By Email

Our ref: 16-136.01L

Paul Watchorn
Adept Civil & Structural Consulting Engineers
14 Festoon Rooms
Sunny Bank Mills
Farsley
Leeds
LS28 5UJ

Arc Environmental Ltd
Solum House
Unit 1 Elliott Court
St Johns Road
Meadowfield
Durham
DH7 8PN

15th March 2017

Dear Paul,

Re: Proposed Retirement Apartments - Roundel Kitchens, Harton Centre, 52 Harton Lane, South Shields, Tyne & Wear

Following completion of the recent supplementary investigation works at the above site location, we have pleasure in providing you with the following documents;

- Delineation Works Plan
- Borehole Record Sheets (BHA to BHK)

1.0 Introduction: -

Arc Environmental Limited were commissioned by Adept of Leeds, West Yorkshire, on behalf of McCarthy & Stone Retirement Lifestyles Limited to undertake supplementary ground investigation works at Roundel Kitchens, Harton Centre, 52 Harton Lane, South Shields, Tyne & Wear where it is proposed to demolish the existing structures and construct retirement apartments.

The Phase 1: Desk Top Study Report and original intrusive investigation works undertaken by Arc Environmental Limited highlighted an infilled rectangular reservoir and a pair of redundant underground diesel storage tanks (UST's). A programme of supplementary boreholes was designed to identify where new foundations might be affected by these relic structures.

The information contained in this report is limited to the area of the site as indicated on the Borehole Location Plan, and to those areas accessible during the ground investigation.

2.0 Investigation of Infilled Reservoir: -

For an accurate description of the ground conditions encountered at the exploratory positions created by Arc Environmental Limited, reference should be made to the borehole record sheets attached. It should be noted that there is always the possibility of variation in the ground conditions around and between the borehole locations.

2.0 Investigation of Infilled Reservoir (Cont'd): -

2.1 NW Elevation

The NW elevation of the infilled reservoir was investigated by rows of boreholes BHA to BHC and BHJ & BHK.

BHA & BHB, positioned on and just outside the reservoir wall, refused at depths of c.0.46m and c.0.78m after encountering high level concrete obstructions. BHC positioned inside the line of the reservoir wall recorded demolition type rubble materials before encountering an obstruction at c.1.75m which may represent a relic slab(?) or foundation. Historically the area to the immediate NW of the reservoir was developed (see historical extract below).

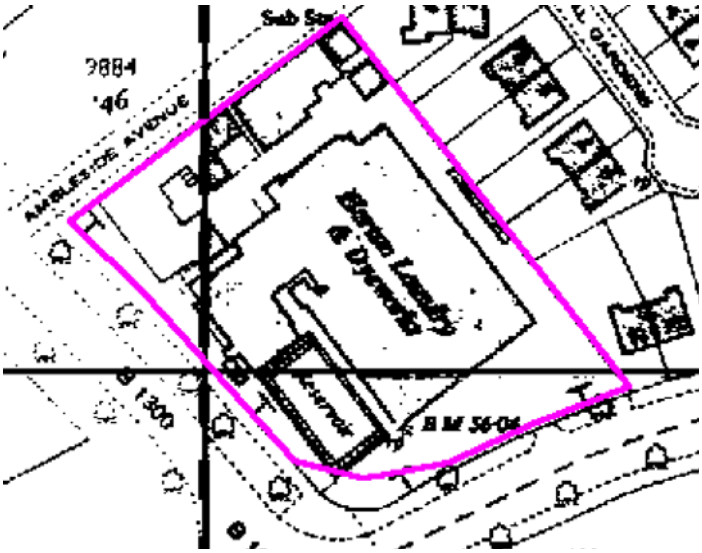


Figure 1 (historic development to NW of Reservoir)

BHJ & BHK, also positioned on and just outside the reservoir wall, recorded c.1.00m to c.1.20m of made ground overlying Glacial Till with no evidence of buried relic structures.

2.2 NE Elevation

The NE elevation of the infilled reservoir was investigated by a row of boreholes BHD to BHF.

BHD & BHE, also positioned on and just outside the reservoir wall, recorded c.1.15m to c.1.85m of made ground (predominantly demolition type rubble) overlying Glacial Till with no evidence of buried relic structures.

