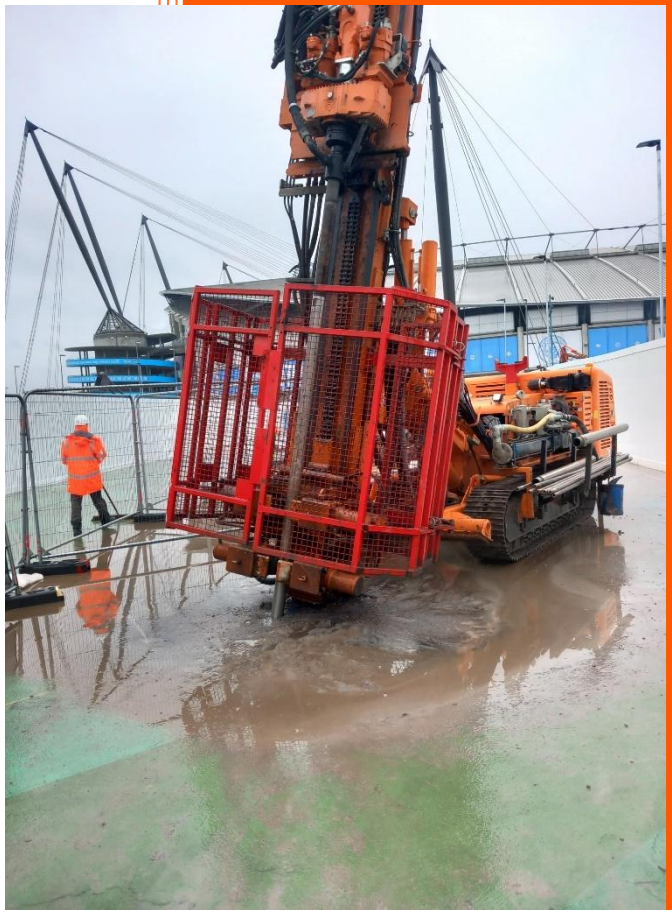


250597

Aldi, Whitehaven



Factual Report

Drilling and Treatment for Former Shallow Mine Workings

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Control Sheet

This report has been prepared for the sole benefit, use and information of Projekt Architects Ltd for the purposes set out in the instructions commissioning it. The liability of Van Elle Ltd in respect of the information contained in the report will not extend to any third party.

Summary Table	
Factual Report for the probing and treatment of shallow workings beneath a newly proposed Aldi Supermarket, Whitehaven	
SITE	Aldi, Whitehaven
CLIENT	Projekt Architects
DATE	31/10/2025
REFERENCE	VE250597

Development Proposal	Projekt Architects (PA) are to carry out the construction of new Aldi Superstore in Whitehaven, Cumbria. This report gives a factual account of the works carried out including shallow mine workings treatment.
Geological Setting / Coal Mining Legacy	The site is underlain by the Pennine Middle Coal Measures consisting of productive coal bearing mudstones, siltstones, and sandstones. Superficial deposits consist of made ground and Glacial clays. The Mining Remediation Authority (MRA) deems the site to be High Risk for development due to the sites historical mining environment.
Scope of Works	Due to the proposed end use of the site, i.e. Commercial Shopping Unit, it is necessary to ensure that any residual risk from the site's mining past is mitigated and reduced. It would therefore be a requirement of the Local Authority and the MRA that the mine workings are investigated and treated to prevent any potential surface instability in the future.

Conclusion	153 No. boreholes were drilled at the site to investigate and treat identified underlying shallow mine workings beneath the property. No mineworking's were recorded. All positions drilled were grouted using a 12:1 PFA: OPC grout.
Recommendations	As with all formerly mined sites, there is always a possibility of unknown mineshafts/bell pits/adits and previously formed crown holes being present on site. We would suggest that there is a watching brief whilst undertaking any excavation/earthworks on site and any changes in fill material or colour are noted and investigated

Prepared by	Paul Grocott MIMMM FGS	Signed 	Date 31/10/2025
Approved by	Dave Bourne	Signed 	Date 31/10/2025

Introduction

Projekt Architects (PA) in their capacity as Principal Contractor, have instructed Van Elle (VE) to carry out the investigation and stabilisation of shallow workings beneath newly proposed Aldi Superstore.

The stabilisation and treatment were required to be carried out by Drilling and Grouting, an industry wide term, used to describe the processes identified and described below.

The site is located off Preston Street, Whitehaven, Cumbria and is currently being redeveloped. The site location is shown below on Figure 1.



Figure 1: Site Location

As part of the pre-construction phase of the redevelopment, a site investigation was commissioned to assess the land and to identify any risk posed by a former mining environment given the areas history.

All works were carried out in line with recommendations given in CIRIA Publication 758D.

Methodology – Drill and Grouting

A 6m x 6m grid with centre (4.25m effective) was superimposed on the proposed layout to cover the area. Treatment boreholes were drilled to an average depth of 25m or 1m below the seam / workings. Figure 2 below shows the drilling grid:



Figure 2: Treatment plan

The works involved the drilling of 101mm/72mm diameter boreholes to access the underlying workings/geology to ascertain if treatment was required.

All works were carried out by a Casagrande C6 rotary percussive drill rigs, using water as the flushing medium to assist in the drilling through hard strata and to reduce the risk of releasing perched mine gases.

The crew set up the rig at the drilling location with the initial lengths of 101mm casing installed on the mast. The driller then commenced drilling and installed the first lengths casing into the ground. With the initial casing lengths installed, the driller split off the drill head from the casing, then raising the drill head to a suitable position for accepting the next length of the casing. This process was repeated until the casing reached rockhead, where it was socketed in to give a tight seal, thus preventing grout loss.

Once the casing was installed to rockhead and sealed, the smaller diameter drill rods (T38) were added to the mast and a 72mm drill bit fitted to drill down to the target seam.

Once the target seam had been reached and an open borehole achieved, the borehole was further cleaned out by moving the rods up and down on the mast, allowing any materials that had spalled into the borehole to be removed.

The entire drill string was then removed, and the borehole deemed complete and ready for grouting.

During the drilling process, accurate logs of depths, loss of flush, geology and any workings encountered were recorded. Logs attached and can be found in Appendix 2.

Grouting works commenced once there were enough holes drilled out within the treatment area to permit and accommodate the batching of a full grout mix with minimal wastage. Logs can be found attached in Appendix 3.

The grout consisted of an PFA / OPC cementitious grout, mixed and injected through a P11 Putzmeister paddle mixer and pump. Grout was pumped to each borehole through a series of 3" and 2" Grout lines. All boreholes were grouted to surface.

Summary of Works Carried Out

In total 153 treatment boreholes were drilled to an average depth of 24m below ground level (bgl).

Superficial Deposits (Over burden) was found to consist of made ground and glacial tills, which in turn was underlain by Mudstone with coal bands, and Sandstone.

There was no evidence of former workings in the form of soft drilling / back fill, broken ground or voiding. Any COAL encountered was within / or consisted of MUDSTONE bands and was most likely uneconomical to remove.

Conclusion

All positions drilled recorded no evidence of a former shallow mine working environment.

Van Elle are satisfied that the risk from former mine workings based on the evidence gleaned from the drilling and grouting exercise is negligible, and that the development can go ahead unhindered.

The Coal Authority Permit can now be closed, and a copy is attached in Appendix 6.

As with all formerly mined sites, there is always a possibility of unknown mineshafts/bell pits/adits and previously formed crown holes being present on site. We would suggest that there is a watching brief whilst undertaking any excavation/earthworks on site and any changes in fill material or colour are noted and investigated.

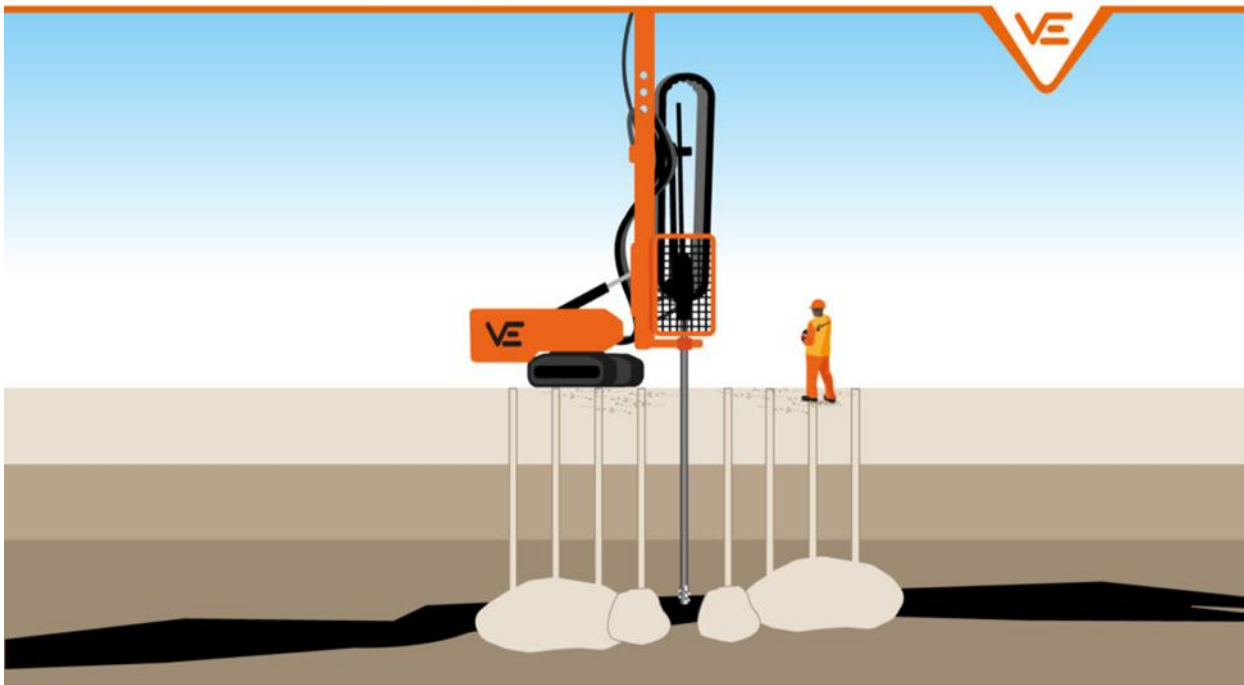
Appendix 1: Specification



Aldi, Whitehaven

Specification for Consolidation of Former Mine Workings by Drilling and Grouting

Bulk infill drilling and grouting



Document Name	SPEC250597	
Division	Specialist Piling	
Client	Summers Inman (Aldi)	
Project/Task	Aldi, Whitehaven	
Job No. 250597		Date 27/05/2025

