



Client	BRM Group Linnyslaw Industrial Estate, Moss Lane, Walkden, Worsley, Manchester – M28 3LY Chris Munro 07787 423 983 chris.munro@brmusl.co.uk																												
Drilling Contractor	Apex Drilling Services Limited Sturmi Way, Village Farm Industrial Estate, Pyle, Bridgend – CF33 6BZ Roger Martin Managing Director 01656 749 149 07768 146 639 roger.martin@apex-drilling.com Thomas Martin Director 01656 749 149 07974 685 274 thomas.martin@apex-drilling.com Mike James Drilling Manager 01656 749 149 07855 489 362 mike.james@apex-drilling.com																												
Driller	TBA																												
Contract Title	Newgale Borehole 2																												
Description Of Works	Single borehole to rockhead Hand dug inspection pit – pre-completed by client Open hole drilling of overburden Open hole drilling of bedrock – prove competent rock Bagged samples to be take throughout Backfill borehole using bentonite pellets Reinstatement and clean up by client Full supervision by Spectrum Geo Services Limited																												
Document	Pre Start Documents – Version 01 BRM.NEWGALE.ROT.AMF.24.ii																												
Purchase order	TBA																												
BDA Classification	GREEN Substances that have little potential to cause significant permanent harm to humans.																												
Operational hours	<table><tr><td>Day</td><td>Start of shift</td><td>End of shift</td><td></td></tr><tr><td>Monday</td><td>08 : 00</td><td>17 : 00</td><td>* Subject to daylight hours</td></tr><tr><td>Tuesday</td><td>08 : 00</td><td>17 : 00</td><td>* Subject to daylight hours</td></tr><tr><td>Wednesday</td><td>08 : 00</td><td>17 : 00</td><td>* Subject to daylight hours</td></tr><tr><td>Thursday</td><td>08 : 00</td><td>17 : 00</td><td>* Subject to daylight hours</td></tr><tr><td>Friday</td><td>08 : 00</td><td>17 : 00</td><td>* Subject to daylight hours</td></tr></table>					Day	Start of shift	End of shift		Monday	08 : 00	17 : 00	* Subject to daylight hours	Tuesday	08 : 00	17 : 00	* Subject to daylight hours	Wednesday	08 : 00	17 : 00	* Subject to daylight hours	Thursday	08 : 00	17 : 00	* Subject to daylight hours	Friday	08 : 00	17 : 00	* Subject to daylight hours
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Client	Access to and reinstatement of borehole location – inclusive of clean up Service clearance of borehole locations																												
Apex site rules	→ Do not interfere or override any safety provisions → Personal protective equipment for each applicable task to be worn → Isolation and lock out procedures must always be followed → No person to work if under the influence of either drugs or alcohol → All injuries, accidents and near misses to be reported																												
Consideration for tasks	→ Contractor safety management → Construction project safety → Machinery safety → Isolation → Driving and interacting within the local community → Site transport safety → Use of mobile phones within the workplace → Haulier safety → Remote / lone operation → Drilling safety → Prevention of over pressurisation																												

