

	CLIENT	DATE				Status	Notes
GROUNDTECH	ALDI STORES LIMITED	DECEMBER 2023				Preliminary	
CONSULTING	PROJECT TITLE	SCALE				Draft	
	ALDI MAFON ROAD, TREHARRIS	NTS				Issued	
G	PLAN TITLE	PLAN NUMBER				For Comment	
	ILLUSTRATIVE REVISED CSM	GRO-20287-P06	Rev.	Details	Date	Approved	





APPENDIX 2 - Site Photographs

ALDI MAFON ROAD, TREHARRIS GEO-ENVIRONMENTAL APPRAISAL GRO-20287-4925





Photograph 1 – Site access to the north of the site



Photograph 2 – Car park area

ALDI MAFON ROAD, TREHARRIS GEO-ENVIRONMENTAL APPRAISAL GRO-20287-4925







Photograph 3 – Front of existing Coop store



Photograph 4 - Eastern area of site





APPENDIX 3 - CIRIA Risk Assessment Methodology

ALDI MAFON ROAD, TREHARRIS GEO-ENVIRONMENTAL APPRAISAL GRO-20287-4925 Contaminated Land Risk Assessment

Contaminated Land Risk Assessment is a technique that identifies and considers the associated risk, determines whether the risks are significant and whether action needs to be taken. The four main stages of risk assessment are:

Hazard Identification \Box Hazard Assessment \Box Risk Estimation \Box Risk Evaluation

LCRM outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. The starting point of the risk assessment is to identify the context of the problem and the objectives of the process.

Formulating and developing a conceptual model for the site is an important requirement of risk assessment, this supports the identification and assessment of pollutant linkages. Development of the conceptual model forms the main part of preliminary risk assessment, and the model is subsequently refined or revised as more information and understanding is obtained through the risk assessment process.

Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the likelihood and the consequences of an event must be taken into account when assessing risk.

The risk assessment process needs to take into account the degree of confidence required in decisions. Identification of uncertainties is an essential step in risk assessment.

The likelihood of an event is classified on a four-point system using the following terms and definitions from CIRIA C552:

- High likelihood: There is a pollution linkage and an event appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution;
- Likely: There is a pollution linkage and all the elements are present and in the right place, which means it is probable that an event will occur. Circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term;
- Low likelihood: There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain even over a longer period such event would take place, and is less likely in the short term;
- Unlikely: There is a pollution linkage but circumstances are such that it is improbable the event would occur even in the long term.

The severity is also classified using a system based on CIRIA C552. The terms and definitions are:

 Severe: Short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. A short-term risk to a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);

Examples – High concentrations of contaminant on surface of recreation area, major spillage of contaminants from site into controlled waters, explosion causing building to collapse;

- Medium: Chronic damage to human health ('significant harm' as defined in DETR 2000). Pollution of sensitive water resources. A significant change in a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000); Examples Concentrations of contaminants exceed the generic assessment criteria, leaching of contaminants from a site to a Principal or Secondary Aquifer, death of species within a designated nature reserve;
- Mild: Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures, services or the environment; Examples – Pollution of non-classified groundwater or damage to buildings rendering it unsafe to occupy.
- Minor: harm, not necessarily significant harm, which may result in financial loss or expenditure to resolve. Non-permanent health effects to human health (easily prevented by use of personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services. Examples – Presence of contaminants at such concentrations PPE is required during site work, loss of plants in landscaping scheme or discolouration of concrete.

Once the likelihood and severity have been determined, a risk category can be assigned using the table below.

			Conse	equences	
		Severe	Medium	Mild	Minor
	Highly likely	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate		Low
- - -	Low likelihood	Moderate		Low	Very low
	Unlikely	Unlikely Moderate/low		Very Low	Very low

Definitions of the risk categories obtained from the above table are as follows together with an assessment of the further work that might be required:

- Very high: 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 is currently happening. This risk, if realised, could result in substantial liability. Urgent investigation and remediation are likely to be required;
- High: Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation is required and remedial works may be necessary in the short term and are likely over the longer term;
- Moderate: 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 would be more likely to be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term;
- Low: 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;
- Very Low: There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.





APPENDIX 4 - Exploratory Hole Logs

ALDI MAFON ROAD, TREHARRIS GEO-ENVIRONMENTAL APPRAISAL GRO-20287-4925

CH GROUNDTEC	н	Во	rehole Log	Borehole No CP01 Sheet 1 of
	ALDI MAFON ROAD	Project No. GRO-20287	Co-ords: -	Hole Type CP
Location:	TREHARRIS	1	Level:	Scale 1:50
Client:	ALDI STORES LTD		Dates: 08/11/2023 -	Logged By AJ
Well				

Remarks 1. Location cleared of services using handheld Cable Avoidance Tool. 2. Hand excavated inspection pit to 1.20m bgl. 3. Groundwater encountered at 2.60m bgl. 4. Borehole terminated at 3.40m bgl due to SPT refusal on sandstone bedrock. 5. Monitoring standpipe installed to 3.40m bgl (2.40m plain, 1.00m slotted).



G		R	orehole Log	Borehole CP02	
H GROUNDTECI	Н			Sheet 1 o	
		Project No.		Hole Typ	
Project Name:	ALDI MAFON ROAD	GRO-20287	Co-ords: -	CP	
Location:	TREHARRIS		Level:	Scale	
				1:50 Logged E	
Client:	ALDI STORES LTD		Dates: 08/11/2023 -	AJ	
				I	
Well					

Remarks 1. Location cleared of services using handheld Cable Avoidance Tool. 2. Hand excavated inspection pit to 1.20m bgl. 3. Groundwater encountered at 2.70m bgl. 4. Borehole terminated at 3.20m bgl due to SPT refusal on sandstone bedrock. 5. Monitoring standpipe installed to 3.20m bgl (2.20m plain, 1.00m slotted).



6		_		Borehole	
H GROUNDTEC	Н	B	orehole Log	CP03 Sheet 1 of Hole Type CP	
		Project No.			
Project Name:	ALDI MAFON ROAD	GRO-20287	Co-ords: -		
Location:	TREHARRIS		Level:	Scale	
Client:	ALDI STORES LTD		Dates: 09/11/2023 -	1:50 Logged AJ	
Well					

Remarks 1. Location cleared of services using handheld Cable Avoidance Tool. 2. Hand excavated inspection pit to 1.20m bgl. 3. Groundwater encountered at 5.00m bgl. 4. Borehole terminated at 5.30m bgl due to SPT refusal on sandstone bedrock. 5. Monitoring standpipe installed to 5.30m bgl (4.00m plain, 1.30m slotted).



G		_		Borehole CP04	
H GROUNDTEC	CH	B	orehole Log		
Project Name:	ALDI MAFON ROAD	Project No.	Co-ords: -	Sheet 1 c Hole Typ	
Location:	TREHARRIS	GRO-20287	Level:	CP Scale 1:50	
Client:	ALDI STORES LTD		Dates: 09/11/2023 -	Logged AJ	
Well					

Remarks 1. Location cleared of services using handheld Cable Avoidance Tool. 2. Hand excavated inspection pit to 1.20m bgl. 3. Groundwater encountered at 3.70m bgl. 4. Borehole terminated at 4.30m bgl due to SPT refusal on sandstone bedrock. 5. Monitoring standpipe installed to 4.30m bgl (3.00m plain, 1.30m slotted).





	C						rialpit No					
	H GRO	UNDTECH					l ri	al Pit	Log		PL01	
CONSULTING					Projec					SI	heet 1 of 1	
	Projec Name:	t ALDI MA	FON RO	AD	GRO-			Co-ords: - Level:		0	Date 7/11/2023	
	Locatio	on: TREHAR	RIS					Dimensions (m):	2.2		Scale	
	Client:	ALDI ST	ORES LTI	D				Depth 0.50	<u>+</u> 2		1:25 Logged	
	r e			Situ Testing	Depth	Level					AJ	
	Water Strike	Depth	Туре	Results	(m)	(m)	Legend					
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					0.40							
					0.50							
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	Stabilit	ty: Stable										



G		JNDTECH					Trialpit No PL02 Sheet 1 of 1				
	Project Name:	ALDI MA	FON ROA	١D	Projec GRO-2			Co-ords: - Level:			Date 07/11/2023
	Locatio		RRIS					Dimensions (m):		1	Scale 1:25
	Client:	ALDI ST	ORES LTE)				Depth 0.30	~		Logged
	ke r	Sample	es and In S	Situ Testing	Depth	Level	Legend				//0
	Water Strike	Depth	Туре	Results	(m)	(11)					
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					0.30						
	Remar	3. Pla	ite Load Te	red of services using est undertaken at 0.3	g handhe 80m bgl.	ld Cable 4. Trial p	Avoida oit backfi	nce Tool (CAT). lled with arising	2. No groundwa s.	iter enc	0
	Stabilit	y: Stable	e								



G		JNDTECH					Trialpit No PL03 Sheet 1 of 1				
	Project Name:	ALDI MA	FON ROA	١D	Projec GRO-2			Co-ords: - Level:			Date 07/11/2023
	Locatio		RRIS					Dimensions (m):		1	Scale 1:25
	Client:	ALDI ST	ORES LTE)				Depth 0.30	~		Logged
	ke r	Sample	es and In S	Situ Testing	Depth	Level	Legend			I	, 10
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					0.30						
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	Stabilit	y: Stable	е								



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Remarks: 1. Location cleared of services using handheld Cable Avoidance Tool (CAT). 2. No groundwater end 3. Plate Load Test undertaken at 0.30m bgl. 4. Trial pit backfilled with arisings.	90	. 2. No groundwater end	ance Tool (C.	⊥ ∍ Avoidai oit backfi	eld Cable 4. Trial p	ng handhe 30m bgl.	ared of services usi est undertaken at C	ate Load 1	3. Pla	



G		JNDTECH					Trialpit No PL05 Sheet 1 of 1				
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	Locatio		RRIS					Dimensions (m):		1	Scale 1:25
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Name: ALDI MAFON ROAD GRO-20287 Level: Location: TREHARRIS Dimensions 2.1 Client: ALDI STORES LTD Depth 2.10 Image: Samples and In Situ Testing Depth (m) Legend Image: Samples and In Situ Testing Depth (m) Legend Image: Samples and In Situ Testing Depth (m) Legend Image: Samples and In Situ Testing Depth (m) Legend Image: Samples and In Situ Testing 0.05 0.20 Image: Samples and	Sheet 1 of 1 Date			Broior				
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Remarks: 1. Location cleared of services using handheld Cable Avoidance Tool (CAT). 2. No groundwater encountere excavated to 2.10m bgl. 4. Soil percolation test undertaken between 1.30m bgl and 2.10m bgl. 5. Trial pit b		CAT). 2. No groundwater encountered.	Lable Avoidanc	ing handheld C	ared of services us	cation clear	ks: 1. Lo	Remark
arisings. Stability: Unstable	U C	Sen agrana zerom ogi. G. mai pit Dat				ngs.	arisin	