Revision Status

Initial	Name	Position	Date	Signature
Prepared by	Sam Palmer MEng	Contracts Manager	27/05/2025	<i>S. Palmer</i>
Reviewed by	Dave Bourne	Operations Manager	27/05/2025	<i>Dave Bourne</i>

Rev no.	Revised by	Date	Amendments
00	Sam Palmer (VE)	27/05/2025	FIRST ISSUE
01	Paul Grocott (VE)	07/08/2025	REVIEWED AFTER SITE VISIT

1.0 Introduction and Scope of Works

Projekt Architects in their capacity Principal Contractor, has requested Van Elle (VE) prepare a specification to allow the stabilisation and consolidation of underlying Coal seams and associated workings within the footprint of a newly proposed supermarket development at the site off Preston Street, Whitehaven.

The stabilisation of the workings / coal seams will be carried out by Drilling and Grouting, an industry wide term, used to describe the processes identified and described below.
The area to be drilled is shown on the drawing below on figure 1.



Figure 1: Drill and Grouting Borehole Plan

1.1 Location and Description

The site is located off Preston Street, Whitehaven, and is being redeveloped for a new supermarket. The site location is shown below on Figure 2.

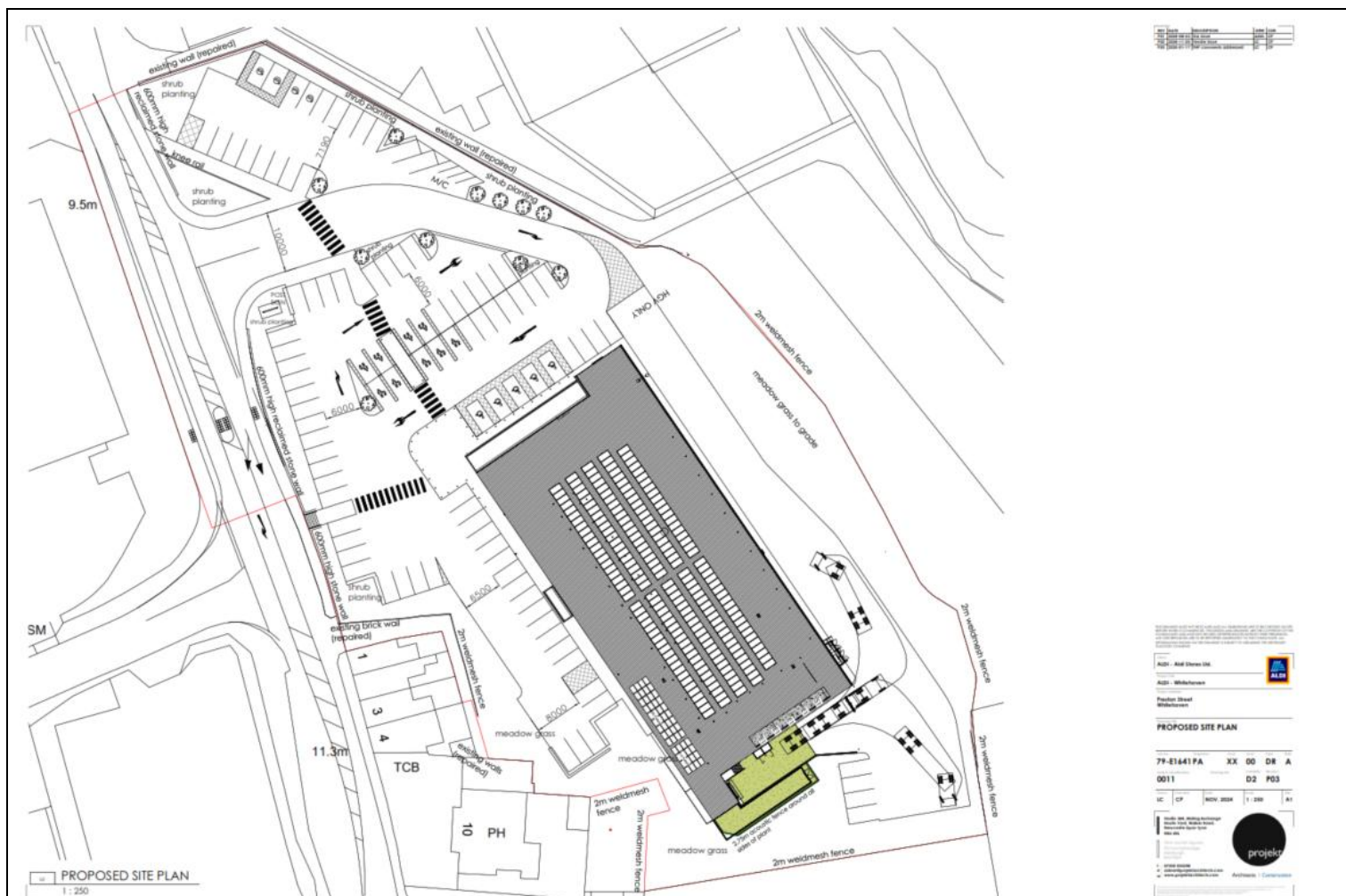


Figure 2: Site Location

1.2 Ground Conditions and Geology

A check of the BGS GeoIndex online resource shows the site to be underlain by the Pennine Middle Coal Measures consisting productive coal-bearing mudstones, siltstones, and sandstones. A screenshot is shown below as figure 3.

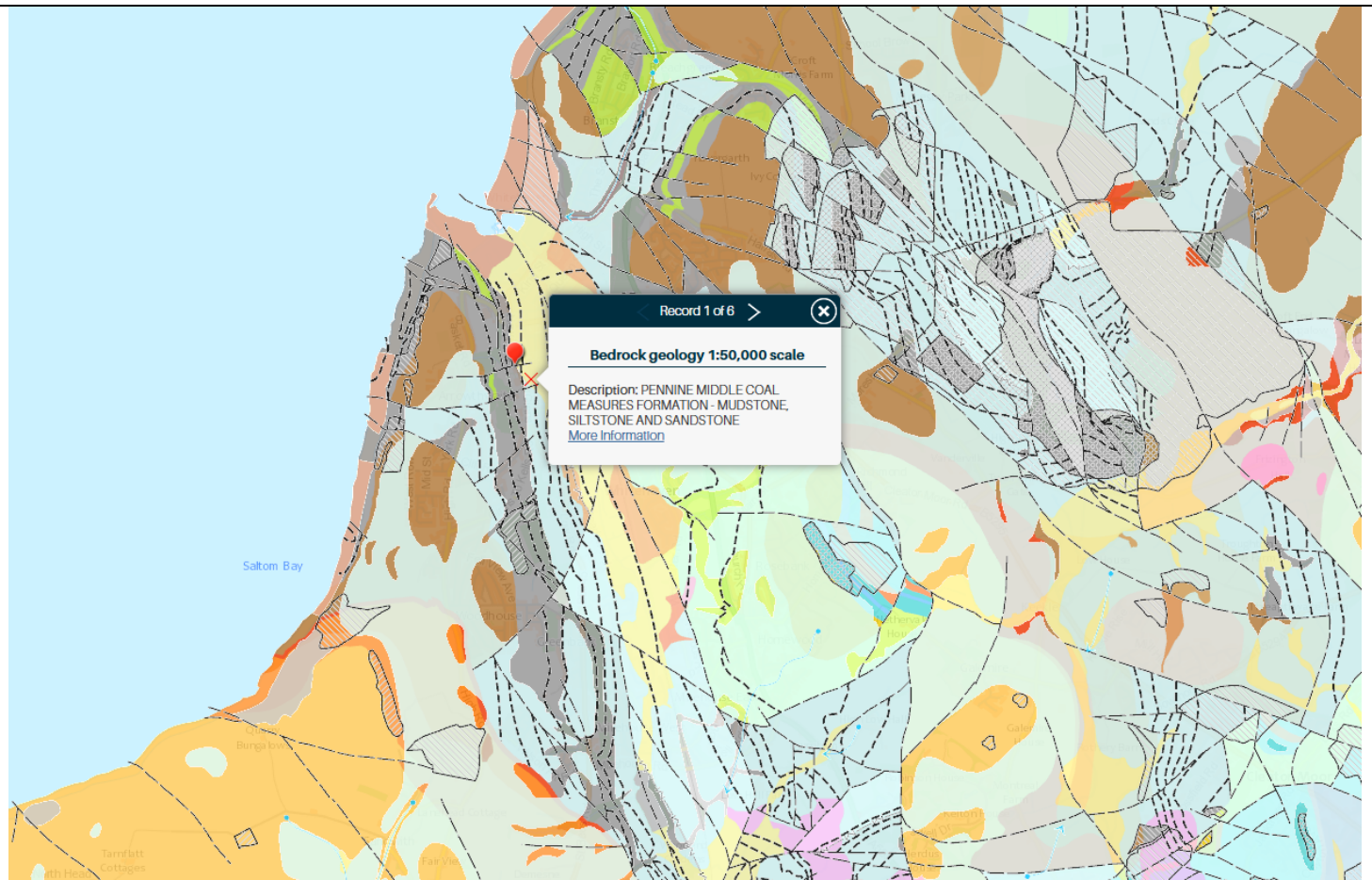


Figure 3: Geological Background

A further check of the Mining Remediation Authority Interactive viewer also revealed that the site is within a former coal mining area. It was therefore recommended that this area be investigated and if found to be showing evidence of workings to be consolidated by drilling and grouting. A screenshot is shown below as Figure 4.

