

Technical Note Requisite Surveillance Foundry Central West Teesworks

Introduction

Following pre-application advice from the Environment Agency (EA), Arcadis propose the following groundwater water monitoring strategy be conducted as requisite surveillance under a Deposit for Recovery (DfR) permit at the Foundry Central West (FCW) site.

Activities subject to the permit are set out in the following documents:

- Remediation Options Appraisal, Enabling Earthworks and Remediation Strategy [10047374-AUK-XX-XX-RP-ZZ-748-01-FCW_ROA&S].
- Remediation Options Appraisal, Deposit for Recovery Permit at Foundry Central West [10047374-AUK-XX-RP-ZZ-976-01-FCW_DfR_ROA]
- Earthworks Specification [10035117-AUK-XX-XX-RP-ZZ-907-03-FCW_Earthworks]

The documents set out the proposals for the remediation and enabling earthworks required to construct a development platform at the Site.

Groundwater Monitoring

Groundwater monitoring will be carried out monthly by Arcadis as a requirement of the DfR permit, and will include recording of groundwater levels and the sampling of groundwater for analysis. Sampling will be undertaken in accordance with the Monitoring Plan, presented in 10047374-AUK-XX-XX-MS-YY-Y-1-Foundry Central West Monitoring and Maintenance Plan. Groundwater data has been collected to act as a baseline for the compliance monitoring points. Groundwater quality data has been collected at the Site since 2017 and a comprehensive database of groundwater quality has been developed

The groundwater monitoring programme will continue to be undertaken at the compliance monitoring points during the DfR activities, and for a period of three months following completion of the DfR activity. The groundwater quality data will be assessed following each monitoring visit over this period and the results of the measured concentrations of Groundwater Directive hazardous substances and non-hazardous pollutants will be compared against the Compliance Limits.

Following completion of the DfR activity and subsequent three months of post monthly monitoring, the results will be provided to the Environment Agency. At this point the work on site will be considered as being complete, and recommendations based on the outcome will be provided to the Environment Agency, to agree (if required), the groundwater monitoring including frequency and testing suite to be collected to inform a permit surrender application. Should the concentrations of Groundwater Directive hazardous substances and non-hazardous pollutants in the compliance monitoring boreholes be below the Compliance Limits, as a stable or falling trend, during the completion monitoring, then a Permit surrender application will be submitted.

Groundwater Monitoring Boreholes

The groundwater monitoring will be conducted at compliance monitoring points comprising groundwater monitoring wells, these are shown on Figure 10047374-AUK-XX-XX-DR-ZZ-1036-02-FCW_Permit GW_Loc included in Appendix A. Borehole logs for the monitoring wells are presented in Appendix B which screen the underlying Secondary (A) Aquifer comprising Tidal Flat Deposits (TFD).

The monitoring well network will be maintained in accordance with the Maintenance Plan, presented in

10047374-AUK-XX-XX-MS-YY-Y-1-Foundry Central West Monitoring and Maintenance Plan.

The following monitoring wells are located down hydraulic gradient of the permit boundary FOU-AUK-BH101, A-BH18D, A-BH35S, and B-BH26S, and will be subject to Compliance Limits. Three further boreholes FOU-AUK-BH102, FOU-AUK-BH103, and FOU-AUK-BH104 are located at the upgradient site boundary. These will not be subject to Compliance Limits, but will be used to assess incoming groundwater quality.

Compliance Limits

Compliance Limits are set for each individual monitoring well down gradient of the permit boundary FOU-AUK-BH101, A-BH18D, A-BH25S, and B-BH26S.

Derivation of groundwater compliance limits is presented in this memo for the following two down gradient monitoring wells:

- A-BH26S
- A-BH35S

Two further downgradient monitoring wells, FOU-AUK-BH101S and A-BH18D, are pending additional groundwater monitoring. Groundwater compliance limits will be set for these two wells once sufficient data is available.

Groundwater compliance limits have been set for the six hazardous and three non-hazardous pollutants identified and assessed in the Hydrogeological Risk Assessment (10047374-AUK-XX-RP-ZZ-815-02-Foundry Central West HRA) as priority substances.

Groundwater monitoring data from the baseline period, prior to commencement of permitted works, has been used to inform determination of criteria.

Graphs presenting groundwater concentrations over the period of June 2023 to July 2024 are presented as Appendix C. The data has been assessed to remove data points deemed unrepresentative, and to select the most accurate data where data from multiple test methods may be available. Comments on the dataset are provided in the table below.

Based on the graphs, compliance limits have been defined based on a mean value plus three standard deviations over the period of June 2023 to July 2024. These criteria are presented on the graphs in Appendix C.

Where a substance was reported <MDL over the baseline period, MRV have been set as compliance limits for hazardous substances. For non-hazardous substances reported <MDL over the baseline period, WQS have been set as compliance limits.

In addition, where the criteria calculated based on mean plus three standard deviations is less that the MRV or WQS, the MRV or WQS have been set as compliance limits.

The Compliance Limits are presented in Table 1. Further details on the derivation, including calculation of simple descriptive statistics, are presented as Appendix D.

Table 1

Groundwater Quality Compliance Limits and Controls

Criteri	on Objective		
To confirm that during DfR activities the input groundwater is prevented and the ir	t of Groundwater D nput of non-hazard	irective hazardou ous pollutants is li	s substances to mited.
Measurement	Arsenic (hazardous)	
	Hexavale	ent Chromium (ha	zardous)
	Lead (ha	zardous)	
	Mercury	(hazardous)	
	 Benzo(a) 	pyrene (hazardou	ıs)
	 Naphthal 	ene (non-hazardo	ous)
	Benzene	(hazardous)	
	Ammonia	acal Nitrogen (nor	-hazardous)
	 Total Cya 	anide (non-hazarc	lous)
Monitoring points the subject of compliance	Groundwater mo BH18D, A-BH25 gradient of the pe	nitoring wells FO S, and B-BH26 ermit boundary.	U-AUK-BH101, A- S down hydraulic
Compliance limits for down hydraulic	Substance	A-BH26S	B-BH35S
boreholes	Arsenic	22.6µg/l	11.8µg/l
	Hexavalent Chromium	1µg/l*	1µg/l*
	Lead	0.34µg/l	0.401µg/l
	Mercury	0.02µg/l	0.053µg/l
	Benzo(a)pyrene	0.02µg/l	0.02µg/l
	Naphthalene	2µg/l	2µg/l
	Benzene	0.2µg/l*	0.2µg/l*
	Ammoniacal Nitrogen	2.65mg/l	6.04mg/l
	Total Cyanide	50µg/l	50µg/l
Assessment test	Concentrations e consecutive occa	exceed the Controlsions.	ol Levels on three
Contingency Action			Response Time
Repeat the sampling and testing			Weeks 1-4
LabOratory analysis			Weeks 4-6
Undertake investigation work to identify trends	s, statistical variati	ons and outlier	Weeks 6-8

datasets	
Report to the Environment Agency on the appraisal of risks	Weeks 8-10
If the groundwater quality is acceptable to re-evaluate the assessment criteria	Week 12
If the groundwater quality is unacceptable implement agreed corrective measure	Week 12

Notes

*Preliminary pending confirmation from additional round of analysis.

A process flow diagram of contingency actions is presented as Appendix E.

Appendix A 10047374-AUK-XX-XX-DR-ZZ-1036-02-FCW_Permit GW_Loc



Appendix B Monitoring Well Borehole Logs

ΔΞ	-	NO		Al 5th	ECON Floor	M	Ţ	el: 0113 391	6800		Bore	ehole	No. A-B	H18	
				2 C Lee LS	City Walk eds 11 9AR		H W	ax: 0113 39 /ww.aecom.	1 6899 com	AGS REGISTERED USER 202	2 Sheet: 1	of 14			
Equipment &	Methods:	d Tools		I	Project N	Name: Foundry	Central Ex	ploratory Gr	ound Invest	igation				Job No:	:
0.20 - 22.50 S	onic Drilling I	Hammer ID: (GS0002)			Project L Client: b	ocation: Redca	r, North Yo Deray Inves	orkshire stments Limi	ted and bn	Exploration	Operating Comp	anv l imite	d	6070)1533
22.00 - 40.00 1	otary Drilling	Hammer ID. (G30002)			Co-ordin	ates:			Ground	Level (m):			Date Started: 3	1/07/2023	
				1	E: 45580 N: 52550)2.102)5.716					6.877 AOD		Date Completed	1: 07/08/20)23
Depth (m)	Situ Test Sample Ref &	Test Type	Coring TCR SCR	g Infori Fl	mation Core Run		DES	SCRIPTION				Reduced Level (m)	Legend	Depth (Thick) (m)	Backfill/ Instrumen
0.00- 0.16 - -	TB		RQD			MADE GROU low cobble co subangular to medium (MADE GRC From 0.20m	JND: Da ontent. C o rounde DUND) to 3.00r	rk brown obbles are d fine to c m bal: No	slightly sa e subang coarse of s	andy grave ular of sla slag. Sand due to sus	elly SILT with g. Gravel is d is fine to			-	
0.35 	2 ES 3 ES 4 D	PID = 0.9ppm PID = 0.9ppm			,	wash out of r	naterial.	U						(0.76) 	<u> </u>
- 0.80- 1.50	5 B					MADE GROI subrounded f content. Cob NB: Sulphuro (MADE GRO	JND: Lig fine to co bles are bus odou DUND)	ht grey sli barse GRA subangula r present	ightly san AVEL with ar of slag.	dy silty su nedium Sand is f	ibangular to cobble îne to coarse	6.12		0.76 - -	
- 1.10 - 1.20- 1.30	6 ES 7 D	PID = 0.6ppm				From 1.10m	bgl: Cok	oble conte	nt becom	es low.				-	
- 1.50- 1.90 - 1.60 - 1.70- 1.80	8 B 9 D	SPT(C) N=28 3,7/ 8,8,6,6 PID = 0.8ppm				From 1.50m	to 1.95r	n bgl: Bec	comes rec	ldish brow	vn.			- - - (1 07)	
-2.00- 2.40	10 B 11 ES	PID = 0.8ppm			,	At 1.70m bg From 1.95m white specks	l: Suban to 2.46r	gular cobb n bgl: Bec	ble of slag) present. nt grey wit	th abundant			- - -	
- 2.20- 2.30	12 D 13 B					At 2.26m bg	I: Suban	gular cobb	ble of slaç) present.				- - -	
2.75- 3.00	14 B					MADE GROU	JND: Re	ddish bro	wn sandy	silty suba	angular to	4.15		- 2.73	
2.90	15 ES	PID = 0.8ppm				rounded fine sandstone wi slag. Sand is (MADE GRC	to coarse ith low co fine to c DUND)	e GRAVE obble cont oarse	L of slag, ent. Cobl	mudston bles are si	e and ubangular of	3.88		- (0.27) - <u>3.00</u>	
Strike Flow	Remarks	5	Hole (mn	סופ Dia Dia 1) ס. Pit	Depth o Hole (m	of Date)) 01-08-2023 01-08-2023	09:30 10:00	Hole Depth (m) 0.00 0.20	Casing Depth (m) 0.00 0.00	Water Depth (m)	1. Sonic/Rotary Core Works Redcar, North 2. Buried Service Ins; 0.20m bgl. Permissio 3. SO/RC borehole a coring to 40.00m bgl. 4. Topography: Level 5. Groundwater not e d rilling water. 6. Slag encountered i 5.33m bgl. Sulphurou 7. 35nm diameter sta	(SO/RC) bor yorkshire. bection pit attr n granted to p dvanced via S Ground. ncountered d n material rec s odour noted andpipe instal	INS ehole located within the F empted using Insulated H progress borehole via Sor Sonic drilling to 22.50m bg uring drilling. Water strike sovered from ground level I from 0.76m to 2.73m bg led to 4.00m bgl and 50m	oundry Area and Tools, ter ic drilling. I and complet s masked due to 3.00m bgl I and 3.28m t m diameter s	of Teesside minated at ed via Rotary e to the addition and 3.28m to o 5.33m bgl. standpipe
Notes: For ex	planation	of symbols and a	bbrevia	ations,	, see Key	y Sheet.	Scale:1:1	5	Logged B	/: ES	Checked By: E	gi upon compl	AGS Statu	s: DRAF	Г

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22.50 - 40.00 RC	ary Dhinig	Hammer ID. (GS0002,	,	Co-or	dinates:	auve Energy in		Ground	Level (m):			Date Started: 3	1/07/2023	
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ln :	Situ Test Sample	ing	Coring TCR I	Informatio	n	Г	DESCRIPTION	•			Reduced Level	Legend	Depth (Thick)	Backfill/ Instrument
(m)	Ref & Type	Test Type and Result	SCR RQD	FI Rur	1						(11)		(m)	
3.00-3.25 3.05 -	16 B 17 ES	SP1(C) N=49 6,12/ 11,12,14,12 PID = 0.6ppm			MADE SAND lenses. mudsto (MADE	GROUND: L with frequen Gravel is sume and sand GROUND)	Light brown It shell fragn ubrounded to dstone	gravelly s nents and p rounded	silty fine to d occasiona d fine to co	coarse al clay arse of	3.60		(0.28) - 3.28	
- 3.30	18 ES				MADE silty Cl	GROUND: S	Soft reddish	brown gr	avelly sligh	ntly sandy ow cobble				
- 3.40- 4.00	19 B				content	. Cobbles ar	re subangula	ar of slag	. Gravel is	subangular			-	
-3.50	20 ES	PID = 0.4ppm			Sand is NB: Sul (MADE)	ine to coar phurous od GROUND	our noted	siay san					-	
4.00- 4.50	21 D												- _ (1.22)	
- 4.20- 4.30	23 D												-	
4.45 -4.50- 5.30	24 ES 25 B	PID = 0.4ppm SPT(C) N>50 7,12 / 50 for 62mm			At 4.45	5m bgl: Suba GROUND: I to subround	angular cobl Dark greyish ded fine to c	ble of slaç brown s coarse GF	g present. lightly sand RAVEL of s	dy silty slag and	2.38		- 4.50 -	
- - - - - - - - - - - - - - - - - - -					mudsto of slag. NB: Sul (MADE From 4	ne with med Sand is fine Iphurous od GROUND)	dium cobble e to medium our noted 36m bal: Bea	content.	Cobbles ar	e subangul	ar		- - (0.83)	
- 5.10	26 ES	PID = 0.6ppm			is round	ded coarse o	of mudstone	and pos	sible limest	one.			-	
- 5.20- 5.30	27 D				From 5	5.22m to 5.3 1.	33m bgl: Beo	comes sa	ndy. Sand	is fine to	1.55		- 5.33	
- 5.40- 6.00 5.50	28 B 29 ES	PID = 0.6ppm			Very de fragmer NB: Org (TIDAL	ense light bro nts and blac ganic odour FLAT DEP	own fine to o k specks of noted POSITS)	coarse SA possible	AND with fi organic ma	requent she atter	1		-	
- 5.80 - 5.90- 6.00	30 ES 31 D	PID = 0.5ppm			From 5 From 5 with occ	5.56m to 5.6 5.67m to 6.0 casional blad	07m bgl: Bar 00m bgl: Bec ck specks of	nd of shel comes ligi f possible	ll fragment: ht yellowisl organic m	s present. n brown latter.			-	
Water	Strikes	I	Hc	le Diamet	er	Pro	gress				Remai	rks		
Strike Flow Depth	Remarks	5	Hole (mm)	Dia Dept Hole	h of Date (m)	Time	Hole Depth (m)	Casing Depth (m)	Water) Depth (m)	1. Sonic/Rotary C Works Redcar, Nk 2. Buried Service 0.20m bgl. Permis 3. SO/RC borehol 4. Topography: Le 5. Groundwater n 6. Slag encounter 5.33m bgl. Sulphu 7. 35nm diameter installed to 19.00m	ore (SO/RC) bor rth Yorkshire. Inspection pit atti- sion granted to p e advanced via S gl. vel Ground. t encountered d ad in material rec rous odour noted standpipe instal n bgl upon compl	ehole located within the F empted using Insulated H progress borehole via Sor ionic drilling to 22.50m bg uring drilling. Water strike covered from ground leve I from 0.76m to 2.73m bg led to 4.00m bgl and 50n etion.	oundry Area o land Tools, terr nic drilling. Il and complete smasked due to 3.00m bgl a land 3.28m to nm diameter st	of Teesside minated at ed via Rotary to the addition and 3.28m to 5.33m bgl. andpipe
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	6.00	33 SS	12,13 / 38,12 for 22mm				From 6.00m longer noted.	bgl: Sand become	es fine to medium	n. Odou	ur no		· · · · · · · · · · · · · · · · · · ·	-	
-	-													-	
+	-6.50- 6.60	34 D					From 6.44m	to 6.49m bgl: Ban	d of shell fragme	ents pro	esent.			-	
	- 6.60- 7.00 -	35 B											· · · · · · · · · · · · · · · · · · ·	-	
2024	- 6.80		PID = 0.6ppm											-	
February	- - 7.00- 7.50	36 B											· · · · · · · · · · · · · · · · · · ·	_	
Date: 23	7.00- 7.10	37 D											· · · · · · · · · · · · · · · · · · ·	-	
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	7.50- 7.80 7.50	38 B 39 SS	SPT(S) N>50 6.19 for 73mm /											-	
FOUNDR	- 7.60	40 ES	26,24 for 22mm PID = 0.1ppm				From 7.50m is subangular mudstone.	to 7.88m bgl: Bec to rounded fine to	omes slightly gra medium of sand	velly. (Istone	Gravel and		· · · · · · · · · · · · · · · · · · ·	-	
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Report IL:	Notes: For	explanation	of symbols and a	bbrevia	ations,	see Ke	y Sheet.	Scale:1:15	Logged By: ES	Che	ed to 19.00m bo	gl upon comple	tion.	IS: DRAFT	

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	Ctrile-	Water	Strikes	·		lole Di	iameter	of Data	Progress		Cosine	W/stor	1. Sonic/	Rotary Core	Remark (SO/RC) bore	ks hole locat	ed within the F	oundry Area of	Teesside
REHC	Depth	FIOW	Remarks	5	(mn	i) 1)	Hole (r	n)		iole lepth (m)	Depth (m)	Depth (m)	Works R 2. Buried	edcar, North	Yorkshire. Dection pit atter	mpted usi	ng Insulated Ha	and Tools, tern	inated at
													3. SO/R	C borehole a 40.00m bgl.	dvanced via Sc	onic drilling	g to 22.50m bg	I and complete	d via Rotary
DAR													4. 10pog 5. Groun of drilling	µapny: Level Idwater not e I water.	Ground. Incountered du	iring drilling	g. Water strike	s masked due	o the addition
STAN													6. Slag e 5.33m b 7. 35mm	encountered i gl. Sulphurou i diameter sta	n material reco s odour noted f andpipe installe	overed from from 0.76 ad to 4.00	m ground level m to 2.73m bg m bgl and 50m	to 3.00m bgl a I and 3.28m to m diameter sta	nd 3.28m to 5.33m bgl. ndpipe
il													installed	to 19.00m b	gl upon comple	etion.			
Rep	Notes:	For exp	lanation	of symbols and a	bbrevia	ations,	, see Ke	ey Sheet.	Scale:1:15		Logged B	y: ES	Check	ed By: E	W		AGS Statu	s: DRAFT	

	ΛΞ		'n	4	A 5th		N	т	el· 0113 391	1 6800			Bore	ehole	No. A-B	H18	
					2 C Lee	City Walk eds 11 9AR	ζ.	F	ax: 0113 39 ww.aecom.	1 6899 .com	AGS REGISTERED USER 2012	12	Sheet: 5	5 of 14			
	Equipment & M	lethods:				Project N	Name: Foundry	Central Ex	ploratory Gr	round Inves	stigation					Job No:	
	0.00 - 0.20 Ins 0.20 - 22.50 Sc	ulated Han nic Drilling	d Tools Hammer ID: (GS0002)			Project L	ocation: Redca	r, North Yo	orkshire			~				60701	533
	22.50 - 40.00 Ro	tary Drilling	Hammer ID: (GS0002)			Client: t	op Alternative En nates:	ergy Inves	tments Limi	Ited and bp	Exploration	Opera	ating Compa	any Limited	Date Started: 3	1/07/2023	
						E: 45580)2.102			-	()	6.877	7 AOD		Date Completed	1: 07/08/202	23
	In	Situ Test	ting	Corin	g Infor	mation	55.7 10							Reduced		Depth (Thick)	Backfill/
	Depth (m)	Sample Ref &	Test Type	TCR SCR	FI	Core Run		DES	SCRIPTION					(m)	Legend	(m)	instrument
	12.00- 13.50	1ype 52 B	SPT(S) N>50 3,6	RQD											· · · · · · · · · ·		
	-	55 55	61mm												· · · · · · · ·	-	
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	- 12.60	54 ES	PID = 0.1ppm												· · · · · · · · · ·	-	
		-													· · · · · · · · · · · · · ·		
	- 12.75- 12.85	55 D													· · · · · · · · ·		
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lary 2	-														· · · · · · · · · · · · · · · · · · ·	(15.24)	
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II Da															· · · · · · · ·		
3.GLB	-														•••••	-	
22023	_														· · · · · · · · · · · · · · · · · · ·	-	
H 081	-														· · · · · · · · · · · · · · · · · · ·	-	
SOUT	—13.50- 15.00	56 B	SPT(S) N>50 3.7												· · · · · · · · ·		
DRY S	13.50	57 SS	/ 12,20,18 for 67mm												· · · · · · · · · · ·		
NNO-	_														· · · · · · · · ·		
ARY F	_														· · · · · · · · · ·	-	
LIBR	_														· · · · · · · · · · · · · · · · · · ·	-	
$4_{-0}4$	-														· · · · · · · · · · · · · · · · · · ·	-	
AGS	_														· · · · · · · · · ·		
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ry: AE	-														· · · · · · · · · · · ·		
Libra	- 14 25- 14 35	58 D					From 14 17r	n to 14 5	54m bal· F	Becomes	aravelly (Grave	lis		· · · · · · · · ·	-	
GPJ	-	002					subangular to	o subrour	nded fine	of mudst	tone with f	freque	ent shell		· · · · · · · · ·	-	
NL GI.	-						nagmente pr	000111.							· · · · · · · · · · · · · · · · · · ·	-	
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5.4 FC	_														· · · · · · · ·	-	0000
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HOLE	Water Strike Flow	Strikes Remark	s	Hol	-lole D e Dia	iameter Depth c	of Date	Progre Time	ess Hole	Casing	Water	1. Soni	c/Rotary Core	Remark (SO/RC) bore	<s hole located within the F</s 	oundry Area of	Teesside
OREF	Depth			(mr	n)	Hole (m	1) 01-08-2023	17:00	Depth (m) 15.00	Depth (m) 15.00) Depth (m) 3.23	2. Burie 0.20m	ed Service Insp bgl. Permission	n granted to pr	mpted using Insulated H ogress borehole via Sor	and Tools, term nic drilling.	inated at
ARD C							02-08-2023	08:00	15.00	15.00	4.63	coring t 4. Topo	to 40.00m bgl. ography: Level	Ground.	ring drilling. Water etrike	s masked due	to the addition
AND												of drillir 6. Slag	ng water. encountered i bal. Sulphurou	n material reco	overed from ground level	to 3.00m bgl a	nd 3.28m to 5.33m bol
D: S1												7. 35m installe	m diameter sta d to 19.00m bç	andpipe installe gl upon comple	ed to 4.00m bgl and 50m tion.	m diameter sta	ndpipe
seport.	Notes: For ev	lanation	of symbols and a	bbrevi	atione	. see Ke	v Sheet	Scale:1:1	5	Logged B	By: ES	Chec	ked By: E	W	AGS Statu	IS: DRAFT	
r			and and a			, 555116	,			1		1					