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	CH		orehole Log	WS01
		Project No.		Sheet 1 of Hole Typ
Project Name:	ALDI MAFON ROAD	GRO-20287	Co-ords: -	WS
Location:	TREHARRIS		Level:	Scale 1:25
Client:	ALDI STORES LTD		Dates: 08/11/2023 -	Logged B AJ
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	CH	В	orehole Log	Borehole WS0 Sheet 1 c
Project Name:	ALDI MAFON ROAD	Project No. GRO-20287	Co-ords: -	Hole Typ WS
Location:	TREHARRIS		Level:	Scale 1:25
Client:	ALDI STORES LTD		Dates: 08/11/2023 -	Logged AJ
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Remarks
1. Location cleared of services using handheld Cable Avoidance Tool (CAT). 2. Hand excavated inspection pit to 1.20m
bgl. 3. Groundwater encountered at 2.00m bgl. 4. Borehole terminated at 3.00m bgl due to SPT refusal in the natural
clay. 5. Monitoring standpipe installed to 3.00m bgl (1.00m plain, 2.00m slotted).



CH GROUNDTE CH GROUNDTE	ECH	B	orehole Log	Borehole WS0
Project Name		Project No.	Co-ords: -	Sheet 1 o Hole Ty
Location:	TREHARRIS	GRO-20287	Level:	WS Scale
				1:25 Logged
Client:	ALDI STORES LTD		Dates: 08/11/2023 -	AJ
Well				

Remarks
1. Location cleared of services using handheld Cable Avoidance Tool (CAT). 2. Hand excavated inspection pit to 1.20m
bgl. 3. Groundwater encountered at 2.00m bgl. 4. Borehole terminated at 2.00m bgl due to SPT refusal in the natural
clay. 5. Monitoring standpipe installed to 1.50m bgl (1.00m plain, 0.50m slotted).



G				Borehole I
H GROUNDTEC	CH .	B	orehole Log	WS04
		Project No.		Sheet 1 o Hole Typ
Project Name:	ALDI MAFON ROAD	GRO-20287	Co-ords: -	WS
Location:	TREHARRIS		Level:	Scale 1:25
Client:	ALDI STORES LTD		Dates: 08/11/2023 -	Logged E AJ
Well				



Project Name: ALDI MAFON ROAD Project No. GRO-20287 Co-ords: Location: TREHARRIS Level: Client: ALDI STORES LTD Dates: Well	- 08/11/2023 -	Sheet 1 of Hole Type WS Scale 1:25 Logged By AJ
Location: TREHARRIS Level: Client: ALDI STORES LTD Dates:	08/11/2023 -	Scale 1:25 Logged By
	08/11/2023 -	
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Project Nam		Project No. GRO-20287	Co-ords: -	Hole Type WS
Location:	TREHARRIS	I	Level:	Scale 1:25
Client:	ALDI STORES LTD		Dates: 08/11/2023 -	Logged By AJ
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	ЕCH	B	orehole Log	Borehole WSC
Project Name		Project No. GRO-20287	Co-ords: -	Sheet 1 Hole Ty WS
Location:	TREHARRIS		Level:	Scale 1:25
Client:	ALDI STORES LTD		Dates: 09/11/2023 -	Logged AJ
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Project Name		Project No. GRO-20287	Co-ords: -	Sheet 1 Hole T WS
Location:	TREHARRIS		Level:	Scal 1:25
Client:	ALDI STORES LTD		Dates: 09/11/2023 -	Logged AJ
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Project Name: ALDI MAFON ROAD	Project No. GRO-20287	Co-ords: -	Hole Typ WS
	GRO-20207		Scale
Location: TREHARRIS		Level:	1:25
Client: ALDI STORES LTD		Dates: 09/11/2023 -	Logged AJ
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Project Name:	ALDI MAFON ROAD	GRO-20287	Co-ords: -	WS
Location:	TREHARRIS		Level:	Scale 1:25
Client:	ALDI STORES LTD		Dates: 09/11/2023 -	Logged I AJ
Well				

Remarks 1. Location cleared of services using handheld Cable Avoidance Tool (CAT). 2. Hand excvated inspection pit to 1.20m bgl. 3. Groundwater encountered at 2.00m bgl. 4. Borehole terminated at 2.00m bgl due to SPT refusal in the natural clay. 5. Monitoring standpipe installed to 2.00m bgl (1.00m plain, 1.00m slotted).



				Borehole N
	H GROUNDTECH Project Name: ALDI MAFON ROAD		Borehole Log	
Project Name:			Project No. GRO-20287 Co-ords: -	
Location:	TREHARRIS		Level:	WS Scale 1:25
Client:	ALDI STORES LTD		Dates: 09/11/2023 -	Logged B AJ
Well				



ECH GROUND	TECH	В	orehole Log	Borehole N WS12 Sheet 1 of
Project Nan		Project No. GRO-20287	Co-ords: -	Hole Type WS
Location:	TREHARRIS		Level:	Scale 1:25
Client:	ALDI STORES LTD		Dates: 09/11/2023 -	Logged B AJ
Well				



			Borehole Log		Borehole No WS13 Sheet 1 of 2	
Project Name:	ALDI MAFON ROAD	Project No. GRO-20287	Co-ords:	-	Hole Type WS	
Location:	TREHARRIS		Level:		Scale 1:25	
Client:	ALDI STORES LTD		Dates:	09/11/2023 -	Logged By AJ	
Well						



G H GROUNDTECH		Borehole Log		Borehole No WS14
Project Name		Project No. GRO-20287 Co-ords: -		Sheet 1 of 7 Hole Type WS
Location:	TREHARRIS		Level:	Scale 1:25
Client:	ALDI STORES LTD		Dates: 09/11/2023 -	Logged By AJ
Well				







APPENDIX 5 - Geo-Environmental Testing Results

ALDI MAFON ROAD, TREHARRIS GEO-ENVIRONMENTAL APPRAISAL GRO-20287-4925



Element Materials Technology Unit 3 Deeside Point Zone 3 Deeside Industrial Park Deeside CH5 2UA P: +44 (0) 1244 833780 F: +44 (0) 1244 833781

W: www.element.com

Groundtech Consulting Limited PO Box 499 Manchester United Kingdom M28 8EE MR KAS inte TESTING 4225 Attention : Andrew Janson 3rd January, 2024 Date : Your reference : GRO-20287 Test Report 23/19217 Batch 1 Our reference : Aldi Treharris Location : Date samples received : 16th November, 2023 **Final Report** Status : 202401031332 Issue :

Forty four samples were received for analysis on 16th November, 2023 of which sixteen were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

The greenhouse gas emissions generated (in Carbon - Co2e) to obtain the results in this report are estimated as:

Scope 1&2 emissions - 73.341 kg of CO2

Scope 1&2&3 emissions - 173.324 kg of CO2

Authorised By:

Liza Klebe Project Co-ordinator

Please include all sections of this report if it is reproduced



Groundtech Consulting Limited GRO-20287 Aldi Treharris Andrew Janson 23/19217

Report : Solid

EMT Job No:	23/19217												
EMT Sample No.	1-3	7-9	16-18	28-30	31-33	38-40	53-55	65-67	71-73	77-79			
Sample ID	CP01	CP02	CP03	CP04	WS01	WS02	WS03	WS04	WS05	WS06			
Depth	0.35	0.60	0.40	0.60	0.35	0.30	0.30	0.40	0.30	0.60	Please se	e attached n	notes for all
COC No / misc												ations and a	
Containers	VJT	TLV	TLV	TLV	TLV	TLV	TLV	TLV	TLV	TLV			
Sample Date	08/11/2023	08/11/2023	09/11/2023	09/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt		16/11/2023		16/11/2023			16/11/2023		16/11/2023		LOD/LOR	Units	Method No.
Arsenic *	2.7			5.6	5.1	3.3	2.4			1.7	<0.5	malka	TM30/PM15
Cadmium	<0.1	1.2 0.1	5.6 <0.1	>.o <0.1	0.3	<0.1	60.9 _{AA}	1.6 <0.1	1.0 <0.1	<0.1	<0.5	mg/kg mg/kg	TM30/PM15
Chromium *	15.2	8.3	10.7	13.4	13.8	7.2	10.6	10.6	10.9	11.6	<0.1	mg/kg	TM30/PM15
Copper	5	5	41	37	6	3	24	3	2	2	<1	mg/kg	TM30/PM15
Lead	9	15	17	19	16	11	56	<5	15	<5	<5	mg/kg	TM30/PM15
Mercury *	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Nickel	6.7	3.7	28.5	29.5	3.8	6.0	3.1	4.0	2.9	3.2	<0.7	mg/kg	TM30/PM15
Selenium	<1	<1	1	2	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM30/PM15
Water Soluble Boron	0.2	0.2	0.7	0.6	0.1	<0.1	<0.1	0.2	0.1	0.1	<0.1	mg/kg	TM74/PM32
Zinc *	26	14	76	79	43	14	1253	15	22	13	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene *	< 0.04	0.30	0.38	0.34	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	mg/kg	TM4/PM8
Acenaphthene	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene	< 0.04	0.07	0.11	0.09	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	< 0.04	mg/kg	TM4/PM8
Phenanthrene	<0.03	0.31	0.52	0.53	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene	<0.03	0.13	0.08	0.08	0.05	<0.03	<0.03	0.07	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene	<0.03	0.12	0.09	0.08	0.04	<0.03	<0.03	0.05	<0.03	<0.03	< 0.03	mg/kg	TM4/PM8
Benzo(a)anthracene	< 0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.07	<0.06	<0.06	< 0.06	mg/kg	TM4/PM8
Chrysene	<0.02 <0.07	0.07 <0.07	0.19	<0.02 0.11	0.06	< 0.02	0.04 <0.07	0.07	<0.02 <0.07	<0.02 <0.07	<0.02 <0.07	mg/kg	TM4/PM8 TM4/PM8
Benzo(bk)fluoranthene Benzo(a)pyrene	<0.07	<0.07	0.11 <0.04	0.04	<0.08	<0.07 <0.04	<0.07	0.08	<0.07	<0.07	<0.07	mg/kg mg/kg	TM4/PM8
Indeno(123cd)pyrene	< 0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene	< 0.04	< 0.04	< 0.04	< 0.04	<0.04	< 0.04	<0.04	<0.04	< 0.04	< 0.04	< 0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene	< 0.04	< 0.04	<0.04	< 0.04	<0.04	< 0.04	<0.04	<0.04	<0.04	<0.04	< 0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	1.1	1.5	1.3	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	0.08	0.08	0.06	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	0.03	0.03	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	101	102	102	104	102	105	104	100	102	106	<0	%	TM4/PM8
Methyl Tertiary Butyl Ether*		-	-	-		<2	<2	-		-	<2	ug/kg	TM15/PM10
Benzene	-	-	-	-	-	<3	<3	-	-	-	<3	ug/kg	TM15/PM10
Toluene *	-	-	-	-	-	<3	<3	-	-	-	<3	ug/kg	TM15/PM10
Ethylbenzene *	-	-	-	-		<3	<3	-		-	<3	ug/kg	TM15/PM10
m/p-Xylene	-	-	-	-	-	<5	<5	-	-	-	<5	ug/kg	TM15/PM10
o-Xylene *		-	-	-		<3	<3	-		-	<3	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8		-	-	-	-	86	79	-	-	-	<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	-	-	-	-	•	88	81	-		-	<0	%	TM15/PM10
EPH (C8-C40) (EH_1D_Total)	1746	658	92	<30	2257	115	44	543	<30	<30	<30	mg/kg	TM5/PM8

