < 0.6  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-99027-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1169361   | 1169362   | 1169363   | 1169364   |
|---------------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA10   | S2TPA10   | S2TPA97   | S2TPA97   |
| Depth         | 0.20-0.50 | 4.00-4.10 | 0.50      | 4.00      |
| Other ID      | E1        | E4        | E1        | E3        |
| Sample Type   | ES        | ES        | ES        | ES        |
| Sampling Date | 04-May-17 | 04-May-17 | 04-May-17 | 04-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       |

| Test                    | Method      | LOD  | Units |        |        |        |        |
|-------------------------|-------------|------|-------|--------|--------|--------|--------|
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | 9.1    | < 1.4  | < 1.4  | < 1.4  |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | 12     | < 10   | < 10   | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | 12     | < 10   | < 10   | < 10   |
| <b>PAHs</b>             |             |      |       |        |        |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | 0.03   | < 0.03 | 0.04   | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | 0.06   | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | 0.03   | < 0.03 | < 0.03 | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 0.51   | 0.05   | 0.21   | < 0.03 |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | 0.16   | < 0.03 | 0.03   | < 0.03 |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 1.2    | 0.08   | 0.23   | < 0.03 |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 1.1    | 0.09   | 0.18   | < 0.03 |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 0.71   | 0.09   | 0.08   | < 0.03 |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 0.68   | 0.11   | 0.09   | < 0.03 |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 1.1    | 0.19   | 0.10   | < 0.03 |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.43   | 0.19   | 0.04   | < 0.03 |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | 0.69   | 0.22   | 0.07   | < 0.03 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 0.41   | 0.21   | 0.04   | < 0.03 |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | 0.14   | 0.05   | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | 0.46   | 0.24   | 0.05   | < 0.03 |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 7.7    | 1.5    | 1.2    | < 0.10 |
| <b>Phenols</b>          |             |      |       |        |        |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | < 0.3  | 0.3    | < 0.3  | < 0.3  |

## Summary of Asbestos Analysis

### Soil Samples

*Our Ref* 17-99027-1

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Lab No  | Sample ID             | Material Type | Result     | Comment*                                             | Analyst         |
|---------|-----------------------|---------------|------------|------------------------------------------------------|-----------------|
| 1169361 | S2TPA100 E1 0.20-0.50 | SOIL          | Chrysotile | Chrysotile present as small clumps and fibre bundles | A Christodoulou |
| 1169362 | S2TPA100 E4 4.00-4.10 | SOIL          | NAD        | none                                                 | A Christodoulou |
| 1169363 | S2TPA97 E1 0.50       | SOIL          | NAD        | none                                                 | A Christodoulou |
| 1169364 | S2TPA97 E3 4.00       | SOIL          | NAD        | none                                                 | A Christodoulou |

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.

## Summary of Asbestos Quantification Analysis

### Soil Samples

Our Ref 17-99027-1

Client Ref SLS1015

Contract Title Redcar Site

|               |           |
|---------------|-----------|
| Lab No        | 1169361   |
| Sample ID     | S2TPA100  |
| Depth         | 0.20-0.50 |
| Other ID      | E1        |
| Sample Type   | SOIL      |
| Sampling Date | 04-May-17 |
| Sampling Time |           |

| Test                                    | Method     | Units    |       |
|-----------------------------------------|------------|----------|-------|
| Total Mass% Asbestos (a+b+c)            | DETSC 1102 | Mass %   | 0.008 |
| Gravimetric Quantification (a)          | DETSC 1102 | Mass %   | na    |
| Detailed Gravimetric Quantification (b) | DETSC 1102 | Mass %   | 0.008 |
| Quantification by PCOM (c)              | DETSC 1102 | Mass %   | na    |
| Potentially Respirable Fibres (d)       | DETSC 1102 | Fibres/g | na    |

#### Breakdown of Gravimetric Analysis (a)

|                       |  |      |        |
|-----------------------|--|------|--------|
| Mass of Sample        |  | g    | 551.32 |
| ACMs present*         |  | type |        |
| Mass of ACM in sample |  | g    |        |
| % ACM by mass         |  | %    |        |
| % asbestos in ACM     |  | %    |        |
| % asbestos in sample  |  | %    |        |

#### Breakdown of Detailed Gravimetric Analysis (b)

|                                |  |        |       |
|--------------------------------|--|--------|-------|
| % Amphibole bundles in sample  |  | Mass % | na    |
| % Chrysotile bundles in sample |  | Mass % | 0.008 |

#### Breakdown of PCOM Analysis (c)

|                               |  |        |    |
|-------------------------------|--|--------|----|
| % Amphibole fibres in sample  |  | Mass % | na |
| % Chrysotile fibres in sample |  | Mass % | na |

#### Breakdown of Potentially Respirable Fibre Analysis (d)

|                   |  |          |    |
|-------------------|--|----------|----|
| Amphibole fibres  |  | Fibres/g | na |
| Chrysotile fibres |  | Fibres/g | na |

\* Denotes test or material description outside of UKAS accreditation.  
 % asbestos in Asbestos Containing Materials (ACMs) is determined by  
 by reference to HSG 264.  
 Recommended sample size for quantification is approximately 1kg  
 # denotes deviating sample

## Information in Support of the Analytical Results

Our Ref 17-99027-1

Client Ref SLS1015

Contract Redcar Site

### Containers Received & Deviating Samples

| Lab No  | Sample ID               | Date Sampled | Containers Received    | Holding time exceeded for tests | Inappropriate container for tests |
|---------|-------------------------|--------------|------------------------|---------------------------------|-----------------------------------|
| 1169361 | S2TPA100 0.20-0.50 SOIL | 04-05-17     | GJ 250ml x2, GV, PT 1L |                                 |                                   |
| 1169362 | S2TPA100 4.00-4.10 SOIL | 04-05-17     | GJ 250ml x2, GV, PT 1L |                                 |                                   |
| 1169363 | S2TPA97 0.50 SOIL       | 04-05-17     | GJ 250ml x2, GV, PT 1L |                                 |                                   |
| 1169364 | S2TPA97 4.00 SOIL       | 04-05-17     | GJ 250ml x2, GV, PT 1L |                                 |                                   |

Key: G-Glass P-Plastic J-Jar V-Vial 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 | Ali/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.



## Certificate of Analysis

**Certificate Number** 17-99406-1

02-Jun-17

**Client** Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

**Our Reference** 17-99406-1

**Client Reference** SLS1015

**Order No** CH-1332

**Contract Title** Redcar Site

**Description** 8 Soil samples, 5 Leachate samples.

**Date Received** 11-May-17

**Date Started** 11-May-17

**Date Completed** 02-Jun-17

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

**Notes** **This report supersedes 17-99406. Extra testing.**

Opinions and interpretations are outside the laboratory's scope of ISO 10725 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**

Adam Fenwick  
Contracts Manager



## Summary of Chemical Analysis

### Matrix Descriptions

*Our Ref* 17-99406-1

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Sample ID | Other ID | Depth | Lab No  | Completed  | Matrix Description                                                                                     |
|-----------|----------|-------|---------|------------|--------------------------------------------------------------------------------------------------------|
| S2TPA79   | 1        |       | 1171699 | 25/05/2017 | Dark brown, gravelly, clayey and SAND including odd rootlets                                           |
| S2TPA79   | 2        | 1     | 1171700 | 25/05/2017 | Black clayey, sandy GRAVEL (Made ground - brick) (sample matrix outside MCERTS scope of accreditation) |
| S2TPA81   | 1        | 0.5   | 1171701 | 25/05/2017 | Brown clayey, gravelly SAND (Made ground - brick)                                                      |
| S2TPA84   | 1        | 0.5   | 1171702 | 25/05/2017 | Dark brown gravelly SAND (Made ground - slag)                                                          |
| S2TPA87   | 1        | 0.3   | 1171703 | 25/05/2017 | Dark grey grey sandy GRAVEL (Made ground - slag) (sample matrix outside MCERTS scope of accreditation) |
| S2TPA89   | 2        | 1.2   | 1171704 | 25/05/2017 | Brown sandy GRAVEL (Made ground - brick, slag) (sample matrix outside MCERTS scope of accreditation)   |
| S2TPA90   | 2        | 0.5   | 1171705 | 25/05/2017 | Dark brown, gravelly and SAND (Made ground - brick, slag)                                              |
| S2TPA94   | 1        |       | 1171706 | 25/05/2017 | Dark brown gravelly, clayey SAND including odd rootlets                                                |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-99406-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1171699  | 1171700 | 1171701 | 1171702 | 1171703 | 1171704  |
|---------------|----------|---------|---------|---------|---------|----------|
| Sample ID     | S2TPA79  | S2TPA79 | S2TPA81 | S2TPA84 | S2TPA87 | S2TPA89  |
| Depth         |          | 1.00    | 0.50    | 0.50    | 0.30    | 1.20     |
| Other ID      | 1        | 2       | 1       | 1       | 1       | 2        |
| Sample Type   | ES       | ES      | ES      | ES      | ES      | ES       |
| Sampling Date | 09/05/17 | n/s     | n/s     | n/s     | n/s     | 04/05/17 |
| Sampling Time | n/s      | n/s     | n/s     | n/s     | n/s     | n/s      |