					2 C	Floor Sity Walk eds		Tel: 0113 39 Fax: 0113 39 www.aecom	1 6800 1 6899 .com	Shoo				
(Equipment & N 0.00 - 0.20 Ins	lethods: ulated Han	d Tools		LS	11 9AR Project N Project L	lame: Foundry	Central Exploratory G	registered user: round Investigation	N2 Shee	t: 6 of 14		Job No: 6070 ⁻	1533
2	0.20 - 22.50 So 22.50 - 40.00 Ro	nic Drilling I tary Drilling	Hammer ID: (GS0002) Hammer ID: (GS0002)			Client: b	p Alternative En	ergy Investments Lim	ited and bp Exploration	n Operating Co	ompany Limited	i		
						Co-ordina	ates:		Ground Level (m):			Date Started: 3	1/07/2023	
						E: 45580. N: 52550	2.102 15.716			6.877 AO	D	Date Completed	d: 07/08/202	23
-	In S Depth	Situ Test Sample Ref &	ing Test Type	Coring TCR SCR	g Infor Fl	mation Core		DESCRIPTION	I		Reduced Level (m)	Legend	Depth (Thick) (m)	Backfill/ Instrument
	15.00-16.50 15.00	<u>Type</u> 59 B 60 SS	and Result SPT(S)N=49 4,8/ 9,11,14,15	RQD									-	
3 February 2024	- 15.75- 15.85	61 D				f	From 15.91r	n to 16.24m bgl: I	Becomes slightly g	ravelly with	e		- - -	
4 0 4 LIBRARY FOUNDRY SOUTH 08122023.GLB Date: 2:	-16.50- 18.00 16.50	62 B 63 SS	SPT(S) N>50 4,6 / 10,10,16,14 for 60mm			å	From 16.24r	n bgl: Occasional	shells present.				-	
roject: V5.4 FOUNDRY CENTRAL GI.GPJ Library: AECOM AGS of the content of the c	17.25- 17.35	64 D 65 ES	PID = 0.1ppm			i i	From 17.15r coarse sand v is subangular possible sand	n to 17.39m bgl: I with abundant she to subrounded fi Istone.	Becomes slightly g ells and shell fragn ne to medium of m	ravelly nents. Grave udstone an	31 d		-	
												· · · · · · · · · · ·	-	
Ц Ш	Water	Strikes			lole D	iameter		Progress			Remar	ks		
Eport ID: STANDAKU CUKEHUL	Strike Flow Depth	Remarks	s	Hole (mn	e Dia n)	Depth of Hole (m	f Date)	Time Hole Depth (m)	Casing Water Depth (m) Depth (m	1. Sonic/Rotary Works Redcar, 2. Buried Servic 0.20m bgl. Perm 3. SO/RC boref coring to 40.00r 4. Topography: 5. Groundwater of drilling water. 6. Slag encount 5.33m bgl. Sulp 7. 35mm diamet installed to 19.0 Checked By	Core (SO/RC) bore worth Yorkshire. e Inspection piratte ilssion granted to p ole advanced via Si to gl. Level Ground. not encountered du ered in material recc unous odour noted er standpipe instalil Om bgl upon comple E EW	hole located within the 1 mpted using Insulated H roogress borehole via So onic drilling. Use 22.50m by rring drilling. Water strikk overed from ground leve from 0.76m to 2.73m by ad to 4.00m bgl and 50m tion. AGS Statu	Foundry Area o land Tools, term nic drilling. I and complete es masked due I to 3.00m bgl a gl and 3.28m to nm diameter sta IS: DRAFT	Teesside ninated at d via Rotary to the addition and 3.28m to 5.33m bgl. andpipe

	4	C	ON		5th F 2 Cit Leeo	Floor ty Walk ds	Λ	Tel: 01 ⁻ Fax: 01 www.ae	13 391 13 391 ecom.c	6800 6899 om	AGS	B She	oreh	ole	No. A-E	3H18	
Eq 0.00 0.20 22.50	uipment & N - 0.20 Ins - 22.50 Sc 0- 40.00 Rc	Aethods: ulated Hand nic Drilling I tary Drilling	d Tools Hammer ID: (GS0002) Hammer ID: (GS0002)		P P C	roject N roject L client: b	lame: Foundry ocation: Redca p Alternative Er	Central Explorati r, North Yorkshir nergy Investment	ory Gro re ts Limite	und Investi ed and bp E	gation Exploration	Operating (Company	Limited		Job No: 6070	1533
					C E	o-ordina : 45580	ates: 2.102			Ground L	.evel (m):	6.877 A	OD		Date Started:	31/07/2023	22
	In :	Situ Test ISample	ing	Coring	N Inform	l: 52550 nation	5.716	DESCRIF	PTION				Re	educed Level	Leaend	Depth (Thick)	Backfill/ Instrument
18	(m) .00- 19.50	Ref & Type 66 B	Test Type and Result SPT(S) N=32	SCR RQD	FI	Run			-					(m)	·····	(m)	0000
- 18	3.00	67 SS	3,3/ 4,6,10,12				From 18.00	n bgl: Becom	ies dei	nse.							
-						c T	From 18.16r carbonaceou no longer pre	n bgl: With fr s material and esent.	equen d occa	t black s _l sional sh	becks of lell fragm	possible ients. Odo	our			 	
1 08122023.GLB Date: 23 February 2024 1 1 1 8 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9	8.75- 18.85	68 D												· · · · · · · · · · · · · · · · · · ·			
0_4 LIBRARY FOUNDRY SOUTH 	9. 50 9.80- 20.50	69 SS 70 B	SPT(S) N=27 1,1/ 3,5,8,11			t	From 19.50ı to poor samp	n to 20.50m l le retention w	bgl: Co vithin t	ore run re he core b	educed to arrel.	o 1.00m d	lue	- - - - - - - - - - - - - -		· - - - - - - - - - -	
11111111111111111111111111111111111111	0.00- 20.10	71 D												· · · · · · · · · · · · · · · · · · ·		 - - - - - - - - - - - - - - - - - -	
Project: V5.4 FOUNDRY CEN	0.80	72 ES	PID = 0.1ppm			t :: : !	From 20.50r to poor samp Soft locally fi subangular to limestone an (GLACIAL T	m to 21.00m l le retention w rm reddish br o subrounded d mudstone ILL)	bgl: Co vithin t rown g I fine to	ore run re he core b ravelly C o mediun	educed to parrel. LAY. Gra	o 0.50m d avel is Istone,	lue	13.69		20.57	
-06														F			
tilD: STANDARD COREHOLE L D C C C C C C C C C C C C C C C C C C C	Water ke Flow pth	Strikes Remarks	5	H Hole (mm	ole Dia Dia [) H	ameter Depth o Hole (m	f Date	Progress Time Hole Dept	e (th (m)	Casing Depth (m)	Water Depth (m)	1. Sonic/Rota Works Redca 2. Buried Sen 0.20m bgl. Pe 3. SO/RC bor coring to 40.0 4. Topograph 5. Groundwat of drilling wate 6. Slag encou 5.33m bgl. Su 7. 35mm dian installed to 19	ry Core (SO r, North Yorl vice Inspecti rehole advan 0m bgl. y: Level Gro er not encou er. intered in ma alphurous odo neter standpi 0.00m bgl up	Remarks /RC) boreh kshire. on pit attern inted to pro ced via Sor und. intered duri iterial recov our noted fr ipe installect on completi	S sloel located within the opted using Insulated gress borehole via S inc drilling to 22.50m I ang drilling. Water stril ang drilling. Water stril vered from ground lev orm 0.76m to 2.73m to 4 to 4.00m bgl and 50 ion.	Foundry Area o Hand Tools, terr onic drilling. ggl and complete tes masked due el to 3.00m bgl a ggl and 3.28m to mm diameter sta	l'Teesside ninated at d via Rotary to the addition and 3.28m to 5.33m bgl. andpipe
No Repor	tes: For exp	lanation	of symbols and a	bbrevia	ations, s	see Key	/ Sheet.	Scale:1:15		Logged By	ES	Checked E	By: EW		AGS Stat	us: DRAFT	

	ΛΞ	1		A	A 5th	ECOI Floor	Μ	Т	el: 0113 391	6800		B	oreho	ble	No. A-B	H18	
					2 C Lee	ity Wall eds	k	F	ax: 0113 39 ww.aecom.	1 6899 com	AGS REGISTERED USER 202	Sh	eet: 8 of	14			
ł	Equipment & N	/lethods:				Project I	Name: Foundry	Central Ex	ploratory Gr	ound Inves	tigation					Job No:	
	0.00 - 0.20 Ins 0.20 - 22.50 Sc	sulated Hand	d Tools Hammer ID: (GS0002)			Project I	Location: Redca	r, North Yo	orkshire							6070	1533
	22.50 - 40.00 Ro	otary Drilling	Hammer ID: (GS0002)			Client: I	bp Alternative En	ergy Inves	tments Limi	ted and bp	Exploration	Operating	Company Li	imited			
						Co-ordii E: 4558	nates: 02.102			Ground	Level (m):	6 877 <i>4</i>	10D		Date Started: 3	1/07/2023	
			-			N: 5255	05.716					0.011 /			Date Completed	1: 07/08/20	23
	In	Situ Test ISample	ing	Corin	g Infor	mation		DES	SCRIPTION				Red	uced vel	Leaend	Depth (Thick)	Backfill/ Instrument
	(m)	Ref &	Test Type and Result	SCR	FI	Run							(1	n)	5	(m)	
Ī	21.00- 21.50 21.00	73 B 74 SS	SPT(S) N=29 0.2/												<u> </u>	(0.99)	
			2,3,9,15													-	
	- 21.20-21.30 75 D - 21.60-22.00 76 B - 21.60-22.00 76 B - 22.00-22.50 77 B - 22.00-22.50 77 B														_		
	uppm Firm Teddish brown slightly gravelly CLAY with occasional possible carbonaceous material and medium cobble content. Cobbes ar subrounded fine to coarse of mudstone and sandstone (GLACIAL TILL) -14.68 -21.00 - 22.50 77 B Firm 22.08 to 22.50 m to 22.50 m to 22.50 m to 12.50 m to 11 minoralisation present. -14.68 -22.45 78 ES PID = 0.1ppm From 22.08 m to 22.50 m to 22.50 m to 12.50 m to 12.5																
ł	Tupe and Result ROD Two 21.00 74 SS 0.21 2.39,15 74 SS 0.21 2.39,15 74 SS 0.21 75 D 74 SS 75 D 74 SS 75 D 74 SS														-		
21.20-21.30 75 D - - <tr< td=""><td>- </td><td></td></tr<>														-			
- 21.60-22.00 76 B Firm reddish brown slightly gravelly CLAY with occasional possible carbonaceous material and medium cobble content. Cobbles are subangular to subrounded of mudstone and possible limestone. Gravel is angular to subrounded fine to coarse of mudstone and sandstone (GLACIAL TILL)																	
- 21.60-22.00 76 B Firm reddish brown slightly gravelly CLAY with occasional possible carbonaceous material and medium cobble content. Cobbles are subangular to subrounded of mudstone and possible limestone. Gravel is angular to subrounded fine to coarse of mudstone and sandstone (GLACIAL TILL)														21 56			
21:00 73 B SPT(S) N-29 74 SS 0.27 21:00 74 SS 0.27 2.39,15 75 D - 21:20-21:30 75 D 76 B														- 1.00			
Depth Prof & Type 2100 21:50 Sample met & Type 2100 21:50 Test Type mode TCR RQD TCR RQD Core Run DESCRIPTION Core mode Legend Legend 21:00 21:50 748 S 0.2/ 2.3.9.15 0.2/ 2.3.9.15 2.3.9.15 -																	
21.00 73/B SPT(S)N-29 76 - 21.20-21.30 75 D -2.3,9,15																	
- 21.20-21.30 75 D - 21.60-22.00 76 B - 22.00-22.50 77 B - 22.00-22.50 77 B - 22.45 78 ES PID = 0.1ppm - CLAY - 22.45 78 ES PID = 0.1ppm - CLAY - 22.40 - 78 ES PID = 0.1ppm - CLAY - 22.50 78 ES PID = 0.1ppm - From 22.20m bgl: Bands of weak bluish grey mudstone present. - 70 - 70 - 70 - 70 - 70 - 70 - 70 - 70														-			
21.20-21.30 75 D - 21.20-21.30 75 D - 21.60-22.00 76 B - 21.60-22.00 77 B - 22.00-22.50 77 B - 22.00-22.50 77 B - 22.00-22.50 77 B - 22.41m to 22.50m bgl: Bands of weak bluish grey mudstone present with white mineralisation present. - 70 - 70 - 70 - 70 - 70 - 70 - 70 - 70																	
21.60-22.00 76 B 21.60-22.00 76 B Firm reddish brown slightly gravelly CLAY with occasional possible carbonaceous material and medium cobble content. Cobbles are subangular to subrounded of mudstone and possible limestone. Gravel is angular to subrounded fine to coarse of mudstone and sandstone (GLACIAL TILL) 22.00-22.50 77 B 22.00-22.50 77 B 22.00-22.50 77 B CLAY 22.50-22.50 78 ES PID = 0.1ppm CLAY 22.50-cost CLAY 22.50-22.50 78 ES PID = 0.1ppm From 22.41m to 22.50m bgl: Bands of extremely weak bluish grey mudstone present. Medium strong thinly laminated reddish brown mottled grey MIUSDNE -15.68																	
- 21.60-22.00 76 B - 21.60-22.00 Firm reddish brown slightly gravelly CLAY with occasional possible carbonaceous material and medium cobble content. Cobbles are subangular to subrounded of mudstone and possible limestone. Gravel is angular to subrounded fine to coarse of mudstone and sandstone (GLACIAL TILL) From 22.08m to 22.50m bgl: Bands of weak bluish grey mudstone present with white mineralisation present.																	
Cobbles are subangular to subrounded of mudstone and possible limestone. Gravel is angular to subrounded fine to coarse of mudstone and sandstone (GLACIAL TILL)														(1.00)			
21.60-22.00 76 B - 21.60-22.00 77 B - 22.00-22.50 77 B - 22.45 78 ES PID = 0.1ppm																	
21.60-22.00 76 B Firm reddish brown slightly gravelly CLAY with occasional possible carbonaceous material and medium cobble content. Cobbles are subangular to subrounded of mudstone and possible imestone. Gravel is angular to subrounded fine to coarse of mudstone and sandstone (GLACIAL TILL) 14.68														-			
023.0	22.00-22.50 77 B 22.00-22.50 77 B From 22.08m to 22.50m bgl: Bands of weak bluish grey mudstone present with white mineralisation present.																
3122(
Ξ															<u> </u>	-	
50	22.45 -	78 ES	PID = 0.1ppm				From 22.41r	n to 22.5	50m bgl: E	Bands of	extremely	weak blu	lish				
RY S					CLAY	22.50- 24.00	grey mudstor	ne preser	nt.				-15	5.68	<u> </u>	22.56	
s							MUDSTONE	ng thinly Fractur	laminateo e set 1: S	l reddish	brown mo al verv clos	ottled grey selv space	/ ed			-	
잂					3		undulating ro	ugh mod	lerately w	ide and ir	filled with	white				-	
RAR	22.76- 22.86	79 C					degrees extre	n (possib emelv clo	le gypsun selv spac	n). ⊢ractu ed undula	ure set 2: 3 atina stepi	30 to 45 bed					
4 LB							moderately w	ide infille	ed with wh	nite miner	ralization (possible				-	
					NI		gypsum). Fra	icture sei uah. ope	n and infi	closely sp lled with	clav	degrees,				-	
GS 4	22.95		PID = 0.3ppm				(MERCIA ML	JĎSŤÓN	E GROUI	P)	,						
M	-						From 22.86r	n to 22.9	8m bgl: Z	Zone of n	on-intact p	possibly					
AEC							drilling induce	ed. Reco	vered as a	angular to	o subangu	lar fine to	o			-	
ary: ,					16		meulum grav	ei oi mu(มอเปทย.								
Libr				100 66			From 22.98r	n to 23.3	85m bgl: E	Becomes	weak bluis	sh grey.					
I LAS				51												-	
9.6					NI		_			_							
TRAL	00 40 00 00						From 23.35r	n to 23.4	0m bgl: Z	Cone of n	on-intact p	oossibly	-				
UEN.	_23.48-23.60	90 C			0		medium grav	el of muc	dstone.	angulai li	sabanyu					F	
JRY							From 23 48r	n bal· Be	comes ev	dremelv «	strona Fra	acture se	t 3				
INI					NII.		no longer pre	sent.		a onlory (
4 F	23.70-24.00	81 C					From 23 67	n to 22 7	'0m hal· 7	one of p	on-intact r	nesihlv					
:t: V5							drilling induce	ed. Reco	vered as	angular to	o subangu	lar fine to	c				
rojec					0		medium grav	el of muo	dstone.								
1	•						From 23.70r	n bgl: Be	comes w	eak.							
ĬĽ	Water	Strikes			l Iole Di	iameter		Progra	ISS				P	emar	(S		
PLE	Strike Flow	Remarks	6	Hol	e Dia	Depth o	of Date	Time	Hole	Casing	Water	1. Sonic/Rota Works Redca	ary Core (SO/R ar, North Yorksh	C) bore	 hole located within the F	oundry Area o	f Teesside
ORE				(mr 178	11) 5	110le (n 22.50	02-08-2023	14:30	Deptn (m)	Deptn (m)	4.71	2. Buried Ser 0.20m bgl. P	rvice Inspection ermission grante	pit atter ed to pr	mpted using Insulated H ogress borehole via Sor	and Tools, terr	minated at
С С							03-08-2023	08:00	22.50	22.50	7.26	o. SU/RC bo coring to 40.0 4. Topograph	nenole advance 00m bgl. ny: Level Ground	u via Sc d.	and anning to 22.50m bg	n anu complete	eu via reotary
IDAF												5. Groundwa of drilling wat	ter not encounte	ered du	ring drilling. Water strike	es masked due	to the addition
STAP												5.33m bgl. Si 7.35mm diar	untered in mater ulphurous odour meter standnine	noted f	werea from ground level from 0.76m to 2.73m bg d to 4.00m bal and 50m	io 3.00m bgl a I and 3.28m to im diameter st	and 3.28m to 5.33m bgl. andpipe
ä												installed to 19	9.00m bgl upon	comple	tion.		
Repo	Notes: For exp	lanation	of symbols and a	bbrevi	ations	, see Ke	ey Sheet.	Scale:1:1	5	Logged B	y: ES	Checked	By: EW		AGS Statu	IS: DRAFT	·

ΔΞ	1	MO		A 5th	ECO Floor	M	Ţe	el: 0113 391	6800			Bore	ehole	No. A-B	SH18	
				2 (Le LS	City Wal eds 511 9AR	k	Fa	ax: 0113 39 ww.aecom.	1 6899 com	AGS REGISTERED USER 2022	2	Sheet: 9	of 14			
Equipment & I	Methods:	d Tools			Project	Name: Foundry C	entral Exp	ploratory Gr	ound Invest	igation					Job No:	
0.20 - 22.50 Sc	onic Drilling	Hammer ID: (GS0002)			Project	Location: Redcar,	North Yo	rkshire tmonte Limi	tod and hn	Evoloration	Oporat	ting Comp	any Limitor	4	60701	533
22.50 - 40.00 R	stary Dhiling	Hammer ID: (GS0002))		Co-ordi	nates:	igy invest		Ground	Level (m):	Operat			Date Started: 3	1/07/2023	
					E: 4558 N: 5255	02.102 05.716					6.877	AOD		Date Complete	d: 07/08/202	3
ln	Situ Tes ISample	ting	Corin	g Info	rmation		DES	CRIPTION					Reduced Level	Legend	Depth (Thick)	Backfill/ Instrumen
(m)	Ref & Type	Test Type and Result	SCR RQD	FI	Run		220						(m)		(m)	
24.00		SPT(C) N>100 8,17 for 52mm /		NI	24.00- 25.50	From 24 00m	to 24.1	2m hal· 7	one of no	on-intact d	lue to	SPT				
24.13-24.29	82 C	100 for 53mm			-	(C) test disturt	bance. F	Recovered	d as slight	ly clayey a	angula	ar to				
-										Encotione.					(3.38)	
_ 24.29- 24.56	83 C					2 become und mineralisation	lulating : (possib	smooth a le gypsun	nd infilled n).	with white	esetii	and				
-						At 24.22m bg	l: Fractu	ure set 1	vein beco	mes mode	erately	y wide				
-	04.0			0		and infilled wit	h white	mineralis	ation (pos	ssible gyps	sum).					
24.30- 24.84	84 C															
-			100													
_			73 55			At 24.71m bg	l: Fractu	ure set 2 v	vein beco	mes mode	erately	y wide				
						and infilled wit	h white	mineralis	ation (pos	ssible gyps	sum).					
				NI	1	From 24.01m	to 25.0	13m hal: 7	iono of n	n intact n	occib	da z				
_				0	-	drilling induced	d. Recov	vered as a	angular to	subangul	lar fin	ie to				
-				NI		medium grave	I of muc	usione.								
-				0		From 25.10m drilling induced	to 25.1 d. Recov	4m bgl: Z vered as a	Zone of no angular to	on-intact p subangul	oossib Iar fin	ly ie to				
-						medium grave	l of muc	dstone.	-	-						
-				NI	-	From 25.32m	to 25.3	6m bgl: Z	Zone of no	on-intact p	ossib	ly				
_				21		drilling induced medium grave	d. Recov l of muc	vered as a dstone.	angular to	subangul	lar fin	ie to				
					25.50- 27.00	From 25.36m	to 25.5	i0m bal: E	Becomes	medium st	trona.	_				
-				24		Fracture set 3	present	t with clea	an infill.							
_ 25.69- 25.85	85 C				-											
_				0												
-													-19.06		25.94	
_				NI]	Extremely wea	ak thinly Fracture	laminate	d reddish 5 to 20 de	brown mo	ottled	grey selv				
-						spaced undula	ating rou	igh open i spaced pl	infilled wit	th clay. Fr	acture	e set 5:				
]	(MERCIA MUI	DSTON	E GROUI	απαί sinc P)	ourparty	open	Clean				
			100 85			From 25.94m	to 26.1	1m bgl: Z	Zone of no	on-intact p	ossib	ly due				
-			39			subangular to	subrour	nded fine	to mediur	n gravel o	of muc	dstone.			1	
_						From 26.11m	ı bgl: Ve	ins of wh	ite minera	alization no	o long	ger				
–						present.			. .						╞╴│	
- 26.59- 26.85	86 C			24		⊢rom 26.29m inconsistent w	to 26.3 hite min	i4m bgl: F neralised i	racture s	et 4 show	'S					
-						From 26.59m	ı bgl: Be	comes w	eak.							
_																
-															[
Wate	Strikes	1	 	l Hole D)iameter		Progre	SS		14/	1 Sonia	Botary Coro	Remar	ks	T	Teesside
Strike Flow Depth	Remark	s	Hol (mr	e Dia n)	Depth Hole (r	ot Date 1 n)	lime	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Works F 2. Buried	Redcar, North d Service Insp ogl. Permission	Yorkshire.	empted using Insulated H	and Tools, term	inated at
											3. SO/R coring to	c borehole ac 0 40.00m bgl.	i granied to p Ivanced via S Ground	onic drilling to 22.50m b	gl and completed	l via Rotary
											5. Grour	g water not er g water. encountered in	ncountered du	uring drilling. Water strike	es masked due t	o the addition
											5.33m b 7.35mm	n diameter sta to 19.00m bo	odour noted ndpipe install	from 0.76m to 2.73m by ed to 4.00m bgl and 50r etion.	gl and 3.28m to 8 nm diameter star	5.33m bgl. ndpipe
							2001014-11		Logger - P	. F9	Charl	kod Dre – E'	. , somple			
Notes: For ext	lanation	of symbols and a	abbrevi	ations	s. see Ke	ev Sheet.	scale:1:15	נ	Logged By	/. L'O		ven RA: Fi	vv	AGS Stati	us. UKAFI	

