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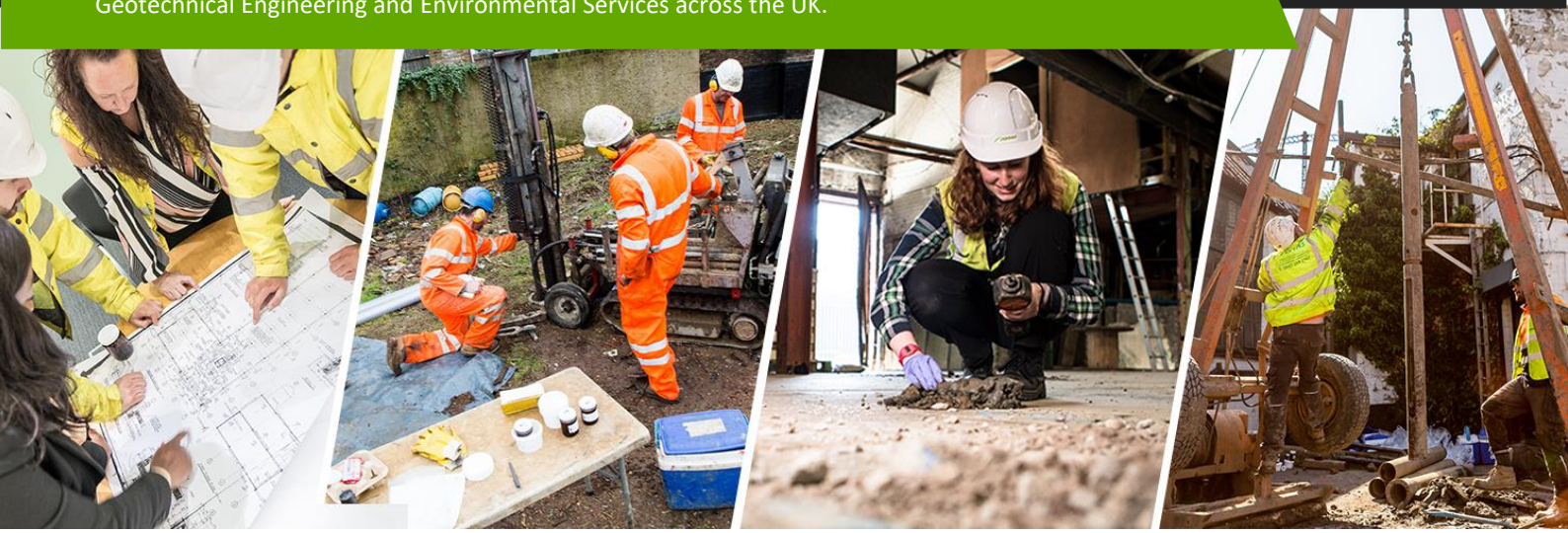

METHOD STATEMENT & RISK ASSESSMENT

FOR PROPOSED REMEDIATION

AT

138-140 HIGHGATE ROAD
HIGHGATE
LONDON
NW5 1PB

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SITE ADDRESS:	**138-140 Highgate Road, Highgate, London, NW5 1PB**
CLIENT:	Space Free Ltd
DOCUMENT CATEGORY:	Method Statement Health, Safety, Environment and Quality Plan Risk Assessment
DOCUMENT NUMBER:	P1323J1303/JF/HSE

PREPARED BY:	**APPROVED BY:**
Adam Hines BSc (Hons), MSc **Position:** Geo-environmental Engineer	James Field BSc (Hons), CGeol, FGS, RoGEP - Professional **Position:** Principal Engineer
Signed:  Date: **19/08/2019**	**Signed:**  Date: **19/08/2019**

Should you have any queries relating to this document, please contact

JOMAS ASSOCIATES LTD

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1 SCOPE OF WORK

All works are undertaken in accordance with governmental advice regarding the decommissioning and removal of underground storage tanks, and are supervised by a suitably qualified engineer.

Address – 138-140 Highgate Road, Highgate, London, NW5 1PB

Site works commencement TBC.

The work will entail the following activities:

Tank and Impacted Soil Removal - Commencement TBC

- Excavation of 4 – 6No fuel tanks and associated pipework and infrastructure for decommissioning and off-site disposal.
- Removal and disposal of free-phase product or contaminated water from tanks or excavations, for off-site disposal.
- Excavation and off-site removal of contaminated soils.
- Backfill of void using crushed concrete from demolition, as well as importation of clean crush.
- Excavations to be logged to BS5930.