| Test                            | Method      | LOD  | Units |        |        |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|--------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       |        |        |        | Y      |        |        |
| <b>Metals</b>                   |             |      |       |        |        |        |        |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg |        | 11     | 6.4    | 4.9    | 1.1    |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 2.8    | 76     | 10     | 25     | 10     | 14     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |        | 180    | 68     | 490    | 390    |        |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |        | 1.5    | 0.3    | 2.8    | 4.9    |        |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 2.1    | 1.2    | 0.6    | 2.1    | 2.3    | 1.5    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.1    | 0.6    | 0.1    | 5.7    | 0.3    | 29     |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 42     | 57     | 230    | 200    | 29     | 230    |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |        | < 1.0  | < 1.0  | < 1.0  | < 1.0  |        |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 12     | 1200   | 200    | 120    | 21     | 38     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 7.7    | 230    | 18     | 470    | 26     | 79     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | 1.1    | 1.1    | 0.31   | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg |        | 13     | 8.0    | 3.5    | 0.8    |        |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 4.5    | 100    | 120    | 35     | 8.8    | 18     |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg |        | 24     | 160    | 540    | 82     |        |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 43     | 320    | 52     | 1200   | 67     | 3600   |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |        |        |
| pH                              | DETSC 2008# |      |       | 10.5   | 9.9    | 9.9    | 10.9   | 10.3   | 10.3   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | < 0.1  | 0.4    | 0.2    | 0.6    | < 0.1  | 0.1    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg |        | < 0.1  | < 0.1  | < 0.1  | < 0.1  |        |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg |        | 0.4    | < 0.2  | 0.6    | < 0.2  |        |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg |        | < 0.6  | < 0.6  | < 0.6  | < 0.6  |        |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 2.0    | 3.6    | 1.6    | 0.5    | 0.2    | 0.8    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 410    | 250    | 64     | 360    | 270    | 630    |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.25   | 0.15   | 0.03   | 0.24   | 0.43   |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.28   | 0.25   | 0.07   | 0.21   | 1.0    |        |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |        |        |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | 4.1    | 53     | < 1.2  | < 1.2  | < 1.2  | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | 54     | 580    | < 1.5  | 3.1    | < 1.5  | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | 62     | 2800   | < 3.4  | 25     | < 3.4  | < 3.4  |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | 120    | 3500   | < 10   | 28     | < 10   | < 10   |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | 2.5    | < 0.9  | 2.2    | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | 4.0    | 7.0    | < 0.5  | 3.0    | < 0.5  | < 0.5  |
| Aromatic C16-C21                | DETSC 3072# | 0.6  | mg/kg | 17     | 49     | < 0.6  | 21     | < 0.6  | < 0.6  |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-99406-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1171699  | 1171700 | 1171701 | 1171702 | 1171703 | 1171704  |
|---------------|----------|---------|---------|---------|---------|----------|
| Sample ID     | S2TPA79  | S2TPA79 | S2TPA81 | S2TPA84 | S2TPA87 | S2TPA89  |
| Depth         |          | 1.00    | 0.50    | 0.50    | 0.30    | 1.20     |
| Other ID      | 1        | 2       | 1       | 1       | 1       | 2        |
| Sample Type   | ES       | ES      | ES      | ES      | ES      | ES       |
| Sampling Date | 09/05/17 | n/s     | n/s     | n/s     | n/s     | 04/05/17 |
| Sampling Time | n/s      | n/s     | n/s     | n/s     | n/s     | n/s      |

| Test                    | Method      | LOD  | Units |      |        |        |       |        |        |
|-------------------------|-------------|------|-------|------|--------|--------|-------|--------|--------|
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | 30   | 260    | < 1.4  | 53    | < 1.4  | < 1.4  |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | 51   | 310    | < 10   | 79    | < 10   | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | 170  | 3800   | < 10   | 110   | < 10   | < 10   |
| <b>PAHs</b>             |             |      |       |      |        |        |       |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | 0.21 | 0.57   | < 0.03 | 0.09  | < 0.03 | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | 0.08 | < 0.30 | < 0.03 | 0.06  | < 0.03 | < 0.03 |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | 6.1  | 1.0    | < 0.03 | 0.24  | < 0.03 | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | 4.5  | 0.75   | < 0.03 | 0.18  | < 0.03 | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 30   | 5.6    | 0.03   | 3.4   | < 0.03 | < 0.03 |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | 6.3  | 0.89   | < 0.03 | 0.72  | < 0.03 | < 0.03 |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 27   | 8.4    | 0.06   | 7.9   | 0.04   | 0.05   |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 22   | 7.0    | 0.05   | 6.8   | 0.03   | 0.04   |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 8.9  | 3.2    | < 0.03 | 3.9   | < 0.03 | < 0.03 |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 8.4  | 3.6    | < 0.03 | 3.7   | < 0.03 | < 0.03 |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 10   | 2.0    | < 0.03 | 5.4   | < 0.03 | < 0.03 |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 7.7  | 5.1    | < 0.03 | 2.0   | < 0.03 | < 0.03 |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | 7.8  | 2.3    | < 0.03 | 3.6   | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 3.6  | 1.4    | < 0.03 | 2.1   | < 0.03 | < 0.03 |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | 1.1  | 0.57   | < 0.03 | 0.61  | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | 4.3  | 2.1    | < 0.03 | 2.3   | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 150  | 44     | 0.15   | 43    | < 0.10 | < 0.10 |
| <b>PCBs</b>             |             |      |       |      |        |        |       |        |        |
| PCB 28 + PCB 31         | DETSC 3401# | 0.01 | mg/kg |      |        |        |       | < 0.01 | < 0.01 |
| PCB 52                  | DETSC 3401# | 0.01 | mg/kg |      |        |        |       | < 0.01 | < 0.01 |
| PCB 101                 | DETSC 3401# | 0.01 | mg/kg |      |        |        |       | < 0.01 | < 0.01 |
| PCB 118                 | DETSC 3401# | 0.01 | mg/kg |      |        |        |       | < 0.01 | < 0.01 |
| PCB 153                 | DETSC 3401# | 0.01 | mg/kg |      |        |        |       | < 0.01 | < 0.01 |
| PCB 138                 | DETSC 3401# | 0.01 | mg/kg |      |        |        |       | < 0.01 | < 0.01 |
| PCB 180                 | DETSC 3401# | 0.01 | mg/kg |      |        |        |       | < 0.01 | < 0.01 |
| PCB 7 Total             | DETSC 3401# | 0.01 | mg/kg |      |        |        |       | < 0.01 | < 0.01 |
| <b>Phenols</b>          |             |      |       |      |        |        |       |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | 0.5  | 0.7    | < 0.3  | < 0.3 | < 0.3  | < 0.3  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-99406-1

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1171705  | 1171706  |
| Sample ID     | S2TPA90  | S2TPA94  |
| Depth         | 0.50     |          |
| Other ID      | 2        | 1        |
| Sample Type   | ES       | ES       |
| Sampling Date | 05/05/17 | 04/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                            | Method      | LOD  | Units |        |        |
|---------------------------------|-------------|------|-------|--------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       |        |        |
| <b>Metals</b>                   |             |      |       |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg |        | 5.9    |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 7.3    | 17     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |        | 370    |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |        | 1.5    |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 1.1    | 1.2    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.2    | 1.3    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 25     | 230    |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |        | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 84     | 57     |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 12     | 84     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | 0.62   |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg |        | 3.7    |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 52     | 24     |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg |        | 860    |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 36     | 270    |
| <b>Inorganics</b>               |             |      |       |        |        |
| pH                              | DETSC 2008# |      |       | 9.3    | 11.6   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | < 0.1  | 0.3    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg |        | < 0.1  |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg |        | 0.3    |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg |        | < 0.6  |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 10     | 2.4    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 150    | 180    |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        |        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        |        |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | < 1.2  | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | 1.8    |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | < 3.4  | 80     |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | < 10   | 82     |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | < 0.5  | < 0.5  |
| Aromatic C16-C21                | DETSC 3072# | 0.6  | mg/kg | 4.2    | 3.4    |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-99406-1

