

RISK ASSESSMENT AND METHOD STATEMENT (RAMS)



PROJECT DETAILS			
Principal Contractor:	CLIENT	Contractor:	TBC
Site address:	Castlefield Green, Slate Wharf, Castlefield,	Works detail:	Window Samples (WSs)
Works areas:	Whole site	Duration:	1 day

DOCUMENT CONTROL						
Ref	Page/Section	Undertaken by	Signature	Accepted by	Signature	Date
001	All	Angharad Jones		Andrew Edwards		27/05/21

WORKER ACCEPTANCE							
Name	Position	Signature	Date	Name	Position	Signature	Date

TABLE OF CONTENTS

TABLE OF CONTENTS	2
1 DESCRIPTION/SCOPE OF WORK	4
1.1 GENERAL	4
1.2 CLIENT	4
1.3 PROGRAMME	4
1.4 LOCATION	5
2 RESOURCES	5
2.1 PERSONNEL	5
2.2 SUPERVISION	6
2.3 PLANT AND EQUIPMENT	6
2.4 MATERIALS	6
3 SITE WIDE ARRANGEMENTS	6
3.1 ACCIDENT AND INCIDENT REPORTING	6
3.2 HOSPITAL	7
3.3 FIRE AND EMERGENCY	7
3.4 FIRST AID	8
3.5 WELFARE	8
4 SIGNIFICANT HAZARDS	8
5 RISK CONTROL MEASURES	9
5.1 ACCESS AND EGRESS	9
5.2 ACCESS TO WORK AREAS	9
5.3 DELIVERIES	9
5.4 STORAGE	9
5.5 USE OF ACCESS EQUIPMENT	9
5.6 USE OF ACCESS AND LIFTING EQUIPMENT	9
5.7 USE OF WORK EQUIPMENT	10
5.8 ASBESTOS CONTAINING MATERIAL (ACM)	10
5.9 BIOLOGICAL HAZARDS	10
5.10 EXCAVATIONS AND LOGGING	10
5.11 GENERATION OF NOISE	10
5.12 BACK FILLING AND REINSTATEMENT	10
5.13 MANUAL HANDLING	10
5.13.1 GOOD MANUAL HANDLING TECHNIQUE	10
5.13.2 TEAM LIFTING TECHNIQUE	11
6 PERSONAL PROTECTIVE EQUIPMENT (PPE)	11
7 SEQUENCE AND METHOD OF WORK	11
7.1 INTRODUCTION	11
7.2 INSTALLATION WORKS	12
7.3 COMPLETION WORKS	12
8 DISTRIBUTION/FAMILIARISATION	12
9 MONITORING AND COMPLIANCE	12
10 RISK ASSESSMENTS	13
ASBESTOS CONTAINING MATERIALS	13
BIOLOGICAL HAZARDS	15
FLAMMABLE ATMOSPHERE	16
HAZARDOUS SUBSTANCES	18
HAZARDOUS ATMOSPHERES	19
ELECTRICAL HAZARDS	20

OVERCROWDING	21
WEATHER.....	22
NOISE	23
LIGHTING	24
WORKING NEAR WATER	25
UNDERGROUND SERVICES.....	26
ERGONOMICS	27
MANUAL HANDLING	28
WORK EQUIPMENT (WE)	29
STORAGE/STACKING	30
WORKING AT HEIGHT	32
OVERHEAD OBSTRUCTIONS.....	33
FALLING OBJECTS.....	34
SLIPPING/TRIPPING.....	35
OPTICAL (EYE) HAZARDS	36
LIFTING OPERATIONS/LIFTING EQUIPMENT (LE)	37
ACCESS/EGRESS	38
SHARP OBJECTS/SURFACES.....	39
WELFARE.....	40
LONE WORKING	41
LOADING/UNLOADING VEHICLES	42
MANOEUVRING VEHICLES	43
VEHICLES.....	44
PUBLIC INTERFACE	46
APPENDIX EXPLANATORY NOTES.....	47

1 DESCRIPTION/SCOPE OF WORK

1.1 GENERAL



The purpose of this Method Statement is to detail how IGE Consulting proposes to safely carry out ground investigation works on behalf of the Client.

The Method Statement describes the procedures for the execution of the works taking into consideration any emergency procedures, verification and how the works will be undertaken.

The ground investigation works will briefly include the following:

- 1 day of Window sampling (approximately 5 No. holes) to c. 4m – 5m bgl in predetermined positions to investigate ground conditions, undertake in-situ testing and retrieve samples.

1.2 CLIENT



Client			
Northern Structural Services			
Contact:	Garry Harrison	Position:	
Mobile:	07715 661934	Tel:	01625 425243
Email:	garry@northernstructuralservices.co.uk		

1.3 PROGRAMME



Work will be carried out in accordance with a Programme of Works agreed with the Client.

IGE Consulting Ltd (hereafter referred to as IGE) will ensure total cooperation, communication and consultation with the Client Project Management Team throughout the works. For example, IGE will, where practicable, work to the timings and sequencing requirements of the Client. However, IGE appreciates that deviations are likely to be necessary to the timings and sequencing due to access issues, over-crowding and other areas out of IGE's control.

Project Duration:

Start Date:	TBC
End Date:	TBC

Daily Working:

From:	08:00	To:	17:00
--------------	-------	------------	-------

Weekend (or out of hours) working is only permissible on agreement with the Client.

RAMS:	1 Day WS Slate Wharf, Manchester
Ref No:	3548



2 RESOURCES

2.1 PERSONNEL

The window sample works will comprise a two-man drilling crew and a suitably qualified geotechnical engineer (IGE Consulting Ltd). Operatives/Geotechnical Engineers will be suitably trained and qualified in-line with their specific job requirements, including:

- CSCS.
- CITB SSSTS.
- Utility Avoidance and the Location of Buried Services in Construction ProQual Level 2.
- Emergency First Aid at Work.
- Asbestos Awareness Training.

IGE holds qualifications and training certificates for all Operatives/Geotechnical Engineers. Operatives/Geotechnical Engineers are required to carry and make available for inspection at all times relevant proof of competency.

RAMS:	1 Day WS Slate Wharf, Manchester
Ref No:	3548

2.2 SUPERVISION



The works will be supervised by James Harley (Graduate Geo-Environmental Engineer) and / or Angharad Jones (Senior Geo-Environmental Engineer).

2.3 PLANT AND EQUIPMENT



The window sample rig consists of a standard tracked, petrol powered Dando Terrier drilling rig with both window sample and dynamic probe rod attachments. The rig is transported to site in a van and tracked into position on site (self-propelled). The rig uses a petrol-powered chain driven winch which lifts and drops a hammer to drive successively smaller diameter sample tubes or dynamic probe rods into the ground (maximum diameter of hole will be approximately 100mm). The sample tubes or dynamic probe rods are subsequently levered out of the ground using a mechanical or hydraulic jack system.

Work Equipment (WE) will be inspected and maintained to ensure the safety of both the user and any others affected during its use.

All appropriate equipment certification will be up to date.

2.4 MATERIALS



Hazardous substances associated with the drilling activities are as follows:

- Petrol / Diesel - to fuel plant. Storage is in proprietary containers filled at highway pumps and transported to the work location.
- Ordinary Portland Cement (OPC) - to form cement grout to back-fill holes. Also used during the installation of instruments and the construction of headworks.
- Bentonite pellets/powder - to back-fill holes. Also used during the installation of instruments and the construction of headworks

Appropriate Materials Safety Data Sheets (MSDS) are available (Note: The lubricating oils and greases used to lubricate plant and tools are vegetable based and so are not considered hazardous).