	Δ	=(O		A 5th	ECO	M	Te	el: 0113 391	6800			Bor	ehole	No. A-B	H18	
					Le	eds 11 9AR	n.	w	ww.aecom.o	com	REGISTERED USER 2022	2	Sheet:	10 of 14			
	Equipment	& Methods:				Project	Name: Foundry	Central Exp	oloratory Gr	ound Inves	tigation					Job No:	
0. 0.	.00 - 0.20 .20 - 22.50	Insulated Hand Sonic Drilling F	1 Tools Hammer ID: (GS0002)			Project	Location: Redca	r, North Yo	rkshire							60701	533
2	2.50 - 40.00	Rotary Drilling	Hammer ID: (GS0002)			Client:	bp Alternative Er	ergy Invest	tments Limit	ted and bp	Exploration	Opera	ating Com	pany Limited	ł		
						Co-ordi E: 4558	nates: 02.102			Ground	Level (m):	6.87	7 AOD		Date Started: 3	1/07/2023	
			-			N: 5255	05.716							1	Date Completed	: 07/08/202	23
		In Situ Test	ing	Corin	g Infor	mation		DES						Reduced Level	Legend	Depth (Thick)	Backfill/ Instrument
	Depth (m)	Ref &	Test Type	SCR	FI	Core Run		DEC						(m)	Legend	(m)	
	27.00	Туре	SPT(C) N>100	RQD	NI	27.00-											
-			9,16 for 52mm / 29,37,34 for			28.50	From 27.00r	n to 27.1	5m bgl: Z	one of n	on-intact d	lue to	o SPT			_	
			25mm				(C) test distu subangular fi	rbance. F ne to me	dium arav	as sligh el of mu	tly clayey a dstone.	angu	ilar to				
-							C	n hada En	4	4						-	
-							extremely clo	n bgi: Fra selv spac	acture set ced.	4 Decorr	ies very ci	osei	y to			-	
					39			5									
F																-	
-	•															-	
							At 27.49m b	gl: Fractu	ure set 4 k	becomes	locally une	dulat	ting			_	
	27.65		PID = 0.3ppm		NI		stepped.										
╞				100	<u> </u>		From 27.57r	n to 27.7	1m bgl: Z	one of no	on-intact p	ossi	bly due			-	
_				0	10		angular to su	and fract	fine to m	edium gr	as slightly avel of mu	idsto	ey ne.			-	
2024					43					-							
ruary					NI											-	
Feb							From 27.92r	n to 27.9	5m bgl: Z	one of n	on-intact p	ossi	bly due			-	
e: 23							to weakness angular to su	and fract bangular	uring. Re fine to m	covered a edium ar	as slightly avel of mu	clay idstc	ey me				
Dat					30		unganan to ou	Jangana								-	
-B																-	
023.																_	
8122																	
E E							From 28.32r	n to 28.3 ed Recov	6m bgl: Z vered as s	one of no	on-intact p avev angu	lossi Iar to	bly D			-	
sou					NI		subangular fi	ne to me	dium grav	el of mu	dstone.					_	
DRY						30.00											
																-	
2					25											-	
IBRA																_	
4						1											
84							From 28.82r	n to 29.3 and fract	9m bgl: Z urina Re	one of no covered a	on-intact p as slightly	ossi clav	bly due ev			-	
I AG	29.00		PID = 0.5ppm				angular to su	bangular	fine to m	edium gr	avel of mu	idstc	one.			_	
CON																	
Y: AE																	
lbrar				94												-	
				43 0													
31.6F																	
SAL C						1										-	
Ë-					60											_	
₹ CI																	
ġ					NI		From 00 50	n to 00 0	0	one of	n inte -t	'	امر الم				
<u>ě</u>							to weakness	and fract	uring. Re	covered	as slightly	ossi clay	uy aue ey			-	
V5.4					57		angular to su	bangular	fine to m	edium gr	avel of mu	idstc	ne.				
oject:							From 29.63r	n to 29.9	1m bgl: F	racture s	et 4 and 5	i bec	ome				
Ч- Ш-							clean of infill.									-	
				L	NR			_						<u> </u>			
a le	Watrike Fl	ater Strikes ow Remarks	3	Hol	⊣ole D e Dia	Depth	of Date	Progre Time	ss Hole	Casing	Water	1. Son	ic/Rotary Cor	Remar e (SO/RC) bore b Vorkebire	KS whole located within the Fe	oundry Area of	Teesside
	Depth			(mr	n)	Hole (r	n)		Depth (m)	Depth (m)	Depth (m)	2. Bur 0.20m	ied Service In bgl. Permissi	spection pit atte on granted to p	empted using Insulated Ha rogress borehole via Son	and Tools, term ic drilling.	inated at
ŭ												3. SO coring	RC borehole	advanced via Ś I. el Ground	onic drilling to 22.50m bg	I and completed	d via Rotary
NDAF												5. Gro	undwater not	encountered du	ring drilling. Water strike	s masked due t	to the addition
STAI												 5.33m 7.35n 	bgl. Sulphuro m diameter s	us odour noted tandpipe install	from 0.76m to 2.73m bgl ed to 4.00m bgl and 50m	and 3.28m to 1 m diameter sta	nd 3.2011 to 5.33m bgl. ndpipe
Ë												installe	ed to 19.00m I	ogl upon comple	etion.		
Zepc	Notes: For	explanation	of symbols and a	abbrevi	ations	, see Ke	ey Sheet.	Scale:1:15	5	Logged B	y: ES	Che	cked By: I	EW	AGS Statu	s: DRAFT	

	Л			A	A	ECO	м	т	ol: 0113 301	6800		Bor	ehole	No. A-B	H18	
				4	2 C	City Wal	k	F	ax: 0113 39 ww.aecom.	1 6899 com	AGS	Sheet:	11 of 14			
E	Equipment &	& Methods:				Project	Name: Foundry	Central Ex	ploratory Gr	ound Invest	tigation				Job No:	
0.0 0.2	00 - 0.20 20 - 22.50	Insulated Hand Sonic Drilling H	d Tools Hammer ID: (GS0002)			Project	Location: Redca	r, North Yo	orkshire						60701	1533
22	2.50 - 40.00	Rotary Drilling	Hammer ID: (GS0002)			Client:	bp Alternative Er	ergy Inves	tments Limi	ted and bp	Exploration	Operating Com	pany Limited	d Data Startadi 2	1/07/2022	
						E: 4558	02.102			Ground	Level (III).	6.877 AOD		Date Started. 5	1/07/2023 1: 07/08/202	23
-		n Situ Test	ing	Coring	g Infor	N: 5255 mation	05.716						Reduced		Depth	Backfill/
	Depth (m)	Sample Ref & Type	Test Type and Result	TCR SCR ROD	FI	Core Run		DES	SCRIPTION				(m)	Legend	(Thick) (m)	Instrument
-	30.00	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	SPT(C) N>100 18,7 for 12mm / 22,18,30,30 for		NI	30.00- 31.50	From 29.91 wash out of r	n to 30.0 naterial.)0m bgl: N	lo recove	ry due to :	suspected			-	
-			521111		67		From 30.00 drilling induce	n to 30.2 ed. Reco	2m bgl: Z vered as a	one of no	on-intact p subangu	ossibly lar fine to				
-					07		medium grav	el or mu	ustone.						-	
- :	30.40		PID = 0.5ppm		NI		From 30.28 to weakness light grey slig	n to 30.5 and frac htly claye	52m bgl: Z turing. Be ey angula	one of no comes lig to subar	on-intact p ht grey. F ngular fine	ossibly due lecovered as to medium				
-					36		gravel of mu	dstone.							-	
					NI	-										
				100 39 0	25		From 30.66r to weakness	n to 30.7 and frac	'1m bgl: Z turing. Re	one of no	on-intact p as slightly	ossibly due clayey				
y 2024							angular to su	bangular	fine to m	edium gra	avel of mu	idstone.				
ebruar					NI		From 30.83 to weakness	n to 31.0 and frac)4m bgl: Z turing. Re	covered a	on-intact p as slightly	ossibly due clayey				
te: 23 F						-	angular to su	Dangulai	nne to m	ealann gi		iusione.				
B Da					39											
23.GL																
181220																
					NI		From 31.34 to weakness	n to 31.5 and frac	60m bgl: Z turing. Re	one of no	on-intact p as slightly	ossibly due clayey				
DRY S					NR	31.50- 33.00	Erom 31 50	bangular	fine to m	edium gra	avel of mu	idstone.				
FOUN						-	wash out of r	naterial.	n in byi. r	io recove	iy due to s	suspected				
BRARY							From 31.67	n to 32.1 and frac	7m bgl: Z	one of no	on-intact p as slightly	ossibly due clavev				
0_4 LI							angular to su	bangular	fine to m	edium gr	avel of mu	idstone.				
AGS 4	0.00				NI											
	32.00		PID = 0.2ppm													
ary: AE																
				89 34	75		From 32.19	n bal: Fr	acture set	4 becom	ies extrem	ely closelv				
31.GPJ					NI		spaced.	5				, ,				
TRAL (From 32.25 to weakness	n to 32.4 and frac	2m bgl: Z turing. Re	one of no covered a	on-intact p as slightly	ossibly due clayey			(13.06)	
Y CEN					46		Erom 22.33	bangular mbal: Ba	fine to m	edium gra	avel of mu	idstone.				
UNDR							52.331	n byl. Be	Sources IIC	nır grey.						
5.4 FC					NI		Energy 0.0 70	- t. co -								
oject: V					75		to weakness	and frac	turing. Re	covered a	as slightly	clayey udstone				
l Pr					NI 38		From 32.87	n to 32.9)2m bal: 7	Cone of no	on-intact r	ossibly due				
	Wa	ter Strikes			lole D	iameter		Progre	ess			1.0	Remar	ks		Transit
REHO D	trike Flo epth	w Remarks	3	Hole (mn	e Dia 1)	Depth Hole (r	of Date n)	Time	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Sonic/Rotary Con Works Redcar, Nort 2. Buried Service Ins 0.20m bol Permission	e (SU/RC) bore h Yorkshire. spection pit atte	enole located within the F empted using Insulated H	ounary Area of land Tools, tern	i eesside
D CO							03-08-2023 04-08-2023	17:00 08:00	33.00 33.00	33.00 33.00	3.62 7.86	3. SO/RC borehole coring to 40.00m bg 4. Topography: Leve	advanced via S l. el Ground.	onic drilling to 22.50m bg	and complete	d via Rotary
ANDA												 Groundwater not of drilling water. Slag encountered 5.33m bol. Subburg 	encountered du	uring drilling. Water strike	es masked due	to the addition nd 3.28m to 5.33m bcl
tID: S1												7. 35mm diameter s installed to 19.00m l	tandpipe install	ed to 4.00m bgl and 50n etion.	nm diameter sta	indpipe
Repor	l Notes: For e	explanation	of symbols and a	bbrevia	ations	, see Ke	y Sheet.	Scale:1:1	5	Logged B	/: ES	Checked By:	EW	AGS Statu	is: DRAFT	

		1	M	A	A 5th	ECO	М	Te	el: 0113 391	6800			Bore	ehole	No. A-B	H18	
					2 (Le	City Wall eds 11 9AR	ĸ	Fa W	ax: 0113 39 ww.aecom.	1 6899 com	AGS REGISTERED USER 202	2	Sheet: 1	2 of 14			
Equip	ment & N	lethods:				Project	Name: Foundry	Central Ex	ploratory Gr	ound Invest	igation					Job No:	
0.00 - 0	0.20 Ins 22.50 So	ulated Han nic Drilling I	t Tools Hammer ID: (GS0002)			Project	Location: Redca	r, North Yo	rkshire							60701	533
22.50 - 4	10.00 Ro	tary Drilling	Hammer ID: (GS0002)			Client:	op Alternative Er	ergy Inves	tments Limi	ted and bp	Exploration	Opera	ating Compa	any Limited	Date Started: 3	1/07/2023	
						E: 4558	02.102			Cround		6.87	7 AOD		Date Completed	1: 07/08/202	3
	In S	Situ Test	ing	Corine	g Info	m: 5255	05.716							Reduced		Depth	Backfill/
Dep (m	th	Sample Ref &	Test Type	TCR SCR	FI	Core Run		DES	SCRIPTION					(m)	Legend	(Thick) (m)	Instrument
33.00	,	Туре	and Result SPT(C) N>100	RQD	ND	33.00-	to weakness	and fract	turing. Re	covered a	as slightly	claye	ey				
-			for 52mm		NR	34.50	angular to su	bangular	fine to m	edium gra	avel of mu	udsto	ne.			-	
33.15			PID = 0.6ppm		NI		From 33.00r	n to 33.1	1m bgl: N	lo recove	ry due to s	susp	ected				
					24				1			:	L I				
Γ					24		drilling induce	n to 33.2 ed. Reco	vered as a	angular to	subangu	lar fi	ne to				
-					NI 0		medium grav	el of muo	dstone.							-	
-					NI		At 33.29m b clean.	gl: Fractu	ure set 4 l	pecomes	undulating	g ste	pped			-	
-							From 33 38r	n to 33 4	3m bal· 7	one of no	on-intact r	nossil	blv due			-	
					61		to weakness	and fract	turing. Re	covered a	as slightly	claye	ey				
				90 62						eulum gra			ліе. 				
33.82	33.92	87 D		Ū	NI	-	to weakness	and fract	turing. Re	covered a	as slightly	claye	biy due ey				
						-	angular to su	bangular	fine to m	edium gra	avel of mu	udsto	ne.			-	
-							From 33.51r with clay and	n to 33.8 fine grav	2m bgl: F /el of muc	racture s stone. Fi	et 4 becor acture se	mes et 5 b	infilled ecomes			-	
-					36		clean of infill.	Ū								-	
1 = 1							At 33.74m b	gl: Fractu	ure set 5 o	extremely	close her	re.					
					NI		From 33.82r	n to 33.9	2m bgl: Z	one of no	on-intact p	ossil	bly due				
					29		to subangula	r fine to r	nedium g	ravel of n	nudstone.	аусу	angulai				
					NR		From 34.20r	n to 34.2	4m bgl: Z	one of no	on-intact p	ossil	bly due			-	
-					13	34.50-	to weakness angular to su	and fract	fine to m	covered a edium gra	as slightly avel of mu	claye udsto	ey ne.			-	
-						36.00	From 34.38r	n to 34.4	2m bgl: N	lo recove	ry due to :	susp	ected			-	
					NR		wash out of r	naterial.								-	
						-	From 34.50r wash out of r	n to 34.7 naterial.	'7m bgl: N	lo recove	ry due to :	susp	ected				
					NI		From 34 77r	n to 34 9	12m hal· 7	one of no	on-intact r	nossil	blv				
- 							drilling induce	ed. Reco	vered as a	angular to	subangu	lar fi	ne to			-	
-					23		medium grav		1310110.							-	
-					NI	-	From 35 05r	n to 35 1	1m bal· 7	one of no	on-intact r	nossil	blv due			-	
-				82	44	-	to weakness	and fract	turing. Re	covered a	as slightly	claye	ey			-	
 -				33 0	NI	$\left \right $	From 25 00-	r to 25°	6m hal 7				hly duc				
					53		to weakness	and fract	turing. Re	covered a	as slightly	claye	ey ey				
					NI	1			inne to m	eurum gra	avei oi mu	10510	n IC.				
-					50		⊢rom 35.26r	n to 35.4	im bgl: E	ecomes '	very weak	. .					
- 35.60			PID = 0.9ppm		NI		From 35.41r to weakness	n to 35.4 and fract	/m bgl: Z turing. Re	one of no	on-intact p as slightly	oossil claye	bly due ey				
-					36		angular to su	bangular	fine to m	edium gra	avel of mu	udsto	ne.				
-					NI		From 35.53r to weakness	n to 35.6 and fract	3m bgl: Z turing. Re	one of no covered a	on-intact p as slightlv	oossil clave	bly due ey				
					48		angular to su	bangular	fine to m	edium gra	avel of mu	udsto	ne.				
=							From 35.77r	n to 35.7	'9m bgl: Z	one of no	on-intact p	oossil claw	bly due ev				
Ctril -	Water	Strikes	·)iameter	of Deta	Progre	SS	Casing	Motor	1. Son	ic/Rotary Core	Remar	ks ehole located within the F	oundry Area of	Teesside
Depth	FIOW	Remarks	•	(mn	ם (ו וט וט	Hole (r	n)		Depth (m)	Depth (m)	Depth (m)	Works 2. Buri 0.20m	Redcar, North ied Service Insp bgl. Permission	Yorkshire. ection pit attention granted to p	empted using Insulated H rogress borehole via Sor	and Tools, term	inated at
												3. SO/ coring 4. Top	RČ borehole ac to 40.00m bgl. ography: Level	tvanced via S Ground.	onic drilling to 22.50m bg	I and completed	d via Rotary
												5. Gro of drilli 6. Slac	undwater not er ing water. g encountered ir	ncountered du	ring drilling. Water strike overed from ground level	es masked due t to 3.00m bgl ar	o the addition nd 3.28m to
												5.33m 7.35m installe	bgl. Sulphurous nm diameter sta ed to 19.00m bg	odour noted Indpipe installe I upon comple	from 0.76m to 2.73m bg ed to 4.00m bgl and 50m etion.	I and 3.28m to and the state of	5.33m bgl. ndpipe
				<u> </u>				Scale:1:15	5	Logged By	/: ES	Cher	cked Bv: F	N	AGS State	IS' DRAFT	

	ΔΞ		O		A 5th	ECOI	M ,	Te	el: 0113 391	6800			Bore	ehole	No. /	A-BH	18	
				-	Lee	eds 11 9AR	Υ.	W	ww.aecom.	com	AGD REGISTERED USER 202	2	Sheet: 1	3 of 14				
	Equipment & I	Methods:				Project I	Name: Foundry	Central Ex	ploratory Gr	ound Invest	igation					J	ob No:	
	0.00 - 0.20 In 0.20 - 22.50 S	sulated Han onic Drilling	d Tools Hammer ID: (GS0002)			Project l	ocation: Redca	r, North Yo	rkshire								60701	533
	22.50 - 40.00 R	otary Drilling	Hammer ID: (GS0002)			Client: I	op Alternative En	ergy Inves	tments Limi	ted and bp	Exploration	Opera	ating Compa	any Limited	d Data Otar	t	2/0000	
						Co-orair E: 45580	12.102			Ground	Level (m):	6.87	7 AOD		Date Star	ned: 31/07	7/2023	2
	In	Situ Test	ina	Corin	a Infor	N: 5255	05.716							Reduced	Date Con			Backfill/
	Depth	Sample		TCR		Core		DES	SCRIPTION					Level (m)	Lege	nd (T	hick)	Instrument
	(m)	Ref & Type	and Result	SCR RQD	FI	Run								()			(11)	
	36.00		SPT(C) N>100 25 for 35mm /			36.00- 37.50	angular to su	bangular	fine to m	edium gra	avel of mu	udsto	ne.					
	_		100 for 62mm		NI		From 35.79r closely space	m to 36.0 ed.	0m bgl: F	racture s	et 5 beco	mes	very					
	_				57		From 35.93r	n to 36.0	0m bgl: F	racture s	et 4 beco	mes						
	_				75		Erom 36 00r	sely space m to 36 2	ced. 1m bal· 7	one of no	on-intact r	oossil	blv					
	-36.50		PID = 2.9ppm			-	drilling induce medium grav	ed. Reco el of muc	vered as a dstone.	angular to	subangu	lar fi	ne to			_		
	_				73		From 36.21r	n to 36.4	8m bgl: E	Becomes	very weak	ζ.						
	-			97		-	From 36.28r wash out of r	n to 36.3 naterial.	2m bgl: N	lo recove	ry due to :	susp	ected					
124	_			56 0	NI		From 36.32r	n to 36.6 selv spa	i9m bgl: F	racture s	ets 4 and fill	5 be	come					
ary 20	-						Erom 26 49r	n to 26 5	4m hal: 7	one of n	n intoot r	oooil	bly duo					
ebru	_						to weakness	and fract	turing. Re	covered a	as slightly	claye	ey					
: 23 F					45		angular to su	bangular	fine to m	edium gra	avel of mu	udsto	ne.					
Date	_						From 36.69r	n to 36.9	3m bgl: Z	one of no	on-intact p	ossil	bly due					
GLB	-				NI		angular to su	bangular	fine to m	edium gra	avel of mu	udsto	ey ne.					
122023.0	_				47		From 36.75r spaced.	n bgl: Fra	acture set	4 becom	es extrem	nely c	closely					
30 HTUC	_				NI		From 36.75r	n to 36.8 vith grey	2m bgl: E mudstone	Becomes v e.	weak and					-		
JDRY S (37.55		PID = 2.8ppm			37.50- 39.00	From 36.93r	n to 36.9	97m bgl: E	ecomes '	very weak	ζ.						
FOUN					40		From 36.97r	n bgl: Be	comes ex	tremely v	veak.							
ARY	-						From 37.15r	n to 37.2	1m bgl: Z	one of no	on-intact p	oossil	bly due					
4 LIBR	-	000					to weakness angular to su	and fract bangular	turing. Re fine to m	covered a edium gra	as slightly avel of mu	claye udsto	ey ine.					
5S 4_0	_				52		From 37.31r	n bgl: Be	comes ve	ery weak.								
MA	_						From 37.40r	n to 37.5	7m bgl: Z	one of no	on-intact p	ossil	bly due			-		
AECO	-				NI		angular to su	bangular	fine to m	edium gra	avel of mu	udsto	ey ne.					
brary:	-			100	43		From 37.46r	n bgl: Be	comes ex	tremely	weak.					<u> </u>		
3PJ L	_			68 0	NI		From 37.57r	n to 37.6	7m bgl: E	Becomes I	moderatel	ly stro	ong					
5	_						Occasional v	eins pres	ent. Vein	s are sub	horizontal	clos	ely					
ITRA							mineralization	iating sm 1 (possib	lootn mod le gypsun	erately w 1). Fractu	re set 4 b		n white nes					
С Ш	_				66		planar smoot	h partly o	open clear	n of infill.								
A A A	-						From 37.67r	n to 37.7	'1m bgl: Z	one of no	on-intact p	ossil	bly due					
DO DO	_						angular to su	bangular	fine to m	edium gra	avel of mu	udsto	ne.					
V5.4					22		From 37.71r	n to 38.0	94m bgl: E	Becomes	moderatel	ly stro	ong					
oject:							light bluish gr	rey interb	edded wit	th dark bl	uish grey horizontal	mude	stone. elv					
Å.	_						spaced undul	lating sm	ooth mod	erately w	ide infilled	d with	white					
Ľ	10/010	r Strikee		Ļ.,		iametor	mineralization	Progra		i). Fractu	re set 4 b	econ	lies	-32.12 Remot	ks	3	9.00	
ЧСЕ	Strike Flow	Remark	6	Hol	e Dia	Depth o	of Date	Time	Hole	Casing	Water	1. Soni Works	ic/Rotary Core Redcar, North	(SO/RC) bore Yorkshire.	whole located with	thin the Found	Iry Area of	Teesside
<u>Ö</u> RE	Depth			(mr	11)	Hole (n	04-08-2023	12:00	Deptn (m) 39.00	Deptn (m) 39.00	Deptn (m) 4.22	2. Buri 0.20m 3. SO/	ed Service Insp bgl. Permission RC borehole of	ection pit atte granted to pi dvanced via Se	empted using Ins rogress borehol onic drilling to 21	sulated Hand T le via Sonic dri 2.50m bol and	l'ools, termi illing. I completed	nated at via Rotarv
2020							07-08-2023	10:00	39.00	39.00	6.60	coring 4. Top	to 40.00m bgl. ography: Level	Ground.	ring drillin- 14	tor otrike	ekod du- '	the addition
ANDA												of drillin 6. Slag	ng water. encountered i	n material reco	overed from gro	und level to 3.	.00m bgl an	d 3.28m to
D: ST,												5.33m 7.35m installe	bgi. Sulphurous im diameter sta ed to 19.00m bg	s odour noted andpipe installe al upon comple	rom 0.76m to 2 ed to 4.00m bgl etion.	∠.73m bgl and and 50mm dia	3.28m to 5 ameter star	o.oom ogl. ndpipe
port			.					Scale:1:14	5	I onned By	/ / ES	Cher	ked Bv: F	W		S Statue:	DRAFT	
ď,	Notes: For ex	planation	or symbols and a	iverda	ations	, see Ke	y Sneet.		-	3954 0				•				

