# GEO

# **GEOSPHERE ENVIRONMENTAL**

REPORT NUMBER:	4476,GI/GROUND/FS,TP/16-01-20/V1
SITE:	Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
DATE:	16/01/2020



#### **DOCUMENT CONTROL SHEET**

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Client:	Josephine Fox
Project Name:	Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
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#### **Issued By:**

Geosphere Environmental Ltd, Brightwell Barns, Ipswich Road, Brightwell, Suffolk, IP10 0BJ. T: 01603 298 076 / 01473 353 519. W: <u>www.geosphere-environmental.co.uk</u>

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#### Limit of Reliance:

This report is based on the site findings at the time of the associated walkover/site investigation works and information provided by the client at the time of writing. Should site conditions alter or development proposals alter, a reassessment of the enclosed findings should be undertaken. Refer to Appendix 1 for full details of report limitations.

Prepared By:	Reviewed By:	Authorised By:
Flora Sutherland	Thomas Powling	Paul Davies
Assistant Geo-Environmental	Director	Director
Consultant		
Handred	ThouseTowhig	Paul Durit

VERSION RECO	ORD			
Version	Date	Document Revision Details	Prepared By:	Admin



#### EXECUTIVE SUMMARY

Project Description	Geosphere Environmental Ltd was commissioned by the Client to undertake a Phase 2 Ground Investigation for a change in land use from agricultural to residential development at Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR.
	It has been understood that the site is to undergo a proposed change of use from agricultural buildings to dwelling houses (Class C3) with associated gardens and parking areas – but the exact extents of the private garden areas have not yet been finalised.
Site Location / Description	The Site Investigation targeted the two areas to be converted. Both areas comprised of large agricultural structures of brick and corrugated metal construction and concrete flooring.
Site Works	<ul> <li>Site works were carried out on the 6th December 2019 and comprised the following:</li> <li>Formation of nine exploratory holes (WS1 to WS9), using windowless sampler techniques, to depths between 1.00 and 3.00m BGL; and</li> <li>Associated soil logging and environmental sampling.</li> </ul>
Ground Conditions	The ground conditions encountered comprised nominal layer of Topsoil/Concrete and Made Ground overlying deposits of Lowestoft Formation (cohesive). No groundwater was encountered during the Ground Investigation.
Laboratory Results	No elevated concentrations of determinants were noted above the most conservative screening values, with the exception of a single positive identification of fibrous asbestos within sample J2 at 0.40m bgl in WS4. Quantification testing was undertaken and indicated there to be 0.008% of asbestos identified. When compared with the CL:AIRE and Joint Industry Working Group CAR-SOIL guidance, this concentration is considered Very Low.
Recommendations	Although a full Development Plan is not available at this time, the location of WS4 is not anticipated to lie within any private gardens or soft landscaping and the quantifiable amount within the sample was confirmed as 'Very Low'. On this basis there is not considered to be a source of asbestos within near surface soils.
	Although there is not deemed to be a source currently, there may be a risk of finding potentially asbestos containing materials during the development process, and this risk is best managed with a robust discovery strategy, and if necessary, revision of any Conceptual Model.
This Executive Summa	ary only provides a summary of the site data and its assessment. It does
not provide a definiti	ve engineering analysis and is for guidance only. It is recommended
that the reader review	vs the report in its entirety and any material referenced therein.



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#### **1. INTRODUCTION**

Geosphere Environmental Ltd was commissioned by the Client, Josephine Fox, to undertake a Phase 2 Ground Investigation for a change in land use from agricultural to residential development at Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR.

It has been understood that the site is to undergo a proposed change of use from agricultural buildings to dwelling houses (Class C3) with associated gardens and parking areas – it was these discrete areas that were the subject of our intrusive investigation – not the wider site. The exact boundaries of the plots and garden areas were unknown at the time of the investigation but the likely extent and location of soft standing within these areas was advised by the Client onsite and, as such, is considered representative of the proposed development.

A plan of the likely extent of areas to be developed is provided within Appendix 3 as Drawing ref. 4476,GI/003/Rev0 – should these anticipated boundaries or anticipated building footprint vary significantly once development starts, then this Risk Assessment may need to be revised.

The primary objectives of this Ground Investigation were to:

- Assess the ground conditions at the site;
- Assess the potential risk to human health and the environment based upon the findings of the investigation.

These were achieved by:

- Undertaking an intrusive investigation of the site, based upon the findings of the previous Desk Study, the advice on development layout from the Client and the scope agreed with the Client;
- Logging and sampling the soils on the site and noting any visual or olfactory evidence of contamination;
- Undertaking laboratory chemical analysis of selected soil samples to assess soil quality and ground conditions at the site;
- Updating the initial Conceptual Site Model and defining suitable remedial/mitigating and verification actions.



#### **2. SITE SETTINGS**

#### 2.1. Site Description

The subject site was situated in Wetherden and may be located by National Grid Reference (NGR) TM 01206 63170.

The area of the land within the ownership of the Client comprised of soft and hard standing areas. The scope of investigation targeted two smaller areas within this land which have been specifically targeted for the Ground Investigation – see Section 1 of this report.

The Site Investigation targeted the two areas to be converted. These have been assigned Area 1 and Area 2 for the purpose of this site description and can be seen in Drawing ref. 4476,GI/003/Rev0.

Area 1 comprised of two large agricultural structures of brick and corrugated metal construction and concrete flooring. The most westerly structure was accessible and was the main target of investigation within Area 1 due to its intended residential garden end-use. This structure was noted to contain general farm waste and hay only.

The western section of Area 2 was predominantly covered by a large agricultural rectangular building which continued north and southwards from Area 2. Concrete hardstanding existed to the east of this building and a narrow strip of softstanding existed to the west.

A Site Location Plan is included within Appendix 3 as Drawing reference 4476,GI/001/Rev0.

Photographic records are presented in Appendix 7 of this report.

#### **2.2. Previous Reports**

A Phase One Desk Study report has been produced for the site:

 "A Phase 1 Desk Study to support the change of use of agricultural buildings to residential use at Progress Farm, Base Green Road, Wetherden, IP14 3LR" dated 12 September 2019, report ref: "BJH/19.307/PhaseI.

This Desk Study encompassed the entirety of the wider site, whereas the focus of this subsequent Site Investigation will be two private dwellings where redevelopment will occur.

Relevant information from the Desk Study is summarised overleaf:



- Ground conditions anticipated were Lowestoft Formation (diamicton) underlain by the Crag Group (sand) at depth;
- Secondary A Aquifer within Lowestoft Formation overlying a Principal Aquifer in the Crag;
- Significant contamination sources are not expected but there could be isolated contamination in near surface soils from an agricultural land use;
- Low risk to controlled waters;
- No significant sources of ground gas;
- If domestic gardens and/or soft landscaping areas are proposed within the development, it is recommended that shallow soil sampling is carried out in these areas.



#### **3. SITE WORKS**

#### 3.1. Methodology

This Site Investigation was carried out in accordance with the practices set out in BS 10175: 2011+A1:2013, (ref. **R.7**) and BS 5930: 2015 (ref. **R.8**). The investigation and location of exploratory holes targeted the anticipated proposed garden areas of the development, as advised by the Desk Study and as located by the Client.

#### 3.2. Scope

Site works were carried out on the 6<sup>th</sup> December 2019 and comprised the following:

- Formation of nine exploratory holes (WS1 to WS9), using windowless sampler techniques, to depths between 1.00 and 3.00m BGL; and
- Associated soil logging and environmental sampling.

An Exploratory Hole Location Plan is provided within Appendix 3 as Drawing ref. 4476,GI/002/Rev0.

#### **3.3. Ground Conditions Encountered**

The sequence of the strata encountered during the investigation generally confirmed the anticipated superficial geology as interpreted from the Desk Study.

The sequence and indicative thickness of the strata encountered are provided below:

Table 1 - Ground Conditions													
Strata	Depth Encour	ntered (mbgl)	Strata Thickness	Composition									
Strata	From	То	(m)										
TOPSOIL	0.00	0.30 – 0.35	0.30 - 0.35	Within exploratory hole WS1 and WS4. Dark brown sand clay and silt.									
HARDSTANDING	0.00	0.15 - 0.40	0.15 - 0.40	Within exploratory holes WS2, WS3, WS5, WS6, WS7, WS8 and WS9, Grev concrete.									
MADE GROUND	0.15 - 0.30	0.42 - 0.80	0.27 – 0.50	Within exploratory hole WS4 and WS5.Brown gravelly clayey sand.Brick, pipe, concrete, glass and flint present.									
LOWESTOFT FORMATION (Cohesive)	0.20 - 0.80	1.00 - 3.00	0.60 - 2.65	Within all exploratory holes. Brown sandy gravelly clay. Gravel is flint and chalk.									

#### 3.4. Visual and Olfactory Evidence of Contamination

No visual or olfactory evidence of gross contamination was encountered during the ground investigation.



#### **4. LABORATORY TESTING**

#### 4.1. Methodology

Representative disturbed samples were taken at the depths shown on the Exploratory Hole records and despatched to the laboratory. The Exploratory Hole Logs are included in Appendix 3.

Samples were collected, for environmental purposes, in glass jars and a plastic tub and then kept in a Cool Box. Six samples were selected to be tested for commonly occurring contaminates.

#### 4.2. Environmental Testing Suite 4.2.1. Quality Control

The environmental laboratory used, (DETS) is an accredited laboratory by the United Kingdom Accreditation Service (UKAS), and at least 50% of individual parameters are from methods pending accreditation to the Environment Agency Monitoring Certification Scheme (MCERTS) for the range of analyses undertaken as part of this investigation. The MCERTS performance standard for the chemical testing of soil is an application of ISO 17025: 2005, specifically for the chemical testing of soil.