BHF positioned inside the line of the reservoir wall recorded deeper demolition type rubble materials to c.3.20m overlying Glacial Till with no evidence of buried relic structures.

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3.0 Investigation of UST's: -

In the first instance a non-intrusive ground penetrating radar (GPR) survey was completed to try and determine the footprint and orientation of the UST's. In this instance the GPR survey was not successful in identifying a contrast in ground conditions and the footprint / orientation of the UST's could not be identified.

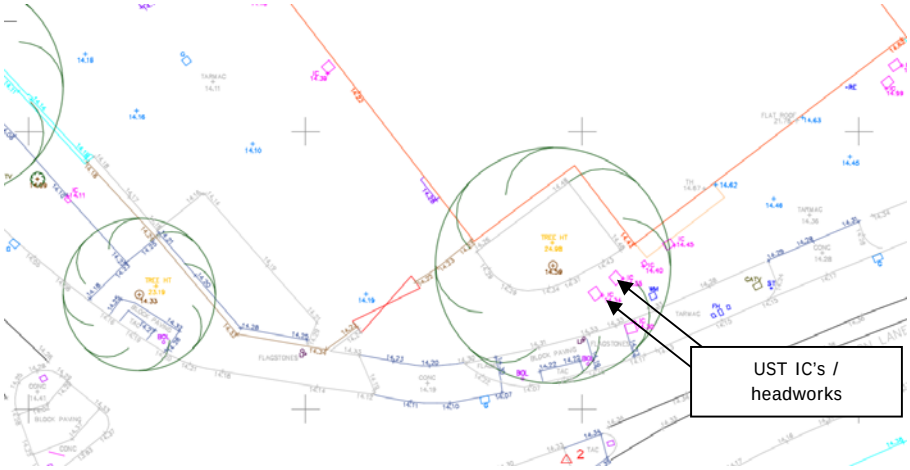
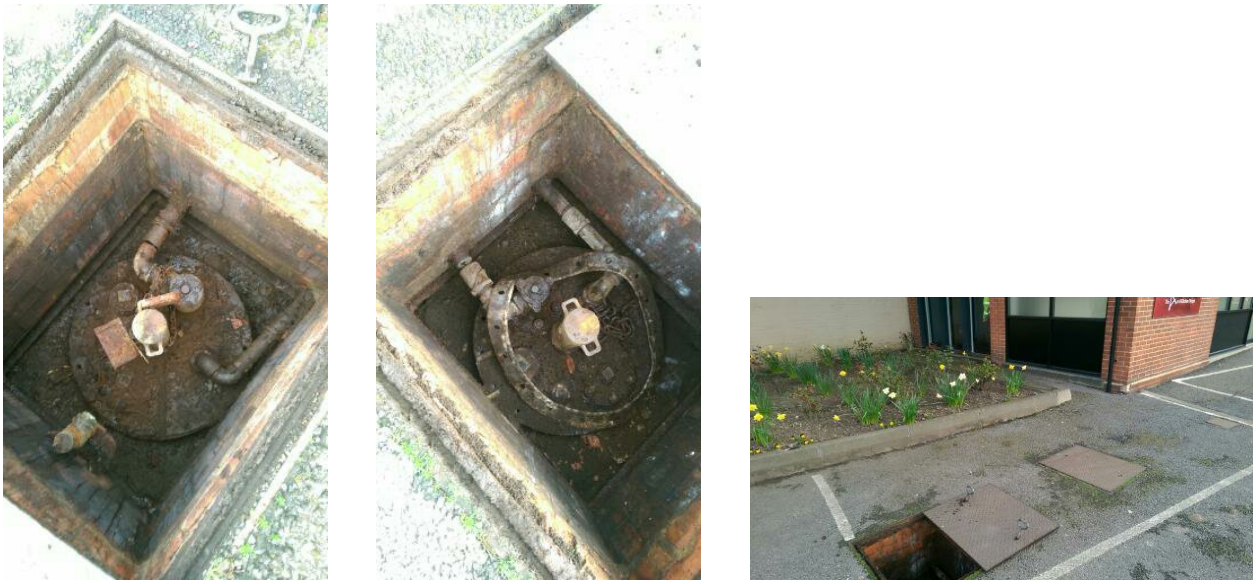


Figure 2 (UST inspection chambers)



Plates 1 to 3 – UST IC / Headworks

Therefore, 3 no. boreholes (BHG, BHH & BHI) were positioned around the UST's locations (identified at surface by inspection chambers and headworks – See Figure 2 above).