Client Ref SLS1015

Contract Title Redcar Site

|               |          |          |
|---------------|----------|----------|
| Lab No        | 1171705  | 1171706  |
| Sample ID     | S2TPA90  | S2TPA94  |
| Depth         | 0.50     |          |
| Other ID      | 2        | 1        |
| Sample Type   | ES       | ES       |
| Sampling Date | 05/05/17 | 04/05/17 |
| Sampling Time | n/s      | n/s      |

| Test                    | Method      | LOD  | Units |        |        |
|-------------------------|-------------|------|-------|--------|--------|
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | 3.5    | 30     |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | < 10   | 34     |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | < 10   | 120    |
| <b>PAHs</b>             |             |      |       |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | 0.06   | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 0.55   | 0.19   |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | 0.12   | 0.03   |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 1.4    | 0.26   |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 0.90   | 0.21   |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 0.55   | 0.12   |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 0.48   | 0.18   |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.93   | 0.24   |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.41   | 0.08   |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | 0.52   | 0.10   |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 0.47   | 0.11   |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | 0.05   | 0.04   |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | 0.46   | 0.13   |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 6.8    | 1.7    |
| <b>PCBs</b>             |             |      |       |        |        |
| PCB 28 + PCB 31         | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 52                  | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 101                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 118                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 153                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 138                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 180                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 7 Total             | DETSC 3401# | 0.01 | mg/kg |        |        |
| <b>Phenols</b>          |             |      |       |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | < 0.3  | < 0.3  |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-99406-1

Client Ref SLS1015

Contract Title Redcar Site

|               |         |         |
|---------------|---------|---------|
| Lab No        | 1171700 | 1171702 |
| Sample ID     | S2TPA79 | S2TPA84 |
| Depth         | 1.00    | 0.50    |
| Other ID      | 2       | 1       |
| Sample Type   | ES      | ES      |
| Sampling Date | n/s     | n/s     |
| Sampling Time | n/s     | n/s     |

| Test                       | Method      | LOD  | Units |        |        |
|----------------------------|-------------|------|-------|--------|--------|
| <b>VOCs</b>                |             |      |       |        |        |
| Vinyl Chloride             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 2,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromochloromethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Chloroform                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1-dichloropropene        | DETSC 3431  | 0.01 | mg/kg | 0.01   | < 0.01 |
| Carbon tetrachloride       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Benzene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Trichloroethylene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Dibromomethane             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromodichloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Toluene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Tetrachloroethylene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Dibromochloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dibromoethane          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Chlorobenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Ethylbenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| m+p-Xylene                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| o-Xylene                   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Styrene                    | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromoform                  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Isopropylbenzene           | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromobenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| n-propylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 2-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 4-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Tert-butylbenzene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | 0.01   | < 0.01 |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-99406-1

Client Ref SLS1015

Contract Title Redcar Site

|               |         |         |
|---------------|---------|---------|
| Lab No        | 1171700 | 1171702 |
| Sample ID     | S2TPA79 | S2TPA84 |
| Depth         | 1.00    | 0.50    |
| Other ID      | 2       | 1       |
| Sample Type   | ES      | ES      |
| Sampling Date | n/s     | n/s     |
| Sampling Time | n/s     | n/s     |

| Test                        | Method      | LOD  | Units |        |        |
|-----------------------------|-------------|------|-------|--------|--------|
| sec-butylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| p-isopropyltoluene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| n-butylbenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Hexachlorobutadiene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| MTBE                        | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| <b>SVOCs</b>                |             |      |       |        |        |
| Phenol                      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Aniline                     | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Chlorophenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Benzyl Alcohol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methylphenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 3&4-Methylphenol            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1  | mg/kg | 0.3    | 0.2    |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 3-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Nitrophenol               | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Dibenzofuran                | DETSC 3433  | 0.1  | mg/kg | 0.3    | 0.2    |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Diethylphthalate            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methyl-4,6-Dinitrophenol  | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Diphenylamine               | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Bromophenylphenylether    | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-99406-1

Client Ref SLS1015

Contract Title Redcar Site

|               |         |         |
|---------------|---------|---------|
| Lab No        | 1171700 | 1171702 |
| Sample ID     | S2TPA79 | S2TPA84 |
| Depth         | 1.00    | 0.50    |
| Other ID      | 2       | 1       |
| Sample Type   | ES      | ES      |
| Sampling Date | n/s     | n/s     |
| Sampling Time | n/s     | n/s     |

| Test                       | Method      | LOD | Units |       |       |
|----------------------------|-------------|-----|-------|-------|-------|
| Hexachlorobenzene          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Pentachlorophenol          | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Di-n-butylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Butylbenzylphthalate       | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Di-n-octylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Dimethylphthalate          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Azobenzene                 | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Carbazole                  | DETSC 3433* | 0.1 | mg/kg | 0.4   | 0.3   |

## Summary of Chemical Analysis

### Leachate Samples

Our Ref 17-99406-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1171707 | 1171708 | 1171709 | 1171710 | 1171711  |
|---------------|---------|---------|---------|---------|----------|
| Sample ID     | S2TPA79 | S2TPA81 | S2TPA84 | S2TPA87 | S2TPA89  |
| Depth         | 1.00    | 0.50    | 0.50    | 0.30    | 1.20     |
| Other ID      | 2       | 1       | 1       | 1       | 2        |
| Sample Type   | ES      | ES      | ES      | ES      | ES       |
| Sampling Date | n/s     | n/s     | n/s     | n/s     | 04/05/17 |
| Sampling Time | n/s     | n/s     | n/s     | n/s     | n/s      |

| Test                     | Method     | LOD   | Units |         |         |         |         |        |
|--------------------------|------------|-------|-------|---------|---------|---------|---------|--------|
| <b>Preparation</b>       |            |       |       |         |         |         |         |        |
| Leachate 10:1            | DETS 036*  |       |       | Y       | Y       | Y       | Y       | Y      |
| <b>Metals</b>            |            |       |       |         |         |         |         |        |
| Arsenic, Dissolved       | DETS 2306  | 0.16  | ug/l  | 1.3     | 0.73    | 3.7     | 1.2     | 1.1    |
| Barium, Dissolved        | DETS 2306  | 0.26  | ug/l  | 19      | 11      | 24      | 33      |        |
| Beryllium, Dissolved     | DETS 2306* | 0.1   | ug/l  | < 0.1   | < 0.1   | < 0.1   | < 0.1   |        |
| Boron                    | DETS 2123  | 100   | ug/l  | 110     | < 100   | 100     | < 100   | < 100  |
| Cadmium, Dissolved       | DETS 2306  | 0.03  | ug/l  | < 0.03  | < 0.03  | 0.06    | < 0.03  | 1.3    |
| Chromium, Dissolved      | DETS 2306  | 0.25  | ug/l  | < 0.25  | 4.3     | 3.5     | 0.32    | 0.35   |
| Copper, Dissolved        | DETS 2306  | 0.4   | ug/l  | 3.7     | 2.8     | 1.9     | 1.5     | 0.8    |
| Iron, Dissolved          | DETS 2306  | 5.5   | ug/l  | 24      | 22      | 32      | 7.6     |        |
| Lead, Dissolved          | DETS 2306  | 0.09  | ug/l  | 1.1     | 0.43    | 2.0     | 0.46    | 0.14   |
| Manganese, Dissolved     | DETS 2306  | 0.22  | ug/l  | 35      | 3.6     | 7.0     | 2.2     |        |
| Mercury, Dissolved       | DETS 2306  | 0.01  | ug/l  | 0.01    | 0.03    | < 0.01  | < 0.01  | < 0.01 |
| Nickel, Dissolved        | DETS 2306  | 0.5   | ug/l  | 1.1     | 0.9     | < 0.5   | < 0.5   | < 0.5  |
| Selenium, Dissolved      | DETS 2306  | 0.25  | ug/l  | 3.3     | 1.4     | 2.0     | 1.5     | 1.1    |
| Vanadium, Dissolved      | DETS 2306  | 0.6   | ug/l  | < 0.6   | 37      | 16      | 6.7     |        |
| Zinc, Dissolved          | DETS 2306  | 1.3   | ug/l  | 7.5     | 1.8     | 4.4     | < 1.3   | 27     |
| <b>Inorganics</b>        |            |       |       |         |         |         |         |        |
| pH                       | DETS 2008  |       |       | 7.0     | 8.4     | 7.8     | 7.2     | 8.5    |
| Ammoniacal Nitrogen as N | DETS 2207  | 0.015 | mg/l  | < 0.015 | < 0.015 | < 0.015 | < 0.015 |        |

## Summary of Asbestos Analysis Soil Samples

*Our Ref* 17-99406-1

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Lab No  | Sample ID      | Material Type | Result     | Comment* | Analyst     |
|---------|----------------|---------------|------------|----------|-------------|
| 1171699 | S2TPA79 1      | SOIL          | NAD        | none     | Chris Samms |
| 1171700 | S2TPA79 2 1.00 | SOIL          | NAD        | none     | Chris Samms |
| 1171701 | S2TPA81 1 0.50 | SOIL          | NAD        | none     | Chris Samms |
| 1171702 | S2TPA84 1 0.50 | SOIL          | Chrysotile | none     | Chris Samms |
| 1171703 | S2TPA87 1 0.30 | SOIL          | NAD        | none     | Chris Samms |
| 1171704 | S2TPA89 2 1.20 | SOIL          | NAD        | none     | Chris Samms |
| 1171705 | S2TPA90 2 0.50 | SOIL          | NAD        | none     | Chris Samms |
| 1171706 | S2TPA94 1      | SOIL          | NAD        | none     | Chris Samms |

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.

