



# Hebburn Community Hub

Coal Mining Risk Assessment Addendum B

January 2015

Willmott Dixon Construction Limited





# Hebburn Community Hub

Coal Mining Risk Assessment Addendum B

January 2015

Willmott Dixon Construction Limited

Bebe House, Dukesway, Gateshead, Tyne & Wear NE11 0PZ



# Issue and revision record

<b>Revision</b>	<b>Date</b>	<b>Originator</b>	<b>Checker</b>	<b>Approver</b>	<b>Description</b>
A	08 Jan 15	Y Harrison	S Longshaw	G Gray	Issued for Planning

**Information Class: Standard**

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.



# Contents

<b>Chapter</b>	<b>Title</b>	<b>Page</b>
	Executive Summary	i
<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	General	1
1.2	Site Location and Description	2
1.3	Description and Layout of Proposed Additional Development	3
1.4	Scope of this Coal Mining Risk Assessment Addendum	3
<b>2</b>	<b>Sources of Information Used to Inform this Addendum</b>	<b>4</b>
2.1	Summary of Ground Conditions	4
2.2	Summary of Van Elle Factual Report	5
<b>3</b>	<b>Identification and Assessment of Site Specific Coal Mining Risks</b>	<b>6</b>
3.1	Coal Mining Risks	6
<b>4</b>	<b>Mitigation Strategy Proposed</b>	<b>8</b>
<b>5</b>	<b>Conclusions</b>	<b>9</b>
	Appendix A. Site Outline	10
	Appendix B. Van Elle Factual Report	11
	Appendix C. Coal Authority Report	12

# Executive Summary

This report is an addendum to the Coal Mining Risk Assessment report and its accompanying Addendum A, which were prepared for the original planning application submitted for the Hebburn Community Hub development.

A further planning application was submitted for a proposed Multi Use Games Area (MUGA) to be constructed adjacent to the Hebburn Hub. In response to one of the planning application conditions, this report provides an assessment of coal mining risks and impact on the land stability of the MUGA, which was not covered in the original report.

This report recommends that made ground is stripped from the site to check for the presence of mineshafts. Otherwise, no further mitigation is recommended.



# 1 Introduction

## 1.1 General

Willmott Dixon previously submitted a planning application for the proposed construction of a new two storey leisure and community development at Hebburn Community Hub.

Mott MacDonald was appointed by Willmott Dixon Construction Limited to prepare a Coal Mining Risk Assessment for the above proposed works. The purpose of the report was to provide the Local Planning Authority with information on coal mining and an assessment of its impact on land stability as part of the planning process.

Following the submission of a further planning application for a Multi Use Games Area (MUGA) adjacent to the Hub development, planning conditions required a Coal Mining Risk Assessment addendum for the MUGA site. The original report included the MUGA site but the recommendations made within only covered the footprint of the Hebburn Hub building.

## 1.2 Site Location and Description

Hebburn Hub is situated within Hebburn town, south of Glen Street and west of Station Road, predominantly located in an area of public amenity grassland with some tarmac pathways. The eastern edge of the site includes a supermarket car park. The south of the site is bound by an area of hard-standing and four residential tower blocks.



Source: Ordnance Survey © Crown copyright 2001 All rights reserved.  
Licence number 100026791

### **1.3 Description and Layout of Proposed Additional Development**

The proposed additional development is for a Multi Use Games Area (MUGA) and children's play area which will lie immediately to the south west of the Hebburn Hub building and will form part of the new community and sports centre, for which planning consent has been granted and construction has begun.

The MUGA is to comprise a sub base constructed with 200mm thick MOT Type 1 Stone, with a 50mm Open Textured 20mm Aggregate binder course installed over the top, with a 25mm Open Textured 6mm Aggregate wearing course.

The outline of the proposed MUGA is shown in red in Figure 1 within Appendix A.

### **1.4 Scope of this Coal Mining Risk Assessment Addendum**

The purpose of this Coal Mining Risk Assessment Addendum is to:

- Present a desk-based review of available information on the coal mining issues which are relevant to the application site;
- Use that information to identify and assess the risks to the proposed works from the coal mining legacy.
- Set out appropriate mitigation measures to address the coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development; and
- Demonstrate to the Local Planning Authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

## 2 Sources of Information Used to Inform this Addendum

The following information sources have been used to inform this Coal Mining Risk Assessment Addendum.

Table 2.1: Information Sources

Date	Author	Document Reference	Title
March 2013	Mott MacDonald	317502/04/A	Coal Mining Risk Assessment
May 2013	Mott MacDonald	317502/06/A	Coal Mining Risk Assessment Addendum A
May 2013	Ian Farmer	30777	Ground Investigation Report
December 2012	The Coal Authority	51000189157001	Coal Mining Authority Report
February 2014	Van Elle	132432	Factual report: Hebburn Community Hub – Probing, Locating, Drilling & Treatment of Shallow Mine Workings

The Van Elle factual report is included in Appendix B. The Coal Authority Report is included in Appendix C. Copies of other reports are available upon request.

### 2.1 Summary of Ground Conditions

A ground investigation by Ian Farmer Associates, procured by Willmott Dixon Construction Limited, has been carried out on the overall community and sports centre site. The scope of the investigation included five rotary cored boreholes to maximum depths of 30m with selected gas/water monitoring installations. One of the boreholes BH3 was drilled on the site of the MUGA and showed evidence of possible coal workings of 0.2m thick at depths of circa 19.5m, with approximately 6m of Mudstone/Sandstone above.

Based on the ground investigation information, the expected geological sequence beneath the MUGA is:

- Made ground of variable thickness associated with past activities including previous multi-storey blocks at the site.
- Glacial drift to depths of between 7.75m and 13.60m comprising stiff grey brown gravelly clay and laminated clays. Cobbles / boulders may be present. Localised faulting may affect drift thickness.
- Bedrock: Coal Measures comprising fractured sandstone or mudstone overlying two to three relatively thin coal seams. There is evidence that the uppermost thin seam has been mined to a limited extent, possibly by ancient bell pit methods. This coal seam is possibly that indicated on the geological map Sheet NZ36SW but the major sandstone stratum proved in BH1 and BH2 is not indicated, inferring some variance, possibly due to unmapped faulting.  
There is no evidence of workings of the upper coal seam within BH3 where the MUGA is proposed.

Rock strata beneath the site are classified as a Minor Aquifer and the groundwater quality is likely to be poor due to mine-workings.

## **2.2 Summary of Van Elle Factual Report**

The Coal Mining Risk Assessment prepared for the Hebburn Community Hub two storey development recommended a programme of probing and grouting stabilisation of the fractured sandstone and mudstone between rockhead and 20m depth be carried out to reduce the risk of any upward migration of voids and possible settlement of overlying drift soil.

Consequently, Willmott Dixon Construction Limited appointed Van Elle to treat the suspected shallow mine workings by sinking a number of boreholes to allow the injection of a cementitious grout to stabilise the shallow workings beneath the footprint of the proposed building. These works did not extend to the site of the proposed MUGA.

During the grouting works however, no workings were identified. Furthermore, only a third of the site was found to be underlain by coal, predominantly to the north east of the proposed MUGA.

The complete Van Elle validation report is included in Appendix B.

## 3 Identification and Assessment of Site Specific Coal Mining Risks

### 3.1 Coal Mining Risks

As was noted in the Coal Mining Risk assessment report for the Hebburn Community Hub, the site is underlain by the Middle Coal Measures rock strata including numerous seams of coal interbedded with layers of sandstone, mudstone, siltstone and seat-earth.

The area has a long history of mining and there are known mineshafts / ex -colliery sites in the area: for example, Hebburn Colliery, Hebburn B Pit and Hebburn C Pit.

A coal mining report obtained by Mott MacDonald, reference 51000189157001 dated 03 December 2012 indicates that the site is within the likely zone of influence from workings in 5 seams of coal at 200m to 380m, last worked in 1947. Any ground movement attributable to these seams should by now have ceased. The report also states that the Coal Authority has no knowledge of any mine entries on or within 20m of the boundary of the site as defined in the report.

In addition, the Coal Authority believes there is coal at or close to the surface which may have been worked in the past, for which they hold no records.

Accordingly, the site may present various sub-surface hazards related with potentially voided and broken ground associated with shallow worked coal seams. The risks posed by these hazards are summarised in the table below and further described in the following sections:

Table 3.1: Coal Mining Risks to MUGA

Coal Mining Issue	Yes	No	Comments / Risk Assessment
Underground coal mining (recorded at shallow depths <30m)	✓		Outlined in Ian Farmer Ground Investigation Report. Refer to borehole BH3 located on the MUGA site.
Underground coal mining (probable at shallow depths)	✓		Current ground investigation confirms rotary coring to 30m depth has indicated evidence of the presence of thin coal possibly worked by unrecorded bell pit methods.
Mine entries (shafts and adits)		✓	None recorded in Coal Authority Report There remains a risk as to the presence of ancient unrecorded pits.
Coal mining geology (fissures)		✓	None highlighted in the Coal Authority report. The geological maps indicate some faulting in deeper coal seams which do not appear to affect the shallow seams.
Record of past mine gas emissions		✓	None recorded in Coal Authority report
Recorded coal mining surface hazard		✓	The Coal Authority reports confirm the site has not been subject to remedial works.

Coal Mining Issue	Yes	No	Comments / Risk Assessment
Surface mining (opencast workings)		✓	None recorded in Coal Authority report
Groundwater		✓	Limited perched groundwater may be present in granular drift deposits, however not linked to Coal Measures. Groundwater within workings at depth likely to be acidic.

## 4 Mitigation Strategy Proposed

The ground investigation commissioned by Willmott Dixon Construction Limited has confirmed the presence of mudstone, siltstone and sandstone to 30m depth with some evidence of a relatively thin un-worked coal seam at 19.5m depth. This is overlain by approximately 5m of Sandstone. It is possible that a bell pit method may have been used to exploit the coal.

As the un-worked coal seam has in excess of a 10:1 rock cover to seam thickness, together with noting that the previous programme of drilling and grouting did not locate any voids in the coal seams, it is suggested that no mitigation works are necessary for the coal seams under the MUGA site.

Monitoring of installations in three boreholes as part of the ground investigation targeting made ground, glacial clay and sandstone respectively has indicated no methane and low levels of carbon dioxide. Although, the three targeted boreholes were not on the site of the proposed MUGA, the borehole logs demonstrate that the coal seam is at considerable depth and is overlain by solid sandstone and stiff clay providing an extensive depth of capping should gas be omitted from the coal seam. Furthermore the proposed use of the MUGA site does not include any confined spaces where gas accumulation would pose a risk.

Exposure and inspection of the virgin clay is recommended by stripping down the made ground on site, to check for the presence of possible deeper made ground within possible bell pits/shafts. These would require the appropriate treatment by infill grouting and capping, should they be encountered.



## 5 Conclusions

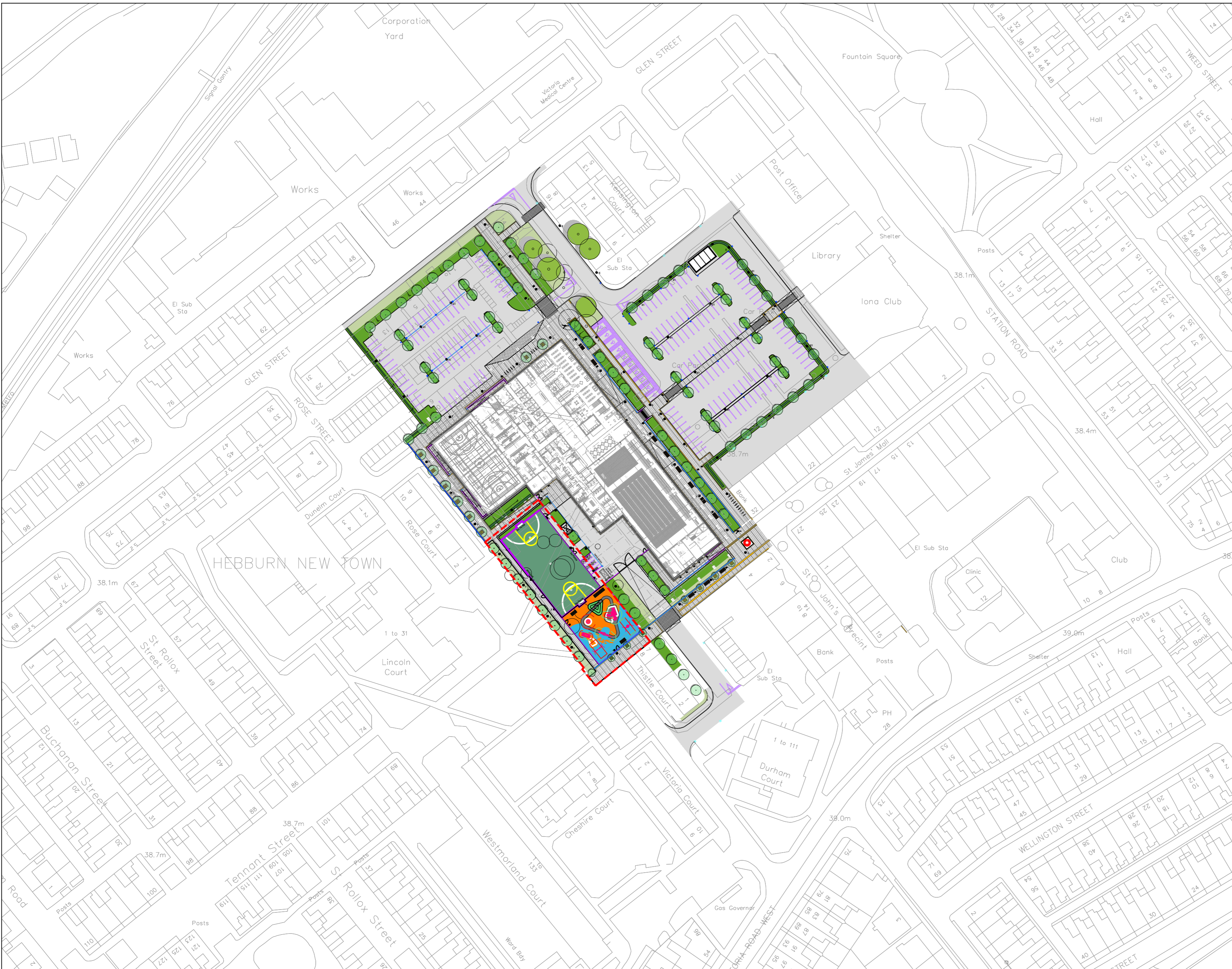
A Coal Mining Risk Assessment Addendum has been taken for the proposed MUGA to be located adjacent to the Hebburn Community Hub.