	ΔΞ		ON		5th	ECOI Floor	M ,	Te	el: 0113 391	6800			Bore	hole	No.	A-B	H18		
					Lee	eds 11 9AR		W	ww.aecom.	com	REGISTERED USER 2022	2	Sheet: 1	4 of 14					
	Equipment &	Methods				Project N	Name: Foundry	Central Exp	ploratory Gr	ound Invest	igation						Job No:		
	0.20 - 22.50	onic Drilling	Hammer ID: (GS0002)			Project L	Location: Redca	r, North Yo	orkshire	•	F	0					60701	533	
	22.50 - 40.00 F	totary Drilling	g Hammer ID: (GS0002)			Client: t	op Alternative Er	ergy inves	tments Limi	Ground	Exploration	Operat	ting Compa	any Limited	Date	Started: 3	1/07/2023		
						E: 45580	02.102			_	()	6.877	AOD		Date	Completed	I: 07/08/202	23	
	lr	Situ Tes	ting	Corin	g Infor	mation	00.710							Reduced			Depth		Backfill/
	Depth (m)	Sample Ref &	Test Type	TCR SCR	FI	Core Run		DES	SCRIPTION					(m)	L	egend	(m)	"	strument
	39.00	Туре	SPT(C) N>100	RQD		39.00-	planar smoo	th partly	open clea	n of infill.									
	_		55,45 for 18mm			40.00	From 38.04	m to 38	' 12m bal· 2	7one of n	on-intact r	nossił	blv				-		
	- 39 20- 39 30	89 D					drilling induc	ed. Reco	vered as	angular t	o subangu	ular fir	ne to						
	00.20 00.00				NI		medium grav	el or mu	astone.										
	-						From 38.09 and reddish	m to 38.2 brown m	26m bgl: I ottled gre	Becomes y interbed	moderate Ided with (ely stro arev	ong				-		
	_						mudstone.		0		·						-		
	-39.50		PID = 0.5ppm	100 62			From 38.26	m to 38.3	38m bgl: 2	Zone of n	on-intact p	possik	bly				_(1.00)		
				0			subangular f	ine to me	edium gra	vel of mu	ayey angu dstone.	Jiar to)						
							From 38.38	m bgl: Be	ecomes v	ery weak	reddish br	rown.							
	-				70		Fracture set clean of infill	4 becom	les extrem	nely to ve	ry closely	space	ed and				-		
24	_ 39.79- 39.85	90 C					From 38.88	m to 30 (0m bal: 5	Zone of n	on-intact (noesik	bly due				-		
ary 20.	-				NI		to weakness	and frac	turing. Re	ecovered	as angula	r to	biy due				-		
ebrua					56		Subangular f	ine to me veak thin	edium gra Iv laminat	vel of mu ed light b	dstone. Iuish arev	mottl	led red	-33.12			_40.00		
: 23 F							MUDSTONE	E with rar	e veins in	filled with	white mir	neraliz	zation.						
Date							smooth oper	nooth open clean. Fracture set 7: Subhorizontal very closely aced planar smooth open clean IERCIA MUDSTONE GROUP)											
GLB							spaced plana (MERCIA M	paced planar smooth open clean MERCIA MUDSTONE GROUP)											
2023.							From 39.00	MERCIA MUDSTONE GROUP) From 39.00m to 39.36m bgl: Zone of non-intact due to SPT											
JTH 0812							(C) test distu subangular f	From 39.00m to 39.36m bgl: Zone of non-intact due to SPT C) test disturbance. Recovered as slightly clayey angular to ubangular fine to medium gravel of mudstone.											
Y SOL							From 39.00	m to 39.6	61m bgl: I	Becomes	extremely	/ weał	k.						
OUNDR							From 39.38 to weakness	m to 39.5 and frac	58m bgl: 2 sturing. Re	Zone of n ecovered	on-intact µ as slightly	possił / clave	bly due ev						
RARY F							angular to su	ubangula	r fine to m	nedium gi	avel of m	udsto	ne.						
0_4 LIB							open and inf	illed with	white mir	neralizatio	on (possib	le gyp	osum).						
M AGS 4							At 39.81m k moderately v gypsum).	ogl: Fract vide and	ure set or infilled wi	ne becom th white r	es planar nineralizat	smoc tion (p	oth possible						
ary: AECC							At 39.84m topen and inf	ogl: Fract illed with	ure set or white mir	ne becom neralizatio	es planar on (possib	smoc le gyp	oth osum).						
PJ Libra							From 39.85 drilling induc	m to 39.9 ed. Reco	90m bgl: 2 overed as	Zone of n angular t	on-intact µ o subangu	possit ular fir	bly ne to						
- GI.G								m to 40 (031011C.	Zona ef -	on intert	noo-!!	bly						
ENTRA							drilling induc medium grav	ed. Reco /el of mu	overed as dstone.	angular t	o subangu	ular fir	ne to						
DRY C																			
								End (Th	l of Bore	hole 40.0	0 m aver								
V5.4 F								(''	not pr	oven)	.,								
oject:																			
E Prc																			
E LOG	Wate	r Strikes			 Hole D	iameter		Proare	SS					Remarl	ks				
EHOL	Strike Flow	/ Remark	s	Hol (mr	e Dia n)	Depth of Hole (m	of Date	Time	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	1. Sonic Works F	Rotary Core Redcar, North	(SO/RC) bore Yorkshire.	ehole locate	ed within the F	oundry Area of	Tees	side
COR				146	;	40.00	07-08-2023	16:15	40.00	40.00	/	0.20m b 3. SO/R	control in the second s	granted to pr dvanced via So	rogress bo onic drilling	rehole via Sor to 22.50m bg	ic drilling.	d via F	Rotary
DARD												4. Topo 5. Ground of drilling	graphy: Level ndwater not er	Ground. ncountered du	ıring drilling	. Water strike	s masked due t	o the	addition
STAN												6. Slag 5.33m b	encountered in ogl. Sulphurous	n material reco odour noted	overed from from 0.76r	n ground level n to 2.73m bg	to 3.00m bgl ar I and 3.28m to s	nd 3.2 5.33m	8m to 1 bgl.
r ID: 5												installed	to 19.00m bg	ו upon comple ו upon comple	etion.	n byr and oum	in diameter sta	nahibe	~
Repo	Notes: For ex	planatior	n of symbols and a	bbrevi	ations	, see Ke	y Sheet.	Scale:1:15	5	Logged B	/: ES	Check	ked By: E\	N		AGS Statu	s: DRAFT		

	Λ	=/		A	AEC 5th Floo	DM		Te	el: 0113 391	6800			Bore	hole	No. A-B	H35		
ļ					2 City W Leeds LS11 94	alk R		Fa	ax: 0113 391 ww.aecom.o	6899 com	AGS REGISTERED USER 2022	2	Sheet: 1	of 11				
	Equipment	t & Methods:	d Tools		Proje	ct Na	me: Foundry	Central Exp	ploratory Gr	ound Invest	igation					Job No:		
(0.35 - 15.00	Sonic Drilling	(Hammer ID: GS00007) (Hammer ID: GS00007)) ')	Proje	ct Loo t: bp	cation: Redca Alternative En	r, North Yo erav Invest	rkshire tments Limit	ed and bp	Exploration (Operati	ina Compa	anv Limited		6070	1533	
:	30.00 - 30.09	Standard Pene GS00007)	etration Test (Hammer I) D:	Co-oi	dinat	tes: 037	57		Ground	Level (m):	6 907		,	Date Started: 2	1/03/2023		
		In City Teet		Coring	N: 52	5264	.537					0.007	AOD	Deduced	Date Complete	d: 24/03/20	23	e elsfill/
╞	Depth	Sample		TCR	nformatic	e		DES	CRIPTION					Level (m)	Legend	(Thick)	Ins	strument
	(m) 0.00- 0.30	Type	and Result	RQD	''Ru	ן ו או			rk raddiab	brown a		fino	to		×××××××	(,		<u> </u>
-						SI SI SI	DE GROU oarse SANE ubangular fi lag MADE GRO) with occ ne to coa UND)	casional readism	brown g potlets. G estone, i	ravel is ar gneous roo	y fine ngular ck, bri	to to ick and			- (0.35) -		
-	0.30 0.35- 0.80	2 D 3 ES 4 B	PID = 0.3ppm			M	IADE GROL	JND: Bla	ck sandy	angular t	o subangu	ılar fir	ne to	6.46		- 0.35 -		
-	-0.50	5 D 6 ES	PID = 0.3ppm			ca fir (N	obble conter ne to coarse MADE GRO	UND)	es are ano	gular of b	rick and s	lag. S	and is			(0.45)	0 0	0 0
	0.80- 1.50) 7B				M	IADE GROU	JND: Dai	rk grey gra	avelly silt	y fine to co	oarse	SAND	6.01		_ 0.80		
23 repiuary	-1.00	8 D 9 ES	PID = 0.8ppm			G Sl (N	ag WADE GRO	ular to su	ubangular	fine to c	barse of lir	mesto	y. ne and			-		
																- - - (1.13)		
	-1.50 - 1.93	3 10 B	PID = 0.3ppm SPT(C) N=40 7,10/ 12,12,9,7															
	1.93- 3.00 -2.00) 11 B 12 ES	PID = 0.2ppm			M co fr	IADE GROU Darse SAND	JND: Lig with low	ht yellowis v cobble c onal pocke	sh brown ontent, o ets of stif	slightly gr ccasional	avelly shell clay, (fine to	4.88		- 1.93 		
	-2.50	12.D				ar cc (N	re angular o oarse of lime MADE GRO	f slag. G estone ar UND)	ravel ⁱ is ar nd slag	ngular to	sŭbangula	ar fíne	to					
	-2.30	130														-		
	2.10	14 ES	ריש = 0.2ppm															
						F	rom 2.90m	to 3.10n	n bgl: Bec	omes gra	velly. Gra	vel is						
	W Strike F	Vater Strikes	 3	Hol Hole f	e Diame Dia Den	ter th of	Date	Progre Time	ss Hole	Casing	Water	1. Sonic/	Rotary Core	Remark (SO/RC) bore	KS hole located within the l	oundry Area o	f Teessi	de
	Depth			(mm) Insp.I	Hole Pit 0.35	<u>• (m)</u>	21-03-2023	08:30	Depth (m) 0.35	Depth (m)	Depth (m)	Works R 2. Buried bgl. Perm 3. SO/R0 coring to 4. Topog 5. Groun of drilling 6. Slag e evidence 7. 35mm installed	tedcar, North i d Service Insp mission grante C borehole ad 0 30.090m bgl. graphy: Level i dwater not er g water. encountered in e of contamina to 28.00m bg	r orkshire. ection pit attei d to progress vanced via Sc Ground. ncountered dui material recc tion encounter ndpipe installe I upon comple	mpted using Insulated I borehole via Sonic drill onic drilling to 15.00m by ring drilling. Water strike wered from ground leve red. d to 13.00m bgl and 50 tion.	land Tools, refung. Igl and complete s masked due I to 4.50m bgl . mm diameter s	ised at (id via Ro to the a No olfa tandpipo	D.35m otary Iddition ctory e
	Notes: For	r explanation	of symbols and a	bbreviati	ons see	Kev	Sheet	Scale:1:15	5	Logged B	/: BG/NS	Check	ed By: JV	V	AGS State	ıs: DRAFT		

		C	O		A 5th 2 C	ECO Floor City Wal	M Ik	T	el: 0113 391 ax: 0113 39	6800 1 6899	LL AGS		Bore	hole	No	. A-B	H35		
					Lee LS	eds 11 9AR		w	ww.aecom.	com	REGISTERED USER 202	22 9	Sheet: 2	of 11					
Equij 0.00 -	0.35 Ins	lethods:	d Tools			Project	Name: Found	ry Central Ex	ploratory Gr	ound Inves	tigation						Job No:		
0.35 -	15.00 So	nic Drilling (Hammer ID: GS00007)		Project	Location: Red	car, North Yo	orkshire tmonto Limi	tod and hn	Evoloration	Onoratin	a Comp		4		6070	1533	
15.00 - 30.00 -	30.00 Ro 30.09 Sta	itary Drilling andard Pene	(Hammer ID: GS00007 etration Test (Hammer I	') D:		Client:	bp Alternative	Energy inves	tments Limi	Ground	Exploration	Operatir	ng Compa] Date	Started: 2	1/03/2023		
	GS	600007)				E: 4557	67.037			Croand	Lovor (m).	6.807	AOD		Date	Completed	1: 24/03/20	23	
	Ins	Situ Test	ing	Corine	a Infor	N: 5252 mation	264.537							Reduced			Depth	Ba	ackfill/
De	epth	Sample	Test Type	TCR	FI	Core		DES	SCRIPTION					Level (m)	L	_egend	(Thick) (m)	Inst	trument
(1	m) - 3 70	Type 15 B	and Result	RQD		Run										~~~~	()		
3.00	- 0.70	16 ES	SPT(S) N=34				angular to s	subangular	fine to co	parse of li	mestone	and sla	g.		\bigotimes				
- 3.10		18 ES	6,8,9,11												\bigotimes	\times	-		
-			FID – 0.2ppm												\bigotimes	\times	- (2.57)		
-															\bigotimes		-		
															\bigotimes	\times			
-															\bigotimes		-		
-3.50			PID = 0.2ppm												\bigotimes	\times	-		
															\bigotimes		_		
															\bigotimes				
- 3.70	- 4.50	19 B													\bigotimes		-		
5															\bigotimes		-		
															\bigotimes		_		
spruar															\bigotimes				
≝ — 4.00		20 ES	PID = 0.1ppm												\bigotimes		-		
Jate:															\bigotimes		-		
															\bigotimes		_		
3.6L															\bigotimes	\times			
-															\bigotimes		-		
- 4.40		21 D													\bigotimes		-		
	E 62	22 B												2.31	\bigotimes		_ 4.50		
× 4.50	- 0.00	23 SS	SPT(S) N=14				MADE GR	OUND: So	ft black ve	ery sandy	silty CLA	Y with	oroo		\bigotimes				
			3,3,3,5				(MADE GR	ROUND)	organici				aise		\bigotimes		-		
2 - 4.70		24 D													\bigotimes		-		
BKA															\bigotimes				
4															\bigotimes				
0 0															\bigotimes		-		
≝5.00		25 ES	PID = 0.4ppm												\bigotimes		_		
															\bigotimes		(1.13)		
AF Z															\bigotimes				
															\bigotimes		-		
= 2-															\bigotimes		-		
0. 0.															\bigotimes				
μ Γ															\bigotimes				
5.50			PID = 0.4ppm				From 5.42	m bgl: Bec	omes slig	htly sand	y. Sand is	s fine to)		\bigotimes		-		
							coarse.							1 10	\bigotimes				
							Dense dark	k brown fin	e to coars	e SAND	with occa	sional p	ockets	1.18		· · · · · · ·	5.63		
4. 1 -							of organic r	material an	d occasio m gravel	nal shell of coal ar	fragments	s and ra	are		• : • : •	$\begin{array}{c} \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot &$	-		
2							(TIDAL FL	AT DEPOS	SITŠ)						[····		-		
5 90		26 D																	
3							From 5 90	m bal: Rec	omes liat	nt vellowig	sh brown					· · · · · ·			
	Water	Strikes			lole D	iameter		Progre	ISS	,		1 8 /-	Potony C:	Remar	ks	ind with a f	ounde: A:	f Torr	
C Strike	Flow	Remarks	6	Hole (mn	e Dia n)	Depth Hole (r	of Date m)	Time	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	1. Sonic/R Works Re 2. Buried S	dcar, North Service Insp	(SU/RC) bore Yorkshire. ection pit atte	enole locat	ied within the F	oundry Area o	n reessio used at 0	.35m
5												bgl. Permi 3. SO/RC	ssion grante	ed to progress Ivanced via S	s borehole onic drilling	g to 15.00m bg	ng. I and complet	ed via Ro	tary
AKU												4. Topogra 5. Ground	aphy: Level water not er	Ground. ncountered du	uring drillin	g. Water strike	s masked due	to the ac	ddition
IANL												of drilling v 6. Slag en evidence of	water. countered in of contamina	n material rec ation encounte	overed fro ered.	m ground level	to 4.50m bgl	. No olfac	tory
												7. 35mm c installed to	diameter sta 28.00m bg	Indpipe install	ed to 13.0 etion.	0m bgl and 50	mm diameter :	standpipe	
	<u> </u>		af as much a least		-41			Scale:1:1	5	Loaaed B	y: BG/NS	Checke	ed Bv: JV	N		AGS Statu	s: DRAFT	-	
ž Note	s: ⊢or exp	anation	of symbols and a	oprevia	ations	, see Ke	ey Sneet.		-		,								

Class Fax: 0113 301 8899 www.aeom.com Class Sheet: 3 of 11 Equipment & Methods: 035 1500 Project Name: Foundry Central Exploratory Ground Investgation 035 1500 Sheet: 3 of 11 Job No: 60701533 60701533 1300 - 0.35 Invested Dilling (Hermer 10: 650007) 1300-0.000 Project Location: Redcar, North Yorkshire Clent: bp Alternative Energy Investments Limited and bp Exploration Operating Company Limited Det Startes: 21/03/2023 Date Complete: 24/03/2023 000 - 000 Startes Project Location: Redcar, North Yorkshire Co-ordinates: E-455776 1037 Coround Level (m): 6.807 AOD Det Startes: 21/03/2023 Date Complete: 24/03/2023 1 N: 52284.537 Coround Level (m): 6.807 AOD Det Startes: 21/03/2023 Date Complete: 24/03/2023 1 N: 52284.537 Coround Level (m): 8.600 F 840 72 BES Depth Train Result SCR F Correl 0 N: 52284.537 Destrict (Mine Result SCR F Correl Depth Result Level (m): 9.14	
Equipment & Methods: Project Name: Foundry Central Exploratory Ground Investigation Job No: 000 - 0.35 Instantied Harm Tool: 050007) 1500 - 30.00 Reary Offing (Hammer ID: GS0007) Ground Level (m): 30.00 - 30.00 Studeed Perturbation Test (Hammer ID: GS0007) Ground Level (m): 0.00 - 30.00 Studeed Perturbation Test (Hammer ID: GS0007) Dest Started: 21/03/2023 0.00 - 30.00 Studeed Perturbation Test (Hammer ID: GS0007) N: 525264.537 0.00 - 30.00 Studeed Perturbation Test (Hammer ID: GS0007) N: 525264.537 0.00 - 30.00 Studeed Perturbation Test (Hammer ID: GS0007) Dest Complete: 24/03/2023 0.00 - 30.00 Studeed Perturbation Test (Hammer ID: GS0007) Test Type Total Result Total Result 0.00 - 27 B PID = 0.7ppm Config Information Room to 7.04m bgl: Becomes mottled dark grey. Instru 6.00 - 28 ES SPT(S) N=0 SPT(S) N=0 Findeed Room to 7.04m bgl: Becomes mottled dark grey. Instru -6.50 PID = 0.4ppm Instru Instru Instru Instru -6.50 PID = 0.4ppm Instru Instru Instru	
0.35. 15.00 Soric Dalling (Hemmer ID, GS0007) 15.00 Soric Dalling (Hemmer ID, GS0007) 60/01533 0.00 30.00 Studied Peterdino Test (Hemmer ID, GS0007) Client: bp Alternative Energy Investments Limited and bp Exploration Operating Company Limited Date Started: 21/03/2023 0.00 Soric Dalling (Hemmer ID, GS0007) N: 625264.537 Ground Level (m): Date Started: 21/03/2023 1 Depth Sample Test Type Corre DesCRIPTION Reduced Level (m): Date Completed: 24/03/2023 1 Depth Sample Test Type Corre DESCRIPTION Reduced Level (m): Level (m): Level (m): Date Completed: 24/03/2023 6:00 28 ES Test Type Corre DESCRIPTION Reduced Level (m): Level (m): Level (m): Level (m): Level (m): Sample (m) Sam	
30.00 - 30.09 Standard Prestration Test (Hammer ID: GROUND) Co-ordinates: E 455767.037 N: 525264.537 Ground Level (m): 6.807 Date Startes: 21/03/2023 Date Completed: 24/03/2023 In Situ Testing Coring Information Free Coring Information ROD = 0.28 ES Description Reduced Level (m) Depth Legend Test Type ROD = 0.7pm Depth (Thick) Back Instru (m) 6.00 28 ES SPT(S) N=49 1.4/ 9.14,18.8 From 6.00m to 7.04m bgl: Becomes mottled dark grey. Image: Coring Information Level (m) From 6.00m to 7.04m bgl: Becomes mottled dark grey. Image: Coring Information Level (m) Image: Coring Information (m)	
N: 52264.537 Date Complete: 24/03/2023 In Situ Testing Coring Information and Result Description Reduced Legend Depth (m) Depth and Result Depth (m) Depth Legend Depth (m) Back (m) 6.00 - 6.00 27 B SPT(S) N=49 1.4/ 9.14, 18,8 Form 6.00m to 7.04m bgl: Becomes mottled dark grey.	
Instatu result Comp montation Depth sample Sample field Depth sample field Sample field Depth field Sample field Depth	kfill/
6.00 2/B ES SPT(5) N=49 1.4 From 6.00m to 7.04m bgl: Becomes mottled dark grey. -	ment
29 SS 1.4/ 9,14,18,8 9,14,18,8 - - -	
PID = 0.4ppm	
- 6.50 PID = 0.4ppm	
- 6.50 PID = 0.4ppm	
- 6.80-7.50 30 B - 6.80-7.50 31 D - 6.80 31 D	
- 6.80-7.50 30 B - 6.80-31 D - 6.80 31 D	
- 6.80-7.50 30 B - 6.80 31 D 	
+ - 6.80-7.50 30 B 6.80 31 D 	
-7.50-8.20 32 B PID = 0.3ppm	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
≥	
$\mathbf{Z} = 8.50 \qquad PID = 0.2ppm \qquad PID = 0.2$, 0
From 8.53m bgl: Becomes mottled dark grey.) 0) 0
From 8.53m to 9.00m bgl: Slight organic odour noted.) 0) 0
Water Strikes Hole Diameter Progress Remarks Use Flow Remarks Hole Dia Depth of Date Time Hole Casing Water 1. Sonic/Rotary Core (SO/RC) borehole located within the Foundry Area of Teesside	
E Depth Depth (m) Depth (m) <thdepth (m)<="" th=""> Depth (m)</thdepth>	m
3. SO/RC borehole advanced via Sonic drilling to 15.00m bgl and completed via Rotan coring to 30.090m bgl. 4. Topography: Level Ground.	/
5. Groundwater not encountered during drilling. Water strikes masked due to the addit of drilling water. 6. Stag encountered in material recovered from ground level to 4.50m bgl . No olfactor	on y
7. 35mm diameter standpipe installed to 13.00m bgl and 50mm diameter standpipe installed to 28.00m bgl upon completion.	
Votes: For explanation of symbols and abbreviations, see Key Sheet. Scale:1:15 Logged By: BG/NS Checked By: JW AGS Status: DRAFT	