## Summary of Asbestos Quantification Analysis

### Soil Samples

Our Ref 17-99406-1

Client Ref SLS1015

Contract Title Redcar Site

|               |         |
|---------------|---------|
| Lab No        | 1171702 |
| Sample ID     | S2TPA84 |
| Depth         | 0.50    |
| Other ID      | 1       |
| Sample Type   | SOIL    |
| Sampling Date | n/s     |
| Sampling Time |         |

| Test                                    | Method     | Units    |       |
|-----------------------------------------|------------|----------|-------|
| Total Mass% Asbestos (a+b+c)            | DETSC 1102 | Mass %   | 0.014 |
| Gravimetric Quantification (a)          | DETSC 1102 | Mass %   | na    |
| Detailed Gravimetric Quantification (b) | DETSC 1102 | Mass %   | 0.014 |
| Quantification by PCOM (c)              | DETSC 1102 | Mass %   | na    |
| Potentially Respirable Fibres (d)       | DETSC 1102 | Fibres/g | na    |

#### Breakdown of Gravimetric Analysis (a)

|                       |  |      |       |
|-----------------------|--|------|-------|
| Mass of Sample        |  | g    | 34.67 |
| ACMs present*         |  | type |       |
| Mass of ACM in sample |  | g    |       |
| % ACM by mass         |  | %    |       |
| % asbestos in ACM     |  | %    |       |
| % asbestos in sample  |  | %    |       |

#### Breakdown of Detailed Gravimetric Analysis (b)

|                                |  |        |       |
|--------------------------------|--|--------|-------|
| % Amphibole bundles in sample  |  | Mass % | na    |
| % Chrysotile bundles in sample |  | Mass % | 0.014 |

#### Breakdown of PCOM Analysis (c)

|                               |  |        |    |
|-------------------------------|--|--------|----|
| % Amphibole fibres in sample  |  | Mass % | na |
| % Chrysotile fibres in sample |  | Mass % | na |

#### Breakdown of Potentially Respirable Fibre Analysis (d)

|                   |  |          |    |
|-------------------|--|----------|----|
| Amphibole fibres  |  | Fibres/g | na |
| Chrysotile fibres |  | Fibres/g | na |

\* Denotes test or material description outside of UKAS accreditation.  
 % asbestos in Asbestos Containing Materials (ACMs) is determined by  
 by reference to HSG 264.  
 Recommended sample size for quantification is approximately 1kg  
 # denotes deviating sample

## Information in Support of the Analytical Results

Our Ref 17-99406-1

Client Ref SLS1015

Contract Redcar Site

### Containers Received & Deviating Samples

| Lab No  | Sample ID             | Date Sampled | Containers Received      | Holding time exceeded for tests                                                                                                                                                                                                                                                                                                                                                                                                                                     | Inappropriate container for tests |
|---------|-----------------------|--------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 1171699 | S2TPA79 SOIL          | 09/05/17     | GJ 60ml, PT 1L           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                   |
| 1171700 | S2TPA79 1.00 SOIL     |              | GJ 250ml, GJ 60ml, PT 1L | Sample date not supplied, Anions 2:1 (365 days), Aliphatics/Aromatics (14 days), Boron (365 days), BTEX (14 days), Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days), SVOC (14 days) |                                   |
| 1171701 | S2TPA81 0.50 SOIL     |              | GJ 250ml, GJ 60ml, PT 1L | Sample date not supplied, Anions 2:1 (365 days), Aliphatics/Aromatics (14 days), Boron (365 days), BTEX (14 days), Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)                 |                                   |
| 1171702 | S2TPA84 0.50 SOIL     |              | GJ 250ml, GJ 60ml, PT 1L | Sample date not supplied, Anions 2:1 (365 days), Aliphatics/Aromatics (14 days), Boron (365 days), BTEX (14 days), Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days), SVOC (14 days) |                                   |
| 1171703 | S2TPA87 0.30 SOIL     |              | GJ 250ml, GJ 60ml, PT 1L | Sample date not supplied, Anions 2:1 (365 days), Aliphatics/Aromatics (14 days), Boron (365 days), BTEX (14 days), Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), PCB (30 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)  |                                   |
| 1171704 | S2TPA89 1.20 SOIL     | 04/05/17     | GJ 250ml x2, GV, PT 1L   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                   |
| 1171705 | S2TPA90 0.50 SOIL     | 05/05/17     | GJ 250ml x2, GV, PT 1L   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                   |
| 1171706 | S2TPA94 SOIL          | 04/05/17     | GJ 250ml x2, GV, PT 1L   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                   |
| 1171707 | S2TPA79 1.00 LEACHATE |              | GJ 250ml, GJ 60ml, PT 1L | Sample date not supplied                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                   |
| 1171708 | S2TPA81 0.50 LEACHATE |              | GJ 250ml, GJ 60ml, PT 1L | Sample date not supplied                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                   |

## Information in Support of the Analytical Results

Our Ref 17-99406-1

Client Ref SLS1015

Contract Redcar Site

| Lab No  | Sample ID             | Date Sampled | Containers Received      | Holding time exceeded for tests | Inappropriate container for tests |
|---------|-----------------------|--------------|--------------------------|---------------------------------|-----------------------------------|
| 1171709 | S2TPA84 0.50 LEACHATE |              | GJ 250ml, GJ 60ml, PT 1L | Sample date not supplied        |                                   |
| 1171710 | S2TPA87 0.30 LEACHATE |              | GJ 250ml, GJ 60ml, PT 1L | Sample date not supplied        |                                   |
| 1171711 | S2TPA89 1.20 LEACHATE | 04/05/17     | GJ 250ml x2, GV, PT 1L   |                                 |                                   |

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

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 | Ali/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.



## Certificate of Analysis

**Certificate Number** 17-99600-1

24-May-17

**Client** Allied Exploration & Geotechnics Limited  
Unit 25  
Stella Gill Industrial Estate  
Pelton Fell  
DH2 2RG

**Our Reference** 17-99600-1

**Client Reference** SLS1015

**Order No** (not supplied)

**Contract Title** Redcar Site

**Description** 14 Soil samples, 6 Leachate samples.

**Date Received** Saturday, May 13, 2017

**Date Started** Saturday, May 13, 2017

**Date Completed** Wednesday, May 24, 2017

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

**Notes** **This report supersedes 17-99600. Extra testing**

Opinions and interpretations are outside the laboratory's scope of ISO 10725 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 "A. Fenwick", written over a light blue horizontal line.