Client Name:
Reference:
Location:
Contact:
EMT Job No:

Groundtech Consulting Limited GRO-20287 Aldi Treharris Andrew Janson 23/19217

Report : Solid

EMT Job No:	23/19217										_		
EMT Sample No.	1-3	7-9	16-18	28-30	31-33	38-40	53-55	65-67	71-73	77-79			
Sample ID	CP01	CP02	CP03	CP04	WS01	WS02	WS03	WS04	WS05	WS06			
Depth	0.35	0.60	0.40	0.60	0.35	0.30	0.30	0.40	0.30	0.60	Diagona	e attached n	atos for all
COC No / misc												ations and a	
Containers	VJT	VJT	VJT	VJT	VJT	VJT	VJT	VJT	VJT	VJT			
Sample Date	08/11/2023	08/11/2023	09/11/2023	09/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1		1	1								
			1			1	1	1	1	1	LOD/LOR	Units	Method No.
Date of Receipt	16/11/2023	16/11/2023	16/11/2023	16/11/2023	16/11/2023	16/11/2023	16/11/2023	16/11/2023	16/11/2023	16/11/2023			
TPH CWG													
Aliphatics			sv	sv									
>C5-C6 (HS_1D_AL)	-	-	<0.1 ^{SV}	<0.1 ^{SV}	•	<0.1	<0.1	-	•	-	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL)	-	-	<0.1 ^{SV}	<0.1 ^{SV}	•	< 0.1	<0.1	-	-	-	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	-	-	<0.1 ^{SV}	<0.1 ^{SV}	-	<0.1	<0.1	-	-	-	<0.1 <0.2	mg/kg	TM36/PM12 TM5/PM8/PM16
>C10-C12 (EH_CU_1D_AL) * >C12-C16 (EH_CU_1D_AL) *	-	-	<0.2	<0.2	-	<0.2	<0.2	-	-	-	<0.2	mg/kg mg/kg	TM5/PM8/PM16
>C12-C18 (EH_CU_1D_AL)	-		<7	<7	-	<7	<7			_	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL)	-	-	<7	<7	-	<7	18	-		-	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH_CU+HS_1D_AL)	-	-	<19	<19		<19	<19	-	-	-	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics												5.5	
>C5-EC7 (HS_1D_AR)*	-	-	<0.1 sv	<0.1 sv	-	<0.1	<0.1	-	-	-	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) *	-	-	<0.1 sv	<0.1 SV	-	<0.1	<0.1	-	-	-	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) *	-	-	<0.1 SV	<0.1 SV	-	<0.1	<0.1	-	-	-	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR)*	-	-	<0.2	<0.2	-	<0.2	<0.2	-	-	-	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR)	-	-	<4	<4	-	<4	<4	-	-	-	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR)*	-	-	<7	<7	-	<7	<7	-	-	-	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) *	-	-	26	<7	-	48	41	-	-	-	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH_CU+HS_1D_AR)	-	-	26	<19		48	41	-		-	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35) (EH_CU+HS_1D_Total)	-	-	<38	<38	-	48	41	-	-	-	<38	mg/kg	TM5/TM36/PM8/PM12/PM16
мтве •	-	-	<5 sv	<5 sv		-		-		-	<5	ug/kg	TM36/PM12
Benzene	-	-	72 sv	76 sv	-	-	-	-	-	-	<5	ug/kg	TM36/PM12
Toluene *	-	-	₃₈ sv	₃₃ sv	-	-	-	-	-	-	<5	ug/kg	TM36/PM12
Ethylbenzene ⁴	-	-	<5 sv	<5 sv	-	-	-	-	-	-	<5	ug/kg	TM36/PM12
m/p-Xylene	-	-	15 sv	10 ^{sv}	-	-	-	-	-	-	<5	ug/kg	TM36/PM12
o-Xylene	-	-	<5 SV	<5 SV	-	-	-	-	-	-	<5	ug/kg	TM36/PM12
Phenol *	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM26/PM21B
Natural Moisture Content	5.0	1.6	14.0	4.4	2.6	3.3	<0.1	2.3	3.6	<0.1	<0.1	%	PM4/PM0
Hexavalent Chromium *	<0.3	<0.3	<0.3	<0.3	<0.3	< 0.3	<0.3	< 0.3	< 0.3	< 0.3	< 0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) *	0.0108	0.0117	0.0409	0.0537	0.0334	0.0080	0.0354	0.0370	0.0259	0.0321	<0.0015	g/l	TM38/PM20
Total Cyanide [#]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45
Total Organic Carbon [#]	0.85	0.77	-	-	-	0.43	-	-	-	-	<0.02	%	TM21/PM24
Organic Matter	1.5	1.3	9.6	16.7	1.7	0.43	1.1	<0.2	<0.2	<0.2	<0.2	%	TM21/PM24
ANC at pH4	2.64	2.11	-	-		1.61	-	-		-	< 0.03	mol/kg	TM77/PM0
ANC at pH7	0.04	<0.03	-	-	-	0.03	-	-	-	-	<0.03	mol/kg	TM77/PM0
Loss on Ignition	1.7	1.5	-	-		<1.0	_	_		_	<1.0	%	TM22/PM0
pH *	9.27	9.46	8.70	9.33	7.89	9.41	9.30	9.27	NDP	9.50	<0.01	pH units	TM73/PM11

Client Name: Reference: Location: Contact: EMT Job No: Groundtech Consulting Limited GRO-20287 Aldi Treharris Andrew Janson 23/19217

Report : Solid

EMT Job No:	23/19217										
EMT Sample No.	83-85	89-91	98-100	101-103	107-109	113-115					
Sample ID	WS07	WS10	WS11	WS12	WS13	WS14					
Depth	0.30	0.50	0.30	0.40	0.40	0.40			Please se	e attached n	otes for all
COC No / misc										ations and a	
Containers	VJT	VJT	VJT	VJT	VJT	VJT					
Sample Date	08/11/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023					
Sample Type		Soil		Soil		Soil					
			Soil		Soil						
Batch Number	1	1	1	1	1	1			LOD/LOR	Units	Method No.
Date of Receipt				16/11/2023							
Arsenic	2.6	5.0	8.7	4.6	5.3	6.0			<0.5	mg/kg	TM30/PM15
Cadmium	<0.1 14.8	<0.1 12.7	0.2	11.9 12.4	<0.1 9.5	<0.1 7.7			<0.1 <0.5	mg/kg	TM30/PM15 TM30/PM15
Chromium Copper	5	45	21	12.4	42	48			<0.5	mg/kg mg/kg	TM30/PM15
Lead *	7	30	46	53	23	22			<5	mg/kg	TM30/PM15
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM30/PM15
Nickel	7.6	43.7	11.8	3.6	30.4	31.0			<0.7	mg/kg	TM30/PM15
Selenium	<1	<1	<1	<1	1	2			<1	mg/kg	TM30/PM15
Water Soluble Boron	0.2	0.5	0.4	0.1	0.5	0.5			<0.1	mg/kg	TM74/PM32
Zinc	25	127	116	240	109	138			<5	mg/kg	TM30/PM15
PAH MS		0.05	0.07			0.40					71440040
Naphthalene	< 0.04	0.35	0.37	< 0.04	0.31	0.40			<0.04	mg/kg	TM4/PM8
Acenaphthylene Acenaphthene	<0.03 <0.05	0.08	0.50	<0.03 <0.05	<0.03 <0.05	<0.03 <0.05			<0.03 <0.05	mg/kg	TM4/PM8 TM4/PM8
Fluorene	<0.03	0.86	0.17	<0.03	0.10	0.12			<0.03	mg/kg mg/kg	TM4/PM8
Phenanthrene *	< 0.03	3.75	2.74	< 0.03	0.52	0.69			<0.03	mg/kg	TM4/PM8
Anthracene	<0.04	1.07	1.17	< 0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Fluoranthene *	< 0.03	5.62	10.63	0.15	0.21	0.14			<0.03	mg/kg	TM4/PM8
Pyrene	<0.03	3.20	9.16	0.12	0.17	0.13			<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene	<0.06	3.27	6.97	0.19	0.18	0.11			<0.06	mg/kg	TM4/PM8
Chrysene	0.10	4.02	7.97	0.25	0.30	0.29			<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene	<0.07	5.58	14.44	0.31	0.33	0.23			<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene	< 0.04	2.63	7.70	< 0.04	0.12	0.08			<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene Dibenzo(ah)anthracene	<0.04 <0.04	1.49 0.66	5.37 1.43	0.10 <0.04	0.10 <0.04	0.07 <0.04			<0.04 <0.04	mg/kg mg/kg	TM4/PM8 TM4/PM8
Benzo(ghi)perylene	0.04	1.36	5.21	0.22	0.11	0.09			<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	34.7	74.1	1.3	2.5	2.4			<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	< 0.05	4.02	10.40	0.22	0.24	0.17			< 0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	1.56	4.04	0.09	0.09	0.06			<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	102	101	99	105	106	104			<0	%	TM4/PM8
Methyl Tertiary Butyl Ether	-	<10 ^{SV} AA	-	<2	-	-			<2	ug/kg	TM15/PM10
Benzene	-	199 ^{SV} AA	-	<3	-	-			<3	ug/kg	TM15/PM10
Toluene	-	272 ^{SV} AA	-	<3	-	-			<3	ug/kg	TM15/PM10
Ethylbenzene	-	18 ^{SV} AA 371 ^{SV} AA	•	<3 <5	-	-			<3 <5	ug/kg	TM15/PM10 TM15/PM10
m/p-Xylene * o-Xylene *	-	26 ^{SV} AA	-	<5	-	-			<5	ug/kg ug/kg	TM15/PM10
Surrogate Recovery Toluene D8		41 SV AA	-	58	-	-			<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	-	45 AA	-	64	-	-			<0	%	TM15/PM10
EPH (C8-C40) (EH_1D_Total) *	3498	306	895	4753	<30	<30			<30	mg/kg	TM5/PM8