Monitoring of ground gases during drilling is not proposed other than the use of a Photoionisation Detector (PID) if visual or olfactory evidence of contamination is observed. If the presence of potentially hazardous ground gases/odours/vapours is suspected during drilling, the works should cease immediately, engines should be switched off and site management immediately informed.

3 SITE WIDE ARRANGEMENTS

3.1 ACCIDENT AND INCIDENT REPORTING



IGE requires all Operatives/Geotechnical Engineers to report any accident or incident occurring during the works to:

- Andrew Edwards (Director with Responsibility for Health and Safety).

Arrangements will then be made to report such accident or incident to the Client. The Company defines Accidents and Incidents as follows:

- **Accident:** An event that results in injury or ill-health.

RAMS:	1 Day WS Slate Wharf, Manchester
Ref No:	3548

- **Incident:**
 - a. **Near-Miss:** An event that, while not causing harm, has the potential to cause injury or ill-health.
 - b. **Undesired Circumstances:** A set of conditions or circumstances that have the potential to cause injury or ill-health. For example, untrained people lifting heavy objects.

Failure to report an accident or incident will lead to disciplinary procedures in-line with the Company's disciplinary procedures.

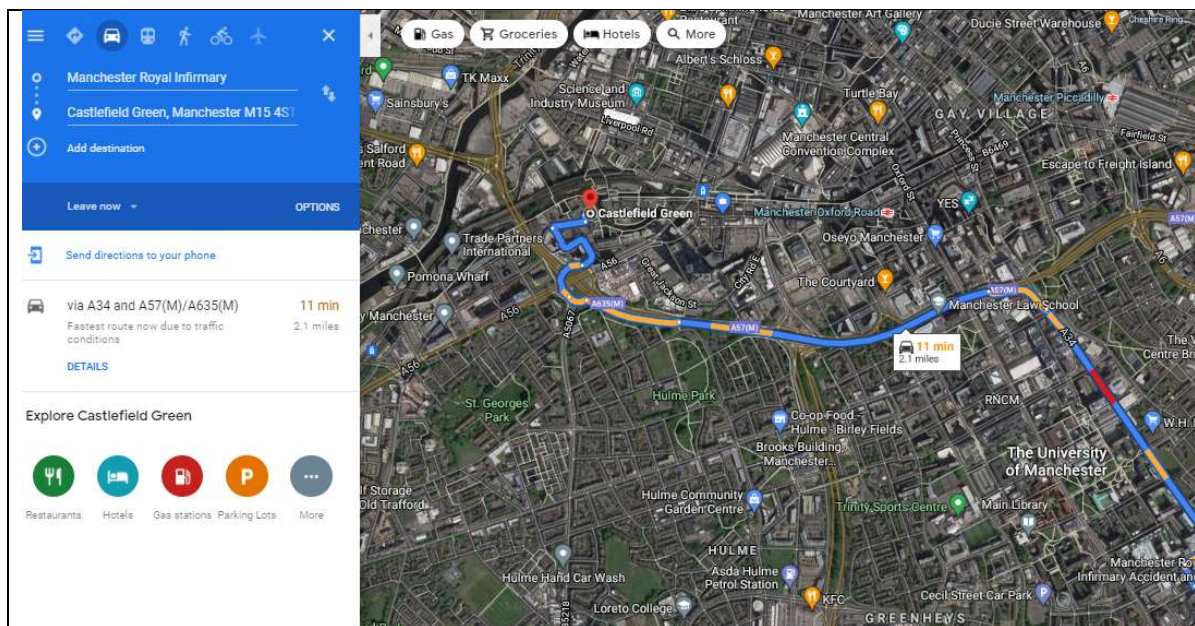
3.2 HOSPITAL

IGE

Site Operatives/Geotechnical Engineers are issued with mobile telephones. Emergency Services can be contacted via:

- 999.
- 112 (the common emergency telephone number that can be dialled free of charge from any fixed or mobile telephone in order to reach emergency services (ambulance, fire and rescue, police).

Hospital	
Manchester Royal Infirmary, Oxford Road, Manchester M13 9W	
Non-urgent Enquiries:	0161 276 1234



3.3 FIRE AND EMERGENCY

IGE

Fire and Emergency Arrangements will be communicated by IGE prior to works commencing. Where there are any changes to these arrangements they will be briefed to all site Operatives/Geotechnical Engineers during the daily pre-start briefing undertaken by James Harley (Graduate Geo-Environmental Engineer). IGE has nominated the following people as Fire Marshalls during the works:

Name	Position	Contact Number
James Harley	Graduate Geo-Environmental Engineer	07413558619

RAMS:	1 Day WS Slate Wharf, Manchester
Ref No:	3548

Angharad Jones	Senior Geo-Environmental Engineer	07877099966
----------------	-----------------------------------	-------------

In the event of an emergency evacuation of the area, people (including the general public) will be required to assemble in a safe area. All visitors and Operatives/Geo-Environmental Engineers visiting the site will be informed of the arrangements by the Site Supervisor during the Site Induction prior to works commencing.

Emergency plan to ensure that everyone reaches a place of safety as quickly and efficiently as possible:

Action to be taken on discovering a fire:	✓ Fight fire with suitable fire extinguisher (if safe to do so). ✓ Raise the alarm by operating the nearest manual call point.
Action to be taken on hearing the fire alarm:	✓ Evacuate the building by the nearest escape route.
Method of evacuation:	✓ By your nearest recognised final exit door.
Action to be taken on leaving the building:	✓ Assemble at the recognised emergency assembly point (location to be confirmed during site induction). ✓ Announce your arrival to the Fire Marshal.

3.4 FIRST AID



IGE has nominated the following as the lead for Emergency First-Aid during the works:

<i>Name</i>	<i>Position</i>	<i>Contact Number</i>
James Harley	Graduate Geo-Environmental Engineer	07413558619
Angharad Jones	Senior Geo-Environmental Engineer	07877099966

3.5 WELFARE



All details regarding welfare facilities will be communicated by IGE during Site Induction.

The facilities provided will consist of:

Welfare Arrangements			
	Toilets		Washing facilities inc. hot water and sink

The unit also contains:

	First aid equipment.		Fire extinguishers and fire blanket.
	Mandatory HSE Notices		

4 SIGNIFICANT HAZARDS

IGE has undertaken Risk Assessments based on the Significant Hazards associated with the work as well as any other hazard related information available at the time.

<i>RAMS:</i>	<i>1 Day WS Slate Wharf, Manchester</i>
<i>Ref No:</i>	<i>3548</i>

The Risk Assessment has been undertaken by a process of site inspections and analysis and assessment of relevant documentation associated with the project. The results of the Risk Assessment process are given in the Risk Assessment towards the end of this document.

Note: Risk Assessments are contained in Section 10 Risk Assessments.

5 RISK CONTROL MEASURES

5.1 ACCESS AND EGRESS



Where necessary exploratory hole locations and access routes will be agreed with the Client and/or landowner prior to commencing site works.

Engineer to check all services against supplied drawings (if available).

A Cable Avoidance Tool (C.A.T.) scan will be carried out before any excavation. All field staff have ProQual Level 2 training in CAT and Genny use and use this equipment regularly.

If there is reasonable suspicion of the existence of services, either a hand-dug trial hole will be carried out or a new location chosen. If a hand-dug trial hole is required this will be carried out using appropriate digging equipment (e.g. spade, spoons etc) to a maximum depth of 1.2m (approximately 0.3m wide x 0.3m long).

Drilling locations should be screened off by road cones, signage, barriers or Heras fencing as appropriate to site conditions, if the site is not closed to the public.

5.2 ACCESS TO WORK AREAS



Where needed, working areas to be appropriately isolated using herras fences to prevent unauthorised access.

Verbal warnings may also be given to others working nearby.

5.3 DELIVERIES



All deliveries will be arranged and coordinated by IGE.