			EC	`O A		A 5th	ECON Floor	И	Te	el: 0113 391	6800 1 6899		Bor	ehole	No. A-B	H35	
						Lee	eds 11 9AR		w	ww.aecom.	com	REGISTERED USER 202	Sheet:	4 of 11			
	Equip	ment 8	Methods:			F	Project N	lame: Foundry	Central Ex	ploratory Gr	ound Invest	tigation				Job No:	
	0.00 - 0.35 -	0.35 15.00	Insulated Han Sonic Drilling	d Tools (Hammer ID: GS00007)	F	Project L	ocation: Redca	ar, North Yo	rkshire						60701	533
	15.00 -	30.00	Rotary Drilling	(Hammer ID: GS0000	7)	(Client: b	p Alternative E	nergy Inves	tments Limi	ted and bp	Exploration	Operating Con	ipany Limited	1		
	30.00 - 3	30.09	Standard Pen GS00007)	etration Test (Hammer I	ID:		Co-ordin E: 45576	ates: 7.037			Ground	Level (m):	6 807 AOD		Date Started: 2	1/03/2023	
					_	1	N: 52526	4.537					0.001 AOD		Date Completed	1: 24/03/202	23
			n Situ Test	ing	Corin	g Infori	mation							Reduced Level	Logond	Depth (Thick)	Backfill/ Instrument
	Dep (m	oth 1)	Ref &	Test Type	SCR	FI	Core Run		DLC					(m)	Legend	`(m) ´	
	9.00		36 SS	SPT(S) N=38	RQD												0 0 0
sct: V5.4 FOUNDRY CENTRAL GI.GPJ Library: AECOM AGS 4_0_4 LIBRARY FOUNDRY SOUTH 08122023.GLB Date: 23 February 2024	- - - - - - - - - - - - - - - - - - -	- 11.20	37 B 38 SS 39 ES 40 B 41 D	1,1/ 3,5,10,20 PID = 0.5ppm SPT(S) N>50 12,12/ 13,15,18,4 for 10mm PID = 0.2ppm PID = 0.4ppm				From 9.00m sample wash From 10.50 From 10.50	m bgl: Be m to 10.6	ecomes lo 57m bgl: E	cally very Band of co	recovery oush to adv	caused by vance casing d present.				
с П	-							1101111.01	11.0 12.0	on by: E		୦ବା ୨୯ ୨୫ମ	u present.				
I LO		Wat	er Strikes			lole Di	iameter		Progre	SS				Remar	<mark> </mark>		
HOLE	Strike	Flo	w Remarks	5	Hol	e Dia	Depth o	f Date	Time	Hole	Casing	Water	1. Sonic/Rotary Co Works Redcar. No	re (SO/RC) bore	hole located within the F	oundry Area of	Teesside
sport ID: STANDARD CORE!	Depth		volonetia	of numbers and	(mn	n)		(Shoot	Scale:1:15	Depth (m)	Logged B	<pre>puepth (m) puepth (m) puepth (m) puepth (m)</pre>	2. Buried Service I bgl. Permission gr: 3. SO/RC borehole coring to 30.090m 4. Topography: Le 5. Groundwater nc of drilling water. 6. Slag encountere evidence of contam 7. 35mm diameter installed to 28.00m Checked By:	nspection pit atte nited to progress advanced via Si bgl. vel Ground. t encountered du d in material reco innation encounte standpipe install bgl upon comple	Instalated H borehole via Sonic drillin onic drilling. Water strike overed from ground level red. ad to 13.00m bgl and 50 tition.	and Tools, refu g. I and complete Is masked due to 4.50m bgl . mm diameter st IS: DRAFT	sed at 0.35m d via Rotary to the addition No olfactory tandpipe
Ľ	110105			5. 57 HOOIS AND C	~~~~~~		, (0)	, 01100L	1		1		1				

Δ		ON	1	AE 5th	Floor	1	Te	el: 0113 391	l 6800		Bore	ehole	No. A-B	H35	
				Lee LS1	ds 1 9AR		W	ww.aecom.	com	AGD REGISTERED USER 202	2 Sheet: 5	5 of 11			
Equipment & 0.00 - 0.35	Methods: nsulated Han	d Tools		F	Project N	ame: Foundry	Central Exp	ploratory Gr	round Invest	igation				Job No:	522
0.35 - 15.00 15.00 - 30.00	Sonic Drilling Rotary Drilling	(Hammer ID: GS00007) (Hammer ID: GS00007))		Client: bp	p Alternative En	ergy Invest	tments Limi	ited and bp	Exploration	Operating Comp	any Limited	ł	00701	1000
30.00 - 30.09	Standard Pen	etration Test (Hammer ID	D:		Co-ordina	ates:	0,		Ground	Level (m):			Date Started: 2	1/03/2023	
					N: 525264	4.537					6.807 AOD		Date Completed	: 24/03/202	23
li Denth	Situ Test		Coring TCR	Inform	Core		DES	SCRIPTION				Level (m)	Legend	Depth (Thick)	Backfill/ Instrument
(m)	Ref & Type	and Result	SCR RQD	FI	Run							()		(11)	
12.00- 12.00	42 D	1,2/				From 12.00n	n bgl: Be	comes lo	cally med	ium dens	e.		· · · · · · · · · · ·		0 0 0
		, - , - , -													0 0 0 0 0 0
-													· · · · · · · · · ·	-	0 0 0 0 0 0
-														-	0 0 0
-														-	0 0 0
-12.50		PID = 0.3ppm											· · · · · · · · · · · · · ·	-	0 0 0
-													· · · · · · · · · · · · · · · · · · ·	-	
_													· · · · · · · · · · ·	_	
10.00 10.50	42.0												· · · · · · · · · · ·		
12.80-13.50	43 B 44 D													-	
													· · · · · · · · · · ·	-	
													· · · · · · · · · · ·	-	
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08122													· · · · · · · · · · · ·		
													· · · · · · · · · ·		
⊼ —13.50- 14.42	45 B	PID = 0.3ppm SPT(S) N>50 2,3 / 7 13 23 7 for											· · · · · · · · ·	-	
		10mm											· · · · · · · · · · · ·	-	
													· · · · · · · · · · · · · · · · · · ·	-	
													· · · · · · · · · · · · · · · · · · ·	-	
4 0 4													· · · · · · · · · · · ·	-	
20 59 −14 00	46 D												· · · · · · · · · · ·	_	
MO 20													· · · · · · · · ·		
						F					de a construction d		· · · · · · · · · · ·	-	
					t	o rounded fir	n bgi: Be ne to coa	rse of mu	avelly. Gl idstone, c	oal, sand	stone and		· · · · · · · · · · ·	-	
ੁ ਤ੍ਰ 14.42- 15.00	47 B							المتلح بامص	4h			-7.61		14.42	
14.50		PID = 0.1ppm			s	sum readish t subrounded t	orown sa o rounde	ed fine to	uy gravell coarse of	y CLAY. (mudstone	e, coal,			\vdash	
					s (GLACIAL T	id limesto ILL)	one. Sanc	a is fine to	coarse				-	
200 - 14 70	48 D					From 14.60n	n bgl: Sa	ind no lon	iger prese	ent.			·	- (0.58)	
4.9													 	(0.00)	
∷⊢ 14.80 ഉ	49 ES	PID = 0.0ppm											- · _ · _ · _ · _ · _ · _ · · _ · · _ · · _ ·		
С щ Wat	er Strikes		Ho	le Di	ameter		Progre	SS	1			-8.19 Remar	ks	15.00	
Strike Flov	v Remark	s	Hole (mm)	Dia	Depth of Hole (m)	Date	Time	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	1. Sonic/Rotary Core Works Redcar, North 2. Buried Service Ins	(SO/RC) bore Yorkshire. Dection pit atte	ehole located within the F	oundry Area of and Tools, refu	Teesside sed at 0.35m
			178		15.00	21-03-2023 22-03-2023	17:00 09:30	15.00 15.00	15.00 15.00	3.00 4.80	3. SO/RC borehole a coring to 30.090m bg	ed to progress dvanced via S I.	s porenole via Sonic drilli onic drilling to 15.00m bg	ig. I and complete	d via Rotary
											 1 opography: Level Groundwater not e of drilling water. Shan approximate in the second second second second second second second second second second second second second second second second second second second se	Ground. Incountered du	uring drilling. Water strike	s masked due t	to the addition
											evidence of contamin 7. 35mm diameter sta installed to 28.00m b	ation encounte andpipe installe	ered. ered to 13.00m bgl and 50 ation	nm diameter st	tandpipe
							Pagint 1		1.0000 1.0	# PC/NC	Chapter D 20.00m D				
Notes: For e	planation	of symbols and al	breviat	ions,	see Key	Sheet.	Scale:1:15	ر	Logged B	y. DG/NS	спескеа Ву: Ј	٧V	AGS Statu	s. UKAFT	

	ΔΞ	EC	O		A 5th 2 C	ECO Floor	M ĸ	T	el: 0113 391 ax: 0113 39	6800 1 6899			Bore	hole	No. A-B	H35	
					Lee	eds 11 9AR		w	ww.aecom.	com	REGISTERED USER 202	2	Sheet: 6	of 11			
0	Equipment &	Methods:	d Tools			Project Project	Name: Foundry	Central Ex	ploratory Gr	ound Invest	igation					Job No:	533
0 1	0.35 - 15.00 \$ 5.00 - 30.00 F	Sonic Drilling (Rotary Drilling	(Hammer ID: GS00007 (Hammer ID: GS00007) 7)		Client:	bp Alternative Er	ergy Inves	tments Limi	ted and bp	Exploration	Opera	ating Compa	any Limited		00701	000
3	0.00 - 30.09	Standard Pene GS00007)	etration Test (Hammer I	ID:		Co-ordi E: 4557	nates: 67.037			Ground	Level (m):	6.80			Date Started: 2	1/03/2023	
		City Test		Caria		N: 5252	264.537					0.00		Deduced	Date Completed	: 24/03/202	3
-	Ir Depth	Sample	Ing	TCR		Core		DES	SCRIPTION					Level (m)	Legend	(Thick)	Instrument
	(m)	Ref & Type	and Result	RQD		Run								. ,		(11)	
					NI	15.00- 16.50	Very weak re MUDSTONE	d mottleo . Fractur	d bluish gi e set 1: V	rey thinly ery close	laminated ly to medi	l frac um s	tured paced,			_	
						-	15 to 25 degr	ees, unc ed with w	dulating sr /hite cryst	nooth, tig alline ma	ht to partl terial (pos	y ope sible	en and quartz)				
							and red silt. F	racture closed t	set 2: Clo o partly o	sely spac pen and c	ed, 50 to lean or in	70 de filled	egrees, with red			-	
-					0		silt. Mottling	caused b	y redox w	eathering						-	
F										, 						-	
	-15.50		PID = 0.0ppm		NI		to weathering	n to 15.1 J.	l / m bgl: Z	one of no	on-intact p	oroba	bly due			_	
							From 15.44r	n to 15.5	53m bgl: Z	one of no	on-intact p	oroba	bly due			_	
							to weathering].									
				100 80	7											-	
+70				50												-	
					NII	-										-	
	-						From 15.93r	n to 15.9)7m bgl: Z	one of no	on-intact p	oroba	bly due			-	
1	16.09- 16.22	50 C					to weathering].								-	
2 = -																_	
					6												
																-	
																-	
	-16.50		PID = 0.0ppm		NI	16.50-										-	
						18.00	From 16.50r	n to 16.5	58m bgl: Z	Cone of no	on-intact p	oroba	bly due			-	
5					5											-	
						-										_	
							From 16.77r	n to 19.6	60m bgl: Z	Cone of no	on-intact p	oroba	bly due				
							to weathering] .								-	
	-															-	
																-	
				100												-	
	17.30	51 ES	PID = 0.0ppm	13 0												_	
	-17.50		רויט = 0.0ppm													-	
																-	
																-	
																-	
																_	
	Wate Strike Flow	er Strikes v Remarks	5 	Hol	-lole D e Dia	iameter Depth	of Date	Progre Time	Hole	Casing	Water	1. Son	ic/Rotary Core (Remark (SO/RC) bore	KS hole located within the F	oundry Area of	Teesside
	Depth			(mr	n)	Hole (i	m)		Depth (m)	Depth (m)	Depth (m)	2. Buri	ed Service Insper ermission grante	TORKSNIRE. ection pit atter ed to progress	mpted using Insulated Ha	and Tools, refus ig.	ed at 0.35m
												coring 4. Top	to 30.090m bgl. ography: Level (undwater not cr	Ground.	ring drilling. Water etrike	s masked due +	n the addition
												of drilli 6. Slag	ng water. I encountered in ce of contamina	material reco	wered from ground level	to 4.50m bgl . 1	No olfactory
												7. 35m installe	m diameter sta d to 28.00m bg	ndpipe installe I upon comple	to 13.00m bgl and 50r tion.	nm diameter sta	andpipe
	Notes: For ex	xplanation	of symbols and a	abbrevi	ations	, see Ke	ey Sheet.	Scale:1:1	5	Logged B	/: BG/NS	Cheo	cked By: JV	V	AGS Statu	s: DRAFT	

				4	Α	ECO	М	т					Bore	ehole	No. A-B	H35	
					2 C Lee LS	i Floor City Wal eds 11 9AR	k	Fa	ax: 0113 391 ww.aecom.	6800 1 6899 com	AGS REGISTERED USER 202	22	Sheet: 7	' of 11			
Equi	pment & N	lethods:				Project	Name: Foundry	Central Exp	oloratory Gr	ound Inves	tigation					Job No:	
0.00 -	0.35 Ins 15.00 So	nic Drilling (I	Hammer ID: GS00007)			Project	Location: Redca	r, North Yo	rkshire							60701	533
15.00 - 30.00 -	30.00 Ro 30.09 Sta	tary Drilling	(Hammer ID: GS00007 tration Test (Hammer II	') D:		Client:	bp Alternative Er	nergy Invest	tments Limi	ted and bp	Exploration	Opera	ting Compa	any Limited	Data Startadi 2	1/02/2022	
	GS	600007)	,			C0-0101 E: 4557	67.037			Ground	Level (m):	6.807	AOD		Date Completed	1/U3/2023	2
	ln ⁽	Situ Toeti	na	Corin	a Infor	N: 5252	64.537							Reduced	Date Completed	Depth	Backfill/
De	epth	Sample	T T	TCR		Core		DES	CRIPTION					Level (m)	Legend	(Thick)	Instrument
(1	m)	Ref & Type	and Result	SCR RQD	FI	Run								. ,		(11)	
10.0	0		18,7 for 5mm /			18.00- 19.50	From 18 00	m to 19 5	0m bal: 3	3% recov	verv due to	0 was	hout				
F			TUU TOF SUMM				of material.	11.00 10.0	om ogi. o	0701000		e nae	inout			-	
-					NI											-	
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-				33 0												-	
54				0												-	
202																-	
ebrua	0																
2 – 19.0 8	0		PID = 0.0ppm													-	
Date:																-	
= 9																-	
23.6																	
8122(
Ë																-	
-19.5	0		SPT(C) N>100		-	10.50										-	
			15,10 for 25mm / 56,44 for 20mm			21.00										_	
					CLAY		From 19 60	m to 19 7	5m bal [.] F	Recovered	l as firm r	eddis	h				
							brown gravel	ly clay. G	ravel is s	ubangula	r fine to m	nediur	n of			-	
							very weak we	eaurereu	muustone							-	
0					NI		From 19.75 to weathering	m to 19.9 a.	9m bgl: Z	one of no	on-intact p	orobal	bly due			-	
des 7	•																
20.0	0		PID = 0.0ppm		CLAY 0		From 19 99	m to 20 0	0m bal· F	and of s	oft reddish	h hrow	n			-	
AEC					CLAY		gravelly clay.	Gravel is	subangu	lar fine to	o medium	of ve	ry weak			-	
ibrary 1				100	0		muastone.									-	
				16 0	NI		From 20.06	m to 20.1 Gravel is	3m bgl: E subang	Band of so	oft reddish	n brow of ve	vn rv weak				
5.00							mudstone.						,an				
					U CLAY		From 20.20	m to 20.3	6m bgl: Z	one of n	on-intact p	orobal	bly due			-	
					0		to weathering	g .								-	
							From 20.42	m to 20.4 Gravel is	4m bgl: E	Band of so	oft reddish	n brow	vn rv week				
INNO							mudstone.	Craver le	. Jabanyt		- mouluill	5, 76	., woar				
5.4 Fi							From 20.49	m to 21.0	0m bgl: F	Recovered	d as firm r	eddis	h			-	
act: <							brown gravel	ly clay. G eathered	ravel is si mudstone	ubangula e.	r fine to m	nediur	n of			-	
- Log					CLAY		,									-	
90 																	
u O Strike	Water	Strikes Remarks		H-H-H	-lole D e Dia	iameter Denth	of Date	Progre Time	ss Hole	Casing	Water	1. Sonic	Rotary Core	Remar (SO/RC) bore	ks shole located within the F	oundry Area of	Teesside
H Depth	1			(mr	n)	Hole (r	n)		Depth (m)	Depth (m)	Depth (m)	Works 2. Burie bgl. Per	Redcar, North ed Service Insp rmission grante	Yorkshire. bection pit atte ed to progress	mpted using Insulated Hassing Sonic drilling	and Tools, refus ig.	sed at 0.35m
												3. SO/F coring t	C borehole at	dvanced via So I. Ground	onic drilling to 15.00m bg	and completed	d via Rotary
NDAF												5. Grou	indwater not e ig water.	ncountered du	ring drilling. Water strike	s masked due t	to the addition
STAI												o. Slag evidenc 7. 35mr	encountered in e of contamina m diameter sta	ation encounte andpipe installe	red. ed to 13.00m bgl and 50r	ເບ 4.50m bgl . I nm diameter st	andpipe
												installed	1 to 28.00m bg	gi upon comple	etion.		
Note	s: For exp	lanation	of symbols and a	bbrevi	ations	, see Ke	ey Sheet.	Scale:1:15	5	Logged B	y: BG/NS	Chec	ked By: J\	N	AGS Statu	s: DRAFT	

ΔΞ	1	' OA		A 5th	ECOI Floor	M	т	el: 0113 39 ⁻	1 6800			Bore	ehole	No. A-B	H35	
				2 C Lei LS	City Walk eds 11 9AR	C C C C C C C C C C C C C C C C C C C	F	ax: 0113 39 www.aecom.	1 6899 .com	AGS REGISTERED USER 2022	2	Sheet: 8	of 11			
Equipment & N	lethods:	d Taala			Project N	Name: Foundry	Central Ex	cploratory G	round Invest	tigation					Job No:	
0.35 - 15.00 So	nic Drilling	(Hammer ID: GS00007))		Project L	ocation: Redca	ar, North Yo	orkshire	ited and ha	Evelopetion	0	tine Comm			60701	533
15.00 - 30.00 Ro 30.00 - 30.09 St	itary Drilling andard Pen	(Hammer ID: GS00007 etration Test (Hammer I	') D:		Client: t	p Alternative Er	nergy inves	stments Lim	Ground	Exploration Level (m):	Opera	ating Compa	any Limited	Date Started: 2'	1/03/2023	
G	800007)				E: 45576	67.037 64.537				()	6.807	7 AOD		Date Completed	: 24/03/202	3
In	Situ Test	ing	Corin	g Infor	mation	94.007							Reduced		Depth (Thick)	Backfill/
Depth (m)	Sample Ref &	Test Type	TCR SCR	FI	Core Run		DE	SCRIPTION					(m)	Legend	(m)	instrument
21.00	Type	PID = 0.0ppm SPT(C) N>100 3,18 / 74,26 for	RQD		21.00- 22.50	From 21.00r	m to 21.3	30m bgl: F	Recovered	d as firm r	eddis	sh				
-		20mm				brown slightly fine to mediu to coarse .	y gravelly im of ver	y slightly s y weak we	andy clay eathered i	/. Gravel is mudstone	s sub . San	angular Id is fine			-	
- 21.30- 21.42	52 C														-	
_				0											_	
				CLAY	,	From 21 41r	m to 21 {	56m bal [.] F	Recovered	d as firm r	eddis	sh				
					-	brown gravel	ly clay. C	Gravel is s	ubangula	r fine to m	nediur	m of				
-				8		tory mount me	bathoroa	maactorik							-	
_			100	CLAY		- 04.00									-	
			33	0		gravelly clay.	m to 21.7 Gravel is	71 bgl: Ba s subangi	ind of soft ular fine to	reddish b o medium	orown of ve	i ery weak			-	
~-				CLAY		mudstone.									-	
-22.00	53 ES	PID = 0.0ppm				From 21.86r gravelly clay.	m to 21.8 Gravel i	38m bgl: E s subangı	Band of so ular fine to	oft reddish o medium	n brov of ve	vn ery weak			_	
				0		mudstone.		-								
-				CLAY	-	From 21.88r to weathering	m to 21.9 g.	99m bgl: Z	Zone of no	on-intact p	oroba	bly due			-	
_ 22.29- 22.39	54 C			NI		From 22.13r	m to 22.	19m bgl: F	Recovered	d as firm r	eddis	sh m of			_	
				0		very weak we	eathered	mudstone	e. B.		lealui					
-				NI	00.50	From 22.19r to weathering	m to 22.2 g.	29m bgl: Z	Zone of no	on-intact p	oroba	bly due			(15.00)	
-				0	24.00	From 22.24r	m bgl: Be	ecomes lig	ght bluish	grey and	heavi	ily neral			-	
-					1	washout.		r nigri pore	55ity, p05t		0 1111	iciai			_	
				CLAY	-	From 22.39r to weathering	m to 22.5 g.	57m bgl: Z	Zone of no	on-intact p	oroba	bly due			-	
1 1-				0		From 22.64r	m to 22.8	82m bgl: F	Recovered	d as firm r	eddis	sh m of			-	
-23.00		PID = 0.0ppm		CLAY	,	very weak we	eathered	mudstone	e.		lealai				_	
-				0		From 22.96r gravelly clay.	m to 23.0 Gravel i	04m bgl: E s subanqı	Band of so	oft reddish o medium	n brov of ve	vn erv weak			-	
-			100	CLAY		mudstone.		5				,			_	
			42 32	0		From 23.12r	m to 23. ² Gravel in	19m bgl: E	Band of so	oft reddish	n brov	VN arv weak				
23.33- 23.54	55 C			CLAY		mudstone.	C. 4701	- cabangt		- moulum						
				0		From 23.32r gravelly clay.	m to 23.3 Gravel i	33m bgl: E s subangı	Band of so ular fine to	oft reddish o medium	n brov of ve	vn ery weak			_	0 ⁰ 01 0
						From 23.54r	m to 24.(00m bgl: Z	Zone of no	on-intact p	oroba	bly due			-	
-						to weathering	J.								-	
-				NI											-	0 0 0
_																0000
=																
Water Strike Flow	Strikes Remark	s	Hol	lole D e Dia	iameter	of Date	Progre	ess Hole	Casing	Water	1. Soni	c/Rotary Core	Remar (SO/RC) bore	ks hole located within the F	oundry Area of	Teesside
Depth		-	(mr	n)	Hole (n	1) 22-03-2023	17:00	Depth (m)	Depth (m)	Depth (m)	Works 2. Burie bgl. Pe	Redcar, North ed Service Insp rmission grante	Yorkshire. bection pit atte ed to progress	mpted using Insulated Ha borehole via Sonic drillir	and Tools, refus	ed at 0.35m
						23-03-2023	08:15	22.50	22.50	4.10	3. SO/F coring t 4. Topo	KC borehole ac to 30.090m bgl ography: Level	ovanced via So I. Ground.	onic drilling to 15.00m bg	and completed	i via Rotary
											5. Grou of drillir 6. Slag	undwater not e ng water. I encountered ii	ncountered du	ring drilling. Water strike	s masked due to to 4.50m bgl . 1	o the addition No olfactory
											evideno 7. 35m installe	ce ot contamina m diameter sta d to 28.00m bg	ation encounte andpipe installe gl upon comple	rea. ed to 13.00m bgl and 50r etion.	mm diameter sta	andpipe
Notos: For ov	lonation	of cumbols and a	hbrovi	ationa		y Shoot	Scale:1:1	5	Logged B	y: BG/NS	Chec	ked By: J\	N	AGS Statu	s: DRAFT	