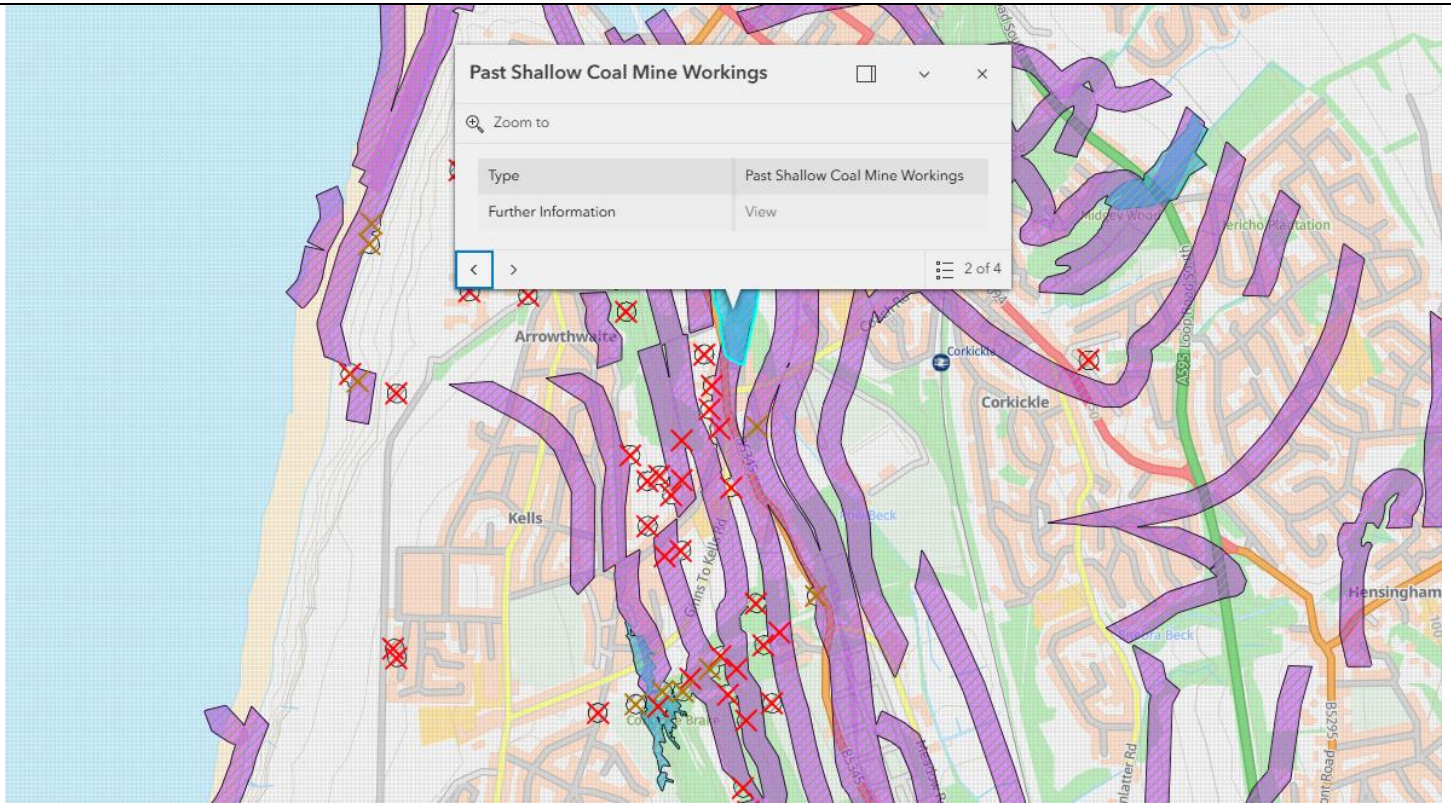


Figure 4: Showing former coal mining area.

1.3 Purpose of the Works

Treatment of coal seams / workings is required where less than ten times seam thickness of rock cover exists between the top of the worked seam and the base of the proposed piles/rock head. This 10T rule is an industry adopted common practice based on information and guidance given within Section 13.5.4 of CIRIA Publication C758D.

1.4 Permissions

1.4.1 Mining Remediation Authority

A permit to treat workings will be obtained from the Mining Remediation Authority. A copy of the permit shall be kept on site by the foreman.

1.4.2 Environment Agency

Any permits required by the EA must be obtained by the Client / Principal Contractor unless otherwise agreed.

1.5 Services

All services must be identified on site and shown to the Foreman and drill crew. All protection, diversion, and reinstatement of any service under CDM fall under the responsibility of the Principal Contractor and permits to work must be issued. Foreman should be briefed by the PC and have regard for the following documents.

2.0 Specification – Drill and Grouting of former mine workings

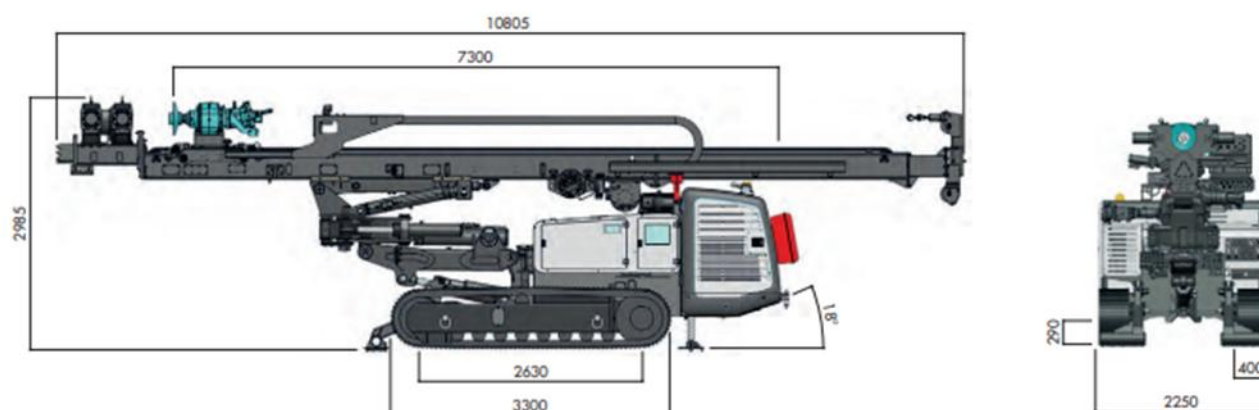
2.1 Design

A 6m x 6m grid with centre (4.25m coverage) has been superimposed on the proposed building layout to cover the area. Treatment boreholes will be drilled to an average depth of 25m or 1m below the Bannock Band coal seam.

Several positions will have to be angle drilled due to on site constraints including old drains, culverts and retaining walls.

The BHs will be drilled using a Casagrande C6 XP2 or Soilmec SM14/15 rotary percussive drilling rig (dimensions are shown below in figure 5) utilising water as the flushing medium. This is to eliminate any dust generated by the drilling process and to reduce the risk of harmful gases to LOW as per advice on table 6.2.7 of the Mining Remediation Authority Guidance Document on harmful gases.

Casagrande C6 XP Rig



Weight of rig (depending of mounted equipment)
 Peso attrezzatura (dipende dall'allestimento montato)
 ~15000 kg

Soilmec SM14 Rig

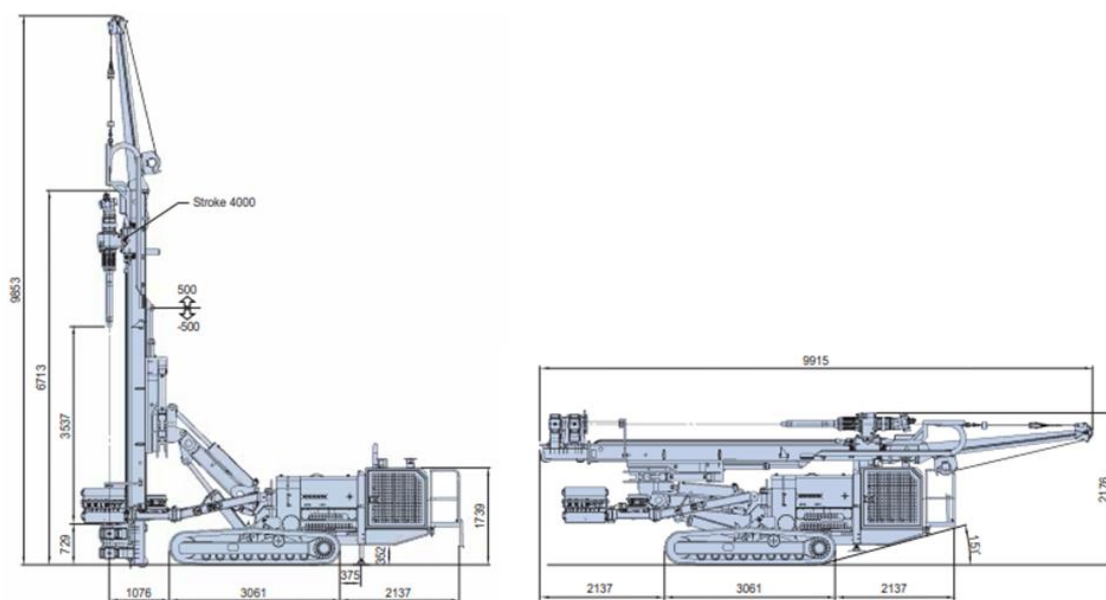


Figure 5: Rig Dimensions

The main purpose of the works is to stabilise and treat the underlying workings to prevent void migration to surface. Any fractured rock / voids above the coal seam / workings will benefit from grout infiltration; however, this will not count as Ground Improvement and merely a by product of the grouting process.