Following a review of source information, which included validation information for remedial works carried out to the footprint of the two storey Hebburn Hub building, and results of a recent ground investigation, a thin coal seam within 20m depth of the ground surface has been indicated.

The indication however is that the proposed MUGA site is unlikely to have worked mine workings below. Furthermore, the proposed use of the site as a play and games area and its associated relatively light applied loads, concludes that no mitigation measures are required. However there remains a potential risk of unrecorded mineshafts or bell pits and it is therefore recommended to expose and inspect the virgin clay by stripping down the made ground on site, to check for the presence of such bell pits/shafts. In the unlikely event of encountering such pits/shafts, then these would require the appropriate treatment by infill grouting and capping.
















No special protection measures are considered necessary in respect of toxic ground gases.

# Appendix A. Site Outline









M.U.G.A. PLANNING APPLICATION  
BOUNDARY  
Planning Reference Number PP-03279010

### HARDWORKS

-  **M001-00 CONCRETE FLAG PAVING** [Refer to detail M5031-301]  
Marshall's Pre Cast Concrete Conservation Smooth Ground Paving [or other equal and approved]. 400x400x80mm units. Colour: Mid/Silver Grey
-  **M001-03 MID GREY PAVING MIX** [Refer to detail M5031-301]  
Hardscape Kellen 'Breccia'. 600x200x80mm units. % mix as in detail M5031-301
-  **M001B PEDESTRIAN CROSSINGS** [Refer to detail M5031-301]  
Hardscape Kellen 'Breccia'. 200 x 100 x 80mm units; % mix as in detail M5031-301
-  **M001C COACH LAY-BY** [Refer to detail M5031-301]  
Hardscape Kellen 'Breccia'. 600 x 200 x 100mm units; % mix as in detail M5031-301
-  **M001D INTERFACE PAVING** [Refer to detail M5031-301]  
Variable width strip to run parallel to interface edges as shown. Hardscape Kellen 'Breccia'. 600 x 200 / 500 (trimmed to fit) x 80mm units. Colour: Refer to M5031-301
-  **M002 KERBS** [Refer to detail M5031-303]  
125 x 255mm precast concrete kerb
-  **M003 BUILDING INTERFACE GRAVEL MARGIN** [Refer to detail M5031-303]  
Recycled Glass (6-12mm black opaque chippings to landscape architect approval)
-  **M004 ASPHALT CONCRETE** [Refer to specification]
-  **M006 BLISTER TACTILE WARNING SURFACE** [Refer to detail M5031-305]  
400 x 400 x 50mm; Marshall's precast concrete blister units; colour: charcoal; Profile as per DfT 'Inclusive mobility' guidance
-  **M007 CORDUROY TACTILE WARNING SURFACE** [Refer to detail M5031-305]  
400 x 400 x 50mm; Evans bespoke precast concrete products; corduroy hazard warning units; colour: BG31-4; finish: light acid etch; Profile as per DfT 'Inclusive mobility' guidance
-  **M008 RETAINING WALLS** [Refer to detail M5031-305]  
500 x 500 x 1200mm Pre-cast concrete; Evans bespoke precast concrete products; colour BG31-4; acid etched and polished; refer to landscape spec for details.
-  **PERIMETER FENCING**  
3m high, 2.24m wide panels. Steelway weldmesh security fencing (or similar and approved); Colour: Black. Refer to landscape spec for details.
-  **BRICK WALL**  
2.5m high brick wall. Bricks to be matched to landscape architects approval on site. [see dwg. M5031-221 for details]. Stretcher bond, pre-cast concrete cope.
-  **PRE CAST CONCRETE STEP UNITS**  
Evans bespoke precast concrete products; colour BG31; finish: light acid etch; high contrast silver grey visibility insert. Refer to M5031-305 or landscape spec for details.
-  **WET POUR RUBBER SAFETY SURFACING**  
Softsurfaces (or similar and approved). See landscape spec for details.

### SOFTWORKS

-  **P001 PROPOSED TREES** - [Refer to planting plan M5031-03 & Tree pit details M5031-123]
-  **P004 EXISTING TREES TO BE RETAINED** [Refer to planting plan M5031-123]
-  **P005 EXISTING TREES TO BE REMOVED**
-  **P006 ORNAMENTAL PLANTING MIX** [Refer to planting plan M5031-123]
-  **P007 HEDGEROW** [Refer to planting plan M5031-123]
-  **P008 AMENITY GRASS** [Refer to planting plan M5031-123]

rev	details	by	date
P00	Issued for planning	MS	07.07.14

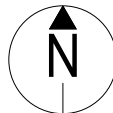

rev	details	by	date

**Notes**

- Do not scale from drawing, use figured dimensions only.
- All dimensions to be checked onsite.
- This drawing to be read in conjunction with all other Gillespies drawings and specifications.

Ordnance information shown is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office. Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. License No. 1000 17362

**FAULKNER BROWNS ARCHITECTS**  
Debonholme Road  
Newcastle Upon Tyne  
NE12 6DW  
Tel: 0191 268 3007

Project title  
**HEBBURN MASTERPLAN CONTEXT PLANNING**

Drawing title  
**LOCATION PLAN**

Drawing number  
**M 5031 - 108**

Drawing Status  
**PRELIMINARY**

Date Scale  
19.03.14 1:1250 @ A1

Revision  
**P00**

Drawn Checked  
MG AG

**GILLESPIES**  
Milton Chambers, 12 Heaton Court, Leeds LS1 4JL  
P: 0113 247 0550 F: 0113 247 0660 E: design@gilispies.co.uk

**WILLMOTT DIXON**  
Client: Willmott Dixon  
Belle House, Dalmeida Way, Leeds LS11 9JZ  
Team Valley Trading Estate, Gateshead, Tyne & Wear, NE11 9JZ  
P: 0191 482 4204

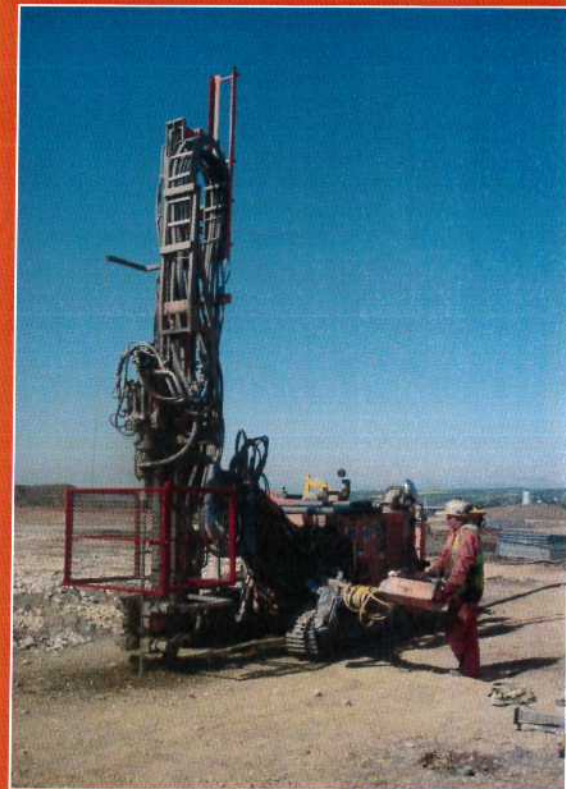
# Appendix B. Van Elle Factual Report



# Hebburn Community Hub, Hebburn

## Factual Report

Probing, Locating, Drilling and Treatment of Shallow Mine Workings



Van Elle  
Kirkby Lane  
Pinxton  
Nottinghamshire  
NG16 6JA  
01773 580580

**Contents**

Control Sheet.....3  
Introduction.....4  
Methodology .....4  
Validation .....5

## Control Sheet

This report has been prepared for the sole benefit, use and information of Willmott Dixon 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. It is now the clients responsibility to fulfil the Coal Authorities requirements with regards to the Coal Authority Permit.

Prepared by	Paul Grocott	Signed 	Date 14/2/14
Approved by	John Baggott	Signed 	Date 14/2/14.

## Introduction

The site is located off Glen Street, Hebburn and is currently being remediated to allow the development of a Community Centre. As part of the remedial works a site investigation has been carried out.

The site investigation was commissioned to check for the presence of shallow mine workings. The site investigation report concluded that there was evidence of past mining.

Willmott Dixon therefore instructed Van Elle to locate and treat the suspected shallow mine workings within the footprint of the proposed building to be constructed.

The works involved the drilling of 204 No. probe holes and the injection of 22 tons of cementious grout.

## Methodology

The works involved the sinking of 204 boreholes to allow the injection of a cementious grout to stabilise the shallow workings beneath the site. Work commenced on a 6m drilling grid with boreholes being drilled up to 20m below ground level. As the works progressed it became apparent that there were no workings beneath the site. A copy of the drill logs are presented in Appendix 1.

All boreholes were drilled using hydraulic driven rotary drill rig, advancing a 90mm diameter borehole into the strata. The system used was a rotary drilling system using air mist as the flushing medium.

Throughout the works monitoring for the presence of three harmful gases, carbon monoxide (CO), hydrogen sulphide (H<sub>2</sub>S) and Methane (CH<sub>4</sub>). Levels of airborne Oxygen (O<sub>2</sub>) we also monitored. The drilling crews also had personal gas alarms, which activate visible and aural alarms should concentrations of any of these gases touch pre-determined trigger levels. No elevated readings were recorded.

The back filling of the boreholes was carried using a grout comprising water, ordinary Portland cement (OPC) and pulverised fuel ash (PFA). This was mixed to a ratio of 10:1 PFA: OPC with a water solids ratio of no more than 40%. No thixotropic or thickening agents were added during agitation. The table below shows the total amounts of injected material used.

Description	Units	Total
OPC	T	2.0
PFA	T	20.0
Sand	T	0.00
Pea Gravel	T	0.00

Grout was batched on site using an agitator mixer powered using an air compressor. Constituent materials were introduced by a loading shovel, and pumped to each



treatment borehole using a sand pump. All plant was certified safe and maintained properly throughout the operation. A copy of the grout logs are presented in Appendix 2.

### **Validation**

A total of 204 probe holes were drilled at the site to locate and treat the shallow mine workings. As works progressed no workings were identified and only a third of the site was underlain by coal. All of the boreholes were backfilled with grout until they topped out and were deemed to be full.

The works carried out at the site showed that there were no shallow workings beneath the Community Centre.

# Appendix 1

## Drill Logs



# Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <b>HERBURN COMMUNITY HUB</b>			Sheet: _____ of _____		
Rig: <b>SOILMEC 401</b>		Crew: <b>I MITCHISON G BRAY</b>		Date: <b>26 11 13</b>	
Hours on Site: _____			Travelling Time: _____		
BH	Depth	Strata Description	BH	Depth	Strata Description
<b>A14</b>	<b>0000 0860</b>	<b>OVER BURDEN</b>	<b>I13</b>	<b>0000 1160</b>	<b>OVER BURDEN</b>
	<b>0860 2000</b>	<b>SANDSTONE MUDSTONE BANDS</b>		<b>1160 1180</b>	<b>MUDSTONE</b>
		<b>6 M CASED</b>		<b>1180 1210</b>	<b>COAL</b>
				<b>1210 1240</b>	<b>MUDSTONE</b>
<b>B14</b>	<b>0000 0860</b>	<b>OVER BURDEN</b>		<b>1240 1270</b>	<b>COAL</b>
	<b>0860 2000</b>	<b>SANDSTONE MUDSTONE BANDS</b>		<b>1270 2000</b>	<b>MUDSTONE SANDSTONE BANDS</b>
		<b>6 M CASED</b>			<b>6 M CASED</b>
<b>C14</b>	<b>0000 0890</b>	<b>OVER BURDEN</b>			
	<b>0890 2000</b>	<b>SANDSTONE MUDSTONE BANDS</b>			
		<b>6 M CASED</b>			
<b>D14</b>	<b>0000 0890</b>	<b>OVER BURDEN</b>			
	<b>0890 2000</b>	<b>SANDSTONE MUDSTONE BANDS</b>			
		<b>6 M CASED</b>			
<b>E14</b>	<b>0000 0860</b>	<b>OVER BURDEN</b>			
	<b>0860 2000</b>	<b>SANDSTONE MUDSTONE BANDS</b>			
		<b>6 M CASED</b>			

Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							<b>6</b>	<b>120.00</b>	<b>36.00</b>	
							<b>NONE</b>	<b>NONE</b>	<b>NONE</b>	
							<b>6</b>	<b>120.00</b>	<b>3600</b>	

I confirm this is a true record  
 Van Elle operative name **IAN MITCHISON**  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED **[Signature]**  
 Dated **26 11 13**

Client's Name **M. SHIELD**  
 Client's position **R. Manager**  
 Signature **[Signature]**  
 Dated **27/11/13**



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HALL</u>			Sheet: _____ of _____							
Rig: <u>SOIK MEC 401</u>		Crew: <u>I MITCHISON G BRAY</u>		Date: <u>27 11 13</u>						
Hours on Site: _____			Travelling Time: _____							
BH	Depth	Strata Description	BH	Depth	Strata Description					
<u>J13</u>	<u>0000 1140</u>	<u>OVER BURDEN</u>	<u>L13</u>	<u>0000 1120</u>	<u>OVER BURDEN</u>					
	<u>1140 1160</u>	<u>MUDSTONE</u>		<u>1120 1140</u>	<u>COAL</u>					
	<u>1160 1180</u>	<u>COAL</u>		<u>1140 1170</u>	<u>MUDSTONE</u>					
	<u>1180 1210</u>	<u>MUDSTONE</u>		<u>1170 1200</u>	<u>COAL</u>					
	<u>1210 1240</u>	<u>COAL</u>		<u>1200 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
	<u>1240 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			<u>6 M CASED</u>					
		<u>6 M CASED</u>								
			<u>M13</u>	<u>0000 0900</u>	<u>OVER BURDEN</u>					
<u>K13</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>		<u>0900 1010</u>	<u>MUDSTONE</u>					
	<u>1080 1120</u>	<u>MUDSTONE</u>		<u>1010 1030</u>	<u>COAL</u>					
	<u>1120 1150</u>	<u>COAL</u>		<u>1030 1040</u>	<u>MUDSTONE</u>					
	<u>1150 1180</u>	<u>MUDSTONE</u>		<u>1040 1070</u>	<u>COAL</u>					
	<u>1180 1210</u>	<u>COAL</u>		<u>1070 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
	<u>1210 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			<u>6 M CASED</u>					
		<u>6 M CASED</u>								
			<u>N13</u>	<u>0000 0770</u>	<u>OVER BURDEN</u>					
				<u>0770 0990</u>	<u>MUDSTONE</u>					
				<u>0990 1000</u>	<u>COAL</u>					
				<u>1000 1030</u>	<u>MUDSTONE</u>					
				<u>1030 1036</u>	<u>COAL</u>					
				<u>1060 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
Casing/Water Level Details <u>6 M CASED</u>										
BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed	Today	<u>5</u>	<u>100.00</u>	<u>30.00</u>	
						Previous	<u>6</u>	<u>120.00</u>	<u>36.00</u>	
						To Date	<u>11</u>	<u>220.00</u>	<u>66.00</u>	
I confirm this is a true record Van Elle operative name <u>IAN MITCHISON</u>						Client's Name <u>M. SHIELD</u>				
Drill hole Nos. checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Client's position <u>D. Manager</u>				
Hole Depth checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Signature <u>[Signature]</u>				
SIGNED <u>[Signature]</u>						Dated <u>27/11/13</u>				
Dated <u>27 11 13</u>										



# Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HERBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 601</u>		Crew: <u>MITCHELSON &amp; BRAY</u>		Date: <u>28 11 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>Q13</u>	<u>0000 0690</u>	<u>OVER BURDEN</u>	<u>Q13</u>	<u>0000 0700</u>	<u>OVER BURDEN</u>
	<u>0690 1020</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0700 1030</u>	<u>MUDSTONE SANDSTONE BANDS</u>
	<u>1020 1050</u>	<u>COAL</u>		<u>1030 1050</u>	<u>COAL</u>
	<u>1050 1080</u>	<u>MUDSTONE</u>		<u>1050 1070</u>	<u>MUDSTONE</u>
	<u>1080 1100</u>	<u>COAL</u>		<u>1070 1100</u>	<u>COAL</u>
	<u>1100 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1100 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
		<u>6 M CASED</u>			<u>6 M CASED</u>
<u>P13</u>	<u>0000 0690</u>	<u>OVER BURDEN</u>			
	<u>0690 1010</u>	<u>MUDSTONE SANDSTONE BANDS</u>	<u>R13</u>	<u>0000 0690</u>	<u>OVER BURDEN</u>
	<u>1010 1030</u>	<u>COAL</u>		<u>0690 1070</u>	<u>MUDSTONE SANDSTONE BANDS</u>
	<u>1030 1060</u>	<u>MUDSTONE</u>		<u>1070 1090</u>	<u>COAL</u>
	<u>1060 1090</u>	<u>COAL</u>		<u>1090 1100</u>	<u>MUDSTONE</u>
	<u>1090 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1100 1130</u>	<u>COAL</u>
		<u>6 M CASED</u>		<u>1130 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
					<u>6 M CASED</u>

Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							<u>4</u>	<u>80.00</u>	<u>24.00</u>	
							<u>11</u>	<u>220.00</u>	<u>66.00</u>	
							<u>15</u>	<u>300.00</u>	<u>90.00</u>	

I confirm this is a true record  
 Van Elle operative name MIKE MITCHELSON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 28 11 13

Client's Name M. SHEPHERD  
 Client's position B. Manager  
 Signature [Signature]  
 Dated 27/11/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>2</u> of <u>2</u>		
Rig: <u>SJK MEC 401</u>		Crew: <u>MITCHISON G BRAY</u>		Date: <u>28 11 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>513</u>	<u>0000 0700</u>	<u>OVER BURDEN</u>	<u>014</u>	<u>0000 0730</u>	<u>OVER BURDEN</u>
	<u>0700 1070</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0730 1070</u>	<u>MUDSTONE SANDSTONE BANDS</u>
	<u>1070 1090</u>	<u>COAL</u>		<u>1070 1090</u>	<u>COAL</u>
	<u>1090 1100</u>	<u>MUDSTONE</u>		<u>1090 1110</u>	<u>MUDSTONE</u>
	<u>1100 1130</u>	<u>COAL</u>		<u>1110 1140</u>	<u>COAL</u>
	<u>1130 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1140 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
		<u>6 M CASED</u>			<u>6 M CASED</u>
<u>T13</u>	<u>0000 0700</u>	<u>OVER BURDEN</u>	<u>P14</u>	<u>0000 0650</u>	<u>OVER BURDEN</u>
	<u>0700 1090</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0650 1070</u>	<u>MUDSTONE SANDSTONE BANDS</u>
	<u>1090 1110</u>	<u>COAL</u>		<u>1070 1090</u>	<u>COAL</u>
	<u>1110 1140</u>	<u>MUDSTONE</u>		<u>1090 1110</u>	<u>MUDSTONE</u>
	<u>1140 1170</u>	<u>COAL</u>		<u>1110 1130</u>	<u>COAL</u>
	<u>1170 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1130 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
		<u>6 M CASED</u>			<u>6 M CASED</u>

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>4</u>	<u>80.00</u>	<u>26.00</u>	
						Previous	<u>15</u>	<u>300.00</u>	<u>90.00</u>	
						To Date	<u>19</u>	<u>380.00</u>	<u>114.00</u>	

I confirm this is a true record.  
 Van Elle operative name IAN MITCHISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 28 11 13

Client's Name M. SHREVE  
 Client's position B. Manager  
 Signature [Signature]  
 Dated 29/11/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HERBURN COMMUNITY HUB</u>			Sheet: <u>3</u> of <u>3</u>		
Rig: <u>SOKMBC 401</u>		Crew: <u>I MITCHISON G BRAY</u>		Date: <u>28 11 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>Q14</u>	<u>0000 0680</u>	<u>OVER BURDEN</u>			
	<u>0680 1070</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
	<u>1070 1090</u>	<u>COAL</u>			
	<u>1090 1110</u>	<u>MUDSTONE</u>			
	<u>1110 1140</u>	<u>COAL</u>			
	<u>1140 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASED</u>			
<u>R14</u>	<u>0000 0680</u>	<u>OVER BURDEN</u>			
	<u>0680 1070</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
	<u>1070 1090</u>	<u>COAL</u>			
	<u>1090 1110</u>	<u>MUDSTONE</u>			
	<u>1110 1140</u>	<u>COAL</u>			
	<u>1140 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASED</u>			

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							<u>2</u>	<u>40.00</u>	<u>12.00</u>	
							<u>19</u>	<u>380.00</u>	<u>116.00</u>	
							<u>21</u>	<u>420.00</u>	<u>126.00</u>	

I confirm this is a true record  
 Van Elle operative name IAN MITCHISON

Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No

SIGNED I Mitchison  
 Dated 28 11 13

Client's Name M. STEWART  
 Client's position D. Manager  
 Signature [Signature]  
 Dated 27/11/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: HEBBURN COMMUNITY HUB			Sheet: 1 of 1		
Rig: Soil Mec 401			Crew: I MITCHISON G BRAY		
Date: 29.11.13					
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
S14	0000 0680	OVER BURDEN	I14	0000 1160	OVER BURDEN
	0680 1090	MUDSTONE SANDSTONE BANDS		1160 1180	MUDSTONE SANDSTONE BANDS
	1090 1110	COAL		1180 1200	COAL
	1110 1130	MUDSTONE		1200 1230	MUDSTONE
	1130 1160	COAL		1230 1260	COAL
	1160 2000	MUDSTONE SANDSTONE BANDS		1260 2000	MUDSTONE SANDSTONE BANDS
		6 M CASED			6 M CASED
T14	0000 0680	OVER BURDEN	J14	0000 1140	OVER BURDEN
	0680 1090	MUDSTONE SANDSTONE BANDS		1140 1160	MUDSTONE
	1090 1110	COAL		1160 1180	COAL
	1110 1130	MUDSTONE		1180 1210	MUDSTONE
	1130 1160	COAL		1210 1240	COAL
	1160 2000	MUDSTONE SANDSTONE BANDS		1240 2000	MUDSTONE SANDSTONE BANDS
		6 M CASED			6 M CASED

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	4	80.00	24.00	
						Previous	21	420.00	126.00	
						To Date	25	500.00	150.00	

I confirm this is a true record.  
Van Elle operative name IAN MITCHISON

Drill hole Nos. checked Yes  No

Hole Depth checked Yes  No

SIGNED [Signature]  
Dated 29 11 13

Client's Name M. SHERRARD  
Client's position D. Manager  
Signature [Signature]  
Dated 29/11/13



## Open Hole Drillers Log

 Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

 Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>2</u> of <u>2</u>							
Rig: <u>SOLMEC L01</u>		Crew: <u>I MITCHISON G BRAY</u>		Date: <u>29 11 13</u>						
Hours on Site:			Travelling Time:							
BH	Depth	Strata Description	BH	Depth	Strata Description					
<u>K14</u>	<u>0000 0720</u>	<u>OVER BURDEN</u>	<u>N14</u>	<u>0000 0780</u>	<u>OVER BURDEN</u>					
	<u>0720 1000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0780 1050</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
	<u>1000 1080</u>	<u>BANDID COAL</u>		<u>1050 1120</u>	<u>COAL (MUDSTONE BANDS)</u>					
	<u>1080 2000</u>	<u>MUDSTONE SANDSTONE BAND</u>		<u>1120 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
		<u>6 M CASSED</u>			<u>6 M CASSED</u>					
<u>L14</u>	<u>0000 1010</u>	<u>OVER BURDEN</u>	<u>Q12</u>	<u>0000 0760</u>	<u>OVER BURDEN</u>					
	<u>1010 1300</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0760 1000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
	<u>1300 1380</u>	<u>COAL (MUDSTONE BANDS?)</u>		<u>1000 1060</u>	<u>COAL MUDSTONE BAND</u>					
	<u>1380 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1060 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
		<u>6 M CASSED</u>			<u>6 M CASSED</u>					
<u>M14</u>	<u>0000 0800</u>	<u>OVER BURDEN</u>	<u>P12</u>	<u>0000 0700</u>	<u>OVER BURDEN</u>					
	<u>0800 1300</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0700 1050</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
	<u>1300 1370</u>	<u>COAL (MUDSTONE BANDS)</u>		<u>1050 1110</u>	<u>COAL (MUDSTONE BANDS)</u>					
	<u>1370 2000</u>	<u>MUDSTONE SANDSTONE</u>		<u>1110 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
		<u>6 M CASSED</u>			<u>6 M CASSED</u>					
Casing/Water Level Details										
BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed	Today				
							<u>6</u>	<u>120.00</u>	<u>36.00</u>	
						Previous	<u>25</u>	<u>500.00</u>	<u>150.00</u>	
						To Date	<u>31</u>	<u>620.00</u>	<u>186.00</u>	
I confirm this is a true record. Van Elle operative name: <u>IAN MITCHISON</u>						Client's Name: <u>M. SHIELD</u>				
Drill hole Nos. checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Client's position: <u>B-Manager</u>				
Hole Depth checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Signature: <u>[Signature]</u>				
SIGNED: <u>[Signature]</u>						Dated: <u>29/11/13</u>				
Dated: <u>29 11 13</u>										



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: HERBURN COMMUNITY HUB			Sheet: 1 of 1		
Rig: SOILMEC 401		Crew: MITCHISON GRAY		Date: 2 12 13	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
012	0000 0700	OVER BURDEN	L12	0000 0820	OVER BURDEN
	0700 1050	MUDSTONE SANDSTONE BANDS		0820 0960	MUDSTONE SANDSTONE BANDS
	1050 1110	COAL (MUDSTONE BAND)		0960 1030	COAL (MUDSTONE BAND)
	1110 2000	MUDSTONE SANDSTONE BANDS		1030 2000	MUDSTONE SANDSTONE BANDS
		6 M CASED			6 M CASED
N12	0000 0730	OVER BURDEN	K12	0000 0940	OVER BURDEN
	0730 0950	MUDSTONE SANDSTONE BANDS		0940 1060	MUDSTONE SANDSTONE BANDS
	0950 1010	COAL (MUDSTONE BAND)		1060 1070	COAL
	1010 2000	MUDSTONE SANDSTONE BANDS		1070 2000	MUDSTONE SANDSTONE BANDS
		6 M CASED			6 M CASED
M12	0000 0860	OVER BURDEN	J12	0000 1140	OVER BURDEN
	0860 0930	MUDSTONE SANDSTONE BANDS		1140 2000	MUDSTONE SANDSTONE BANDS
	0930 1000	COAL (MUDSTONE BAND)			6 M CASED
	1000 2000	MUDSTONE SANDSTONE BANDS			
		6 M CASED			

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						6		120.00	36.00	
						31		620.00	186.00	
						37		740.00	222.00	

I confirm this is a true record.  
 Van Elle operative name IAN MITCHISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 2 12 13

Client's Name M. SHIELD  
 Client's position B. Manager  
 Signature [Signature]  
 Dated 4/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: HERBURN COMMUNITY HUB			Sheet: 2 of 2		
Rig: SOIKMEC 401		Crew: MITCHISON G BRAY		Date: 2 12 13	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
Q11	0000 0700	OVER BURDEN	N11	0000 0890	OVER BURDEN
	0700 1000	MUDSTONE SANDSTONE BANDS		0890 0940	COAL (MUDSTONE BAND)
	1000 1060	COAL (MUDSTONE BAND)		0940 2000	MUDSTONE SANDSTONE BANDS
	1060 2000	MUDSTONE SANDSTONE BANDS			
		6 M CASED			
P11	0000 0700	OVER BURDEN			
	0700 1050	MUDSTONE SANDSTONE BANDS			
	1050 1110	COAL (MUDSTONE BAND)			
	1110 2000	MUDSTONE SANDSTONE BANDS			
		6 M CASED			
O11	0000 0940	OVER BURDEN			
	0940 0960	MUDSTONE			
	0960 1030	COAL (MUDSTONE BAND)			
	1030 2000	MUDSTONE SANDSTONE BANDS			
		6 M CASED			

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	4	80.00	24.00	
						Previous	37	740.00	222.00	
						To Date	41	820.00	246.00	

I confirm this is a true record.  
 Van Elle operative name: TAN MITCHISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED: [Signature]  
 Dated: 2 12 13