Supervision and Validation

- Provision of suitably qualified engineer for Site supervision, meetings and sample collection. Photographs will be taken for inclusion in the verification report.
- Use of Photo Ionisation Detector to assess volatiles in the ground and reduce number of samples for laboratory testing using a Photo Ionization Detector (PID).
- Carry out soil testing of the base and sides of the void formed by removal of the tanks as well as infill material prior to backfilling.

Other Notes

- Laboratory analysis of selected samples will be carried out at a UKAS and MCERTS accredited laboratory;
- Production of verification report detailing the remediation work will include details of works undertaken, logs, and results of tests undertaken.

2 HAZARDS IDENTIFED

Based on our current knowledge of the site it is classified as Red in accordance with current BDA classification. Appropriate health and safety precautions will be implemented during all site work.

Site is a fuel station, with an associated MOT test garage. Working areas for the site investigation will be protected with barriers at all times.

The main hazards identified on site are described in the associated Risk Assessment. (Appendix B).

These hazards will be mitigated by the measures described herein in addition to those cited on the Risk Assessment.

3 ENVIRONMENTAL PROTECTION ARRANGEMENTS

During excavation, noise will be kept to a minimum by locating petrol generators and plant in positions where existing features baffle the noise.

Fuels for the generators will be kept in sealed containers, in a place not accessible to the public. Where considered necessary, drip trays will be used under equipment, which may leak.

When working near surface waters, work should be conducted in a manner that prevents any release of dust or soil into the watercourse. Damping down with a water mist spray should be used if necessary.

These are considered to be highly unlikely to be needed as the works are not near a water network.

4 PLANT AND EQUIPMENT

All mobile plant will be supplied, 1No. excavator with buckets and appropriate attachments. All equipment will be supplied with certificates when delivered on site.

A visual examination of equipment will be undertaken prior to use, with a suitable maintenance/inspection regime carried out at regular intervals.

40-yard skips used for removal of scrap metal and tipper lorries for the contaminated soil will be used to remove waste materials from site.

5 PERSONNEL INVOLVED

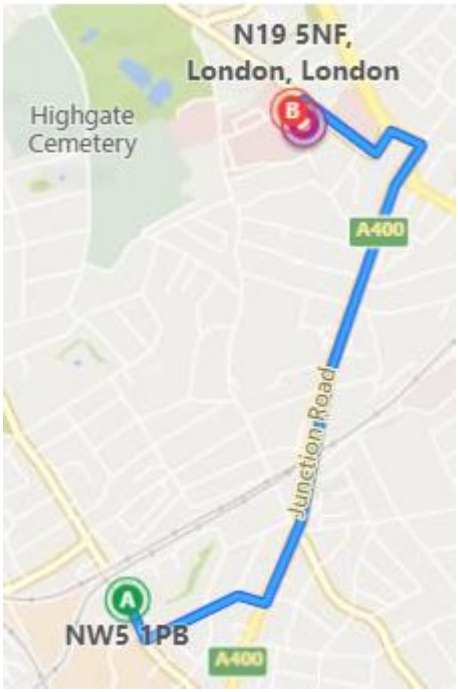
Project Director: Roni Savage – 07958 733 173
Management Personnel/Lead Project Engineer: Suneel Law
Site Engineer: tbc
Lead Groundworker: tbc
Nominated First Aider: tbc

All staff are to carry personal photographic identification.

The persons responsible for compliance with this plan is the Site Engineer and Lead Groundworker.

Nearest A&E:

The Whittington Hospital
Magdala Avenue
London
N19 5NF
Tel: 020 7272 3070



All staff and personnel attending the site are to wear the following Personal Protective Equipment (PPE) at all times.

- Safety footwear with steel midsoles
- High visibility vests
- Appropriate gloves to be worn at all times during any works.
- Safety Goggles – Eye protection
- Ear protection during cutting operations
- Overalls
- Other specialist PPE if required at the specific site

6 METHODOLOGY

Decommissioning of Underground Storage Tanks

Drain all pipelines associated with the tank and remove all residual petrol.