5.4 STORAGE



Work equipment and materials will be stored within secure site vehicles.

Dedicated on-site storage areas will be established as necessary using lightweight plastic barriers.

Regular housekeeping will be carried out throughout the works.

5.5 USE OF ACCESS EQUIPMENT



Not needed.

5.6 USE OF ACCESS AND LIFTING EQUIPMENT



Not needed.

5.7 USE OF WORK EQUIPMENT



Use of work equipment will be carried out only by suitably qualified operatives. IGE Engineers will not carry out work with hazardous equipment.

5.8 ASBESTOS CONTAINING MATERIAL (ACM)



No ACMs are anticipated to be found at the site, however, if during works their presence is suspected, works will be stopped until health and safety procedures are appropriately revised.

5.9 BIOLOGICAL HAZARDS



Suitable and sufficient welfare facilities provided on-site. Operatives/Geo-Environmental Engineers to observe good personal hygiene standards during the works (e.g. wash hands with soap and water before eating, drinking, etc.).

5.10 EXCAVATIONS AND LOGGING



The soil recovered from exploratory holes will be logged by a suitably qualified geotechnical engineer. Clean working conditions will be undertaken and no spoil will be left at surface following completion of the holes.

Some of the window sample holes will be installed with ground gas monitoring wells to a flush finish.

5.11 GENERATION OF NOISE



Window Sample/ Dynamic Probe Rig

Typical noise output is 86db (Defra: Update of noise database for prediction of noise on construction and open sites, 2005), with peak levels (SPT tests etc) of 115dB. Appropriate ear defenders or plugs to be worn by crew and engineer.

5.12 BACK FILLING AND REINSTATEMENT



All holes will be backfilled with arisings, except those which are to be installed with monitoring wells, which will be installed with a standpipe and finished with a small cover at surface to a flush finish. No spoil will be left at surface.

5.13 MANUAL HANDLING



Tools and materials may be lifted during the course of the works.

5.13.1 GOOD MANUAL HANDLING TECHNIQUE

Manual handling tasks to be undertaken in-line with the following:

- a. Stop and think about sharing the load, floor surfaces, obstructions, etc.
- b. Position your feet either side of the load.
- c. Adopt a good posture – bend your knees and keep your back straight.
- d. Get a firm grip.

- e. Keep the load close to your body.
- f. Move your feet, don't twist your body.
- g. Put the load down the same way as you picked it up.

5.13.2 TEAM LIFTING TECHNIQUE

Team-lifting procedures to be undertaken in-line with the following:

- a. Take a balanced stance with your feet about shoulder-width apart (communicate that you are ready).
- b. Squat down and get as close as you can to the load.
- c. Use your palms and not just your fingers to get a secure grip on the load.
- d. On the count of 3 lift slowly and in unison (without jerking) using your legs while keeping the load as close as possible to you (continue communicating).
- e. Once you are standing "do not twist" when you change directions. Point your feet in the direction you want to go and then turn your whole body. Do not twist with the object while you are walking.
- f. Proceed with caution to intended destination.
- g. To lower the load use these same guidelines in reverse (communicate throughout).

6 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal Protective Equipment (PPE) is used as part of a strategy of risk control employed by IGE. IGE insists that appropriate Personal Protective Equipment (PPE) is worn by Operatives/Geotechnical Engineers during the works, as required under the *Personal Protective Equipment at Work Regulations 1992*, unless the risk has been controlled by other, more effective, methods.

Mandatory PPE Requirements			
	Head Protection (EN 397).		Safety Footwear (incorporating steel toe cap and mid sole protection (EN 345))
	Hand Protection (EN 374/388).		Hi-Vis Jacket or Vest) (EN 471))
Task-specific PPE Requirements			
	Disposable rubber gloves (EN 374/388). <i>Disposable rubber gloves should be worn when handling soils, groundwater and contaminated drilling/sampling equipment.</i>		Hearing Protection (EN352).
	Respiratory Protection (EN149: 2001 FFP3). <i>May be needed if respiratory hazards are suspected.</i>		
Other Requirements			
	Barrier cream.		First-Aid kits.

7 SEQUENCE AND METHOD OF WORK

7.1 INTRODUCTION

IGE

The works will be carried out by competent Operatives/Geo-Environmental Engineers in accordance with the safety requirements of this document and the quality requirements of IGE.

Operatives/Geotechnical Engineers will only commence the works after:

RAMS:	1 Day WS Slate Wharf, Manchester
Ref No:	3548

- Completing appropriate induction procedures.
- Liaison with any other persons affected by the works.
- An informal assessment of the risks relative to the work to be carried out.

7.2 INSTALLATION WORKS

IGE

Window sample holes will be installed in 1m lengths by dropping a hammer from a height to drive the sample tubes into the ground. The sample tubes are progressively smaller as depth increases. Standard penetration tests (SPTs) will also be undertaken using a similar technique to the dynamic probe holes. Some window sample holes will be installed with monitoring wells as described above.

7.3 COMPLETION WORKS

IGE

All holes will be backfilled or installed with wells as described above and spoil will be kept to a minimum. As clean working practices will be employed, site cleaning is not anticipated.

The site will be left in the condition it was found.

8 DISTRIBUTION/FAMILIARISATION

A copy of the RAMS will be issued to the following:

- Andrew Edwards (Director (IGE)).
- Garry Harrison (Northern Structural Services)
- Geo-Environmental Engineers.
- Other Operatives/Geo-Environmental Engineers

Changes or additions to the RAMS will result in the issue of the complete document as a new revision.

Operatives/Geotechnical Engineers will be briefed on the RAMS prior to the start of the works.

Having been briefed on the RAMS Operatives/Geotechnical Engineers will be required to sign a declaration (front page) stating that they have read and understood the requirements contained within.

9 MONITORING AND COMPLIANCE

Geotechnical Engineers are responsible for the day to day monitoring of the works, including:

Checking that Operatives/Geotechnical Engineers adhere to the requirements of these RAMS. Failure to comply with the requirements of these RAMS and any associated documentation will lead to disciplinary procedures being administered.

Regular safety tours of the works. This will be informal in its approach with notes made in a daily diary.

In addition to the safety tours undertaken by Geotechnical Engineers, the company's Health and Safety Advisors (MD Safety Management Ltd) may be employed carry out independent site audits. These will be arranged in-line with the requirements/agreements made with the Client.

RAMS:	1 Day WS Slate Wharf, Manchester
Ref No:	3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:						
	Completed by:	Angharad Jones	Assessment date:		27/05/2021	L = Likelihood (1/2/3/4/5)		RR = Risk Rank (5 x 5)				
	Signature:		Re-assessment due:		27/05/2021	S = Severity (1/2/3/4/5)		RL = Risk Level (H/M/L)				
Hazard		Associated Risk		Initial Risk Score		Control Measures			Residual Risk Score			
				L	S				RR	RL	L	S

10 RISK ASSESSMENTS

ASBESTOS CONTAINING MATERIALS There exists the potential for exposure to Asbestos and Asbestos Containing Materials (ACMs). Asbestos and/or Asbestos Containing Materials (ACMs) can be evident in many forms, such as: - Chrysotile (White). - Amosite (Brown). - Crocidolite (Blue). Asbestos and/or Asbestos Containing Materials (ACMs) can be encountered in: - Pipe lagging. - Roof insulation and cladding. - Ceiling panels and wall panelling. - Other construction materials. Possible exposure to Asbestos and/or Asbestos Containing Materials (ACMs) can occur when working on site where ACM is buried.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Exposure to Asbestos and/or Asbestos Containing Materials (ACMs) in the form of dust or fibres can result in: Asbestosis and other related lung diseases such as Mesothelioma. Contamination of surrounding area.	3	4	12	M	- Health and Safety Policy. - Employee Induction. - Awareness Training. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Induction training. - Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/ Method Statement. - Client will arrange for removal of the identified Asbestos Containing Materials (ACMs) in the external areas on site.	1	4	4	M