Adam Fenwick  
Contracts Manager



## Summary of Chemical Analysis

### Matrix Descriptions

*Our Ref* 17-99600-1

*Client Ref* SLS1015

*Contract Title* Redcar Site

| Sample ID | Other ID | Depth     | Lab No  | Completed | Matrix Description                                                       |
|-----------|----------|-----------|---------|-----------|--------------------------------------------------------------------------|
| S2TPA44   | 1        | 2.2       | 1172806 | 22-May-17 | Dark brown gravelly SAND                                                 |
| S2TPA44   | 3        | 4.2       | 1172807 | 22-May-17 | Light brown gravelly SAND                                                |
| S2TPA46   | 2        | 2         | 1172808 | 22-May-17 | Dark brown gravelly SAND                                                 |
| S2TPA63   | 1        | 1.8       | 1173308 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA72   | 1        | 2.3       | 1173309 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA73   | 1        | 0.3       | 1173310 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA78   | 1        | 1.2       | 1173311 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA80   | 1        | 2.5       | 1173312 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA82   | 1        | 0.3       | 1173313 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA86   | 1        | 0.4       | 1173314 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA86   | 2        | 2.50-2.80 | 1173315 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA88   | 1        | 1         | 1173316 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA92   | 1        | 0.4       | 1173317 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |
| S2TPA92   | 4        | 3.7       | 1173318 | 22-May-17 | Brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation) |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1172806   | 1172807   | 1172808   | 1173308   | 1173309   | 1173310   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA44   | S2TPA44   | S2TPA46   | S2TPA63   | S2TPA72   | S2TPA73   |
| Depth         | 2.20      | 4.20      | 2.00      | 1.80      | 2.30      | 0.30      |
| Other ID      | 1         | 3         | 2         | 1         | 1         | 1         |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 12-May-17 | 12-May-17 | 12-May-17 | 10-May-17 | 10-May-17 | 10-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                            | Method      | LOD  | Units |        |      |        |        |        |        |
|---------------------------------|-------------|------|-------|--------|------|--------|--------|--------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       |        |      | Y      |        |        |        |
| <b>Metals</b>                   |             |      |       |        |      |        |        |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg | 1.3    |      | 1.0    |        | < 1.0  | 1.4    |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 15     |      | 22     | 5.2    | 13     | 9.2    |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 210    |      | 160    |        | 260    | 240    |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 5.5    |      | 5.2    |        | 5.8    | 5.3    |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 3.4    |      | 3.0    | 3.9    | 3.5    | 2.5    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.2    |      | 1.2    | < 0.1  | 0.4    | 0.2    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 56     |      | 30     | 4.3    | 19     | 64     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  |      | < 1.0  |        | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 18     |      | 17     | 8.0    | 15     | 24     |
| Iron                            | DETSC 2301  | 25   | mg/kg |        |      | 31000  |        |        |        |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 35     |      | 84     | 4.0    | 27     | 15     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 |      | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg | 1.0    |      | 0.7    |        | 0.6    | 2.3    |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 9.2    |      | 15     | 1.5    | 9.9    | 10     |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg | 210    |      | 110    |        | 80     | 93     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 330    |      | 1800   | 8.1    | 82     | 86     |
| <b>Inorganics</b>               |             |      |       |        |      |        |        |        |        |
| pH                              | DETSC 2008# |      |       | 9.9    | 8.1  | 9.9    | 10.5   | 11.0   | 11.1   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.4    |      | 0.4    | 0.6    | 0.3    | 2.7    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg | < 0.1  |      | 0.1    |        | < 0.1  | 0.3    |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg | 0.4    |      | 0.3    |        | 0.3    | 2.4    |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg | < 0.6  |      | 1.0    |        | 2.1    | 1.8    |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 1.1    |      | 1.4    | 0.5    | 0.7    | 1.2    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 1600   | 1600 | 1700   | 1800   | 1800   | 1800   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        | 0.37 | 0.79   |        | 0.85   | 0.50   |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        | 0.93 | 1.8    |        | 1.5    | 0.96   |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |      |        |        |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  |      | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | < 1.2  |      | < 1.2  | < 1.2  | < 1.2  | < 1.2  |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | < 1.5  |      | < 1.5  | < 1.5  | < 1.5  | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | < 3.4  |      | < 3.4  | < 3.4  | < 3.4  | < 3.4  |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | < 10   |      | < 10   | < 10   | < 10   | < 10   |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 |      | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  |      | < 0.9  | < 0.9  | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | 0.8    |      | < 0.5  | < 0.5  | < 0.5  | < 0.5  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1172806   | 1172807   | 1172808   | 1173308   | 1173309   | 1173310   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA44   | S2TPA44   | S2TPA46   | S2TPA63   | S2TPA72   | S2TPA73   |
| Depth         | 2.20      | 4.20      | 2.00      | 1.80      | 2.30      | 0.30      |
| Other ID      | 1         | 3         | 2         | 1         | 1         | 1         |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 12-May-17 | 12-May-17 | 12-May-17 | 10-May-17 | 10-May-17 | 10-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                    | Method      | LOD  | Units |        |  |        |        |        |        |
|-------------------------|-------------|------|-------|--------|--|--------|--------|--------|--------|
| Aromatic C16-C21        | DETSC 3072# | 0.6  | mg/kg | 12     |  | < 0.6  | < 0.6  | < 0.6  | 1.3    |
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | 23     |  | < 1.4  | < 1.4  | < 1.4  | < 1.4  |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | 35     |  | < 10   | < 10   | < 10   | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | 35     |  | < 10   | < 10   | < 10   | < 10   |
| <b>PAHs</b>             |             |      |       |        |  |        |        |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | 0.05   |  | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | 0.21   |  | < 0.03 | < 0.03 | < 0.03 | 0.06   |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | 0.05   |  | < 0.03 | < 0.03 | < 0.03 | 0.06   |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | 0.42   |  | < 0.03 | < 0.03 | < 0.03 | 0.05   |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 4.4    |  | 0.11   | < 0.03 | < 0.03 | 0.65   |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | 1.1    |  | < 0.03 | < 0.03 | < 0.03 | 0.17   |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 3.9    |  | 0.22   | 0.08   | 0.05   | 2.0    |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 2.8    |  | 0.17   | 0.08   | 0.04   | 1.6    |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 1.3    |  | 0.10   | 0.05   | < 0.03 | 0.86   |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 1.2    |  | 0.10   | 0.04   | < 0.03 | 0.79   |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 1.3    |  | 0.13   | 0.10   | < 0.03 | 1.3    |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.57   |  | 0.05   | 0.03   | < 0.03 | 0.46   |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | 0.84   |  | < 0.03 | 0.05   | < 0.03 | 0.82   |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 0.39   |  | 0.05   | 0.05   | < 0.03 | 0.51   |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | 0.15   |  | < 0.03 | < 0.03 | < 0.03 | 0.13   |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | 0.41   |  | 0.05   | 0.07   | < 0.03 | 0.55   |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 19     |  | 0.99   | 0.55   | < 0.10 | 10     |
| <b>PCBs</b>             |             |      |       |        |  |        |        |        |        |
| PCB 28 + PCB 31         | DETSC 3401# | 0.01 | mg/kg | < 0.01 |  |        |        | < 0.01 |        |
| PCB 52                  | DETSC 3401# | 0.01 | mg/kg | < 0.01 |  |        |        | < 0.01 |        |
| PCB 101                 | DETSC 3401# | 0.01 | mg/kg | < 0.01 |  |        |        | < 0.01 |        |
| PCB 118                 | DETSC 3401# | 0.01 | mg/kg | < 0.01 |  |        |        | < 0.01 |        |
| PCB 153                 | DETSC 3401# | 0.01 | mg/kg | < 0.01 |  |        |        | < 0.01 |        |
| PCB 138                 | DETSC 3401# | 0.01 | mg/kg | < 0.01 |  |        |        | < 0.01 |        |
| PCB 180                 | DETSC 3401# | 0.01 | mg/kg | < 0.01 |  |        |        | < 0.01 |        |
| PCB 7 Total             | DETSC 3401# | 0.01 | mg/kg | < 0.01 |  |        |        | < 0.01 |        |
| <b>Phenols</b>          |             |      |       |        |  |        |        |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | 1.2    |  | < 0.3  | < 0.3  | 0.3    | < 0.3  |