#### **4.2.2.** Environmental Testing Suite – Soils

The suite of chemical analyses was based upon the findings of the Phase 1 Desk Study. The chemical analyses were carried out on multiple samples of soil. The nature of the analyses is detailed below:

- Metals screen arsenic, cadmium, chromium, lead, mercury, selenium, boron (water soluble), beryllium, copper, nickel, vanadium and zinc;
- Organic screen total petroleum hydrocarbons (TPH) with specific carbon banding; benzene, toluene, ethylbenzene and xylenes (BTEX); polyaromatic hydrocarbons (PAH) USEPA 16 suite;
- Inorganics screen cyanide (total), sulphate (water soluble);
- Others pH, organic matter, asbestos.

A copy of the laboratory test results is included in Appendix 6.

#### 4.2.3. Groundwater

No groundwater was encountered in any of the exploratory holes during intrusive works.



#### 5. RISK ASSESSMENT

# 5.1. Risk to Human Health 5.1.1. Methodology

The current guidance requires that a Conceptual Model be formulated, based upon the findings of the research. The Conceptual Model is limited, at this stage, to the identification and assessment of potential 'hazards' identified or suspected from the results of the research; the potential 'receptors' that may be affected and the anticipated 'pathways' to those receptors. The findings are summarised in the following subsections.

The guidance proposes a four-stage approach for the assessment of contamination and the associated risks. The four stages are listed below:

- Hazard Identification;
- Hazard Assessment;
- Risk Estimation;
- Risk Evaluation.

#### 5.1.2. Soil Quality Screening Values

The results of the soil analyses have been compared to soil quality screening values where deemed applicable, such as:

- The LQM/CIEH S4ULs for Human Health Risk Assessment, (ref. R.16);
- Defra/CL:AIRE Final C4SLs, (ref. R.15);

The soil samples laboratory chemical results were compared against the most conservative screening values for a private residential development with plant uptake. The findings of which are discussed in the following sections.

#### 5.1.3. Elevated Soil Concentrations

No elevated concentrations of determinants were noted above the most conservative screening values. Separately, the analysis did note a single positive identification of asbestos within sample J2 at 0.4m BGL in WS4, this is discussed in more detail overleaf.



#### 5.1.4. Asbestos

A total of six samples were subject to asbestos screening, the results of which identified quantifiable levels of chrysotile asbestos within sample J2 in WS4 at 0.40m BGL. No asbestos was detected within all other samples tested.

Subsequent quantification testing was undertaken on this sample and returned a result of 0.008%. When compared with the CL:AIRE and Joint Industry Working Group CAR-SOIL guidance, this concentration is considered to be 'Very Low'.

Although a full Development Plan is not available at this time, the location of WS4 is not anticipated to lie within any private garden or soft landscaping and the quantifiable amount within the sample was confirmed as 'Very Low'. On this basis there is not considered to be a source of asbestos within near surface soils.

Although there is not deemed to be a source currently, there may be a risk of finding potentially asbestos containing materials during the development process, and this risk is best managed with a robust discovery strategy, and if necessary, revision of any Conceptual Model.

#### 5.1.5. Risk to Controlled Waters

The Desk Study noted that risk to controlled waters was low, as long as no significant contamination is encountered.

No significant contamination was noted during this intrusive Ground Investigation.

#### 5.1.6. Advanced Conceptual Site Model

No contamination which poses a risk to human health and/or controlled wasters has been encountered during this intrusive investigation, therefore, a Conceptual Model has been omitted as there are no sources to risk assess.



#### 6. DISCOVERY STRATEGY

There is the possibility that contamination, including asbestos, may be encountered onsite, which was not detected during the investigation. Should such material be identified or suspected during the conversion of the barns, it should be dealt with accordingly. A method for dealing with this scenario is as follows:

- Having an on-call suitably experienced Environmental Engineer to assess any suspected contamination encountered;
- Sampling of any suspected contaminated material by an Environmental Engineer;
- Leave suspect material in-situ;
- Undertake further intrusive investigation, if required;
- Upon identification of the suspected contamination the impacted material may be either treated or removed from site, following suitable waste management licensing or obtaining appropriate consents or agreements with relevant Regulatory Authorities;
- All contaminated material, to be removed from site, should be disposed of at a suitably licensed tip;
- All works should be recorded and submitted to the relevant authorities in a technical report format.



#### 7. CONCLUSIONS AND RECOMMENDATIONS

Geosphere Environmental Ltd was commissioned by Josephine Fox to undertake a Phase Two Site Investigation at Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR, based upon the findings of the Phase 1 Investigation for the wider site.

It has been understood that the site is to undergo a proposed change of use from agricultural buildings to dwelling houses (Class C3). This will include soft landscaped areas including private gardens and areas for car parking. The exact boundaries of the plots and garden areas was unknown at the time of the investigation, but the likely extent and location of soft standing within these areas was advised by the Client onsite and as such, is considered representative of the proposed development.

The ground conditions encountered comprised nominal layer of Topsoil/Concrete and Made Ground overlying deposits of Lowestoft Formation (cohesive).

No elevated concentrations of determinants were noted above the most conservative screening values, although a single positive identification of fibrous asbestos within sample J2 at 0.40m bgl in WS4 was noted. Subsequent quantification testing was undertaken and indicated there to be 0.008% of asbestos within the subject sample. When compared with the CL:AIRE and Joint Industry Working Group CAR-SOIL guidance, this concentration is considered Very Low.

Although a full Development Plan is not available at this time, the location of WS4 is not anticipated to lie within any private garden or soft landscaping and the quantifiable amount within the sample was confirmed as 'Very Low'. On this basis there is not considered to be a source of asbestos within near surface soils.

Although there is not deemed to be a source currently, there may be a risk of finding potentially asbestos containing materials during the development process, and this risk is best managed with a robust discovery strategy, and if necessary, revision of any Conceptual Model.

It is recommended that this report be submitted to the Local Authority as part of the site's planning submission. Should the anticipated boundaries of each redevelopment or anticipated building footprint vary, then this Risk Assessment may need to be revised

Should demolition of the buildings be considered, it would be necessary to undertake a Refurbishment and Demolition (Asbestos Survey) of the buildings, in accordance with MDHS guidance (ref. **R.7**).







# **Appendix 1 – Report Limitations and Conditions**

#### **General Limitations and Exceptions**

This report was prepared solely for our Client for the stated purposes only and is not intended to be relied upon by any other party or for any other use. No extended duty of care to any third party is implied or offered.

Geosphere Environmental Ltd does not purport to provide specialist legal advice.

The Executive Summary, Conclusions and Recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon until considered in the context of the whole report.

Interpretations and recommendations contained in the report represent our professional opinions, which were arrived at in accordance with currently accepted industry practices at the time of reporting and based upon current legislation in force at that time.

#### Environmental and Geotechnical Reporting (including Phase 1, Phase 2 and Site Walkovers) Limitations and Exceptions

The comments given in this report and the options expressed herein are based on the readily available information collated for the report and an assessment based upon the current guidance which for Phase 1 / Phase 2 report is guidance BS 10175: 2011+A1:2013 and BS 5930: 2015.

The report has been prepared in relation to the proposed end-use and should another end-use be intended, reassessment may be required.

No warranty is given as to the possibility of future changes in the condition of the site.

The opinions expressed cannot be absolute due to the limitation of time and resources imposed by the agreed brief.

With regards to any aspect of land contamination referred to, this is limited to those aspects specifically stated and necessarily qualified. No liability shall be accepted for other aspects which may be the result of gradual or sudden pollution incidents, past or present land uses and the potential for associated contamination migration.

Any Desk Study Report / data has been produced largely from the information purchased from The Landmark Information Group. The information is not necessarily exhaustive and further information



relevant to the site may be available from other sources. The information purchased has been assumed to be correct and free from errors; However, there is the possibility that some data may be missing from the report including (but not limited to) unrecorded land uses both onsite and offsite or unrecorded pollution events. No attempt has been made to verify the information.

The accuracy of any map extracts cannot be guaranteed. It is possible that different conditions existed onsite, between and subsequent to the various map surveys provided.

Any site walkover undertaken is a snapshot of the site recording the visually evident conditions at the time of the walkover in the areas readily accessible. It is possible that after the walkover, the site was altered (for example by fly-tipping or groundworks) or before the walkover, the site conditions changed removing evidence of potentially contaminative features (such as oil tanks removed).

Any intrusive works only cover a tiny proportion of the site. Where exploratory holes are positioned by GEL, they are located to give as good a coverage of the site as possible and to target features / proposed land use where applicable while allowing for areas that cannot be accesses, Client requested locations and other site / time / budget constraints. While assumptions may have been drawn between exploratory holes on the ground conditions and / or extent or otherwise of any contamination, this is for guidance only and no liability can be accepted on its accuracy.

Foundation design is outside of the remit of Geosphere Environmental unless specifically stated and it is recommended that the services of foundation design specialists are sought as required. Any foundation appraisal contained with the report is limited to foundation optioneering.

Any conceptual site model is based on the information available at the time of conducting this assessment and is an interpretive assessment of the conditions at the site. Redevelopment and / or further investigation of the site may reveal additional information and therefore alter the conceptual site model and the report conclusions.

Any infiltration testing results are considered to be representative of the ground conditions at the locations tested and at the time of testing. As well as lateral variation in ground conditions, seasonal changes in ground water level may affect the results.

Any post-fieldwork monitoring (including ground gas / groundwater) is a snapshot of the conditions at the time of monitoring.



