
Laboratory Testing Specification

Former SSI Steelworks, Redcar – Ground Sample Laboratory Testing

Prepared for
South Tees Site Company Limited

March 2017

CH2MHILL®

Dunedin House
Teesdale Business Park
Riverside
Stockton-on-Tees
TS17 6BJ

Contents

Section	Page
Instructions to Tenderers	1
1.1 Introduction	1
1.2 Preparation of Tenders	1
1.2.1 Preparation of Tenders	1
1.2.2 Clarification	1
1.2.3 Tender Amendments	1
1.2.4 Withdrawal	1
1.2.5 Independent Site Visits	1
1.2.6 Bill of Quantities	2
1.2.7 Conditions for Tendering	2
1.2.8 Documents to be completed	2
1.2.9 Additional information to be submitted with the Tender	2
1.2.10 Submission and Evaluation of Tenders	3
1.2.11 Cost of Tendering	4
1.2.12 Confidentiality	4
1.2.13 Group Guarantee	4
Conditions of Contract	5
2.1 Conditions of Contract	5
2.2 Amendments and additions to the Conditions of Contract	5
Other Documents Forming Part of Contract	8
3.1 Form of Tender	8
Specification and Schedules	13
SPECIFICATION	13
Schedules	14
1.1 Name of the Contract	14
1.2 Investigation Supervisor	14
1.3 Description of the site	14
1.4 Main works proposed and purpose of this contract	14
1.5 Scope of the Investigation	14
1.6 Geology and Ground Conditions	14
1.7 Schedule of drawings(s) and documents	14
1.8 General requirements (Specification Section 3) Particular restrictions/ relaxations	15
1.8.1 Quality management system (Clause 3.3)	15
1.8.2 Professional Attendance (Clause 3.5.2)	15
1.8.3 Provision of ground practitioners and other personnel (Clause 3.6.1 and 3.6.2)	15
1.8.4 Hazardous ground, land affected by contamination and notifiable and invasive weeds (Clauses 3.7.1 and 3.22)	15
1.8.5 Additional information on services not shown on Contract drawings (Clause 3.7.2)	15
1.8.6 Known/ suspected mine workings, mineral extractions, etc (Clause 3.7.3)	15
1.8.7 Protected species (Clause 3.7.4)	15
1.8.8 Archaeological remains (Clause 3.7.5)	15

1.8.9	Security of site (Clause 3.11)	15
1.8.10	Traffic management measures (Clause 3.12).....	15
1.8.11	Restricted working hours (Clause 3.13)	16
1.8.12	Trainee site operatives (Clause 3.14.1)	16
1.8.13	Contamination avoidance and/ or aquifer protection measures required (Clause 3.15.2 and 3.15.3).....	16
1.8.14	Maximum period for boring, pitting or trenching through hard material, hard stratum or obstruction Clause 2.8.4.3 and 6.4)	16
1.8.15	Reinstatement requirements (Clause 3.16)	16
1.8.16	Hygiene facilities required (Clause 2.20 and 3.16.1).....	16
1.8.17	Unavoidable damage to be reinstated by the Contractor (Clause 3.16.1)	16
1.8.18	Accuracy of exploratory hole locations (Clause 3.19 and 3.20).....	16
1.8.19	Photography requirements (Clause 3.25, 5.8, 6.12)	16
1.8.20	Lubricants used on equipment.....	16
1.8.21	Provision of emergency spill kits on site	16
1.8.22	Site access permissions / Notice of Entry.....	16
1.8.23	Cleanliness of surrounding highways	16
1.8.24	Biosecurity measures	16
1.8.25	Access	16
1.8.26	Health and Safety	16
1.8.27	Special requirements in Relation to the South Tees Site Company Limited.....	17
1.8.28	Unexploded Ordnance	17
1.9	Percussion boring (Specification Section 4) Particular restrictions/ relaxations – not required	17
1.10	Rotary drilling (Specification Section 5) Particular restrictions / relaxations – Not required	17
1.11	Pitting and trenching (Specification Section 6) Particular restrictions / relaxations – not required	17
1.12	Sampling and monitoring during intrusive investigation (Specification Section 7) Particular restrictions/ relaxations	17
1.12.1	Sampling equipment	17
1.12.2	Sample collection	17
1.13	Probing and cone penetration testing (Specification Section 8) Particular restrictions/ relaxations – not required	18
1.14	Geophysical testing (Specification Section 9) Particular restrictions/ relaxations – not required	18
1.15	In situ testing (Specification Section 10) Particular restrictions/ relaxations – not required	18
1.16	Instrumentation (Specification Section 11) Particular restrictions/ relaxations – not required	18
1.17	Installation monitoring and sampling (Specification Section 12) Particular restrictions/ relaxations – not required	18
1.18	Daily records (Specification Section 13) Particular restrictions/ relaxations – not required	18
1.19	Geotechnical laboratory testing (Specification Section 14) Particular restrictions/ relaxations	18
1.19.1	Investigation Supervisor or Contractor to schedule testing (Clause 14.1.1).....	18
1.19.2	Tests required (Clause 14.1.2).....	18
1.19.3	Specifications for test not covered by BS1377 and options under BS1377 (Clauses 14.2.1 and 14.4).....	19

1.19.4	UKAS accreditation to be adopted (Clause 14.3).....	19
1.19.5	Rock testing requirements (Clause 14.5).....	19
1.19.6	Chemical testing for aggressive ground/ groundwater for concrete (Clause 14.6) (Test Suites A-D).....	19
1.19.7	Laboratory testing on site (Clause 14.7).....	19
1.19.8	Special laboratory testing (Clause 14.8).....	19
1.20	Geoenvironmental laboratory testing (Specification Section 15) Particular restrictions/ relaxations	20
1.20.1	Investigation Supervisor or Contractor to schedule testing (Clause 15.1).....	20
1.20.2	Accreditation required (Clause 15.2).....	20
1.20.3	Chemical testing for contamination (Clause 15.3).....	20
1.20.4	Waste classification (Clause 15.4).....	20
1.20.5	Waste Acceptance Criteria testing (Clause 15.5).....	20
1.20.6	Laboratory testing (Clause 15.6).....	20
1.20.7	Special laboratory testing (Clause 15.7).....	20
1.21	Reporting (Specification Section 16) Particular restrictions/ relaxations.....	21
1.21.1	Form of exploratory hole logs (Clause 16.1 and 16.2.1).....	21
1.21.2	Information on exploratory hole logs (Clause 16.2.2).....	21
1.21.3	Variations to final digital data supply requirements (Clause 16.5.1).....	21
1.21.4	Preliminary digital data (Clause 16.5.3).....	22
1.21.5	Type(s) of report required (Clause 16.6).....	22
1.21.6	Electronic report requirements (Clause 16.6.3).....	22
1.21.7	Format and contents of Desk Study Report (Clause 16.7).....	22
1.21.8	Contents of Ground Investigation Report (or specified part thereof) (Clause 16.9)	22
1.21.9	Contents of Geotechnical Design Report (or specified part thereof) (Clause 16.9)	22
1.21.10	Times for supply of electronic information (Clause 16.10.1).....	22
1.21.11	Electronic information transmission media (Clause 16.10.2).....	22
1.21.12	Report approval (Clause 16.11).....	23
	Schedule 2: Exploratory holes – not required.....	24
	Schedule 3: Investigation Supervisor’s facilities – not required.....	25
	Schedule 4: Specification amendments.....	26
	Schedule 5: Specification additions	28
	BILL OF QUANTITIES FOR GROUND INVESTIGATION.....	29
	Preamble to the Bill of Quantities for Ground Investigation.....	29
	Tenderer’s Data –	30
	Declaration of Collusive Tendering.....	30
	Certificate Relating to Insurances of Investigation: Contractor’s All Risks.....	iii
	Certificate Relating to Insurance against Third Party Risks Public Liability	iii
	Certificate Relating to Insurance of Contractor’s Employer’s Liability	iii
	Declaration of Site Visit – not used.....	iii
	List of Personnel.....	iv
	List of Laboratories	iii
	Health and Safety Questionnaire.....	iii

Appendix A Parent Company Guarantee4
Appendix B Figures and Drawings5-1
Appendix C Asbestos Risk Assessment5-1

Instructions to Tenderers

1.1 Introduction

These instructions will not form part of any ensuing Contract.

Failure to comply with any of these instructions may lead to Tenders being rejected.

The contract is to be based on Infrastructure Conditions of Contract Ground Investigation Version, as published by the Association for Consultancy and Engineering in August 2011 (with subsequent ICC amendments as identified in Part 2.1 of this document).

Terms, such as "Employer", "Engineer", "Engineer's Representative", that are defined and used in the Conditions of Contract have the same meaning in these Instructions to Tenderers.

Throughout these instructions references to one gender shall be deemed to include the other.

1.2 Preparation of Tenders

1.2.1 Preparation of Tenders

The following documents and drawings, comprehensively referred to as the Tender Document, are issued to every Tenderer:

- One pdf of this Tender Document, to be returned in accordance with these instructions,
- The Tenderer shall promptly acknowledge receipt of the Tender Document
- In addition, Tenderers, shall submit the bill of quantities in excel format

1.2.2 Clarification

If there is any query regarding the meaning of the Tender Document the Tenderer shall set out such queries in writing for clarification and address them to CH2M, marked for the attention of Ian Kirkpatrick (ian.kirkpatrick@ch2m.com). Requests for clarification shall be submitted in writing at least 7 days before the latest date for the return of tenders.

1.2.3 Tender Amendments

During the tender period, but generally not later than one week prior to the date for the submission of Tenders, the Employer may issue amendments to clarify modify or add to the Tender Document. A copy of each Tender Amendment will be issued to every Tenderer and shall become part of the Tender Document. No addition or alteration shall be made to the Tender Document unless it is the subject of a Tender Amendment. The Tenderer shall promptly acknowledge receipt of each Tender Amendment using the form of acknowledgement that will be provided.

1.2.4 Withdrawal

If a Tenderer decides that he is unable to submit a tender he shall immediately notify the Employer. The Tenderer shall then return the Tender Document to the Employer, including any copies. The Tenderer shall state in writing the reasons for withdrawal.