Personal Protective Equipment (PPE)

	Safety Helmet (to BS EN 397)		Type 5 Disposable Coveralls		Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)
	Respiratory Particulate Mask (to EN149; FFP3)						

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:						
	Completed by:	Angharad Jones	Assessment date:		27/05/2021	L = Likelihood (1/2/3/4/5)		RR = Risk Rank (5 x 5)				
	Signature:		Re-assessment due:		27/05/2021	S = Severity (1/2/3/4/5)		RL = Risk Level (H/M/L)				
Hazard	Associated Risk		Initial Risk Score				Control Measures		Residual Risk Score			
			L	S	RR	RL			L	S	RR	RL

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
BIOLOGICAL HAZARDS There may be contact with: - Stagnant water. - Sewage systems. - Rivers and other waterways. - Other biological wastes. This can cause exposure to Biological Hazards such as: - Viruses. - Bacteria. - Parasites. - Fungi. - Other micro-organisms. There may also be contact with contaminated blood contained in discarded hypodermic syringes that may be left in external areas on site. There could also be contact with: - Wasps. - Bees. - Horse flies. - Other aggressive stinging insects.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors - General Public. Exposure can result in a number of conditions which may include: - Tetanus (Lock Jaw). - Toxicara canus. - Tuberculosis - Leptospirosis (leading to liver/kidney failure, conjunctivitis, meningitis and severe headaches). Risk of fatality from this disease has a tendency to increase with age. - Thread worm. - Legionnaire's disease from exposure to Legionella bacteria. - Hepatitis (A, B, C), (e.g. from contact with contaminated blood from discarded hypodermic syringes, etc.). - HIV/AIDS. Contact with contaminated hypodermic syringes, etc. can lead to contracting Hepatitis (A, B, C) and HIV/AIDS.	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - CSCS Card. - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Cuts/broken skin are covered/protected using bandage, plasters, etc. from First-Aid Kit before entering hazardous area. - Hands are washed after handling any contaminated clothing or other materials and always before eating, drinking or smoking. - Contaminated clothing is bagged after use and cleaned separately. - High levels of personal hygiene.	3	4	12	M

Personal Protective Equipment (PPE)					
	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)
					Gloves (appropriate to task)

RAMS:	1 Day WS Slate Wharf, Manchester
Ref No:	3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
FLAMMABLE ATMOSPHERE During Geotechnical there may be exposed to Flammable Substances. This exposure may occur in and around naked flames, electrical equipment or other sources of ignition. Flammable Substances can include: - Natural Gas supply. - Aerosol spray markers. - Petrol and Diesel. - Solvent-based adhesives and thinners. - Propane and Butane Gases. - Other Flammable Substances. - Flammable Substances used or generated by other Contractors or Client on site. - Other Flammable Substances in areas where naked flames/ignition sources may be present.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors - General Public. Can result in: - Fire damage to premises, equipment, plant and workplace. - Severe thermal burns and smoke inhalation. - Noxious combustion product emissions to premises/workplace and atmosphere.	3	4	12	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Venting and Gas Monitoring. - Smoking is not allowed within 10m of sewer entrances. - Avoidance of ignition sources. - Correct storage of Flammable Substances in approved containers. - Non-essential Flammable Substances are stored away from immediate working area. - Non-flammable Substances are preferred where possible.	2	4	8	M

Personal Protective Equipment (PPE)

	Safety Helmet (to BS EN 397)		Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)	
---	------------------------------	---	--------------------------------------	---	------------------------------	--

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:						
	Completed by:	Angharad Jones	Assessment date:		27/05/2021	L = Likelihood (1/2/3/4/5)		RR = Risk Rank (5 x 5)				
	Signature:		Re-assessment due:		27/05/2021	S = Severity (1/2/3/4/5)		RL = Risk Level (H/M/L)				
Hazard	Associated Risk		Initial Risk Score				Control Measures		Residual Risk Score			
			L	S	RR	RL			L	S	RR	RL

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
HAZARDOUS SUBSTANCES There may be use of, or exposure to, Hazardous Substances, such as: - Diesel (for vehicles e.g. Land Rover). - Petrol (for use with generators, plant engines). - Sewage material. - Contamination on site – Chemicals, Petroleum-based, Heavy metals, etc. - Ordinary Portland Cement (OPC) - to form cement grout to back-fill borehole. Also used during the installation of instruments and the construction of headworks. - Bentonite pellets/powder - to back-fill borehole. Also used during the installation of instruments and the construction of headworks. - Dusts on site. - Other Hazardous Substances.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors - General Public. Can result in various outcomes depending on nature and degree of exposure such as: - Respiratory diseases (e.g.: Occupational Asthma, Lung Cancer, etc.). - Internal injury or damage causing internal chemical burns, poisoning or, if untreated, ultimately death. - Skin injury or damage causing chemical burns, irritation, corrosion, numbness, defatting or diseases (e.g.: Dermatitis, Skin Cancer, etc.) - Eye injury or damage causing irritation, cataracts, temporary or permanent loss of sight. - Other injuries or conditions. Specific details are given in the Materials Safety Data Sheets (MSDS).	3	4	12	M	- Health and Safety Policy. - Employee Induction. - In-house training. - CSCS Card. - Fuel storage is in proprietary containers filled at highway pumps and transported to the work location. - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Material Safety Data Sheets (MSDS). - COSHH Assessment for Sewage.	2	4	8	M

Personal Protective Equipment (PPE)					
	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)
	Respiratory Particulate Mask (to EN149; FFP2 or FFP3)		Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)		
					Gloves (appropriate to task)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
HAZARDOUS ATMOSPHERES Work on Client sites may result in exposure to Hazardous Atmospheres in working areas which have become contaminated from Substances including, but not limited to: - Methane (CH4) Gas. - Hydrogen Sulphide (H2S) Gas. - Carbon Monoxide (CO) and oxides of Nitrogen (NOx) from exhaust fumes. - Other organic gases. - Other inorganic gases. - Other contaminants from accidental discharges/spillages. As well as direct exposure to hazardous gases this may also result in Oxygen deficient atmospheres. Some gases may have no distinctive odour and may not be able to be detected without specialist devices. Some gases may be heavier than air and may be disturbed by physical movement causing them to become near the breathing zone.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. This can result in symptoms ranging from: - Fatigue. - Impaired vision. - Reduced coordination. - Headaches. - Dizziness. - Confusion. - Nausea. - Asphyxiation. Very high gaseous concentrations may be fatal. Inhalation of vapours and dusts can lead to chronic respiratory problems.	3	3	9	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/ Method Statement. - Gas Monitoring.	2	3	6	M

Personal Protective Equipment (PPE)					
	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)
	Respiratory Particulate Mask (to EN149; FFP3)		Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)		
					Gloves (appropriate to task)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
ELECTRICAL HAZARDS Site operations may result in damage to IGE Consulting Ltd or Client electrical equipment. This can result from conditions including, but not limited to: - Loose wiring on plugs. - Over-flexing of leads causing damage to sheath/conductor. - Cables sited across access areas, underfoot, etc. - Overloaded sockets. - Use of electrical extension reels for portable equipment. - Use of incompatible electrical tools and equipment. - Inconsiderate and heavy-handed use of equipment. - Incorrect storage. - Impact with sockets/electrical items (e.g. dropped tools etc.). - Vehicular collision with supply. - Use of electrical equipment in dusty and humid environments. - Repeated use of switches on portable equipment. - Poor maintenance schedules. - Contamination with dusts, concrete and other products, etc.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Contact with live electrical circuits can result in: - Fatality. - Electric shock and electrical burns. - Failure of equipment/supply. - Shorting out of cable leading to electrical fire. - Serious damage to tools and equipment.	3	3	9	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Equipment calibration Summary Chart. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Equipment is carefully lowered into chambers to avoid damage. - Regular visual inspections of electrical equipment.	1	3	3	L