Client's Name: M. STEED  
 Client's position: B. Manager  
 Signature: [Signature]  
 Dated: 4/12/13



# Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <b>HEBBURN Community Hub</b>			Sheet: _____ of _____		
Rig: <b>SOILMEC 401</b>		Crew: <b>DBRY LTAYLOR</b>		Date: <b>2 12 13</b>	
Hours on Site: _____			Travelling Time: _____		
BH	Depth	Strata Description	BH	Depth	Strata Description
<b>R8</b>	0000 0740	OVER BURDEN	<b>O8</b>	0000 0900	OVER BURDEN
	0740 1100	MUDSTONE SANDSTONE BANDS		0900 2000	MUDSTONE SANDSTONE BANDS
	1100 1170	COAL (MUDSTONE BAND)			6 M CASED
	1170 2000	MUDSTONE SANDSTONE BANDS			
		6 M CASED	<b>N8</b>	0000 1050	OVER BURDEN
				1050 2000	MUDSTONE SANDSTONE BANDS
<b>G8</b>	0000 0770	OVER BURDEN			6 M CASED
	0770 1100	MUDSTONE SANDSTONE BANDS			
	1100 1170	COAL (MUDSTONE BAND)	<b>M8</b>	0000 1100	OVER BURDEN
	1170 2000	MUDSTONE SANDSTONE BANDS		1100 2000	MUDSTONE SANDSTONE BANDS
		6 M CASED			6 M CASED
<b>P8</b>	0000 0850	OVER BURDEN	<b>L8</b>	0000 1150	OVER BURDEN
	0850 0950	MUDSTONE SANDSTONE BANDS		1150 2000	MUDSTONE SANDSTONE BANDS
	0950 1070	COAL (MUDSTONE BAND)			6 M CASED
	1070 2000	MUDSTONE SANDSTONE BANDS			
		6 M CASED	<b>K8</b>	0000 1150	OVER BURDEN
				1150 2000	MUDSTONE SANDSTONE BANDS
					6 M CASED

Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<b>8</b>	<b>160.00</b>	<b>48</b>	
						Previous	<b>41</b>	<b>820.00</b>	<b>246.00</b>	
						To Date	<b>49</b>	<b>980.00</b>	<b>294.00</b>	

I confirm this is a true record  
 Van Elle operative name: **IAN MITCHELSON**  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED: *[Signature]*  
 Dated: **2 12 13**

Client's Name: **M. SHIELD**  
 Client's position: **R. Mungell**  
 Signature: *[Signature]*  
 Dated: **4/12/13**

## Open Hole Drillers Log

 Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

 Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HERBURN COMMUNITY CENTRE</u>			Sheet: <u>1</u> of <u>1</u>							
Rig: <u>SOILMECH01</u>		Crew: <u>J BRAY</u> <u>L TAYLOR</u>		Date: <u>3 12 13</u>						
Hours on Site:			Travelling Time:							
BH	Depth	Strata Description	BH	Depth	Strata Description					
<u>J8</u>	<u>0000 1200</u>	<u>OVER BURDEN</u>	<u>J7</u>	<u>0000 1200</u>	<u>OVER BURDEN</u>					
	<u>1200 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1200 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
		<u>6 M CASING</u>			<u>6 M CASING</u>					
<u>N7</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>	<u>I7</u>	<u>0000 1120</u>	<u>OVER BURDEN</u>					
	<u>1100 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1120 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
		<u>6 M CASING</u>			<u>6 M CASING</u>					
<u>M7</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>	<u>H7</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>					
	<u>1100 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1100 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
		<u>6 M CASING</u>			<u>6 M CASING</u>					
<u>L7</u>	<u>0000 1130</u>	<u>OVER BURDEN</u>	<u>G7</u>	<u>0000 1070</u>	<u>OVER BURDEN</u>					
	<u>1130 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1070 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>					
		<u>6 M CASING</u>			<u>6 M CASING</u>					
<u>K7</u>	<u>0000 1170</u>	<u>OVER BURDEN</u>								
	<u>1170 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>								
		<u>6 M CASING</u>								
Casing/Water Level Details										
BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed	Today				
						Previous				
						To Date				
							<u>9</u>	<u>180.00</u>	<u>54.00</u>	
							<u>49</u>	<u>980.00</u>	<u>294.00</u>	
							<u>58</u>	<u>1,160.00</u>	<u>348.00</u>	
I confirm this is a true record. Van Elle operative name: <u>IAN MITCHELL</u>						Client's Name: <u>M. SHEPHERD</u>				
Drill hole Nos. checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Client's position: <u>B. MURPHY</u>				
Hole Depth checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Signature: <u>[Signature]</u>				
SIGNED: <u>[Signature]</u>						Dated: <u>4/12/13</u>				
Dated: <u>3 12 13</u>										



# Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: HEBBURN COMMUNITY HUB Sheet: 2 of 2  
 Rig: SOLMBC 601 Crew: D BRAY L TAYLOR Date: 3 12 13

Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>F 7</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>			
	<u>1050 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASING</u>			
<u>F 7</u>	<u>0000 1030</u>	<u>OVER BURDEN</u>			
	<u>1030 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASING</u>			

Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>2</u>	<u>40.00</u>	<u>12.00</u>	
						Previous	<u>58</u>	<u>1,160.00</u>	<u>348.00</u>	
						To Date	<u>60</u>	<u>1,200.00</u>	<u>360.00</u>	

I confirm this is a true record  
 Van Elle operative name: IAN MICHISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED: [Signature]  
 Dated: 3 12 13

Client's Name: M. SHELDON  
 Client's position: R. Manager  
 Signature: [Signature]  
 Dated: 4/12/13

## Open Hole Drillers Log

 Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

 Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>			Crew: <u>I MITCHISON G BRAY</u>		Date: <u>3 12 13</u>
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
M11	0000 0840	OVER BURDEN	I11	0000 1160	OVER BURDEN
	0840 0860	MUDSTONE SANDSTONE BANDS		1160 2000	MUDSTONE SANDSTONE BANDS
	0860 0880	COAL			6 M CASED
	0880 2000	MUDSTONE SANDSTONE BANDS			
		6 M CASED	P10	0000 0760	OVER BURDEN
				0760 0890	MUDSTONE SANDSTONE
L11	0000 0790	OVER BURDEN		0890 0960	COAL (MUDSTONE BAND)
	0790 2000	MUDSTONE SANDSTONE BANDS		0960 2000	MUDSTONE SANDSTONE BANDS
		6 M CASED			6 M CASED
K11	0000 1000	OVER BURDEN	O10	0000 0840	OVER BURDEN
	1000 2000	MUDSTONE SANDSTONE BANDS		0840 0910	COAL (MUDSTONE BAND)
		6 M CASED		0910 2000	MUDSTONE SANDSTONE BANDS
				6 M CASED	
J11	0000 1100	OVER BURDEN			
	1100 2000	MUDSTONE SANDSTONE BANDS			
		6 M CASED			

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							7	140.00	42.00	
							60	1,200.00	360.00	
							67	1,340.00	402.00	

 I confirm this is a true record.  
 Van Elle operative name IAN MITCHISON

 Drill hole Nos. checked Yes  No 

 Hole Depth checked Yes  No 

 SIGNED [Signature]  
 Dated 3 12 13

 Client's Name M. Shifcus  
 Client's position B. Manager  
 Signature [Signature]  
 Dated 4/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>2</u> of <u>2</u>							
Rig: <u>SOILMEC 401</u>		Crew: <u>IAN MITCHISON G BRAY</u>		Date: <u>3 12 13</u>						
Hours on Site:			Travelling Time:							
BH	Depth	Strata Description	BH	Depth	Strata Description					
<u>N10</u>	<u>0000 0840</u>	<u>OVER BURDEN</u>								
	<u>0840 0860</u>	<u>COAL</u>								
	<u>0860 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>								
		<u>6 M CASED</u>								
<u>M10</u>	<u>0000 0860</u>	<u>OVER BURDEN</u>								
	<u>0860 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>								
		<u>6 M CASED</u>								
<u>L10</u>	<u>0000 0890</u>	<u>OVER BURDEN</u>								
	<u>0890 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>								
		<u>6 M CASED</u>								
Casing/Water Level Details										
BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed	Today				
							<u>3</u>	<u>60.00</u>	<u>18.00</u>	
						Previous	<u>67</u>	<u>13100.00</u>	<u>402.00</u>	
						To Date	<u>70</u>	<u>1400.00</u>	<u>420.00</u>	
I confirm this is a true record Van Elle operative name: <u>IAN MITCHISON</u>						Client's Name: <u>M. SHIELDS</u>				
Drill hole Nos. checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Client's position: <u>B. Manager</u>				
Hole Depth checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Signature: <u>[Signature]</u>				
SIGNED: <u>[Signature]</u>						Dated: <u>4/12/13</u>				
Dated: <u>3 12 13</u>										





## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>D BRAM</u> <u>L TAYLOR</u>		Date: <u>4 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>D7</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>H8</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>SANDSTONE</u>		<u>1100 2000</u>	<u>MUDSTONE</u>
		<u>6 M CASSED</u>			<u>SANDSTONE BANDS</u>
					<u>6 M CASSED</u>
<u>C7</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>	<u>G8</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>0950 2000</u>	<u>SANDSTONE</u>		<u>1050 2000</u>	<u>MUDSTONE</u>
		<u>6 M CASSED</u>			<u>SANDSTONE BANDS</u>
					<u>6 M CASSED</u>
<u>B7</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>	<u>F8</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>0950 2000</u>	<u>SANDSTONE</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>A7</u>	<u>0000 0900</u>	<u>OVER BURDEN</u>	<u>E8</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>0900 2000</u>	<u>SANDSTONE</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>I8</u>	<u>0000 1140</u>	<u>OVER BURDEN</u>			
	<u>1140 2000</u>	<u>MUDSTONE</u>			
		<u>SANDSTONE BANDS</u>			
		<u>6 M CASSED</u>			

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							<u>9</u>	<u>1800</u>	<u>56.00</u>	
							<u>70</u>	<u>1,400.00</u>	<u>420.00</u>	
							<u>79</u>	<u>1,580.00</u>	<u>474.00</u>	

I confirm this is a true record  
 Van Elle operative name IAN MEE HISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 4 12 13

Client's Name M. SHEPP  
 Client's position B. Manager  
 Signature [Signature]  
 Dated 5/12/13





# Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>J MITCHELSON G BRAY</u>		Date: <u>4 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>I12</u>	<u>0000 1160</u>	<u>OVER BURDEN</u>	<u>09</u>	<u>0000 0760</u>	<u>OVER BURDEN</u>
	<u>1160 1280</u>	<u>MUDSTONE</u>		<u>0760 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
	<u>1180 1250</u>	<u>COAL (MUDSTONE BAND)</u>			<u>6 M CASED</u>
	<u>1250 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASED</u>	<u>N9</u>	<u>0000 0780</u>	<u>OVER BURDEN</u>
				<u>0780 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
<u>K10</u>	<u>0000 1160</u>	<u>OVER BURDEN</u>			<u>6 M CASED</u>
	<u>1160 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASED</u>	<u>M9</u>	<u>0000 0860</u>	<u>OVER BURDEN</u>
				<u>0860 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
<u>J10</u>	<u>0000 0940</u>	<u>OVER BURDEN</u>			<u>6 M CASED</u>
	<u>0940 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASED</u>	<u>L9</u>	<u>0000 1090</u>	<u>OVER BURDEN</u>
				<u>1090 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
<u>I10</u>	<u>0000 1190</u>	<u>OVER BURDEN</u>			<u>6 M CASED</u>
	<u>1190 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASED</u>			

Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>8</u>	<u>160.00</u>	<u>48.00</u>	
						Previous	<u>81</u>	<u>1620.00</u>	<u>486.00</u>	
						To Date	<u>89</u>	<u>1780.00</u>	<u>534.00</u>	

I confirm this is a true record  
 Van Elle operative name JAN MITCHELSON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 4 12 13

Client's Name M. SUTER  
 Client's position Manager  
 Signature [Signature]  
 Dated 9/12/13



# Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <b>HEBBURN COMMUNITY HUB</b>			Sheet: <b>2</b> of <b>2</b>		
Rig: <b>SOILMEC 401</b>		Crew: <b>MITCHELSON G BRAY</b>		Date: <b>4 12 13</b>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<b>K9</b>	<b>0000 1100</b>	<b>OVER BURDEN</b>			
	<b>1100 2000</b>	<b>MUDSTONE SANDSTONE BANDS</b>			
		<b>6 M Cased</b>			
<b>J9</b>	<b>0000 1190</b>	<b>OVER BURDEN</b>			
	<b>1190 2000</b>	<b>MUDSTONE SANDSTONE BANDS</b>			
		<b>6 M Cased</b>			

Casing/Water Level Details										
BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed	Today				
							<b>2</b>	<b>4000</b>	<b>12.00</b>	
						Previous	<b>89</b>	<b>1780.00</b>	<b>534.00</b>	
						To Date	<b>91</b>	<b>1820.00</b>	<b>546.00</b>	
I confirm this is a true record Van Elle operative name: <b>IAN MITCHELSON</b>						Client's Name: <b>M. SUTHERS</b>				
Drill hole Nos. checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Client's position: <b>B. Manager</b>				
Hole Depth checked Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Signature: <b>[Signature]</b>				
SIGNED: <b>[Signature]</b>						Dated: <b>5/12/13</b>				
Dated: <b>4 12 13</b>										



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>D BRAY L TAYLOR</u>		Date: <u>5 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>B8</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>	<u>G6</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>0950 2000</u>	<u>SANDSTONE</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>A8</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>	<u>F6</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>0950 2000</u>	<u>SANDSTONE</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>J6</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>	<u>E6</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>1080 2000</u>	<u>MUDSTONE</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>SANDSTONE BANDS</u>			<u>6 M CASSED</u>
		<u>6 M CASSED</u>			
<u>I6</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>	<u>D6</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>1080 2000</u>	<u>MUDSTONE</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>SANDSTONE BANDS</u>			<u>6 M CASSED</u>
		<u>6 M CASSED</u>			
<u>H6</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>C6</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>MUDSTONE</u>		<u>0950 2000</u>	<u>SANDSTONE</u>
		<u>SANDSTONE BANDS</u>			<u>6 M CASSED</u>
		<u>6 M CASSED</u>			

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							<u>10</u>	<u>200.00</u>	<u>60.00</u>	
							<u>91</u>	<u>1,8200.00</u>	<u>546.00</u>	
							<u>101</u>	<u>2,020.00</u>	<u>606.00</u>	