1.2.5 Independent Site Visits

Access to the former SSI Steelworks is controlled, with security gates and security personnel in place. No site visits are required for the purposes of tendering, but specific requirements relating to induction and sample collection are specified in the tender documentation.

1.2.6 Bill of Quantities

The Bill of Quantities in Part 5 of this Tender Document is to be completed by the Tenderer according to the rules and guidelines of the method of measurement included in Part 5 of this Tender Document.

1.2.7 Conditions for Tendering

The Employer does not bind itself to accept the lowest or any Tender.

The Employer shall not be liable for any expenses or losses incurred by the Tenderer in preparation of his Tender.

Qualifications are to be avoided by prior clarification of requirements or interpretations with the Employer. A qualified Tender risks rejection.

1.2.8 Documents to be completed

Tenders shall be submitted by completion of the documents listed below, and the preparation of the additional information described in paragraph 1.2.9 below.

Section 3	Form of Tender
	Form of Tender – Appendix Part 2
Section 5	Bill of Quantities
	Long-Term Sample Storage
Section 6	Tenderer's Data
	Declaration Relating to Collusive Tendering
	List of Personnel
	List of Laboratories
	Health & Safety Questionnaire

Documents in Section 6 will not form part of the Contract.

1.2.9 Additional information to be submitted with the Tender

The following additional information shall be submitted with the Tender:

- Lab testing programme
- Health & Safety Information
- Evidence of Insurances

1.2.9.1 Programme

The Tenderer shall submit a programme covering the sample testing, laboratory work and reporting relating to specific tests, including slag testing.

1.2.9.2 Method Statement

The Tender shall be accompanied by preliminary Method Statements describing the Tenderer's proposed methods. The preliminary Method Statements are for Tender evaluation purposes and will not form part of any ensuing Contract.

1.2.9.3 Health and Safety Information

The Tenderer shall submit the following details relating to Health and Safety:

- (a) completed "Health & Safety Questionnaire", which, inter alia, should demonstrate:

- that health and safety has been adequately provided for in their Tender submissions; and
 - a clear specification for the resources allocated to control and manage the major health and safety risks.
- (b) evidence of competence to carry out the laboratory testing work to the requirements of health and safety legislation;

This information is for tender evaluation purposes and will not form part of any ensuing contract.

1.2.9.4 Health and Safety Accreditation

The Contractor is required to be accredited by at least one of the following Safety Scheme in Procurement (SSIP) forum member organisations:

- Contractors' Health and Safety Assessment Scheme (CHAS)
- National House-Building Council (NHBC)
- Exor Management Services
- Constructionline
- Safety Management Advisory Service (SMAS)
- Altius VA
- Facilities Services Group
- Eurosafe UK.

Evidence of Accreditation is to be provided with the Tender.

1.2.9.5 Evidence of Insurances

The Tenderer shall submit evidence of insurances that are compliant with Clauses 21, 22 and 23 of the Conditions of Contract. A letter from the Tenderer's insurance broker which states that insurances are in place that meets the requirements of Clauses 21, 22 and 23 of the Conditions of Contract would be acceptable.

1.2.10 Submission and Evaluation of Tenders

1.2.10.1 Submission of Tenders

The Tender shall be submitted to the offices of:

CH2M,
Dunedin House,
Teesdale Business Park,
Stockton-on-Tees,
TS17 6BJ

to arrive not later than **12.00 noon on 10th April 2017.**

1.2.10.2 Correction of Errors

Following receipt of tenders, they will be arithmetically checked.

Should there be an error in the Bill of Quantities, the error shall be corrected as follows, and a revised Tender Total calculated

- if the error is in extending unit prices to the “Amount” column, then the unit price or rate shall govern and the extension product of rate and quantity into the “Amount” column shall be corrected accordingly,
- if the error is in transcribing sums or prices, or in summing “Amount” columns, then the transcription or summation error shall be corrected accordingly.

Tenderers will be notified of any errors and amendments and asked either to confirm the revised Tender Total or to withdraw their Tender.

1.2.10.3 Tender Evaluation

The aim of the tender evaluation is to identify the Tenderer most likely to complete the work on time, within the agreed budget, and to the required quality. There will be an overall 60/40 cost/quality weighting to the evaluation. Tenders will be evaluated using the following criteria. The weighting for each criterion is presented in the brackets.

Price 60 points

This includes the ‘Tender Total’. The number of points will be awarded such that the lowest tender receives 60 points, the others will receive points based on their percentage above the lowest tender, e.g.:

Lowest Tender Total: £150k, ... (60)...x 150/150 = ... (60)...points

Next lowest Tender Total: £175k, ... (60)...x 150/175 = ... (51)...points

Next lowest Tender Total: £200k, ... (60)...x 150/200 = ... (45)...points...

Quality 40 points:

Technical Merit 20 points

Laboratory Services Accreditation & Testing Certification 20 points

1.2.10.4 Award of Contract

If and when a Tender is accepted by the Employer, a written notification will be sent to each of the Tenderers.

1.2.11 Cost of Tendering

The Employer will not pay any of the costs of Tendering.

1.2.12 Confidentiality

Kindly keep all details of this Invitation to Tender confidential to your own organisation and that of any professional adviser you engage to assist in your tender. You should advise your professional advisors to also retain confidentiality about which other Tenderers they may be assisting.

1.2.13 Group Guarantee

Any successful Tenderer, if a Subsidiary company of a Group of Companies, will be required to provide a Parent Company Guarantee of the form, reference Appendix B.

Conditions of Contract

2.1 Conditions of Contract

The Conditions of Contract shall be the Infrastructure Conditions of Contract, Ground Investigation Version, published by Association for Consultancy and Engineering in August 2011, including the following amendments:

- reference ICC/Payment/October 2011
- reference ICC/CDM/May 2015

and the following amendments and additions to the Infrastructure Conditions of Contract for Ground Investigation.

2.2 Amendments and additions to the Conditions of Contract

	CLAUSE	AMENDMENTS AND ADDITIONS
Delete Engineer and substitute throughout the Contract with Project Manager		The " <i>Project Manager</i> " means the person, firm or company appointed by the Employer to act as <i>Project Manager</i> for the purposes of the Contract and named in the Appendix to the Form of the Tender or any other person, firm or company so appointed from time to time by the Employer and notified in writing to the Supplier
Delete Engineer's Representative and replace throughout the Contract with Project Manager's Representative	1(1)(c)	The " <i>Project Manager's Representative</i> " means a person notified as such from time to time by the <i>Project Manager</i> under Clause 2(3)(a)
Project Manager's obligation to act in the spirit of mutual trust and co-operation	2(8)	Delete Clause 2(8) and replace with "The <i>Project Manager</i> shall act in a spirit of mutual trust and co-operation within the terms of the Contract having regard to all the circumstances. In a like manner the <i>Project Manager's Representative</i> and any person exercising delegated duties and authorities shall also act in a spirit of mutual trust and co-operation.
Excepted Risks	20(2)(a)	Amend Clause 20(2)(a) to read "the use or occupation by the Employer and/or the Ultimate Client, their agents, servants or other Suppliers (not being employed by the <i>Supplier</i>) of any part of the Site
Damages to persons and property	22	Amend all references to "the <i>Employer</i> " to "the <i>Employer</i> and the <i>Ultimate Client</i> " in respect of required indemnities.
Labour-tax and	69(2)	In the final sentence, delete "AH" and replace with "All".

	CLAUSE	AMENDMENTS AND ADDITIONS
landfill tax fluctuations		
CDM Regulations 2015	71	Delete Clause 71(1)(a) and substitute "the Regulations" means the Construction (Design and Management) Regulations 2015 or any statutory re-enactment or amendment thereof for the time of being in force
	71	Delete Clause 71(1)(b) and replace with "Construction Phase Plan" means the document recording the health and safety arrangements, site rules and any special measures for construction work as described in Regulation 12 of the Regulations.
	71	Delete Clause 71(1) (c) and substitute "CDM Co-ordinator" and "Principal Contractor" to be replaced with "Principal Designer" and "Principal Contractor".
	71	Delete Clause 71(3) (a) and substitute: "Any action under the Regulations taken by either the Principal Designer or the Principal Contractor shall not entitle the Contractor to any additional payment and/or extension of time in respect of any such action."
		Delete Clause 71(3) (b) and substitute: "It is a condition precedent to the issue of the Certificate of Substantial Completion that the Contractor shall have provided all information necessary to fully satisfy the Construction (Design and Management) Regulations 2015."
Special Conditions	72	The following special conditions form part of the Conditions of Contract.
Gifts Inducements and Rewards	73	The <i>Employer</i> shall be entitled to determine this contract and to recover from the <i>Supplier</i> the amount of any loss resulting from such determination if the <i>Supplier</i> shall have offered or given or agreed to give any person any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or having done or forborne to do any action in relation to the obtaining or execution of this contract or any other contract with the <i>Employer</i> or for showing or forbearing to show favour or disfavour to any person in relation to this contract or any other contract with the <i>Employer</i> or the like acts shall have been done by any person employed by the <i>Supplier</i> acting on his behalf (whether with or without the knowledge of the <i>Supplier</i>) or if in relation to the contract or any other contract with the <i>Employer</i> the <i>Supplier</i> or any person employed by him or acting on his behalf shall have committed any offence under the Prevention of Corruption Acts 1989 and 1916 or shall have given any fee or reward has been given or promised in relation to the obtaining or the execution of the contract or any sub-contract hereunder to any officer or person in the service of the <i>Employer</i> who shall be in any way connected with the obtaining or the execution of the contract or any sub contract hereunder