The tank must then be bottomed out which involves the removal of that quantity of petrol and deposits which remain below the pump suction pipeline, using a hand pump or a flame-proof electrical pump. This procedure should be performed by a specialist contractor
fill the tank or compartment with water to ensure a liquid seal.

Disconnect all pipelines (except vent pipes) and add water to the tank or compartment until clear water appears at the vent pipe opening.

Cap or blank off all openings to the tank or compartment.

Flush through and cap at each end all pipelines previously connected to the tank or compartment.

Excavation work should be carried out with the tank in the filled condition and with suitable precautions to avoid sparks. When the tank is ready for lifting, any water used should be emptied and all openings immediately closed. Water should be disposed of by a hazardous waste disposal contractor.

Removal of Obsolete Tanks and Contaminated Soils

The operatives will wear all relevant Personal Protective Equipment and will also install all necessary barriers and signage in the area where demolition works are to take place

The operatives will then access the work area by the safest possible means as set out from the induction process; the excavator will be driven to the work area by the trained and competent operator.

The operative will ensure that the area is clear of all un-required personnel prior to commencement of demolition. The Site Engineer will be present throughout the work with a PID, checking on the soil and materials being removed.

The area to be cleared will be marked, identified by the site management as detailed by the site plan.

The excavator with a bucket and hydraulic breaker attachment will be used to clear the concrete hardstanding and soil from around the tanks. The material will be either loaded directly into the tipper lorries or stockpiled on a DPM membrane for another excavator to load the lorries.

The perimeter area of the excavation will be battered back to approximately 45 degrees to provide safe access and prevent any materials falling back into the excavation. If required, barriers or flicker tape will be put around the open excavation.

Any stockpile of materials will be a sufficient distance from the excavation to ensure minimal pressure is put on the open excavation.

Lorries will be marshalled on and off the site by a banksman.

Any concrete around the tank will be broken away using the pecker attachment on the excavator. Then moved out of the tank by the excavator onto the surrounding area, from here the concrete waste will be moved to the stockpile of materials to be removed from site.

When sufficient concrete has been removed and tank has been rendered safe, the tank will either be lifted out complete, depending on their weight or be broken up using the excavator with a munching attachment into manageable sections before being loaded into a 40-yard skip then taken to a scrap recycling centre.

At no time is hot cutting to be carried out on the fuel tanks.

The remaining area of the contaminated soil will be removed to leave a clean area in the ground, to be confirmed by the Site Engineer using the PID and sampling.

This verification will be carried out by soil testing of the base and sides of the void formed by removal of the tanks prior to backfilling. Soil samples will be collected for analysis by the Site

Engineer. The number of samples tested will be dependent on findings on site, at a minimum frequency of one sample per 25m^2, and the locations of all samples obtained will be justified within subsequent verification report based on the presence of visual/olfactory evidence of contamination within the excavation. Validation samples will be procured and tested at a minimum rate of 1 sample per 50m^2 of exposed face/base of excavation.

Any perched groundwater and free product encountered within tanks and excavations will be pumped into tankers and taken for off site disposal.

Once the Site Engineer has approved the excavation to be back filled, crushed concrete will be used to fill the excavation, compacted by the excavator.

At the end of each day the work area and compound area is to be left in a clean, safe and presentable manner as agreed with the site manager.

Clearance of Concrete Hard Standing and Crushing Hardcore

The operative will ensure that the area is clear of all un-required personnel prior to commencement of demolition.

The 360 machines with attachments will be used for the entirety of the task and will be fitted with breaking attachments suitable to the task, breaking the concrete, tarmac and hardcore into sections.

The materials will be stockpiled close to the activities for crushing at a later date.

The crusher will be set up in a location as close as possible to where the existing stockpiled material is located and where the crushed material is to be stored. Only a trained and competent operator will be in control of the crusher and will carry out all the daily start up checks and safety systems inspections before commencing work.

The operator will then access the work area by the safest possible means as set out from the induction process. An excavator will be driven to the work area by the trained and competent operator.

The operator will ensure that the area is clear of all un-required personnel prior to commencement of crushing.

The excavator will be used for the entirety of the task of feeding the crusher and moving the processed materials. If materials need to be broken down into smaller sections before loading into the crusher the excavator will be fitted with breaking attachments suitable to the task of breaking the concrete, hardcore and tarmac into the required size.