3.0 Investigation of UST's (Cont'd): -

The boreholes recorded between c.1.50m and c.1.70m of made ground (disturbed clays) overlying Glacial Till to at least c.4.00m. There was no visual or olfactory evidence of hydrocarbon contamination within the soils (made ground and natural strata) or perched groundwater suggesting that there has been no significant spillages or leaks associated with the UST's.

HDPE standpipes, with gravel and geo-wrap surround, bentonite seal, gas valve cap and security cover, were installed within BHG and BHI. A PID survey was undertaken during 2 no. return visits using an Ion Science Photocheck 2000 Photo Ionisation Detector (PID) meter with a 10.6eV lamp, calibrated to isobutylene (standard measurement scale). The PID measures ionisable vapour concentrations and gives an indication of the presence of volatile organic compounds (VOC's). Negligible levels (≤1ppm) of volatile organic compounds (VOC's) were recorded during the PID survey indicating there is no vapour production below the site associated with lighter fraction hydrocarbons or solvents.

4.0 Proposed Foundations: -

Where the proposed development footprint clashes with the infilled reservoir and where foundations are within influencing distance of the deep made ground, mass trench fill footings will be required up to c.3.20m deep (based on current ground levels).

The depths of adjacent foundations within influencing distance should be such that if a line was drawn 45^{o} downwards from the base of the foundation this should not intersect the adjacent made ground and should pass below.

Similarly, assuming the UST's are based at c.3m below current ground levels, and the tanks are to be removed prior to redevelopment, then the same approach will be required for new foundations at or within influence of the UST backfill materials. The area of deep made ground is likely to be confined by BH's G, H and I.

We trust the contents of this report are to your satisfaction and if you require any further information or clarification please do not hesitate to contact us.

Yours sincerely,

J P. Dutc

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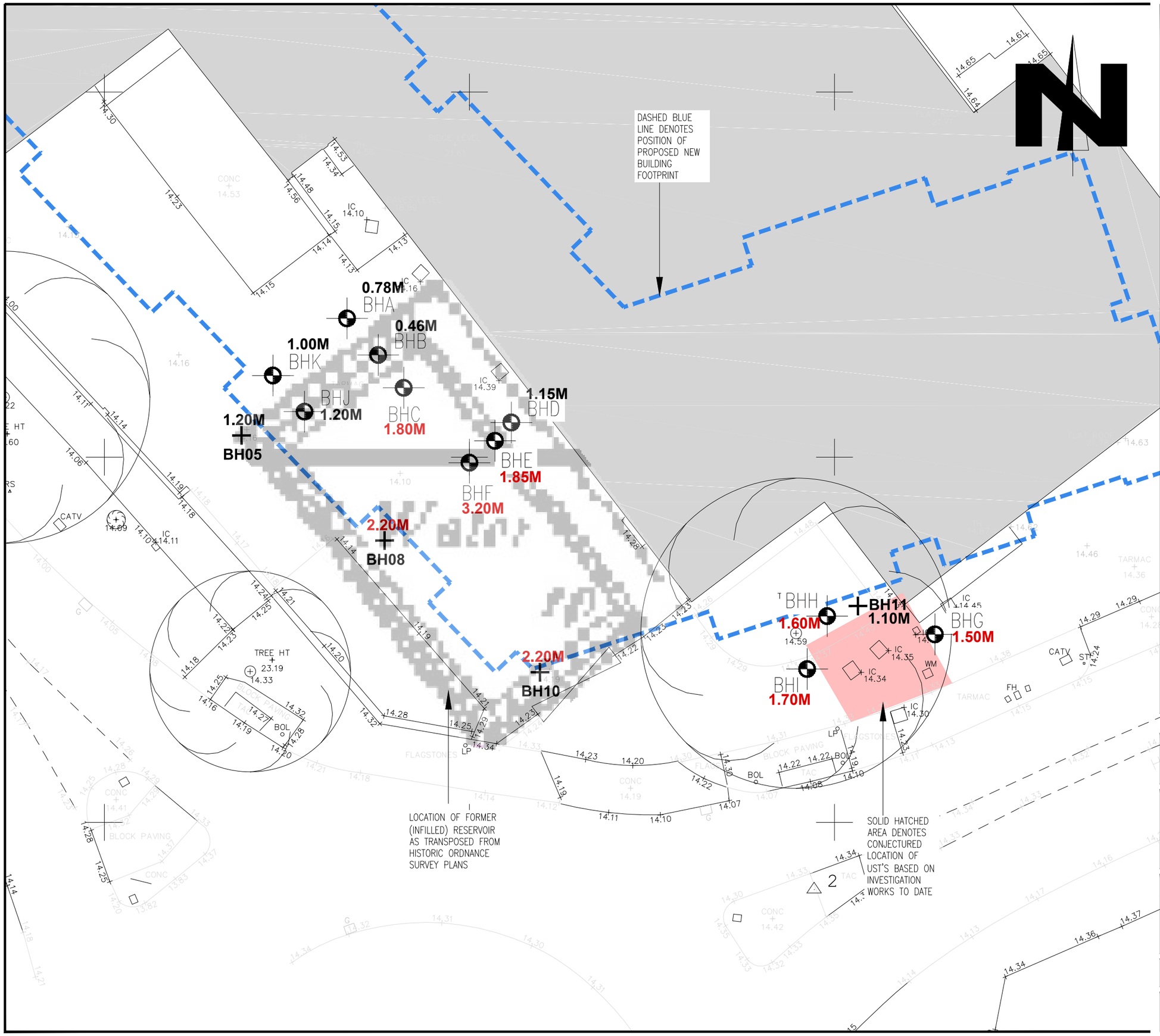
For and on behalf of Arc Environmental Ltd
John Ditchburn *BEng (Hons) CSci MIEnvSc FGS*
Associate Director