2.2 Supervision

A full-time working foreman will be on site during the project, who will be responsible for ensuring the works comply with the specification. He will liaise with VE contract management staff daily. The Foreman will be supported by a visiting Contracts Supervisor and Contracts Manager, further IT and Engineering support will be provided from back in the office and if required on site.

2.3 Drilling

Drilling will be carried out using hydraulic driven rotary percussive drill rig using water as the flushing medium. The methodology is described below:

- A segmental 101mm/72mm drill system will be utilised for drilling and this will be advanced to c.25m below ground level using water as the flushing medium.



Figure 6: 101mm steel casing with cutting shoe

- All operatives will wear 6-point PPE including HI-VIS clothing, Helmet with ear defenders, Boots, Gloves and Glasses (as shown below in figure 7)



Figure 7: PPE to be worn.

- The drill crew will setup the drill rig at the drilling location checking that the mast is at the correct orientation and the initial lengths of casing installed on the mast.



Figure 8: Checking mast is at the correct orientation.

- Once setup, the driller will commence drilling and will install the first lengths casing into the ground. The driller will ensure that the drill mast is angled at the correct inclination before drilling commences.
- With the initial casing lengths installed, the driller will split off the drill head from the casing and will raise the drill head to a position where it is ready to accept the next length of the casing/drill string.
- The driller will open the safety gates and the 2nd man will place the next 2.0m section of the drill string into position on the mast. Once the casing is secured on the drill head, the 2nd man will vacate the area and the driller will close the gates and continue drilling.
- The newly installed casing will then be advanced accordingly, and this process will then repeat itself until the required depth is reached. Where the ground conditions permit, the casing will be driven to and socketed into rock to create a tight seal. The inner drill rods will then be advanced on their own to achieve the required depth.
- On completion of drilling, the drill string will be removed, and the hole will be ready for grouting. If required, a plastic pipe will be installed through the overburden material to prevent collapse following the removal of the casing.
- The crew will then move to the next position and the drilling process will be repeated. A series of holes will be drilled across the grid prior to the grouting works commencing.

The sequencing of all drilling and grouting works will be in accordance with the works specification. Where necessary, the use of angled drill holes may be permitted to allow the crew to treat awkward grid positions from a safe location.

2.3.1 Primary Grid

A primary grid of 6m x 6m (with centre) will be drilled with boreholes extending to average depth of 25bgl or 1m below the Brooch Coal Seam.

2.3.2 Perimeter

This does not appear necessary since there is no great dip in the workings or significant voids.

2.3.3 Records

Full records shall be maintained during the works, showing job name and location, hole reference number, date, plant in use and crew members, inclination of borehole, daily and cumulative length drilled depth to each major change in stratum, description noting where stratum is broken, details of any voids or suspected workings and depth of completed borehole.

2.3.4 Unknown Mineshafts

Should unknown mineshafts be encountered it will be necessary to probe drill the shaft to work out its diameter. The PC should then record the position via GPS and VE will inform the Mining Remediation Authority as the permit holder. The CA will amend the permit to allow treatment.

A shaft safety platform would then need to be mobilised to allow treatment. Methodology and risks will be covered in an amended set of RAMS and Specification.

2.3.5 Mining Anomalies

During the works we may encounter anomalies related to past mining activities. These could include mineshafts (see above), mining adits (tunnels from surface into mine workings), crown holes (depressions at surface caused by shallow workings collapse), bell pits (small shallow primitive pit), wash out features (coal seams removed by erosion from water), former opencast excavations. Should we encounter an anomaly we will carry out exploratory drilling to ascertain the size, shape and depth of the anomaly.

Once this information is at hand, consultation shall take place with the Supervising Engineer, and if required the Mining Remediation Authority, and a strategy draw up as to treatment required.

2.4 Grouting

Once several boreholes have been drilled, cased, and cleaned out they will be ready to receive grout through the steel casing installed. The following methodology should be used:

- Grouting works will commence once there are enough holes drilled out within the treatment area that is likely to permit and accommodate the batching of a full grout mix with minimal wastage. The number of holes required for this will be vary accordingly with the conditions identified on site.
- The grouting works will be undertaken utilising a 6T/3T Electric Grout mixer together with an electric MAT Pump or a P11 Putzmeister pump. Grout will be pumped to the grouting location through a series of 3" and 2" Grout lines.



Figure 9: 6 Ton electric mixer being loading by Telehandler.

- The standard grout mix to be utilised for the works is to be 12:1 PFA/OPC. PFA will be delivered to site in bulk loads and the cement will be delivered bagged and in pallets. Where grout takes are high, the grout mix / drill gird may be altered by the Contracts Team in line with the conditions encountered.
- The PFA will be introduced to the mixer utilising a Telehandler with a 1-ton capacity bucket, and the OPC will be lifted on to the stand using the fork attachment to minimise the manual handling requirements.
- The grout plant operator will ensure that the correct grout mix is adhered to throughout.
- Once mixed, grout will be pumped to the drilling location via the grout line until the hole is full.
- Care should be taken when grouting boreholes along the perimeter of the site due to nearby residential properties, associated retaining wall and landscaping. Surface runoff must be tightly controlled and kept to an absolute minimum.
- When carrying out the grouting works, set of Cubes are to be taken from separate batches of grout, and tested at 7 and 28 days respectively. On site testing such as bleed and flow testing can also be carried out.
- This above process will be monitored by the contracts team who will review the works and instruct any changes to the grout mix or drill pattern as necessary. Any variation to the planned works must be directed to VE Contracts Team for approval prior to commencement.

2.4.1 Materials & Mix

Grout materials shall consist of Pulverised Fuel Ash and Ordinary Portland Cement, mixed at a ratio of 12:1 with a water solids ratio of no more than 40%. No thixotropic or thickening agents will be added during agitation. OPC shall comply with BS12 and PFA shall be in accordance with BS 3892: part 2.

If open voids are encountered the introduction of pea gravel shall be used within the grout mix.

2.4.2 Equipment

Grout will be batched on site using an agitator mixer powered using an electric motor powered by a diesel generator. Constituent materials shall be introduced by a loading shovel and pumped to each treatment borehole using an electric MAT pump and pressure head (where necessary) atop the steel casing. Alternatively, a P11 Putmeister all-in-one pump may be used, which can be loaded with materials by hand. All plant shall be certified safe and maintained properly throughout the operation.

2.4.3 Water

A source of water will be provided to Van Elle from a hydrant with a standpipe.

2.4.5 Grout Testing

4 Grout cubes shall be taken during each week that grouting is carried out. These will then be tested 7- and 28-day intervals to achieve a minimum strength of 1N/mm² after 28 days.

The foreman shall ensure that mixes are tested regularly for flow and bleed using a Colcrete type flowmeter and graduated beaker respectively. Flows should be with the range of 300-600mm and bleed should be no more than 2% by volume.

2.5 Validation and Testing of Grouting Works

2.5.1 Test holes

Test holes will be drilled at the site to validate the works. The position of the test holes will be chosen to correspond with the areas of the site where the highest grout takes are recorded. The position of the test holes will be indicated on the Grout borehole layout plan. All test holes will be pressurised to correspond with the amount of overburden (i.e., 10kN/m of overburden) for 2 minutes. The test shall be considered a pass where not more than 1t can be injected, and the pressure drops by no more than 10% for 2 minutes. Drill and Grout records of test holes will be kept.

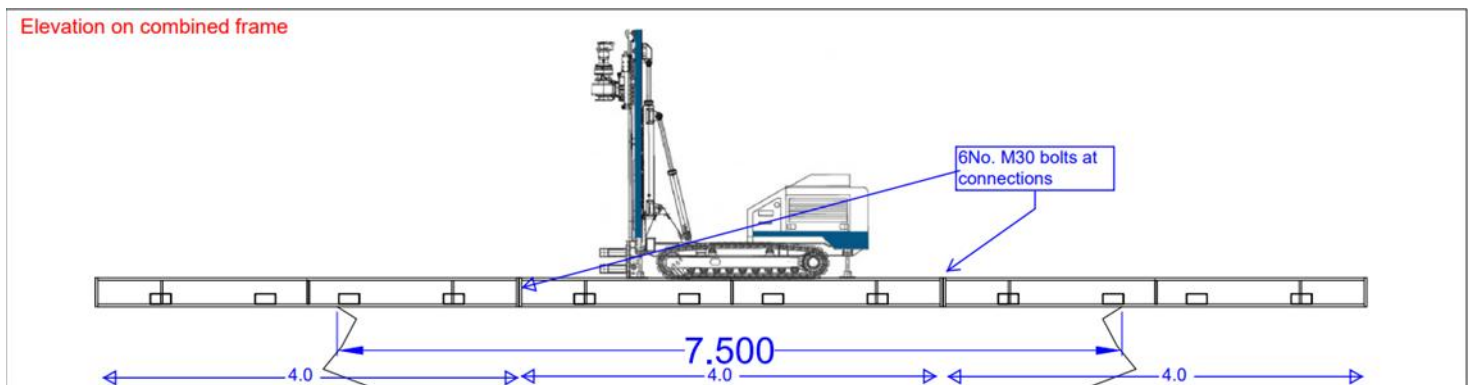
2.5.2 Gas testing

A gas monitor shall be used throughout the consolidation program to monitor for the presence of four harmful gases, carbon monoxide (CO), carbon dioxide (CO₂), hydrogen sulphide (H₂S) and Methane (CH₄). Levels of airborne Oxygen (O₂) will also be monitored. The gas alarms have visible and aural alarms should concentrations of any of these gases touch pre-determined trigger levels. Records of the gas monitoring shall be kept.