The hardcore will then be loaded directly into the feed hopper of the crusher, the crusher operator will be standing close by or on the platform checking the operation. The crusher will be set to process the hardcore or tarmac to the required size of material which will be checked by the operator.

During the crushing operation there will be a continual supply of water being sprayed across the materials to ensure the creation of dust is kept to a minimum.

Once the material has been crushed it will be put into the excavations or stored on site at a suitable location for future use

At the end of each day the work area is to be left in a clean, safe and presentable manner as agreed with the site manager.

7 BRIEFING ARRANGEMENTS

The Site Engineer will brief personnel on the work to be carried out, the contents of this Method Statement and associated Risk Assessment prior to commencement of work, and is responsible for ensuring it is adhered to at all times. Following the briefing, all members of the work party are to sign the briefing record sheet in Appendix A to confirm that they have understood its contents.

The Lead Groundworker will also be responsible for giving a briefing on any information from the Risk Assessment that is relevant to visitors to the site from other companies (e.g., service providers). Where such a briefing is appropriate, confirmation of understanding should also be recorded on the Briefing Record Sheet.

8 COMMUNICATION AND LIAISON

The Lead Project engineer and/or drilling supervisor will be in overall control of the site and his/her instructions shall be obeyed IMMEDIATELY at all times.

The site control hierarchy will be as follows:

(i) Project Director (off-site)
(ii) Lead Project Engineer
(iii) Other site personnel

Due to the independent nature of this work, upon arrival, the Site Engineer will phone a nominated person in the office and agree a time for the another “check point call”. On completion of the works prior to leaving the site or within half an hour of the agreed “check point call” site personnel will re-call the nominated person. If the site personnel does not call the nominated person will attempt to call the site personnel. If there is no answer the nominated person will inform the project manager.

9 EMERGENCY PLANS

The personal safety of site workers and other people who may be affected by the work is paramount.

a) All minor cuts, abrasions etc are to be reported to nominated First Aider for cleaning and protection.
b) All major injuries to be reported to nominated First Aider, who will decide further action.
c) All injuries, however minor, as well as near misses are to be recorded using the forms in the project file.

The Lead Project Engineer/Lead Groundworker will provide a map giving directions to the Accident and Emergency Department from the site with the telephone number, but 999 should be used when appropriate

If it proves necessary to summon an ambulance give clear and precise information to the emergency services regarding:

1. Location
2. The nature and severity of the injury
3. The number of people involved
4. Ask how long the ambulance will be in arriving
5. Await further instruction

The approaches to be used in the event of other emergency or abnormal situations are listed overleaf.

Management of Site Incidents and Emergencies

SITUATION	MANAGEMENT ACTION
Injury to person	The health and safety of people is paramount and depending on the circumstances, the most appropriate action to protect the person(s) affected should be taken first. Depending on the nature of the injury, actions may include some or all of the following: 1) Immediate First Aid treatment on-site 2) Contact the ambulance service or, if appropriate, transport the injured person to the local Hospital. In all cases, the Project Director must be notified and an accident report completed.
Damage to underground services	Contact the emergency services or service provider (if known). Remain at site until the area has been made safe. Notify the Project Director and complete an incident report.
Asbestos encountered in borehole	Stop the excavation or borehole, move all personnel upwind of the material and evaluate the situation. Use a water mist spray to damp down suspect material and prevent release of fibres to air. Double bag any material removed from the borehole and label as asbestos. Cease further drilling if amount encountered is significant and backfill or seal the sample hole. Do not leave any fibrous material at, on or near the surface. Contact the Project Director for further instruction.
Unusual odour or other substance of concern encountered in borehole	If any substance is encountered which is believed may pose an abnormal risk to health (not manageable by the site Method Statement and risk assessment), sampling should cease. Any material of concern removed from the ground should either be contained in appropriate containers or returned into the sample hole, which should then be covered and/or sealed with arisings or bentonite.
Near miss	Notify the Project Director and complete an incident report.
Accidental release of oil	Use spill kit to clean up and contain. If risk of entering water course, contact the Environment Agency Incident Hotline. Notify the Project Director and complete an incident report.
Damage to equipment or vehicles	Contact the police and notify the Project Director. Complete an incident report.
Other emergency	Contact the emergency services if appropriate. Remain at site until the area has been made safe. Notify the Project Director and complete an incident report.