Client Name: Reference: Location: Contact: EMT Job No: Groundtech Consulting Limited GRO-20287 Aldi Treharris Andrew Janson 23/19217

Report : Solid

EMT Job No:	23/19217									
EMT Sample No.	83-85	89-91	98-100	101-103	107-109	113-115				
Sample ID	WS07	WS10	WS11	WS12	WS13	WS14				
Depth	0.30	0.50	0.30	0.40	0.40	0.40		Please se	e attached r	notes for all
COC No / misc									ations and a	
Containers	VJT	VJT	VJT	VJT	VJT	VJT				
Sample Date	08/11/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	1	1	1	1	1	1				
Date of Receipt	16/11/2023	16/11/2023	16/11/2023	16/11/2023	16/11/2023	16/11/2023		LOD/LOR	Units	Method No.
TPH CWG	10/11/2020	10/11/2020	10/11/2020	10/11/2020	10/11/2020	10/11/2020				
Aliphatics										
>C5-C6 (HS_1D_AL)*		<0.1 sv		<0.1 sv	<0.1 sv	<0.1 sv		<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL)	-	<0.1 SV		<0.1 SV	<0.1 SV	<0.1 SV		<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	-	<0.1 <0.1 SV	-	0.4 SV	<0.1 SV	<0.1 SV		<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL)*	-	1.4		<0.2	<0.1	<0.1		<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL)	-	5		<4	<4	<4		<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL)	-	15		<7	<7	<7		<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL)	-	70		118	<7	<7		<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH_CU+HS_1D_AL)	-	91		118	<19	<19		<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics				110		\$17		517	ngng	
>C5-EC7 (HS_1D_AR)*	-	<0.1 sv	-	<0.1 sv	<0.1 sv	<0.1 SV		<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR)		<0.1	-	<0.1 <0.1 SV	<0.1 <0.1 SV	<0.1 <0.1 SV		<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR)*	-	<0.1 <0.1		<0.1 <0.1 SV	<0.1	<0.1		<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR)		<0.1		<0.1	<0.1	<0.1		<0.1	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR)	-	<4	-	<4	<4	<4		<4	mg/kg	TM5/PM8/PM16
>EC12-EC18 (EH_CU_1D_AR)	-	27	-	24	<7	<7		<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR)		153		567	<7	<7		<7	mg/kg	TM5/PM8/PM16
		180	-	591	<19	<19		<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aromatics C5-35 (EH_CU+HS_1D_AR) Total aliphatics and aromatics(C5-35) (EH_CU+HS_1D_Total)		271		709	<38	<38		<38	mg/kg	TM5/TM36/PM8/PM12/PM16
		271		,0,	(30	100		(00	ing/kg	
MTBE *	-	-	-	-	<5 sv	<5 sv		<5	ug/kg	TM36/PM12
Benzene *	-	-	-	-	45 SV	₃₁ sv		<5	ug/kg	TM36/PM12
Toluene *	-	-	-	-	25 SV	15 sv		<5	ug/kg	TM36/PM12
Ethylbenzene *	-	-	-	-	<5 SV	<5 SV		<5	ug/kg	TM36/PM12
m/p-Xylene	-	-	-	-	7 ^{sv}	<5 sv		<5	ug/kg	TM36/PM12
o-Xylene *	-	-		-	<5 sv	<5 sv		<5	ug/kg	TM36/PM12
Phenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	mg/kg	TM26/PM21B
Natural Moisture Content	1.4	4.7	32.6	3.1	20.9	10.0		<0.1	%	PM4/PM0
	0.0	NIDE	0.0	0.0	0.0	0.0			P	Theorem
Hexavalent Chromium	< 0.3	NDP	< 0.3	< 0.3	< 0.3	< 0.3		< 0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) *	0.0261	0.0108	0.0455	0.0362	0.0140	0.0347		<0.0015	g/l	TM38/PM20
Total Cyanide [#]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	mg/kg	TM89/PM45
Total Organic Carbon [#]	-	6.12	-	-	-	-		<0.02	%	TM21/PM24
Organic Matter	2.3	10.6	6.3	2.4	17.1	18.3		<0.2	%	TM21/PM24
ANC at pH4	-	0.06	-	-	-	-		< 0.03	mol/kg	TM77/PM0
ANC at pH7	-	NDP	-	-	-	-		<0.03	mol/kg	TM77/PM0
Loss on Ignition	-	8.8	-	-	-	-		<1.0	%	TM22/PM0
рН	8.49	8.80	8.09	9.59	8.53	8.32		<0.01	pH units	TM73/PM11

Client Name:
Reference:
Location:
Contact:
EMT Job No:

Groundtech Consulting Limited GRO-20287 Aldi Treharris Andrew Janson 23/19217

Report : CEN 10:1 1 Batch

EMT Job No:	23/19217									
EMT Sample No.	1-3	7-9	38-40	89-91						
Sample ID	CP01	CP02	WS02	WS10						
Depth	0.35	0.60	0.30	0.50				Diease se	e attached n	otes for all
COC No / misc								abbrevi	ations and a	cronyms
Containers	VJT	TLV	ТLV	TLV						
Sample Date	08/11/2023	08/11/2023	08/11/2023	09/11/2023						
Sample Type	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1				LOD/LOR	Units	Method
Date of Receipt	16/11/2023	16/11/2023	16/11/2023	16/11/2023				LOD/LOR	Units	No.
Mass of raw test portion	0.0968	0.0944	0.0934	0.1005					kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	0.09					kg	NONE/PM17
		1		1		1	1	1		1

Client Name: Reference: Location: Contact: Groundtech Consulting Limited GRO-20287 Aldi Treharris Andrew Janson 23/19217