	CLAUSE	AMENDMENTS AND ADDITIONS
		the <i>Supplier</i> shall also be liable to pay the <i>Employer</i> , a sum equal to ten per cent of all the sums which become payable to him under the contract.
		Any dispute as to the amount recoverable by the <i>Employer</i> from the <i>Supplier</i> as a result of determination hereunder shall be settled in the manner provided by Clause 66 hereof.
Prompt Payment of Sub-Contractors	74	(1) Any sub-contract for part of the Investigation goods and/or services entered into by the <i>Supplier</i> shall provide for the timely payment of any sub-contractor or supplier. (2) The <i>Supplier</i> shall pay his sub-contractors and suppliers within 30 days of the receipt of a valid demand for payment, or within such lesser period as may be normal practice within the industry for the supply of such works goods and/or services.
Notice of Claims	75	(1) The <i>Supplier</i> undertakes to give details promptly, in writing, to the <i>Employer</i> and to the <i>Project Manager</i> of any notification which the <i>Supplier</i> may give to the insurer about circumstances that could result in a claim on the insurer under Clauses 21 and 23. (2) The parties to the Contract each undertake to notify the other in writing of any claims which they may receive in respect of any injury loss or damage referred to in Clause 22 and 24. Any such notification by the Contractor <i>Supplier</i> shall be given to the <i>Project Manager</i> without delay.c
Persons admitted to the Site	77	(1) The <i>Supplier</i> shall take all reasonable steps and all steps required by the Contract to prevent unauthorised persons being admitted to the Site. If the <i>Project Manager</i> gives the <i>Supplier</i> notice that any person is not to be admitted to the Site, the <i>Supplier</i> shall take all practicable steps to prevent that person being admitted. (2) If and when instructed by the <i>Project Manager</i> , the <i>Supplier</i> shall give to the <i>Project Manager</i> a list of names and addresses of all persons who are or may be at any time concerned with the Investigation or any part thereof, specifying the capacities in which they are so concerned, and giving such other particulars as the <i>Project Manager</i> may reasonably require.
Working Hours	78	The <i>Supplier</i> shall confine the Site Operations to the working hours as stated in the Specification.
		No Site Operations shall be undertaken outside the stated working hours without the prior written approval of the Project Manager.
		No work shall be undertaken on Site on public holidays.

Other Documents Forming Part of Contract

3.1 Form of Tender

SHORT DESCRIPTION OF INVESTIGATION

The Investigation is sample collection and preparation, laboratory testing, report preparation and submissions for *“Former SSI Steelworks, Redcar – Ground Sample Laboratory Testing”*

Form of Tender

(NOTE: The Appendix forms part of the Form of Tender)

To: **South Tees Site Company Limited**

South Tees Site Company (STSC) Limited. No. 10424065. Registered in England. 1, Victoria Street, London SW1H 0ET

Gents,

Having examined the Drawings, Conditions of Contract, Specification and Bill of Quantities for the carrying out of the above-mentioned Investigation (and the matters set out in the Appendix hereto), we offer to carry out the whole of the said Investigation (Laboratory Testing) in conformity with the said Drawings, Conditions of Contract, Specification and priced Bill of Quantities for such sum as may be ascertained in accordance with the said Conditions of Contract.

We undertake to complete and deliver the whole of the Investigation (Laboratory Testing) comprised in the Contract within the times stated in the Appendix hereto.

If our Tender is accepted we will, if required, provide security for the due performance of the Contract as stipulated in the Conditions of Contract and the Appendix hereto.

Unless and until a formal Agreement is prepared and executed, this tender, together with your written acceptance thereof, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any tender you may receive.

You may accept this offer on or before 90 days after the tender return date.

We are, Gents,

Yours faithfully,

Signature.....

Company.....

Address.....

.....

Date.....

FORM OF TENDER (APPENDIX)

(NOTE: Relevant Clause numbers are shown in brackets)

Appendix - Part 1

1. Name of the Employer (Clause 1(1)(a))
South Tees Site Company Limited
2. Name of the Project Manager (Clause 1(1)(c)) **Ian Kirkpatrick, CH2M HILL**
Address: Dunedin house, Riverside, Stockton-on-Tees, TS17 6BJ
3. Defects Correction Period (Clause 1(1)(w)) **n/a**
4. Parts or Sections of the Investigation which shall not be sub-contracted without the Engineer's prior written approval (Clause 4(2))
N/A
5. Number and type of copies of Drawings to be provided (Clause 6(1)(b))
Pdf copies only
6. Form of Agreement (Clause 9)
Required /~~Not required~~
If required **Signed /~~Executed as a Deed/Not applicable~~**
7. Performance Bond (Clause 10(1))
Required/~~Not required~~
Amount of Bond (if required) to be *not applicable* % of Tender Total
8. (a) Minimum amount of third party insurance (persons and property) (Clause 23(3)) **£5,000,000 for each and every occurrence and**
(b) Minimum amount of Supplier's Employer's Liability Insurance (Clause 24) **£10,000,000 for each and every occurrence**
9. Commencement Date (if known) (Clause 41(1)(a)) to be notified in accordance with Clause 41(1)(b)
17 April 2017
10. Time for completion calculated from the Commencement Date (Clause 43)
Sections of the Investigation (Clause 1(1)(y))
Section A Laboratory testing overall duration **10 weeks**
11. Liquidated damages for delay (Clause 47)
per day limit of liability
Section A (as above) **N/A N/A**

The total of the Liquidated Damages shall not exceed (Clause 47(3)) **N/A**

12. Vesting of materials not on Site (Clauses 54(4) and 60(1)(c)) (if required by the Employer)
Not required.
13. Method of measurement adopted in preparation of Bills of Quantities (Clause 57)
The UK Specification for Ground Investigation, Second Edition, published by ICE Publishing in August 2012
14. Percentage of the value of goods and materials to be included in Interim Certificates (Clause 60(2)(b))
0 %
15. Minimum amount of Interim Certificates (Clause 60(3)) **£5,000.00**
16. Rate of retention (Clause 60(5))
0%
17. Limit of retention (% of Tender Total) (Clause 60(5))
Not applicable
18. Bank whose Base Lending Rate is to be used (Clause 60(7))
Bank of England
19. Requirement for prior approval by the Employer before the Project Manager can act. (Clause 2(1)(b))f
Not applicable
20. Name of the Principal Designer (Clause 71(1)(c))
CH2M Hill UK, Dunedin House, Riverside, Stockton-on-Tees, TS17 6BJ
21. Name of the Principal Supplier (if appointed) (Clause 71(1)(b))
To Be Confirmed
22. Period for Approval (Clause 14(7))
N/A
23. Maximum sum for the Supplier to make changes without an instruction (Clause 13(4))
£500.00
24. Refer to Part One Data which applies to all Work Package Orders

Appendix – Part 2

(To be completed by Supplier)

1. Insurance Policy Excesses (Clause 25(2))

Insurance of the Investigation (Clause 21(1)) £

Third party (property damage) (Clause 23(1)) £

2. Not used.

3. Not used.

4. Sub-Suppliers to be used by the Supplier (Clause 4(3))

.....
.....

5. Percentage(s) for adjustment of PC sums (Clauses 59(5)(c)) (with details if required)

.....
.....

FORM OF AGREEMENT

This agreement is made on the day of.....20
between..... (name)
of.....(company/organisation)(the Employer)
and •(name)
of (company/ organisation) (the Supplier)

The Employer will pay the Supplier the amount due and carry out his duties in accordance with the conditions of contract identified in paragraph 2.1 in the document entitled "*[Name of project]*" dated "*[date]*" (the "Conditions of Contract").

The Supplier will provide the services in accordance with the Conditions of Contract.

Signed by

Name

Position

On behalf of (Employer)

and

Name

Position

On behalf of (Supplier)

Specification and Schedules

SPECIFICATION

The Specification shall be the UK Specification for Ground Investigation Second Edition published by ICE Publishing in 2011, with information, amendments and additions as described in the Schedules.

Schedule 1. Information and site-specific requirements

Schedule 2. Exploratory holes – *Not used*

Schedule 3. Investigation supervisor's facilities – *Not required*

Schedule 4. Specification amendments

Schedule 5. Specification additions

Schedules

1.1 Name of the Contract

The name of the contract is "*Former SSI Steelworks, Redcar – Ground Sample Laboratory Testing*".

1.2 Investigation Supervisor

Not used

1.3 Description of the site

Not used

1.4 Main works proposed and purpose of this contract

Laboratory testing to understand the condition of the in-situ soils and their re-use potential.

1.5 Scope of the Investigation

The Investigation shall comprise:

- Provision of sample collection and storage equipment
- Sample collection from the former SSI Steelworks, Redcar site
- Geotechnical laboratory testing, including slag testing
- Chemical and geoenvironmental laboratory testing.

1.6 Geology and Ground Conditions

The site is industrial with the majority of the fill being slag and ash. Natural ground comprises estuarine silt and sand, underlain by laminated clay. It is anticipated that the majority of soils recovered will be Made Ground.

1.7 Schedule of drawings(s) and documents

Not used.

1.8 General requirements (Specification Section 3) Particular restrictions/ relaxations

1.8.1 Quality management system (Clause 3.3)

Quality management is required in accordance with an accredited system in accordance with Clause 3.3 of the Specification.

1.8.2 Professional Attendance (Clause 3.5.2)

Not used.

1.8.3 Provision of ground practitioners and other personnel (Clause 3.6.1 and 3.6.2)

Not required.

1.8.4 Hazardous ground, land affected by contamination and notifiable and invasive weeds (Clauses 3.7.1 and 3.22)

For information, the site is classified as YELLOW under the Site Investigation Steering Group's "Guidelines for the Safe Investigation by Drilling of Landfills and Contaminated Land", published by Thomas Telford in 1993. All measures appropriate to the YELLOW classification should be taken.

In accordance with the AGS guidelines on Asbestos Risk assessments for site investigation, Forms A and B of the AGS Interim Guidance "Site Investigation Asbestos Risk Assessments for the protection of Site Investigation and Geotechnical Laboratory Personnel" dated February 2013 are included in Appendix C.

1.8.5 Additional information on services not shown on Contract drawings (Clause 3.7.2)

None.

1.8.6 Known/ suspected mine workings, mineral extractions, etc (Clause 3.7.3)

Not used.

1.8.7 Protected species (Clause 3.7.4)

Not used.

1.8.8 Archaeological remains (Clause 3.7.5)

Not used.

1.8.9 Security of site (Clause 3.11)

The collection of samples will require access to the former SSI Redcar Steelworks site, and access is monitored and controlled, with security gates and security personnel in place. Any personnel accessing site will require a site induction (approx. duration 10 minutes), which normally takes place at Redcar Gate (see Figure 1). As a part of this, personnel and vehicle details must be provided to the STSCL Excavation Controller no less than 24 hours prior to arrival, using the form provided in Section 1.8.27.