10 WELFARE FACILITIES

The drilling team will familiarise themselves with the location of the nearest on-site welfare facilities.

APPENDIX A
BRIEFING RECORD SHEET

The undersigned have received and understood a briefing detailing the above Method Statement and associated Risk Assessment.

Date	Company Name	Name	Signature

APPENDIX B
PROJECT RISK ASSESSMENT FORM

SITE NAME: **138-140 Highgate Road, Highgate, London, NW5 1PB** **REF: P1323J1303**

PROJECT DIRECTOR: Roni Savage

LEAD PROJECT ENGINEER: Suneel Law

ASSESSMENT CARRIED OUT BY: AJH

HEALTH AND SAFETY ISSUES

List the health and safety risk types that apply (for typical risks see checklist over) *Where possible the risk will be eliminated or reduced in the design or pre-sampling stage*	**Risk Rating***			**Details/Action/Comments**	**Residual risk (H/M/L)**	**Risk control issues to be considered on site** (for typical issues see checklist over)
	L	**M**	**H**			
1. Condition of site						
Slips and trips: Injury to work force from falling.		X		If any, Significant slip/trip hazards (e.g. cables,) to be removed prior to start of work. Experienced and trained personnel to carry out works in accordance with approved Method Statement & Risk Assessment.	L	Use of safety footwear with steel mid-soles.
Slopes/gradients/unstable ground: Poor / soft ground – instability: Serious injury or death to workers. Land slips: Serious injury or death to workers. Excavator/drill rig overturning during travel causing death/crush/broken bones/injuries	X			Presence of hazard to be assessed at pre-sampling visit and sampling locations selected to avoid such areas. Competent person to assess the ground conditions/ slope prior the manoeuvring the rig to ensure no soft areas, basements or services close to the surface. Ensure there are no obstructions i.e. hoses/cables	L	Personnel to be trained appropriately and areas of concern closely supervised. Only trained personnel to operate the drilling rig.
Water Ground water: Risk of flooding / collapsing excavations		X		Experienced and trained personnel to carry out works in accordance with approved Method Statement & Risk Assessment.	L	Personnel to be trained appropriately and areas of concern closely supervised

* For guidance on determination of Risk Rating (Health & Safety) see explanatory note included with checklist of health and safety risks.

List the health and safety risk types that apply (for typical risks see checklist over) *Where possible the risk will be eliminated or reduced in the design or pre-sampling stage*	**Risk Rating***			**Details/Action/Comments**	**Residual risk (H/M/L)**	**Risk control issues to be considered on site** (for typical issues see checklist over)
	L	**M**	**H**			
Hazardous objects & substances: Needles/Sharp objects- Risk of cut or serious infection Asbestos	X			All needles, syringes, sharps, bulk asbestos or other hazardous substances to be removed by CLIENT prior to start of work. Where residual asbestos may be present, the ground surface should be dampened to minimise dust.	L	Use of safety footwear with steel mid-soles. Toxic dust masks should be available if required.
2. Personal Security						
Potential risk for contact with unfriendly members of the public.	X			No site personnel to work alone. Fenced work areas where appropriate. Contact numbers for police and site security to be available on site method statement. In extreme cases, site security or police presence during work.	L	All personnel to be briefed on potential issues and controls as contained in the method statement and risk assessment.
3. Traffic						
Live Highways- Risk to site personnel through potential collision with moving traffic.	X			No work will be undertaken on live carriageways. Where working adjacent to roadways, local Highways to be contacted for advice prior to start of work. Exploratory hole positions will be cordoned off.	L	Hi-visibility clothing to be worn at all times. Barriers/cones/fencing around working areas.
Parking of plant and work vehicles - Risk of collision with public road users	X			Vehicles to be parked in prearranged designated area, which pose minimum threat to other road users.	L	All personnel to be briefed appropriately on procedures contained in the method statement and risk assessment.
Use of Mobile plant /machinery/vehicles: Manoeuvring vehicles and plant: Collision with permanent works and operatives. Moving plant / vehicles / site transport: Collision between plant and site staff causing serious injury or death.		X		Ensure site layout has sufficient manoeuvring, storage etc. Avoid reversing where possible. Use a banksman if reversing in area where people may be present. Experienced and trained personnel to carry out works in accordance with approved Method Statement & Risk Assessment	L	All personnel to be trained appropriately. Provision of site inductions on industrial and commercial sites. Hi-visibility clothing to be worn if appropriate.