VOC Report : Solid

EMT Job No:	23/19217									
EMT Sample No.	38-40	53-55	89-91	101-103				1		
Sample ID	WS02	WS03	WS10	WS12						
Depth COC No / misc	0.30	0.30	0.50	0.40					e attached r ations and a	
Containers	VJT	VJT	VJT	VJT						
Sample Date Sample Type	08/11/2023 Soil	08/11/2023 Soil	09/11/2023 Soil	09/11/2023 Soil						
Batch Number	1	1	1	1						Method
Date of Receipt	16/11/2023	16/11/2023	16/11/2023	16/11/2023				LOD/LOR	Units	No.
VOC MS										
Dichlorodifluoromethane	<2 <2	<2 <2	<10 ^{SV} AA <10 ^{SV} AA	<2 <2				<2 <2	ug/kg	TM15/PM10 TM15/PM10
Methyl Tertiary Butyl Ether Chloromethane	<2	<2	<10 AA _15 ^{SV}	<2				<2	ug/kg ug/kg	TM15/PM10 TM15/PM10
Vinyl Chloride	<2	<2	<10 ^{°°} AA <15 [°] SV <10 [°] SV <10 [°] SV	<2				<2	ug/kg	TM15_A/PM10
Bromomethane	<1	<1	<5 ° AA	<1				<1	ug/kg	TM15/PM10
Chloroethane	<2	<2 <2	<5 ^{SV} AA <10 ^{SV} AA <10 ^{SV} AA SV	<2 <2				<2	ug/kg	TM15/PM10 TM15/PM10
Trichlorofluoromethane 1,1-Dichloroethene (1,1 DCE)	<2 <6	<2	<10 ^{SV} AA <30 ^{SV} AA SV	<2				<2 <6	ug/kg ug/kg	TM15/PM10 TM15/PM10
Dichloromethane (DCM)*	<7	<7	<30 ^{SV} AA <35 ^{SV} AA	<7				<7	ug/kg	TM15/PM10
trans-1-2-Dichloroethene	<3	<3	<15 AA	<3				<3	ug/kg	TM15/PM10
1,1-Dichloroethane	<3	<3	<15 AA	<3				<3	ug/kg	TM15/PM10
cis-1-2-Dichloroethene * 2,2-Dichloropropane	<3 <4	<3 <4	<15 ^{SV} AA <20 ^{SV} AA	<3 <4				<3 <4	ug/kg ug/kg	TM15/PM10 TM15/PM10
Bromochloromethane	<3	<3	<20 ^{SV} AA <15 ^{SV} AA	<3				<3	ug/kg	TM15/PM10
Chloroform *	<3	<3	<15 AA	<3				<3	ug/kg	TM15/PM10
1,1,1-Trichloroethane	<3	<3	<15 AA	<3				<3	ug/kg	TM15/PM10
1,1-Dichloropropene	<3 <4	<3 <4	<15 ^{SV} AA <20 ^{SV} AA	<3 <4				<3 <4	ug/kg ug/kg	TM15/PM10 TM15/PM10
1,2-Dichloroethane	<4	<4	<20 ^{SV} AA <20 ^{SV} AA	<4				<4	ug/kg	TM15/PM10
Benzene	<3	<3	<20 ^{SV} AA 199 ^{SV} AA	<3				<3	ug/kg	TM15/PM10
Trichloroethene (TCE)	<3	<3	<15 ° AA	<3				<3	ug/kg	TM15/PM10
1,2-Dichloropropane	<6 <3	<6 <3		<6 <3				<6 <3	ug/kg ug/kg	TM15/PM10 TM15/PM10
Bromodichloromethane *	<3	<3	<15 ^{SV} AA <15 ^{SV} AA	<3				<3	ug/kg	TM15/PM10
cis-1-3-Dichloropropene	<4	<4	<15 ^{SV} AA <20 ^{SV} AA	<4				<4	ug/kg	TM15/PM10
Toluene	<3	<3	272 ° AA	<3				<3	ug/kg	TM15/PM10
trans-1-3-Dichloropropene 1,1,2-Trichloroethane	<3 <3	<3 <3	<15 AA	<3 <3				<3 <3	ug/kg ug/kg	TM15/PM10 TM15/PM10
Tetrachloroethene (PCE)	<3	<3	<15 ^{SV} AA <15 ^{SV} AA	<3				<3	ug/kg ug/kg	TM15/PM10
1,3-Dichloropropane	<3	<3	<15 ^{SV} AA <15 ^{SV} AA	<3				<3	ug/kg	TM15/PM10
Dibromochloromethane	<3	<3	<15 ^{SV} AA <15 ^{SV} AA <15 ^{SV} AA <15 ^{SV} AA <15 ^{SV} AA <15 ^{SV} AA	<3				<3	ug/kg	TM15/PM10
1,2-Dibromoethane Chlorobenzene	<3 <3	<3 <3	<15 ³⁰ AA	<3 <3				<3 <3	ug/kg	TM15/PM10 TM15/PM10
1,1,1,2-Tetrachloroethane	<3	<3	<15 AA <15 AA	<3				<3	ug/kg ug/kg	TM15/PM10
Ethylbenzene *	<3	<3	18 SV	<3				<3	ug/kg	TM15/PM10
m/p-Xylene	<5	<5	371 SV AA	<5				<5	ug/kg	TM15/PM10
o-Xylene [#] Styrene	<3 <3	<3 <3	26 AA	<3 <3				<3 <3	ug/kg ug/kg	TM15/PM10 TM15_A/PM10
Bromoform	<3	<3	<15 ^{SV} AA <15 ^{SV} AA	<3				<3	ug/kg	TM15/PM10
Isopropylbenzene *	<3	<3	<15 🗛	<3				<3	ug/kg	TM15/PM10
1,1,2,2-Tetrachloroethane	<3	<3	<15°AA	<3				<3	ug/kg	TM15/PM10
Bromobenzene 1,2,3-Trichloropropane	<2 <4	<2 <4	<10 AA	<2 <4				<2 <4	ug/kg ug/kg	TM15/PM10 TM15/PM10
Propylbenzene	<4	<4	<20 ^{SV} AA <20 ^{SV} AA	<4				<4	ug/kg ug/kg	TM15/PM10
2-Chlorotoluene	<3	<3	<15° AA	<3				<3	ug/kg	TM15/PM10
1,3,5-Trimethylbenzene	<3	<3	<15°AA	13				<3	ug/kg	TM15/PM10
4-Chlorotoluene tert-Butylbenzene	<3 <5	<3 <5	AA CI>	<3 <5				<3 <5	ug/kg ug/kg	TM15/PM10 TM15/PM10
1,2,4-Trimethylbenzene	<6	<6	<25 ^{SV} AA <30 ^{SV} AA	7				<6	ug/kg	TM15/PM10
sec-Butylbenzene	<4	<4	<20° AA	<4				<4	ug/kg	TM15/PM10
4-Isopropyltoluene	<4	<4	<20° AA	<4				<4	ug/kg	TM15/PM10
1,3-Dichlorobenzene 1,4-Dichlorobenzene	<4	<4 <4	<20° AA	<4 <4				<4 <4	ug/kg ug/kg	TM15/PM10 TM15/PM10
n-Butylbenzene	<4	<4	<20 ^{SV} AA <20 ^{SV} AA	<4				<4	ug/kg ug/kg	TM15/PM10 TM15/PM10
1,2-Dichlorobenzene	<4	<4	<20° AA	<4				<4	ug/kg	TM15/PM10
1,2-Dibromo-3-chloropropane	<4	<4	<20° AA	<4				<4	ug/kg	TM15/PM10
1,2,4-Trichlorobenzene	<7	<7	<35°AA	<7				<7	ug/kg	TM15/PM10 TM15/PM10
Hexachlorobutadiene Naphthalene	<4 <27	<4 <27	<20 ^{SV} AA <135 ^{SV} AA	<4 <27				<4 <27	ug/kg ug/kg	TM15/PM10 TM15/PM10
1,2,3-Trichlorobenzene	<7	<7	<135 ^{SV} AA <35 ^{SV} AA	<7				<7	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	86	79		58				<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	88	81	41 AA 45 AA	64				<0	%	TM15/PM10

CEN 10:1 LEACHATE RESULTS BS EN 12547-2

Mass of sample taken (kg)	0.0
Mass of dry sample (kg) =	0.0
Particle Size <4mm =	>95

0968 09 95%

Moisture Content Ratio (%) = Dry Matter Content Ratio (%) =

7.4 93.1

EMT Job No			23/19217	Landi	ill Waste Ac	ceptance
Sample No			3		Criteria Lim	nits
Client Sample No			CP01		Stable	
Depth/Other			0.35	Inert	Non-reactive	Hazardous
Sample Date			08/11/2023	Waste	Hazardous Waste in Non-	Waste
Batch No			1	Landfill	Hazardous	Landfill
Solid Waste Analysis	-				Landfill	
Total Organic Carbon (%)	0.85			3	5	6
Loss on Ignition (%)	1.7			-	-	10
Sum of BTEX (mg/kg)	-			6	-	-
Sum of 7 PCBs (mg/kg)	-			1	-	-
Mineral Oil (mg/kg)	-			500	-	-
PAH Sum of 17(mg/kg)	-			100	-	-
pH (pH Units)	-			-	>6	-
ANC to pH 7 (mol/kg)	0.04			-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	2.64			-	to be evaluated	to be evaluated
	C ₁₀ mg/l	A ₁₀ mg/kg			mg/kg	
Arsenic	< 0.0025	<0.025		0.5	2	25
Barium	0.012	0.12		20	100	300
Cadmium	< 0.0005	< 0.005		0.04	1	5
Chromium	< 0.0015	< 0.015		0.5	10	70
Copper	< 0.007	< 0.07		2	50	100
Mercury	<0.001	<0.01		0.01	0.2	2
				0.0.		
Molybdenum	<0.002	<0.02		0.5	10	30
	<0.002 <0.002	<0.02 <0.02				
Molybdenum				0.5	10	30
Molybdenum Nickel	<0.002	<0.02		0.5 0.4	10 10	30 40
Molybdenum Nickel Lead	<0.002 <0.005	<0.02 <0.05		0.5 0.4 0.5	10 10 10	30 40 50
Molybdenum Nickel Lead Antimony	<0.002 <0.005 <0.002	<0.02 <0.05 <0.02		0.5 0.4 0.5 0.06	10 10 10 0.7	30 40 50 5
Molybdenum Nickel Lead Antimony Selenium	<0.002 <0.005 <0.002 <0.003	<0.02 <0.05 <0.02 <0.03		0.5 0.4 0.5 0.06 0.1	10 10 10 0.7 0.5	30 40 50 5 7
Molybdenum Nickel Lead Antimony Selenium Zinc	<0.002 <0.005 <0.002 <0.003 <0.003	<0.02 <0.05 <0.02 <0.03 <0.03		0.5 0.4 0.5 0.06 0.1 4	10 10 0.7 0.5 50	30 40 50 5 7 200
Molybdenum Nickel Lead Antimony Selenium Zinc Chloride	<0.002 <0.005 <0.002 <0.003 <0.003 0.7	<0.02 <0.05 <0.02 <0.03 <0.03 7		0.5 0.4 0.5 0.06 0.1 4 800	10 10 0.7 0.5 50 15000	30 40 50 5 7 200 25000
Molybdenum Nickel Lead Antimony Selenium Zinc Chloride Fluoride	 <0.002 <0.005 <0.002 <0.003 <0.003 0.7 <0.3 	<0.02 <0.05 <0.02 <0.03 <0.03 7 <3		0.5 0.4 0.5 0.06 0.1 4 800 10	10 10 0.7 0.5 50 15000 150	30 40 50 5 7 200 25000 500
Molybdenum Nickel Lead Antimony Selenium Zinc Chloride Fluoride Sulphate as SO4	 <0.002 <0.005 <0.002 <0.003 <0.003 0.7 <0.3 1.1 	<0.02 <0.05 <0.02 <0.03 <0.03 7 <3 11		0.5 0.4 0.5 0.06 0.1 4 800 10 1000	10 10 10 0.7 0.5 50 15000 150 20000	30 40 50 5 7 200 25000 500 5000

CEN 10:1 LEACHATE RESULTS BS EN 12547-2

Mass of sample taken (kg)	0.0
Mass of dry sample (kg) =	0.0
Particle Size <4mm =	>9

0944 09 95%

Moisture Content Ratio (%) = Dry Matter Content Ratio (%) = 5.0 95.3

EMT Job No			23/19217	Landf	ill Waste Ac	ceptance
Sample No			9		Criteria Lin	nits
Client Sample No			CP02		Stable	
Depth/Other			0.60	Inert	Non-reactive	Hazardous
Sample Date			08/11/2023	Waste	Hazardous Waste in Non-	Waste
Batch No			1	Landfill	Hazardous	Landfill
Solid Waste Analysis	-			1	Landfill	
Total Organic Carbon (%)	0.77			3	5	6
Loss on Ignition (%)	1.5			-	-	10
Sum of BTEX (mg/kg)	-			6	-	-
Sum of 7 PCBs (mg/kg)	-			1	-	-
Mineral Oil (mg/kg)	-			500	-	-
PAH Sum of 17(mg/kg)	-			100	-	-
pH (pH Units)	-			-	>6	-
ANC to pH 7 (mol/kg)	< 0.03			-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	2.11			-	to be evaluated	to be evaluated
	C ₁₀ mg/l	A ₁₀ mg/kg			mg/kg	
Arsenic	<0.0025	<0.025		0.5	2	25
Barium	0.143	1.43		20	100	300
Cadmium	< 0.0005	< 0.005		0.04	1	5
Chromium	<0.0015	< 0.015		0.5	10	70
Copper	< 0.007	< 0.07		2	50	100
Mercury	<0.001	<0.01		0.01	0.2	2
Molybdenum	0.002	0.02		0.5	10	30
Nickel	<0.002	<0.02		0.4	10	40
Lead	<0.005	<0.05		0.5	10	50
Antimony	<0.002	<0.02		0.06	0.7	5
Selenium	<0.003	<0.03		0.1	0.5	7
Zinc	<0.003	<0.03		4	50	200
Chloride	1.8	18		800	15000	25000
Fluoride	<0.3	<3		10	150	500
Sulphate as SO4	2.9	29		1000	20000	50000
Total Dissolved Solids	<35	<350		4000	60000	100000
	< 0.01	<0.1		1		
Phenol	<0.01	<0.1		· · ·	_	-