Personal Protective Equipment (PPE)

	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)
---	------------------------------	---	----------	---	--------------------------------------	---	------------------------------

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
OVERCROWDING There may be overcrowding of the working area with items including, but not limited to: - Boring and surveying equipment. - Safety equipment. - Operatives/Geotechnical Engineers, Contractors - Other items. Overcrowding hazards are exacerbated due to working in spaces that are confined or restricted.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Can result in: - Increased risk of collision/impact injuries. - Damage to plant/equipment/machinery.	3	3	9	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Good housekeeping and storage practices.	1	3	3	L

Personal Protective Equipment (PPE)



Safety Helmet (to BS EN 397)



Safety Footwear (to BS EN ISO 20345)



Gloves (appropriate to task)



High Visibility Clothing (to BS EN 471)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
WEATHER Work can often be undertaken outside in adverse conditions such as those that are: - Cold. - Hot. - Humid. - Wet. - Icy/Snowy. - Windy. - Foggy/Misty.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors. Can result in: - Discomfort/distraction leading to an accentuation of other risks. - Slips and falls. - Heat exhaustion. - Blistering of skin and, if prolonged, skin cancer. - Reduced visibility leading to other hazards. - Accidental damage to equipment/premises.	3	3	9	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Outdoor clothing is available for use as required. - Sensible work patterns are undertaken to limit exposure in severe weather conditions. - Sun screens with high Skin Protection Factor (SPF).	2	3	6	M

Personal Protective Equipment (PPE)

	Safety Helmet (to BS EN 397)		Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)		High Visibility Clothing (to BS EN 471)
	Waterproofs		Overalls/Warm weather clothing				

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021		L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)
	Signature:		Re-assessment due:	27/05/2021		S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
NOISE There may be exposure to high background noise levels created by items including, but not limited to: - Running vehicle engines. - Running portable generator. - Drilling rig. Background/operational noise levels may be exacerbated due to: - Multiple contractors working on site (often with noisy equipment). - Working inside enclosed or restricted spaces (reverberate noise).	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Exposure to high levels of noise may be: - Prolonged (chronic exposure to high levels regularly that can cause accumulative harm). - Immediate (acute exposure to a very high sound level that can cause immediate harm). Such exposures can result in: - Noise induced hearing loss. - Distraction from tasks. - Interference with communications. - Noisy operations can also result in nuisance noise pollution to neighbouring environment.	3	3	9	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Work patterns are established to reduce exposure.	2	3	6	M

Personal Protective Equipment (PPE)



Hearing Protection (to BS EN 352-2)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
LIGHTING Operatives/Geotechnical Engineers may experience conditions during Geotechnical tasks that are poorly lit or have poor visibility. Poor visibility may be experienced: - Inside Inspection Chambers, Tunnels, Sewers, Drains, etc. - Inside and around plant and equipment (e.g. storage tanks, process equipment, etc.). - Inside service chambers, roof spaces, ducting, etc. - In external areas. - In basements. - At night/late afternoon/early morning. - In poor weather conditions. - Underneath scaffolding systems. - In poorly lit areas of site (e.g. lack of lighting or poorly maintained temporary lighting).	Affected persons can include: - Operatives/Geotechnical Engineers. - Contractors. - Client Staff. - Visitors. Can result in visual impairment which can accentuate the risk of: - Physical injury. - Damage to equipment.	3	3	9	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Venting and Gas Monitoring. - Portable Safety Lighting. - Signing, Lighting and Guarding Training (Chapter 8 Supervisor Training).	2	3	6	M

Personal Protective Equipment (PPE)

	High Visibility Clothing (to BS EN 471)	
---	---	--

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
WORKING NEAR WATER There could be exposure to the associated hazards of working near to water systems including, but not limited to: - Excavations. - Site water hazards – lakes, ponds. - Standing water on site. - Streams, culverts, ditches. - Other water features (e.g. canals, streams, rivers, etc.).	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors Can result in: - Death by drowning (inability to escape water system). - Death by drowning (persons can be washed away in flash-floods). - Shock from immersion in cold water. - Incapacity following injury. - Fatigue or hypothermia. - Entry of site vehicles into water hazards leading to drowning and loss of equipment. - Direct/indirect pollution of watercourses from spillages and debris from site.	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - General Public are excluded from working areas.	2	4	8	M

Personal Protective Equipment (PPE)

	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)
---	------------------------------	---	----------	---	--------------------------------------	---	------------------------------

Safety Equipment

	Life Jacket		Lanyard		Coil of static rope	
---	-------------	---	---------	---	---------------------	--

RAMS:	1 Day WS Slate Wharf, Manchester
Ref No:	3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
UNDERGROUND SERVICES Underground services and utilities can be damaged during general Geotechnical activities. These can include: - Electricity cables. - Telecommunication cables. - Natural Gas supply pipes. - Water pipes and sewers. - Unexploded Ordnance. - Other piped services.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Inadvertent contact with utilities can result in: - Severe electrical shock (leading to possible fatal injuries). - Severe electrical burns to skin (leading to possible fatal injuries). - Explosive effects from arcing current. - Release of toxic/flammable gases. - Release of fluids/gases at pressure. - Asphyxiation from exposure to inert/organic gases. - Failure of equipment and Utilities. - Loss of power and telecommunications to site premises. - Interruption of supply on site premises. - Interruption of supply to Hospitals, Emergency Services, etc. - Fire damage to premises/equipment and Utility. - Noxious combustion product emissions to premises and atmosphere. - Expensive repairs to Utilities. - Defence costs from claims from affected Utility users.	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Venting and Gas Monitoring. - Smoking is not allowed within 5m of sewer entrances. - Utilities' drawings/diagrams are requested from appropriate Utilities Suppliers as required (for use only as a source of information rather than reliance). - Signing, Lighting and Guarding Training (Chapter 8 Supervisor Training).	3	4	12	M

Personal Protective Equipment (PPE)					
	Safety Helmet (to BS EN 397)		Waterproofs		Safety Footwear (to BS EN ISO 20345)
	High Visibility Clothing (to BS EN 471)		Light Eye Protection (LEP)/Goggles (to BS EN 166)		
					Gloves (appropriate to task)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:					
	Completed by:	Angharad Jones		Assessment date:		27/05/2021		L = Likelihood (1/2/3/4/5)		RR = Risk Rank (5 x 5)	
	Signature:			Re-assessment due:		27/05/2021		S = Severity (1/2/3/4/5)		RL = Risk Level (H/M/L)	
Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score				
		L	S	RR	RL		L	S	RR	RL	
ERGONOMICS Ergonomics relates to the suitability of the environment in which work is undertaken. On site operations can involve: • Stretching. • Bending. • Reaching. • Kneeling. • Repeated use of tools and equipment. Hazards may be exacerbated by: • Wearing bulky clothing in cold weather. • Wearing restrictive clothing. • Moving around sites that are wet and muddy.	Affected persons can include: • Operatives/Geotechnical Engineers • Contractors • Client Staff • Visitors. Can result in discomfort and musculoskeletal injury such as: • Slipped discs. • Hernias. • Strained muscles. • Other Musculoskeletal Disorders (MSDs). • Delay or prevention of escape in an emergency.	2	3	6	M	• Health and Safety Policy. • Employee Induction. • In-house training. • Construction Skills Certification Scheme (CSCS Cards). • Tool Box Talks/Team Briefing. • Client Site Safety Induction training. • Client Site Rules. • Safe System of Work (SSoW), Site Risk Assessment/Method Statement. • Task planning. • All on-site operations are undertaken by trained/qualified Operatives/Geotechnical Engineers.	1	3	3	L	