* For guidance on determination of Risk Rating (Health & Safety) see explanatory note included with checklist of health and safety risks.

List the health and safety risk types that apply (for typical risks see checklist over) *Where possible the risk will be eliminated or reduced in the design or pre-sampling stage*	**Risk Rating***			**Details/Action/Comments**	**Residual risk (H/M/L)**	**Risk control issues to be considered on site** (for typical issues see checklist over)
	L	**M**	**H**			
4. Work Near						
Underground Services Risk of injury to site personnel during works by accidental contact with services.			X	Obtain service plans for site and liaise with site owners for private services. Avoid excavations within 1m either side of any cables and other known services. Service clearance by specially trained personnel.	L	All personnel to be briefed on potential hazard. Only trained personnel to operate CAT.
Overhead Power Lines Contact with overhead lines causing electrocution/death/burns	X			Avoid hazard by appropriate selection of sampling locations. Adhere to safe distance guidance from the HSE.	L	Site personnel to be briefed on Overhead line locations and extra care taken when manoeuvring the rig.
Railway Line Collision with trains	X			N/A	L	
5. Materials						
Potential to encounter contaminated land		X		Previous and current land uses and potential hazardous substances at site to be advised from desk study information.	L	Gloves, overalls and appropriate ppe to be worn when handling soil or contaminated equipment. PPE for a RED classified site to be available. All personnel to be trained appropriately.

* For guidance on determination of Risk Rating (Health & Safety) see explanatory note included with checklist of health and safety risks.

List the health and safety risk types that apply (for typical risks see checklist over) *Where possible the risk will be eliminated or reduced in the design or pre-sampling stage*	**Risk Rating***			**Details/Action/Comments**	**Residual risk (H/M/L)**	**Risk control issues to be considered on site** (for typical issues see checklist over)
	L	**M**	**H**			
Contaminated soil/materials: Risks posed by contaminated soils (particularly hydrocarbons) during work: contamination affecting site workers by ingestion, inhalation or contact with skin. Special hazards: Bright blue – may be cyanide Oily / tarry materials (may contain cancer causing substances) Solvents or unusually strong odours			X	Risks/hazards posed by contaminated soils generally are to site operatives. Sites will be assigned Red risk classification in accordance with Thomas Telford method of assessment. Workers to report unusual colours, odours or other indications of contamination to the Project Manager immediately. Work to be terminated until safe conditions can be established. No smoking, drinking or eating on site. Operatives to maintain high standard of personal cleanliness: washing before tea breaks, meals etc. Damp down airborne dust and sheet over materials stockpiled for removal off site to prevent excessive dust.	L	Gloves, overalls and appropriate ppe to be worn when handling soil or contaminated equipment. PPE for a RED classified site to be available. All personnel to be trained appropriately.
Methane or other gas / sewers: Serious injury or death to workers.	X			Experienced and trained personnel to carry out works in accordance with approved method statement and risk assessment. Vent manholes and use gas detectors as hole in progressed in areas where gas may be found.	L	All staff to be appropriately trained and experienced.
Asbestos: Risk to workers/public health		X		Workers to be aware of potential at most sites and look out for fibrous material that could be asbestos.	L	Damp down suspect material to prevent release of fibres to air. If site is designated RED: use of toxic dust masks if inhalation risk exists. Double bag any material removed from the borehole and label as asbestos. Cease further drilling if amount encountered is significant and backfill or seal the sample hole.

* For guidance on determination of Risk Rating (Health & Safety) see explanatory note included with checklist of health and safety risks.