Project specific goals	→ Zero lost hours → Improve efficiency of the operation → Improve the working environment → No minor or major injuries → Increase awareness of Health and Safety on site → Work with the local community and integrate where possible															
Communication	→ RA.MS document to be completed by all operatives entering the operational drilling area → Pre-start checks to be completed prior to the commencement of work → Pre-start discussions to be held between the drilling crew → Previous daily operations / performance → Projected daily operations, movement, and logistics → Weather conditions raised by the client → Issues raised by the client → Drill crew equipped with a mobile phone → Vehicle fitted with tracking device → Communications between drill crew and office / drilling manager are frequent															
Breakdown procedures	→ Isolate plant immediately, empty all potential energy and follow isolation steps detailed within this pack → Stop work and notify all parties immediately → Stand for instruction															
Completion of project	→ Walk borehole positions with client and confirm that site is in a satisfactory standard → Surrender all permits (if applicable) back to the client															
Daily drilling logs	<table><tr><td>→ Contract name</td><td>Newgale</td><td>→</td><td>Blue copy</td><td>BRM</td></tr><tr><td>→ Client</td><td>BRM</td><td>→</td><td>Yellow copy</td><td>BRM</td></tr><tr><td>→ Supervising geologist</td><td>Spectrum Geo Services</td><td>→</td><td>White copy</td><td>Apex Drilling Services Ltd.</td></tr></table>	→ Contract name	Newgale	→	Blue copy	BRM	→ Client	BRM	→	Yellow copy	BRM	→ Supervising geologist	Spectrum Geo Services	→	White copy	Apex Drilling Services Ltd.
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→ Supervising geologist	Spectrum Geo Services	→	White copy	Apex Drilling Services Ltd.												
Information recorded	→ Borehole number / client reference → Flushing medium – flush / type / loss → Identification of stratum, depth, and description (drillers) → Depth that ground water is encountered (if apparent) → Details of voids, suspected anomalies, and / obstructions → Standing time and reasoning for why the plant is un-operational → Static water levels at the start and end of the shift (where possible) → Details of support plant and equipment → Daily production totals → Installation information and cross sections															
Field logbook	→ Available for viewing by the supervising geologist / project engineer as required → Daily prestart log sheet completed daily – re-written if weather damaged → Lithology of borehole, drillers description → Standing time, daily events and reasoning															
Medical emergency	→ Check for danger and make the area safe → Isolate all plant and machinery → Seek help → Apply first aid if able to do so → If not, contact the site first aider or emergency services → Keep the person safe and warm until assistance arrives → Report the accident – inform all parties → Record all details as instructed → Do not recommence work until instructed															
Fire emergency	→ Raise the alarm, shout ‘FIRE’ and / or sound the emergency signal → If trained / competent to fight a small fire, and it is safe to do so, proceed with extinguisher → Do not put the drill crew at risk – get out and stay out → Call the fire services immediately in the event of any non-controlled fire → Report the fire to the Apex office who will inform all parties → Gather at the designated muster point and await further instructions → Record the incident and do not recommence the work until instructed															
Contamination contact	→ Stop work → Remove contaminated clothing → Wash area with water, use emergency washing / drenching facilities if available → Inform your supervisor and the client → Administer first aid as necessary or seek further medical advice if required → Record the incident as instructed															

Risk calculation BEFORE control						Risk calculation AFTER control							
S	3				Severity (S)	3	S	3				Severity (S)	3
	2				Likelihood (L)	2		2				Likelihood (L)	1
	1				Severity (S) x Likelihood (L)	6		1				Severity (S) x Likelihood (L)	3
		1	2	3				1	2	3			
L						L							
HIGH RISK – CONTROL REQUIRED						AMBER RISK – PROCEED WITH CAUTION							
NOTE – THERE WILL ALWAYS BE A RISK													

RA.MS Task

UNLOADING ROTARY DRILLING RIGS FROM THE DELIVERY VEHICLE

Risk calculation BEFORE control					
S	3			Severity (S)	3
	2			Likelihood (L)	2
	1			Severity (S) x Likelihood (L)	6
		1	2	L	3
HIGH RISK – CONTROL REQUIRED					

Risk calculation AFTER control					
S	3			Severity (S)	3
	2			Likelihood (L)	1
	1			Severity (S) x Likelihood (L)	3
		1	2	L	3
AMBER RISK – PROCEED WITH CAUTION					

NOTE – THERE WILL ALWAYS BE A RISK

Control

RISK	
→	Incorrect route to unloading point
→	Lorry getting stuck on access
→	Unloading in wrong location
→	Site traffic / interaction
→	Highway traffic
→	Visibility of moving plant
→	Interaction of operatives with site traffic
→	Insecure load
→	Unexpected movement of lorry
→	Slips and trips around lorry
→	Rig sliding off of low loader bed
→	Loss of control
→	Blind spots
→	Tools rolling off of lorry bed

CONTROL	
→	Traffic management routes to be advised
→	Driver to view access / unloading area in van
→	Unloading point to be confirmed by client
→	Designated unloading point to be given
→	Crew to act as sentry's where necessary
→	Flashing lights, strobes and headlamps to be on
→	Demarcation of plant and radios where necessary
→	Only lorry driver to adjust / remove straps
→	Engine off and keys removed
→	Straps and chains to be stowed immediately
→	Unloading area to be level
→	Access to emergency stops to be available
→	Lorry driver to act as a visual guide
→	Items to be strapped until required

Methodology

APPROACH TO SITE	
→	Lorry driver to park at a pre-instructed holding point prior to arrival on site
→	Access and unloading point to be viewed by lorry driver in Apex van
→	All parties to sign in as required and receive a brief induction (if required)
→	Full P.P.E. to be worn at all times by all parties
→	Flashing strobes to be displayed at all times upon approach, unloading and leaving of site
→	Apex operatives to act as sentry's to both warn and control traffic as required