I confirm this is a true record.  
 Van Elle operative name: E. McTearson  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 5 12 13

Client's Name M. SHIELD  
 Client's position B. Manager  
 Signature [Signature]  
 Dated 6/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HERBURN Community Hub</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>I MICHAEL GRAY</u>		Date: <u>5 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>I9</u>	<u>0000 1160</u>	<u>OVER BURDEN</u>	<u>D9</u>	<u>0000 0860</u>	<u>OVER BURDEN</u>
	<u>1160 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0860 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>H9</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>	<u>C9</u>	<u>0000 0860</u>	<u>OVER BURDEN</u>
	<u>1100 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0860 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>G9</u>	<u>0000 1090</u>	<u>OVER BURDEN</u>	<u>B9</u>	<u>0000 0940</u>	<u>OVER BURDEN</u>
	<u>1090 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0940 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>F9</u>	<u>0000 1040</u>	<u>OVER BURDEN</u>	<u>A9</u>	<u>0000 0940</u>	<u>OVER BURDEN</u>
	<u>1040 2000</u>	<u>SANDSTONE</u>		<u>0940 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>E9</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>	<u>H10</u>	<u>0000 1160</u>	<u>OVER BURDEN</u>
	<u>0950 2000</u>	<u>SANDSTONE</u>		<u>1160 2000</u>	<u>SANDSTONE BANDS</u>
					<u>MUDSTONE</u>
					<u>6 M CASSED</u>

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>10</u>	<u>200.00</u>	<u>60.00</u>	
						Previous	<u>101</u>	<u>2020.00</u>	<u>606.00</u>	
						To Date	<u>111</u>	<u>2,220.00</u>	<u>666.00</u>	

I confirm this is a true record.  
 Van Elle operative name: IAN MITCHELSON

Drill hole Nos. checked Yes  No

Hole Depth checked Yes  No

SIGNED: [Signature]

Dated: 5 12 13

Client's Name: M. SHEPHERD

Client's position: R. Manager

Signature: [Signature]

Dated: 6/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>I MITCHISON G BRAY</u>		Date: <u>6 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>G10</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>	<u>B10</u>	<u>0000 0940</u>	<u>OVER BURDEN</u>
	<u>1100 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0940 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>F10</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>A10</u>	<u>0000 0910</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>0910 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>E10</u>	<u>0000 0970</u>	<u>OVER BURDEN</u>	<u>H11</u>	<u>0000 1190</u>	<u>OVER BURDEN</u>
	<u>0970 2000</u>	<u>SANDSTONE</u>		<u>1190 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>D10</u>	<u>0000 0960</u>	<u>OVER BURDEN</u>	<u>G11</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>
	<u>0960 2000</u>	<u>SANDSTONE</u>		<u>1080 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>C10</u>	<u>0000 0960</u>	<u>OVER BURDEN</u>	<u>F11</u>	<u>0000 0960</u>	<u>OVER BURDEN</u>
		<u>SANDSTONE</u>		<u>0960 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							<u>10</u>	<u>200.00</u>	<u>600.00</u>	
							<u>11</u>	<u>220.00</u>	<u>666.00</u>	
							<u>121</u>	<u>220.00</u>	<u>726.00</u>	

I confirm this is a true record  
 Van Elle operative name IAN MITCHISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 6 12 13

Client's Name M. SUTHERS  
 Client's position P. Manager  
 Signature [Signature]  
 Dated 6/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOKMEC 401</u>		Crew: <u>D BRAY LTAYLOR</u>		Date: <u>6 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>B6</u>	<u>0000 0930</u>	<u>OVER BURDEN</u>	<u>F5</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>
	<u>0930 2000</u>	<u>SANDSTONE</u>		<u>1080 20.00</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>A6</u>	<u>0000 0900</u>	<u>OVER BURDEN</u>	<u>E5</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>
	<u>0900 2000</u>	<u>SANDSTONE</u>		<u>1080 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>I5</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>	<u>D5</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>1100 2000</u>	<u>MUDSTONE</u> <u>SANDSTONE BANDS</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>H5</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>C5</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>MUDSTONE</u> <u>SANDSTONE BANDS</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>G5</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>B5</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>MUDSTONE</u> <u>SANDSTONE BANDS</u>		<u>0950 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							<u>10</u>	<u>200.00</u>	<u>60.00</u>	
							<u>121</u>	<u>2220.00</u>	<u>726.00</u>	
							<u>131</u>	<u>2420.00</u>	<u>786.00</u>	

I confirm this is a true record  
Van Elle operative name IAN MITCHELSON

Drill hole Nos. checked Yes  No

Hole Depth checked Yes  No

SIGNED [Signature]

Dated 6 12 13

Client's Name M. SHIEW

Client's position R. Manager

Signature [Signature]

Dated 6/12/13



## Open Hole Drillers Log

 Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

 Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>DBRAY L TAYLOR</u>		Date: <u>6 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>B6</u>	<u>0000 0930</u>	<u>OVER BURDEN</u>	<u>F5</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>
	<u>0930 2000</u>	<u>SANDSTONE</u>		<u>1080 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>A6</u>	<u>0000 0900</u>	<u>OVER BURDEN</u>	<u>E5</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>
	<u>0900 2000</u>	<u>SANDSTONE</u>		<u>1080 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>I5</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>	<u>D5</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>1100 2000</u>	<u>MUDSTONE</u> <u>SANDSTONE BANDS</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>H5</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>C5</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>MUDSTONE</u> <u>SANDSTONE BANDS</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>G5</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>B5</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>MUDSTONE</u> <u>SANDSTONE BANDS</u>		<u>0950 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>10</u>	<u>200.00</u>	<u>60.00</u>	
						Previous	<u>121</u>	<u>2420.00</u>	<u>726.00</u>	
						To Date	<u>131</u>	<u>2620.00</u>	<u>786.00</u>	

I confirm this is a true record.  
 Van Elle operative name IAN MITCHISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 6 12 13

Client's Name M. SHELDON  
 Client's position B. MANAGER  
 Signature [Signature]  
 Dated 12/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN Community Hub</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>MITCHELSON G BRAY</u>		Date: <u>6 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>G10</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>	<u>B10</u>	<u>0000 0940</u>	<u>OVER BURDEN</u>
	<u>1100 2000</u>	<u>MUDSTONE</u> <u>SANDSTONE BANDS</u>		<u>0940 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>F10</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>A10</u>	<u>0000 0910</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>MUDSTONE</u> <u>SANDSTONE BANDS</u>		<u>0910 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>E10</u>	<u>0000 0970</u>	<u>OVER BURDEN</u>	<u>H11</u>	<u>0000 1190</u>	<u>OVER BURDEN</u>
	<u>0970 2000</u>	<u>SANDSTONE</u>		<u>1190 2000</u>	<u>MUDSTONE</u> <u>SANDSTONE BANDS</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>D10</u>	<u>0000 0960</u>	<u>OVER BURDEN</u>	<u>G11</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>
	<u>0960 2000</u>	<u>SANDSTONE</u>		<u>1080 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>C10</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>	<u>F11</u>	<u>0000 0960</u>	<u>OVER BURDEN</u>
	<u>0950 2000</u>	<u>SANDSTONE</u>		<u>0960 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>10</u>	<u>200.00</u>	<u>60.00</u>	
						Previous	<u>111</u>	<u>2420.00</u>	<u>666.00</u>	
						To Date	<u>121</u>	<u>2620.00</u>	<u>726.00</u>	

I confirm this is a true record.  
 Van Elle operative name Ian MITCHELSON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 6 12 13

Client's Name M. SHEED  
 Client's position B. MANAGER  
 Signature [Signature]  
 Dated 12/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOK 46C 401</u>		Crew: <u>D BRAY L TAYLOR</u>		Date: <u>9 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>A5</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>	<u>E4</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>
	<u>0950 2000</u>	<u>SANDSTONE</u>		<u>1100 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>I4</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>	<u>D4</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>
	<u>1100 2000</u>	<u>MUDSTONE</u>		<u>1100 2000</u>	<u>SANDSTONE</u>
		<u>SANDSTONE BANDS</u>			<u>6 M CASSED</u>
		<u>6 M CASSED</u>			
<u>H4</u>	<u>0000 1070</u>	<u>OVER BURDEN</u>	<u>C4</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>
	<u>1070 2000</u>	<u>MUDSTONE</u>		<u>1100 2000</u>	<u>SANDSTONE</u>
		<u>SANDSTONE BANDS</u>			<u>6 M CASSED</u>
		<u>6 M CASSED</u>			
<u>G4</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>B4</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>MUDSTONE</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>SANDSTONE BANDS</u>			<u>6 M CASSED</u>
		<u>6 M CASSED</u>			
<u>F4</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>A4</u>	<u>0000 0970</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>MUDSTONE</u>		<u>0970 2000</u>	<u>SANDSTONE</u>
		<u>SANDSTONE BANDS</u>			<u>6 M CASSED</u>
		<u>6 M CASSED</u>			

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>10</u>	<u>200.00</u>	<u>60.00</u>	
						Previous	<u>131</u>	<u>2162.00</u>	<u>786.00</u>	
						To Date	<u>141</u>	<u>2820.00</u>	<u>846.00</u>	

I confirm this is a true record.  
 Van Elle operative name STAN MICHILSON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 9 12 13

Client's Name M. SHIELD  
 Client's position B. MANAGER  
 Signature [Signature]  
 Dated 12/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HALL</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>IAN MITCHELSON G BRAY</u>		Date: <u>9 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>E11</u>	<u>0000 0960</u>	<u>OVER BURDEN</u>	<u>H12</u>	<u>0000 0940</u>	<u>OVER BURDEN</u>
	<u>0960 2000</u>	<u>SANDSTONE</u>		<u>0940 2000</u>	<u>MUDSTONE</u>
		<u>6 M CASSED</u>			<u>SANDSTONE BANDS</u>
					<u>6 M CASSED</u>
<u>D11</u>	<u>0000 0940</u>	<u>OVER BURDEN</u>	<u>G12</u>	<u>0000 0920</u>	<u>OVER BURDEN</u>
	<u>0940 2000</u>	<u>SANDSTONE</u>		<u>0920 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>C11</u>	<u>0000 0920</u>	<u>OVER BURDEN</u>	<u>F12</u>	<u>0000 0900</u>	<u>OVER BURDEN</u>
	<u>0920 2000</u>	<u>SANDSTONE</u>		<u>0900 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>B11</u>	<u>0000 0920</u>	<u>OVER BURDEN</u>	<u>E12</u>	<u>0000 0920</u>	<u>OVER BURDEN</u>
	<u>0920 2000</u>	<u>SANDSTONE</u>		<u>0920 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>A11</u>	<u>0000 0910</u>	<u>OVER BURDEN</u>	<u>D12</u>	<u>0000 0880</u>	<u>OVER BURDEN</u>
	<u>0910 2000</u>	<u>SANDSTONE</u>		<u>0880 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>10</u>	<u>200.00</u>	<u>60.00</u>	
						Previous	<u>141</u>	<u>2820.00</u>	<u>846.00</u>	
						To Date	<u>151</u>	<u>3020.00</u>	<u>906.00</u>	

I confirm this is a true record  
 Van Elle operative name: IAN MITCHELSON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED: [Signature]  
 Dated: 9 12 13

Client's Name: M. SUTHERS  
 Client's position: R. WAINMAN  
 Signature: [Signature]  
 Dated: 12/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOIL MEC 401</u>		Crew: <u>D BRAY L TAYLOR</u>		Date: <u>10 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>I3</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>	<u>D3</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>1100 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>H3</u>	<u>0000 1070</u>	<u>OVER BURDEN</u>	<u>C3</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>
	<u>1070 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1050 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>G3</u>	<u>0000 1070</u>	<u>OVER BURDEN</u>	<u>B3</u>	<u>0000 1000</u>	<u>OVER BURDEN</u>
	<u>1070 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>		<u>1000 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>F3</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>A3</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>SANDSTONE</u>		<u>0950 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>E3</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>I2</u>	<u>0000 1100</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>SANDSTONE</u>		<u>1100 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							<u>10</u>	<u>200.00</u>	<u>60.00</u>	
							<u>151</u>	<u>3020.00</u>	<u>906.00</u>	
							<u>161</u>	<u>3220.00</u>	<u>966.00</u>	

I confirm this is a true record  
 Van Elle operative name IAN MITCHISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 10 12 13

Client's Name M. SHIELD  
 Client's position P. MANAGER  
 Signature [Signature]  
 Dated 12/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN Community Hub</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>I MICHISON G BRAY</u>		Date: <u>10 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>C12</u>	<u>0000 0900</u>	<u>OVER BURDEN</u>	<u>C13</u>	<u>0000 0900</u>	<u>OVER BURDEN</u>
	<u>0900 2000</u>	<u>SANDSTONE</u>		<u>0900 20 00</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>B12</u>	<u>0000 0900</u>	<u>OVER BURDEN</u>	<u>D13</u>	<u>0000 0910</u>	<u>OVER BURDEN</u>
	<u>0900 2000</u>	<u>SANDSTONE</u>		<u>0910 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>A12</u>	<u>0000 0880</u>	<u>OVER BURDEN</u>	<u>E13</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>
	<u>0880 2000</u>	<u>SANDSTONE</u>		<u>0950 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>A13</u>	<u>0000 0860</u>	<u>OVER BURDEN</u>	<u>F13</u>	<u>0000 0950</u>	<u>OVER BURDEN</u>
	<u>0860 2000</u>	<u>SANDSTONE</u>		<u>0950 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASSED</u>			<u>6 M CASSED</u>
<u>B13</u>	<u>0000 0900</u>	<u>OVER BURDEN</u>	<u>G13</u>	<u>0000 0960</u>	<u>OVER BURDEN</u>
	<u>0900 2000</u>	<u>SANDSTONE</u>		<u>0960 2000</u>	<u>MUDSTONE</u>
		<u>6 M CASSED</u>			<u>SANDSTONE BANDS</u>
					<u>6 M CASSED</u>

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>10</u>	<u>260.00</u>	<u>60.00</u>	
						Previous	<u>161</u>	<u>3,220.00</u>	<u>966.00</u>	
						To Date	<u>171</u>	<u>3,420.00</u>	<u>1,026.00</u>	

I confirm this is a true record.  
 Van Elle operative name IAN MICHISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED [Signature]  
 Dated 10 12 13