List the health and safety risk types that apply (for typical risks see checklist over) *Where possible the risk will be eliminated or reduced in the design or pre-sampling stage*	**Risk Rating***			**Details/Action/Comments**	**Residual risk (H/M/L)**	**Risk control issues to be considered on site** (for typical issues see checklist over)
	L	**M**	**H**			
6. Work activities						
Excavations Open trenches: Injury to work force and general public from falling. Trial pits: Live services / excavation collapse.		X		Experienced and trained personnel to carry out works in accordance with approved Method Statement & Risk Assessment. Excavations to be inspected during course of work. Excavations to be backfilled upon completion, with no excavations left open or unattended.	L	No excavations are anticipated to be required to be left open
Manual handling Accidents from lifting heavy/awkward materials and plant.		X		Use mechanical lifting equipment when possible. If manual handling cannot be avoided, seek assistance from other trained operatives.	L	All staff to be appropriately trained and experienced.
Injury to head Blow to head resulting from swinging chains, sampling casings, collapse of rig Risk to other workers, members of the public			X	Experienced and trained personnel to carry out works in accordance with approved method statement and risk assessment.	L	Hard hats to be worn by all working in the vicinity of the drill rig. Risk to others to be managed if necessary by appropriate use of fencing and barriers.
Exposure to fuels, oils, grouts etc Causing dermatitis/skin conditions from splashes and skin contact			X	COSHH assessment to be carried out on all materials on site. All staff/ operators to be informed of potential hazards at regular intervals/ toolbox talks	L	Protective Gloves and/or barrier cream to be worn First Aid Box available Fresh water supply to be available nearby.
Fuelling of drilling rig or other plant causing explosion Contact with skin from spillage or splashes whist fuelling		X		Plant to be switched off during fuelling. Spill kit to be inserted below funnel. Care to be taking when handling the nozzle not to splash fuel on the body or in eyes. Nozzle not to be locked off. Cease fuelling when non-return valve operates on the nozzle. Appropriate funnel to be used if required	L	No Naked Flames or Smoking on Site Fire Extinguisher available. Spill Kit available If spillage occurs, clean area immediately and remove any contaminated soil.

* For guidance on determination of Risk Rating (Health & Safety) see explanatory note included with checklist of health and safety risks.

List the health and safety risk types that apply (for typical risks see checklist over) *Where possible the risk will be eliminated or reduced in the design or pre-sampling stage*	**Risk Rating***			**Details/Action/Comments**	**Residual risk (H/M/L)**	**Risk control issues to be considered on site** (for typical issues see checklist over)
	L	**M**	**H**			
7. Work Environment						
Noise/vibration Risk of noise-induced hearing loss. Risk of noise-induced hearing loss whilst drilling rig and compressor are running		X		Ear defenders must be worn at all times whilst operating the drill rig and by any personnel entering the controlled zone of 5.0m must also wear ear defenders. The use of hearing protection will also be required during the operation of mechanical excavator and generator	L	Ear Protection should be available at all times. Heras fencing will be placed around the work area to protect other site staff and the general public if required
Dust/fume Risk of dust inhalation and associated health effects.	X			Under dry conditions, some sampling work may generate significant fugitive dusts. On industrial sites, dust may also be generated by site processes and could pose a risk if the duration of exposure is prolonged.	L	Damp down sampling area/hole to prevent dust. Wear toxic dust masks if dust exposure cannot be avoided.
Leptospirosis Risk of Infection through contact with fresh water, wet soil, or vegetation that has been contaminated by the urine of infected animals, particularly rats.	X			Operatives to maintain high standard of personal cleanliness, washing before tea breaks, meals etc. All cuts or grazes should be cleaned with soap and water and covered with waterproof plasters before and during work. Symptoms including fever, headache, chills, nausea and vomiting, eye inflammation, and muscle aches should be reported the project manager immediately. Medical attention should be sought as soon as symptoms are experienced.	L	Gloves and gauntlets, where appropriate, should be used for handling soil, containers and during water sampling. Where risk is rated as medium to high, all workers should be given a copy of HSE INDG84 "Leptospirosis – are you at risk?" A copy of the leaflet should be given to the doctor, if medical attention is required.

* For guidance on determination of Risk Rating (Health & Safety) see explanatory note included with checklist of health and safety risks.

List the health and safety risk types that apply (for typical risks see checklist over) *Where possible the risk will be eliminated or reduced in the design or pre-sampling stage*	**Risk Rating***			**Details/Action/Comments**	**Residual risk (H/M/L)**	**Risk control issues to be considered on site** (for typical issues see checklist over)
	L	**M**	**H**			
8. Work in/on/at						
Public areas Other contractors / trades: Risk of inexperienced personnel working on a very busy site. Risk to general public	X			No machinery to be left on site without supervision by suitably qualified personnel. Incoming and outgoing personnel to be monitored. All excavations to be suitably backfilled at the end of each day or barriers put in place securing the area. All works to be carried out in accordance with approved Method Statement & Risk Assessment. Provide supervision and physical barriers as appropriate to ensure no access to the vicinity by unauthorised personnel, particular attention to be given to children.	L	The principal contractor is responsible for making sure all sub-contractors/trades persons are correctly trained.
9. Other risk (specify):						

APPROVED: **James Field** **DATE:** 19/08/2019

James Field

* For guidance on determination of Risk Rating (Health & Safety) see explanatory note included with checklist of health and safety risks.