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Constructionline Part of Capita plc
CHAS Accredited Contractor www.chas.gov.uk
smas worksafe consultant www.smasltd.com
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Delineation Works Plan

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The contractor shall check all dimensions on site before commencement of any works. No dimensions to be scaled off this drawing.
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LEGEND	
	APPROXIMATE SITE BOUNDARY
	SUPPLEMENTARY BOREHOLES TO TARGET FORMER HISTORIC RESERVOIR AND TANKS ON SITE
BH11	PREVIOUS BOREHOLE POSITION
1.20M 1.80M	MADE GROUND DEPTHS RECORDED AT INVESTIGATION POSITION. DEPTHS IN RED REFER TO LOCALLY DEEPER MADE GROUND RECORDED AT LOCATION OF FORMER INFILLED RESERVOIR AND AROUND LOCATION OF EXISTING UST's

rev.	date	amendments	drawn	chckd

Client:
McCARTHY & STONE (RETIREMENT LIFESTYLES LTD)

Project Title:
Proposed CAT II Accommodation
Harton Centre, 52 Harton Lane
South Shields, Tyne & Wear, NE34 0EE

Drawing Title:
Delineation Works Plan

Scale at A3:	Date:	Drawn by:	Approved by:
1:200 @ A3	06.03.17	P.D	J.P.D

Job Ref:	Drg no:	Rev:
16-136	–	–

Borehole Record Sheets (BHA to BHK)

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BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHA**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136		14.11	E 437,013.3 N 564,807.6	
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
				14.01		0.10	Tarmac (MADE GROUND)		
				13.96		0.15	Light brown sandy dolomitic stone sub-base (MADE GROUND)		
						(0.63)	Conrete poor quality including brick fragments within the aggregate (MADE GROUND)		
				13.33		0.78			
							Borehole refused at 0.78m.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											WATER OBSERVATIONS: BH remained dry

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

AGS3 UK BH LOGS A TO K.GPJ AGS3_ALL.GDT 15/3/17

Solum House, Unit 1 Elliott Court
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BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHB**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136		14.12	E 437,015.0 N 564,805.6	
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
				13.98		0.14	Tarmac (MADE GROUND)		
				13.93		0.19	Light brown sandy dolomitic stone sub-base (MADE GROUND)		
				13.74		0.38	Brown sandy concrete and brick rubble (MADE GROUND)		
				13.66		0.46	Concrete (MADE GROUND)		
							Borehole refused at 0.46m.		