Client's Name M. SUTER  
 Client's position B. MANAGER  
 Signature [Signature]  
 Dated 12/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: HERBURN COMMUNITY HUB			Sheet: 1 of 1		
Rig: SOIC MEC 401		Crew: D BRAY L TAYLOR		Date: 11 12 13	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
I 1	0000 1100	OVER BURDEN	F 2	0000 1050	OVER BURDEN
	1100 2000	MUDSTONE SANDSTONE BANDS		1050 2000	SANDSTONE
		6 M CASSED			6 M CASSED
H 2	0000 1100	OVER BURDEN	F 1	0000 1050	OVER BURDEN
	1100 2000	MUDSTONE SANDSTONE BANDS		1050 2000	SANDSTONE
		6 M CASSED			6 M CASSED
H 1	0000 1100	OVER BURDEN	E 2	0000 1100	OVER BURDEN
	1100 2000	MUDSTONE SANDSTONE BANDS		1100 2000	SANDSTONE
		6 M CASSED			6 M CASSED
G 2	0000 1080	OVER BURDEN	E 1	0000 1100	OVER BURDEN
	1080 2000	MUDSTONE SANDSTONE BANDS		1000 2000	SANDSTONE
		6 M CASSED			6 M CASSED
G 1	0000 1070	OVER BURDEN	D 2	0000 1080	OVER BURDEN
	1070 2000	MUDSTONE SANDSTONE BANDS		1080 2000	SANDSTONE
		6 M CASSED			6 M CASSED

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	10	200.00	60.00	
						Previous	171	3420.00	1026.00	
						To Date	181	3620.00	1086.00	

I confirm this is a true record.  
Van Elle operative name: EAN MICHISON

Drill hole Nos. checked Yes  No

Hole Depth checked Yes  No

SIGNED: [Signature]

Dated: 11 12 13

Client's Name: M. SHEETS

Client's position: R. MANAGER

Signature: [Signature]

Dated: 12/12/13



# Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HERBURN COMMUNITY HUB</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SOILMEC 401</u>		Crew: <u>I MITCHELL G BRAY</u>		Date: <u>11.12.13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
H13	0000 0980	OVER BURDEN	R12	0000 0700	OVER BURDEN
	0980 2000	MUDSTONE SANDSTONE BANDS		0700 1050	SANDSTONE MUDSTONE BANDS
		6 M CASED		1050 1090	COAL (MUDSTONE BAND)
			1090 2000	MUDSTONE SANDSTONE BANDS	
H14	0000 0940	OVER BURDEN			6 M CASED
	0940 2000	MUDSTONE SANDSTONE BANDS			
		6 M CASED	S12	0000 0680	OVER BURDEN
G14	0000 0950	OVER BURDEN		0680 1060	SANDSTONE MUDSTONE BANDS
	0950 2000	MUDSTONE SANDSTONE BANDS		1060 1110	COAL (MUDSTONE BAND)
		6 M CASED		1110 2000	MUDSTONE SANDSTONE BANDS
				6 M CASED	
F14	0000 0960	OVER BURDEN	S11	0000 0700	OVER BURDEN
	0960 2000	SANDSTONE		0700 1000	SANDSTONE MUDSTONE BANDS
		6 M CASED		1000 1060	COAL (MUDSTONE BANDS)
			1060 2000	MUDSTONE SANDSTONE SANDS	
				6 M CASED	

Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
							<u>7</u>	<u>140.00</u>	<u>42.00</u>	
							<u>181</u>	<u>3620.00</u>	<u>11086.00</u>	
							<u>188</u>	<u>3760.00</u>	<u>11128.00</u>	

I confirm this is a true record.  
 Van Elle operative name: IAN MITCHELL  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED: [Signature]  
 Dated: 11.12.13

Client's Name: M. SUTZUP  
 Client's position: D. MANNING  
 Signature: [Signature]  
 Dated: 12/12/13





# Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: HEBBURN COMMUNITY HUB Sheet: 2 of 2

Rig: SOILMEC 401 Crew: I MITCHISON G BRAY Date: 11 12 13

Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>R11</u>	<u>0000 0760</u>	<u>OVER BURDEN</u>			
	<u>0760 1000</u>	<u>SANDSTONE MUDSTONE BANDS</u>			
	<u>1000 1060</u>	<u>COAL MUDSTONE BAND</u>			
	<u>1060 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASING</u>			
<u>Q10</u>	<u>0000 0700</u>	<u>OVER BURDEN</u>			
	<u>0700 1050</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
	<u>1050 1110</u>	<u>COAL (MUDSTONE BAND)</u>			
	<u>1110 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASING</u>			
<u>R10</u>	<u>0000 0700</u>	<u>OVER BURDEN</u>			
	<u>0700 1000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
	<u>1000 1060</u>	<u>COAL (MUDSTONE BAND)</u>			
	<u>1060 2000</u>	<u>MUDSTONE SANDSTONE BANDS</u>			
		<u>6 M CASING</u>			

Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed	Today				
							<u>3</u>	<u>60.00</u>	<u>18.00</u>	
						Previous	<u>188</u>	<u>37600.00</u>	<u>1128.00</u>	
						To Date	<u>191</u>	<u>37820.00</u>	<u>1146.00</u>	

I confirm this is a true record.  
 Van Elle operative name: IAN MITCHISON  
 Drill hole Nos. checked Yes  No   
 Hole Depth checked Yes  No   
 SIGNED: [Signature]  
 Dated: 11 12 13  
 Client's Name: M. SUTHERLAND  
 Client's position: B. MURPHY  
 Signature: [Signature]  
 Dated: 12/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: <u>HEBBURN COMMUNITY HALL</u>			Sheet: <u>1</u> of <u>1</u>		
Rig: <u>SCHLUMBERGER</u>		Crew: <u>D BRAY</u> <u>L TAYLOR</u>		Date: <u>12 12 13</u>	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
<u>D1</u>	<u>0000 1080</u>	<u>OVER BURDEN</u>	<u>A2</u>	<u>0000 1000</u>	<u>OVER BURDEN</u>
	<u>1080 2000</u>	<u>SANDSTONE</u>		<u>1000 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASING</u>			<u>6 M CASING</u>
<u>C2</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>	<u>A1</u>	<u>0000 1000</u>	<u>OVER BURDEN</u>
	<u>1050 2000</u>	<u>SANDSTONE</u>		<u>1000 2000</u>	<u>SANDSTONE</u>
		<u>6 M CASING</u>			<u>6 M CASING</u>
<u>C1</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>			
	<u>1050 2000</u>	<u>SANDSTONE</u>			
		<u>6 M CASING</u>			
<u>B2</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>			
	<u>1050 2000</u>	<u>SANDSTONE</u>			
		<u>6 M CASING</u>			
<u>B1</u>	<u>0000 1050</u>	<u>OVER BURDEN</u>			
	<u>1050 2000</u>	<u>SANDSTONE</u>			
		<u>6 M CASING</u>			

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	<u>7</u>	<u>140.00</u>	<u>4200</u>	
						Previous	<u>191</u>	<u>37820.00</u>	<u>114600</u>	
						To Date	<u>198</u>	<u>39600.00</u>	<u>11888.00</u>	

I confirm this is a true record.  
Van Elle operative name TAN MITCHELLSON

Drill hole Nos. checked Yes  No

Hole Depth checked Yes  No

SIGNED [Signature]

Dated 12 12 13

Client's Name M. CHIEFUS

Client's position B. MANAGER

Signature [Signature]

Dated 12/12/13



## Open Hole Drillers Log

Teal House, 10 Teal Farm Way, Washington, Tyne & Wear, NE38 8BG Tel: 0191 417 8332 Fax: 0191 417 8334

Windsor Road, Springwell, Gateshead, Tyne & Wear NE9 7QN Tel: 0191 417 8332 Fax: 0191 417 8334

Site: HERBURN COMMUNITY HUB			Sheet: 1 of 1		
Rig: SOILMEC 401		Crew: MITCHISON G BRAY		Date: 12 12 13	
Hours on Site:			Travelling Time:		
BH	Depth	Strata Description	BH	Depth	Strata Description
S10	0000 0700	OVER BURDEN	R9	0000 0740	OVER BURDEN
	0700 1000	SANDSTONE MUDSTONE BANDS		0740 1100	MUDSTONE SANDSTONE BANDS
	1000 1060	COAL (MUDSTONE BAND)		1100 1170	COAL (MUDSTONE BAND)
	1060 2000	MUDSTONE SANDSTONE BANDS		1170 2000	MUDSTONE SANDSTONE BANDS
		6 M CASING			6 M CASING
P9	0000 0760	OVER BURDEN	S9	0000 0760	OVER BURDEN
	0760 0890	MUDSTONE SANDSTONE BANDS		0760 1050	MUDSTONE SANDSTONE BANDS
	0890 0960	COAL (MUDSTONE BAND)		1050 1110	COAL (MUDSTONE BAND)
	0960 2000	MUDSTONE SANDSTONE BANDS		1110 2000	MUDSTONE SANDSTONE BANDS
		6 M CASING			6 M CASING
Q9	0000 0770	OVER BURDEN	S8	0000 0740	OVER BURDEN
	0770 1100	MUDSTONE SANDSTONE BANDS		0740 1100	MUDSTONE SANDSTONE BANDS
	1100 1170	COAL (MUDSTONE BAND)		1100 1160	COAL (MUDSTONE BAND)
	1170 2000	MUDSTONE SANDSTONE BANDS		1160 2000	MUDSTONE SANDSTONE BANDS
		6 M CASING			6 M CASING

### Casing/Water Level Details

BH	Casing		Water			Totals	BH	Drill	Case	Install
	Dia	Depth	Strike	Rise	Sealed					
						Today	6	120.00	3600	
						Previous	198	3960.00	1/185.00	
						To Date	204	4080.00	1/224.00	

I confirm this is a true record  
Van Elle operative name: JIAN MITCHISON

Drill hole Nos. checked Yes  No   
Hole Depth checked Yes  No

SIGNED: [Signature]  
Dated: 12 12 13

Client's Name: M. SHIELDS  
Client's position: B. MANAGER  
Signature: [Signature]  
Dated: 12/12/13

# Appendix 2

## Grout Logs

# Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005

Job No. <b>132432</b>	Site: <b>HEBBURN Community Hub</b>	Area:	Sheet: <b>1</b> of <b>1</b>
Plant: <b>3 TON MIXER</b>	Crew: <b>MITCHELSON G BRAY</b>		Date: <b>16 12 13</b>

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
T14	2000		CoAL	0.10	1.00								Still Taking	Full
T13	11		11	0.10	1.00								Still Taking	Full
S14	11		11	0.10	1.00								Still Taking	Full
S13	11		11	0.10	1.00								Still Taking	Full
S12	11		11	0.10	1.00								Still Taking	Full
S11	11		11	0.10	1.00								Still Taking	Full
S10	11		11	0.10	1.00								Still Taking	Full
S9	11		11	0.10	1.00								Still Taking	Full
S8	11		11	0.10	1.00								Still Taking	Full
R14	2000		11	0.10	1.00								Still Taking	Full
R13	11		11	0.10	1.00								Still Taking	Full
R12	11		11	0.10	1.00								Still Taking	Full
R11	11		11	0.10	1.00								Still Taking	Full
R10	11		11	0.10	1.00								Still Taking	Full
R9	11		11	0.10	1.00								Still Taking	Full
R8	11		11	0.10	1.00								Still Taking	Full
Q14	11		11	0.10	1.00								Still Taking	Full
Q13	11		11	0.10	1.00								Still Taking	Full
BH Grouted B/F		18	Total Injected today	180	1800								I confirm this is a true record.	
BH Grouted Today		18	Total Injected Previously	/	/								Van Elle Operative Signature <i>E. White</i>	
BH Grouted C/F			Carried Forward	180	1800								Date <b>16 12 13</b>	
PFA 20.040 GPC 6.000			Stock left on Site	5.82	18.24								Client's Signature <i>[Signature]</i>	
													Date <b>17/12/13</b>	

## Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005

Job No. <b>132432</b>	Site: <b>HEBBURN COMMUNITY HUB</b>	Area:	Sheet: <b>2</b> of <b>2</b>
Plant: <b>3 TON MIXER</b>	Crew: <b>I M F C H I S O N G B R A Y</b>		Date: <b>16 12 13</b>

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Total	Cumulative Totals (Tonnes)				Total	Result	
				OPC	PFA	Sand	Pea Gravel		OPC	PFA	Sand	Pea Gravel			
Q12	2000		CoAL	0.10	1.00									Still Taking	Full
Q11	11		11	0.10	1.00									Still Taking	Full
Q10	11		11	0.10	1.00									Still Taking	Full
Q9	11		11	0.10	1.00									Still Taking	Full
Q8	11		11	0.10	1.00									Still Taking	Full
P14	11		11	0.10	1.00									Still Taking	Full
P13	11		11	0.10	1.00									Still Taking	Full
P12	11		11	0.10	1.00									Still Taking	Full
P11	11		11	0.10	1.00									Still Taking	Full
P10	11		11	0.10	1.00									Still Taking	Full
P9	11		11	0.10	1.00									Still Taking	Full
P8	11		11	0.10	1.00									Still Taking	Full
O14	11		11	0.10	1.00									Still Taking	Full
O13	11		11	0.10	1.00									Still Taking	Full
O12	11		11	0.10	1.00									Still Taking	Full
O11	11		11	0.10	1.00									Still Taking	Full
O10	11		11	0.10	1.00									Still Taking	Full
O9	11		No CoAL	0.10	1.00									Still Taking	Full
BH Grouted B/F		18	Total Injected today	.180	1.800										
BH Grouted Today		18	Total Injected Previously	.180	1.800										
BH Grouted C/F		36	Carried Forward	.360	3.600										
PFA	15.250		Stock left on Site	5.640	16.440										
OPC	5.820			5.640	16.440										

I confirm this is a true record.