CEN 10:1 LEACHATE RESULTS BS EN 12547-2

Mass of sample taken (kg)	0.0
Mass of dry sample (kg) =	0.0
Particle Size <4mm =	>95

0934 09 95%

Moisture Content Ratio (%) = Dry Matter Content Ratio (%) = 3.8 96.4

EMT Job No			Landfill Waste Acceptance			
Sample No			40	Criteria Limits		
Client Sample No				Stable		
Depth/Other			0.30	Inert	Non-reactive	Hazardous
Sample Date			08/11/2023	Waste	Hazardous Waste in Non-	Waste
Batch No			1	Landfill	Hazardous	Landfill
Solid Waste Analysis					Landfill	
Total Organic Carbon (%)	0.43			3	5	6
Loss on Ignition (%)	<1.0			-	-	10
Sum of BTEX (mg/kg)	-			6	-	-
Sum of 7 PCBs (mg/kg)	-			1	-	-
Mineral Oil (mg/kg)	-			500	-	-
PAH Sum of 17(mg/kg)	-			100	-	-
pH (pH Units)	-			-	>6	-
ANC to pH 7 (mol/kg)	0.03			-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	1.61			-	to be evaluated	to be evaluated
Eluate Analysis	C ₁₀	A ₁₀		BS EN	12457-2 at	L/S 10 l/kg
	mg/l	mg/kg			mg/kg	
Arsenic	< 0.0025	<0.025		0.5	2	25
Barium	0.508	5.08		20	100	300
Cadmium	<0.0005	<0.005		0.04	1	5
Chromium	<0.0015	<0.015		0.5	10	70
Copper	<0.007	<0.07		2	50	100
Mercury	<0.001	<0.01		0.01	0.2	2
Molybdenum	0.003	0.03		0.5	10	30
Nickel	<0.002	<0.02		0.4	10	40
Lead	<0.005	<0.05		0.5	10	50
Antimony	<0.002	<0.02		0.06	0.7	5
Selenium	<0.003	<0.03		0.1	0.5	7
Zinc	<0.003	<0.03		4	50	200
Chloride	2.0	20		800	15000	25000
Fluoride	<0.3	<3		10	150	500
Sulphate as SO4	5.5	55		1000	20000	50000
Total Dissolved Solids	50	500		4000	60000	100000
Phenol	<0.01	<0.1		1	-	-
Dissolved Organic Carbon	<2	<20		500	800	1000

CEN 10:1 LEACHATE RESULTS BS EN 12547-2

Mass of sample taken (kg)	0.1
Mass of dry sample (kg) =	0.0
Particle Size <4mm =	>9

0.1005 0.09 >95% Moisture Content Ratio (%) = Dry Matter Content Ratio (%) = 11.2 89.9

EMT Job No			Landfill Waste Acceptance				
Sample No			91	Criteria Limits			
Client Sample No				Stable			
Depth/Other			0.50	Inert	Stable Non-reactive	Hazardous	
Sample Date			09/11/2023	Waste	Hazardous Waste in Non-	Waste	
Batch No			1	Landfill	Hazardous	Landfill	
Solid Waste Analysis					Landfill		
Total Organic Carbon (%)	6.12			3	5	6	
Loss on Ignition (%)	8.8			-	-	10	
Sum of BTEX (mg/kg)	-		-	6	-	-	
Sum of 7 PCBs (mg/kg)	-		-	1	-	-	
Mineral Oil (mg/kg)	-		-	500	-	-	
PAH Sum of 17(mg/kg)	-			100	-	-	
pH (pH Units)	-		-	-	>6	-	
ANC to pH 7 (mol/kg)	NDP		-	-	to be evaluated	to be evaluated	
ANC to pH 4 (mol/kg)	0.06		-	-	to be evaluated	to be evaluated	
Eluate Analysis	C ₁₀	ched A ₁₀		leaching test using BS EN 12457-2 at L/S 10 I/kg			
	mg/l	mg/kg	-		mg/kg		
Arsenic	0.0035	0.035	•	0.5	2	25	
Barium	0.064	0.64		20	100	300	
Cadmium	<0.0005	<0.005		0.04	1	5	
Chromium	<0.0015	<0.015		0.5	10	70	
Copper	<0.007	<0.07		2	50	100	
Mercury	<0.001	<0.01	-	0.01	0.2	2	
Molybdenum	0.004	0.04	-	0.5	10	30	
Nickel	<0.002	<0.02	-	0.4	10	40	
Lead	<0.005	<0.05	-	0.5	10	50	
Antimony	0.002	0.02		0.06	0.7	5	
Selenium	0.003	0.03		0.1	0.5	7	
Zinc	<0.003	<0.03		4	50	200	
Chloride	<0.3	<3		800	15000	25000	
Fluoride	<0.3	<3		10	150	500	
Sulphate as SO4	5.2	52		1000	20000	50000	
Total Dissolved Solids	54	540		4000	60000	100000	
Phenol	<0.01	<0.1		1	-	-	
Dissolved Organic Carbon	<2	<20		500	800	1000	

Matrix	Calla
MAILE	Solia
IVIGUIA	Jona

Client Name:	Groundtech Consulting Limited			
Reference:	GRO-20287			
Location:	Aldi Treharris			
Contact:	Andrew Janson			

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	EPH Interpretation	
23/19217	1	CP03	0.40	16-18	possible Naturally Occurring Compounds	
23/19217	1	CP04	0.60	28-30	No Interpretation Possible	
23/19217	1	WS02	0.30	38-40	possible Naturally Occurring Compounds	
23/19217	1	WS03	0.30	53-55	possible Tarmac/Bitumen, possible Naturally Occurring Compounds	
23/19217	1	WS10	0.50	89-91	trace of possible Degraded Diesel, possible trace of PAHs, possible Lubricating Oil, possible Tarmac/Bitumen	
23/19217	1	WS12	0.40	101-103	trace PAHs, possible Lubricating Oil, possible Tarmac/Bitumen	
23/19217	1	WS13	0.40	107-109	No Interpretation Possible	
23/19217	1	WS14	0.40	113-115	No Interpretation Possible	

Asbestos Analysis

Element Materials Technology

Groundtech Consulting Limited		
GRO-20287		
Aldi Treharris		
Andrew Janson		

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/19217	1	CP01	0.35	2	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones and tar
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	CP02	0.60	8	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones and tar
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	CP03	0.40	18	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	CP04	0.60	30	Mathew Day	08/12/2023	General Description (Bulk Analysis)	BLACK STONES/DUST
					Mathew Day	08/12/2023	Asbestos Fibres	NAD
					Mathew Day	08/12/2023	Asbestos ACM	NAD
					Mathew Day	08/12/2023	Asbestos Type	NAD
23/19217	1	WS01	0.35	33	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones and tar
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	WS02	0.30	39	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	WS03	0.30	55	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones and tar
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	WS04	0.40	67	Mathew Day	08/12/2023	General Description (Bulk Analysis)	concrete stones and sand
					Mathew Day	08/12/2023	Asbestos Fibres	NAD
					Mathew Day	08/12/2023	Asbestos ACM	NAD
					Mathew Day	08/12/2023	Asbestos Type	NAD

Client Name:
Reference:
Location:
Contact

Groundtech Consulting Limited GRO-20287 Aldi Treharris Andrew Jasson

Contact	t:		Andrew J	Janson				
EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/19217	1	WS05	0.30	73	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	WS06	0.60	79	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	WS07	0.30	85	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones and tar
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	WS10	0.50	90	Mathew Day	08/12/2023	General Description (Bulk Analysis)	Stones and black powder/dust
					Mathew Day	08/12/2023	Asbestos Fibres	NAD
					Mathew Day	08/12/2023	Asbestos ACM	NAD
					Mathew Day	08/12/2023	Asbestos Type	NAD
23/19217	1	WS11	0.30	100	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	WS12	0.40	103	Emily Anderton	08/12/2023	General Description (Bulk Analysis)	Brown soil with stones and tar
					Emily Anderton	08/12/2023	Asbestos Fibres	NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD
23/19217	1	WS13	0.40	109	Mathew Day	08/12/2023	General Description (Bulk Analysis)	STONES BLACK DUST
					Mathew Day	08/12/2023	Asbestos Fibres	Free Fibres
					Mathew Day	08/12/2023	Asbestos ACM	NAD
					Mathew Day	08/12/2023	Asbestos Type	Chrysotile
					Remigiusz Blichowski	19/12/2023	Total ACM Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski		Total Detailed Gravimetric Quantification (% Asb)	<0.001 (mass %)
					Remigiusz Blichowski		Total Gravimetric Quantification (ACM + Detailed) (% Asb)	
					Remigiusz Blichowski	20/12/2023	Asbestos PCOM Quantification (Fibres)	<0.001 (mass %)
					Remigiusz Blichowski	20/12/2023	Asbestos Gravimetric & PCOM Total	<0.001 (mass %)
						80 K - 1-		
23/19217	1	WS14	0.40	115	Emily Anderton	08/12/2023		Brown soil with stones
					Emily Anderton	08/12/2023		NAD
					Emily Anderton	08/12/2023	Asbestos ACM	NAD
					Emily Anderton	08/12/2023	Asbestos Type	NAD

NDP Reason Report

Client Name:	Groundtech Consulting Limited
Reference:	GRO-20287
Location:	Aldi Treharris
Contact:	Andrew Janson

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Method No.	NDP Reason
23/19217	1	WS05	0.30	71-73	TM73/PM11	Sample unsuitable for this test
23/19217	1	WS10	0.50	89-91	TM38/PM20	Sample unsuitable for this test
23/19217	1	WS10	0.50	89-91	TM77/PM0	Sample received is below pH7

Client Name: Groundtech Consulting Limited

Reference: GRO-20287

Location:

Aldi Treharris

Contact: Andrew Janson

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
23/19217	1	CP01	0.35	1-3	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
23/19217	1	CP02	0.60	7-9	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
23/19217	1	CP03	0.40	16-18	Cyanide, EPH, GRO, PAH, Phenols	Sample holding time exceeded
23/19217	1	CP04	0.60	28-30	Cyanide, EPH, GRO, PAH, Phenols	Sample holding time exceeded
23/19217	1	WS01	0.35	31-33	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
23/19217	1	WS02	0.30	38-40	Cyanide, EPH, GRO, PAH, Phenols, VOC	Sample holding time exceeded
23/19217	1	WS03	0.30	53-55	Cyanide, EPH, GRO, PAH, Phenols, VOC	Sample holding time exceeded
23/19217	1	WS04	0.40	65-67	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
23/19217	1	WS05	0.30	71-73	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
23/19217	1	WS06	0.60	77-79	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
23/19217	1	WS07	0.30	83-85	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
23/19217	1	WS10	0.50	89-91	Cyanide, EPH, GRO, PAH, Phenols, VOC	Sample holding time exceeded
23/19217	1	WS11	0.30	98-100	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
23/19217	1	WS12	0.40	101-103	Cyanide, EPH, GRO, PAH, Phenols, VOC	Sample holding time exceeded
23/19217	1	WS13	0.40	107-109	Cyanide, EPH, GRO, PAH, Phenols	Sample holding time exceeded
23/19217	1	WS14	0.40	113-115	Cyanide, EPH, GRO, PAH, Phenols	Sample holding time exceeded
					ned in this capact. If no complex are listed it is because none were deviating. Only analyzes wh	

Notification of Deviating Samples Matrix : Solid

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating. Only analyses which are accredited are recorded as deviatin criteria are not met.

It is a requirement under ISO 17025 that we inform clients if samples are deviating i.e. outside what is expected. A deviating sample indicates that the sample 'may' be compromised but not necessarily will be compromised. The result is still accredited and our analytical reports will still show accreditation on the relevant analytes.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/19217

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at $35^{\circ}C \pm 5^{\circ}C$ unless otherwise stated. Moisture content for CEN Leachate tests are dried at $105^{\circ}C \pm 5^{\circ}C$. Ash samples are dried at $37^{\circ}C \pm 5^{\circ}C$.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation. Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

Age of Diesel

The age of release estimation is based on the nC17/pristane ratio only as prescribed by Christensen and Larsen (1993) and Kaplan, Galperin, Alimi et al., (1996).

Age estimation should be treated with caution as it can be influenced by site specific factors of which the laboratory are not aware.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
В	Indicates analyte found in associated method blank.
DR	Dilution required.
М	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
СО	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
ТВ	Trip Blank Sample
OC	Outside Calibration Range
AA	x5 Dilution

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	Yes		AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
ТМ20	Modified BS 1377-3:1990/USEPA 160.1/3 (TDS/TS: 1971) Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.			AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.			AD	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	Yes		AD	Yes
TM22	Modified BS1377-3:1990 Gravimetric determination of Loss on Ignition by temperature controlled Muffle Furnace (35C-440C). On request modified ASTM D2974-00 LOI (105C- 440C)	PM0	No preparation is required.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.	Yes		AR	Yes
ТМЗО	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma –Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co- elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co- elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), oPhosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923.1: 2013I	PM0	No preparation is required.	Yes		AR	Yes

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
ТМ38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) –AI anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
ТМ38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), oPhosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
ТМ60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377- 3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM32	Hot water soluble boron is extracted from dried and ground samples using a 20:1 ratio.	Yes		AD	Yes
ТМ77	Modified DDCEN/TS method 15364:2006. Determination of Acid Neutralization Capacity by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	No
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.	Yes		AR	Yes
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	Yes
TM170	Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma –Mass Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method 6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified	Yes		AR	Yes

Method Code Appendix

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 9214 - 340.2 (EPA 1998)	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.			AR	
TM15_A	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes





 $\label{eq:appendix} \mbox{APPENDIX 6-Groundwater and Surface Water Testing Results}$

ALDI MAFON ROAD, TREHARRIS GEO-ENVIRONMENTAL APPRAISAL GRO-20287-4925



PO Box 499 Manchester United Kingdom M28 8EE

Groundtech Consulting Limited

Element Materials Technology Unit 3 Deeside Point Zone 3 Deeside Industrial Park Deeside CH5 2UA P: +44 (0) 1244 833780 F: +44 (0) 1244 833781

W: www.element.com



Attention :Rebecca RowlinsonDate :26th January, 2024Your reference :GRO-20287Our reference :Test Report 24/993 Batch 1Location :TreharrisDate samples received :20th January, 2024Status :Final ReportIssue :202401261611		
Your reference :GRO-20287Our reference :Test Report 24/993 Batch 1Location :TreharrisDate samples received :20th January, 2024Status :Final Report	Attention :	Rebecca Rowlinson
Our reference : Test Report 24/993 Batch 1 Location : Treharris Date samples received : 20th January, 2024 Status : Final Report	Date :	26th January, 2024
Location :TreharrisDate samples received :20th January, 2024Status :Final Report	Your reference :	GRO-20287
Date samples received : 20th January, 2024 Status : Final Report	Our reference :	Test Report 24/993 Batch 1
Status : Final Report	Location :	Treharris
	Date samples received :	20th January, 2024
Issue : 202401261611	Status :	Final Report
	Issue :	202401261611

Six samples were received for analysis on 20th January, 2024 of which six were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

The greenhouse gas emissions generated (in Carbon - Co2e) to obtain the results in this report are estimated as:

Scope 1&2 emissions - 14.77 kg of CO2

Scope 1&2&3 emissions - 34.904 kg of CO2

Authorised By:

Bruce Leslie Project Manager

Please include all sections of this report if it is reproduced

Reference:	Groundteo GRO-2023 Treharris	ch Consulti 87	ing Limited				Report :	Liquid					
	Rebecca I 24/993	Rowlinson							=40ml vial, G =NaOH, HN=	∋eglass bottle ⊧HN0₃	e, P=plastic	bottle	
EMT Sample No.	1-5	6-10	11-16	17-21	22-26	27-31							
Sample ID	DS1	US1	WS02	CP01	CP03	CP04							
Depth													
COC No / misc												e attached r ations and a	
Containers													
Sample Date	18/01/2024	18/01/2024	18/01/2024	18/01/2024	18/01/2024	18/01/2024							
Sample Type	Water	Water	Water	Water	Water	Water							
Batch Number	1	1	1	1	1	1					LOD/LOR	Units	Method
Date of Receipt	20/01/2024	20/01/2024	20/01/2024	20/01/2024	20/01/2024	20/01/2024					LOD/LOIK	Units	No.
Dissolved Arsenic	<2.5	<2.5	<2.5	2.5	<2.5	<2.5					<2.5	ug/l	TM30/PM14
Dissolved Boron	<12	<12	<12	<12	<12	<12					<12	ug/l	TM30/PM14
Dissolved Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5					<0.5	ug/l	TM30/PM14
Total Dissolved Chromium	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5					<1.5	ug/l	TM30/PM14
Dissolved Copper	<7	<7	<7	<7	<7	<7					<7	ug/l	TM30/PM14
Dissolved Lead	<5	<5	<5	<5	<5	<5					<5	ug/l	TM30/PM14
Dissolved Mercury Dissolved Nickel	<1 <2	<1 <2	<1 <2	<1 9	<1 7	<1					<1 <2	ug/l	TM30/PM14 TM30/PM14
Dissolved Selenium	<3	<2	<2	<3	<3	<3					<2	ug/l ug/l	TM30/PM14
Dissolved Zinc	<3	<3	<3	4	6	5					<3	ug/l	TM30/PM14
Total Hardness Dissolved (as CaCO3)	100	100	147	184	105	166					<1	mg/l	TM30/PM14
												5	
PAH MS													
Naphthalene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	ug/l	TM4/PM30
Acenaphthylene	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005					<0.005	ug/l	TM4/PM30
Acenaphthene	< 0.005	<0.005	<0.005	< 0.005	<0.005	<0.005					<0.005	ug/l	TM4/PM30
Fluorene	< 0.005	<0.005	0.056	<0.005	<0.005	0.042					<0.005	ug/l	TM4/PM30
Phenanthrene	<0.005	<0.005	0.209	< 0.005	< 0.005	0.162					<0.005	ug/l	TM4/PM30
Anthracene	<0.005	< 0.005	0.024	< 0.005	< 0.005	0.023					<0.005	ug/l	TM4/PM30
Fluoranthene	< 0.005	0.005	0.089	< 0.005	< 0.005	0.060					< 0.005	ug/l	TM4/PM30
Pyrene Ronzo(a)anthracono	0.007	0.009	0.080	0.005 <0.005	<0.005 <0.005	0.103					< 0.005	ug/l	TM4/PM30 TM4/PM30
Benzo(a)anthracene Chrysene	0.009	0.007	0.043	< 0.005	< 0.005	0.014					<0.005 <0.005	ug/l ug/l	TM4/PM30
Benzo(bk)fluoranthene	0.012	0.016	0.084	<0.003	<0.003	0.051					<0.008	ug/l	TM4/PM30
Benzo(a)pyrene	0.005	0.007	0.036	< 0.005	< 0.005	0.020					< 0.005	ug/l	TM4/PM30
Indeno(123cd)pyrene	0.005	0.006	0.030	< 0.005	< 0.005	0.016					<0.005	ug/l	TM4/PM30
Dibenzo(ah)anthracene	< 0.005	<0.005	0.011	<0.005	<0.005	<0.005					<0.005	ug/l	TM4/PM30
Benzo(ghi)perylene	<0.005	0.006	0.027	<0.005	<0.005	0.020					<0.005	ug/l	TM4/PM30
PAH 16 Total	<0.173	<0.173	0.760	<0.173	<0.173	0.563					<0.173	ug/l	TM4/PM30
Benzo(b)fluoranthene	0.009	0.012	0.060	<0.008	<0.008	0.037					<0.008	ug/l	TM4/PM30
Benzo(k)fluoranthene	<0.008	<0.008	0.024	<0.008	<0.008	0.014					<0.008	ug/l	TM4/PM30
PAH Surrogate % Recovery	86	79	80	92	78	74					<0	%	TM4/PM30
Methyl Tertiary Butyl Ether	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	ug/l	TM15/PM10
Benzene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	ug/i ug/i	TM15/PM10
Toluene	<5	<5	<5	<5	<5	<5					<5	ug/l	TM15/PM10
Ethylbenzene	<1	<1	<1	<1	<1	<1					<1	ug/l	TM15/PM10
m/p-Xylene	<2	<2	<2	<2	<2	<2					<2	ug/l	TM15/PM10
o-Xylene	<1	<1	<1	<1	<1	<1					<1	ug/l	TM15/PM10
Surrogate Recovery Toluene D8	101	102	103	103	107	101					<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	104	101	98	95	96	84					<0	%	TM15/PM10
EPH (C8-C40) (EH_1D_Total)	<10	<10	<10	<10	<10	<10			1		<10	ug/l	TM5/PM30