# Summary of Chemical Analysis

## Soil Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1173311   | 1173312   | 1173313   | 1173314   | 1173315   | 1173316   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA78   | S2TPA80   | S2TPA82   | S2TPA86   | S2TPA86   | S2TPA88   |
| Depth         | 1.20      | 2.50      | 0.30      | 0.40      | 2.50-2.80 | 1.00      |
| Other ID      | 1         | 1         | 1         | 1         | 2         | 1         |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 09-May-17 | 09-May-17 | 10-May-17 | 08-May-17 | 08-May-17 | 09-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                            | Method      | LOD  | Units |        |        |        |        |      |        |
|---------------------------------|-------------|------|-------|--------|--------|--------|--------|------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       |        |        |        |        |      |        |
| <b>Metals</b>                   |             |      |       |        |        |        |        |      |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg |        | 2.8    |        | 4.0    |      |        |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 15     | 13     | 4.2    | 14     |      | 31     |
| Barium                          | DETSC 2301# | 1.5  | mg/kg |        | 310    |        | 740    |      |        |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg |        | 1.7    |        | 1.5    |      |        |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 5.0    | 4.6    | 2.6    | 3.0    |      | 8.3    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.5    | 0.5    | 0.4    | 0.7    |      | 0.3    |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 40     | 39     | 1100   | 30     |      | 56     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg |        | < 1.0  |        | < 1.0  |      |        |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 42     | 41     | 57     | 53     |      | 36     |
| Iron                            | DETSC 2301  | 25   | mg/kg |        |        |        |        |      |        |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 88     | 59     | 23     | 71     |      | 23     |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | 0.07   | 0.07   | < 0.05 | 0.09   |      | 0.41   |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg |        | 2.4    |        | 2.7    |      |        |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 22     | 23     | 14     | 37     |      | 30     |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg |        | 110    |        | 190    |      |        |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 180    | 250    | 79     | 200    |      | 68     |
| <b>Inorganics</b>               |             |      |       |        |        |        |        |      |        |
| pH                              | DETSC 2008# |      |       | 10.9   | 11.3   | 12.4   | 10.3   | 9.5  | 10.9   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.4    | 0.7    | 0.6    | 1.5    |      | 0.3    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg |        | < 0.1  |        | < 0.1  |      |        |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg |        | 0.7    |        | 1.5    |      |        |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg |        | < 0.6  |        | < 0.6  |      |        |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 2.2    | 1.8    | 0.1    | 3.4    |      | 1.8    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 700    | 620    | 11     | 600    | 1600 | 540    |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     |        | 0.26   |        |        | 0.33 | 0.36   |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     |        | 0.37   |        |        | 0.75 | 0.55   |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |        |        |      |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  | < 1.5  | < 1.5  |      | < 1.5  |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | < 1.2  | < 1.2  | < 1.2  | < 1.2  |      | 5.4    |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | 34     | < 1.5  | < 1.5  | < 1.5  |      | 25     |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | 410    | < 3.4  | < 3.4  | 4.6    |      | 85     |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | 440    | < 10   | < 10   | < 10   |      | 120    |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 |      | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | < 0.9  | < 0.9  | 2.4    |      | 1.3    |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | 1.9    | < 0.5  | 1.8    | 2.9    |      | 3.3    |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1173311   | 1173312   | 1173313   | 1173314   | 1173315   | 1173316   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA78   | S2TPA80   | S2TPA82   | S2TPA86   | S2TPA86   | S2TPA88   |
| Depth         | 1.20      | 2.50      | 0.30      | 0.40      | 2.50-2.80 | 1.00      |
| Other ID      | 1         | 1         | 1         | 1         | 2         | 1         |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 09-May-17 | 09-May-17 | 10-May-17 | 08-May-17 | 08-May-17 | 09-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                    | Method      | LOD  | Units |        |        |        |        |  |        |
|-------------------------|-------------|------|-------|--------|--------|--------|--------|--|--------|
| Aromatic C16-C21        | DETSC 3072# | 0.6  | mg/kg | 26     | < 0.6  | 9.6    | 11     |  | 21     |
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | 220    | < 1.4  | 31     | 36     |  | 150    |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | 250    | < 10   | 43     | 52     |  | 180    |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | 690    | < 10   | 43     | 58     |  | 290    |
| <b>PAHs</b>             |             |      |       |        |        |        |        |  |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | 0.17   | < 0.03 | 0.16   | 0.09   |  | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | < 0.03 | < 0.03 |  | < 0.03 |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.38   | 0.22   |  | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 | 0.21   | 0.10   |  | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | 2.4    | 0.07   | 2.8    | 1.4    |  | 0.15   |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | 2.4    | < 0.03 | 0.65   | 0.32   |  | < 0.03 |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 4.8    | 0.09   | 5.8    | 3.4    |  | 0.29   |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 4.6    | 0.05   | 5.3    | 3.5    |  | 0.24   |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 3.2    | < 0.03 | 3.2    | 2.3    |  | 0.14   |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 3.3    | < 0.03 | 3.3    | 2.4    |  | 0.15   |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 5.3    | < 0.03 | 4.9    | 3.9    |  | 0.25   |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 2.0    | < 0.03 | 1.9    | 1.7    |  | 0.10   |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | 4.5    | < 0.03 | 4.0    | 3.2    |  | 0.14   |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | 2.4    | < 0.03 | 2.1    | 1.7    |  | 0.11   |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | 0.62   | < 0.03 | 0.58   | 0.46   |  | 0.04   |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | 2.7    | < 0.03 | 2.5    | 2.1    |  | 0.18   |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 38     | 0.21   | 38     | 27     |  | 1.8    |
| <b>PCBs</b>             |             |      |       |        |        |        |        |  |        |
| PCB 28 + PCB 31         | DETSC 3401# | 0.01 | mg/kg |        |        |        | < 0.01 |  |        |
| PCB 52                  | DETSC 3401# | 0.01 | mg/kg |        |        |        | < 0.01 |  |        |
| PCB 101                 | DETSC 3401# | 0.01 | mg/kg |        |        |        | < 0.01 |  |        |
| PCB 118                 | DETSC 3401# | 0.01 | mg/kg |        |        |        | < 0.01 |  |        |
| PCB 153                 | DETSC 3401# | 0.01 | mg/kg |        |        |        | < 0.01 |  |        |
| PCB 138                 | DETSC 3401# | 0.01 | mg/kg |        |        |        | < 0.01 |  |        |
| PCB 180                 | DETSC 3401# | 0.01 | mg/kg |        |        |        | < 0.01 |  |        |
| PCB 7 Total             | DETSC 3401# | 0.01 | mg/kg |        |        |        | < 0.01 |  |        |
| <b>Phenols</b>          |             |      |       |        |        |        |        |  |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | < 0.3  | < 0.3  | 0.3    | 0.4    |  | < 0.3  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

|               |           |           |
|---------------|-----------|-----------|
| Lab No        | 1173317   | 1173318   |
| Sample ID     | S2TPA92   | S2TPA92   |
| Depth         | 0.40      | 3.70      |
| Other ID      | 1         | 4         |
| Sample Type   | ES        | ES        |
| Sampling Date | 08-May-17 | 08-May-17 |
| Sampling Time | n/s       | n/s       |

| Test                            | Method      | LOD  | Units |        |        |
|---------------------------------|-------------|------|-------|--------|--------|
| Asbestos Quantification         | DETSC 1102  | 0    |       |        |        |
| <b>Metals</b>                   |             |      |       |        |        |
| Antimony                        | DETSC 2301* | 1    | mg/kg | < 1.0  | < 1.0  |
| Arsenic                         | DETSC 2301# | 0.2  | mg/kg | 7.9    | 6.4    |
| Barium                          | DETSC 2301# | 1.5  | mg/kg | 320    | 270    |
| Beryllium                       | DETSC 2301# | 0.2  | mg/kg | 8.1    | 8.2    |
| Boron, Water Soluble            | DETSC 2123# | 0.2  | mg/kg | 6.3    | 4.8    |
| Cadmium                         | DETSC 2301# | 0.1  | mg/kg | 0.1    | < 0.1  |
| Chromium                        | DETSC 2301# | 0.15 | mg/kg | 14     | 15     |
| Chromium, Hexavalent            | DETSC 2204* | 1    | mg/kg | < 1.0  | < 1.0  |
| Copper                          | DETSC 2301# | 0.2  | mg/kg | 10     | 5.0    |
| Iron                            | DETSC 2301  | 25   | mg/kg |        |        |
| Lead                            | DETSC 2301# | 0.3  | mg/kg | 11     | 2.0    |
| Mercury                         | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 |
| Molybdenum                      | DETSC 2301# | 0.4  | mg/kg | 0.5    | 0.5    |
| Nickel                          | DETSC 2301# | 1    | mg/kg | 4.8    | 2.2    |
| Vanadium                        | DETSC 2301  | 0.8  | mg/kg | 56     | 57     |
| Zinc                            | DETSC 2301# | 1    | mg/kg | 25     | 7.3    |
| <b>Inorganics</b>               |             |      |       |        |        |
| pH                              | DETSC 2008# |      |       | 10.5   | 10.3   |
| Cyanide, Total                  | DETSC 2130# | 0.1  | mg/kg | 0.5    | 0.7    |
| Cyanide, Free                   | DETSC 2130# | 0.1  | mg/kg | < 0.1  | 0.1    |
| Cyanide, Complex                | DETSC 2130* | 0.2  | mg/kg | 0.5    | 0.5    |
| Thiocyanate                     | DETSC 2130# | 0.6  | mg/kg | 0.9    | 0.9    |
| Organic matter                  | DETSC 2002# | 0.1  | %     | 0.6    | < 0.1  |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 1800   | 1600   |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.83   | 1.1    |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 1.4    | 2.8    |
| <b>Petroleum Hydrocarbons</b>   |             |      |       |        |        |
| Aliphatic C5-C6                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C6-C8                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C8-C10                | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aliphatic C10-C12               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | 1.8    |
| Aliphatic C12-C16               | DETSC 3072# | 1.2  | mg/kg | < 1.2  | 1.3    |
| Aliphatic C16-C21               | DETSC 3072# | 1.5  | mg/kg | < 1.5  | < 1.5  |
| Aliphatic C21-C35               | DETSC 3072# | 3.4  | mg/kg | < 3.4  | < 3.4  |
| Aliphatic C5-C35                | DETSC 3072* | 10   | mg/kg | < 10   | < 10   |
| Aromatic C5-C7                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C7-C8                  | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C8-C10                 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Aromatic C10-C12                | DETSC 3072# | 0.9  | mg/kg | < 0.9  | < 0.9  |
| Aromatic C12-C16                | DETSC 3072# | 0.5  | mg/kg | < 0.5  | < 0.5  |