Once personnel have received a site induction, they will be issued with a visitor card which grants access and can be used for later collections.

Access to the site will be via **Redcar Gate, Redcar**, adjacent to Steel House. Post code TS10 5QW.

1.8.10 Traffic management measures (Clause 3.12)

Not required.

1.8.11 Restricted working hours (Clause 3.13)

Sample collections **Monday to Thursday** must be undertaken **before 3pm** and on **Fridays** must be undertaken before **12noon**.

1.8.12 Trainee site operatives (Clause 3.14.1)

Not used.

1.8.13 Contamination avoidance and/ or aquifer protection measures required (Clause 3.15.2 and 3.15.3)

Not used.

1.8.14 Maximum period for boring, pitting or trenching through hard material, hard stratum or obstruction Clause 2.8.4.3 and 6.4)

Not used.

1.8.15 Reinstatement requirements (Clause 3.16)

Not used.

1.8.16 Hygiene facilities required (Clause 2.20 and 3.16.1)

Not used.

1.8.17 Unavoidable damage to be reinstated by the Contractor (Clause 3.16.1)

Not used.

1.8.18 Accuracy of exploratory hole locations (Clause 3.19 and 3.20)

Not used.

1.8.19 Photography requirements (Clause 3.25, 5.8, 6.12)

Not used

1.8.20 Lubricants used on equipment

Not used.

1.8.21 Provision of emergency spill kits on site

Not used.

1.8.22 Site access permissions / Notice of Entry

Not used.

1.8.23 Cleanliness of surrounding highways

Not used.

1.8.24 Biosecurity measures

Not used.

1.8.25 Access

Not used.

1.8.26 Health and Safety

Not used.

1.8.27 Special requirements in Relation to the South Tees Site Company Limited

All personnel will be subject to an induction before access is permitted. This includes general behaviour on site and the rules relating to travelling on the internal road network. Personnel and vehicle details must be provided to the STSCL Excavation Controller no less than 24 hours prior to arrival, using the form provided in Appendix A.

1.8.28 Unexploded Ordnance

The Zetica risk mapping indicates that the site is within the medium risk category for unexploded ordnance.

1.9 Percussion boring (Specification Section 4) Particular restrictions/ relaxations – not required

1.10 Rotary drilling (Specification Section 5) Particular restrictions / relaxations – Not required

1.11 Pitting and trenching (Specification Section 6) Particular restrictions / relaxations – not required

1.12 Sampling and monitoring during intrusive investigation (Specification Section 7) Particular restrictions/ relaxations

1.12.1 Sampling equipment

The Contractor shall provide all sampling equipment appropriate to the anticipated testing and this shall be delivered to site as required.

1.12.2 Sample collection

The Contractor shall arrange for all samples to be collected from site on two occasions each week at times to be agreed.

- 1.13 Probing and cone penetration testing (Specification Section 8) Particular restrictions/ relaxations – not required**
- 1.14 Geophysical testing (Specification Section 9) Particular restrictions/ relaxations – not required**
- 1.15 In situ testing (Specification Section 10) Particular restrictions/ relaxations – not required**
- 1.16 Instrumentation (Specification Section 11) Particular restrictions/ relaxations – not required**
- 1.17 Installation monitoring and sampling (Specification Section 12) Particular restrictions/ relaxations – not required**
- 1.18 Daily records (Specification Section 13) Particular restrictions/ relaxations – not required**
- 1.19 Geotechnical laboratory testing (Specification Section 14) Particular restrictions/ relaxations**
 - 1.19.1 Investigation Supervisor or Contractor to schedule testing (Clause 14.1.1)**

Investigation Supervisor to schedule testing based on preliminary logs.

1.19.2 Tests required (Clause 14.1.2)

Likely to include:

- Moisture Content
- Atterberg Limits
- Particle Size Distribution with sedimentation by pipette where appropriate
- Particle density
- Shear box
- Soil Aggressivity (BRE Suite)
- Magnesium content of 2:1 water/soil extract.
- Chloride content of 2:1 water/soil extract.
- Nitrate content of 2:1 water/soil extract.

Where Particle Size Distribution tests are undertaken, where greater than 10% of material passes the 63µm sieve size, an associated pipette/ sedimentation test shall be carried out. The PSD result charts should have tables showing the actual percentages passing each sieve size underneath the actual chart.

Shear box, 60mm and 300mm square. Material shall be compacted close to natural state or as directed by the Investigation Supervisor. Shear displacement shall be continued until constant volume is achieved or full displacement of the shear box, whichever is the greater.

1.19.3 Specifications for test not covered by BS1377 and options under BS1377 (Clauses 14.2.1 and 14.4)

Not required.

1.19.4 UKAS accreditation to be adopted (Clause 14.3)

All testing shall be carried out on UKAS accredited laboratories.

1.19.5 Rock testing requirements (Clause 14.5)

As per the specification.

1.19.6 Chemical testing for aggressive ground/ groundwater for concrete (Clause 14.6) (Test Suites A-D)

Test Suite C will be required for aggressive ground testing on samples obtained from the site.

1.19.7 Laboratory testing on site (Clause 14.7)

Not required.

1.19.8 Special laboratory testing (Clause 14.8)

Slag characterisations and analysis

The Contractor is required to employ an appropriately experienced slag testing laboratory in order to ensure that the samples taken on which it is proposed to undertake slag analysis, are of sufficient quality and quantity to undertake testing.

Testing is to comprise a phased approach as outlined below:

- Phase 1: Petrology – microscope
 - The results from Phase 1 will determine the analyses necessary in Phase 2.
- Phase 2: Variable suite of tests, including chemical and thermos-chemical analyses.
 - In particular the Phase 2 analyses require will be dependent on the type of slag identified (i.e. blast furnace slag or basic slag). If both blast furnace slag and steelmaking slag are identified during Phase 1, both types of Phase 2 tests are required.

Subject to the above:

- Phase 3: Accelerated expansion test.

Appropriate testing services may be provided by Thomas Research Services of New Holland, Lincolnshire. Details of the Contractor's proposed facility for slag testing shall be provided at Tender Stage.

1.20 Geoenvironmental laboratory testing (Specification Section 15) Particular restrictions/ relaxations

1.20.1 Investigation Supervisor or Contractor to schedule testing (Clause 15.1)

Investigation Supervisor to schedule testing based on daily records.

1.20.2 Accreditation required (Clause 15.2)

All testing shall be carried out in UKAS accredited laboratories in accordance with MCERTs.

1.20.3 Chemical testing for contamination (Clause 15.3)

Chemical geoenvironmental testing may be required and will be as follows:

As per Suite E in Schedule 1.20.3 BUT WITH THE FOLLOWING AMENDMENTS:

- Phenol should be monohydric
- Polyaromatic hydrocarbons (PAHs) shall be tested with the full list of speciated compounds (EPA 16) reported. For individual compounds the lower limit of detection should be less than 0.1mg per kg.
- Total Petroleum Hydrocarbons (TPH) shall be tested but using the criteria working group (CWG) methods, providing the Environment Agency aliphatic/aromatic split (C5-C35). For carbon bandings less than C10 the lower limits of detection must be <0.1 mg/kg. For carbon bandings greater than C10 the lower limit of detection must be <1mg/kg.
- If asbestos identified, undertake quantification.

Additional testing, outside suite E shall be scheduled as required. These are listed in the Bill of Quantities.

1.20.4 Waste classification (Clause 15.4)

Not required.

1.20.5 Waste Acceptance Criteria testing (Clause 15.5)

Not required.

1.20.6 Laboratory testing (Clause 15.6)

Site based laboratory testing will not be required.

1.20.7 Special laboratory testing (Clause 15.7)

Not required.

1.21 Reporting (Specification Section 16) Particular restrictions/ relaxations

1.21.1 Form of exploratory hole logs (Clause 16.1 and 16.2.1)

Not required.

1.21.2 Information on exploratory hole logs (Clause 16.2.2)

As per Clause 16.2.2.

1.21.3 Variations to final digital data supply requirements (Clause 16.5.1)

The Digital Data report shall be provided for checking error free, the Contractor shall ensure that the format complies with the requirements of latest version of The Association of Geotechnical Specialists (AGS) data transfer format. The Contractor shall submit the Digital Data for approval in draft format along with an output from an AGS data checking software as proof that the data is error free and complies with all the current AGS rules. The digital data report will not be accepted as being complete until the Contractor proves, via third party software, that it is error free.

The digital data report shall be submitted on a compact disc (CD), with the following fields required:

**PROJ	**ABBR	**BKFL	**CDIA	**CHIS
**CLSS	**CNMT	**CODE	**CONG	**CONS
**DETL	**DREM	**DICT	**FILE	**GEOL
**GRAD	**HDIA	**HOLE	**ISPT	**MONP
**MONR	**PTIM	**SAMP	**TRIG	**TRIX
**UNIT	**WSTK	**IVAN	**IVAR	

Other groups are to be included as necessary to convey all the factual information from site and laboratory records. The table below specifies data that are to be entered in the named fields

Group	Field	Data to be entered
**PROJ	NAME	Former SSI Steelworks
**PROJ	LOC	Redcar
**PROJ	CLIENT	South Tees Site Company Limited
**PROJ	ENG	CH2M Hill UK

In the Digital Data Report, an additional Heading shall be inserted in Group CLSS (Classification Tests) and shall be reported for each moisture content test, as follows:

Heading: CLSS_EQMC Unit: %

Description: Equivalent moisture content (after correction for material retained on the 425µm sieve). (CLSS_NMC being the natural (measured) moisture content.)

Within the GRAD table, additional fields for D10, D30, D60, D80 and the Uniformity Coefficient (CU) shall be included in accordance with the guidelines in the current edition of the Association of Geotechnical

and Geo-environmental Specialists publication 'Electronic Transfer of Geotechnical and Geo-environmental Data'

Where data is reported in **DETL, the values reported in *DETL_BASE shall be one of the following as appropriate:-

Where the detail is at a single depth DETL_BASE = *DETL_TOP.