LOAD / UNLOAD	
→	Low loader to be turned off and keys removed
→	Lorry driver to remove straps from tail ramps and connect electrics
→	Lorry driver to check surroundings before lowering ramps to the floor, disconnect ramps
→	Lorry driver to remove chains / straps and stow them in storage racks (not on floor)
→	Lorry driver to walk around lorry to visually check everything is in place for unloading
→	Driller to start rig and wait for a visual instruction from the lorry driver to move the rig
→	Lorry driver to position himself in clear visibility of both driller and surrounding area
→	Crewmen to remain in place as sentry's and where necessary stop all traffic
→	Driller to remove rig from lorry, park it in a secure location, turn off rig and remove keys
→	Crew to manually remove tooling from the lorry, 2 man lift where necessary
→	Lorry driver to connect electrics to trailer
→	Lorry driver to lift ramps into upright position, connect straps and disconnect electrics
→	Lorry driver to walk around lorry, visually check that everything is stowed correctly and ready to move

LEAVING SITE	
→	Full P.P.E. to be worn at all times by all parties
→	Flashing strobes to be displayed at all times upon approach, unloading and leaving of site
→	Apex operatives to act as sentry's to both warn and control traffic as required
→	All parties to sign out as required

Note

IF IN DOUBT	
	STOP
	ISOLATE
	COMMUNICATE

RA.MS Task

MOVING PLANT AND SUPPORT MATERIALS TO BOREHOLE LOCATION

Risk calculation BEFORE control						
S	3				Severity (S)	3
	2				Likelihood (L)	2
	1				Severity (S) x Likelihood (L)	6
		1	2	3		
		L				
HIGH RISK – CONTROL REQUIRED						

Risk calculation AFTER control						
S	3				Severity (S)	3
	2				Likelihood (L)	1
	1				Severity (S) x Likelihood (L)	3
		1	2	3		
		L				
AMBER RISK – PROCEED WITH CAUTION						

NOTE – THERE WILL ALWAYS BE A RISK

Control

RISK

- Movement through site
- Potential interaction with traffic
- Getting lost
- Communication
- Plant visibility
- Items of plant rolling away
- Crossing of services
- Plant failure
- Lone working
- Competence
- Passenger
- Personal injury

CONTROL

- Site to be aware of movement time and route
- Escort to be in place (if required)
- Movement route to be viewed prior to move
- Mobile to be fully charged
- Strobes / flashing lights– escort if required
- All plant to be parked cross gradient
- Designated crossing places to be in place
- Pre-start check sheet to be completed
- Buddy operation to be in place
- Certified operators to operate plant
- No riding on plant with no designated point
- Full P.P.E. to be worn at all times

Methodology

MOVEMENT

- Sign in and enquire to any variations in daily operations on site
- Notify site of required site movements, projected times and proposed access routes
- Routes to be viewed and agreed with site
- Pre-start check sheet to be completed on all operational plant
- Agreed movement protocols to be adhered to at all times, no deviation unless instructed
- No lone movements – buddy system to be in operation at all times
- Where necessary and safe the crewman to act as a focal point for the operator
- All plant to be parked cross gradient and isolated when not in use.
- Designated crossing point for services to be in place / routes to be clear of shallow services
- Only certified operators to use each respective item of plant

Note

IF IN DOUBT

- STOP
- ISOLATE
- COMMUNICATE

RA.MS Task

HAND DIGGING OF INSPECTION PIT – (PROVISIONAL)

Risk calculation BEFORE control						
S	3				Severity (S)	3
	2				Likelihood (L)	2
	1				Severity (S) x Likelihood (L)	6
		1	2	3		
		L				
HIGH RISK – CONTROL REQUIRED						

Risk calculation AFTER control						
S	3				Severity (S)	3
	2				Likelihood (L)	1
	1				Severity (S) x Likelihood (L)	3
		1	2	3		
		L				
AMBER RISK – PROCEED WITH CAUTION						

NOTE – THERE WILL ALWAYS BE A RISK

Control

- RISK**
- Digging in the wrong place
 - Shallow 'unrecorded' services
 - Major services
 - Electrocution
 - Hazardous materials
 - Shallow termination
 - Slips and trips
 - Injury
 - Falls
 - Contamination
 - Deeper services (> 1.20 metres)

- CONTROL**
- Borehole to be marked and permit issued
 - C.A.T. scan prior to breaking ground
 - Full service search to be completed
 - Insulated digging tools
 - 5 gallon drum of water to be available
 - Shallow termination only instructed by client
 - Area to be cleared for potential trip items
 - Full P.P.E. to be worn at all times
 - If left open pit to be covered or demarcated
 - Spoil to be bagged and labelled
 - Pit to be CAT scanned at base depth