Λ		M	A	A 5th	ECO	М	т	el: 0113 391	6800			Bore	ehole	No. A-B	8H35	
				2 C Lee LS	City Wal eds 11 9AR	lk	F	ax: 0113 39 ww.aecom.	1 6899 com	AGS REGISTERED USER 2022		Sheet: 9) of 11			
Equipment &	Methods:	d Tools			Project	Name: Foundry	Central Ex	ploratory Gr	ound Inves	tigation					Job No:	
0.35 - 15.00	Sonic Drilling	(Hammer ID: GS00007 (Hammer ID: GS00007) 7)		Project Client [.]	Location: Redca	ar, North Yo heray Inves	orkshire stments Limi	ted and bo	Exploration (Opera	itina Comp	anv Limited	1	60701	1533
30.00 - 30.09	Standard Pen	etration Test (Hammer I	ID:		Co-ordi	nates:	lorgy inves		Ground	Level (m):	opera			Date Started: 2	21/03/2023	
	GS00007)				E: 4557 N: 5252	67.037 264.537					6.807	7 AOD		Date Complete	d: 24/03/202	23
	n Situ Test	ing	Corin	g Infor	mation								Reduced Level	Logond	Depth (Thick)	Backfill, Instrume
Depth (m)	Ref &	Test Type and Result	SCR	FI	Core Run		DE						(m)	Legend	`(m)´	
24.00		PID = 0.0ppm SPT(C) N>100	RQD		24.00-											
		18,7 for 5mm / 47,53 for 55mm		CLAY	20.00	brown gravel	m to 24.2 Iy clay. G	22m bgl: F Gravel is s	kecovere ubangula	d as firm re r fine to me	ediur	n n of				
						very weak we	eathered	mudstone	Э.							
				7												
					_											
				CLAY		From 24.36	m to 24.4	l2m bgl: F	Recovere	d as firm re	eddis	h				
-						brown gravel	ly clay. Geathered	Gravel is s mudstone	ubangula e.	r fine to me	ediur	n of			-	000
				NI		From 24.42	m to 24 7	75m hal· 7	one of n	on-intact n	robal	bly due				
						to weathering	g.	JIII Dyl. Z		on-intact pi	loba	biy due				
			100 57													
			36													
-25.00		PID = 0.0ppm														
25.00.25.33	56 C			5												
20.09-20.00	5 50 C															
				CLAY		From 25.32	m to 25 3	84m hal· F	and of s	oft reddish	brov	vn				
				6		gravelly clay.	Gravel is	s subangu	lar fine t	o medium o	of ve	ry weak				
•					25.50-	muastone.										
					27.00	From 25.50	m to 25.7 v gravelly	'0m bgl: F / slightly s	Recovere	d as firm re /. Gravel is	eddis sub	h angular				
						fine to mediu	im of ver	y weak we	eathered	mudstone.	San	d is fine				
				02/11		Erom 25 70	m to 25 ()/m hal· E	Pocovoro	d as firm ro	oddie	h				
						brown gravel	ly clay. G	Gravel is s	ubangula	r fine to me	ediur	n of				
					-	very weak we	eathered	mudstone	9.							
-26.00		PID = 0.0ppm				From 25.94	m to 26.2	20m bgl: Z	one of n	on-intact pi	robal	bly due			-	
				NI		to weathering	g.	-				-				
			100 11	CLAY		From 26 20	m to 26 ()7m hal· E	and of a	oft roddiab	brou					
			0			gravelly clay.	Gravel is	s subangu	lar fine t	o medium (of ve	ery weak				
						weathered m	iudstone.									
-				NI		From 26.27	m to 26.6 า	68m bgl: Z	one of n	on-intact pi	robal	bly due				
							9.									
				6												
						From 26.85	m to 27.2	21m bgl: Z	one of n	on-intact pi	robal	bly due				
Wa	ter Strikes	l	ŀ	l Iole D	iameter		9. Progre	ess				-/D-+	Remar	ks	1	
Strike Flo Depth	w Remarks	3	Hol (mr	e Dia n)	Depth Hole (r	of Date m)	Time	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	1. Sonie Works 2. Burie	Redcar, North Redcar, North Service Insp	(SU/RC) bore Yorkshire. Dection pit atte	mole located within the I	Hand Tools, refu	sed at 0.35m
											bgl. Per 3. SO/F coring t	rmission grante RC borehole a to 30.090m bg	ed to progress dvanced via S I.	s borehole via Sonic drill onic drilling to 15.00m by	ing. gl and complete	d via Rotary
											4. Topo 5. Grou of drillir	ography: Level indwater not e ig water.	Ground. ncountered du	ring drilling. Water strike	es masked due	to the addition
											6. Slag evidenc 7. 35m	encountered i e of contamina m diameter sta	n material reco ation encounte	overed from ground leve red. ed to 13,00m bol and 50	l to 4.50m bgl .)mm diameter s	No olfactory
										i	installed	d to 28.00m be	gl upon comple	etion.	diameter 5	
Notes: For e	explanation	of symbols and a	abbrevi	ations	, see Ke	ey Sheet.	Scale:1:1	5	Logged B	y: BG/NS	Chec	ked By: J	W	AGS State	us: DRAFT	

	Δ	=	NO		A 5th	ECO Floor	М	Te	el: 0113 391	6800			Bore	ehole	No. A-B	H35	
					2 C Lee LS	oty Wall eds 11 9AR	K	Fa W	ax: 0113 39 ww.aecom.	com	REGISTERED USER 202	122	Sheet: 1	0 of 11			
	Equipment	& Methods:				Project	Name: Foundry	Central Exp	oloratory Gr	ound Invest	igation	I				Job No:	
	0.00 - 0.35 0.35 - 15.00	Insulated Hand Sonic Drilling (d Tools Hammer ID: GS00007)		Project	Location: Redca	r, North Yo	rkshire							607015	533
	15.00 - 30.00	Rotary Drilling	(Hammer ID: GS00007	7)		Client:	bp Alternative Er	ergy Invest	ments Limi	ted and bp	Exploration	o Operati	ng Comp	any Limited			
	30.00 - 30.09	GS00007)	etration Test (Hammer I	D:		Co-ordii E: 4557	nates: 67.037			Ground	Level (m):	6 807	AOD		Date Started: 2	1/03/2023	
			-			N: 5252	64.537					0.001	NOD	1	Date Complete	d: 24/03/2023	3
		In Situ Test	ing	Corin	g Infor	mation		DES	CRIPTION					Reduced Level	Legend	Depth (Thick)	Backfill/ Instrument
	Depth (m)	Ref &	Test Type and Result	SCR	FI	Core Run		DLC						(m)	Logona	(m)	
	27.00	57 ES	PID = 0.0ppm SPT(C) N>100		NI	27.00-											0000
	-		19,6 for 5mm /			28.50											0 0 0
			100 for 70mm														0 0 0
	-																0000
	-				6											}	
																	0000
							From 27.37r	n to 27.6	0m bgl: F	Recovered	l as firm r	reddish	ı				
	-				CLAY		brown gravel	y clay. G	ravel is s	ubangulai	fine to m	nedium	n of				
	L						VCI Y WEAK WE		nuusiult								
					NI		From 27 60r	n to 27 7	5m hal· 7	one of pr	n-intact r	nrohah	lv due			1	
	F			100			to weathering		on byi. Z			עסטכיק	Juc				
4	F			38												₽	
, 202·																1	
ruary																	
3 Feb	-28.00		PID = 0.0ppm													┣ │	
ite: 2;	_																
Da					5												
GLB	-																
2023	_																
0812																	
HL	-																
SOI	-					28 50-										┣ │	
NDR	_					30.00	From 28.50r	n to 28.7	4m bgl: F	Recovered	l as firm r	reddish	ı				
FOU					CLAY		fine to mediu	/ gravelly m of verv	slightly s weak we	andy clay eathered r	. Gravel i nudstone	is suba e. Sand	Ingular I is fine				
ARY	-						to coarse. Po	ssible inf	ill of fines	from rec	irculating	g drilling	g flush				
LIBR	-						deposited du	ing anim	ıy.								
0_4					CLAY		From 28.74r	n to 28.9 v clav, G	9m bgl: F ravel is s		l as firm r fine to m	reddish	ו חסל				
S 4							very weak we	eathered	mudstone	enerigaiai e.		nculun					
MAG	-29.00		PID = 0.0ppm													┣ │	
Ю СО Ш	L				0											1	
Iry: A																	
Libra	F			100													
ll Ld	-			28			From 29.20r	n to 29.7 1	9m bgl: Z	one of no	on-intact p	probab	ly due			} │	
GI.G	L						เว พระสมาธิกักยุ	j.								1	
TRAL																[
LNEC	-				NI												
JRY C	L															<u> </u>	
JUNE																1	
.4 FC	F																
:t: V5	Ļ				<u> </u>											₽	
rojec																	
Ц П С																	
ПLO	W:	ater Strikes		 	l Hole D	iameter		Progre	SS			1		-23.19 Remark	(S	30.00	
HOLE	Strike Fl	ow Remarks	3	Hol	e Dia	Depth (of Date	Time	Hole	Casing	Water	1. Sonic/ Works R	Rotary Core edcar, North	(SO/RC) bore Yorkshire.	hole located within the l	oundry Area of	Teesside
ORE	Depth			(mr 146))	30.00			Deptri (m)	Deptri (m)	Depth (m)	2. Buried bgl. Pern 3. SO/R0	Service Insp nission grante borehole a	ection pit atten ed to progress dvanced via Sc	mpted using Insulated H borehole via Sonic drill onic drilling to 15 00m b	land Tools, refusing.	ed at 0.35m via Rotarv
RD C												coring to 4. Topog	30.090m bg raphy: Level	I. Ground.			
NDA												5. Groun of drilling 6. Slag e	uwater not e water. ncountered i	ncountered du n material reco	ning aniling. Water strike overed from ground leve	es masked due to I to 4.50m bgl . N	o ine addition
: STA												evidence 7. 35mm	of contamina diameter sta	ation encounter andpipe installe	red. ed to 13.00m bgl and 50	mm diameter sta	indpipe
ort ID.												matalled	20.00m DQ	, apon comple	cort.		
Repc	Notes: For	explanation	of symbols and a	abbrevi	ations	, see Ke	y Sheet.	Scale:1:15		Logged By	: BG/NS	Check	ed By: J	W	AGS State	us: DRAFT	

	A	EC	O N		5th 2 C Lee	Floor City Walk	Λ	Te Fa W	el: 0113 391 ax: 0113 391 ww.aecom.o	6800 I 6899 com	AGS		Bore		No. A-E	3H35	
	Equipment 0.00 - 0.35 0.35 - 15.00 15.00 - 30.00	& Methods: Insulated Hand Sonic Drilling (Rotary Drilling	I Tools Hammer ID: GS00007 (Hammer ID: GS00007) 7)		Project N Project L Client: b	lame: Foundry ocation: Redca p Alternative En	Central Exp r, North Yo lergy Invesi	oloratory Gr rkshire tments Limit	ound Inves ted and bp	tigation Exploration	^z Operatii	ng Compa	any Limited		Job No: 6070	1533
	30.00 - 30.09	GS00007)	etration Test (Hammer I	D:		Co-ordin E: 45576	ates: 07.037			Ground	Level (m):	6.807	AOD		Date Started: 2	21/03/2023 d: 24/03/20	23
	Depth	In Situ Test	ing Tost Turpo	Corin	g Infor	N: 52526 mation Core	4.537	DES	CRIPTION					Reduced Level (m)	Legend	Depth (Thick) (m)	Backfill/ Instrument
	(m) 30.00	Ref & Type	and Result PID = 0.0ppm	RQD		Run	NO RECOVE	ERY - zor	ne of SPT	(C) test						(0.09)	
LE LOG Project: V5.4 FOUNDRY CENTRAL GI.GPJ LIbrary: AECOM AGS 4_0_4 LIBRARY FOUNDRY SOUTH 08122023.GLB Date: 23 February 2024		ater Strikes	100 for 20mm		Iole D	iameter		End (Thia	of Boreh ckness of not pro	ole 30.09 basal lay ven)) m /er			Remark			
D: STANDARD COREHOLE	Strike Depth	ow Remarks	3	Hold (mn 50	e Dia n)	Depth o Hole (m 30.09	f Date)) 23-03-2023	Time 17:00	Hole Depth (m) 30.09	Casing Depth (m) 30.00	Water Depth (m) 2.60	1. Sonic/F Works Re 2. Buried bgl. Perm 3. SO/RC coring to 4. Topogr 5. Ground of drilling 6. Slag et evidence 7. 35mm installed t	Rotary Core edcar, North Service Insp ission grante 2 borehole ac 30.090m bgl dwater not er water. ncountered ir of contamina diameter sta to 28.00m bg	(SO/RC) borel (SO/RC) borel vection pit atter do progress vanced via So Ground. ncountered dur n material reco attion encounter indpipe installe gl upon complet	The located within the proted using Insulated borehole via Sonic dri nic drilling to 15.00m t ing drilling. Water strik vered from ground lev ed. d to 13.00m bgl and 5 tion.	Foundry Area o Hand Tools, refu ling. gl and complete es masked due el to 4.50m bgl . Dmm diameter s	Teesside sed at 0.35m d via Rotary to the addition No olfactory tandpipe
Report	Notes: For	explanation	of symbols and a	bbrevi	ations	, see Key	/ Sheet.	Scale:1:15	5	Logged B	y: BG/NS	Checke	ed By: JV	N	AGS Stat	us: DRAFT	

				4	AEC 5th Floo	ON or	Л	Te	el: 0113 391	6800			Bore	hole	No. B-B	H26		
					2 City V Leeds LS11 9	Valk AR		Fa W	ax: 0113 39 ww.aecom.	1 6899 com	ACS REGISTERED USER 202	2	Sheet: 1	of 11				
Equi 0.00 - 0.20 -	0.20 In: 10.50 Sc	Methods: sulated Hand onic Drilling (1 Tools Hammer ID: GS00008)	Proje Proje	ect N ect L	lame: Foundry ocation: Redca	Central Exp r, North Yo	ploratory Gr orkshire	ound Inves	tigation	Oneret	ing Compo	nulimitor		Job No: 6070	1533	
10.50 - 30.00 -	30.00 Ro	andard Pene	(Hammer ID: GS00008 etration Test (Hammer I	3) D:	Cilei Co-c	ordin	ates:	ergy inves		Ground	Level (m):	Operat	ing compa		Date Started: 17	7/03/2023		
	G	500008)			E: 4: N: 5:	590 2510	1.227 02.781					6.907	AOD		Date Completed	: 23/03/20	23	
D(epth m)	Situ Test Sample Ref &	Test Type	Coring I TCR SCR	nformati FI Co Ru	on re In		DES	SCRIPTION					Reduced Level (m)	Legend	Depth (Thick) (m)	E In:	Backfill/ strument
- 0.20 - 0.20 - 0.20 - 0.43 - 0.43 - 0.50 	(m) - 0.25 - 0.87 - 1.50 - 3.00 - 3.00	Ref & Type 2 ES 3 D 4 B 5 D 6 ES 7 B 8 D 9 ES 10 B 11 SS	PID = 0.6ppm PID = 0.4ppm SPT(C) N=10 2,2/ 2,2,3,3 PID = 0.6ppm	SCR		in 	MADE GROU silty fine to cc and occasion angular to su sandstone an (MADE GROU to subrounde coarse (MADE GROU to coarse SAI subangular to to subrounde (MADE GROU (MADE GROU (MADE GROU (MADE GROU coarse GRAV content and c angular of sla (MADE GROU coarse for ES	JND: Bla parse SA al fragme brounded UND) JND: Data d fine to UND) JND: Data ND with 1 9 subrour d fine to UND) JND: Data (ÆL of sla poccasiona 19 UND) to 3.00n 5 sample	rk reddish medium coarse of rk grey ar ag and co al fragmen n bgl: Slig	d dark reabundant etal and coarse of mottled g RAVEL common nobble concick and sibrick sla	ddish brow ash frequ ceramic. G slag brick grey very s of slag. Sa nottled gre ntent. Cob slag. Grave g concrete subangula ith mediun etal. Cobble	wn gra eent ro Gravel chert andy a nd is f ey grav andy a nd is f e cher ar fine e cher	velly otlets is angular ine to relly fine tre ngular t and to ble	6.48 6.04 5.41		((iii) - (0.43) - 0.43 - (0.43) - (0.43) - (0.63) - (0.63) - (0.63) - (1.50) - (1.50)	<u> </u>	$\frac{1}{2} \frac{1}{2} \frac{1}$
) Wate e Flow h	Strikes	PID = 0.9ppm	Hole I (mm) Insp.I	e Diame Dia Dep Hol Pit 0.25		From 2.86m coarse. f Date) 17-03-2023	bgl: Bec Progre Time 09:00	comes slig ss Hole Depth (m) 0.20	htly sanc	dy. Sand is Water Depth (m)	1. Sonici Works R. 2. Buried 0.20m bi 3. SO/Ri G. Slag r encounts installed	O Rotary Core (tedcar, North 9 Service Insystem g). Permission C borehole ad 30.090m bg). I solo ad 1 Service Insystem 30.090m bg). I service Insystem 30.090	Remar SO/RC) bors forkshire. action pit atter granted to p vanced via S Ground. Gountered fu ntered in mat i recovered f ndpipe install upon comple install	Ks with a second secon	- (1.82) - (1.82) 	f Teess ninated ed via R additio 71m bgl ous odc	ide at otary n of . Ash rur noted re
	es: For ex	lanation	of symbols and a	bbreviati	ons see	Ke	/ Sheet	Scale:1:15	5	Logged B	y: NS	Check	ed By: JV	V	AGS Statu	s: DRAFT		

	AE	C	ON	1	AEC 5th Flo 2 City	or Nalk	1	Te Fa	el: 0113 391 ax: 0113 39 ⁷	6800 1 6899			Bore	hole	No. B-B	H26	
	Equipment 9	Acthodo	••••	_	Leeds LS11 9		ama: Faundru		ww.aecom.		REGISTERED USER 202	2	Sheet: 2	of 11		lob No:	
	0.00 - 0.20 In:	ulated Han	d Tools		Proj	ectio	arrie. Foundry	r North Yo	rkshire	ound inves	ligation					500 NO. 607015	33
	0.20 - 10.50 So 10.50 - 30.00 Ro	nic Drilling (tary Drilling	Hammer ID: GS00008) (Hammer ID: GS00008)	Clie	nt: bp	o Alternative En	ergy Invest	tments Limi	ted and bp	Exploration	Operat	ing Compa	any Limited	1	007010	
	30.00 - 30.09 St	andard Pen	etration Test (Hammer I	D:	Co-	ordina	ates:			Ground	Level (m):	0.007			Date Started: 17	7/03/2023	
					N: 5	25102	2.781					6.907	AOD		Date Completed	: 23/03/2023	3
	In :	Situ Test	ing	Coring	Informat	ion		DES	CRIPTION					Reduced Level	Legend	Depth (Thick)	Backfill/ Instrument
	Depth (m)	Ref &	Test Type and Result	SCR	FI R	un		DEC						(m)	Logona	(m)	
	3.00- 3.32 3.00 - -	13 B 14 D 15 ES	PID = 0.8ppm SPT(C) N=50 5,14/ 16,20,10,4													-	
	- 3.40	16 ES	PID = 0.4ppm			N	MADE GROU	JND: Firr	m dark bro gravelly C	own mott	led red an medium	nd light	t brown	3.59		- 3.32	
	0.10	10 20				C	content and r	are shell	fragment	ts. Cobble	es are sub	angul	ar of				
	-3.50	17 D	PID = 0.4ppm				orick chert sa coarse	andstone	limestone	e and mu	dstone. Sa	and is	fine to			- (0.39) -	
	- 3 71- 4 50	18 B				Ľ		0112)						3.20		- 3.71	
ebruary 2024		10 D				N 0 PB n (MADE GROU coarse SANE pockets of or prown clay. Con nudstone lim MADE GRO	JND: Dar) with occ ganic ma Gravel is s nestone c (UND)	rk yellowis casional s Iterial and subangula shert and s	sh brown hell fragr l frequent ar to roun sandston	slightly gr nents occ pockets o ded fine to e	ravelly asiona of firm o coar	fine to al dark se of			-	
2023.GLB Date: 23 F		20 ES	— 0.эррп				From 4.20m	bgl: Bec	omes mo	ttled grey	. Pockets	of cla	y no			- (0.79) -	
NURY SOUTH 0812		21 B 22 SS	PID = 0.2ppm SPT(S) N=17 2,3/ 6.3.4.4			N S	MADE GROU	JND: Sof	t dark broasional re	own mottl lict rootle	ed grey sli ts frequen	ightly g	gravelly ds of	2.41		- 4.50 -	
4 0 4 LIBRARY FOU	-		0,0, 1, 1			s n (From 4.80m	to 6.00m	nded fine one. Sand n bgl: Slig	to coarse d is fine to ht organi	c odour pr	one ch				-	
II LIDRARY: AECOM AGS	5.00 -	23 ES	PID = 0.6ppm													 - (1.24) -	
JUNDRY CENIRAL GI.GP.	- - 5.50 -	24 D	PID = 1.0ppm			b	From 5.37m black. Becom	to 5.74m nes slighti	n bgl: Bec ly sandy.	comes gre	ey mottled	browr	n and			-	
-0G Project: V5.4 F(- - 5.80 - 5.90	25 ES 26 D	PID = 0.6ppm			\ g fi n n	/ery dense lo grey and blac requent shel naterial. Gra nudstone sa	ocally me k slightly l fragmer vel is sub ndstone l	dium den gravelly t nts and fr pangular t limestone	se dark y fine to co equent po to rounde and qua	ellowish b arse SAN ockets of b d fine to c tz	prown D with black o coarse	mottled organic of	1.17		- 5.74 -	
	Strike Elow	Strikes		Holo	le Diam	eter	Date	Progre	ss Hole	Casing	Water	1. Sonic/	Rotary Core	Remar (SO/RC) bore	ks shole located within the F	oundry Area of T	eesside
NITID: STANDARD COREHC	Depth FIOW		,	(mm)		pun of le (m)))		Depth (m)	Depth (m)	Depth (m)	Works R 2. Buriec 0.20m bg 3. SO/R coring to 4. Topog 5. Groun drilling w 6. Slag r encounte in materi 7. 35mm installed	tedcar, North I Service Insp gl. Permission C borehole ad 30.090m bgl. graphy: Level i dwater not er ater. naterial encou- ered in materia al recovered fi diameter sta to 24.00m bg	Yorkshire. ection pit atte granted to pit Vanced via So Ground. ncountered du intered in mat al recovered f from 1.50m b ndpipe installe I upon comple	mpted using Insulated Hz rogress borehole via Son onic drilling. Strikes mask erial recovered from grou rom ground level to 0.43r gi to 3.00m bgl. ad to 10.00m bgl and 50r tion.	and Tools, termir ic drilling. and completed ed due to the ac and level to 3.711 n bgl. Sulphurou nm diameter sta	nated at via Rotary Idition of m bgl. Ash s odour noted ndpipe
d e r e b r	Notes: For exp	lanation	of symbols and a	bbrevia	ions, se	e Key	Sheet.	Scale:1:15	5	Logged B	. NS	Check	ed By: JV	V	AGS Statu	s: DRAFT	

	A	EC	ON		5th 2 C Lee	Floor ity Walk	VI	Ti Fi W	el: 0113 391 ax: 0113 39 /ww.aecom.	6800 1 6899 com	AGS	Bo		No. B-B	H26	
E 0.1 0.1 10	Equipment & 00 - 0.20 20 - 10.50 0.50 - 30.00	& Methods: Insulated Han Sonic Drilling Rotary Drilling	d Tools (Hammer ID: GS00008)) (Hammer ID: GS00008)	F F	Project N Project L Client: k	Name: Foundry _ocation: Redca	Central Ex r, North Yo nergy Inves	ploratory Gr orkshire stments Limi	ound Inves	tigation Exploration	2 Operating Co	mpany Limited	1	Job No: 60701	533
30	0.00 - 30.09	Standard Pen GS00008)	etration Test (Hammer I	D:	(Co-ordir	nates:			Ground	Level (m):	6.007 4.00		Date Started: 1	7/03/2023	
		,			1	N: 5251	02.781					6.907 AUL	, 	Date Completed	1: 23/03/202	23
	Depth (m)	In Situ Test Sample Ref &	ting Test Type and Result	Coring TCR SCR	lnfori Fl	mation Core Run		DES	SCRIPTION				Reduced Level (m)	Legend	Depth (Thick) (m)	Backfill/ Instrument
-	6.00- 6.70 6.00	27 B 28 SS	PID = 0.6ppm SPT(S) N>50 2,5 / 11,14,25 for 75mm				(TIDAL FLA	T DEPOS	SITS)						-	
-	6.50		PID = 0.2ppm				From 6.21m rare.	bgl: No	longer mo	ottled blac	k. Gravel	becomes			-	0 0 0
uary 2024	6.70- 7.50 6.70	29 B 30 D													-	
OUTH 08122023.GLB Date: 23 Febr	7.00	04.5	PID = 0.2ppm												-	
M AGS 4 0 4 LIBRARY FOUNDRY S	8.00	318	PID = 0.1ppm												- (3.77) - -	
CENTRAL GI.GPJ Library: AECC	8.20- 9.00 8.20 8.50	32 B 33 D	PID = 0.0ppm												-	
LOG Project: V5.4 FOUNDRY															-	
1 ID: STANDARD COREHOLE L	Wa trike Flo epth	ter Strikes w Remarks	5 S	H Hole (mm	ole Di Dia	ameter Depth c Hole (n	of Date 17-03-2023 20-03-2023	Progree Time 12:00 09:15	Hole Depth (m) 9.00 9.00	Casing Depth (m) 9.00 9.00	Water Depth (m) 2.10 4.80	1. Sonic/Rotary C Works Redcar, N 2. Buried Service 0.20m bgl. Permi 3. SO/RC boreho: 3. SO/RC boreho: 5. Groundwater drilling water. 6. Slag material e encountered in m in material recover 7. 35mm diamete installed to 24.00	Remar core (SO/RC) bore orth Yorkshire. Inspection pit atte ssion granted to pit le advanced via S bed le advanced via S bed evel Ground. ot encountered du nnocuntered in mala tarial recovered 1 red from 1.50m b r standpipe install m bgl upon completion standpipe install	ks shole located within the F rogress borehole via Sor onic drilling. Strikes mas terial recovered from ground level to 0.43 gl to 3.00m bgl. ed to 10.00m bgl and 50 tion.	oundry Area of and Tools, term ic drilling. Il and complete ked due to the und level to 3.7 m bgl. Sulphurc mm diameter st	Teesside inated at d via Rotary addition of 1m bgl. Ash uus odour noted tandpipe
Sepo	Notes: For e	explanation	of symbols and a	bbrevia	ations,	see Ke	y Sheet.	Scale:1:1	5	Logged B	y: NS	Checked By:	JW	AGS Statu	s: DRAFT	