Van Elle Operative Signature *[Signature]*

Date **16 12 13**

Client's Signature *[Signature]*

Date **17/12/13**

5.640

# Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005

Job No. <b>132432</b>	Site: <b>HEBURN COMMUNITY HUB</b>	Area:	Sheet: <b>3</b> of <b>3</b>
Plant: <b>3 Ton Mixer</b>	Crew: <b>MITCHISON &amp; BLAY</b>		Date: <b>16 12 13</b>

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
08	2000		No Coag	0.10	1.00								Still Taking	Full
N14	11		Coag	0.10	1.00								Still Taking	Full
N13	11		11	0.10	1.00								Still Taking	Full
N12	11		11	0.10	1.00								Still Taking	Full
N11	11		11	0.10	1.00								Still Taking	Full
N10	11		No Coag	0.10	1.00								Still Taking	Full
N9	11		11	0.10	1.00								Still Taking	Full
N8	11		11	0.10	1.00								Still Taking	Full
N7	11		11	0.10	1.00								Still Taking	Full
M14	11		Coag	0.10	1.00								Still Taking	Full
M13	11		11	0.10	1.00								Still Taking	Full
M12	11		11	0.10	1.00								Still Taking	Full
M11	11		11	0.10	1.00								Still Taking	Full
M10	11		No Coag	0.10	1.00								Still Taking	Full
M9	11		11	0.10	1.00								Still Taking	Full
M8	11		11	0.10	1.00								Still Taking	Full
M7	11		11	0.10	1.00								Still Taking	Full
L14	11		Coag	0.10	1.00								Still Taking	Full
BH Grouted B/F		36	Total Injected today	0.180	1.800									
BH Grouted Today		18	Total Injected Previously	0.360	3.600									
BH Grouted C/F		54	Carried Forward	0.540	5.400									
PFA	16.460		Stock left on Site	5.160	14.640									
OPC	5.640													

I confirm this is a true record.

Van Elle Operative Signature: *[Signature]*  
 Date: **16 12 13**  
 Client's Signature: *[Signature]*  
 Date: **17.12.13**



# Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005

Job No. <b>132432</b>	Site: <b>HEBBURN COMMUNITY HUB</b>	Area:	Sheet: <b>4</b> of <b>4</b>
Plant: <b>3 Ton Mixer</b>	Crew: <b>J. METCALSON G. BEAV</b>		Date: <b>16 12 13</b>

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
K13	2.00		Coal	0.10	1.00								Still Taking	Full
K12	1.1		Coal	0.10	1.00								Still Taking	Full
K11	1.1		No Coal	0.10	1.00								Still Taking	Full
K10	1.1		11	0.10	1.00								Still Taking	Full
K9	1.1		11	0.10	1.00								Still Taking	Full
K8	1.1		11	0.10	1.00								Still Taking	Full
K7	1.1		11	0.10	1.00								Still Taking	Full
K6	1.1		Coal	0.10	1.00								Still Taking	Full
K5	1.1		Coal	0.10	1.00								Still Taking	Full
K4	1.1		No Coal	0.10	1.00								Still Taking	Full
K3	1.1		11	0.10	1.00								Still Taking	Full
K2	1.1		11	0.10	1.00								Still Taking	Full
K1	1.1		11	0.10	1.00								Still Taking	Full
K0	1.1		No Coal	0.10	1.00								Still Taking	Full
K9	1.1		11	0.10	1.00								Still Taking	Full
K8	1.1		11	0.10	1.00								Still Taking	Full
K7	1.1		11	0.10	1.00								Still Taking	Full
J14	1.1		Coal	0.10	1.00								Still Taking	Full
J13	1.1		Coal	0.10	1.00								Still Taking	Full
J12	1.1		No Coal	0.10	1.00								Still Taking	Full
BH Grouted B/F		54	Total injected today	0.180	1.800									
BH Grouted Today		18	Total Injected Previously	0.540	5.400									
BH Grouted C/F		72	Carried Forward	0.720	7.200									
PFA	14.640		Stock left on Site	5.280	12.840									
OPC	5.460													

I confirm this is a true record.

Van Elle Operative Signature: *[Signature]*

Date: **16 12 13**

Client's Signature: *[Signature]*

Date: **17.12.13.**





# Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005

Job No. 132432	Site: HESBURN COMMUNITY HUB	Area:	Sheet: 5 of 5
Plant: 3 TON MIXER	Crew: LAMICHISON G BRAY		Date: 16 12 13

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
J11	2.00		No COAL	0.10	1.00								Still Taking	Full
J10	11		11	0.10	1.00								Still Taking	Full
J9	11		11	0.10	1.00								Still Taking	Full
J8	11		11	0.10	1.00								Still Taking	Full
J7	11		11	0.10	1.00								Still Taking	Full
J6	11		11	0.10	1.00								Still Taking	Full
I14	11		COAL	0.10	1.00								Still Taking	Full
I13	11		11	0.10	1.00								Still Taking	Full
I12	11		11	0.10	1.00								Still Taking	Full
I11	11		No COAL	0.10	1.00								Still Taking	Full
I10	11		11	0.10	1.00								Still Taking	Full
I9	11		11	0.10	1.00								Still Taking	Full
I8	11		11	0.10	1.00								Still Taking	Full
I7	11		11	0.10	1.00								Still Taking	Full
I6	11		11	0.10	1.00								Still Taking	Full
H14	11		11	0.10	1.00								Still Taking	Full
G14	11		11	0.10	1.00								Still Taking	Full
F14	11		11	0.10	1.00								Still Taking	Full
BH Grouted B/F		72	Total Injected today	6.180	1.800									
BH Grouted Today		18	Total Injected Previously	0.720	7.200									
BH Grouted C/F		90	Carried Forward	0.900	9.000									
PFA	12,840		Stock left on Site	5.100	11.040									
OPC	5,280													

I confirm this is a true record.

Van Elle Operative Signature: *[Signature]*

Date: 16 12 13

Client's Signature: *[Signature]*

Date: 17-12-13


# Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005


Job No. <b>132452</b>	Site: <b>HARBURD COMMUNITY HWB</b>	Area:	Sheet: <b>6</b> of <b>6</b>
Plant: <b>3 Ton Mixer</b>	Crew: <b>MITCHISON GRAY</b>		Date: <b>16 12 13</b>

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
E14	2.00		NO COAL	0.10	1.00								Still Taking	Full
D14	1.1		1.1	0.10	1.00								Still Taking	Full
C14	1.1		1.1	0.10	1.00								Still Taking	Full
B14	1.1		1.1	0.10	1.00								Still Taking	Full
A14	1.1		1.1	0.10	1.00								Still Taking	Full
B13	1.1		1.1	0.10	1.00								Still Taking	Full
C13	1.1		1.1	0.10	1.00								Still Taking	Full
D13	1.1		1.1	0.10	1.00								Still Taking	Full
E13	1.1		1.1	0.10	1.00								Still Taking	Full
F13	1.1		NO COAL	0.10	1.00								Still Taking	Full
G13	1.1		1.1	0.10	1.00								Still Taking	Full
H13	1.1		1.1	0.10	1.00								Still Taking	Full
H12	1.1		1.1	0.10	1.00								Still Taking	Full
G12	1.1		1.1	0.10	1.00								Still Taking	Full
F12	1.1		1.1	0.10	1.00								Still Taking	Full
E12	1.1		1.1	0.10	1.00								Still Taking	Full
D12	1.1		1.1	0.10	1.00								Still Taking	Full
BH Grouted B/F				90	0.180	1.800								
BH Grouted Today				18	0.900	9.000								
BH Grouted C/F				108	1.080	10.800								
PFA 11.000														
GPC 4.500														
5.100														

I confirm this is a true record.

Van Elle Operative Signature: 

Date: **16 12 13**

Client's Signature: 

Date: **17-12-13**

4920

# Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005

Job No. <b>132432</b>	Site: <b>HEBBURN COMMUNITY HUB</b>	Area:	Sheet: <b>1</b> of <b>1</b>
Plant: <b>3 TON MIXER</b>	Crew: <b>IMMICHISON GIBBY SHALS</b>		Date: <b>17 12 13</b>

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
C12	20.00		No COAL	0.10	1.00								Still Taking	Full
B12	11		11	0.10	1.00								Still Taking	Full
A12	11		11	0.10	1.00								Still Taking	Full
B11	11		11	0.10	1.00								Still Taking	Full
C11	11		11	0.10	1.00								Still Taking	Full
D11	11		11	0.10	1.00								Still Taking	Full
E11	11		11	0.10	1.00								Still Taking	Full
F11	11		11	0.10	1.00								Still Taking	Full
G11	11		11	0.10	1.00								Still Taking	Full
H11	11		No COAL	0.10	1.00								Still Taking	Full
H10	11		11	0.10	1.00								Still Taking	Full
G10	11		11	0.10	1.00								Still Taking	Full
F10	11		11	0.10	1.00								Still Taking	Full
E10	11		11	0.10	1.00								Still Taking	Full
D10	11		11	0.10	1.00								Still Taking	Full
C10	11		11	0.10	1.00								Still Taking	Full
B10	11		11	0.10	1.00								Still Taking	Full
BH Grouted B/F		108	Total Injected today	0.180	1.800									
BH Grouted Today		18	Total Injected Previously	1.680	10.800									
BH Grouted C/F		126	Carried Forward	1.260	12.600									
PFA	9.240		Stock left on Site	4.740	7.440									
OPC	4.980													

I confirm this is a true record.

Van Elle Operative Signature: *[Signature]*

Date: **17 12 13**

Client's Signature: *[Signature]*

Date: **18/12/13.**



**VAN ELLE**

TOTAL FOUNDATION SOLUTIONS

Teal House, 10 Teal Farm Way, Pattinson, Washington, NE38 8BG. T: 0191 417 8332 F: 0191 417 8334


# Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005


Job No. 132432	Site: HEBBARD COMMUNITY HUB	Area:	Sheet: 2 of 2
Plant: J Tom MAGEE	Crew: MITCHISON G BLAIR J HAIGS		Date: 17 12 13

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result	
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel
A10	26.00		NO GOAL	0.10	1.00								Still Taking
A9	11		11	0.10	1.00								Still Taking
B9	11		11	0.10	1.00								Still Taking
C9	11		11	0.10	1.00								Still Taking
D9	11		11	0.10	1.00								Still Taking
E9	11		11	0.10	1.00								Still Taking
F9	11		11	0.10	1.00								Still Taking
G9	11		11	0.10	1.00								Still Taking
H9	11		11	0.10	1.00								Still Taking
H8	11		11	0.10	1.00								Still Taking
G8	11		NO GOAL	0.10	1.00								Still Taking
F8	11		11	0.10	1.00								Still Taking
E8	11		11	0.10	1.00								Still Taking
D8	11		11	0.10	1.00								Still Taking
C8	11		11	0.10	1.00								Still Taking
B8	11		11	0.10	1.00								Still Taking
A8	11		11	0.10	1.00								Still Taking
A7	11		11	0.10	1.00								Still Taking
BH Grouted B/F		126	Total Injected today	0.180	1.800								
BH Grouted Today		18	Total Injected Previously	1.260	12.600								
BH Grouted C/F		144	Carried Forward	1.440	14.400								
PFA	7.440		Stock left on Site	4.560	5.640								
OPC	4.740												

I confirm this is a true record.

Van Elle Operative Signature 

Date 17 12 13

Client's Signature 

Date 18/12/13


# Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005

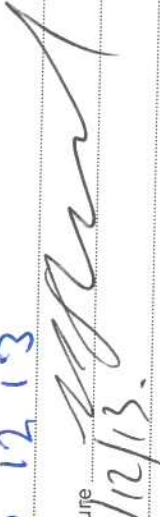
Job No. <b>132432</b>	Site: <b>HARBURN COMMUNITY HUB</b>	Area:	Sheet: <b>3</b> of <b>3</b>
Plant: <b>3 TON MIXER</b>	Crew: <b>I MITCHELL &amp; G BRAY J HAILS</b>		Date: <b>17 12 13</b>

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
B7	7.000		NO COAL	0.10	1.00								Still Taking	Full
C7	11		11	0.10	1.00								Still Taking	Full
D7	11		11	0.10	1.00								Still Taking	Full
E7	11		11	0.10	1.00								Still Taking	Full
F7	11		11	0.10	1.00								Still Taking	Full
G7	11		11	0.10	1.00								Still Taking	Full
H7	11		11	0.10	1.00								Still Taking	Full
H6	11		11	0.10	1.00								Still Taking	Full
G6	11		11	0.10	1.00								Still Taking	Full
F6	11		11	0.10	1.00								Still Taking	Full
E6	11		11	0.10	1.00								Still Taking	Full
D6	11		NO COAL	0.10	1.00								Still Taking	Full
C6	11		11	0.10	1.00								Still Taking	Full
B6	11		11	0.10	1.00								Still Taking	Full
A6	11		11	0.10	1.00								Still Taking	Full
A5	11		11	0.10	1.00								Still Taking	Full
B5	11		11	0.10	1.00								Still Taking	Full
C5	11		11	0.10	1.00								Still Taking	Full
BH Grouted B/F				144										
BH Grouted Today				18										
BH Grouted C/F				162										
PFA				5.640										
OPC				4.560										

I confirm this is a true record.

Van Elle Operative Signature: 

Date: **17 12 13**

Client's Signature: 

Date: **19/12/13.**

Total Injected today: 1.800  
Total Injected Previously: 14.400  
Carried Forward: 16.200  
Stock left on Site: 4.380

**4.380**

## Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005

Job No. <b>132432</b>	Site: <b>HEBBURN COMMUNITY HUB</b>	Sheet: <b>4</b> of <b>4</b>
Plant: <b>3 TON MIXER</b>	Area: <b>J HAILS</b>	Date: <b>17 12 13</b>
Crew: <b>IMTICHISAL G BRAY</b>		

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
D5	20.00		No Coal	0.10	1.00								Still Taking	Full
E5	11			0.10	1.00								Still Taking	Full
F5	11			0.10	1.00								Still Taking	Full
G5	11			0.10	1.00								Still Taking	Full
H5	11			0.10	1.00								Still Taking	Full
I5	11			0.10	1.00								Still Taking	Full
J4	11			0.10	1.00								Still Taking	Full
K4	11			0.10	1.00								Still Taking	Full
L4	11			0.10	1.00								Still Taking	Full
M4	11			0.10	1.00								Still Taking	Full
N4	11			0.10	1.00								Still Taking	Full
O4	11			0.10	1.00								Still Taking	Full
P4	11			0.10	1.00								Still Taking	Full
Q4	11			0.10	1.00								Still Taking	Full
R4	11			0.10	1.00								Still Taking	Full
S4	11			0.10	1.00								Still Taking	Full
T4	11			0.10	1.00								Still Taking	Full
U4	11			0.10	1.00								Still Taking	Full
V4	11			0.10	1.00								Still Taking	Full
W4	11			0.10	1.00								Still Taking	Full
X4	11			0.10	1.00								Still Taking	Full
Y4	11			0.10	1.00								Still Taking	Full
Z4	11			0.10	1.00								Still Taking	Full
BH Grouted B/F		162	Total injected today	0.180	1.800									
BH Grouted Today		18	Total Injected Previously	1.620	16.200									
BH Grouted C/F		180	Carried Forward	1.800	18.000									
PFA		3.840	Stock left on Site	4.200	2.040									
OPC		4380		4.200										
		4380												

I confirm this is a true record.