## Summary of Chemical Analysis

### Soil Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

|               |           |           |
|---------------|-----------|-----------|
| Lab No        | 1173317   | 1173318   |
| Sample ID     | S2TPA92   | S2TPA92   |
| Depth         | 0.40      | 3.70      |
| Other ID      | 1         | 4         |
| Sample Type   | ES        | ES        |
| Sampling Date | 08-May-17 | 08-May-17 |
| Sampling Time | n/s       | n/s       |

| Test                    | Method      | LOD  | Units |        |        |
|-------------------------|-------------|------|-------|--------|--------|
| Aromatic C16-C21        | DETSC 3072# | 0.6  | mg/kg | < 0.6  | < 0.6  |
| Aromatic C21-C35        | DETSC 3072# | 1.4  | mg/kg | < 1.4  | < 1.4  |
| Aromatic C5-C35         | DETSC 3072* | 10   | mg/kg | < 10   | < 10   |
| TPH Ali/Aro Total       | DETSC 3072* | 10   | mg/kg | < 10   | < 10   |
| <b>PAHs</b>             |             |      |       |        |        |
| Naphthalene             | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Acenaphthylene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Acenaphthene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Fluorene                | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Phenanthrene            | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Anthracene              | DETSC 3303  | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Fluoranthene            | DETSC 3303# | 0.03 | mg/kg | 0.05   | < 0.03 |
| Pyrene                  | DETSC 3303# | 0.03 | mg/kg | 0.04   | < 0.03 |
| Benzo(a)anthracene      | DETSC 3303# | 0.03 | mg/kg | 0.03   | < 0.03 |
| Chrysene                | DETSC 3303  | 0.03 | mg/kg | 0.03   | < 0.03 |
| Benzo(b)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | 0.05   | < 0.03 |
| Benzo(k)fluoranthene    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Benzo(a)pyrene          | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Dibenzo(a,h)anthracene  | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| Benzo(g,h,i)perylene    | DETSC 3303# | 0.03 | mg/kg | < 0.03 | < 0.03 |
| PAH - USEPA 16, Total   | DETSC 3303  | 0.1  | mg/kg | 0.21   | < 0.10 |
| <b>PCBs</b>             |             |      |       |        |        |
| PCB 28 + PCB 31         | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 52                  | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 101                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 118                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 153                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 138                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 180                 | DETSC 3401# | 0.01 | mg/kg |        |        |
| PCB 7 Total             | DETSC 3401# | 0.01 | mg/kg |        |        |
| <b>Phenols</b>          |             |      |       |        |        |
| Phenol - Monohydric     | DETSC 2130# | 0.3  | mg/kg | < 0.3  | < 0.3  |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

|               |           |           |
|---------------|-----------|-----------|
| Lab No        | 1172806   | 1173309   |
| Sample ID     | S2TPA44   | S2TPA72   |
| Depth         | 2.20      | 2.30      |
| Other ID      | 1         | 1         |
| Sample Type   | ES        | ES        |
| Sampling Date | 12-May-17 | 10-May-17 |
| Sampling Time | n/s       | n/s       |

| Test                       | Method      | LOD  | Units |        |        |
|----------------------------|-------------|------|-------|--------|--------|
| <b>VOCs</b>                |             |      |       |        |        |
| Vinyl Chloride             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 2,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromochloromethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Chloroform                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1-dichloropropene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Carbon tetrachloride       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Benzene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichloroethane         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Trichloroethylene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Dibromomethane             | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromodichloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Toluene                    | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Tetrachloroethylene        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3-dichloropropane        | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Dibromochloromethane       | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dibromoethane          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Chlorobenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Ethylbenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| m+p-Xylene                 | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| o-Xylene                   | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Styrene                    | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromoform                  | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Isopropylbenzene           | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Bromobenzene               | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| n-propylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 2-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 4-chlorotoluene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Tert-butylbenzene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

|               |           |           |
|---------------|-----------|-----------|
| Lab No        | 1172806   | 1173309   |
| Sample ID     | S2TPA44   | S2TPA72   |
| Depth         | 2.20      | 2.30      |
| Other ID      | 1         | 1         |
| Sample Type   | ES        | ES        |
| Sampling Date | 12-May-17 | 10-May-17 |
| Sampling Time | n/s       | n/s       |

| Test                        | Method      | LOD  | Units |        |        |
|-----------------------------|-------------|------|-------|--------|--------|
| sec-butylbenzene            | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| p-isopropyltoluene          | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| n-butylbenzene              | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| Hexachlorobutadiene         | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01 | mg/kg | < 0.01 | < 0.01 |
| MTBE                        | DETSC 3431* | 0.01 | mg/kg | < 0.01 | < 0.01 |
| <b>SVOCs</b>                |             |      |       |        |        |
| Phenol                      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Aniline                     | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Chlorophenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Benzyl Alcohol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methylphenol              | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 3&4-Methylphenol            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1  | mg/kg | 0.1    | < 0.1  |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 3-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Nitrophenol               | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Dibenzofuran                | DETSC 3433  | 0.1  | mg/kg | 0.5    | < 0.1  |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Diethylphthalate            | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Nitroaniline              | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 2-Methyl-4,6-Dinitrophenol  | DETSC 3433* | 0.1  | mg/kg | < 0.1  | < 0.1  |
| Diphenylamine               | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |
| 4-Bromophenylphenylether    | DETSC 3433  | 0.1  | mg/kg | < 0.1  | < 0.1  |

## Summary of Chemical Analysis

### Soil VOC/SVOC Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

|               |           |           |
|---------------|-----------|-----------|
| Lab No        | 1172806   | 1173309   |
| Sample ID     | S2TPA44   | S2TPA72   |
| Depth         | 2.20      | 2.30      |
| Other ID      | 1         | 1         |
| Sample Type   | ES        | ES        |
| Sampling Date | 12-May-17 | 10-May-17 |
| Sampling Time | n/s       | n/s       |

| Test                       | Method      | LOD | Units |       |       |
|----------------------------|-------------|-----|-------|-------|-------|
| Hexachlorobenzene          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Pentachlorophenol          | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Di-n-butylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Butylbenzylphthalate       | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Di-n-octylphthalate        | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Dimethylphthalate          | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Azobenzene                 | DETSC 3433  | 0.1 | mg/kg | < 0.1 | < 0.1 |
| Carbazole                  | DETSC 3433* | 0.1 | mg/kg | 0.3   | < 0.1 |

## Summary of Chemical Analysis

### Leachate Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

| Lab No        | 1172809   | 1173319   | 1173320   | 1173321   | 1173322   | 1173323   |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample ID     | S2TPA46   | S2TPA72   | S2TPA73   | S2TPA80   | S2TPA92   | S2TPA92   |
| Depth         | 2.00      | 2.30      | 0.30      | 2.50      | 0.40      | 3.70      |
| Other ID      | 2         | 1         | 1         | 1         | 1         | 4         |
| Sample Type   | ES        | ES        | ES        | ES        | ES        | ES        |
| Sampling Date | 12-May-17 | 10-May-17 | 10-May-17 | 09-May-17 | 08-May-17 | 08-May-17 |
| Sampling Time | n/s       | n/s       | n/s       | n/s       | n/s       | n/s       |