	Λ		1	N		A 5th	ECOI Floor	М	Te	el: 0113 391	6800		Bore	ehole	No. B-B	H26	
						2 C Lei LS	City Wall eds 11 9AR	K	Fa W	ax: 0113 391 ww.aecom.o	1 6899 com	AGS REGISTERED USER 2022	, Sheet: 4	l of 11			
E	quipm	nent & N	lethods:				Project I	Name: Foundry	Central Exp	ploratory Gr	ound Invest	igation	-			Job No:	
0.00)- 0.:)- 10	20 Ins).50 So	ulated Hand nic Drilling (t Tools Hammer ID: GS00008)			Project l	Location: Redca	r, North Yo	rkshire						6070	1533
10.5 30.0	50 - 30 00 - 30).00 Ro).09 Sta	tary Drilling Indard Pene	(Hammer ID: GS00008 etration Test (Hammer II) D:		Client: I	op Alternative Er	ergy Inves	tments Limi	ted and bp	Exploration	Operating Comp	any Limited	Date Started: 1	7/03/2023	
		GS	(80000				E: 45590	01.227			Giounu i	Level (III).	6.907 AOD		Date Completed	1: 23/03/20	23
		Ins	Situ Test	ing	Corin	g Infor	N: 5251 mation	02.781						Reduced		Depth	Backfill/
	Dept	h	Sample Ref &	Test Type	TCR SCR	FI	Core		DES	SCRIPTION				(m)	Legend	(Thick) (m)	Instrument
9.	(m) 00-9	.51	Type 34 B	and Result PID = 0.0ppm	RQD		Run								ο		0 0 0
	59- 11 80	0.50	36 B 37 ES 38 D	PID = 0.0ppm PID = 0.0ppm PID = 0.0ppm				From 9.00m Very stiff dar SILT. Gravel mudstone. Sa (REDCAR M	k brown r is angula and is fin UDSTON	mottled gr ar to subar e to medi IE FORM	rey slightly ngular fin um ATION)	y gravelly v sandy sl e to medi	ightly gravelly um of	2.60		- - - - - - - - - - - - - - - - - - -	
).50 1.07-	11.18	39 ES	PID = 0.0ppm PID = 0.0ppm		CLAY NI CLAY	10.50-	Reddish brov extremely we (REDCAR M From 10.68r mottled grey subangular fi	vn angula ak muds UDSTON n to 10.7 slightly g ne to me	ar to suba tone with IE FORM . '4m bgl: B ravelly cla dium of m 8m bol: B	ngular fin frequent ATION) Band of fir y present udstone	e to coars bands of f m reddish . Gravel is	se gravel of firm clay n brown s angular to	3.68	$\begin{array}{c} \cdot \cdot$	- _ 10.59 - - - _ _ (0.99)	
					100 28 0	NI		From 11.07r mottled grey subangular fi	n to 11.1 slightly g ne to me	8m bgl: B ravelly cla dium of m	and of fir ay present nudstone.	m reddish . Gravel i: d reddish	h brown s angular to	4.67		- - - 	
		Water	Strikes			0 Hole D	iameter	MUDSTONE mudstone. Fi spaced undu set 2: 10-25 smooth very (REDCAR M	with free racture se lating rou degrees v tight clea UDSTON	quent 1-20 et 1: Subv igh to smo very close in NE FORM	ATION	of weak (70 degree tight clear y spaced	n. Fracture undulating	Remar		-	fToesside
	ıke pth	Flow	Remarks	3	Hol (mr 178	e Dia n)	Depth of Hole (n 10.50	ot Date	Seelected	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Vorks Redcar, North 2. Burled Service Ing. 0.20m bjl. Permissio 3. SO/RC borehole a coring to 30.090m Jermissio 4. Topography: Level 5. Groundwater not e drilling water. 6. Slag material enco encountered in mater in material recovered 7. 35mm diameter sta- installed to 24.00m by	Vorks) bote pection pit atte n granted to p dvanced via Si l. Ground. Incountered du untered in mat ial recovered f from 1.50m b andpipe install gl upon comple	ringe tousing insulated H mpted using insulated H mpted crigress borehole via Sor onic drilling to 10.50m bg rring drilling. Strikes masi erial recovered from gro rom ground level to 0.43 gl to 3.00m bgl. ad to 10.00m bgl.	and Tools, terr ic drilling. I and complete ked due to the und level to 3. m bgl. Sulphur mm diameter s	 resolue minated at advia Rotary addition of 71m bgl. Ash rous odour noted standpipe

A	EC	ION		A 5th 2 C	ECO Floor City Wal	M ĸ	T F	Fel: 0113 391 Fax: 0113 39 www.aecom.	6800 1 6899 com	AGS		Bore	ehole	No. B-B	H26	
Equipment 0.00 - 0.20 0.20 - 10.50 10.50 - 30.00	& Methods: Insulated Han Sonic Drilling Rotary Drilling	d Tools (Hammer ID: GS00008) (Hammer ID: GS00008) B)	LS	<u>11 9AR</u> Project Project Client:	Name: Foundry Location: Redca bp Alternative En	Central Ex r, North Yo nergy Inves	xploratory Gr orkshire stments Limi	ound Inves	REGISTERED USER 202 tigation Exploration	² Operati	ng Compa	any Limited	1	Job No: 6070 [,]	1533
30.00 - 30.09	Standard Pen GS00008)	etration Test (Hammer	ID:		Co-ordi E: 4559	nates: 01.227			Ground	Level (m):	6.907	AOD		Date Started: 1 Date Completed	7/03/2023 1: 23/03/202	23
Depth (m)	In Situ Test Sample Ref &	ting Test Type	Corine TCR SCR	g Infor FI	mation Core Run	02.781	DE	SCRIPTION					Reduced Level (m)	Legend	Depth (Thick) (m)	Backfill/ Instrument
12.00 - - -		PID = 0.0ppm	RQD	NI	12.00- 13.30	From 12.00r drilling techni From 12.36r	n to 12.3 iques. n to 13.0	36m bgl: Z 04m bgl: A	Cone of n	on-intact c drilling inc	due to				- - - (1.46)	
024			100 53 0	12 NI	-	From 12.69r fragility of roc	n to 12.8 ck.	85m bgl: Z	one of n	on-intact c	due to				-	
GLB Date: 23 February 20		PID = 0.0ppm		6	-	Weak grey fr set 1: Subhor open infilled v (REDCAR M	actured f rizontal c with grey UDSTOI	thinly lami closely spa y silt NE FORM	nated Mi aced und ATION)	JDSTONE ulating sm	E. Frac looth p	ture artly	-6.13		- 13.04 -	
UNDRY SOUTH 08122023.				NR	13.30- 15.00	From 13.21r fragility of roc	n to 13.3 k.	30m bgl: Z	one of n	on-intact c	due to				- - (1.00)	
GS 4_0_4 LIBRARY FO 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	40 ES	PID = 0.0ppm		5		From 13.60r fractures.	n to 13.9	98m bgl: A	bundant	drilling ind	duced				-	
FOUNDRY CENTRAL GI.GPJ Library: AECOM A	62 41 C	PID = 0.0ppm	82 74 32	NI 6		From 13.98r fragility of roc Medium stror MUDSTONE shell fragmer closely to me open clean or to subrounde (REDCAR M	n to 14.0 k. ng dark g with occ nts. Frac dium spa infilled d fine to UDSTOI	07m bgl: 2 grey thinly casional b trure set 1: aced undu with grey medium o NE FORM	to thickly ands of f Subhori llating sn gravelly of fmudst ATION)	on-intact o / laminated ossilised s zontal to 2 nooth close clay. Grave	due to d fracto hells a 20 degi ed to p el is an	ured and rees partly igular	-7.13		- - - - -	
14.76- 14.9	91 42 C			CLAY							I				-	
STANDARD COREHOL Strikke F Depth Notes: For Notes: For	explanation	s of symbols and a	Holi (mn	n)	ameter Depth Hole (r	of Date n) Date 20-03-2023 21-03-2023	Progree Time 15:00 07:45 Scale:1:1	ess Hole Depth (m) 13.50 13.50 5	Casing Depth (m 13.50 13.50 Logged E	Water Depth (m) 2.10 3.40 y: NS	1. Sonic/ Works R 2. Buried 0.20m bc 3. SO/RC coring to 4. Topog 5. Groun drilling wi 6. Slag n encounte in materia 7. 35mm installed	Rotary Core edcar, North Service Insp J. Permission 5 borehole ac 30.090m bgl raphy: Level dwater not e ater. aterial encoor red in materi al recovered diameter sta to 24.00m bg ed By: JN	Remarl (SO/RC) bore yorkshire. bection pit atte dvanced to pr dvanced via Sc I. Ground. ncountered du untered in mat al recovered fi from 1.50m b andpipe installe gl upon comple	KS hole located within the F mpted using Insulated H orgress borchole via Sor orgress borchole via Sor nic drilling. Strikes mass erial recovered from gro rom ground level to 0.43 gl to 3.00m bgl. d to 10.00m bgl and 50 tion. AGS Statu	Foundry Area of land Tools, term inc drilling. gl and complete ked due to the nund level to 3.7 m bgl. Sulphur mm diameter s IS: DRAFT	Teesside ninated at d via Rotary addition of '1m bgl. Ash pus odour noted tandpipe

	Λ	=/	5	A	A 5th	ECO	M Tel: 0113 391 6800 Borehole No. B-B	H26
				4	2 C Lee LS	city Wal eds 11 9AR	Fax: 0113 391 6899 www.aecom.com	
	Equipment	& Methods:				Project	Name: Foundry Central Exploratory Ground Investigation	Job No:
	0.00 - 0.20 0.20 - 10.50	Insulated Han Sonic Drilling	id Tools (Hammer ID: GS00008)		Project	ocation: Redcar, North Yorkshire	60701533
	10.50 - 30.00 30.00 - 30.09	Rotary Drilling Standard Pen	(Hammer ID: GS00008 etration Test (Hammer I	B) ID:		Client:	pp Alternative Energy Investments Limited and bp Exploration Operating Company Limited	7/02/2022
		GS00008)	x		ľ	E: 4559	1.227 6.907 AOD Date Completed	1. 23/03/2023
		In Situ Test	tina	Corin	a Infor	N: 5251 mation	02.781 Reduced	Depth Backfill/
ł	Depth	Sample	Test Type	TCR	FI	Core	DESCRIPTION Legend	(Thick) Instrument
	(m)	Туре	and Result	RQD	0	Run		()
	10.00				0	15.00- 16.50	From 14.91m to 16.50m bgl: Band of firm grey clay.	
	-				9		From 15.00m to 16.50m bgl: Abundant drilling induced	
	-							
	-				NI		From 15.23m to 15.32m bal: Zone of non-intact due to	
					14		fragility of rock.	
	-							
ł	-				NI		From 15 46m to 15 61m bol. Zone of non-intact due to	
	-						fragility of rock.	\vdash
	_							
				100 69				
024	-			0	5			
ary 20	-							\vdash
ebru	-16.00		PID = 0.0ppm					
: 23 F	10.00		nib oloppin		NI			
Date	-				0		From 16.02m to 16.08m bgl: Zone of non-intact due to fragility of rock.	
GLB	-				CLAY		From 16 15m to 16 18m bdl: Band of firm grev clay	\vdash
023.0	-							
38122					6			
HI	-							
Y SOI	-					16.50-		
NDR					NI	18.00	From 16.50m bgl: Becomes weak.	
FOU							From 16.50m to 16.68m bgl: Zone of non-intact due to	
RY	-						drilling techniques.	
1 LIBF	-							
40	-							\vdash
AGS	-17.00							
MOC	17.00				6			(5.99)
: AEC	-							
ibrary	-			100				+
<u> </u>				71 20				
GI.GI								
RAL	-				NI		From 17.37m to 17.46m bgl: Zone of non-intact due to	
EN1	-				10		fragility of rock.	┝╴╴│ ┎ ┲┓╏
JRY (
INNO	47 70 47 5				NI		From 17.56m to 17.72m bgl: Zone of non-intact due to	
5.4 F	- 17.70- 17.8	o 43 C						
ect: <	-							
Proj					7			╞╴╴╎┏┓┓╻
90-								
OLEI	Wa Strike Fir	ater Strikes	s	머니	lole D e Dia	iameter	Progress Remarks of Date Time Hole Casing Water 1. Sonic/Rotary Core (SO/RC) borehole located within the F	oundry Area of Teesside
REH	Depth			(mr	n)	Hole (r	n) Depth (m) Depth (m) Depth (m) 2. Buried Service Inspection pit attempted using Insulated Hi 0.2 with the service Inspection pit attempted using Insulated Hi 0.2 with the service Inspection pit attempted using Insulated Hi	and Tools, terminated at iic drilling.
SD CC							3. SO/RC borehole advanced via Śonic drilling to 10.50m bg coring to 30.090m bgl. 4. Togocranhv: I evel Ground	and completed via Rotary
NDAF							5. Groundwater not encountered during drilling. Strikes mask drilling water.	red due to the addition of
STA							or Sing Traterial recovered in material recovered from ground level to 0.433 in material recovered from 1.50m bgl to 3.00m bgl.	m bgl. Sulphurous odour noted
ort ID:							A 30mm diameter standpipe installed to 10.00m bgl and 50r installed to 24.00m bgl upon completion.	nm diameter standpipe
Rep	Notes: For	explanation	of symbols and a	abbrevi	ations	, see Ke	y Sheet. Scale:1:15 Logged By: NS Checked By: JW AGS Statu	s: DRAFT

		5	4	A	ECO	М	Т	N- 0113 30	1 6800			Bore	ehole	No. B-B	H26	
				2 (Le	City Wall eds	K	Fa	ax: 0113 39 ww.aecom	1 6899 .com			Sheet: 7	of 11			
Equipment & N	lethods:				Project I	Name: Foundry	Central Exp	oloratory G	round Inves	tigation					Job No:	
0.00 - 0.20 Ins 0.20 - 10.50 So	ulated Hand	t Tools Hammer ID: GS00008)		Project I	Location: Redca	ar, North Yo	rkshire							60701	533
10.50 - 30.00 Ro	ary Drilling	(Hammer ID: GS00008	B)		Client: I	op Alternative E	nergy Invest	tments Lim	ited and bp	Exploration	o Operati	ng Compa	any Limiteo	I		
30.00 - 30.09 Sta GS	ndard Pene 00008)	etration Test (Hammer I	ID:		Co-ordii E: 4559	nates: 01.227			Ground	Level (m):	6 907	AOD		Date Started: 1	7/03/2023	
			1		N: 5251	02.781					0.001	7.00		Date Completed	1: 23/03/202	23
In S	Situ Test Samplel	ing	Corin	g Infor	mation		DES	CRIPTION	J				Reduced Level	legend	Depth (Thick)	Backfill/ Instrument
(m)	Ref &	Test Type and Result	SCR	FI	Run								(m)	9	(m)	
18.00	турс	PID = 0.0ppm			18.00-											
-				NI	19.50	From 18.00	m to 18.2 niques	0m bgl: 2	Zone of no	on-intact o	due to				-	
						anning toom										
						Erom 18 20	m to 18 3	7m hal	Abundant	drilling in	ducod					
-						fractures.	111 10 10.3	i i i byi. i	ADUNUAN	arining ind	uuceu				-	
-				5											-	
						From 18.37	m to 18.6	0m bgl: I	Becomes	medium s	strong.					
-															-	
-				NI	-										-	
- 19 70 19 96	44 C					From 18.60	m to 18.6	5m bgl: 2	Zone of no	on-intact o	due to					
- 18.70- 18.80	44 C		100 74			fragility of ro	ick.	•								
<u>t</u>			21												-	
-19.00		PID = 0.0ppm		6											-	
															-	
															-	
															-	
					-											
						From 19.36	m to 19.5	0m bgl: 2	Zone of no	on-intact o	due to					
<u>-</u>				-	19 50-	fragility of ro	ick.								-	
					21.00	From 19.50	m to 19.8	5m bgl: 2	Zone of n	on-intact o	due to				_	
						fragility of ro	ick.									
															-	
															-	
					-											
															-	
-20.00		PID = 0.0ppm											-13 12		20.03	
				5		Medium stro	ng light g	rey medi	um interb	edded with	h light l	brown	-10.12		20.00	
						MUDSTONE	E with free ertical to 7	quent loa 0 degree	d structur s widely s	es presen	nt. Frac	ture			-	
			97			partly open of	clean. Fra	cture set	2: Subho	rizontal m	nedium	to			-	
			63 54			widely space	ed undulat	ing smoo	oth tight to	closed in	nfilled v	vith				
5						(PENARTH	GROUP)								-	
						From 20.28	m to 20.4	4m bal: 2	Zone of no	on-intact o	due to				-	
					1	fragility of ro	ick.	ini ogi. i								
																0000
															-	
	45 C			2												0000
t 5	450					E 00 70										
						⊢rom 20.70	m bgl: Be	comes w	/eak.						-	
2																
i Water	Strikes		 	<u>I NR</u> Hole D	iameter		Progre	SS					Remar	ks		
Strike Flow	Remarks	3	Hol	e Dia	Depth of	of Date	Time	Hole	Casing	Water	1. Sonic/F Works Re	Rotary Core edcar, North	(SO/RC) bore Yorkshire.	hole located within the F	oundry Area of	Teesside
			(mr	11)	noie (n	<u> </u>		Deptn (m)	Ueptn (m)	Deptn (m)	2. Buried 0.20m bg	Service Insp I. Permission	ection pit attention granted to p	mpted using Insulated H rogress borehole via Sor	and Tools, term tic drilling.	ninated at
											coring to 4. Topog	30.090m bgl raphy: Level	Ground.			a via i sotal y
											5. Ground drilling wa	dwater not e ater.	ncountered du	ring drilling. Strikes mas	ked due to the a	addition of
											encounter in materia	red in materi	al recovered f from 1.50m b	rom ground level to 0.43 gl to 3.00m bgl.	m bgl. Sulphuro	us odour noted
											7. 35mm installed t	diameter sta to 24.00m bg	indpipe installe I upon comple	ed to 10.00m bgl and 50 etion.	mm diameter st	andpipe
Notes: For exp	lanation	of symbols and a	abbrevi	ations	, see Ke	y Sheet.	Scale:1:15	5	Logged B	y: NS	Check	ed By: J\	N	AGS Statu	s: DRAFT	

	ΛΞ		5	A	A 5th		М	т	el: 0113 39	1 6800			Bore	ehole	No. B-B	H26	
				′	2 C Le	City Wall eds 11 9AR	k	F v	ax: 0113 39 www.aecom.	1 6899 com	AGS	22	Sheet: 8	of 11			
Equ	uipment & N	lethods:				Project	Name: Foundry	Central Ex	ploratory G	round Inves	tigation					Job No:	
0.00 -	- 0.20 Ins	ulated Hand	d Tools Hammar ID: CS00008	2)		Project	Location: Redca	r, North Yo	orkshire							6070 ⁻	1533
10.50)- 30.00 Rd	tary Drilling	(Hammer ID: GS00000	8)		Client:	bp Alternative Er	nergy Inves	stments Limi	ited and bp	Exploration	Opera	ting Compa	any Limited	ł		
30.00)- 30.09 Sta	andard Pene	etration Test (Hammer	ID:		Co-ordi	nates:			Ground	Level (m):				Date Started: 1	7/03/2023	
	G	00008)				E: 4559	02 791					6.907	AOD		Date Completed	d: 23/03/20	23
	In	Situ Test	ing	Corin	g Infor	mation	02.701							Reduced		Depth	Backfill/
	Depth	Sample	Toot Turno	TCR	-	Core		DE	SCRIPTION	l				Level (m)	Legend	(Thick)	Instrument
	(m)	Ref & Type	and Result	RQD	FI	Run										(,	
21.	.00		PID = 0.0ppm			21.00-	E 04.00										
F						22.00	From 21.00	m to 21.4	45m bgl: F	requent	drilling ind	luced				}	
																	ိ့ 🗄 ၀
Γ																	
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-				100												-	00000
21.	.77- 21.95	46 C		86													
1				24													
3																	°°° = °
22.	.00		PID = 0.0ppm													-	
																	°°° = °
3 22 .	. 13- 22.30	47 ES	PID = 0.0ppm														
<u>-</u>					CLAY	,	From 22.13	m to 22.3	30m bgl: E	Band of fi	rm light gr	ey gra	avelly			-	
202							clay. Gravel i	s angula	r to subar	ngular fine	e to mediu	im of					°°° = °
						1	muusione.										
					13											(4.80)	
					NI	-										(1.00)	°°° ∎°
						22.50-											
					6	24.00											
3 22.	.64- 22.76	48 C															
							Erom 22.67	m to 22 9	R4m bal 7	Zono of n	on intact c	to to					
							fragility of roo	ck.	54111 byl. 2			ue io	,				00000
					<u> </u>	-	Стана 00.00			• 0 h							
2					13		F10111 22.001	n bgi. Fi	acture se		ies mediu	m spa	aceu.			-	
Ĺ																	ိ့ 🗄 ိ
					CLAY		From 22.98	m bgl: Fr	acture se	t 1 becom	nes mediu	m spa	aced.				
ŧ							Energy 00.00) 4 mg la - 1 - 5) and of	oft and	' 	, alc: ·				00000
							present Gra	n to 23.0 vel is and	J4m bgl: E gular fine	oand of so of weak r	nudstone	avelly	ciay				၀ိ၀ ၀
				100 59	8											1	
				39													00000
					NI												
i-							From 23.43	m to 23.4	49m bgl: Z	Zone of n	on-intact c	due to)			╞╴╵	000
							fragility of roo	ck.	-								
					NI		From 22 59	m to 22 4	38m bal	one of p	on-intect o	to to				[
5							fragility of roo	ck.	55m byl. 2				•			┠│	
					7		-										
					<u> </u>												
					NI		From 23.82	m to 24.(00m bgl: Z	Zone of n	on-intact c	due to)			↓ ∣	
2							fragility of roo	ck.	0								
í i	Water	Strikes		-	ı Hole D	iameter		Progre	ess					Remar	ks		
Strik	ke Flow	Remarks	3	Hol	e Dia	Depth (of Date	Time	Hole	Casing	Water	1. Sonic Works	c/Rotary Core Redcar, North	(SO/RC) bore Yorkshire.	ehole located within the F	oundry Area o	f Teesside
	/u1				11)	inole (r	21-03-2023	17:30	24.00	24.00	2.80	2. Burie	ed Service Insp ogl. Permission	ection pit attention granted to p	empted using Insulated H rogress borehole via Sor	land Tools, tern hic drilling.	ninated at
							22-03-2023	08:15	24.00	24.00	5.30	coring t	o 30.090m bgl graphy: Level	Ground.	orno arning to 10.50m bg	yi anu complete	su via riolary
												5. Grou	indwater not e water.	ncountered du	ring drilling. Strikes mas	ked due to the	addition of
									1			6. Slag	material encor tered in materi	Intered in mat al recovered f	renal recovered from gro from ground level to 0.43 al to 3.00m bal	und level to 3.7 im bgl. Sulphur	ous odour noted
												7. 35mr	n diameter sta d to 24.00m bo	ndpipe install	ed to 10.00m bgl and 50 etion.	mm diameter s	tandpipe
į —						L		Scale 1.1	5	Longed R	V: NS	Chec	ked Rv II	N	AGS State	IS: DRAFT	
∶∣Noʻ	tes: For exp	lanation	ot symbols and a	abbrevi	ations	, see Ke	ey Sheet.		-		,	1 51100		-	1,000 01410		