Methodology

- HAND DIGGING**
- Hand digging to be completed using insulated tools.
 - If intersected digging to cease immediately
 - Shallow obstruction / rockhead
 - Upon 1.20 mts / instruction to terminate

- Utility services
- Water
- Contamination
- Contact geologist for instruction to terminate
- Inspection pit dipped and measured
- Material to be bagged / labelled
- Backfill pit and manually compact

Note

- IF IN DOUBT**
- STOP
 - ISOLATE
 - COMMUNICATE

RA.MS Task

SET UP OF RIG ON BOREHOLE POSITION

Risk calculation BEFORE control						
S	3				Severity (S)	3
	2				Likelihood (L)	2
	1				Severity (S) x Likelihood (L)	6
		1	2	3		
		L				
HIGH RISK – CONTROL REQUIRED						

Risk calculation AFTER control						
S	3				Severity (S)	3
	2				Likelihood (L)	1
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		1	2	3		
		L				
AMBER RISK – PROCEED WITH CAUTION						

NOTE – THERE WILL ALWAYS BE A RISK

Control

RISK

- Borehole setup
- Setting up / drilling through shallow services
- Drilling in wrong position
- Hitting overhead services
- Rig tipping over
- Part failure
- Items of plant rolling away
- Deviation / direction
- Weather / change in conditions
- Lone working
- Interaction with site traffic

CONTROL

- Complete pre-borehole check sheet
- Borehole positions to be cleared for services
- Position to be marked / correlated on a map
- Boreholes at safe distance from cables
- Rig to be level prior to erecting mast
- Pre-start check sheets to be completed daily
- All plant wheels to be chocked.
- Verticality to be checked prior to work
- Borehole check sheets to be completed daily
- No lone operation – buddy system in place
- Where required plant to be demarcated

Methodology

GENERAL

- Borehole positions to be pre marked and cleared for services prior to movement
- Positions to be correlated with map and verified by the client
- Pre borehole check sheet to be completed prior to set up
- Complete pre-start check sheet (if not already complete)
- Park, isolate and chock all support plant and equipment
- Borehole check sheet to be completed daily or if any direct / extreme change in conditions
- No lone operation – buddy system to be in operation at all times
- Demarcate plant where necessary

SPECIFIC

- Track machine into place and locate over borehole
- Level body using jacking rams
- Check the body is level using spirit level
- Erect mast to inclined position – re-confirm inclination
- Perform full system operation check
- Only proceed if all systems are fully operational
- If fault identified follow isolation procedure

Note

IF IN DOUBT

	STOP
	ISOLATE
	COMMUNICATE

Driller task	Crewman task
Driller task	
Driller task	
	Crewman task

RA.MS Task

ISOLATION PROCEDURE

Risk calculation BEFORE control					
S	3			Severity (S)	3
	2			Likelihood (L)	2
	1			Severity (S) x Likelihood (L)	6
		1	2	3	
		L			
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		L				
AMBER RISK – PROCEED WITH CAUTION						

NOTE – THERE WILL ALWAYS BE A RISK

Control

RISK

- Stored energy
- Machinery use when faulty
- Indirect plant interfering with the repair
- Visibility
- Loss of keys
- Removal of padlocks by random people
- Starting when faulty
- Incorrect repair

CONTROL

- All energy to be dissipated from the system
- Individual padlocks to be fitted to hasp
- All plant to be disconnected
- Isolation signs to be displayed
- Lock box with keys to be put in secure place
- Padlocks to be retained by individuals
- Complete re start check to re-start
- Competent operatives to work on rigs

Methodology

ISOLATION

- Turn off all plant immediately.
- Release all kinetic energy and stored system
- Open air taps – release air from hosing, disconnect all air hoses
- Move levers on rig controls – ensure all hydraulic pressure is released
- Collect isolation box from van
- Remove all ignition and isolation keys and place into isolation box
- Fit hasp, sign and personal padlocks to isolation point
- Padlock keys to be individual and remain with that individual at all times.
- Hasp has 6 ports – additional ports for any person who has to work / access
- If required move all plant to a safe location, isolate and lock panels
- Isolation box to be placed in secure location – van or site offices
- Report the incident to your supervisor who will inform the client
- Wait for instruction.

Note

IF IN DOUBT

- STOP
- ISOLATE
- COMMUNICATE

- [illegible]