# **Appendix 2 – References**

- **R.1.** CLR 11, 'Model Procedures for the Management of Contaminated Land: Risk Assessment Procedure', DoE 2004.
- **R.2.** The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.
- **R.3.** BRE Digest 465, 'Cover Systems for Land Regeneration Thickness Cover Systems for Contaminated Land', 2004.
- **R.4.** Nitrates Directive (91/676/EEC) 1991.
- **R.5.** The Environmental Protection Act, Part IIA, Section 78, 1990.
- **R.6.** Environment Act 1995, Section 57, DoE 1995.
- **R.7.** British Standards Institute: BS 10175 'Investigation of Potentially Contaminated Sites', Code of Practice, BSI 2011+A2:2017.
- **R.8.** British Standards Institute: BS 5930 'Code of Practice for Ground Investigations', 2015.
- **R.9.** Asbestos: The Survey Guide, HSG 264, 2<sup>nd</sup> Edition, 2012.
- **R.10.** CL:AIRE 'Guidance on Comparing Soil Contamination Data with a Critical Concentration', The Chartered Institute of Environmental Health, May 2008.
- **R.11.** EIC/AGS/CL:AIRE. Soil Generic Assessment Criteria for Human Health Risk Assessment. Contaminated Land: Applications in Real Environments, London, UK, January 2010.
- **R.12.** Contaminated Land Assessment Guidance Protocols, published by agreement between Water UK and the Home Builders Federation, Published by Water UK, January 2014.
- **R.13.** UKWIR 'Guidance for the Selection of Water Supply Pipes to be Used in Brownfield Sites, August 2010.
- **R.14.** Environment Agency. Performance Standard for Laboratories Undertaking Chemical Testing on Soil, Version 4, March 2012.
- **R.15.** SP1010 Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination, Final Project Report (Revision 2), Contaminated Land: Applications in Real Environments (CL:AIRE) September 2014. Appendix H Lead.
- **R.16.** Land Quality Press, The LQM/CIEH S4ULs for Human Health Risk Assessment, 2015.



# **Appendix 3 – Drawings**

Site Location Plan – Drawing ref. 4476,GI/001/Rev0 Exploratory Hole Location Plan – Drawing ref. 4476,GI/002/Rev0 Two Areas of the Of Proposed Land Use Change – Drawing ref. 4476,GI/003/Rev0 Block Plan – Drawing ref. 209-SK-106



# GEO GEOSPHERE ENVIRONMENTAL

Site Location

#### SOURCE

© OpenStreetMap contributors

#### PROJECT

Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR

#### TITLE

Site Location Plan

#### **DRAWING NUMBER**

#### 4476,GI/001/Rev0

SCALE	DATE
As shown	09/12/2019
DRAWN BY	CHECKED BY
FS	ТР







#### SOURCE

Image provided by the Client.

#### PROJECT

Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR

#### TITLE

Two Areas of the Proposed Land Use Change

#### DRAWING NUMBER

#### 4476,GI/003/Rev0

SCALE	DATE
NTS	13/12/2019
DRAWN BY	CHECKED BY
FS	TP

SCHEDULE OF BUILDINGS

- 1 to be demolished
- 2 existing duo pitch barn & lean to to be converted to dwelling

2

- 3 to be moved to site of barn 5
- 4 barn to be retained and converted to workshop
- 5 to be demolished
- 6 to be retained?

(LW)

Path

- 7 to be retained and converted into dwellings
- 8 to 12 to be demolished
- 13 to be retained and converted into garage







# Appendix 4 – Comparison of Consequences Against Probability

			Consequence (Se	everity of Linkage)	
		Severe (S)	Moderate	Mild	Negligible
			(Mo)	(Mi)	(N)
	Highly Likely	Very High Risk	High Risk	Moderate Risk	Moderate/Low Risk
÷	(HL)	(VH)	(HR)	(MR)	(MR-LR)
o P	Likely	High Risk	Moderate Risk	Moderate/Low	Low Risk
	(L)	(HR)	(MR)	Risk	(LR)
kelil rom				(MR-LR)	
(Lil Je f	Unlikely	Moderate Risk	Moderate/Low	Low Risk	Negligible Risk
ity kag	(U)	(MR)	Risk	(LR)	(NR)
abil lin			(MR-LR)		
rob	Negligible	Moderate/Low	Low Risk	Negligible Risk	Negligible Risk
<b>D</b>	(N)	Risk	(LR)	(NR)	(NR)
		(MR-LR)			

This table is to provide reference information in conjunction with the GEL Conceptual Model attached within the Hazard Risk Assessment section of this report, Table 1 – Conceptual Model.

#### Very High Risk (VH)

- There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is happening currently.
- Urgent investigation and remediation are likely to be required and advised.

#### High Risk (HR)

- Harm is likely to arise to a designated receptor from an identified hazard.
- Urgent investigation is required and remedial works are likely necessary in both the short to long term.

#### Moderate Risk (MR)

- It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild.
- Investigation is required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.

#### Low Risk (LR)

• It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild. Limited investigation recommended.

#### Negligible Risk (NR)

• There is a minimal possibility that harm could arise to a receptor. In the event of such harm being realised it is high likely to not be severe. Investigation not deemed necessary.



# Appendix 5 – Exploratory Hole Logs

Windowless Sample Hole Logs (WS1 to WS9)

CLIEN	<u>T: Jo</u>	<u>es</u> pł	nine Fo	DX		PROJECT: Progr	ress Fa	rm <u>, W</u> e	therde	n			GROUN	ID LEVI	EL m						HOLE No. WS1			
LOGGE	D BY: FS	S			CHECKED BY: LF	EXCAVATION METHO	DD:	Window	less sa	mpler			Coordir	ates:							SHEET 1 OF 1			
FIELDW TEMPLA	ORK BY ATE REF	Y: GEL F: GEL	- . AGS BH	I BETA	DATE: 10/01/2020			Jncased	to 3.0	m			DATES	)6/12/2	2019	- 06/	12/2	019			PROJECT NO. 4476	GI		
Date/Tim	e Dep	pth	Depth*	ez.				Strata		Graphical Representation	Sa	mpling/	/In-Situ Te	sting		Ĺ	aborat	ory Te	sting		Additional Tests and Note	s		
and Depth	Of Casi	sing	of Water	Ä	Description o	f Strata	Leg	Reduced Level	Depth	SPT 'N' Value	Depths	Type	No. Blo	ws SPT	<42 %	5 WC %	PL %	LL % [	Mg/m <sup>3</sup>	Cu kN/m²				
	+			-+	Soft dark brown ORGANIC CLA	(. Sand is fine and	- 😿		0.00		0	-									-			
					medium.				0.35		0.20	1	1											
					Firm brown sandy CLAY. Sand is	s fine.	_/ [			· · · · · · · · · · · · · · · · · · ·	0.40 0.50	D	1											
	1			-	(LOWESTOFT FORMATION)	CLAY Sand is fine to			_ 0.90		1	-									_			
					coarse. Gravel is fine and media sub-rounded chalk and flint.	um angular to	- <u>-</u> -					1	2	2 16 5 1										
					(LOWESTOFT FORMATION)						1.40	1	3 4	4										
							<u> </u>				1.50		2											
	+				1.95 Becoming stiff with depth.		<u>-</u> •		-	· · · · · · · · · · · · · · · · · · ·	2	1	3	4 23							-			
												1	5	5										
							• <u>•</u>				2.40 2.50	D - 1	4 3											
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	Ť				EXPLORATORY HOLE COMPLET NO GROUNDWATER ENCOUNT	ED AT 3.00m BGL. ERED DURING			- 3.00		3		4	5 30 6							-			
					DRILLING.	-						1	10	7										
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4476	$\bot$																							
⊈ wATE	- <u>−</u> R ¥ :	Stand	ling wate	er lev	el PIEZOMETER Depers	eal SAMPLE	D Small	disturbed s	ample	S Standard penetration test B	lows SPT	blows	for each 7	5mm incr	ement	1						SI	4 2 4	P
и П П	¥	Wate	r strikes		Lower s	eal TEST	B Bulk o U Undis	listurbed san	ample Iple	C Cone penetration test K Permeability test S	(35) PTNN=	Undist SPT N v	urbed san value (blov	nple blow vs after se	count eating)			Ge Un	eosphe nit 11.	ere En Briaht	vironmental Ltd well Barns	S1		RO
A G A						KEY .	P Pistor J Distu	sample bed jar sar	nple		N*1 incl	.20 = To uding se	otal blows/ eating	penetrat	ion			Bri	ightwe	ll, Suf	folk, IP10 0BJ	N	י_⊣[ָּם	g
GEL					DEPTH All depths, level and	thicknesses in metres	ES Enviro W Wate	onmental so Sample	oil sample	2 <	425 San	nple % p	bassing 42	5 micron	sieve			, iel	iepnor	ie: 01	003 298 076	· ·		S