ΛΞ	7	M		A 5th		М	Te	el: 0113 391	6800			Bore	ehole	No. B-B	H26	
				2 C Lee LS	City Wall eds 11 9AR	ĸ	Fa	ax: 0113 39 ww.aecom.	1 6899 com	AGS	12	Sheet: 9	of 11			
Equipment & I	Methods:				Project I	Name: Foundry (Central Ex	ploratory Gr	ound Inves	tigation					Job No:	
0.00 - 0.20 In 0.20 - 10.50 S	sulated Hand onic Drilling (l Tools Hammer ID: GS00008)			Project l	Location: Redcar	, North Yo	orkshire							60701	533
10.50 - 30.00 R 30.00 - 30.09 S	otary Drilling andard Pene	(Hammer ID: GS00008 etration Test (Hammer II) D:		Client: I	bp Alternative En	ergy Inves	tments Limi	ted and bp	Exploration	Operat	ting Comp	any Limited) Data Otartadi 1	7/02/2022	
G	S00008)	,			E: 45590	01.227			Ground	Levei (m):	6.907	AOD		Date Completer	1/U3/2U23 1· 23/03/202	3
In	Situ Test	ina	Corin	a Infor	N: 5251	02.781							Reduced	Date Completed	Denth	Backfill/
Depth (m)	Sample Ref &	Test Type	TCR SCR	FI	Core		DES	SCRIPTION					Level (m)	Legend	(Thick) (m)	Instrument
24.00	Туре	and Result SPT(C) N>100 25 for 70mm /	RQD		24.00-											
_		100 for 40mm			25.50	From 24.00n	n to 24.1	4m bgl: Z	Zone of no	o recovery	y.				-	
_				NI		From 24.14n	n to 24.3	85m bgl: F	Recovered	l as grey s	slightly	y vodium			-	
- 24 35- 24 47	49 C					cobble conter	nt. Cobbl	es are an	gular to s	ubangula	rof	lealum			-	
-				8		maasterio.									-	
-						From 24.47n	n to 24.7	'9m bgl: F	Recovered	l as grey s	slightl	y			-	
_				NI		clayey angula cobble conter	r to suba nt. Cobbl	angular gr es are an	avel of m gular to s	udstone v ubangula	with m r of	iedium			-	
_			91 33			mudstone.									-	
-			21	0									-17.92		24.83	
- -				12		Very weak fra frequent zone	actured d	lark reddi ering oxid	sh brown lation cau	MUDSTC sing dark	DNE w blueis	/ith sh grey			-	
_						colouring. Fra	acture se ating rou	et 1: Subv Jgh partly	ertical to open wea	70 degree athered in	es mea filled v	dium with soft			_	
						reddish brown subrounded fi	າ slightly ine of mເ	sandy gr udstone.	avelly cla Sand is fi	y. Gravel i ne. Fractu	is ang ure se	ular to t 2:				
5 1 				0		Horizontal me	edium sp Icite infil	aced und	ulating ro	ugh tight	clean	or with				
-				CLAY		(MERCIA MU	DSTON	E GROUI	P)						-	
25.28- 25.48	50 C					From 25.00n	n to 25.0)6m bgl: Z	Cone of no	on-intact o	due to				-	
				5		fragility of roc	К.								-	
				NR	25.50- 27.00											
				0		From 25.68n	n bal: Be	comes m	edium sti	ona with	closel	v			-	
-				NI		spaced sub h	orizontal	to horizo	ntal 1-2m	im wide c	alcite	veins.			-	
- - -						From 25.73n	n to 25.8	84m bgl: Z	Cone of no	on-intact o	due to				-	
25.98- 26.61	51 C					Tragility of foc	к.								_	
				6												
-			88												-	
= ?			53												-	
_															_	
					-											
_						From 26.46n brown slightly	n to 26.5 sandy g	58m bgl: F gravelly si	Recovered Ity clay du	l as soft r le to weat	eddish	ר ק.				
				0		Gravel is angl to medium.	ular to sı	ubangular	fine of n	udstone.	Sand	ıs fine				
- 26.80	52 ES	PID = 0.0ppm		CLAY		From 26 74-	n to 26 a	20m hal. r	Parovera	las coft -	oddia					
				0		brown slightly	sandy g	pravelly si	ty clay du	e to weat	thering). io fin i				
				NI		to medium.	uiar to si	upangulai	nne of m	iuastone.	Sand	is fine				
Wate	r Strikes		ŀ	Hole D	iameter	of Dat	Progre	ess		144-1	1 Sonio	Botany Coro	Remar	KS	oundry Area of	Teesside
Strike Flow	Remarks	3	Hol (mr	le Dia n)	Depth o Hole (n	ot Date n)	ſime	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Works F	Redcar, North d Service Insp	Yorkshire.	more rocated within the F	and Tools, termi	nated at
											0.20m b 3. SO/R coring to	gi. Permissio C borehole a 30.090m bg	granted to p dvanced via S I.	rogress borehole via Sor onic drilling to 10.50m bg	iic ariiiing. I and completed	via Rotary
											4. Topo 5. Grou drilling w	graphy: Level ndwater not e vater.	Ground. ncountered du	ring drilling. Strikes mas	ked due to the a	ddition of
											6. Slag encount in mater	material enco ered in materi ial recovered	untered in mat al recovered f from 1.50m b	erial recovered from gro rom ground level to 0.43 gl to 3.00m bgl.	und level to 3.71 m bgl. Sulphurou	m bgl. Ash us odour noted
											7. 35mn installed	n diameter sta to 24.00m bo	andpipe installe gl upon comple	ed to 10.00m bgl and 50 etion.	mm diameter sta	andpipe
Notes: For ex	olanation	of symbols and a	bbrevi	iations	see Ke	v Sheet	Scale:1:15	5	Logged B	: NS	Check	ked By: J	N	AGS Statu	s: DRAFT	

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A=				2 C Lei LS	i Floor City Wal eds 11 9AR	k	Fa	ax: 0113 391 ww.aecom.	6800 1 6899 com	AGS	122	Sheet: 1	0 of 11			
Equipment & I	Methods:	d Tools			Project	Name: Foundry	Central Ex	ploratory Gr	ound Inves	tigation	•				Job No:	
0.20 - 10.50 S	onic Drilling (Hammer ID: GS00008)		Project	Location: Redca	r, North Yo	rkshire tmente Limi	ted and br	Evoloration	Operatir	na Comp	anv Limiter	1	607015	533
30.00 - 30.09 S	andard Pen	etration Test (Hammer I	5) D:		Co-ordi	nates:	lergy inves		Ground	Level (m):	Operaul	ig compa		Date Started: 1	7/03/2023	
G	S00008)				E: 4559 N: 5251	01.227 02.781					6.907	AOD		Date Completed	d: 23/03/2023	3
In	Situ Test	ing	Coring	g Infor	mation								Reduced Level		Depth (Thick)	Backfill/
Depth (m)	Ref &	Test Type	SCR	FI	Core Run		DES	SCRIPTION					(m)	Legend	(m)	inot union
27.00	Type	SPT(C) N>100 25 for 60mm /	RQD		27.00-											
27.07-27.38	21.07-21.38 53 C 100 for 20mm 25.92m to 27.00m bgl: Zone of non-intact due to fragility of rock.												-			
_						Erom 27 00	From 27.00m bol: Fracture set 1 is no longer visible									
	From 27.00m bgl: Fracture set 1 is no longer visible. From 27.07m bgl: Becomes weak.															
-																
_															- (5.17)	
_						From 27.40	m to 28.9	0m bgl: C	Calcite ve	ins becom	ne very				\vdash	
_				_		abandan ap	10 201111	r unort.								
				5												
-			100 99													
_			61													
-																
															L	
_																
Г															$\left \right $	
_	NI From 28.23m to 28.33m bgl: Recovered as soft reddish 0 brown gravel due to weathering. Gravel is angular to subsnular fine to medium of muldistone															
-				NI												
_					28.50-	From 28.40m to 28.50m bgl: Recovered as soft reddish brown slightly clayey slightly sandy gravel due to weathering.										
-					30.00	Gravel is and Sand is fine	Gravel is angular to subangular fine to medium of mudstone.								$\left \right $	
_				7												
-																
28.91- 29.06	16 54 C From 28.80m to 28.84m bgl: Recovered as medium strong 16 54 C reddish brown angular to subangular fine to medium gravel of									-						
-				-		mudstone.									┣ │	
-				NI		From 28.90	m to 30.0 bick	0m bgl: C	Calcite ve	ins becom	ne frequ	lent				
						Erom 20.04	m to 20 1	Om hali F		d oo modiu	um atra					
-			100 87			reddish brow	n angula	r to subar	ngular fin	e to mediu	um sirc um grav	/el of				
_			82			mudstone.										
- 29.40- 29.55	55 C															
_				3												
_																
-															$\left \right $	
_					-											
				NI		From 29.80	m to 29.9	1m bgl: F	Recovere	d as mediu	um stro	ong				
				0	1	reddish brow coarse grave	n slightly I of muds	clayey ar	ngular to	subangula	ar fine t	0	00.05		20.00	
Wate	r Strikes	I		lole D	iameter		Progre	ss	1-	1	1.0-1.7	ator: C	Remar	KS	30.00	Coopeid-
Strike Flow Depth	Remarks	3	Hole (mn	e Dia n)	Depth Hole (I	of Date n)	Time	Hole Depth (m)	Casing Depth (m	Water Depth (m)	1. Sonic/F Works Re 2. Buried	otary Core dcar, North Service Insp	(SU/RC) bore Yorkshire. Section pit atte	more located within the F	oundry Area of T	nated at
			146		30.00						0.20m bgl 3. SO/RC coring to 3	. Permission borehole ad 30.090m bal	n granted to pi dvanced via So I.	rogress borehole via Sor onic drilling to 10.50m bg	nic drilling. gl and completed	via Rotary
											4. Topogr 5. Ground drilling wa	aphy: Level water not e ter.	Ground. ncountered du	ring drilling. Strikes mas	ked due to the ad	ddition of
											6. Slag m encounter	aterial enco ed in materi I recovered	untered in mat al recovered f from 1.50m by	erial recovered from gro rom ground level to 0.43 al to 3.00m bal	und level to 3.71 m bgl. Sulphurou	m bgl. Ash is odour noted
											7. 35mm of installed to	diameter sta o 24.00m bg	andpipe installe gl upon comple	ed to 10.00m bgl and 50 etion.	mm diameter sta	ndpipe
Notes: For ex	planation	of symbols and a	abbrevia	ations	, see Ke	ey Sheet.	Scale:1:15	5	Logged B	y: NS	Checke	ed By: J\	N	AGS Statu	is: DRAFT	

	A	EC	ON		5th 2 C Lee	Floor City Walk	Λ	Te Fa W	el: 0113 391 ax: 0113 39 ww.aecom.	6800 1 6899 com	a gs		Bore	rehole No. B-BH26					
	Equipment 0.00 - 0.20 0.20 - 10.50 10.50 - 30.00	& Methods: Insulated Han Sonic Drilling Rotary Drilling	d Tools (Hammer ID: GS00008) (Hammer ID: GS00008)		<u>11 9AR</u> Project N Project L Client: b	lame: Foundry ocation: Redca p Alternative Er	Central Exp r, North Yo nergy Inves	ploratory Gr orkshire tments Limi	ound Inves	registered user 202 tigation Exploration	² Operati	ing Compa	any Limited		Job No: 6070	1533		
	30.00 - 30.09	Standard Pene GS00008)	etration Test (Hammer I	D:	(Co-ordin E: 45590	ates: 1.227	Ground Level (m): 6.907				AOD Date Started: 1			7/03/2023 d: 23/03/2023				
	Depth	In Situ Test Sample	ing	Corine TCR	g Infor	N: 52510 mation Core	02.781	DES	SCRIPTION					Reduced Level (m)	Legend	Depth (Thick)	Backfill/ Instrument		
	(m) 30.00	Ref & Type	and Result SPT(C) N>100 25 for 75mm /	SCR RQD	FI	Run 30.00	NO RECOVE	ERY - zor	ne of SPT	(C) test						(0.09)			
LE LOG Project: V5.4 FOUNDRY CENTRAL GI.GPJ Library: AECOM AGS 4_0_4 LIBRARY FOUNDRY SOUTH 08122023.GLB Date: 23 February 2024		ater Strikes			Iole D	iameter		End (Thi	of Boreh ckness of not pro	ole 30.09	9 m /er			Remark	S				
D: STANDARD COREHOLE	Strike Fl Depth	ow Remarks	3	Hole (mn 50	e Dia n)	Depth o Hole (m 30.09	f Date)) 22-03-2023	Time 17:30	Hole Depth (m) 30.09	Casing Depth (m) 30.00	Water Depth (m) 3.60	1. Sonic// Works R& 2. Buried 0.20m bg 3. SO/RC coring to 4. Topog 5. Groum drilling wa 6. Slag m encounte in materia 7. 35mm	Rotary Core edcar, North Service Insp gl. Permission C borehole au 30.090m bg raphy: Level dwater not e ater. naterial encoo red in materia al recovered diameter sta	(SO/RC) borel (SO/RC) borel pection pit atter n granted to pro dvanced via So I. Ground. ncountered dur untered in mate ial recovered fr from 1.50m bg andpipe installe	note located within the note located within the ogress borehole via Sc nic drilling to 10.50m t ing drilling. Strikes ma rigital recovered from gr om ground level to 0.4 it to 3.00m bgl.	Foundry Area o Hand Tools, terr onic drilling. ogl and complete sked due to the round level to 3.7 3m bgl. Sulphur Omm diameter s	f Teesside ninated at ed via Rotary addition of 71m bgl. Ash ous odour noted tandpipe		
Report	Notes: For	explanation	of symbols and a	bbrevia	ations,	, see Key	/ Sheet.	Scale:1:15	5	Logged B	y: NS	Check	ed By: J	W	AGS Stat	us: DRAFT	·		

DATA PENDING

Borehole logs for the following wells were not available at the time of writing and will be submitted once finalised:

FOU-AUK-BH101, FOU-AUK-BH102, FOU-AUK-BH103, and FOU-AUK-BH104

Appendix C

Graphs showing substance concentrations recorded in A-BH26S and A-BH35S over the period of June 2023 to July 2024













1 Compliance limit based on mean plus 3 x standard deviation 2 Compliance limit based on MRV or WQS

Appendix D

Compliance Limit Derivation Table

Appendix D

Compliance Limit Derivation Table

Units	MRV/WQS	Minimum	Maximum	Mean*	Standard Deviation	Mean + 3 x SD	Criteria	Rationale
µg/l	5 ²	3.74	8.7	5.92	1.95	11.8	11.8	Mean + 3 x SD
µg/l	1 ²	<mdl< td=""><td><mdl< td=""><td>-</td><td>-</td><td>-</td><td>1</td><td>MRV</td></mdl<></td></mdl<>	<mdl< td=""><td>-</td><td>-</td><td>-</td><td>1</td><td>MRV</td></mdl<>	-	-	-	1	MRV
µg/l	0.2 ²	<mdl< td=""><td>0.32</td><td>0.10</td><td>0.10</td><td>0.401</td><td>0.401</td><td>Mean + 3 x SD</td></mdl<>	0.32	0.10	0.10	0.401	0.401	Mean + 3 x SD
µg/l	0.02 ²	<mdl< td=""><td>0.04</td><td>0.02</td><td>0.01</td><td>0.053</td><td>0.0529</td><td>Mean + 3 x SD</td></mdl<>	0.04	0.02	0.01	0.053	0.0529	Mean + 3 x SD
µg/l	0.02 ²	<mdl< td=""><td><mdl< td=""><td>-</td><td>-</td><td>-</td><td>0.02</td><td>MRV</td></mdl<></td></mdl<>	<mdl< td=""><td>-</td><td>-</td><td>-</td><td>0.02</td><td>MRV</td></mdl<>	-	-	-	0.02	MRV
µg/l	2 ³	<mdl< td=""><td>0.15</td><td>0.10</td><td>0.077</td><td>0.332</td><td>2</td><td>WQS</td></mdl<>	0.15	0.10	0.077	0.332	2	WQS
µg/l	0.2 ²	<mdl< td=""><td><mdl< td=""><td>-</td><td>-</td><td>-</td><td>0.2</td><td>MRV</td></mdl<></td></mdl<>	<mdl< td=""><td>-</td><td>-</td><td>-</td><td>0.2</td><td>MRV</td></mdl<>	-	-	-	0.2	MRV
mg/l	0.5 ¹	1.8	4.1	2.98	1.02	6.04	6.04	Mean + 3 x SD
µg/l	50 ¹	4.8	9.9	7.25	1.74	12.5	50	WQS
µg/l	5 ²	4.4	15	8.92	4.55	22.6	22.6	Mean + 3 x SD
µg/l	1 ²	<mdl< td=""><td><mdl< td=""><td>-</td><td>-</td><td>-</td><td>1</td><td>MRV</td></mdl<></td></mdl<>	<mdl< td=""><td>-</td><td>-</td><td>-</td><td>1</td><td>MRV</td></mdl<>	-	-	-	1	MRV
µg/l	0.2 ²	<mdl< td=""><td>0.27</td><td>0.09</td><td>0.08</td><td>0.340</td><td>0.340</td><td>Mean + 3 x SD</td></mdl<>	0.27	0.09	0.08	0.340	0.340	Mean + 3 x SD
µg/l	0.02 ²	<mdl< td=""><td><mdl< td=""><td>0.01</td><td></td><td>-</td><td>0.0200</td><td>MRV</td></mdl<></td></mdl<>	<mdl< td=""><td>0.01</td><td></td><td>-</td><td>0.0200</td><td>MRV</td></mdl<>	0.01		-	0.0200	MRV
µg/l	0.02 ²	<mdl< td=""><td><mdl< td=""><td>-</td><td>-</td><td>-</td><td>0.02</td><td>MRV</td></mdl<></td></mdl<>	<mdl< td=""><td>-</td><td>-</td><td>-</td><td>0.02</td><td>MRV</td></mdl<>	-	-	-	0.02	MRV
µg/l	2 ³	<mdl< td=""><td>0.75</td><td>0.13</td><td>0.272</td><td>0.950</td><td>2</td><td>WQS</td></mdl<>	0.75	0.13	0.272	0.950	2	WQS
µg/l	0.2 ²	<mdl< td=""><td><mdl< td=""><td>-</td><td>-</td><td>-</td><td>0.2</td><td>MRV</td></mdl<></td></mdl<>	<mdl< td=""><td>-</td><td>-</td><td>-</td><td>0.2</td><td>MRV</td></mdl<>	-	-	-	0.2	MRV
mg/l	0.5 ¹	1.3	2.2	1.64	0.336	2.65	2.65	Mean + 3 x SD
µg/l	50 ¹	5.8	7.54	6.61	0.69	8.69	50	WQS
	Units µg/l µg/l	Units MRV/WQS µg/l 5² µg/l 1² µg/l 0.2² µg/l 0.02² µg/l 0.02² µg/l 0.02² µg/l 0.102² µg/l 0.102² µg/l 0.102² µg/l 0.11 µg/l 501 µg/l 52² µg/l 1² µg/l 1² µg/l 0.12² µg/l 0.12² µg/l 0.12² µg/l 1² µg/l 0.2² µg/l 0.2² µg/l 0.2² µg/l 0.2² µg/l 0.2² µg/l 0.2² µg/l 0.02² µg/l 0.02² µg/l 0.102² µg/l 0.2² µg/l 0.102² µg/l 0.2² µg/l 0.2² µg/l 0.51	Units MRV/WQS Minimum μg/l 5² 3.74 μg/l 1² <mdl< td=""> μg/l 0.2² <mdl< td=""> μg/l 0.02² <mdl< td=""> μg/l 0.3² <mdl< td=""> μg/l 0.5¹ 1.8 μg/l 50¹ 4.8 μg/l 50¹ 4.4 μg/l 1² <mdl< td=""> μg/l 1² <mdl< td=""> μg/l 0.2² <mdl< td=""> μg/l 1² <mdl< td=""> μg/l 0.2² <mdl< td=""> μg/l 0.02² <mdl< td=""> μg/l 0.02² <mdl< td=""> μg/l 0.02² <mdl< td=""> μg/l 0.2² <mdl< td=""> μg/l 0.5¹ <mdl< td=""> μg/l 0.5¹ <mdl< td=""> <td>Units MRV/WQS Minimum Maximum μg/l 5² 3.74 8.7 μg/l 1² <mdl< td=""> <mdl< td=""> μg/l 0.2² <mdl< td=""> 0.32 μg/l 0.02² <mdl< td=""> 0.04 μg/l 0.02² <mdl< td=""> 0.04 μg/l 0.02² <mdl< td=""> 0.15 μg/l 0.2² <mdl< td=""> 0.15 μg/l 0.5¹ 1.8 4.1 μg/l 50¹ 4.8 9.9 μg/l 52 4.4 15 μg/l 1² <mdl< td=""> 0.27 μg/l 1² <mdl< td=""> 0.27 μg/l 1² <mdl< td=""> 0.27 μg/l 0.2² <mdl< td=""> 0.27 μg/l 0.02² <mdl< td=""> <mdl< td=""> μg/l 0.02² <mdl< td=""> <mdl< td=""> μg/l 0.02² <mdl< td=""> <mdl< td=""> μg/l 2.3 <mdl< td=""> <mdl< td=""></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></td><td>Units MRV/WQS Minimum Maximum Mean* μg/l 5² 3.74 8.7 5.92 μg/l 1² <mdl< td=""> <mdl< td=""> - 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1 \mug/l 0.2² <mdl< td=""> 0.32 0.10 0.10 0.401 0.401 \mug/l 0.02² <mdl< td=""> 0.32 0.10 0.10 0.053 0.629 \mug/l 0.02² <mdl< td=""> 0.04 0.02 0.01 0.053 0.02 \mug/l 0.02² <mdl< td=""> 0.04 0.02 0.01 0.053 0.02 \mug/l 0.02² <mdl< td=""> 0.15 0.10 0.077 0.332 2 \mug/l 0.2² <mdl< td=""> 1.02 0.04 0.02 \mug/l 0.5¹ 1.8 4.1 2.98 1.02 6.04 6.04 \mug/l 5¹ 4.4<!--</td--></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></td></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<>	Units MRV/WQS Minimum Maximum μg/l 5² 3.74 8.7 μg/l 1² <mdl< td=""> <mdl< td=""> μg/l 0.2² <mdl< td=""> 0.32 μg/l 0.02² <mdl< td=""> 0.04 μg/l 0.02² <mdl< td=""> 0.04 μg/l 0.02² <mdl< td=""> 0.15 μg/l 0.2² <mdl< td=""> 0.15 μg/l 0.5¹ 1.8 4.1 μg/l 50¹ 4.8 9.9 μg/l 52 4.4 15 μg/l 1² <mdl< td=""> 0.27 μg/l 1² <mdl< td=""> 0.27 μg/l 1² <mdl< td=""> 0.27 μg/l 0.2² <mdl< td=""> 0.27 μg/l 0.02² <mdl< td=""> <mdl< td=""> μg/l 0.02² <mdl< td=""> <mdl< td=""> μg/l 0.02² <mdl< td=""> <mdl< td=""> μg/l 2.3 <mdl< td=""> <mdl< td=""></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<></mdl<>	Units MRV/WQS Minimum Maximum Mean* μg/l 5² 3.74 8.7 5.92 μg/l 1² <mdl< td=""> <mdl< td=""> - 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Notes

*For results <MDL, a value of 0.5 times MDL has been used

1 – Drinking water standard

2 - MRV

3 - Environmental Quality Standard adopted in absence of drinking water standard

4 - For PAH, data from PAH specific method is presented in preference to the VOC or SVOC method as a lower MDL is achieved.

5 – For total cyanide, a single sample from July 24 excluded due to high MDL (result <40ug/l)

Appendix E

Contingency Action: Process Flow Diagram