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
MANUAL HANDLING Geotechnical operations can include: - Lifting heavy loads. - Lifting unwieldy loads. - Pushing or pulling loads. - Repeated lifting or carrying. - Combinations of the above. This can occur for items including, but not limited to: - Geotechnical equipment/machinery. - Winches and other Lifting Equipment (LE). - Boring rig. - Safety equipment (e.g. lifejackets, safety ropes, etc.). - Other heavy, unwieldy items. Geotechnical operations may have to take place a distance away from access areas for vehicles and so may prompt long carrying distances.	Affected persons include: - Operatives/Geotechnical Engineers. Incorrect kinetic lifting and handling techniques can result in: - Slipped discs. - Hernias. - Strained muscles. - Other Musculoskeletal Disorders (MSDs). This can be exacerbated by: - The frequency of tasks. - The ability of the individual. - The nature and type of the load. - The condition of the environment (e.g. lighting, floor condition, housekeeping, etc.).	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Use of Team Lifting techniques. - Equipment, tools, materials, etc. are arranged to be delivered as close as possible to point of use.	3	4	12	M

Personal Protective Equipment (PPE)



Safety Footwear (to BS EN ISO 20345)



Gloves (appropriate to task)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
WORK EQUIPMENT (WE) Geotechnical activities involve a number of different services in different environments. Many of these services require the use of different equipment. There will be access to dangerous items of Work Equipment (WE) including, but not limited to: - Generators. - Winches. - Drilling equipment. - Geotechnical equipment. - Vehicle engines. - Handtools such as bars, sledgehammers, etc.) - Other operational machinery and equipment. The use of such WE can expose operators to the following hazards: - Crushing. - In-running nips. - Traps (reciprocating and shearing). - Entanglement (e.g. moving parts). - Friction and abrasion (e.g. rough surfaces moving at high speed). - Cutting. - Stabbing and puncture (e.g. sharp piece of equipment penetrating a body part). - Impact (e.g. objects striking the body). - Ejection (e.g. part of the equipment is thrown/fired out during operation).	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Serious physical injuries can result from the use of Work Equipment (WE). Injuries can include those associated with: - Entanglement (moving/rotating parts). - Friction and abrasion (rough surfaces moving at high speed). - Cutting (blades, knives or rough surfaces). - Shearing (one or more machine parts moving towards/past each other). - Stabbing and puncture (sharp piece of equipment or material contained within the equipment penetrating a part of the body). - Impact (objects striking the body). - Crushing (part of the body caught between two or one moving part of a machine and a stationary object). - Drawing-in (part of the body drawn-in to machinery (e.g. a belt running around a roller creating an 'in-running nip')). - Ejection (a piece of the material being worked or a part of the equipment is thrown/fired out during the equipment's operation).	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Equipment calibration Summary Chart. - Guarding present on machinery and equipment. - All guards are secure and in good condition and are never compromised or by-passed. - Safety cut-outs are tested to ensure they are fully operational before commencing work. - All work is carried out in accordance with established safe working procedures.	2	4	8	M

Personal Protective Equipment (PPE)

	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)
	High Visibility Clothing (to BS EN 471)		Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)				

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
STORAGE/STACKING Poor storage practices can result in the fall of items, such as: - Tools, machinery and equipment. - Containers of petrol, diesel, etc. - Winches, lines, harnesses, etc. - Spare parts and equipment. - Excavated material. - Other items. The risks are exacerbated if materials are stored close to open Inspection Chamber edges.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Inappropriate storage arrangements can occur due to, but not limited to: - Poor choice of storage location (e.g. in access routes, traffic routes, etc.). - Poor storage techniques (e.g. items stored too high, unstable stacking, etc.). - Inappropriate selection of storage systems. Failure of storage systems can be caused by: - Collision leading to collapse. - Instability leading to collapse. Poor storage can result in: - Fatality. - Severe crush/impact/collision injuries. - Damage to Work Equipment (WE). - Damage to stored products and materials. - Contamination of site land drains.	2	4	8	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Good housekeeping and storage procedures.	1	4	4	M

Personal Protective Equipment (PPE)

	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)
	High Visibility Clothing (to BS EN 471)		Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)				

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:						
	Completed by:	Angharad Jones	Assessment date:		27/05/2021	L = Likelihood (1/2/3/4/5)		RR = Risk Rank (5 x 5)				
	Signature:		Re-assessment due:		27/05/2021	S = Severity (1/2/3/4/5)		RL = Risk Level (H/M/L)				
Hazard	Associated Risk		Initial Risk Score				Control Measures		Residual Risk Score			
			L	S	RR	RL			L	S	RR	RL

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
WORKING AT HEIGHT Geotechnical can occur at heights. This may include: - Working at a place at height. - Accessing a place at height. Other hazards may exist on site which can result in falls from height, such as: - Inspection/service chambers. - Unguarded edges. - Excavations. - Sewer edges. - Scaffolding. - Other areas at height.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors. A fall from a work area at height or when accessing a work area at height can result in: - Fatality. - Head injuries. - Upper body injuries. - Foot/lower leg injuries. - Damage to Work Equipment (WE). - Damage to stored products and materials.	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Good quality ladders are used. - Ladders are inspected before use. - Stairs/walkways have handrails and toe boards. - Sewer edges are guarded using barriers, etc. - Use of appropriate warning signs. - Scaffolding is inspected and approved for use before start of work. - Step irons are inspected before entry.	3	4	12	M

Personal Protective Equipment (PPE)					
	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)
	High Visibility Clothing (to BS EN 471)		Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)		
					Gloves (appropriate to task)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
OVERHEAD OBSTRUCTIONS Geotechnical on Clients' sites could result in contact with overhead objects when working in areas, such as: • Cloe to buildings on site. • Close to drilling rig frame. • Under overhead piping. • Close to overhanging branches and vegetation.	Affected persons can include: • Operatives/Geotechnical Engineers. • Contractors. Can result in a collision leading to: • Head injuries. • Eye injuries. • Upper body injuries. • Damage to equipment.	3	4	12	M	• Health and Safety Policy. • Employee Induction. • In-house training. • Construction Skills Certification Scheme (CSCS Cards). • Tool Box Talks/Team Briefing. • Client Site Safety Induction training. • Client Site Rules. • Safe System of Work (SSoW), Site Risk Assessment/Method Statement. • Use of appropriate head protection in all identified mandatory head protection areas on-site. • Working areas are isolated using cones, barriers, fencing, etc.	1	4	4	M

Personal Protective Equipment (PPE)



Safety Helmet (to BS EN 397)



Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:		Slate Wharf, Manchester		Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
FALLING OBJECTS There can be risks presented from falling items, such as: - Spares, tools, machinery and equipment in storage areas. - Dropped tools/equipment from persons working at heights. - Rubble and debris.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Can result in: - Possibly fatal crush injuries. - Serious head and upper body injuries. - Serious leg and foot injuries. - Damage to vehicles. - Damage to tools and equipment.	3	4	12	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Tools, materials and equipment are safely stored when in use. - Awareness of site operations and overhead workings. - Manholes and open sewers are edge protected using cones, barriers, etc. - Use of appropriate warning signs as required. - Good housekeeping and storage procedures.	2	4	8	M