Boring Progress and Water Observations						Chiselling			Water Added	
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To

GENERAL REMARKS

WATER OBSERVATIONS: BH remained dry

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

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BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHC**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136		14.13	E 437,016.4 N 564,803.8	
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
				14.01		0.12	Tarmac (MADE GROUND)		
				13.93		0.20	Light brown sandy dolomitic stone sub-base (MADE GROUND)		
							Concrete, mortar and brick rubble (MADE GROUND)		
						(1.00)			
				12.93		1.20			
							Brick rubble with pockets of wet black silty sand. Slight organic peaty odour (MADE GROUND)		
						(0.55)			
				12.38		1.75			
1.75-1.80	S	50 blows		12.33		1.80	Concrete / sandstone obstruction (MADE GROUND)		
							Borehole refused at 1.80m.		

Boring Progress and Water Observations						Chiselling			Water Added	
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To

GENERAL REMARKS

WATER OBSERVATIONS: Water strike at 1.20m.

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

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BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHD**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136		14.19	E 437,022.3 N 564,801.9	
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
				14.07		0.12	Tarmac (MADE GROUND)		
				13.99		0.20	Light brown sandy dolomitic stone sub-base (MADE GROUND)		
						(0.80)	Concrete, slate and brick rubble (MADE GROUND)		
				13.19		1.00			
				13.04		1.15	Firm dark brown sandy silty gravelly clay with some brick fragments (MADE GROUND)		
						(0.60)	Firm light brown mottled orangish brown silty slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
				12.44		1.75			
				12.19		2.00	Stiff dark brown/grey slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											WATER OBSERVATIONS: BH remained dry

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

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BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHE**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136		14.19	E 437,021.4 N 564,800.9	
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
				14.08		0.12	Tarmac (MADE GROUND)		
				13.94		0.25	Tarmac - poor quality (MADE GROUND)		
				13.89		0.30	Light brown sandy dolomitic stone sub-base (MADE GROUND)		
							Brick rubble with some wood fragments (MADE GROUND)		
						(1.55)			
				12.34		1.85			
							Firm becoming stiff from c.2.00m, dark brown/grey slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
						(1.15)			
				11.19		3.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											WATER OBSERVATIONS: Water strike at 1.20m.

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

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BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHF**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136		14.17	E 437,020.0 N 564,799.7	
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
				14.06		0.12	Tarmac (MADE GROUND)		
				13.97		0.20	Light brown sandy dolomitic stone sub-base (MADE GROUND)		
				13.73		0.44	Firm greenish brown sandy gravelly clay with some brick fragments (MADE GROUND)		
						(1.76)	Concrete, mortar and brick rubble. Locally wet (MADE GROUND)		
				11.97		2.20			
						(1.00)	Brick rubble with pockets of wet black silty sand. Organic peaty odour (MADE GROUND)		
				10.97		3.20			
						(0.80)	Stiff dark brown/grey slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
				10.17		4.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											WATER OBSERVATIONS: Water strike at 1.20m.

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

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BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHG**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136		14.55	E 437,039.6 N 564,791.3	
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
				14.45		0.10	Tarmac (MADE GROUND)		
				14.12		(0.33) 0.43	Brick and concrete rubble with some ash (MADE GROUND)		
				13.40		(0.72) 1.15	Soft becoming firm dark brown very sandy gravelly clay (MADE GROUND)		
				13.05		(0.35) 1.50	Loose black ash with some brick fragments (MADE GROUND)		
1.60	V	>120kN/m^2					Stiff (high strength) dark brown/grey slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
2.00	V	>120kN/m^2							
2.40	V	>120kN/m^2				(2.50)			
3.00	V	>120kN/m^2							
3.50	V	>120kN/m^2							
				10.55		4.00			
4.00	V	>120kN/m^2							

Boring Progress and Water Observations						Chiselling			Water Added	
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To

GENERAL REMARKS

WATER OBSERVATIONS: Water strike at 1.15m.