Where the detail is over a range within a stratum DETL_BASE is actual depth at which the detail ends.

Where the detail extends to the base of a stratum DETL_BASE = *GEOL_BASE.

A separate entry is required in **WSTK for each observation made after a water strike; e.g. where observations are made at 5 minute intervals for 20 minutes after a strike, there will be four records in the *WSTK group.

Additional field **TRIX_STCU is required in group **TRIX. This is for the reporting of the value of cu derived in each stage of multi-stage and 'set of 3' quick undrained triaxial tests.

Only the use of SI and metric units shall be permitted in the compilation of AGS data files. The use of alternative abbreviations or units to those listed in the current version of the Association of Geotechnical and Geo-environmental Specialists publication 'Electronic Transfer of Geotechnical and Geo-environmental Data' shall only be permitted with the written consent of the Investigation Supervisor. A full list of groups, headings, abbreviations, codes and units is to be included in the factual report.

1.21.4 Preliminary digital data (Clause 16.5.3)

Preliminary data in AGS format shall be provided by email to the Investigation Supervisor at the end of the laboratory testing.

1.21.5 Type(s) of report required (Clause 16.6)

Factual data only.

1.21.6 Electronic report requirements (Clause 16.6.3)

A paper copy of the DRAFT factual report will be required but the final factual report shall be submitted in indexed pdf format on CD or DVD.

1.21.7 Format and contents of Desk Study Report (Clause 16.7)

Not required.

1.21.8 Contents of Ground Investigation Report (or specified part thereof) (Clause 16.9)

Not required.

1.21.9 Contents of Geotechnical Design Report (or specified part thereof) (Clause 16.9)

Not required.

1.21.10 Times for supply of electronic information (Clause 16.10.1)

Draft and Final AGS data will be submitted with the Draft and Final Reports respectively.

1.21.11 Electronic information transmission media (Clause 16.10.2)

Preliminary information may be submitted by email. The final laboratory report shall, in addition to this, be submitted in indexed pdf format on CD or DVD.

1.21.12 Report approval (Clause 16.11)

A draft copy of the laboratory report shall be submitted to the Investigation Supervisor for approval before submission of the final version.

Schedule 2: Exploratory holes – not required

Schedule 3: Investigation Supervisor's facilities – not required

Schedule 4: Specification amendments

The following clauses are amended			
Section number	Clause number	Delete the following	Substitute the following
2	2.3	Clause 2.3	<p>Ground practitioners include, but are not necessarily limited to, geotechnical engineers, geologists, engineering geologists, geoenvironmental engineers, environmental scientists, geochemists and geophysicists. They shall be competent to undertake the work required and the key element of this is having the relevant experience. Categories of personnel who may be required by the Contract are as follows</p> <ul style="list-style-type: none"> (a) Technician (b) Incorporated Engineer (c) Graduate Engineer/ Geologist/ Environmental Scientist (d) Graduate Engineer/ Geologist/ Environmental Scientist with at least 3 years of relevant experience since graduation or RoGEP Registered Ground Engineering Professional (e) Chartered Engineer/ Geologist/ Environmental Scientist with at least 5 years of relevant experience or RoGEP Registered Ground Engineering Specialist (f) Principal Chartered Engineer/ Geologist/ Environmental Specialist with at least 10 years of relevant experience or RoGEP Registered Ground Engineering Advisor <p>Other personnel include, but are not necessarily limited to, drilling supervisor, highway traffic safety officer, marine supervisor, ecologist, archaeologist and railway trained staff.</p>
3	3.7.2	Clause 3.7.2	<p>The positions of all known mains, services, drains, sewers, tunnels and pipelines owned by statutory undertakers, public authorities and private individuals are shown on the Drawing(s) detailed in Schedule S1.7. Such positions are based on information extracted from the records of the various bodies and shall be regarded as approximate only.</p> <p>Any additional information not shown on the Drawing(s) shall be detailed in Schedule S1.8.5.</p> <p>Reference shall also be made to Clauses 3.8.3 and 6.1.</p> <p>Should any service be found to exist which is not indicated, or not as indicated in the Contract, the Contractor shall at once give written notification to the Investigation Supervisor</p>

The following clauses are amended			
Section number	Clause number	Delete the following	Substitute the following
3	3.9	3.9	<p>Prior to the commencement of each investigation, the Investigation Supervisor shall supply to the Contractor the names and addresses of relevant owners and occupiers. The Contractor shall notify the Investigation Supervisor in writing 10 days in advance of his intention to start work within each area of ownership or occupation. This is to allow sufficient time for the Environment Agency to serve notice on land to be accessed. The Contractor shall keep records of the dates of his entry onto and departure from all property and land of each owner and occupier, together with the dates of the erection and removal of all enclosures, and shall furnish copies of these records when required by the Investigation Supervisor. He shall keep, and furnish, copies of similar records in respect of roads, footpaths and thoroughfares. Copies of formal entry notices or written agreements will be made available to the Contractor. If specified the Contractor shall also notify relevant owners and occupiers (including the Highway Authority) in writing, sending a copy to the Investigation Supervisor, 7 days in advance of his intention to start work within each area.</p>
3	3.17	3.17	<p>Details of all claims or warnings of intended claims which the Contractor may receive in respect of matters against which he is required by the Contract to indemnify the Employer shall be notified without delay to the Investigation Supervisor, who shall likewise pass to the Contractor any such claims or warnings which may be submitted directly to the Investigation Supervisor.</p> <p>A similar exchange of information shall also be made in relation to all complaints which may be received.</p> <p>The Contractor shall notify the Investigation Supervisor in writing immediately following any damage or injury arising out of the execution of the Investigation.</p>
16	16.1	In this sub-clause in line 6 delete "seven working days	insert "two working days".

Schedule 5: Specification additions

The following clauses are added to the Specification		
Section number	Clause number	Clause wording
2	2.24	"Approved" means approved in writing by the Investigation Supervisor
2	2.25	"Agreed" means agreed in writing by the Investigation Supervisor
2	2.26	"Selected" means selected by the Investigation Supervisor
2	2.27	Allow - Wherever the word "allow" occurs the cost of the items involved is at the risk of the Contractor unless otherwise indicated.
12	12.3 & 12.9	<p>Testing of water samples</p> <p>Where testing for Biochemical Oxygen Demand (BOD), tests should be undertaken within 6hours of the sample been taken</p> <p>Where testing for pH this should be carried out within 2hours of the sample been taken</p>
14	14.3	<p>Accreditation</p> <p>All tests shall be carried out in laboratories that are UKAS and MCERTS accredited to undertake geotechnical and chemical testing.</p>

BILL OF QUANTITIES FOR GROUND INVESTIGATION

Preamble to the Bill of Quantities for Ground Investigation

Preamble

The Preamble to the Bill of Quantities for Ground Investigation is the Preamble contained in the UK Specification for Ground Investigation Second Edition published by ICE Publishing in 2011.

Preamble amendments and additions

The following clauses are amended or added to the Preamble.

- **All rates are to be net exclusive of any Value Added Tax.**
- **Point 4 & 21 shall include:**
 - (a) Both hourly and daily rates shall be entered into Appendix A of the Bill of Quantities. The daily rate shall apply where 9.5hrs Site work is carried out in any one day (standard hours 8am to 6pm excluding 0.5hrs for lunch). The hourly rate shall apply where a full 9.5hrs is not worked in a single day and shall apply only to the time spent on Site.
 - (b) The hourly and daily rates shall be deemed inclusive of all subsistence expenses incurred whilst on site except that overnight expenses shall be paid in accordance with Appendix A.
 - (c) The rates for mobilisation (to include demobilisation) of supervisory staff shall be entered into Appendix A. The rates shall be deemed to be inclusive of travel time to and from site, all travelling expenses and any other expenses incurred in conjunction with visiting the site.
 - (d) For investigations where the daily rate applies and overnight stays are necessary and where the Contractors Site staff return home for the weekend the mobilisation rate shall apply for each working week. For investigations where the daily rate applies and the Contractors Site staff returns home at the end of each working day, the lesser of the mobilisation rate or overnight stay rate shall apply.
 - (e) The rates shall be deemed to be inclusive of the provision of the daily report sheet. The report sheets shall detail the various site activities to the nearest 30 minutes.
 - (f) Payment for supervision will not be made during periods of plant breakdown or other down-time except where the Contractors Site staff is undertaking site duties relating to technical issues.
- **Point 10 as the Specification plus:**
 - (f) Disposal off site of excavated material and fluids produced during borehole drilling, testing and development not required for reuse that does not require to go to a licensed landfill site.

Bill of Quantities

The following pages constitute the Bill of Quantities.