3.0 Mineshaft Probing and Treatment (if required)

If a shaft is found during the works, then the following methodology will be used to treat:

- Prior to mobilisation the Client / Main Contractor needs to clear and level an area of approximately 14m x 10m
- Shaft frame to be installed (12m long) across the mineshaft. (see figure below)
- Planks to be added to the shaft frame to make a safe working platform.
- Operatives to wear full body harnesses secured to a point outside the working area.
- Rig to be tracked onto the shaft frame spanning the mineshaft.
- A segmental 101mm/76mm drill system will be utilised for drilling.
- The drill crew will setup the drill rig at the drilling location with the initial lengths of casing installed on the mast.
- Once setup, the driller will commence drilling and will install the first lengths casing into the shaft. The driller will ensure that the drill mast is angled at the correct inclination before drilling commences.
- The shaft will then be drilled down to the base plus 5m (to ensure rockhead and not staging) Casing will be advanced in 2m sections as the drilling advances.
- On completion of drilling, the hole will be ready for grouting and a pressure head fitted.
- The Grouting will be carried out under pressure (2 bar) through the casing down into the shaft.
- Once the pressure gauge atop of the casing records 2 bar of pressure and is held for 2 minutes, grouting will cease.
- The casing will then be pulled up 2m and the process repeated up to surface.
- Once the shaft has been fully grouted up to surface a period of 12 hours must be allowed to pass to allow the grout to start to cure
- After the 12-hour period, a second treatment hole will be drilled using the same method as above.
- Once the second treatment hole has been completed, a further 12 hours will need to pass.
- A final test hole will then be drilled to validate the works.
- The rig can then be removed, and the shaft frame dismantled.



Note: If voids are encountered within the shaft a 2-6mm clean gravel will be washed in with the grout to assist in the bulk infilling.

Figure 11: Mineshaft Safety Platform

4.0 Method of Work and Control Measures

4.1 Prior to work commencing

The Main Contractor / Client will be responsible for

- Carrying out site-specific inductions to Van Elle employees
- In accordance with HSE guidance HSG47, the location, identification and marking of underground services within the working area and taking the necessary precautions to protect and avoid them. (e.g., isolation, diversion, shrouding etc.).
- Providing a suitably maintained working area.
- Advising on known or likely ground contamination.
- Signing the Van Elle Permit to Work (SET16) to confirm the above has been completed.
- Obtaining appropriate permissions/licenses from the local water authority to extract water using a standpipe.
- Ensuring site security is suitable to protect all plant and equipment.

Member of the VE Contracts team shall ensure:

- A visit to site is carried out prior to work commencing & a copy of visit report to be provided to site.
 - Site specific hazards are identified, and suitable control measures identified.
 - Presence of cracks on any structure within 10m shall be recorded on site visit report.
 - Working Area requirements are communicated to the client/main contractor.
- That crew deployed to site have necessary competencies.

Foreman	SMSTS or SSSTS; NVQ Drilling Operations
Banksman	CSCS / NPORS
Tele handler Driver	CPCS / NPORS Telescopic handler
Grouting operative	In-house competence and CSCS as a minimum

The Foreman shall:

- Walk the work area & confirm that all hazards are adequately controlled prior to work commencing.
- Ensure that client/main contractor has provided a suitable working area that is adequately maintained to provide a stable base for the rig.
- Check that the client / main contractor has carried out checks / protection for underground services.
- Ensure that sufficient PPE provisions are available & that it is worn in accordance with Van Elle & Main Contractor requirements. Mandatory PPE is safety helmet, safety footwear, light eye protection and hi-viz clothing. Other PPE such as hearing protection and FFP3 dust masks, in accordance with risk assessment. ALL PPE MUST BE CLEAN AND REFLECTIVE BANDS FREE OF DIRT. Should PPE be deemed unsuitable replacements will be ordered immediately.
- Check that the drilling rig, lifting accessories and other plant have in-date certification before use.
- Ensure that daily inspections are carried out on all plant and equipment & a record of inspection completed on CON15. Any problems/defects must be reported to the Contracts Manager immediately. All machinery shall only be operated by trained & competent persons.
- Ensure that the Permit to Work (SET16) is signed prior to work commencing, and thereafter on a WEEKLY basis.
- Brief all operatives on the contents of the method statement and risk assessment and sign to confirm briefing attendance.

4.2 Mobilisation

All vehicles will be supervised by a Banksman and enter site as per the designated route agreed at pre-start meeting.

The foreman shall

- Assess the area designated for unloading, taking into consideration surrounding buildings, other contractors, pedestrians, traffic routes etc. Safety barriers may need to be used to segregate our work from other activities and/or pedestrians.
- Make sure that all loads are checked for security before unloading commences. In the event of a load having moved or become unstable in some way during transport, unloading will not continue until a safe means of unloading has been determined. Unstable loads should not be allowed to tip or fall to the ground unless there are no other safe options & only after advice has been sought from the Line Manager
- Agree a sequence of unloading with the delivery driver. The Banksman will take control of the unloading process & directing the HIAB operator.

Where access is required onto the back of the trailer to sling loads, A secured ladder or step system must be used. edge protection shall be fitted to trailers to prevent injury by falls from height. This must consist of two restraints – a top rail at approx. 950mm and a mid rail. Clear walkways must be present to ensure that a person can access and move around the trailer bed safely whilst slinging the load.

On the trailer bed, LOOK where you're going - DO NOT walk backwards! DO NOT RUSH! DO NOT USE A MOBILE PHONE!

Avoid unloading rigs on inclines. The Banksman will position himself forward of the loading process so that all rig movements and the rig operator are clearly visible. NO ONE must be allowed to stand at the side or behind the vehicle being unloaded. All instructions to the rig operator must come from a single Banksman.

4.3 Site set up

The crew shall always maintain good housekeeping to reduce slip/trip hazards.

- All cracks on any structures within 10 m of the working area must be marked. Cracks must be monitored for movement a minimum of twice per day. Should any movement be recorded, stop work and telephone your manager for instructions.
- The foreman will set up an exclusion zone to prevent third parties entering our work area.
- Ply sheeting and visqueen will be used where necessary to protect property and surfaces.
- Avoid running water hoses through public areas. If this is unavoidable, i.e., when the supply is in the road or footpath, use hose ramps to reduce the risk of slips/trips. Signs, cones/barriers must also be in place.
- Compressed air, water, and grout hoses, will be kept tidy and positioned away from walkways etc.
- Drips trays will be placed beneath plant as required.
- The grout station shall be set up on firm level ground. Use visqueen sheeting and sandbags to provide bunding where necessary. In windy conditions, ash should be protected or dampened to prevent dust clouds.

4.4 Hazardous Gas

The following control measures are required for reducing risk from hazardous gas:

- Water flush used in all positions.
- Operatives to wear personal gas monitors.
- Recording of daily gas readings to be carried out and assessed.

The following records will be taken & recorded.

Gas monitor type	Position	Frequency of test
------------------	----------	-------------------

CO, CO ₂ , CH ₄ , H ₂ S, O ₂ , Combined	Rig / Personal	Constant
--	----------------	----------

The use of water as the flushing medium will decrease the risk of mine gas to LOW risk (as shown on Table 6.2.7 of the Mining Remediation Authority Guidance document).

All work will stop if gas concentrations approach or exceed the concentrations listed below:

Gas	Levels
Methane	5-15%
Hydrogen Sulphide	5 ppm
Carbon monoxide	30 ppm
Carbon dioxide	5,000 ppm

4.5 Drilling operations

- Specific PPE for drilling is hearing protection within 5 metres of rig, gloves, & FFP3 respiratory protection where airborne dust is present, and the user should be face fit tested.
- Rigs will be set up, operated & moved around site in accordance with manufacturer's instructions by competent operatives.
- Two persons must attend all times when operating or moving the rig.
- Interlock guards fitted to rigs must remain in place throughout the drilling process. **Where drilling cannot be completed with guarding in place, the Foreman will stop work and seek further instruction from the Contracts Manager. Any instructions must be recorded & briefed to the crew.**
- Compressors shall be set on firm level ground with the handbrake applied / wheels chocked. Whipchecks must be used on all compressed air connections. Compressors must be set up to deliver a maximum pressure required for the task before use). This pressure is not to be exceeded unless a higher pressure is recommended by a tool/equipment manufacturer. If due to the length of air lines a pressure drop is anticipated, larger capacity compressors should be used rather than increasing operating pressures.
- Store all drill rods and tools in a safe place close to the front of the rig to minimise the carrying distance. Keep the area around the rig will be kept clear of excess arisings to reduce trip hazards.
- Position hands away from the bottom of the rods when lifting into position to prevent trapping of hands.
- Isolate the compressed air, water, or grout flow before adding / removing drill rods.
- Dust suppression to be used. (Shrouding of guard with hessian, water spray etc.) **FFP3** Dust masks will be worn by operatives where airborne dust is present and the operative must be face fit tested.
- Care should be taken when clearing lines of water to prevent freezing.
- Where drilling with water or grout, ensure that measures such as digging channels, sumps, straw bunding or Siltbuster® are used to protect watercourses. **All works must stop if silty water is entering the watercourse.**

4.6 Grouting

- Mixer operator will be responsible for the mixing and pumping of grout to the correct ratio & consistency.
- Specific PPE for grouting is goggles, hearing protection, long-sleeve overalls, gauntlets & respiratory protection with minimum FFP3 protection.
- Do not stack cement pallets more than 2 full pallets high. Protect cement from rain using polythene (visqueen) sheets secured so that the wind cannot dislodge sheeting. Safe access for the telehandler must be taken into consideration.
- Stack cement so that the mixer operator does not have to bend or stretch to lift cement bags. Bags should ideally be between waist and chest height.
- Empty cement bags must be disposed of following specific site instructions.