Checklist for potential health and safety risks

Condition of site:
- Slips and trips
- Slopes/gradients/unstable ground
- Water
- Needles/asbestos

Personal Security:
- Condition of general area
- Frequency of undesirable gangs

Traffic:
- Live Highways
- Mobile plant /machinery/vehicles
- Parking

Materials:
- Potential to encounter contaminated land
- Contaminated soil/materials
- Methane gas/sewers
- Asbestos

Work activities:
- Excavations
- Equipment maintenance
- Manual handling
- Cable percussion drilling

Work Environment:
- Noise/vibration
- Dust/fume
- Exposure to extremes of temperature/sun
- Radiological issues
- Fire protection
- Leptospirosis

Work in/on/at:
- Public areas

Checklist for risk control measures

Training/Instruction:
- Site inductions
- Site security
- Visitor management

Controlled environment:
- PPE for staff and visitors
- Permit to Work system
- Emergency procedures
- First aid provision
- Welfare facilities
- Communications on site
- Accident/incident reporting and investigation
- Safety signage
- Fire protection

Physical Measures:
- Lighting
- Fencing
- Barriers

Guidance on Determination of Risk Rating

Recording likelihood

When all factors have been considered and a decision made on the likelihood of the hazard actually causing harm, a number is entered in the Likelihood column on the Risk Assessment Form using the following scale:

Certain or imminent	*10*
Very likely	*8*
Likely	*6*
May happen	*4*
Unlikely	*2*
Very unlikely	*1*

Recording Severity

The judgement of the severity of the most probable consequences of the hazard is entered on the Risk Assessment Form in the Severity column as a number using the following scale:

Multiple death	*10*
Single death	*8*
Major injury, disabling illness, major damage	*6*
Lost time injury, illness, damage	*4*
Minor injury, minor damage	*2*
Delay Only	*1*

Likelihood	Severity					
	Multiple Death	Single Death	Major Injury	Lost time Injury	Minor Injury	Delay
Certain	**100**	**80**	**60**	**40**	**20**	**10**
Very likely	**80**	**64**	**48**	**32**	**16**	**8**
Likely	**60**	**48**	**36**	**24**	**12**	**6**
May happen	**40**	**32**	**24**	**16**	**8**	**4**
Unlikely	**20**	**16**	**12**	**8**	**4**	**2**
Very unlikely	**10**	**8**	**6**	**4**	**2**	**1**

For the purposes of evaluation, the matrix can be used to provide an initial breakdown of the hazards into categories, as follows. In general, the darker the shading the more likely it is that the decision will be that the risk is not adequately controlled, but the guidelines listed here should be followed:

Dark Shading – High Risk (H)
Light Shading – Medium Risk (M)
No Shading – Low Risk (L)

i. Those hazards with residual risk ratings that appear in the unshaded area can usually be considered as trivial risk.

ii. Hazards with risk ratings that appear in the shaded area below the lower double line can be considered as adequately controlled risk.

iii. Hazards with risk ratings above the upper double line must be considered as not adequately controlled. Further controls will be required. Hazards with risk ratings in the darker shaded areas will require consideration of whether to suspend or start the operation until controls are introduced.

iv. The control measures provided for hazards with risk ratings between the two double lines must be examined against current standards to arrive at a decision as to whether the hazard is adequately controlled or not adequately controlled.

* For guidance on determination of Risk Rating (Health & Safety) see explanatory note included with checklist of health and safety risks.

APPENDIX C
H&S SIGN OFF SHEET

The site engineer is required to complete this sign off sheet on completion of fieldworks.

Were any H&S concerns observed? Yes / No

If Yes, provide detail, and report to Project Director

Did an H&S incident occur? Yes / No

If Yes, provide detail, and report to Project Director