Item No.	Description	Unit	Quantity	Rate
Sample storage				
A28	Long-term storage of geotechnical samples	sample per week	50	
A29	Long-term storage of geoenvironmental samples (See Appendix B)	sample per week	rate only	
	Collection of geotechnical samples from site (weekly)	nr	25	
	collection of geoenvironmental samples (twice weekly)	nr	40	
	Provision of geotechnical and geoenvironmental sampling equipment (delivered to site)	nr	450	
K	Geotechnical laboratory testing			
K1	Classification			
K1.1	Moisture content	nr	40	
K1.2	Liquid limit, plastic limit and plasticity index	nr	30	
K1.3	Volumetric shrinkage	nr	0	
K1.4	Linear shrinkage	nr	0	
K1.5	Density by linear measurement	nr	0	
K1.6	Density by immersion in water or water displacement	nr	0	
K1.7	Dry density and saturation moisture content for chalk	Nr	0	
K1.8	Particle density by gas jar or pycnometer	nr	20	
K1.9	Particle size distribution by wet sieving	nr	0	
K1.10	Particle size distribution by dry sieving	nr	120	
K1.11	Sedimentation by pipette	nr	20	
K1.12	Sedimentation by hydrometer	nr	0	
K1.13	Split and described U100		0	
K2	Chemical and electrochemical			
K2.1	Organic matter content	nr	17	
K2.1a	Fraction organic matter	nr	17	
K2.2	Mass loss on ignition	nr	15	
K2.3	Sulphate content of acid extract from soil	nr	0	
K2.4	Sulphate content of water extract from soil	nr	0	
K2.5	Sulphate content of groundwater	nr	0	
K2.6	Carbonate content by rapid titration	nr	0	
K2.7	Carbonate content by gravimetric method	nr	0	
K2.8	Water soluble chloride content	nr	0	
K2.9	Acid soluble chloride content	nr	0	
K2.10	Total sulphur content	nr	0	
K2.11	Total dissolved solids	nr	0	
K2.12	pH values	nr	0	
K2.13	Resistivity	nr	0	
K2.14	Redox potential	nr	0	
K2.15	Sulphide content	nr	0	
K3	Compaction related			
K3.1	Dry density/moisture content relationship using 2.5 kg rammer	nr	0	
K3.2	Dry density/moisture content relationship using 4.5 kg rammer	nr	70	
K3.3	Dry density/moisture content relationship using vibrating rammer	nr	0	
K3.4	Extra over Items K3.1, K3.2 and K3.3 for use of CBR mould	nr	0	
K3.5	Maximum and minimum dry density for granular soils	nr	0	
K3.6	Moisture Condition Value at natural moisture content	nr	0	
K3.7	Moisture Condition Value/moisture content relationship	nr	0	
K3.8	Chalk crushing value	nr	0	
K3.9	California Bearing Ratio on recompacted disturbed sample	nr	0	
K3.10	Extra over Item K3.9 for soaking	day	0	
K4	Compressibility, permeability, durability			
K4.1	One-dimensional consolidation properties, test period 5 days	nr	0	
K4.2	Extra over Item K4.1 for test period in excess of 5 days	day	0	
K4.3	Measurements of swelling pressure, test period 2 days	nr	0	
K4.4	Measurements of swelling, test period 2 days	nr	0	
K4.5	Measurement of settlement on saturation, test period 1 day	nr	0	

K4.6	Extra over Items K4.3 to K4.5 for test period in excess of 2 or 1 day (s)	day	0	
K4.7	Permeability by constant head method	nr	0	
K4.8	Dispersibility by pinhole method	nr	0	
K4.9	Dispersibility by crumb method	nr	0	
K4.10	Dispersibility by dispersion method	nr	0	
K4.11	Frost heave of soil	nr	0	
K5	<u>Consolidation and permeability in hydraulic cells</u>			
K5.1	Consolidation properties of a 76 mm diameter specimen using a hydraulic cell, test period 4 days	nr	0	
K5.2	As Item K5.1 but using 100 mm diameter specimen	nr	0	
K5.3	As Item K5.1 but using 150 mm diameter specimen	nr	0	
K5.4	As Item K5.1 but using 250 mm diameter specimen	nr	0	
K5.5	Extra over Items K5.1 - K5.4 for test period in excess of 4 days	day	0	
K5.6	Permeability of a 76 mm diameter specimen in hydraulic consolidation cell, test period 4 days	nr	0	
K5.7	As Item K5.6 but using 100 mm diameter specimen	nr	0	
K5.8	As Item K5.6 but using 150 mm diameter specimen	nr	0	
K5.9	As Item K5.6 but using 250 mm diameter specimen	nr	0	
K5.10	Extra over Items K5.6-K5.9 for test period in excess of 4 days	day	0	
K5.11	Isotropic consolidation properties in a triaxial cell, test period 4 days	nr	0	
K5.12	Extra over Item K5.11 for test periods in excess of 4 days	day	0	
K5.13	Permeability in a triaxial cell, test period 4 days	nr	0	
K5.14	Extra over Item K5.13 for test periods in excess of 4 days	day	0	
K6	<u>Shear strength (total stress)</u>			
K6.1	Shear strength by laboratory vane method (set of 3)	nr	0	
K6.2	Shear strength by hand vane (set of 3)	nr	0	
K6.3	Shear strength by hand penetrometer (set of 3)	nr	0	
K6.4	Shear strength of a set of three 60 mm x 60 mm square specimens by direct shear, test duration not exceeding 1 day per specimen	nr	0	
K6.5	Extra over Item K6.4 for test durations in excess of 1 day per specimen	sp.day	0	
K6.6	Shear strength of a single 300 mm x 300 mm square specimens by direct shear, test duration not exceeding 1 day	nr	30	
K6.7	Extra over Item K6.6 for test durations in excess of 1 day	day	0	
K6.8	Residual shear strength of a set of three 60 mm x 60 mm square specimens by direct shear, test duration not exceeding 4 days per specimen	nr	0	
K6.9	Extra over Item K6.8 for test durations in excess of 4 days per specimen	sp.day	0	
K6.10	Residual shear strength of a 300 mm square specimen by direct shear, test duration not exceeding 4 days	nr	0	
K6.11	Extra over Item K6.10 for test durations in excess of 4 days	day	0	
K6.12	Residual shear strength using the small ring shear apparatus at three normal pressures, test duration not exceeding 4 days	nr	0	
K6.13	Extra over Item K6.12 for test durations in excess of 4 days	day	0	
K6.14	Unconfined compressive strength of 38 mm diameter specimen	nr	0	
K6.15	Undrained shear strength of a set of three 38 mm diameter specimens in triaxial compression without the measurement of pore pressure	nr	0	
K6.16	Undrained shear strength of a single 100 mm diameter specimen in triaxial compression without the measurement of pore pressure	nr	0	
K6.17	Undrained shear strength of a single 100 mm diameter specimen in triaxial compression with multistage loading and without measurement of pore pressure	nr	0	
K7	<u>Shear strength (effective stress)</u>			
K7.1	Consolidated undrained triaxial compression test with measurement of pore pressure (set of three 38 mm specimens), test duration not exceeding 4 days per specimen	nr	0	
K7.2	As K7.1 but single-stage or multi-stage test using 100 mm diameter specimen	nr	0	
K7.3	Consolidated drained triaxial compression test with measurement of volume change (set of three 38 mm specimens), test duration not exceeding 4 days per specimen	nr	0	
K7.4	As Item K7.3 but single-stage or multi-stage test using 100 mm diameter specimen, test duration not exceeding 4 days	nr	0	

K7.5	Extra over Items K7.1 and K7.3 for test duration in excess of 4 days per specimen	sp.day	0
K7.6	Extra over Items K7.2 and K7.4 for test duration in excess of 4 days	day	0
K7.7	Measurement of initial effective stress on 100mm diameter specimen in triaxial cell and reporting	nr	0
K7.8	Determination of soil suction by the filter paper method	nr	0
K8	<u>Rock testing</u>		
K8.1	Natural water content of rock sample	nr	0
K8.2	Porosity/density using saturation and calliper techniques	nr	0
K8.3	Porosity/density using saturation and buoyancy	nr	0
K8.4	Slake durability test	nr	0
K8.5	Soundness by magnesium sulphate	nr	0
K8.6	Magnesium sulphate test	nr	0
K8.7	Shore scleroscope	nr	0
K8.8	Schmidt rebound hardness	nr	0
K8.9	Resistance to fragmentation	nr	20
K8.10	Aggregate abrasion value	nr	0
K8.11	Polished stone value	nr	0
K8.12	Aggregate frost heave	nr	0
K8.13	Resistance to freezing and thawing	nr	0
K8.14	Uniaxial compressive strength	nr	0
K8.15	Deformability in uniaxial compression	nr	0
K8.16	Indirect tensile strength by Brazilian test	nr	0
K8.17	Undrained triaxial compression without measurements of porewater pressure	nr	0
K8.18	Undrained triaxial compression with measurement of porewater pressure	nr	0
K8.19	Direct shear strength of a single specimen	nr	0
K8.20	Swelling pressure test	nr	0
K8.21	Measurement of point load strength index of rock specimen (set of ten individual determinations)	nr	0
K8.22	Single measurement of point load strength on irregular rock lump or core sample (either axial or diametral test)	nr	0
	<u>Ground/groundwater aggressivity</u>		
K9.1	Suite A (Greenfield site – pyrite absent Schedule 1.19.6)	nr	0
K9.2	Suite B (Greenfield site – pyrite present Schedule 1.19.6)	nr	0
K9.3	Suite C (Brownfield site – pyrite absent Schedule 1.19.6)	nr	0
K9.4	Suite D (Brownfield site – pyrite present Schedule 1.19.6)	nr	80
Total for K - Geotechnical laboratory testing			
L	<u>Geoenvironmental laboratory testing</u>		
	<u>Contamination testing</u>		
	<u>Soil samples</u>		
L1.1	Suite E (Soil samples Schedule S1.20.3) as modified in Schedule 1 of the Specification including TPH CWG, Phenol (monohydric) and asbestos quantification where asbestos is identified	nr	250
L1.1.1	Asbestos quantification (0.001%)	nr	25
L1.1.2	Cyanide – free	nr	270
L1.1.3	Cyanide - complex	nr	270
L1.1.4	Thiocyanate	nr	270
L1.1.5	Semi –volatile organics	nr	60
L1.1.6	Volatile organic compounds(VOC) by GCMS	nr	60
L1.1.7	Polychlorinated Biphenyls	nr	35
L1.1.8	Bacteriological suite: coliforms (total), coliforms (faecal), streptococci (total), streptococci (faecal), clostridia	nr	0
L1.1.9	Polyaromatic hydrocarbons	nr	0
L1.1.10	Toluene extractable matter	nr	0
L1.1.11	Sulphide	nr	0
L1.1.12	Sulphur - free	nr	0
L1.1.13	Antimony	nr	190
L1.1.14	Barium	nr	190
L1.1.15	Beryllium	nr	190