- PF Ash will be added by a Telehandler with a bucket. The driver will ensure that the area is clear of obstructions & that his visibility is not impaired. The Telehandler should be a safe distance from mixer when mixer operator is adding cement.
- PF Ash dust will be controlled by dampening down and heras fencing with demolition netting attached if required. Should it be noted that dampening down is being ineffective then plastic sheeting shall be applied at the end of the day. To keep dust down stockpiles of ash will be kept at a minimum and ordering will be on a daily basis.
- When a borehole is full, pumping must be stopped and hose moved to next borehole, grout hose must be moved using safe handling techniques.
- When washing out, ensure all grout in mixer has been discharged down a borehole or to a specified place on site. If using compressed air, keep pressure to a minimum and secure the end of the hose to prevent it whipping.
- **If a blockage occurs, it must be carefully dealt with due to the build-up of back pressure. The pump operator must stop pumping immediately.** Instruct personnel to move to a safe position (minimum 10 metres) before opening any joints.
- The pipeline must be treated as being always being pressurized. Goggles must be worn by operatives dealing with blockages.
- To release the back pressure a pressure release valve should be fitted between the pump and first grout hose, allowing back pressure to be released before disconnecting any hoses.

When access is needed inside the grout mixer, for example, to clear blockages,

- Lone working is not permissible; Pump as much grout out as possible until the obstruction is visible.
- Isolate the air supply to the mixer by disconnecting the airline from the compressor.
- Remove the guard. Use a secured ladder/steps to gain access.
- Once the obstruction is removed, replace & lock off the guard before reconnecting the air supply to the mixer.

4.7 Telehandlers

- These will be driven by competent operators (e.g., CPCS, AITT, NPORS, LANTRA).
- A banksman will be used in accordance with site rules, when reversing or when visibility is restricted.
- The operator will know the dimensions of the machine in operating & travel mode – relative to constraints of site, making sure you there is good all round visibility.
- The machine will be operated in accordance with Manufacturers safety instructions regarding its safe working limits. The operator will always wear the seat belt.
- Make sure forks are correctly positioned / adjusted to compensate for the size/shape of the load.
- All movements of mobile plant to be made in a smooth controlled manner. Make sure the load is stable at all times and remains under control.
- The immediate area around the machine operations shall be kept clear of personnel. Operatives on the ground working with the telehandler must always stand in a position of safety clear of the load and machine in case the load becomes unstable.

4.8 Security

Foreman will make sure that adequate measures are taken to prevent the theft or unauthorised use of equipment/materials. This will include locking away all tools in the van or lock up, removing keys from plant & equipment where fitted, when not in use and left unattended & using cab guards if fitted.

4.9 Leaving site

- The work area shall be left in a clean & tidy manner.
- The Foreman will make sure that the rig is configured for transport in accordance with the manufacturer's instructions, making sure all securing bolts & pins are correctly fitted and that the rig is safe to transport.
- All excessive spoil must be cleaned off the rig and associated plant.

- The Foreman shall make sure his Foreman's Completion Form is signed off by the main contractor before leaving site.

5.0 Communication and liaison

(Other contractors, Local Authority, Highways Authority, Statutory Bodies)

- Van Elle site operations will be under the full-time supervision of a competent and experienced Foreman who has completed Supervisor Training (NVQ3 / SMSTS / SSSTS). The Site Foreman for this project will be identified in due course upon specific request.
- The Foreman will be responsible for daily routine operation; preparation and submission of all daily records; receiving and acting upon formal site instructions; and reporting site conditions which may require variations to this method statement.
- The Foreman will report directly to the Contracts Manager / Director on a regular routine basis or on specific instances when necessary.
- The Divisional Director responsible for this project is Dave Warner
- Site safety tours are carried out at regular intervals by our Safety Dept and Contract Management personnel.

Emergency plans

(Contact phone number, fire plans, accident/injury plan, defect/sub-standard condition reporting.

- Main contractor will induct all site operatives into the site-specific emergency arrangements.
- Van Elle crews are equipped with several 2kg dry powder extinguishers and first aid provisions to complement the main contractor's arrangements.
- Emergency First Aid & Fire Awareness training has been completed by the crew.
- Spill kits will be provided, and our crews instructed in their use.
- [All accidents & near misses must be reported directly to the Van Elle HSQE Dept. on 01773 304065 and the Main contractor's site manager.](#)

SERVICE STRIKES

Electric - Switch machine off & evacuate all personnel. Do not attempt to disengage the cable from the casing/rods. Do not touch exposed cables.

Gas - Switch all machinery off & evacuate all personnel to safe distance. Extinguish all naked flames. No smoking. Gas emergency number is 0800 111 999.

SPILLS

Eliminate sources of ignition. Contain spillage in booms or sand or absorbents. All contaminated items & oil must be returned to your office/depot & be disposed of at an authorised disposal facility.

Mechanical / structural failure that puts persons at risk.

In the event of a failure, stop all operations and if possible, bring the machine to a safe condition. Isolate the machine (e.g., key out) and if possible, set up an exclusion zone.

Hazardous Gas

All work will stop if the gas alarms sound. All equipment will be switched off and the immediate area evacuated. Smoking will not be permitted. Allow area to ventilate before rechecking gas readings. Backfill borehole when safe to do so.

Appendix 2: Drillers Logs

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	2	48.00	15.00	
Previous				Gas Detected: Yes / <u>No</u>
To Date	2	48.00	15.00	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

		Comments
Van Elle C [REDACTED]	D. Sawkes	
Signed...		
Date... 18/8/25		
Clients Name. MARK BOUMAN.		
Client [REDACTED]		
Signature [REDACTED]		
Date... 20/08/25		

Open Hole Drillers Log

Site: <u>Whitehaven</u>			Sheet: <u>1</u> of <u>4</u>		
Rig / Method: <u>C6 GST</u>		Crew: <u>I. MICHISON, D. SIMPSON</u>		Date: <u>19/8/25</u>	
BH / Casing Diameter: <u>101</u>			Flushing Method: <u>WATER</u>		

BH	Depth (m)	Strata Description	BH	Depth (m)	Strata Description
<u>C15</u>	<u>0 - 7.40</u>	<u>Overburden</u>	<u>B22</u>	<u>0 - 7.40</u>	<u>Overburden</u>
	<u>7.40 - 20.00</u>	<u>Mudstone/Sandstone</u>		<u>7.40 - 19.00</u>	<u>Mudstone/Sandstone</u>
	<u>20.00 - 22.80</u>	<u>Coal/Mst Bands</u>		<u>19.00 - 21.80</u>	<u>Coal/Mst Bands</u>
	<u>22.80 - 24.00</u>	<u>Mudstone</u>		<u>21.80 - 23.00</u>	<u>Mudstone</u>
	<u>8m Cased</u>	<u>F/R</u>		<u>8m Cased</u>	<u>F/R</u>
<u>C13</u>	<u>0 - 7.40</u>	<u>Overburden</u>	<u>B24</u>	<u>0 - 7.60</u>	<u>Overburden</u>
	<u>7.40 - 20.50</u>	<u>Mudstone/Sandstone</u>		<u>7.60 - 19.50</u>	<u>Mudstone/Sandstone</u>
	<u>20.50 - 23.30</u>	<u>Coal/Mudstone Bands</u>		<u>19.50 - 22.30</u>	<u>Coal/Mst Bands</u>
	<u>23.30 - 24.30</u>	<u>Mudstone</u>		<u>22.30 - 24.00</u>	<u>Mudstone</u>
	<u>8m Cased</u>	<u>F/R</u>		<u>8m Cased</u>	<u>F/R</u>
<u>B20</u>	<u>0 - 7.10</u>	<u>Overburden</u>	<u>A23</u>	<u>0 - 7.60</u>	<u>Overburden</u>
	<u>7.10 - 19.20</u>	<u>Mudstone/Sandstone</u>		<u>7.60 - 19.50</u>	<u>Mudstone/Sandstone</u>
	<u>19.20 - 21.20</u>	<u>Coal/Mudstone Bands</u>		<u>19.50 - 22.30</u>	<u>Coal/Mst</u>
	<u>21.20 - 23.00</u>	<u>Mudstone</u>		<u>22.30 - 24.00</u>	<u>Mudstone</u>
	<u>8m Cased</u>	<u>F/R</u>			<u>8m Cased F/R</u>
<u>C11</u>	<u>0 - 7.40</u>	<u>Overburden</u>	<u>A21</u>	<u>0 - 7.60</u>	<u>Overburden</u>
	<u>7.40 - 21.00</u>	<u>Mudstone/Sandstone</u>		<u>7.60 - 19.70</u>	<u>Mudstone/Sandstone</u>
	<u>21.00 - 23.80</u>	<u>Coal/Mst Bands</u>		<u>19.70 - 22.50</u>	<u>Coal/Mst Bands</u>
	<u>23.80 - 25.00</u>	<u>Mudstone</u>		<u>22.50 - 24.00</u>	<u>Mudstone</u>
	<u>8m Cased</u>				<u>8m cased</u>

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	<u>8</u>	<u>191.30</u>	<u>64.00</u>	Gas Detected: Yes / <u>No</u>
Previous	<u>2</u>	<u>48.00</u>	<u>15.00</u>	
To Date	<u>10</u>	<u>239.30</u>	<u>79.00</u>	

Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns

Comments	
Van Elle Operative: <u>D. PROOKES</u> Signed: <u>[Signature]</u> Date: <u>19/8/25</u>	
Clients Name: <u>MARK DOUGMAN</u> Client: <u>[Signature]</u> Signed: <u>[Signature]</u> Date: <u>[Signature]</u>	

Open Hole Drillers Log

[illegible]

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	2	47.00	16.00	
Previous	10	239.30	79.00	Gas Detected: Yes / <u>No</u>
To Date	12	286.30	95.00	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

		Comments
Van Elle Operative Name	D. S. [REDACTED]	
Signed	[REDACTED]	
Date	1/18/13	
Clients Name	Mark F. [REDACTED]	
Clien	[REDACTED]	
Signa	[REDACTED]	
Date	10/18/13	