CLIENT	: Joes	phine F	ох		PROJECT: Progr	ess Fa	ırm, We	therde	n		G	ROUND	LEVEL	. m					HOLE No. WS2			
LOGGED	BY: FS			CHECKED BY: LF	EXCAVATION METHO	D:	Window	less sa	mpler		c	oordinat	es:,						SHEET 1 OF 1			
FIELDWC TEMPLAT	)RK BY: G TE REF: G	GEL GEL AGS BI	Н ВЕТ.	DATE: 10/01/2020			Uncased	to 1.0	m		D	ATES 06	/12/20	019 -	06/:	12/20	)19		PROJECT NO. 4476	,GI		
Date/Time	Depth	Depth*	ez.				Strata		Graphical Representation	Sa	mpling/Ir	n-Situ Testir	g		La	aborato	ry Testing		Additional Tests and Note	żs		
Depth	Of Casing	Water	Ē	Description of	of Strata	Leg	Reduced Level	Depth	SPT 'N' Value	Depths	Δ <sup>T</sup> ν	o. Blows	SPT N	<425 %	WC %	PL %	LL p % Mg/m	n <sup>3</sup> kN/m <sup>2</sup>				
-	-		ΤŦ	Grey concrete.		- 🕅	8	0.00		0 ·	-								-			
				Soft brown sandy CLAY. Grave	l is fine and medium.			0.30		0.20	- J :	1										
				(LOWESTOFT FORMATION)			•			0.60	- L - L	2										
· ·	-			Soft brown gravelly sandy CLA	Y. Gravel is fine and		-	0.90		0.95 1 ·	- - -	3							-			
				is fine and medium.	ed filnt and chaik. Sand	į		1.00														
				EXPLORATORY HOLE COMPLET	ED AT 1.00m BGL.	1					]											
				DRILLING.	IERED DORING						-											
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2 <del>4</del> 2	L					_L_				<u>م</u>	1								L			
⊈ ₩ATEF	¥ Sta	inding wa	ter lev	el PIEZOMETER Upper	seal SAMPLE [	D Small	disturbed	ample	S Standard penetration test B	lows SPT	blows fo	r each 75m	m increr	nent			Casse		vironmontol I t-l	₹Ŧ	⊢ ¢ ⊣	≥₽
194 194	÷ vva	iter strike	5	Lower s	seal TEST ( KEY	U Undis	sturbed san	nple	K Permeability test S	(35) PTNN=	SPT N va	lue (blows a	after sea	ting)			Unit 11	l, Bright	well Barns	S2	٩ <u>Ē</u>	žõ
AGO						PISTO	rbed jar sar	nple		IN*1 incl	uding sea	ating	ieroz c'a			0	Brightv Teleph	vell, Šuf one: 01	ffolk, IP10 0BJ 1603 298 076	No.	<u>ا</u> ۲	۶ü
				DEPTH All depths, level and	thicknesses in metres	ES ENVIR W Wate	r Sample	on sample	: <	425 Sañ	іріе % ра	issing 425 m	neron sie	eve				0				No

CLIENT	: Joes	phine I	Fox				PROJE	ECT: Prog	ress Fa	nrm, We	therde	len				GRC	DUND	LEVEL	. m						HOLE No. WS3			
LOGGED	BY: FS			CHECK	ED BY: LF		EXCAVA	TION METHO	DD:	Window	less sa	samp	ller			Соо	rdinat	es:,							SHEET 1 OF 1			
FIELDWC TEMPI AT	RK BY: (	GEL GEL AGS P	Н ВЕТ	DATE:	10/01/202	20				Uncased	l to 2.0	.0 m			Ī	DAT	ES 06/	/12/20	019 -	06/	12/2	019			PROJECT NO. 4470	5.GI		
Date/Time	Depth	Depth	* 1							Strata	1		Graphical Representation	Sá	ampling	g/In-Sit	u Testin	, _,		Li	aborat	ory Tes	sting		Additional Tests and Not	.es		
and Depth	of Casing	of Wate	Pie		De	scription of	Strata		Leg	Reduced	Depth	th	SPT 'N' Value	Depths	Type	No.	Blows	SPT N	<425 %	wc	PL %	LL %	∩ Mg/m³	Cu kN/m²				
-	-			Grey conc	rete.				- 😿	\$	0.00	0	<u>10 20 30 40</u>	0	-								0,	,	-			
				Soft brown	n gravelly s	sandy CLAY.	Gravel is	fine and	<u>·•</u>	-	0.15	5			1													
				LOWESTC	FT FORM	ATION)				2	0.50	o		0.40	] 1	1												
				Firm light I fine to coa	rown slig rse. Grave	htly sandy g el is fine to c	ravelly Cl oarse ang	LAY. Sand is gular to		c				0.80	1	2												
-	-			(LOWESTC	ed chaik a FT FORM	ATION)					-			1											-			
										c					1													
														1.50	] ]	3												
	L									C				2	-										_			
				EXPLORAT NO GROUI	ORY HOLE	COMPLETE ENCOUNTE	D AT 2.00 RED DUR	0m BGL. RING			2.00				-													
				DRILLING.											1													
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¥WATER		anding wa	iter le	vel PIEZOMI		Upper se	al	SAMPLE	D Smal	disturbed	sample	S	Standard penetration test	Blows SP	r blows	s for ea	ich 75mr	n increr	nent		•					≤ĭ	чх	2 P
	÷ Wa	ater strike	es			Lower se	e zone al	TEST	в Bulk U Undi	sturbed s	ample nple	K	Permeability test	(35 PTNN=	SPT N	value	a sample (blows a	fter sea	ount ting)			Ge Un	it 11,	ere ⊵n Bright	wronmental Ltd	S3 OLE	유효	28
AGS								KL I	P Pisto J Distu	n sample rbed jar sai	mple			N* inc	120 = T luding	otal bl seating	ows/per g	etratio	n			Bri	ghtwe	ell, Šufi	folk, IP10 0BJ	Z	<u>ا</u> ح	25
				DEPTH	All depths,	, level and th	hicknesse	es in metres	ES Envir W Wate	onmental s r Sample	oil sampl	ple	· · · · · · · · · · · · · · · · · · ·	:425 Sar	nple %	passin	ig 425 mi	cron sie	eve		: 0		iepnor	ie. 01	003 290 070			N

CLIEN	T: Jo	espl	nine Fo	х		PROJECT: Progre	ess Fa	rm, We	therde	<u>ו</u>				GRO	UND	LEVEL	. m						HOLE No. WS4		
LOGGED	DBY: F	S			CHECKED BY: LF	EXCAVATION METHOD	D:	Window	less sar	npler				Coor	dinate	es:,							SHEET 1 OF 1		
TEMPLA	ORK B	F: GEL	L AGS BH	BET	DATE: 10/01/2020			Uncased	to 3.0	m				DATE	ES 06/	/12/20	019 -	06/1	2/20	19			PROJECT NO. 4476,	,GI	
Date/Time	e Dep	pth	Depth*	ez.				Strata		Graphical R	epresentation	Sa	mpling,	/In-Situ	u Testing	g		Lab	orato	ry Tes	ting		Additional Tests and Note	5	
Depth	Cas	sing	Water	Pi	Description o	f Strata	Leg	Reduced Level	Depth	SPT'	N' Value	Depths	Type	No.	Blows	SPT N	<425 %	WC %	PL %	LL %  №	ρ 1g/m <sup>3</sup>	Cu kN/m²			
	+				Dark brown sandy clayey ORGA	NIC SILT. Sand is fine.		-	0.00	<u> </u>		0	1										_		
					(TOPSOIL)			\$	0.30			0.15	1	1											
					MADE GROUND: Brown slightly medium SAND. Gravel is fine to	gravelly clayey fine and coarse angular pipe,		) }				0.40 0.50	- D	2											
					glass and flint. Soft light brown sandy CLAY. Sa	and is fine and medium.	<u> </u>	-	0.80			0.90 1	1	3									_		
					(LOWESTOFT FORMATION)			-				0.50		5	12 33	14									
							- <u>-</u> -	•				1 50		2	44										
							<u> </u>	1				1.50	1	2											
	+						- <u>-</u> -	•	- 10		· · · · · · · · · · · · · · · · · · ·	2.00 2		3	23	17							-		
					Soft brown slightly sandy grave Gravel is fine and medium flint	lly CLAY. Sand is fine. and chalk.			2.10	<u> </u>			-		34 55										
					(LOWESTOFT FORMATION)					<u></u>		2.60		4											
												2.00		4											
	Ť				EXPLORATORY HOLE COMPLET	ED AT 3.00m BGL.			- 3.00		••••	3	1		44	25							-		
					DRILLING.								-		87										
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▼ ▼ *WATF	+ R ▼	Stand	ling wate	⊢ + er lev	el PIEZOMETER NN Unners		-⊢− Small	disturbed •	L L	S Standard pe	netration test	Blows SPT	blows	for eac	:h 75mr	n increr	nent						<u> </u>		
	Ţ	Wate	r strikes		H. Respons	se zone AND B eal TEST II	Bulk	disturbed san	ample	C Cone penet	ration test	(35 SPT N N =	) Undist	turbed	sample	blow co	ount ting)	GEOSPHERE	Q	Geo	osphe	ere En	vironmental Ltd	NS4	
ם אין ס						KEY P	Pistor	n sample	nnlo			N*:	L20 = To	otal blo	ws/pen	netratio	n	ENVIRONM		Brig	i 11, ghtwe	Bright ell, Suf	weii Barns folk, IP10 0BJ	, m	
ELA						J ES	S Envir	onmental s	oil sample			<425 San	nple % p	passing	g 425 mi	icron sie	eve	GENTAL	0	Tele	epho	ne: 01	1603 298 076		
5					DEPTH All depths, level and	tnicknesses in metres W	v vvate	r sample												1					S