Personal Protective Equipment (PPE)			
	Safety Helmet (to BS EN 397)		Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
SLIPPING/TRIPPING Slipping hazards can include, but may not be limited to: - Scattered materials on floors. - Muddy, wet and icy surfaces. Tripping hazards can include, but may not be limited to: - Trailing electric cables (e.g.: from lighting rig and generator or other on-site activities). - Items stored on floors (e.g. Geotechnical equipment, PPE and safety equipment, etc.). - Rubble and excavated material. - Items in disused building or on Client sites. - Site materials/equipment. - Changes in levels and surfaces on site.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Slipping and tripping can result in a fall on the same level leading to: - Upper body injuries (e.g. Head, shoulders, etc.). - Abdominal injuries (e.g. Hips). - Lower body injuries (e.g. Knees, legs, ankles). - Hand and arm injuries. - Damage to materials and equipment.	3	4	12	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Daily pre-start inspections of work areas. - Good housekeeping and storage procedures.	2	4	8	M

Personal Protective Equipment (PPE)

	Safety Footwear (to BS EN ISO 20345)	
---	--------------------------------------	--

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:		Slate Wharf, Manchester		Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
OPTICAL (EYE) HAZARDS Hazards exist during Geotechnical that can cause eye injuries, such as: - Hazardous Substances. - General dust/debris. - Biological Hazards (e.g. Sewage, Weil's disease). - Other Substances.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Can result in injuries such as: - Permanent loss of sight. - Temporary loss of sight. - Eye irritation. - Impact injuries to eyes.	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement.	2	4	8	M

Personal Protective Equipment (PPE)



Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:			
	Completed by:	Angharad Jones	Assessment date:		27/05/2021		L = Likelihood (1/2/3/4/5)		RR = Risk Rank (5 x 5)
	Signature:		Re-assessment due:		27/05/2021		S = Severity (1/2/3/4/5)		RL = Risk Level (H/M/L)

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
LIFTING OPERATIONS/LIFTING EQUIPMENT (LE) As part of Geotechnical operations there is use of a drilling rig which has an integral lifting frame. Operatives/Geotechnical Engineers could therefore be at risk from hazards associated with the use of this type of equipment, such as: - Failure of winches, lines, etc. - Unsuitable and insufficient supervision, instruction and training relating to the correct use of such equipment.	Affected persons include: - Operatives/Geotechnical Engineers - Contractors - Client Staff and Visitors. Adverse events can be created by: - Failure of Lifting Equipment (LE). - Poor maintenance. - Overloading of Safe Working Loads (SWLs). - Poor loading of system (attachment, etc.). - Use of inappropriate Lifting Equipment (LE). - Poor planning of Lifting Operations. - Poor coordination of Lifting Operations. An adverse event can result in: - Fatality. - Severe injuries. - Damage to equipment and vehicles. - Damage to premises products and materials.	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Equipment calibration Summary Chart. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Safe Working Load (SWL) not exceeded in any circumstances. - Lifting Equipment (LE) is maintained in good working order and is regularly inspected, maintained and tested. - Lifting Equipment (LE) is registered. - Operatives/Geotechnical Engineers are trained in the safe use of LE.	3	4	12	M

Personal Protective Equipment (PPE)			
	Safety Helmet (to BS EN 397)		Overalls
	Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)
	High Visibility Clothing (to BS EN 471)		Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:		Slate Wharf, Manchester		Key to Risk Scores:					
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)				
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)				
Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
ACCESS/EGRESS There may be exposure to hazards which deny them a safe place of work and means of access/egress, such as: - Escape routes obstructed by parked cars, plant, machinery, equipment and stored items. - Escape routes not identified/signed. - Emergency Assembly Point(s) not signed/identified. - Site Entrance/Exit Routes not clearly identified. - Site Emergency Procedures not established. - Traffic Management System not properly instigated. - Other hazards detrimental to a safe place of work.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Can result in the prevention or delay in: - Effecting escape in an emergency. - Obtaining timely treatment for injured person(s). Can also result in: - Fall injuries. - Collision/impact injuries.	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Work pattern coordination.	3	4	12	M

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
SHARP OBJECTS/SURFACES There could be exposure to sharp items/materials present on site including, but not limited to: - Tools and equipment. - Sharp metal, bricks and other materials on site. - Sharp metal components on vehicles and equipment. - Broken bottles and other glass products. - Hypodermic needles. - Other sharp items.	Affected persons include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors. Can result in: - Cuts. - Lacerations. - Puncture wounds. This can be presented to: - Hands. - Fingers. - Arms. - Feet. - Toes. - Legs. - Other body parts.	3	3	9	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules.	2	3	6	M

Personal Protective Equipment (PPE)

	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)
	Eye Protection (Light Eye Protection/ Safety Goggles) (to EN 166)						

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
WELFARE Geotechnical can occur in fixed areas and establishments where facilities are readily available. However, often work is often undertaken in transient, mobile sites that can include generally inaccessible areas. When working on such sites there may be: - No welfare facilities provided. - Limited welfare facilities available. - Lack of regular cleaning of welfare facilities. - Lack of regular restocking of welfare facilities. - Lack of regular maintenance of welfare facilities. If there are no, or limited, facilities available then Operatives/Geotechnical Engineers and Contractors may resort to eating and drinking in: - Work areas. - Company vehicles. - Other unhygienic areas.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors. Poor welfare provision can result in: - Contamination of hands and fingers with Hazardous Substances. - A failure to clean hands etc. may result in inadvertent skin exposure (leading to consequences detailed in relevant Materials Safety Data Sheets (MSDS)). - Transfer of contamination to the body by ingestion (through smoking or eating). - Discomfort/distraction resulting in the accentuation of other risks. - Creating a poor image of the Company to Customers and Visitors.	2	3	6	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Hot water and washing facilities are available in vehicles. - Arranged use of Client (or other) welfare facilities where possible to include: - Sanitary conveniences. - Washing facilities. - Drinking water. - Changing and drying facilities. - Rest facilities. - Eating facilities.	1	3	3	L

Welfare

	Toilets		Washing facilities		Hand sanitisation		Drinking water
---	---------	---	--------------------	---	-------------------	---	----------------

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester			Key to Risk Scores:					
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)				
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)				
Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
LONE WORKING Lone working may be apparent due to: - Contractual arrangements (e.g. costs of contract may prohibit use of more than one Employee). - Sickness or absence for other reasons. - Separation of working team from each other (large distances may constitute lone working). The work may present hazards including: - Special risks to the lone worker (e.g. medical issues). - Access and egress. - Safe use of Work Equipment (WE). - Manual Handling. - Risk of violence. - Risks to women, young workers or vulnerable adults. - Actions to take in the event of an accident or emergency.	Affected persons include: - Operatives/Geotechnical Engineers - Contractors. Can result in: - Physical injury (from an accident or violent encounter). - Theft of materials and equipment. - Poor communication. - Failure to raise an alarm. - Prevention or delay in obtaining medical assistance for persons in an emergency.	3	4	12	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - No lone working when working at heights, working near water or near excavations. - Mobile phones are operational and charged at all times. - Operatives/Geotechnical Engineers are always supervised. - Some sites have signing-in procedures - these are complied with at all times as required. - Two-person working procedures are in operation for identified tasks/sites where practicable.	1	4	4	M

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
LOADING/UNLOADING VEHICLES Geotechnical operations are often located at remote sites. Surveyors need to transport tools and equipment to specific locations. Surveyors may be at risk due to errors when unloading and loading equipment such as: - Tools and equipment. - Generators. - Boring rig. - Safety Equipment Loading and unloading operations are likely to involve: - Company vehicles (e.g. Land Rover). - Contractor vehicles. - Delivery and collection vehicles. Hazards may be presented due to: - Limited availability of physical space. - Poor site layout. - Overlap with other site operations. - Overcrowding with vehicles and materials.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors - General Public. Loading and unloading operations may be poorly planned and poorly supervised. There may be: - Incorrect loading/unloading procedures. - Inappropriate storage of items inside vehicles. - Inappropriate storage of items on vehicles. - Overloading vehicle above its designed Safe Working Load (SWL). This can result in: - Severe crush/impact/collision injuries. - Manual Handling injuries (from poor lifting techniques). - Physical injuries from dropped items. - Serious (or fatal) injuries from the impact of unsecured internally stored items during heavy braking or vehicle collision. - Damage to vehicles/Work Equipment (WE). - Damage to structures/materials and products.	3	4	12	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Maximum safe weight limit of vehicles are not exceeded. - All loads are correctly secured. - Pre-start site inspections. - Where possible, area plans of Client premises/sites are obtained prior to visit.	2	4	8	M