Open Hole Drillers Log

Site: <u>WHITE HAVEN</u>			Sheet: <u>3</u> of		
Rig / Method: <u>C6 1439</u>		Crew: <u>K RICHMAN, T Light</u>		Date: <u>19/8/25</u>	
BH / Casing Diameter: <u>101</u>			Flushing Method: <u>WATER</u>		

BH	Depth (m)	Strata Description	BH	Depth (m)	Strata Description
<u>I21</u>	<u>cu. 8.00</u>	<u>Overburden</u>	<u>I15</u>	<u>cu. 9.50</u>	<u>Overburden</u>
	<u>8.00 17.00</u>	<u>Mst / Sandstones</u>		<u>9.50 17.50</u>	<u>Mudstone / Sandstone</u>
	<u>17.00 19.00</u>	<u>Coal / Mst Bands</u>		<u>17.50 19.50</u>	<u>Coal / Mudstone</u>
	<u>19.00 25.00</u>	<u>Mudstone</u>		<u>19.50 21.00</u>	<u>Mudstone</u>
	<u>8m casing</u>	<u>FLR</u>			<u>10m casing FLR</u>
<u>I23</u>	<u>cu. 8.50</u>	<u>Overburden</u>	<u>I13</u>	<u>cu. 9.80</u>	<u>Overburden</u>
	<u>8.50 17.00</u>	<u>Mudstone / Sandstone</u>		<u>9.80 18.00</u>	<u>Mudstone / Sandstone</u>
	<u>17.00 19.00</u>	<u>Coal / Mst Bands</u>		<u>18.00 20.00</u>	<u>Coal / Mst Bands</u>
	<u>19.00 20.00</u>	<u>Mudstone</u>		<u>20.00 21.00</u>	<u>Mudstone</u>
	<u>8m casing</u>	<u>FLR</u>			<u>10m casing FLR</u>
<u>I19</u>	<u>cu. 9.50</u>	<u>Overburden</u>	<u>J22</u>	<u>cu. 10.00</u>	<u>Overburden</u>
	<u>9.50 16.60</u>	<u>Mudstone / Sandstone</u>		<u>10.00 16.00</u>	<u>Mudstone / Sandstone</u>
	<u>16.60 18.60</u>	<u>Coal / Mst Bands</u>		<u>16.00 18.00</u>	<u>Coal / Mst Bands</u>
	<u>18.60 20.00</u>	<u>Mudstone</u>		<u>18.00 19.00</u>	<u>Mudstone</u>
		<u>10m casing FLR</u>			<u>10m casing FLR</u>
<u>I17</u>	<u>cu. 9.50</u>	<u>Overburden</u>	<u>J20</u>	<u>cu. 9.80</u>	<u>Overburden</u>
	<u>9.50 17.00</u>	<u>Mudstone / Sandstone</u>		<u>9.80 16.30</u>	<u>Mudstone / Sandstone</u>
	<u>17.00 19.00</u>	<u>Coal / Mudstone</u>		<u>16.30 18.30</u>	<u>Coal / Mst Bands</u>
	<u>19.00 20.00</u>	<u>Mudstone</u>		<u>18.30 20.00</u>	<u>Mudstone</u>
		<u>10m casing FLR</u>			<u>10m casing FLR</u>

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	<u>8</u>	<u>166.00</u>	<u>76.00</u>	Gas Detected: Yes / <u>No</u>
Previous	<u>12</u>	<u>286.30</u>	<u>95.00</u>	
To Date	<u>20</u>	<u>452.30</u>	<u>171.00</u>	

Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns

Van Elle Operative	Comments
Signed: <u>[Signature]</u>	
Date: <u>19/8/25</u>	
Clients Name: <u>MARK BOWMAN</u>	
Clients: <u>[Redacted]</u>	
Signature: <u>[Signature]</u>	
Date: <u>20/08/25</u>	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: ☒ Yes / ☐ No
Today	2	40.0	20.0	
Previous	20	452.30	171.0	Gas Detected: Yes ☒ / ☐ No
To Date	22	492.30	191.0	
Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns				

Comments	
Van Elle Operative Name..... Signed..... Date.....	
Clients Name..... Client..... Signed..... Date.....	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	8	197.00	65.00	
Previous	22	492.30	191.00	Gas Detected: Yes / <u>No</u>
To Date	30	689.30	256.00	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

		Comments
Van Elle Operator		
Signed		
Date		
Client's Name	MARK BOWMAN	
Client		
Signed		
Date	2/1/69/25	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	2	46.00	16.00	
Previous	30	689.30	256.00	Gas Detected: Yes / <u>No</u>
To Date	32	735.30	272.00	
Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns				

Van Elle Ope [REDACTED] D. Blodgett Signed..... Date..... 5/10/12	<u>Comments</u>
Clients Name Mark Bowman Clients P 277-1111 Signature [REDACTED] Date..... 5/10/12	

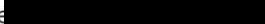
VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: ☒ Yes / ☐ No
Today	8	162.00	82.00	
Previous	34 32	735.30	272.00	Gas Detected: Yes ☐ / ☒ No
To Date	142 40	897.30	354.00	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

		Comments
Van Elle Operat		
Signed.....		
Date.....	20/8/23	
Clients Name..	MARK BOWMAN.	
Client		
Signa		
Date.....	21/08/23.	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored <u>Yes</u> / No
Today	2	40.00	22.00	
Previous	40	897.30	354.00	Gas Detected: Yes / <u>No</u>
To Date	42	937.30	374.00	
Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns				

		Comments
Van Elle Opened by.....		
Signed.....		
Date.....	08/18/25	
Clients Name.....		
Client.....		
Signed.....		
Date.....	21/08/25	

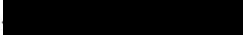
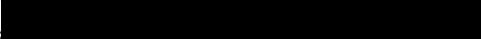
VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: Yes / No
Today	8	192.00	66.00	
Previous	44.42	937.30	374.00	Gas Detected: Yes / No
To Date	52.56	1,129.30	440.00	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

		Comments
Van Elle Oper	[Redacted]	
Signed.....	[Redacted]	
Date.....	2/18/25	
Client's Name.....	Max Bowman	
Client.....	[Redacted]	
Signed.....	[Redacted]	
Date.....	2/18/25	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: Yes / No
Today	2	48.00	16.00	
Previous	50	1,129.30	440.00	Gas Detected: Yes / No
To Date	52	1,177.30	456.00	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

Comments	
Van Elle Operating Name: <u>Deukas</u>	
Signed: 	
Date: <u>4/18/25</u>	
Client's Name: <u>Mazk Bowman</u>	
Client: 	
Signed: 	
Date: <u>4/18/25</u>	

Open Hole Drillers Log

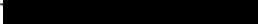
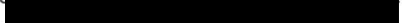
Site: <u>WHITEHAVEN</u>			Sheet: <u>3</u> of <u>4</u>		
Rig / Method: <u>C6 1439</u>		Crew: <u>K Puroham, T Light</u>		Date: <u>21/8/25</u>	
BH / Casing Diameter:			Flushing Method:		
BH	Depth (m)	Strata Description	BH	Depth (m)	Strata Description
M19	aw - 10.50	Overburden	M15	aw - 10.00	Overburden
	10.50 - 16.00	Mudstone/Sandstone		10.00 - 16.50	Mudstone/Sandstone
	16.00 - 19.50	Coal (Mst Banos)		16.50 - 19.00	Coal (Mst Banos)
	19.50 - 21.00	Mudstone		19.00 - 20.00	Mudstone
	11m casing	F/R		10m casing	F/R
L18	aw - 10.50	Overburden	L14	aw - 10.00	Overburden
	10.50 - 16.00	Mudstone/Sandstone		10.00 - 16.50	Mudstone/Sandstone
	16.00 - 18.50	Coal (Mst Banos)		16.50 - 19.00	Coal (Mst Banos)
	18.50 - 20.00	Mudstone		19.00 - 20.00	Mudstone
	11m casing	F/R		10m casing	F/R
M17	aw - 10.00	Overburden	M13	aw - 10.50	Overburden
	10.00 - 16.30	Mudstone/Sandstone		10.50 - 16.80	Mudstone/Sandstone
	16.30 - 18.90	Coal (Mst Banos)		16.80 - 19.00	Coal (Mst Banos)
	18.90 - 20.00	Mudstone		19.00 - 20.00	Mudstone
	10m casing	F/R		11m casing	
L16	aw - 9.80	Overburden	L12	aw - 11.00	Overburden
	9.80 - 16.20	Mudstone/Sandstone		11.00 - 17.00	Mudstone/Sandstone
	16.20 - 18.70	Coal (Mst Banos)		17.00 - 19.20	Coal (Mst Banos)
	18.70 - 20.00	Mudstone		19.20 - 21.00	Mudstone
	10m casing	F/R		11m casing	F/R

Totals	BH	Drill (m)	Case (m)	Gas Monitored: ☒ Yes / ☐ No
Today	8	162.00	84.00	
Previous	52 52	1,177.30	456.00	
To Date	6260	1,339.30	540.00	Gas Detected: ☒ Yes / ☐ No
Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns				

Van Elle Oper <u>D. Prookes</u> Signed..... Date..... <u>21/8/25</u>	Comments
Clients Name..... <u>MARK BOWMAN</u> Cl..... Sig..... Date..... <u>21/8/25</u>	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	2	43.00	22.00	
Previous	62	1,339.30	540.00	Gas Detected: Yes / <u>No</u>
To Date	642	1,382.30	561.00	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

		Comments
Van Elle Op		
Signed		
Date	2/10/15	
Clients Name	MARK BOWMAN	
Clients		
Signature		
Date	22/08/25	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: ☒ Yes / ☐ No
Today	8	181.00	91.00	
Previous	64 62	1,382.30	561.00	Gas Detected: Yes ☒ / ☐ No
To Date	72 70	1,563.30	652.00	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