LOGGED BY: F5 FIELDWORK 8Y: GEL and or of brain of the beet of the best of t	
Prescuence     Date: 10/01/2020     Uncased to 1.0 m       Date: 10/01/2020     Uncased to 1.0 m       Date: 10/01/2020     Date: 10/01/2020       Date: 10/01/2020     Date: 10/01/2020   <	L
Deterting and Depth       Depth of Casing       Depth of Water       Description of Strata       Strata       Graphical Representation       Sampling/In-Situ Testing       Laboratory Testing       Additional Tests a         Depth       of Casing       Water       Description of Strata       Leg       Reduced       Depth       SFT 'N' Value       Depth       Bary       No.       Blows       SPT       425       WC       PL       LL       0,0       0,00<	4476,GI
and Depth       of Level       SPT IV Value Level       Depths       SPT IV Value (10 20 30 40)       Depths       SPT IV Value (20 20 30 40)       Depths IV Value (20 20 30 40)       SPT IV Value (20 20 30 40)       Depths IV Value (20 20 30 40)       Depths IV Value (20 20 30 40)       SPT IV Value (20 20 30 40)       Depths IV Value (20 20 30 40)       SPT IV Value (20 20 30 40)       Depths IV Value (20 20 30 40)       Depths IV Value (20 20 30 40)       Depths IV Value (20 20 30 40) </th <th>id Notes</th>	id Notes
Grey concrete.       0.00       0.00       0.00       0.00         Soft brown sandy CLAY. Sand is fine.       0.00       0.25       J       1         LOWESTOFT FORMATION)       0.30       0.25       J       1         EXPLORATORY HOLE COMPLETED AT 1.00M BGL.       0.30       0.50       J       2         NO GROUNDWATER ENCOUNTERED DURING       1       1       1         JRILLING.       2       2       2       2         JRILLING.       3       3       3       3	
Soft brown sandy CLAY. Sand is fine.     0.20       Induces of the promotion	
Soft light brown sandy CLAY. Sand is fine to medium. (LOWESTOFT FORMATION) EXPLORATORY HOLE COMPLETED AT 1.00m BGL. NO GROUNDWATER ENCOUNTERED DURING DRILLING.	
EXPLORATORY HOLE COMPLETED AT 1.00m BGL. NO GROUNDWATER ENCOUNTERED DURING DRILLING.	
EXPLORATORY HOLE COMPLETED AT 1.00m BGL. NO GROUNDWATER ENCOUNTERED DURING DRILLING.	
DRILLING.	
*WATER ¥ Standing water level PIEZOMETER D SamPLE D Small disturbed sample S Standard penetration test Blows SPT blows for each 75mm increment	5 I ⊢S F
* Water strikes AND B Bulk disturbed sample C Cone penetration test (35) Undisturbed sample blow count Lower seal TEST U Undisturbed sample K Permeability test SPT N N = SPT N value (blows after seating) Unit 11 Brightwell Barns	
KEY     P Piston sample     N*120 = Total blows/penetration     Image: Construction of the sample       J     Disturbed jar sample     including seating	
ES Environmental soil sample <425 Sample % passing 425 micron sieve Telephone: 01603 298 076	, , , , , , , , , , , , , , , , , , ,

CLIENT	Г: Joe	esph	ine Fo	х		PROJECT: Progre	ess Fa	rm, We	herde	n		G	ROUND	LEVEL	m					HOLE No. WS6
LOGGED	BY: FS	5			CHECKED BY: LF	EXCAVATION METHOD	D:	Window	less sai	mpler		Co	ordinat	:es: ,						SHEET 1 OF 1
TEMPLA	JRK BY: TE REF:	: GEL : GEL	AGS BH	BETA	DATE: 10/01/2020			uncased	το 2.0	m		D	ATES 06	/12/20	)19 -	06/12	/201	9		PROJECT NO. 4476,GI
Date/Time	Dept	th [	Depth*	ez.				Strata		Graphical Representation	Sar	npling/In	Situ Testir	ng		Labo	ratory	Testing	1	Additional Tests and Notes
and Depth	of Casir	ng	of Water	Pie	Description o	f Strata	Leg	Reduced Level	Depth	SPT 'N' Value 0 10 20 30 40	Depths	JT No	. Blows	SPT N	<425 %	WC I	ינ נו % %	Mg/m	<sup>3</sup> Cu kN/m <sup>2</sup>	
-	Ť		İ		Grey concrete.			\$	0.00		0 -0 -	   1								T
					MADE GROUND: Reddish brow concrete and brick.	n and grey crushed	X	X	0.15											
					Soft greyish brown sandy CLAY.	. Sand is fine and			0.42		0.40	J _ 2								
				ľ	(LOWESTOFT FORMATION)	/	/⊢	:												
-	Ť				(LOWESTOFT FORMATION)	medium SAND.			-		1-									Ţ
				-	Stiff light brown candy CLAV Sa	and is find	÷ ·	•	1.40		:									
					(LOWESTOFT FORMATION)	ind is fille.	<u> </u>				1.45	J 3								
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					EXPLORATORY HOLE COMPLET NO GROUNDWATER ENCOUNT	ED AT 2.00m BGL. ERED DURING			2.00											
					DRILLING.															
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*WATER		Standi	ing wate	er lev	el PIEZOMETER Depers	eal SAMPLE D	Small	disturbed s	ample	S Standard penetration test B	lows SPT	ı blows for	each 75m	n incren	nent	65	~		1	-40415
	¥ν	Water	strikes		Respons Lower s	se zone AND B eal TEST U	Bulk ( Undis	disturbed san	imple iple	C Cone penetration test K Permeability test SI	(35) PTNN=	Undistur SPT N valı	oed sample ue (blows a	e blow co after seat	ount ting)	LOSPHERE E	9	Geosph	ere En	vironmental Ltd
						KEY P	Pisto	n sample	nnle		N*1	20 = Tota	blows/pe	netration	ז, ו	ENVIRONME		Brightw	ell, Suf	ifolk, IP10 0BJ
						ES ES	S Envir	onmental se	oil sample	e <	425 Sam	ple % pas	sing 425 m	nicron sie	ve	ENTAL	0	Felepho	one: 01	1603 298 076 P
					DEPTH All depths, level and	thicknesses in metres W	/ vvate	r sampie												

LOGGED BY: 5 FILLUNDER BY: 6GL TEMMATER FE, GELASS HIETA Date: 1/0/2020 Depth         Decavation MTHND: Date: 1/0/2020 Depth         Windowiess sampler Uncased to 1.0 m         Coordinates: - Date: 506/12/2019 - 06/12/2019         SHEET 1 OF 1           Date: 1/0/07/07/07/07/07/07/07/07/07/07/07/07/0	
PHELDWORK W: GRL TAMELATER GET As SER HER 1         DATES 06/12/2019 - 06/12/	
Date/mail     Description of Strata     Stratu     Stratu     Stratu     Stratu     Loboration     Additional Texts and Notes       Digth     Description of Strata     Description of Strata     Reduced     Depth     Depth     Depth     Stratu     Stratu     Stratu     Additional Texts and Notes       Digth     Casing     Valuer     Description of Strata     D	
and Depth         Column Case         Water         E         Description of Strata         tes         Period Level         Depth         E         No.         Blow         SY         V         VI         Mom         Lung         Culu         Depth         E         No.         Blow         SY         V         VI         Mom         LUng         LUng <thlung< th="">         LUng         LUng</thlung<>	
Offer concrete.         0           Soft projich hrown very sandy CLAV. Sand is fine and indexim.         0.20           Firm greych brown gravely sandy CLAV. Gravel is fine and indexim.         0.40           VIDUE SOFT FORMATION)         0.40           Firm greych brown gravely sandy CLAV. Gravel is fine and indexim.         0.40           VIDUE SOFT FORMATION)         0.40           VIDUE SOFT FORMATION)         0.40           VIDUE SOFT FORMATION)         0.40           VIDUE SOFT FORMATION         0.40	
Soft greysh brown very sandy CLAY. Sand is fine and medium. LLOWESTOFT FORMATION)     0.20     0.40     J     1       -     0.60     0.40     J     1       -     0.60     0.80     1     J       -     0.00     0.00     1     1       -     0.00     0.00     1     1       -     0.00     0.00     1     1       -     0.00     0.00     1     1       -     0.00     0.00     0.00       -     0.00     0.00 <td></td>	
LIQUESTOFT FORMATION) Find greys brown gravely sandy CLAV. Gravel is fine and medium angula filth and chaik. Sand is fine to coarse. LIQUESTOFT FORMATION) EXPLORATORN HOLE COMPLETED AT LOOM BGL. NO GROUNDWATER ENCOUNTERED DURING DRILLING. 	
and medium angular film and chalk. Sand is fine to coarse.     1.00     0.80     1     1     2       LUCWESTOFT FORMATION DRULING.     LUCWESTOFT FORMATION DRULING.     1.00     0.80     1     1     2       -     -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	74 <u>0</u> 4
Y Water strikes     H     Response zone AND     B Bulk disturbed sample     C Cone penetration test     (35) Undisturbed sample blow count     Lower seal     TEST     U Undisturbed sample     K Permeability test     SPT N N = SPT N value (blows after seating)     Unit 11     Init 11     Rightwell Barns	
KEY P Piston sample N*120 = Total blows/penetration Brightwell, Suffolk, IP10 0BJ	
ES Environmental soil sample <<25 Sample % passing 425 micron sieve	