L1.1.16	Vanadium	nr	190
L1.1.16.1	Molybdenum	nr	190
L1.1.16.2	Chromium VI	nr	150
L1.1.17	Cyclohexane extractable matter	nr	0
L1.1.18	DCM-methanol extractable matter	nr	0
L1.1.19	Mineral oils	nr	0
L1.1.20	Leaching Test –preparation	nr	0
Water samples			
L1.2	Suite F (Water samples Schedule S1.20.3) including TPH CWG and Phenol (monohydric)	nr	0
L1.2.1	Cyanide - complex	nr	0
L1.2.2	Cyanide - free	nr	0
L1.2.3	Thiocyanate	nr	0
L1.2.4	Polychlorinated Biphenyls	nr	0
L1.2.5	Volatile organic compounds(VOC) by GCMS	nr	0
L1.2.6	Semi-volatile organic compounds	nr	0
L1.2.7	Bacteriological suite: coliforms (total), coliforms (faecal) streptococci (total), streptococci (faecal), clostridia	nr	0
L1.2.8	Chemical oxygen demand	nr	0
L1.2.9	Biochemical oxygen demand	nr	0
L1.2.10	Total organic carbon	nr	0
L1.2.11	Volatile fatty acids	nr	0
L1.2.12	Antimony	nr	0
L1.2.13	Barium (leachate)	nr	150
L1.2.14	Beryllium(leachate)	nr	150
L1.2.15	Vanadium chloride(leachate)	nr	150
L1.2.16	Chloride	nr	0
L1.2.17	Ammoniacal nitrogen (on leachate)	nr	150
L1.2.18	Nitrate - nitrogen(leachate)	nr	0
L1.2.19	Iron	nr	150
L1.2.20	Manganese(leachate)	nr	150
L1.2.21	Calcium	nr	0
L1.2.22	Sodium	nr	0
L1.2.23	Magnesium	nr	0
L1.2.24	Potassium	nr	0
L1.2.25	Phosphate	nr	0
L1.2.26	Total Alkalinity	nr	0
L1.2.27	Total Dissolved Solids	nr	0
Gas samples			
L1.3	Suite G (Gas samples Schedule S1.20.3)	nr	0
L1.3.1	As L1.3 but including Volatile organic compounds(VOC) by GCMS, Volatile organic compounds by GC-FID, Trace gases and light hydrocarbons	nr	0
L1.3.2	Hydrogen sulphide, Propane, Ethane	nr	0
L1.3.3	Volatile organic compounds(VOC) by GCMS	nr	0
L1.3.4	Volatile organic compounds by GC-FID	nr	0
L1.3.5	Trace gases and light hydrocarbons	nr	0
Waste acceptance criteria testing			
L2.1	Suite H (Inert waste landfill Schedule S1.20.5)	nr	0
L2.2	Suite I (Stable, non-reactive hazardous waste in non-hazardous waste landfill Schedule S1.20.5)	nr	0
L2.3	Suite J (Hazardous waste landfill Schedule S1.20.5)	nr	0
L2.4	Leachate Suite (Metals+pH)	nr	150
L2.5	Leachate Preparation in accordance with EN12457 Part 2	nr	150
M	Slag testing		
M1.1	Petrology Expansion and associated tests	nr	40
M1.2	blast furnace slag	nr	rate only
M1.3	basic steel slag	nr	rate only
M1.4	mixed slag	nr	25
M1.5	interpretation.	nr	1
Total for L - Geoenvironmental laboratory testing			

Tenderer's Data –

Declaration of Collusive Tendering

The essence of tendering is that the Employer shall receive bona fide competitive tenders from those tendering. In recognition of this principle, we certify that this is a bona fide tender, intended to be competitive, and that we have not fixed or adjusted the amount of our tender by, under or in accordance with any agreement or arrangement with any other person. We also certify that we have not done and we undertake that we will not for the period this tender is open for acceptance do any of the following acts:

1. Communicate to a person other than the person calling for the tenders the amount or approximate amount of the proposed tender, except where the disclosure, in confidence, of the approximate amount of the tender was necessary to obtain insurance premium quotations required for the preparation of the tender;
2. Enter into any agreement or arrangement with any other person that he shall refrain from tendering or as to the amount of any tender to be submitted;
3. Pay a bribe in connection with the tender.

In this declaration, the word "person" includes any person or body and "any agreement or arrangement" includes any transaction, formal or informal, and whether legally binding or not.

Signature.....

Date.....

Position.....

On behalf of.....

Certificate Relating to Insurances of Investigation: Contractor's All Risks

CONTRACTOR.....

REGISTERED OFFICE.....

CONTRACT TITLE.....

REFERENCE NO:..... TENDER:.....

PERIOD OF CONTRACT..... TO.....

DEFECTS CORRECTION PERIOD

CONTRACT VALUE

NAME OF INSURER.....

REGISTERED OFFICE.....

POLICY NO: RENEWAL/EXPIRY DATE.....

SUM INSURED..... EXCESS.....

THIS IS TO CERTIFY THAT the Contractor is indemnified by the above numbered policy in respect of all loss and/or damage to the Investigation defined in the contract referred to above including temporary works, and materials, and the Contractors Equipment to its full value plus 10% thereof, subject to the exclusions and limitations mentioned below.

In addition:

1. the policy CH2M Hill UK as joint-insured
2. cover includes materials in transit and off-site storage
3. cover includes the consequences of defective design, materials and workmanship
4. the sum insured is subject to automatic reinstatement and the policy provides for indexation in respect of inflation
5. the policy extends cover to loss or damage occurring during the Defects Correction Period

Amount of any Excess:
Specific exclusions or limitations (if any)

WE UNDERTAKE to inform you within 7 days should the above numbered policy be terminated or amended in respect of any matter referred to in this certificate.

Date:

.....201.....
.....

Authorised signatory for and on behalf of the Insurer/Insurance Broker

Company:

Address:

.....

NB Completion of this Certificate is a condition of the Employer entering into the Contract and it should be completed and returned to the Employer.

To: CH2M HILL UK

Certificate Relating to Insurance against Third Party Risks Public Liability

CONTRACTOR:

REGISTERED OFFICE:.....

CONTRACT TITLE:.....

REFERENCE: TENDER NO:.....

PERIOD OF CONTRACT:

DEFECTS CORRECTION PERIOD

CONTRACT VALUE:

NAME OF INSURER:.....

REGISTERED OFFICE:.....

POLICY NO:..... RENEWAL OR EXPIRY DATE:

SUM INSURED:..... EXCESS:

THIS IS TO CERTIFY THAT the Contractor is indemnified by the above numbered policy against liability at law for damages and claimants' and defendants' costs and expenses in respect of bodily injury to any person and loss of or damage to property, arising out of work under the Contract referred to above, subject to any exclusions or limitations mentioned below. The indemnity limit is..... any one occurrence, but without limit as to the number of claims in any one year.

In addition, the policy

1. indemnifies the Employer as Joint Insured
2. includes liability assumed by contract or agreement and an indemnity in respect of the activities of sub-contractors
3. includes liability in respect of fire, explosion, vibration and removal or weakening of support, defective design, plan or specification, products supplied, unlicensed vehicles and plant, property in the custody or control of the insured
4. extends cover to loss or damage occurring during the Defects Correction Period

Specific exclusions or limitations (if any)

Warranties:

Amount of Excess:

WE UNDERTAKE to inform you within 7 days should the above insurance be terminated or amended in respect of any matter referred to in this certificate.

Date:.....201.....

Authorised signatory for and on behalf of the Insurer/Insurance Broker

Company:

Address:

.....

NB Completion of this Certificate is a condition of the Employer entering into the Contract and it should be completed and returned to the Employer.

To: CH2M HILL

Certificate Relating to Insurance of Contractor's Employer's Liability

CONTRACTOR:

REGISTERED OFFICE:.....

CONTRACT TITLE:.....

REFERENCE: TENDER NO:.....

PERIOD OF CONTRACT..... TO:.....

DEFECTS CORRECTION PERIOD.....

CONTRACT VALUE:

NAME OF INSURER:.....

REGISTERED OFFICE:.....

POLICY NO:..... RENEWAL OR EXPIRY DATE:

SUM INSURED:..... EXCESS:

THIS IS TO CERTIFY THAT the Contractor is indemnified by the above numbered policy against liability at law for damages and claimants' and defendants' costs and expenses in respect of bodily (including fatal) injury or disease caused to any Employee under a contract of services or apprenticeship with the Contractor and arising out of work under the Contract referred to above, subject to any exclusions or limitations mentioned below.

In addition, the policy

1. indemnifies CH2M Hill UK as Principal
2. covers liability assumed under contract or agreement
3. amount is £5,000,000 (each occurrence)
4. the term 'Employee' includes any labour master or person supplied by him, any person supplied by a labour only sub-contractor, any self-employed person engaged in connection with the contract, any person deemed to be an employee in the terms of any contract or agreement and any trainee
5. extends cover to any injury or disease occurring during the maintenance period

Amount of any Excess:

Specific exclusions or limitations (if any)

WE UNDERTAKE to inform you within 7 days should the insurance be terminated or amended in respect of any matter referred to in this certificate.

Date:.....201.....

Authorised signatory for and on behalf of the Insurer/Insurance Broker

Company:

Address:

.....

NB Completion of this Certificate is a condition of the Employer entering into the Contract and it should be completed and returned to the Employer.

Declaration of Site Visit – not used

List of Personnel

The Tenderer shall list below details of personnel the Tenderer proposes to employ in carrying out the Investigation as required by the specification. Names of personnel and their function either on or off site shall be described, together with details of their relevant qualifications and experience.

Name of Personnel	Details

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

List of Laboratories

The Tenderer shall list below the name and address and details of each laboratory, including any owned by the Tenderer, which the Tenderer proposes to use for any of the laboratory testing. Where laboratories are not accredited for any test, the details of quality assurance shall demonstrate that standards equivalent to accreditation requirements will be met. The Tenderer's attention is drawn to Clauses 3 and 4 of the Conditions of Contract.

Name and address of laboratory	Equipment available	No of laboratory staff	Tests to be performed	Accreditation status for each test

Signed

Date

.....

.....

Name

Position

.....

.....

Tenderer

.....

Health and Safety Questionnaire

(To be completed by all Tenderers at time of Tendering)

[This information is for tender evaluation purposes and will not form part of the Contract]

PART A - GENERAL

1. Please give the date of issue or date of latest amendment to your Company’s Health & Safety Manual
2. Please submit a copy of your Company’s Health & Safety Manual.
3. Who has overall responsibility for Health and Safety in your Company?