		Comments
Van Elle Operat	[Redacted]	
Signed.....	[Redacted]	
Date.....	[Redacted]	
Client's Name	Max Bowman	
Client	[Redacted]	
Sign	[Redacted]	
Date.....	26/08/25	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	2	48.00	21.00	
Previous	70	1,569.20	682.00	Gas Detected: Yes / <u>No</u>
To Date	2472	1,611.30	673.00	
Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns				

		Comments
Van Elle Operat	[REDACTED]	
Signed	[REDACTED]	
Date	22/08/25	
Client's Name	MARK BOWMAN	
Client	[REDACTED] SR	
Signed	[REDACTED]	
Date	26/08/25	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	8	185.0	64.0	
Previous	742	1,611.30	673.0	Gas Detected: Yes / <u>No</u>
To Date	8280	1,795.30	737.0	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

		Comments
Van Elle Operat	[Redacted]	
Signed	[Redacted]	
Date	2/18/25	
Clients Name	Mark Bowman	
Clients	[Redacted] 52	
Signat	[Redacted]	
Date	26/08/25	

VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: ☒ Yes / ☐ No
Today	2	49.0	16.0	
Previous	820	1,795.30	737.0	Gas Detected: Yes / ☒ No
To Date	842	1,844.30	753.0	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

Comments	
Van Elle Opera	
Signed	
Date	
Clients Name	
Clients P	
Signature	
Date	

Open Hole Drillers Log

Site: <u>WHITEHAVEN</u>			Sheet: _____ of _____		
Rig / Method: <u>C6 9439</u>		Crew: <u>A Phelps, T Light</u>		Date: <u>26/8/25</u>	
BH / Casing Diameter:			Flushing Method:		

BH	Depth (m)	Strata Description	BH	Depth (m)	Strata Description
K11	aw - 11.00	Overburden	K3	aw - 12.50	Overburden
	11m - 18m	Mudstone/Sandstone		12.50 - 20m	Mudstone/Sandstone
	18m - 20.30	Coal (Mud Bands)		20m - 22.50	Coal (Mud Bands)
	20.30 - 22m	Mudstone		22.50 - 24m	Mudstone
	11m Cased	Flr		13m Cased	Flr
K9	aw - 10.00	Overburden	K1	aw - 12m	Overburden
	10m - 18.50	Mudstone/Sandstone		12m - 21m	Mudstone/Sandstone
	18.50 - 21m	Coal (Mud Bands)		21m - 23.50	Coal (Mud Bands)
	21m - 22m	Mudstone		23.50 - 25m	Mudstone
	10m Cased	Flr		12m Cased	Flr
K7	aw - 11m	Overburden	J12	aw - 11m	Overburden
	11m - 19m	Mudstone/Sandstone		11m - 18.50	Mudstone/Sandstone
	19m - 21.50	Coal (Mud Bands)		18.50 - 21m	Coal (Mud Bands)
	21.50 - 23m	Mudstone		21m - 22.00	Mudstone
	11m Cased	Flr		11m Cased	Flr
K5	aw - 12.50	Overburden	J10	aw - 10.50	Overburden
	12.50 - 19.30	Mudstone/Sandstone		10.50 - 18.50	Mudstone/Sandstone
	19.30 - 21.60	Coal (Mud Bands)		18.50 - 21m	Coal (Mud Bands)
	21.60 - 23m	Mudstone		21m - 22m	Mudstone
	13m Cased	Flr		11m Cased	Flr

Totals	BH	Drill (m)	Case (m)	Gas Monitored: ☒ Yes / ☐ No
Today	8	183.00	92.00	Gas Detected: Yes / ☒ No
Previous	5482	1,844.30	753.00	
To Date	90	2,027.30	845m	

Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns

Van Elle Oper: <u>D. Brookes</u> Signed: _____ Date: <u>26/8/25</u> Clients Name: <u>Mark Bowman</u> C: _____ S: _____ Date: <u>26/08/25</u>	<u>Comments</u> _____ _____ _____ _____ _____ _____ _____
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VAN ELLE
TOTAL FOUNDATION SOLUTIONS

Totals	BH	Drill (m)	Case (m)	Gas Monitored: ☒ Yes ☐ No
Today	5	117.00	52.00	
Previous	90	2,027.30	845.00	Gas Detected: Yes ☒ No ☐
To Date	95	2,144.30	897.00	
Key:	C/T - Coal Traces	N/R - No Returns	P/R - Poor Returns	

		Comments
Van Elle Operator	 D. Shakes	
Signed		
Date	12/8/25	
Client's Name	Maas Bowman	
Client		
Signed		
Date	12/8/25	

Open Hole Drillers Log

Site: <u>Whitehaven</u>			Sheet: <u>3</u> of <u>4</u>		
Rig / Method: <u>C6 957</u>		Crew: <u>I. Mikharski, D. Simpson</u>		Date: <u>26/8/25</u>	
BH / Casing Diameter:			Flushing Method:		
BH	Depth (m)	Strata Description	BH	Depth (m)	Strata Description
G13	Cur. 7.90	Overburden	G21	Cur. 8.00	Overburden
	7.90 - 19.50	Mudstone/Sandstone		8.00 - 19.40	Mudstone/Sandstone
	19.50 - 22.30	Coal / Mst		19.40 - 22.20	Coal / Mst
	22.30 - 24.00	Mudstone		22.20 - 24.00	Mudstone
	8m casing	F/R		8m casing	
G15	Cur. 7.80	Overburden	G23	Cur. 8.00	Overburden
	7.80 - 19.00	Mudstone/Sandstone		8.00 - 19.60	Mudstone/Sandstone
	19.00 - 21.80	Coal / Mst		19.60 - 22.40	Coal / Mst
	21.80 - 24.00	Mudstone		22.40 - 24.00	Mudstone
	8m casing	F/R		8m casing	
G17	Cur. 7.90	Overburden	H22	Cur. 8.00	Overburden
	7.90 - 19.20	Mudstone/Sandstone		8.00 - 19.50	Mudstone/Sandstone
	19.20 - 22.00	Coal / Mst		19.50 - 22.30	Coal / Mst
	22.00 - 23.00	Mudstone		22.30 - 24.00	Mudstone
	8m casing	F/R		8m casing	
G19	Cur. 7.90	Overburden	H20	Cur. 8.00	Overburden
	7.90 - 19.30	Mudstone/Sandstone		8.00 - 19.30	Mudstone/Sandstone
	19.30 - 22.10	Coal / Mst		19.30 - 22.10	Coal / Mst
	22.10 - 24.00	Mudstone		22.10 - 24.00	Mudstone
	8m casing			8m casing	

Totals	BH	Drill (m)	Case (m)	Gas Monitored: <u>Yes</u> / No
Today	8	191.00	64.00	Gas Detected: Yes <u>No</u>
Previous	95	2,144.30	897.00	
To Date	103	2,335.30	961.00	
Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns				

Comments
Van Elle Operative <u>[Redacted]</u> Signed <u>[Redacted]</u> Date <u>26/8/25</u> C <u>MARK BOWMAN</u> C <u>[Redacted]</u> S <u>[Redacted]</u> Date <u>26/8/25</u>

Open Hole Drillers Log

Site: <u>WHITEHARTEN</u>			Sheet: <u>4</u> of <u>4</u>		
Rig / Method: <u>C6 957</u>		Crew: <u>I. Mikhison, D. Simpson</u>		Date: <u>26/8/25</u>	
BH / Casing Diameter:			Flushing Method:		
BH	Depth (m)	Strata Description	BH	Depth (m)	Strata Description
H18	0 - 7.90	Overburden	H10	0 - 8.00	Overburden
	7.90 - 19.20	Mudstone/Sandstone		8.00 - 19.00	Mudstone/Sandstone
	19.20 - 22.00	Coal / Mudstone		19.00 - 21.80	Coal / MSO
	22.00 - 23.00	Mudstone		21.80 - 23.00	Mudstone Rk
	8m casing F/R			8m casing	
H14	0 - 7.90	Overburden	H18	0 - 8.00	Overburden
H16	7.90 - 19.00	Mudstone/Sandstone		8.00 - 19.00	Mudstone/Sandstone
	19.00 - 21.80	Coal / MSO		19.00 - 20.80	Coal MSO
	21.80 - 23.00	Mudstone		20.80 - 22.00	Mudstone
	8m casing F/R			8m casing F/R	
H14	0 - 7.90	Overburden	H16	0 - 8.00	Overburden
	7.90 - 19.10	Mudstone/Sandstone		8.00 - 18.80	Mudstone/Sandstone
	19.10 - 21.90	Coal MSO		18.00 - 20.60	Coal MSO
	21.90 - 23.00	Mudstone		20.60 - 22.00	Mudstone
	8m casing F/R			8m casing F/R	
H12	0 - 7.80	Overburden	H4	0 - 8.00	Overburden
	7.80 - 19.00	Mudstone/Sandstone		8.00 - 18.60	Mudstone/Sandstone
	19.00 - 21.80	Coal MSO		18.60 - 20.40	Coal / MSO
	21.80 - 23.00	Mudstone		20.40 - 22.00	Mudstone
	8m casing F/R			8m casing F/R	

Totals	BH	Drill (m)	Case (m)	Gas Monitored: ☒ Yes / ☐ No
Today	8	181.00	64.00	Gas Detected: Yes ☐ / ☒ No
Previous	103	2,335.30	961.00	
To Date	111	2,516.30	1,025.00	

Key: C/T - Coal Traces N/R - No Returns P/R - Poor Returns

Van Elle Operative: <u>[Redacted]</u> Signed: <u>[Redacted]</u> Date: <u>26/8/25</u> Clients Name: <u>Mark Bowman</u> Client: <u>[Redacted]</u> Signature: <u>[Redacted]</u> Date: <u>[Redacted]</u>	Comments
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