CLIEN	IT: Jo	oespl	hine F	ох		PROJECT: Progr	ess Fa	rm, We	therde	n		G	ROUND	LEVEL	. m					HOLE No. WS8			
LOGGE	D BY: I	FS			CHECKED BY: LF	EXCAVATION METHO	D:	Window	less sa	impler		C	oordinat	es: ,						SHEET 1 OF 1			
FIELDW TEMPLA	/ORK E Ate re	BY: GE EF: GEI	L L AGS BH	H BET	DATE: 10/01/2020			Uncased	to 1.0	) m		D	ATES 06	/12/20	)19 -	06/2	12/20	)19		PROJECT NO. 4476	,GI		
Date/Tim	ne De	epth	Depth*	ez.		•		Strata		Graphical Representation	Sa	mpling/In	-Situ Testir	ng		La	borato	ry Testing		Additional Tests and Note	2S		
Depth	Ca	of ising	of Water	Ξ	Description of	of Strata	Leg	Reduced Level	Depth	SPT 'N' Value	Depths	J∠ N	b. Blows	SPT N	<425 %	WC %	PL %	LL p % Mg/m	n <sup>3</sup> kN/m <sup>2</sup>				
	+			++	Grey concrete.		- 🕅	\$	0.00		0	-								-			
								×	0.40		0.30	- - - J 1											
					Greyish brown very sandy CLA medium. Occasional fine and n	Y. Sand is fine and nedium gravel of angular	<u> </u>		0.40		0.60												
							/		0.70		0.90 1												
					Firm brown gravelly sandy CLA medium angular and sub-angu	Y. Gravel is fine and lar flint and chalk. Sand	/		1.00		0.50 1												
					(LOWESTOFT FORMATION)		í					]											
					EXPLORATORY HOLE COMPLET NO GROUNDWATER ENCOUNT	ED AT 1.00m BGL. ERED DURING																	
	+				DRILLING.				-		2	-								-			
												-											
												1											
	+								-		3									-			
												]											
1/20									_		1	-											
13/0											-	-											
GDT												-											
-												1											
AGS	+								-		5	-								-			
STD												-											
INT																							
2																							
20.G	+								-		6									-			
01.20																							
1,08.0												-											
ZDEN	$\downarrow$								_		7	1								L			
THEF												1											
, ME												1											
76,G												1											
44	+			$\lfloor - \rfloor$				-	_	<u> </u>	8	-								-			
≚ ≝ 8	R¥ ⊻	Stand	ding wat	er lev	el PIEZOMETER Depers	seal SAMPLE D seizone AND R	) Small Bulk	disturbed s	ample	S Standard penetration test B	lows SPT	blows fo	each 75m	m increr	nent ount		0	Gener	here En	wironmental I to	₹.E	1 ¥ ‡	PR
RH	-			-	Lowers	ieal TEST L KEY I	J Undis	turbed san	ple	K Permeability test SI	PTN N =	SPT N val	ue (blows a	after sea	ting)			Unit 11	, Bright	well Barns	S8 S8	OF ET	Õ
AGG						P	Distu	bed jar sar	nple	•	incl	uding sea	ting				0	Brightv Teleph	vell, Suf	ffolk, IP10 0BJ 1603 298 076	No.	ר ,∣ <u>ס</u>	ä
GEL					DEPTH All depths, level and	thicknesses in metres V	V Wate	r Sample	on sample	د <4 	425 San	ihie % ba:	sing 425 m	neron sie	eve				0				NO.

CLIEN	T: Jo	bespl	hine Fo	ох		PROJECT: Progr	ess Fa	nrm, Wei	herde	n		GR	OUND	LEVEL m	1					HOLE No. WS9	
LOGGE	D BY: F	FS			CHECKED BY: LF	EXCAVATION METHO	D:	Window	less sai	mpler		Cod	ordinat	es: ,						SHEET 1 OF 1	
TEMPLA	ORK B ATE RE	EF: GEI	L L AGS BH	I BET	DATE: 10/01/2020			Uncased	to 2.0	) m		DA	TES 06/	/12/2019	9 - 06	/12/2	019			PROJECT NO. 4476,GI	
Date/Tim	e De	pth	Depth*	ez.				Strata		Graphical Representation	Sar	npling/In-S	itu Testin	g		Laborat	ory Te	esting		Additional Tests and Notes	
Depth	Cas	sing	Water	_	Description of	of Strata	Leg	Reduced Level	Depth	SPT 'N' Value	Depths	ÅNo.	Blows	SPT <4 N %	25 WC %	2 PL %	۱ %	∩ Mg/m³	Cu kN/m²		
	Ť				Grey concrete and red brick.		- 🕅	\$	0.00	· · · · · · · · · · · · · · · · · · ·	0 -									F	
					Greyish brown sandy CLAY. San (LOWESTOFT FORMATION)	nd is fine and medium.	- <u>*</u> *		0.30												
					(20112010111011111011)			<b>^</b>			0.50	J 1									
	+								- 1 10	· · · · · · · · · · · · · · · · · · ·	1.00	J 2								F	
					Firm brown gravelly sandy CLA medium angular flint and chalk	Y. Gravel is fine and Sand is fine and	 	*	1.10												
					(LOWESTOFT FORMATION)		 	•													
	Ţ							<b>4</b>	- 2 00		2-									_	
					EXPLORATORY HOLE COMPLET NO GROUNDWATER ENCOUNT	TED AT 2.00m BGL. TERED DURING			2.00												
					DRILLING.																
	+								-		3-									F	
										· · · · · · · · · · · · · · · · · · ·											
/01/2/	+								-	· · · · · · · · · · · · · · · · · · ·	4 -									F	
2																					
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0 0 0	Ţ								_	· · · · · · · · · · · · · · · · · · ·	5-									L	
בא																					
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20.6	+								-		6 -										
n7.10										· · · · · · · · · · · · · · · · · · ·											
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	+								-		7 -									-	
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₹ ₩ATE	R ¥ ⊽	Stand	ding wate	er lev	el PIEZOMETER	seal SAMPLE D	) Small	disturbed s	ample	S Standard penetration test	Blows SPT	blows for e	ach 75m	n incremen	t t			aant			+ ¥ ₽ ₽
	÷	wate	er strikes		Lower s	seal TEST L	J Undi:	sturbed sam	nple	K Permeability test	(35) SPTNN= N*1	SPT N value	e (blows a	fter seating	)		Un	it 11,	ere En Bright	well Barns	
200 V						P J	Distu	rbed jar san	nple	۵	inclu 425 Sam	iding seatir	ng 425 m				Bri Te	ightwe lepho	ell, Suf ne: 01	folk, IP10 0BJ 1603 298 076	ם פו
					DEPTH All depths, level and	thicknesses in metres V	V Wate	r Sample	an sample		Jaili	hig. 10 hazzı	116 423 111	ici on sieve			•				



# **Appendix 6 – Environmental Laboratory Test Results**



Flora Sutherland Geosphere Environmental Ltd Brightwell Barns Ipswich Road Brightwell Suffolk IP10 0BJ



DETS Ltd Unit 1 Rose Lane Industrial Estate Rose Lane Lenham Heath Kent ME17 2JN t: 01622 850410

# DETS Report No: 19-17200

Site Reference:	Progess Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
Project / Job Ref:	4476,GI
Order No:	None Supplied
Sample Receipt Date:	10/12/2019
Sample Scheduled Date:	10/12/2019
Report Issue Number:	1
Reporting Date:	16/12/2019

Authorised by:

Mur

Dave Ashworth Technical Manager

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.





Soil Analysis Certificate						
DETS Report No: 19-17200	Date Sampled	06/12/19	06/12/19	06/12/19	06/12/19	06/12/19
Geosphere Environmental Ltd	Time Sampled	None Supplied				
Site Reference: Progess Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR	TP / BH No	WS2	WS3	WS5	WS6	WS7
Project / Job Ref: 4476,GI	Additional Refs	J2	J1	J1	J2	J1
Order No: None Supplied	Depth (m)	0.60	0.40	0.25	0.40	0.40
Reporting Date: 16/12/2019	DETS Sample No	451890	451891	451892	451893	451894

Determinand	Unit	RL	Accreditation					
Asbestos Screen <sup>(S)</sup>	N/a	N/a	ISO17025	Not Detected				
Sample Matrix <sup>(S)</sup>	Material Type	N/a	NONE					
Asbestos Type <sup>(S)</sup>	PLM Result	N/a	ISO17025					
рН	pH Units	N/a	MCERTS	8.1	7.7	8.7	10.8	7.4
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Complex Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Free Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS	40	32	17	< 10	41
W/S Sulphate as $SO_4$ (2:1)	g/l	< 0.01	MCERTS	0.04	0.03	0.02	< 0.01	0.04
Organic Matter	%	< 0.1	MCERTS	0.6	0.9	1.1	0.7	0.9
Arsenic (As)	mg/kg	< 2	MCERTS	11	8	8	7	5
Barium (Ba)	mg/kg	< 5	NONE	46	36	27	40	29
Beryllium (Be)	mg/kg	< 0.5	NONE	1.1	0.6	0.6	< 0.5	< 0.5
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.4	0.3	0.3	0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	24	15	13	12	11
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	20	12	12	10	8
Lead (Pb)	mg/kg	< 3	MCERTS	14	15	19	9	10
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Molybdenum (Mo)	mg/kg	< 1	NONE	1.6	1.5	1.6	1.6	1.4
Nickel (Ni)	mg/kg	< 3	MCERTS	35	15	14	10	11
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3	< 3	< 3
Vanadium (V)	mg/kg	< 2	NONE	36	24	23	21	20
Zinc (Zn)	mg/kg	< 3	MCERTS	55	63	45	61	29

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C Subcontracted analysis (S)