Personal Protective Equipment (PPE)

	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)		Gloves (appropriate to task)
	High Visibility Clothing (to BS EN 471)						

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:	
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)	
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)	

Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
MANOEUVRING VEHICLES Geotechnical operations will involve manoeuvring vehicles. These can include, but may not be limited to: - Vehicles operating in working areas. - Vehicles operating close to welfare facilities. - Vehicles operating in and around storage areas. - Vehicles passing close to site entrance. Vehicles may belong to: - Company. - Operatives/Geotechnical Engineers. - Contractors. - Client. - Delivery/Removal Contractors. Hazards can exist due to: - Limited physical space for manoeuvring operations. - Poorly planned site. - Poor provision of direction and information signs. - Overlap with Client operations. - Overcrowding with vehicles and materials.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors - General Public. A collision or inadvertent contact with such vehicles can result in: - Severe (and possibly fatal) injuries. - Damage to vehicles. - Damage to equipment and materials. - Damage to Client property.	4	4	16	H	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement.	3	4	12	M

Personal Protective Equipment (PPE)					
	Safety Helmet (to BS EN 397)		Overalls		Safety Footwear (to BS EN ISO 20345)
	High Visibility Clothing (to BS EN 471)	 Gloves (appropriate to task)			

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:					
	Completed by:	Angharad Jones		Assessment date:		27/05/2021		L = Likelihood (1/2/3/4/5)		RR = Risk Rank (5 x 5)	
	Signature:			Re-assessment due:		27/05/2021		S = Severity (1/2/3/4/5)		RL = Risk Level (H/M/L)	
Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score				
		L	S	RR	RL		L	S	RR	RL	
VEHICLES Operatives/Geotechnical Engineers use/travel in Company vehicles. Hazards can exist due to: • Improper driving of vehicles. • Distractions (e.g. use of Mobile Phones, Satellite Navigation Systems, etc.). • Fatigue. • Improper vehicle maintenance. • Overloading. • Poor securing of loads (internal and external). • Lack of appropriate signage (e.g. Carriage of Dangerous Goods; No Smoking, etc.).	Affected persons can include: • Operatives/Geotechnical Engineers • Contractors • Client Staff • Visitors • General Public. A Road Traffic Accident (RTA) can result in: • Fatality. • Severe injuries. • Damage to vehicles. • Damage to vehicle contents.	3	4	12	M	• Health and Safety Policy. • Employee Induction. • In-house training. • Tool Box Talks/Team Briefing. • Client Site Safety Induction training. • Client Site Rules. • Safe System of Work (SSoW), Site Risk Assessment/Method Statement. • Use of Signallers as appropriate to direct traffic during vehicular movement. • Vehicles are regularly serviced/maintained. • Vehicles undergo MOT inspections. • Pre-project planning ensures: ➢ Appropriate breaks are scheduled within journeys. ➢ Overnight accommodation is arranged. • Appropriate Operatives/Geotechnical Engineers are requested to produce a valid driving license for inspection prior to accepting a Company vehicle. • Company vehicles have appropriate insurance (business use).	2	4	8	M	

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

	Risk Assessments:	Slate Wharf, Manchester				Key to Risk Scores:						
	Completed by:	Angharad Jones	Assessment date:		27/05/2021	L = Likelihood (1/2/3/4/5)		RR = Risk Rank (5 x 5)				
	Signature:		Re-assessment due:		27/05/2021	S = Severity (1/2/3/4/5)		RL = Risk Level (H/M/L)				
Hazard	Associated Risk		Initial Risk Score				Control Measures		Residual Risk Score			
			L	S	RR	RL			L	S	RR	RL

	Risk Assessments:		Slate Wharf, Manchester		Key to Risk Scores:					
	Completed by:	Angharad Jones	Assessment date:	27/05/2021	L = Likelihood (1/2/3/4/5)	RR = Risk Rank (5 x 5)				
	Signature:		Re-assessment due:	27/05/2021	S = Severity (1/2/3/4/5)	RL = Risk Level (H/M/L)				
Hazard	Associated Risk	Initial Risk Score				Control Measures	Residual Risk Score			
		L	S	RR	RL		L	S	RR	RL
PUBLIC INTERFACE The General Public may: - Have access to working areas. - Have direct access to Company Operatives/Geotechnical Engineers. - Have access to Company vehicles, plant and equipment. - Be present during Company operations on site. - Not be aware of hazards created in working areas.	Affected persons can include: - Operatives/Geotechnical Engineers - Contractors - Client Staff - Visitors - General Public. Unauthorised or unsupervised access can result in: - Fatalities. - Severe crush, impact, collision and fall injuries. - Damage to vehicles. - Damage to Work Equipment (WE). - Damage to Lifting Equipment (LE). - Having access to confidential and private documents/records. - Having access to stock/valuables and money. - Violence towards Operatives/Geotechnical Engineers.	3	3	9	M	- Health and Safety Policy. - Employee Induction. - In-house training. - Construction Skills Certification Scheme (CSCS Cards). - Tool Box Talks/Team Briefing. - Client Site Safety Induction training. - Client Site Rules. - Safe System of Work (SSoW), Site Risk Assessment/Method Statement. - Client site may have security systems in place. - Client site may have signing-in procedures in place. - Signing, Lighting and Guarding Training (Chapter 8 Supervisor Training).	2	3	6	M

RAMS: 1 Day WS Slate Wharf, Manchester

Ref No: 3548

APPENDIX EXPLANATORY NOTES

5 x 5 Risk Matrix – Quantitative Scoring Mechanism					
Likelihood	Rare (1)	Unlikely (2)	Possible (3)	Likely (4)	Almost Certain (5)
Severity					
Catastrophic (5)	5	10	15	20	25
Major (4)	4	8	12	16	20
Moderate (3)	3	6	9	12	15
Minor (2)	2	4	6	8	10
Negligible (1)	1	2	3	4	5

Risk Level	Risk Acceptability	Recommended Actions
LOW	Acceptable	Ensure controls are followed and method of work is not altered.
MODERATE	Tolerable	Tolerable if cost of reduction would exceed the improvement gained (reasonably practicable).
HIGH	Not acceptable	Cannot be justified - Control measures must be introduced to bring down either the severity or the likelihood.

Likelihood	Description
Rare (1)	Not expected to occur but still possible.
Unlikely (2)	Not likely to occur under normal circumstances.
Possible (3)	Possible or known to occur.
Likely (4)	Common occurrence.
Almost Certain (5)	Continual or repeating experience.

Severity	Description
Negligible (1)	Not likely to cause injury or ill-health.
Minor (2)	Injury or ill-health requiring first aid only (includes minor cuts and bruises, irritation, ill-health with temporary discomfort).
Moderate (3)	Injury requiring medical treatment or ill-health leading to disability (includes lacerations, burns, sprains, minor fractures, dermatitis, deafness, work-related upper limb disorders).
Major (4)	Serious injuries or life-threatening occupational disease (includes amputations, major fractures, multiple injuries, occupational cancer, acute poisoning).
Catastrophic (5)	Fatality, fatal disease or multiple major injuries.