Van Elle Operative Signature: *[Signature]*

Date: **17 12 13**

Client's Signature: *[Signature]*

Date: **18/12/13**

## Daily & Accumulative Grouting Sheet

Job No. <b>132432</b>	Site: <b>RESERVOIR COMMUNITY HUB</b>	Area:	Sheet: <b>5</b> of <b>5</b>
Plant: <b>3 TON MIXER</b>	Crew: <b>J MITCHELSON G BRAY</b>	<b>J HAILS</b>	Date: <b>17 12 13</b>

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
D3	2.00		No Coal	0.10	1.00								Still Taking	Full
E3	4		11	0.10	1.00								Still Taking	Full
F3	4		11	0.10	1.00								Still Taking	Full
G3	4		11	0.10	1.00								Still Taking	Full
H3	4		11	0.10	1.00								Still Taking	Full
I3	4		11	0.10	1.00								Still Taking	Full
J2	4		11	0.10	1.00								Still Taking	Full
H2	4		11	0.10	1.00								Still Taking	Full
G2	4		11	0.10	1.00								Still Taking	Full
F2	4		11	0.10	1.00								Still Taking	Full
E2	4		11	0.10	1.00								Still Taking	Full
D2	4		No Coal	0.10	1.00								Still Taking	Full
C2	4		11	0.10	1.00								Still Taking	Full
B2	4		11	0.10	1.00								Still Taking	Full
A2	4		11	0.10	1.00								Still Taking	Full
A1	4		11	0.10	1.00								Still Taking	Full
D1	4		11	0.10	1.00								Still Taking	Full
C1	4		11	0.10	1.00								Still Taking	Full
BH Grouted B/F		180	Total Injected today	0.180	1.800									
BH Grouted Today		18	Total Injected Previously	0.800	18.000									
BH Grouted C/F		198	Carried Forward	1.980	19.800									
PFA		2.040	Stock left on Site	0.020	0.240									
OPC		4.260												
		4.200												

I confirm this is a true record.

Van Elle Operative Signature: *[Signature]*

Date: **17 12 13**

Client's Signature: *[Signature]*

Date: **18/12/13.**



**VAN ELLE**

TOTAL FOUNDATION SOLUTIONS

Teal House, 10 Teal Farm Way, Pattinson, Washington, NE38 8BG. T: 0191 417 8332 F: 0191 417 8334

# Daily & Accumulative Grouting Sheet

SD 72 R3 08.06.2005

Job No. <b>132432</b>	Site: <b>HESBURN COMMUNITY HUB</b>	Area:	Sheet: <b>6</b> of <b>6</b>
Plant: <b>3 TON MTR 62</b>	Crew: <b>I MITCHELSON G BLAY J HAILS</b>		Date: <b>17 12 13</b>

BH	Depth (M)	Pressure (PSI)	Brief Log	Quantity injected today (Tonnes)				Cumulative Totals (Tonnes)				Result		
				OPC	PFA	Sand	Pea Gravel	Total	OPC	PFA	Sand		Pea Gravel	Total
D1	2000		NO COAL	0.10	1.00								Still Taking	Full
E1	2000		NO COAL	0.10	1.00								Still Taking	Full
BH Grouted B/F		198	Total Injected today	0.20	2.00									
BH Grouted Today		2	Total Injected Previously	1.980	19.800									
BH Grouted C/F		200	Carried Forward	2.000	20.00									
PFA	0.240		Stock left on Site	4.000	0.040									
OPC	4.020													

I confirm this is a true record.

Van Elle Operative Signature *[Signature]*

Date **17 12 13**

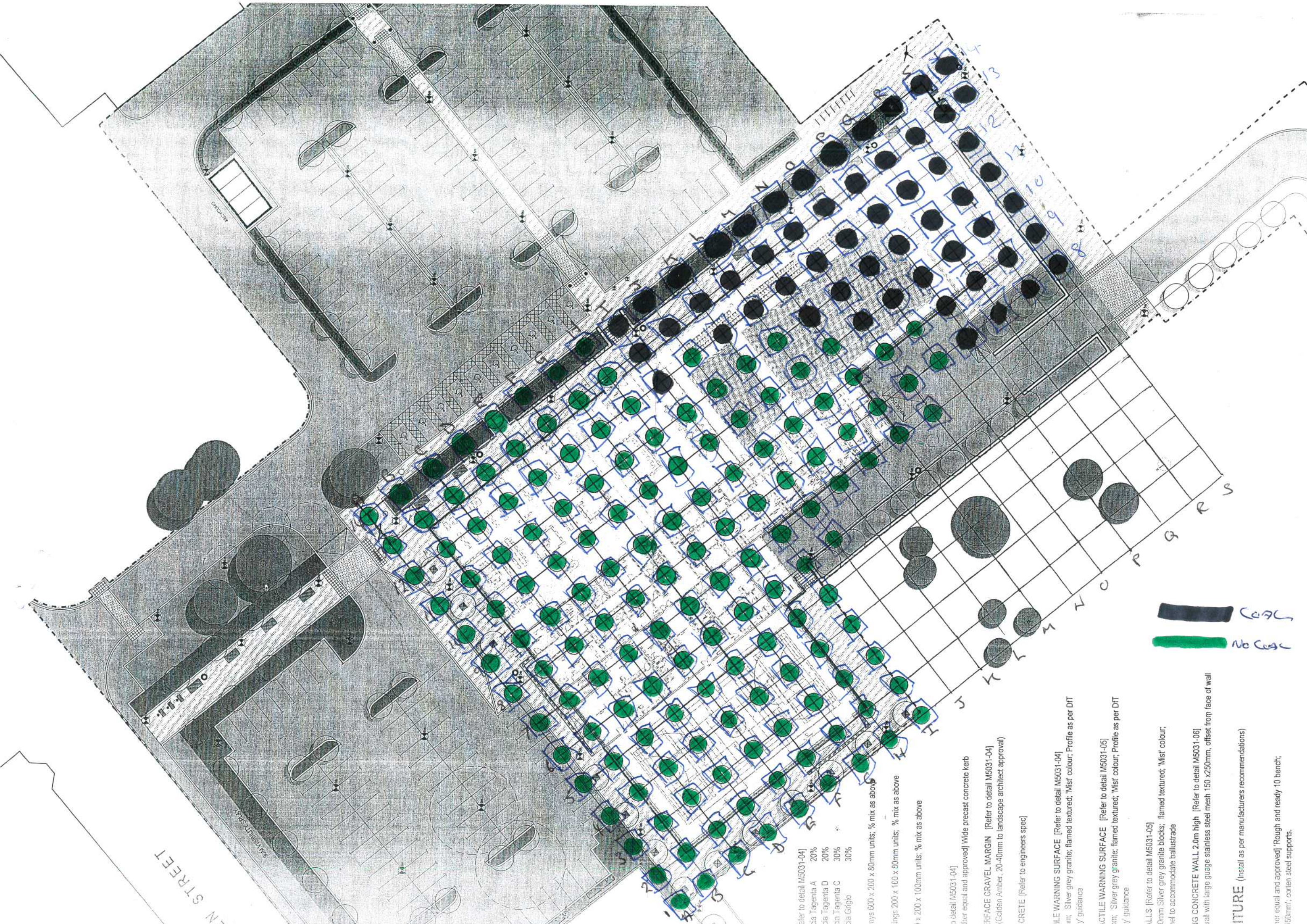
Client's Signature .....

Date .....





# Drawings



GREEN STREET

SMASHING STRAITS

[Refer to detail M5031-04]  
 ecchia Tagenta A 20%  
 ecchia Tagenta D 20%  
 ecchia Tagenta C 30%  
 ecchia Grigio 30%

200 x 200 x 200mm units, % mix as above  
 200 x 100 x 80mm units, % mix as above  
 300 x 200 x 100mm units, % mix as above

[Refer to detail M5031-04]  
 or other equal and approved] Wide precast concrete kerb

TERFACE GRAVEL MARGIN [Refer to detail M5031-04]  
 200mm Golden Amber, 20-40mm to landscape architect approval

CONCRETE [Refer to engineers spec]

CTILE WARNING SURFACE [Refer to detail M5031-04]  
 0mm; Silver grey granite; flamed textured; 'Mist' colour; Profile as per DIT  
 150mm; guidance

TACTILE WARNING SURFACE [Refer to detail M5031-05]  
 0mm; Silver grey granite; flamed textured; 'Mist' colour; Profile as per DIT  
 150mm; guidance

WALLS [Refer to detail M5031-05]  
 200mm Silver grey granite blocks; flamed textured; 'Mist' colour;  
 150mm to accommodate ballustrade

ING CONCRETE WALL 2.0m high [Refer to detail M5031-06]  
 e wall with large gauge stainless steel mesh 150 x 250mm, offset from face of wall

NTURE (install as per manufacturers recommendations)

other equal and approved] Rough and ready 10 bench;  
 x 450mm; corten steel supports.

█ Cash  
 █ No Cash

# Appendix C. Coal Authority Report

# The COAL AUTHORITY

Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG

Website: [www.groundstability.com](http://www.groundstability.com) Phone: 0845 762 6848 DX 716176 MANSFIELD 5

**MOTT MACDONALD  
PRINCE HOUSE  
43-51 PRINCE STREET  
BRISTOL  
BS1 4PS**

Our reference: **51000189157001**  
Your reference: **Hebburn Community Hub**  
Date of your enquiry: **03 December 2012**  
Date we received your enquiry: **03 December 2012**  
Date of issue: **03 December 2012**

This report is for the property described in the address below and the attached plan.

## Non-Residential Coal Authority Mining Report

### HEBBURN COMMUNITY HUB, GLEN STREET, HEBBURN, TYNE & WEAR, NE31 1NU

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Coal mining	See comments below
Brine Compensation District	No

### *Information from the Coal Authority*

#### Underground coal mining

##### **Past**

The property is in the likely zone of influence from workings in 5 seams of coal at 200m to 380m depth, and last worked in 1947.

Any ground movement from these coal workings should have stopped by now.

In addition the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past.

##### **Present**

The property is not in the likely zone of influence of any present underground coal workings.

##### **Future**

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

The property is not in an area for which a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area that is likely to be affected at the surface from any planned future workings.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

#### **Mine entries**

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

Records may be incomplete. Consequently, there may exist in the local area mine entries of which the Coal Authority has no knowledge.

### **Coal mining geology**

The Authority is not aware of any evidence of damage arising due to geological faults or other lines of weakness that have been affected by coal mining.

### **Opencast coal mining**

#### **Past**

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

#### **Present**

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

#### **Future**

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

### **Coal mining subsidence**

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres, since 31st October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

### **Mine gas**

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

### **Hazards related to coal mining**

The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

### **Withdrawal of support**

The property is not in an area for which a notice of entitlement to withdraw support has been published.

The property is not in an area for which a notice has been given under section 41 of the Coal Industry Act 1994, revoking the entitlement to withdraw support.

### **Working facilities orders**

The property is not in an area for which an Order has been made under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

### **Payments to owners of former copyhold land**

The property is not in an area for which a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

## Comments on Coal Authority information

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

## Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

## Additional Remarks

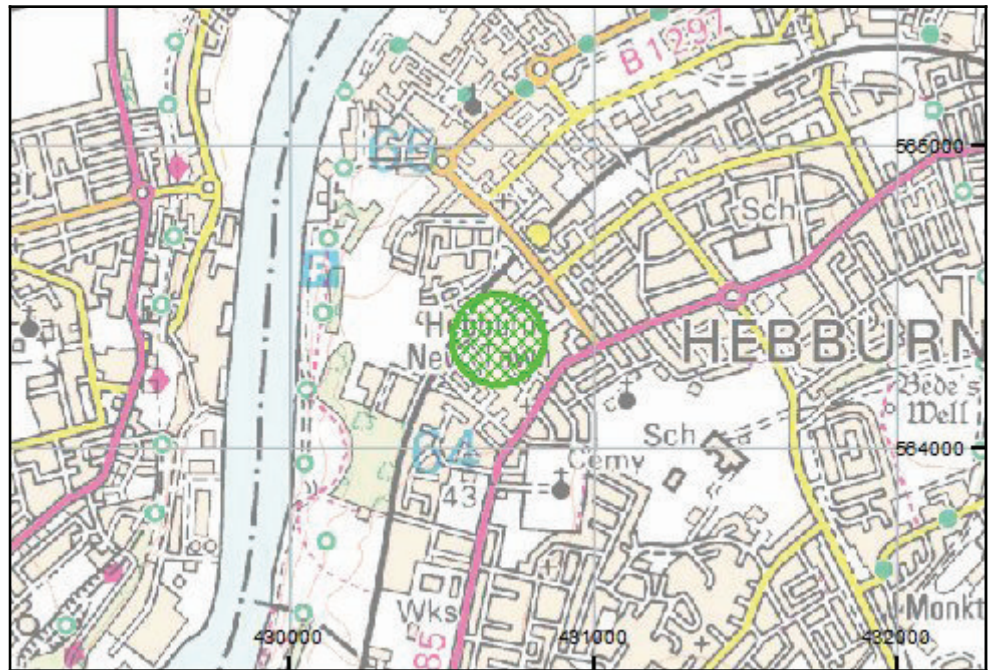
This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006. The Coal Authority owns the copyright in this report. The information we have used to write this report is protected by our database right. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

Issued by:	The Coal Authority, 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG
Tax Point Date:	03 December 2012
Issued to:	MOTT MACDONALD PRINCE HOUSE 43-51 PRINCE STREET BRISTOL BS1 4PS
Property Search for:	HEBBURN COMMUNITY HUB, GLEN STREET, HEBBURN, TYNE & WEAR, NE31 1NU
Reference Number:	51000189157001
Date of Issue:	03 December 2012
Cost:	£59.00
VAT @ 20%:	£11.80
Total Received:	£70.80
VAT Registration	598 5850 68

## Location map



Approximate position of property



## Enquiry boundary

Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2012. All rights reserved. Ordnance Survey Licence number: 100020315

## Key

Approximate position of enquiry boundary shown