Soil Analysis Certificate						
DETS Report No: 19-17200			Date Sampled	06/12/19		
Geosphere Environmental Ltd			Time Sampled	None Supplied		
Site Reference: Progess Farm, Ba	se Green Road,		TP / BH No	WS4		
Wetherden, Suffolk, IP14 3LR						
Project / Job Ref: 4476,GI			Additional Refs	J2		
Order No: None Supplied			Depth (m)	0.40		
Reporting Date: 16/12/2019		D	ETS Sample No	451895		
Determinand	Unit	RL	Accreditation			
Asbestos Screen <sup>(S)</sup>	N/a	N/a	IS017025	Detected		
				Chrysotile		
				present in		
Sample Matrix <sup>(S)</sup>	Material Type	N/a	NONE	microscopic		
complet had at		1 -		asbestos		
				sheeting board		
	DI M D	NI/-	10017025	debris		
Asbestos Type	PLM Result	IN/a	15017025 MCEDTS	Chrysotile		
 Tatal Oranida		IN/d	NONE	0.0	ł	 
	mg/kg	< 2	NONE	< 2	ł	 
Eroo Cyanida	mg/kg	< 2	NONE	< 2	ł	 
W/S Sulphato as SO (2:1)	mg/kg	< 10	MONE	~ 2	1	
W/S Sulphate as SO <sub>4</sub> (2:1)	n/	< 0.01	MCERTS	0.03		
Organic Matter	9/1	< 0.01	MCERTS	4.3		
	//o	< 2	MCERTS			
Barium (Ba)	mg/kg	< 5	NONE	62	1	
Bervllium (Be)	mg/kg	< 0.5	NONE	0.5	1	
W/S Boron	mg/kg	< 1	NONE	< 1	1	
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.5		
Chromium (Cr)	mg/kg	< 2	MCERTS	11		
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2		
Copper (Cu)	ma/ka	< 4	MCERTS	23		
Lead (Pb)	mg/kg	< 3	MCERTS	88		
Mercury (Hg)	mg/kg	< 1	NONE	< 1		l .
Molybdenum (Mo)	mg/kg	< 1	NONE	1.8		
Nickel (Ni)	mg/kg	< 3	MCERTS	13		
Selenium (Se)	mg/kg	< 3	NONE	< 3		
Vanadium (V)	mg/kg	< 2	NONE	19		
Zinc (Zn)	mg/kg	< 3	MCERTS	433		

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than  $30^{\circ}C$ Subcontracted analysis (S)





Soil Analysis Certificate	- Speciated PAHs							
DETS Report No: 19-172	00		Date Sampled	06/12/19	06/12/19	06/12/19	06/12/19	06/12/19
Geosphere Environmenta	l Ltd		Time Sampled	None Supplied				
Site Reference: Progess	Farm, Base Green		TP / BH No	WS2	WS3	WS5	WS6	WS7
Road, Wetherden, Suffolk	, IP14 3LR							
Project / Job Ref: 4476,0	SI	4	Additional Refs	J2	J1	J1	J2	J1
Order No: None Supplied			Depth (m)	0.60	0.40	0.25	0.40	0.40
Reporting Date: 16/12/2	2019	D	ETS Sample No	451890	451891	451892	451893	451894
Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.13	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.15	0.30	0.15
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.13	0.25	0.11
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.30	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.13	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.36	0.44	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.27	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.23	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.24	< 0.1
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	2.3	< 1.6





Soil Analysis Certificate	- Speciated PAHs					
DETS Report No: 19-172	00		Date Sampled	06/12/19		
Geosphere Environmenta	l Ltd		Time Sampled	None Supplied		
Site Reference: Progess	Farm, Base Green		TP / BH No	WS4		
Road, Wetherden, Suffolk	, IP14 3LR					
Project / Job Ref: 4476,0	SI	4	Additional Refs	J2		
Order No: None Supplied			Depth (m)	0.40		
Reporting Date: 16/12/2	2019	D	ETS Sample No	451895		
Determinand	Unit	RL	Accreditation			
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1		
Acenaphthylene	mg/kg	< 0.1	MCERTS	0.14		
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1		
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1		
Phenanthrene	mg/kg	< 0.1	MCERTS	0.65		
Anthracene	mg/kg	< 0.1	MCERTS	0.17		
Fluoranthene	mg/kg	< 0.1	MCERTS	1.15		
Pyrene	mg/kg	< 0.1	MCERTS	1		
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.66		
Chrysene	mg/kg	< 0.1	MCERTS	0.56		
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	1.02		
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.31		
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.61		
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.54		
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1		
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.50		
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	7.3		





Soil Analysis Certificate	e - TPH CWG Bande	d						
DETS Report No: 19-172	200		Date Sampled	06/12/19	06/12/19	06/12/19	06/12/19	06/12/19
Geosphere Environmenta	l Ltd		Time Sampled	None Supplied				
Site Reference: Progess	Farm, Base Green		TP / BH No	WS2	WS3	WS5	WS6	WS7
Road, Wetherden, Suffolk	, IP14 3LR							
Project / Job Ref: 4476,0	<b>GI</b>		Additional Refs	J2	J1	J1	J2	J1
Order No: None Supplied			Depth (m)	0.60	0.40	0.25	0.40	0.40
Reporting Date: 16/12/2	2019	D	ETS Sample No	451890	451891	451892	451893	451894
	Ĩ							
Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3	< 3	12	< 3
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3	14	< 3
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21	< 21	26	< 21
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	< 21
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42	< 42	< 42	< 42





Soil Analysis Certificate	e - TPH CWG Bande	d				
DETS Report No: 19-172	200		Date Sampled	06/12/19		
Geosphere Environmenta	l Ltd		Time Sampled	None Supplied		
Site Reference: Progess	Farm, Base Green		TP / BH No	WS4		
Road, Wetherden, Suffolk	c, IP14 3LR					
Project / Job Ref: 4476,0	SI		Additional Refs	J2	 	 
Order No: None Supplied			Depth (m)	0.40		
Reporting Date: 16/12/2	2019	D	ETS Sample No	451895		
Determinand	Unit	RL	Accreditation		 -	
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	 	 
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05		 
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2		
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2		
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3		
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3		
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10		
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21		
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01		
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05		
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2		
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2		
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2		
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3		
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10		
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21		
Total >C5 - C35	ma/ka	< 42	NONE	< 42		





Soil Analysis Certificate	- BTEX / MTBE							
DETS Report No: 19-1720	00		Date Sampled	06/12/19	06/12/19	06/12/19	06/12/19	06/12/19
Geosphere Environmenta	l Ltd		Time Sampled	None Supplied				
Site Reference: Progess F	Farm, Base Green		TP / BH No	WS2	WS3	WS5	WS6	WS7
Road, Wetherden, Suffolk	, IP14 3LR							
Project / Job Ref: 4476,G	<b>GI</b>		Additional Refs	J2	J1	J1	J2	J1
Order No: None Supplied			Depth (m)	0.60	0.40	0.25	0.40	0.40
Reporting Date: 16/12/2	2019	D	ETS Sample No	451890	451891	451892	451893	451894
Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5





Soil Analysis Certificate	- BTEX / MTBE						
DETS Report No: 19-1720	00		Date Sampled	06/12/19	)		
Geosphere Environmenta	l Ltd		Time Sampled	None Supplied	i i i i i i i i i i i i i i i i i i i		
Site Reference: Progess Farm, Base Green			TP / BH No	WS4	54		
Road, Wetherden, Suffolk	, IP14 3LR						
Project / Job Ref: 4476,0	)I		Additional Refs	J2	2		
Order No: None Supplied			Depth (m)	0.40			
Reporting Date: 16/12/2	2019	D	ETS Sample No	451895	5		
Determinand	Unit	RL	Accreditation				
Benzene	ug/kg	< 2	MCERTS	< 2	2		
Toluene	ug/kg	< 5	MCERTS	< 5	5		
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	2		
p & m-xylene	ug/kg	< 2	MCERTS	< 2	2		
o-xylene	ug/kg	< 2	MCERTS	< 2	2		
MTBE	ua/ka	< 5	MCERTS	< 5			





Soil Analysis Certificate - Sample Descriptions
DETS Report No: 19-17200
Geosphere Environmental Ltd
Site Reference: Progess Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
Project / Job Ref: 4476,GI
Order No: None Supplied
Reporting Date: 16/12/2019

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
451890	WS2	J2	0.60	14.5	Brown loamy clay
451891	WS3	J1	0.40	13.7	Brown loamy clay with stones
451892	WS5	J1	0.25	13.1	Brown loamy clay with brick and concrete
451893	WS6	J2	0.40	9.1	Brown sandy clay with concrete
451894	WS7	J1	0.40	10.8	Brown loamy sand
451895	W/54	12	0 40	13.7	Brown loamy sand with stones and vegetation

Moisture content is part of procedure E003 & is not an accredited test Insufficient Sample  $^{\rm US}$  Unsuitable Sample  $^{\rm US}$ 





Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 19-17200
Geosphere Environmental Ltd
Site Reference: Progess Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
Project / Job Ref: 4476,GI
Order No: None Supplied
Reporting Date: 16/12/2019