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

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BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHH**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136		14.34	E 437,038.5 N 564,788.4	
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
				14.10		0.24	Dark brown sandy clayey gravelly soil with some roots (MADE GROUND)		
				14.00		0.34	Tarmac - poor quality (MADE GROUND)		
				13.94		0.40	Dark grey / black ash with some brick fragments (MADE GROUND)		
				13.59		(0.35) 0.75	Brown sandy concrete, mortar and brick rubble (MADE GROUND)		
				12.74		(0.85) 1.60	Firm greenish brown and grey silty sandy gravelly clay with ash and brick fragments (MADE GROUND)		
				12.44		(0.30) 1.90	Firm brown silty slightly sandy gravelly CLAY with some roots. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
2.00	V	61kN/m^2					Firm (medium strength) light brown mottled orangish brown silty slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
2.20	V	53kN/m^2		12.04		(0.40) 2.30			
2.40	V	115kN/m^2					Stiff (high strength) dark brown/grey slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
3.00	V	>120kN/m^2							
3.50	V	>120kN/m^2		10.34		(1.70) 4.00			
4.00	V	>120kN/m^2							

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											WATER OBSERVATIONS: BH remained dry

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

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BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHI**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136		14.37	E 437,045.5 N 564,790.3	
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
				14.25		0.12	Tarmac (MADE GROUND)		
				14.02		0.35	Black sandy ash with brick, sandstone and concrete fragments (MADE GROUND)		
				13.89		0.48	Brick and concrete rubble with some roots (MADE GROUND)		
						(0.50)	Dark brown sandy clayey brick and concrete fragments. Some roots (MADE GROUND)		
				13.39		0.98			
						(0.72)	Firm greenish brown and grey sandy silty gravelly clay with some ash and brick fragments (MADE GROUND)		
				12.67		1.70			
1.70	V	53kN/m^2				(0.50)	Firm light brown mottled orangish brown silty slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
2.00	V	44kN/m^2		12.17		2.20			
2.30	V	111kN/m^2					Stiff dark brown/grey slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
2.60	V	>120kN/m^2							
3.00	V	>120kN/m^2				(1.80)			
3.50	V	>120kN/m^2							
				10.37		4.00			
4.00	V	>120kN/m^2							

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											WATER OBSERVATIONS: BH remained dry

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

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Project				BOREHOLE No
Harton Lane, South Shields				**BHJ**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136				
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.11	Tarmac (MADE GROUND)		
						0.22	Light brown sandy dolomitic stone sub-base (MADE GROUND)		
						(0.58)	Brick, concrete and sandstone rubble (MADE GROUND)		
						0.80			
						(0.40)	Stiff brownish grey sandy gravelly clay (MADE GROUND)		
						1.20			
						(0.55)	Firm greenish brown and grey silty slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
						1.75			
						(1.25)	Stiff dark brown/grey slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
						3.00			

Boring Progress and Water Observations					
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt

Chiselling			Water Added	
From	To	Hours	From	To

GENERAL REMARKS

WATER OBSERVATIONS: BH remained dry

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

AGS3 UK BH LOGS A TO K.GPJ AGS3_ALL.GDT 15/3/17

Solum House, Unit 1 Elliott Court
St Johns Road, Meadowfield
Durham, DH7 8PN
Telephone: 01913786380

BOREHOLE LOG

Project				BOREHOLE No
Harton Lane, South Shields				**BHK**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
16-136				
Contractor				Sheet
Arc Environmental Ltd				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.12	Tarmac (MADE GROUND)		
						0.21	Light brown sandy dolomitic stone sub-base (MADE GROUND)		
						0.36	Brick and sandstone rubble (MADE GROUND)		
						0.52	Concrete (MADE GROUND)		
						(0.38)	Stiff dark brown sandy gravelly clay with some brick fragments (MADE GROUND)		
						0.90			
						1.00	Soft/firm brown/black silty sandy gravelly clay (MADE GROUND)		
1.00-1.60	B					(0.60)	Firm greenish brown and grey silty slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone. Slight organic / peaty odour (GLACIAL TILL - PELAW CLAY MEMBER)		
						1.60			
						(1.40)	Stiff dark brown/grey slightly sandy gravelly CLAY. Gravel comprises fine to coarse sandstone (GLACIAL TILL - PELAW CLAY MEMBER)		
						3.00			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											WATER OBSERVATIONS: BH remained dry

All dimensions in metres Scale 1:37.5	Client McCarthy & Stone	Method/ Plant Used Dynamic Sampling	Logged By SW

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