Name:

Qualifications:

Position:

Reporting to:

4. Who will be nominated to provide specific Health and Safety advice for this Contract?

Name:

Qualifications:

Position:

Reporting to:

5. How frequently do you audit your Health & Safety performance?
6. How many injuries, diseases and dangerous occurrences have you reported to the HSE in the last three years?

Year	Incident rate*
<ul style="list-style-type: none"> • Expressed as incidents per 100,000 employees 	

7. What procedures will you follow for selecting and controlling sub-contractors with respect to Health & Safety?

Appendix A Parent Company Guarantee

Form Of Parent Company / Group Guarantee

THIS AGREEMENT is made on

BETWEEN (GUARANTOR).....

(Address)

.....

(the Guarantor) of the one part and

South Tees Site Company

(Address).....

.....

(the *Employer*) of the other part

WHEREAS

1. This Agreement is supplemental to a Task (the Contract)

dated

made between (*Supplier*).....

(Address)

.....

.....

(the *Supplier*) of the one part and the *Employer* of the other part whereby the *Supplier* agreed and undertook to (nature of works).

.....

for the sum of

or other such sum as may be payable under the Contract.

- 2. The Guarantor has agreed to guarantee the due performance of the Contract.

NOW THE GUARANTOR HEREBY AGREES with the *Employer* as follows:

- 1. If the *Supplier* (unless relieved from the performance by any clause of the Contract or by statute or by the decision of a tribunal of competent jurisdiction) shall in any respect fail to execute the Contract or commit any breach of their obligations under it then the Guarantor will indemnify the *Employer* and his successors against all losses damages costs and expenses which may be incurred by him by reason of any default on the part of the *Supplier* in performing and observing the agreements and provisions on their part contained in the Contract
- 2. If any question or dispute shall arise as to the amount of any such losses damages costs and expenses the amount shall be determined by the *Adjudicator* whose decision shall be final. The fees of the *Adjudicator* (who shall be deemed to be acting as an expert and not as an arbitrator) shall be borne by the Guarantor.
- 3. The Guarantor shall not be discharged or released from this guarantee by any arrangement made between the *Supplier* and the *Employer* without the assent of the Guarantor or by any alteration in the obligations undertaken by the *Supplier* or by any forbearance whether as to payment time performance or otherwise

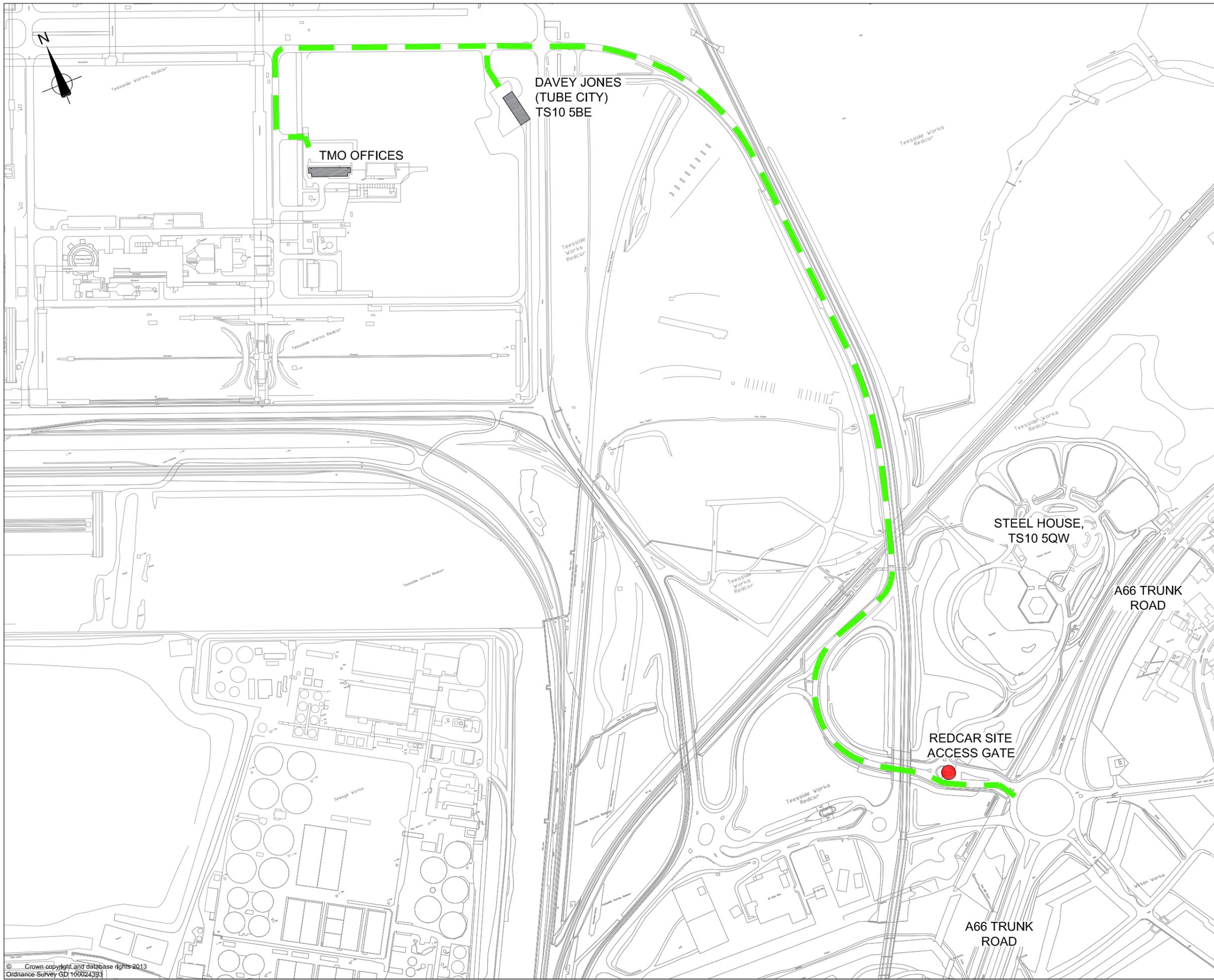
SIGNED on behalf of the Guarantor Date

(Company Secretary or Director)

WITNESSED by Date

Appendix B Figures and Drawings

- Figure 1 Location Plan and Sample Collection
- Figure 2 STSCL Teesside Visitor Induction



NOTES

Rev	By	Chkd	Appvd	Date	Description

Client

Homes & Communities Agency

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

Project
 FORMER SSI STEELWORKS
 REDCAR

Drawing
 Figure 1 -
 Location Plan
 and Sample Collection

Drawn by: LC Date: 27-03-2017
 Checked by: IDK Date: 27-03-2017
 Approved by: IDK Date: 27-03-2017

Drawing No. 678079_600_002
 Revision -

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



TEESSIDE VISITOR

Visitor Request Form

The Teesside Site is committed to maintaining the highest possible safety standards for all those who work on or visit the site. In order to achieve this all visitors to site, occasional, regular, are required to undergo site safety induction.

Visitors to Site:

For those STSC or contractor visitors who come onto site must complete the below request form this must be sent to the following email address facilitieshelpdesk@ssi-steel.co.uk or presented at Redcar Gate who will conduct the visitor site induction.

Host Requirement's:

The host of the visitor must ensure they are available to meet at an agreed area, building or escort the visitor from Redcar Gate to EDC to complete site permit if necessary and be issued a disk number.

If the Host is unavailable or not contactable security will escort the visitor to EDC and remain with the visitor until the host can be contacted. Security will escort the visitor off the site if the host or a deputy cannot be located.

VISITOR INFORMATION			
Visitor Name:		Contact Tel No.	
Company:		Alternative Tel No	
Company Address:			
Building/Plant Visiting:			

STSC/CONTRACTOR VISITOR'S HOST INFORMATION			
STSC/Contractor Host Employee's Name:		Alternative Tel No	
Host Company Name		SAP/ID NO	

Vehicle Registration:			
Make:	Model:	Colour:	

Date Of Visit:		Duration Of Visit:	
----------------	--	--------------------	--

Authorised by:			
Print Name:		Signed:	
Contact Tel No:		Date:	

The host have full responsibility for the ongoing safety of their visitors and must ensure that the person nominated on the form complies with all site safety and security requirements throughout the visit.

Approval of this document does not grant automatic right of entry to the site. STSC who operates site security retains the right to refuse entry and withdraw this authority without notice.

Appendix C Asbestos Risk Assessment

Site Investigation Asbestos Risk Assessment

for the protection of *Site Investigation* and *Geotechnical Laboratory* personnel

AGS Interim Guidance February 2013

Page 19 of 23

6.2 AGS SIARA FORM A (Site Usage)

Ref:487543		Site:Welwick to Skeffling MR		Date: Aug '15 Completed by: AC .	
	Period	SITE USAGE	Assessed Risk		
1	1950 - Present	Sinter plant, stocking grounds, conveyors, substations	Medium		
2	Pre-1950	Estuary reclaimed	Medium		
3	1950 Onwards	Reclamation done with slag and other steelworks arisings, refractory bricks etc.	Medium		
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

Examples:

Low Risk: Greenfield sites.
 Moderate Risk: Sites developed, altered or refurbished in 1930s-1980s. Landfills. Made Ground (Fill). Allotments.
 High Risk: All buildings and refurbishments 1960s-1970s. Asbestos product works..

Site Investigation Asbestos Risk Assessment

for the protection of *Site Investigation* and *Geotechnical Laboratory* personnel

AGS Interim Guidance February 2013

Page 20 of 23

6.3 AGS SIARA FORM B (Site Features)

Ref:487543	Site:Welwick to Skeffling MR	Date: Aug '15	Completed by: AC
Site Feature (Reference on Plan)	Description	Assessed Risk	
A	Made ground - Slag / other steel works waste fill. uncontrolled	Medium	
B			
C			
D			
E			
F			
G			
H			
I			
J			
K			
L			
M			
N			
O			
P			
Q			

Examples:

Low Risk: Undisturbed Hard Cover.

Moderate Risk:: Crushed Recycled Aggregate. Building and Demolition waste. Backfilled basements. Bare soil with potential to generate dust in dry condition..

High Risk: Visible asbestos

Dust. (especially demolition and where nearby asbestos working/storage)