| Test                     | Method     | LOD   | Units |         |        |        |         |        |        |
|--------------------------|------------|-------|-------|---------|--------|--------|---------|--------|--------|
| <b>Preparation</b>       |            |       |       |         |        |        |         |        |        |
| Leachate 10:1            | DETS 036*  |       |       | Y       | Y      | Y      | Y       | Y      | Y      |
| <b>Metals</b>            |            |       |       |         |        |        |         |        |        |
| Arsenic, Dissolved       | DETS 2306  | 0.16  | ug/l  | 0.91    | 0.45   | < 0.16 | 0.65    | < 0.16 | < 0.16 |
| Barium, Dissolved        | DETS 2306  | 0.26  | ug/l  | 31      | 17     | 5.5    | 1.8     | 5.6    | 18     |
| Beryllium, Dissolved     | DETS 2306* | 0.1   | ug/l  | < 0.1   | < 0.1  | < 0.1  | < 0.1   | < 0.1  | < 0.1  |
| Boron                    | DETS 2123  | 100   | ug/l  | < 100   | < 100  | < 100  | < 100   | < 100  | < 100  |
| Cadmium, Dissolved       | DETS 2306  | 0.03  | ug/l  | 0.12    | < 0.03 | < 0.03 | < 0.03  | < 0.03 | < 0.03 |
| Chromium, Dissolved      | DETS 2306  | 0.25  | ug/l  | < 0.25  | < 0.25 | < 0.25 | 9.1     | 0.58   | < 0.25 |
| Copper, Dissolved        | DETS 2306  | 0.4   | ug/l  | 1.3     | < 0.4  | 0.4    | 2.0     | 0.5    | 0.6    |
| Iron, Dissolved          | DETS 2306  | 5.5   | ug/l  | < 5.5   | 26     | 45     | 51      | 59     | 27     |
| Lead, Dissolved          | DETS 2306  | 0.09  | ug/l  | < 0.09  | < 0.09 | 0.18   | 0.11    | 0.15   | < 0.09 |
| Manganese, Dissolved     | DETS 2306  | 0.22  | ug/l  | 26      | 9.5    | 14     | 0.83    | 29     | 42     |
| Mercury, Dissolved       | DETS 2306  | 0.01  | ug/l  | < 0.01  | < 0.01 | < 0.01 | < 0.01  | < 0.01 | < 0.01 |
| Nickel, Dissolved        | DETS 2306  | 0.5   | ug/l  | < 0.5   | < 0.5  | < 0.5  | < 0.5   | < 0.5  | < 0.5  |
| Selenium, Dissolved      | DETS 2306  | 0.25  | ug/l  | 1.3     | 1.4    | 0.95   | 6.5     | 1.5    | 0.97   |
| Vanadium, Dissolved      | DETS 2306  | 0.6   | ug/l  | 1.5     | < 0.6  | < 0.6  | 8.5     | < 0.6  | < 0.6  |
| Zinc, Dissolved          | DETS 2306  | 1.3   | ug/l  | 19      | < 1.3  | 1.7    | < 1.3   | < 1.3  | 14     |
| <b>Inorganics</b>        |            |       |       |         |        |        |         |        |        |
| pH                       | DETS 2008  |       |       | 7.9     | 7.1    | 6.6    | 10.5    | 7.1    | 6.6    |
| Ammoniacal Nitrogen as N | DETS 2207  | 0.015 | mg/l  | < 0.015 | 0.069  | 0.027  | < 0.015 | 0.18   | 0.053  |
| Chloride                 | DETS 2055  | 0.1   | mg/l  | 1.3     | 0.90   | 1.1    | 3.3     | 2.0    | 0.85   |

## Summary of Asbestos Analysis

### Soil Samples

Our Ref 17-99600-1  
 Client Ref SLS1015  
 Contract Title Redcar Site

| Lab No  | Sample ID      | Material Type | Result  | Comment*                      | Analyst        |
|---------|----------------|---------------|---------|-------------------------------|----------------|
| 1172806 | S2TPA44 1 2.20 | SOIL          | NAD     | none                          | David Williams |
| 1172808 | S2TPA46 2 2.00 | SOIL          | Amosite | Small bundles of Amosite seen | David Williams |
| 1173308 | S2TPA63 1 1.80 | SOIL          | NAD     | none                          | David Williams |
| 1173309 | S2TPA72 1 2.30 | SOIL          | NAD     | none                          | David Williams |
| 1173310 | S2TPA73 1 0.30 | SOIL          | NAD     | none                          | David Williams |
| 1173311 | S2TPA78 1 1.20 | SOIL          | NAD     | none                          | David Williams |
| 1173312 | S2TPA80 1 2.50 | SOIL          | NAD     | none                          | David Williams |
| 1173313 | S2TPA82 1 0.30 | SOIL          | NAD     | none                          | David Williams |
| 1173314 | S2TPA86 1 0.40 | SOIL          | NAD     | none                          | David Williams |
| 1173316 | S2TPA88 1 1.00 | SOIL          | NAD     | none                          | David Williams |
| 1173317 | S2TPA92 1 0.40 | SOIL          | NAD     | none                          | David Williams |
| 1173318 | S2TPA92 4 3.70 | SOIL          | NAD     | none                          | David Williams |

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.

## Summary of Asbestos Quantification Analysis

### Soil Samples

Our Ref 17-99600-1

Client Ref SLS1015

Contract Title Redcar Site

|               |           |
|---------------|-----------|
| Lab No        | 1172808   |
| Sample ID     | S2TPA46   |
| Depth         | 2.00      |
| Other ID      | 2         |
| Sample Type   | SOIL      |
| Sampling Date | 12-May-17 |
| Sampling Time |           |

| Test                                    | Method     | Units    |         |
|-----------------------------------------|------------|----------|---------|
| Total Mass% Asbestos (a+b+c)            | DETSC 1102 | Mass %   | < 0.001 |
| Gravimetric Quantification (a)          | DETSC 1102 | Mass %   | na      |
| Detailed Gravimetric Quantification (b) | DETSC 1102 | Mass %   | <0.001  |
| Quantification by PCOM (c)              | DETSC 1102 | Mass %   | na      |
| Potentially Respirable Fibres (d)       | DETSC 1102 | Fibres/g | na      |

#### Breakdown of Gravimetric Analysis (a)

|                       |  |      |         |
|-----------------------|--|------|---------|
| Mass of Sample        |  | g    | 1001.31 |
| ACMs present*         |  | type |         |
| Mass of ACM in sample |  | g    |         |
| % ACM by mass         |  | %    |         |
| % asbestos in ACM     |  | %    |         |
| % asbestos in sample  |  | %    |         |

#### Breakdown of Detailed Gravimetric Analysis (b)

|                                |  |        |        |
|--------------------------------|--|--------|--------|
| % Amphibole bundles in sample  |  | Mass % | <0.001 |
| % Chrysotile bundles in sample |  | Mass % | na     |

#### Breakdown of PCOM Analysis (c)

|                               |  |        |    |
|-------------------------------|--|--------|----|
| % Amphibole fibres in sample  |  | Mass % | na |
| % Chrysotile fibres in sample |  | Mass % | na |

#### Breakdown of Potentially Respirable Fibre Analysis (d)

|                   |  |          |    |
|-------------------|--|----------|----|
| Amphibole fibres  |  | Fibres/g | na |
| Chrysotile fibres |  | Fibres/g | na |

\* Denotes test or material description outside of UKAS accreditation.  
 % asbestos in Asbestos Containing Materials (ACMs) is determined by  
 by reference to HSG 264.  
 Recommended sample size for quantification is approximately 1kg  
 # denotes deviating sample

## Information in Support of the Analytical Results

Our Ref 17-99600-1

Client Ref SLS1015

Contract Redcar Site

### Containers Received & Deviating Samples

| Lab No  | Sample ID              | Date Sampled | Containers Received         | Holding time exceeded for tests | Inappropriate container for tests |
|---------|------------------------|--------------|-----------------------------|---------------------------------|-----------------------------------|
| 1172806 | S2TPA44 2.20 SOIL      | 12-05-17     | GJ 250ml, GJ 60ml x4, PT 1L |                                 |                                   |
| 1172807 | S2TPA44 4.20 SOIL      | 12-05-17     | GJ 60ml x7, PT 1L           |                                 |                                   |
| 1172808 | S2TPA46 2.00 SOIL      | 12-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1172809 | S2TPA46 2.00 LEACHATE  | 12-05-17     | GJ 250ml x2, GJ 60ml, PT 1L |                                 |                                   |
| 1173308 | S2TPA63 1.80 SOIL      | 10-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173309 | S2TPA72 2.30 SOIL      | 10-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173310 | S2TPA73 0.30 SOIL      | 10-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173311 | S2TPA78 1.20 SOIL      | 09-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173312 | S2TPA80 2.50 SOIL      | 09-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173313 | S2TPA82 0.30 SOIL      | 10-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173314 | S2TPA86 0.40 SOIL      | 08-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173315 | S2TPA86 2.50-2.80 SOIL | 08-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173316 | S2TPA88 1.00 SOIL      | 09-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173317 | S2TPA92 0.40 SOIL      | 08-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173318 | S2TPA92 3.70 SOIL      | 08-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173319 | S2TPA72 2.30 LEACHATE  | 10-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173320 | S2TPA73 0.30 LEACHATE  | 10-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173321 | S2TPA80 2.50 LEACHATE  | 09-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173322 | S2TPA92 0.40 LEACHATE  | 08-05-17     | GJ 60ml, PT 1L              |                                 |                                   |
| 1173323 | S2TPA92 3.70 LEACHATE  | 08-05-17     | GJ 60ml, PT 1L              |                                 |                                   |

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 | Ali/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.