Matrix	Analysed	Determinand Brief Method Description Met					
Coil		Poron Water Soluble	Determination of water coluble baren in coll by 2.1 bet water outract followed by ICD OFC	E012			
Soil			Determination of BTEV by backgroup of MC	E012			
Soil		BIEA	Determination of privace in acid humany angle disastian followed by ICD OFC	E001			
Soil	D	Chlorida Water Soluble (2:1)	Determination of caloris in soir by aquartegia utgescult followed by ICP-OES	E002			
3011	D	Chionde - Water Soluble (2.1)	Determination of choravalant chromium in call by extraction in water then by acidification, addition of	L009			
Soil	AR	Chromium - Hexavalent	1,5 diphenylcarbazide followed by colorimetry	E016			
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015			
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015			
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015			
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011			
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004			
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022			
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023			
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	F020			
Soil	AR	Elemental Salpha FPH (C10 - C40)	Determination of acetone/bexage extractable bydrocarbons by GC-FID	E020			
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004			
501		EPH TEXAS (C6-C8 C8-C10 C10-C12	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40, C6 to C8 by	LUUT			
Soil	AR	C12-C16 $C16-C21$ $C21-C40$	beadenance GC/MS	E004			
Soil	D	Eluoride - Water Soluble	Determination of Eluoride by extraction with water & analyzed by ion chromatography	F000			
301	U		Determination of fraction of organic carbon by ovidicing with potaccium dichromate followed by	L009			
Soil	D	FOC (Fraction Organic Carbon)	titration with iron (II) sulphate	E010			
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019			
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025			
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002			
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004			
Soil	AR	Moisture Content	Moisture content: determined gravimetrically	E003			
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009			
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010			
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005			
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008			
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011			
Soil	AR	Ha	Determination of pH by addition of water followed by electrometric measurement	E007			
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021			
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	F009			
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCI followed by ICP-OES	E013			
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of subhate by extraction with water & analysed by ion chromatography	E010			
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble subbate by extraction with water followed by ICP-OFS	E005			
Soil	AR	Sulnhide	Determination of sulphide by distillation followed by colorimetry	F018			
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OFS	F024			
0.1	4.5		Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by	5000			
Soli	AR	SVUC	GC-MS Determination of thiocyanate by extraction in caustic soda followed by acidification followed by	E006			
Soil	AR	Thiocyanate (as SCN)	addition of ferric nitrate followed by colorimetry	E017			
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011			
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010			
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004			
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004			
5011	AK	VULS	Determination of volatile organic compounds by neadspace GC-MS	EUUI			
201	AK	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by neadspace GC-MS & C8-C10 by GC-FID	E001			

D Dried

**AR As Received** 



Flora Sutherland Geosphere Environmental Ltd Brightwell Barns Ipswich Road Brightwell Suffolk IP10 0BJ



DETS Ltd Unit 1 Rose Lane Industrial Estate Rose Lane Lenham Heath Kent ME17 2JN t: 01622 850410

# DETS Report No: 19-17209

Site Reference:	Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
Project / Job Ref:	4476,GI
Order No:	None Supplied
Sample Receipt Date:	10/12/2019
Sample Scheduled Date:	11/12/2019
Report Issue Number:	1
Reporting Date:	16/12/2019

Authorised by:

Mur

Dave Ashworth Technical Manager

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Soil Analysis Certificate					
DETS Report No: 19-17209	Date Sampled	06/12/19	06/12/19	06/12/19	
Geosphere Environmental Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	
Site Reference: Progress Farm, Base Green Road,	TP / BH No	WS3	WS6	WS9	
Wetherden, Suffolk, IP14 3LR					
Project / Job Ref: 4476,GI	Additional Refs	J2	J3	J2	
Order No: None Supplied	Depth (m)	0.80	1.45	1.00	
Reporting Date: 16/12/2019	DETS Sample No	451931	451932	451933	
Determinand Unit	RL Accreditation				

pH W/S Sulphate as SO<sub>4</sub> (2:1) W/S Sulphate as SO<sub>4</sub> (2:1) sults are expressed as 8.2 < 10 8.0 < 10 < 0.01 pH Units N/a < 10 MCERTS 8.1 < 10 < 0.01 MCERTS mg/l < <u>0.01</u> < 0.01 MCERTS q/l

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than  $30^{\circ}\text{C}$ 

Subcontracted analysis (S)





Soil Analysis Certificate - Sample Descriptions
DETS Report No: 19-17209
Geosphere Environmental Ltd
Site Reference: Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
Project / Job Ref: 4476,GI
Order No: None Supplied
Reporting Date: 16/12/2019

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
451931	WS3	J2	0.80	14.7	Brown loamy clay with chalk
451932	WS6	J3	1.45	13.4	Brown clay
451933	WS9	J2	1.00	12.3	Brown sandy clay

Moisture content is part of procedure E003 & is not an accredited test Insufficient Sample  $^{\rm VS}$  Unsuitable Sample  $^{\rm VS}$ 





Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 19-17209
Geosphere Environmental Ltd
Site Reference: Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
Project / Job Ref: 4476,GI
Order No: None Supplied
Reporting Date: 16/12/2019

Matrix	Analysed	Determinand Brief Method Description		Method
	On			No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1.5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cvanide - Complex	Determination of complex cvanide by distillation followed by colorimetry	E015
Soil	AR	Cvanide - Free	Determination of free cvanide by distillation followed by colorimetry	F015
Soil	AR	Cvanide - Total	Determination of total cvanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexape	F011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E011
5011	743		Determination of electrical conductivity by addition of saturated calcium subhate followed by	2001
Soil	AR	Electrical Conductivity	electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	۸D	EPH TEXAS (C6-C8, C8-C10, C10-C12,	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by	E004
3011	AK	C12-C16, C16-C21, C21-C40)	headspace GC-MS	LUUH
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Coil	D	EOC (Eraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by	E010
5011	D	FOC (Fraction Organic Carbon)	titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-QES	F025
Soil	D	Metals	Determination of metals by aqua-regia direction followed by ICP-OES	E023
5011	D		Determination of hexapplacetone extractable hydrocarbons by GC-FID fractionating with SPF	2002
Soil	AR	Mineral Oil (C10 - C40)	catridae	E004
Soil	AR	Moisture Content	Moisture content: determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with icro (II) substa	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the	E005
<b>C</b> 'I	4.5		use of surrogate and internal standards	5000
Soll	AR	PCB - / Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soll	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenois by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soll	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	Ď	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	F011
501	D		Determination of organic matter by oxidising with potassium dichromate followed by titration with	2011
Soil	D	Total Organic Carbon (TOC)	iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
501	AK	VOUS	Determination of volatile organic compounds by neadspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried

**AR As Received** 



Flora Sutherland Geosphere Environmental Ltd Brightwell Barns Ipswich Road Brightwell Suffolk IP10 0BJ



DETS Ltd Unit 1 Rose Lane Industrial Estate Rose Lane Lenham Heath Kent ME17 2JN t: 01622 850410

# DETS Report No: 20-00112

Site Reference:	Progess Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
Project / Job Ref:	4476,GI
Order No:	None Supplied
Sample Receipt Date:	10/12/2019
Sample Scheduled Date:	09/01/2020
Report Issue Number:	1
Reporting Date:	14/01/2020

Authorised by:

Mur

Dave Ashworth Technical Manager

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Soil Analysis Certificate								
DETS Report No: 20-00112			Date Sampled	06/12/19				
Geosphere Environmental Ltd			Time Sampled	None Supplied				
Site Reference: Progess Farm, Base Green Road,			TP / BH No	WS4				
Wetherden, Suffolk, IP14 3LR								
Project / Job Ref: 4476,GI			Additional Refs	J2				
Order No: None Supplied			Depth (m)	0.40				
Reporting Date: 14/01/2020		DETS Sample No		455216				
Determinand	Unit	RL	Accreditation					
Asbestos Quantification (S)	%	< 0.001	ISO17025	0.008				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C Subcontracted analysis (S)



Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 20-00112
Geosphere Environmental Ltd
Site Reference: Progess Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR
Project / Job Ref: 4476,GI
Order No: None Supplied
Reporting Date: 14/01/2020

Matrix	Analysed	Determinand	Brief Method Description	Method
Soil		Boron - Water Soluble	Determination of water coluble bergin in coil by 2:1 bet water extract followed by ICP-OES	F012
Soil		BTEY	Determination of RTEV by backpace GC-MS	E012
Soil		Cations	Determination of patients in call by aqui-regia direction followed by ICP-OES	E001
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by avtraction with water & analysed by in chromatoraphy	E002
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of	E016
Coil	AD	Cuanida Complex	1,5 dipnenylcarbazide followed by colorimetry	E01E
Soli	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soll	AR	Cyanida Total	Determination of tree Cyanide by distillation followed by colorimetry	E015 E01E
Soil	AR	Cyclobovano Extractable Matter (CEM)	Determination of total Cyanide by distillation followed by colorined y	E015 E011
Soil		Diesel Pange Organics (C10 - C24)	Determination of beyane/acetone extractable hydrocarbons by GC-FID	E011 E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	F020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
		EPH TEXAS (C6-C8, C8-C10, C10-C12,	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by	
Soll	AR	C12-C16, C16-C21, C21-C40)	headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
C-:1	5	FOC (Function Operation Contract)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by	E010
Soli	D	FOC (Fraction Organic Carbon)	titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	furnace	E019
Soll	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-DES	E025
Soll	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soll	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soll	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soll	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
50II Soil	AK		Determination of voldule organic compounds by neadspace GC-MS	E001
2011	AK	VPH (LD-LS & L8-L10)	ער אין	EUUI

D Dried



# Appendix 7 – Photographs

#### Photograph 1



#### Photograph 2



#### Photograph 3



#### Photograph 4





GEOSPHERE ENVIRONMENTAL

DESCRIPTION

Photograph 1 WS2

Photograph 2 WS8

Photograph 3 WS3

Photograph 4 WS5

#### PROJECT

Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR

#### **PROJECT NUMBER**

4476,GI

TITLE

Selected Photographs Relating To The Ground Investigation

#### DATE

16/01/2020

PAGE NO. 1 of 2

#### Photograph 5



#### Photograph 6



# GEO

GEOSPHERE ENVIRONMENTAL

#### DESCRIPTION

Photograph 5 WS6

Photograph 6 WS7

#### PROJECT

Progress Farm, Base Green Road, Wetherden, Suffolk, IP14 3LR

#### **PROJECT NUMBER**

4476,GI

#### TITLE

Selected Photographs Relating To The Ground Investigation

#### DATE

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#### **GEOSPHERE ENVIRONMENTAL LTD**

Brightwell Barns, Ipswich Road, Brightwell, Suffolk, IP100BJ **T**: 01603 298076 | 01473 353519 | **E**: info@geosphere-environmental.co.uk | **W**: geosphere-environmental.co.uk