Cllent Name: Reference:	GRO-202	ch Consult 87	ing Limited				Report :	Liquid					
Location: Contact: EMT Job No:	Treharris Rebecca I 24/993	Rowlinson							40ml vial, G NaOH, HN=	=glass bottle HN03	e, P=plastic	bottle	
EMT Sample No.	1-5	6-10	11-16	17-21	22-26	27-31							
Sample ID	DS1	US1	WS02	CP01	CP03	CP04							
Depth											Please se	e attached n	otes for all
COC No / misc												ations and a	
Containers	VHNNPG	V HN N P G	V HNUF N P G	V HNUF N P G	V HNUF N P G	V HNUF N P G							
Sample Date	18/01/2024	18/01/2024	18/01/2024	18/01/2024	18/01/2024	18/01/2024							
Sample Type		Water	Water	Water	Water	Water							
Batch Number	1	1	1	1	1	1							
Date of Receipt											LOD/LOR	Units	Method No.
TPH CWG	20/01/2024	20/01/2024	20/01/2024	20/01/2024	20/01/2024	20/01/2024							
Aliphatics													
	<10	<10	<10	<10	<10	<10					<10	ug/l	TM36/PM12
>C6-C8 (HS_1D_AL)	<10	<10	<10	<10	<10	<10					<10	ug/l	TM36/PM12
>C8-C10 (HS_1D_AL)	<10	<10	<10	<10	<10	<10					<10	ug/l	TM36/PM12
>C10-C12 (EH_CU_1D_AL)	<5	<5	<5	<5	<5	<5					<5	ug/l	TM5/PM16/PM30
>C12-C16 (EH_CU_1D_AL)	<10	<10	<10	<10	<10	<10					<10	ug/l	TM5/PM16/PM30
>C16-C21 (EH_CU_1D_AL)	<10 <10	<10	<10	<10 <10	<10 <10	<10 <10					<10	ug/l	TM5/PM16/PM30 TM5/PM16/PM30
>C21-C35 (EH_CU_1D_AL) Total aliphatics C5-35 (EH_CU+HS_1D_AL)	<10	<10 <10	<10 <10	<10	<10	<10					<10 <10	ug/l ug/l	1M5/PM16/PW30
Aromatics	<10	<10		<10	<10	<10					<10	ugn	
>C5-EC7 (HS_1D_AR)	<10	<10	<10	<10	<10	<10					<10	ug/l	TM36/PM12
>EC7-EC8 (HS_1D_AR)	<10	<10	<10	<10	<10	<10					<10	ug/l	TM36/PM12
>EC8-EC10 (HS_1D_AR)	<10	<10	<10	<10	<10	<10					<10	ug/l	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR)	<5	<5	<5	<5	<5	<5					<5	ug/l	TM5/PM16/PM30
>EC12-EC16 (EH_CU_1D_AR)	<10	<10	<10	<10	<10	<10					<10	ug/l	TM5/PM16/PM30
>EC16-EC21 (EH_CU_1D_AR)	<10	<10	<10	<10	<10	<10					<10	ug/l	TM5/PM16/PM30
>EC21-EC35 (EH_CU_1D_AR)	<10	<10	<10	<10	<10	<10					<10	ug/l	TM5/PM16/PM30
Total aromatics C5-35 (EH_CU+HS_1D_AR) Total aliphatics and aromatics(C5-35) (EH_CU+HS_1D_Total)	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10	<10 <10					<10 <10	ug/l ug/l	1M5/1M36/PM12/PM16/PM30
	<10	< 10	<10	<10	<10	< 10					< 10	uyn	
Phenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	mg/l	TM26/PM0
Sulphate as SO4	14.4	14.4	10.7	13.6	20.1	10.5					<0.5	mg/l	TM38/PM0
Total Cyanide	<0.01	<0.01	<0.05 AB	<0.01	<0.01	<0.03 AA					<0.01	mg/l	TM89/PM0
Hexavalent Chromium	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006					<0.006	mg/l	TM38/PM0
Dissolved Organic Carbon	2	2	5	<2	<2	2					<2	mg/l	TM60/PM0
рН	7.91	7.86	7.01	6.95	6.66	6.78					<0.01	pH units	TM73/PM0

Client Name:	Gro
Reference:	GR
Location:	Tre
Contact:	Re
EMT Job No:	24/

Groundtech Consulting Limited GRO-20287 Treharris Rebecca Rowlinson 24/993 VOC Report : Liquid

EMT Job No:	24/993										
EMT Sample No.	1-5	6-10	11-16	17-21	22-26	27-31					
Sample ID	DS1	US1	WS02	CP01	CP03	CP04					
Depth									Please se	e attached r	otes for all
COC No / misc										ations and a	
Containers	V HN N P G	V HN N P G	V HNUF N P G								
Sample Date	18/01/2024	18/01/2024	18/01/2024	18/01/2024	18/01/2024	18/01/2024					
Sample Type	Water	Water	Water	Water	Water	Water					
Batch Number	1	1	1	1	1	1			LOD/LOR	Units	Method
Date of Receipt	20/01/2024	20/01/2024	20/01/2024	20/01/2024	20/01/2024	20/01/2024			LOD/LOR	UTIIIS	No.
VOC MS											
Dichlorodifluoromethane	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
Methyl Tertiary Butyl Ether	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	ug/l	TM15/PM10
Chloromethane	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
Vinyl Chloride	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	ug/l	TM15/PM10
Bromomethane	<1	<1	<1	<1	<1	<1			<1	ug/l	TM15/PM10
Chloroethane	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
Trichlorofluoromethane	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
1,1-Dichloroethene (1,1 DCE)	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
Dichloromethane (DCM)	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
trans-1-2-Dichloroethene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
1,1-Dichloroethane	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
cis-1-2-Dichloroethene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
2,2-Dichloropropane	<1	<1	<1	<1	<1	<1			<1	ug/l	TM15/PM10
Bromochloromethane	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
Chloroform	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
1,1-Dichloropropene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
Carbon tetrachloride	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
1,2-Dichloroethane	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
Benzene	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 0.5			< 0.5	ug/l	TM15/PM10
Trichloroethene (TCE)	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
1,2-Dichloropropane	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
Dibromomethane	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
Bromodichloromethane	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
cis-1-3-Dichloropropene	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
Toluene	<5	<5	<5	<5	<5	<5			<5	ug/l	TM15/PM10
trans-1-3-Dichloropropene	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
Tetrachloroethene (PCE)	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
1,3-Dichloropropane	<2	<2	<2	<2	<2	<2		 	<2	ug/l	TM15/PM10
Dibromochloromethane	<2+	<2*	<2+	<2+	<2+	<2+			<2	ug/l	TM15/PM10
1,2-Dibromoethane	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
Chlorobenzene	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
1,1,1,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
Ethylbenzene	<1	<1	<1	<1	<1	<1			<1	ug/l	TM15/PM10
m/p-Xylene	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
o-Xylene	<1	<1	<1	<1	<1	<1			<1	ug/l	TM15/PM10
Styrene	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
Bromoform	<2*	<2*	<2 *	<2 *	<2 *	<2*			<2	ug/l	TM15/PM10
Isopropylbenzene	<2	<2	<2	<2	<2	<2			<3	ug/l	TM15/PM10
1,1,2,2-Tetrachloroethane	<4	<4	<4	<4	<4	<4			<4	ug/l	TM15/PM10
Bromobenzene	<2	<2	<2	<2	<2	<2			<2	ug/l	TM15/PM10
1,2,3-Trichloropropane	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
Propylbenzene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
2-Chlorotoluene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
1,3,5-Trimethylbenzene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
4-Chlorotoluene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
tert-Butylbenzene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
1,2,4-Trimethylbenzene	<3	<3	<3	<3	<3	<3		 	<3	ug/l	TM15/PM10
sec-Butylbenzene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
4-Isopropyltoluene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10 TM15/PM10
1,3-Dichlorobenzene	<3	<3	<3	<3	<3	<3			<3	-	TM15/PM10 TM15/PM10
1,3-Dichlorobenzene	<3	<3	<3	<3	<3	<3			<3 <3	ug/l ug/l	TM15/PM10 TM15/PM10
	<3	<3	<3	<3	<3	<3			<3	-	TM15/PM10 TM15/PM10
n-Butylbenzene			<3 <3		<3	<3				ug/l	TM15/PM10 TM15/PM10
1,2-Dichlorobenzene	<3	<3		<3					<3	ug/l	TM15/PM10 TM15/PM10
1,2-Dibromo-3-chloropropane	<2	<2	<2	<2	<2	<2			<2	ug/l	
1,2,4-Trichlorobenzene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
Hexachlorobutadiene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
Naphthalene	<2	<2	<2	<2	<2	<2		 	<2	ug/l	TM15/PM10
1,2,3-Trichlorobenzene	<3	<3	<3	<3	<3	<3			<3	ug/l	TM15/PM10
Surrogate Recovery Toluene D8	101	102	103	103	107	101			<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	104	101	98	95	96	84			<0	%	TM15/PM10

Client Name: Groundtech Consulting Limited

Reference: GRO-20287

Location: Treharris

Contact: Rebecca Rowlinson

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason				
	No deviating sample report results for job 24/993									
1										

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating. Only analyses which are accredited are recorded as deviatin criteria are not met.

It is a requirement under ISO 17025 that we inform clients if samples are deviating i.e. outside what is expected. A deviating sample indicates that the sample 'may' be compromised but not necessarily will be compromised. The result is still accredited and our analytical reports will still show accreditation on the relevant analytes.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 24/993

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at $35^{\circ}C \pm 5^{\circ}C$ unless otherwise stated. Moisture content for CEN Leachate tests are dried at $105^{\circ}C \pm 5^{\circ}C$. Ash samples are dried at $37^{\circ}C \pm 5^{\circ}C$.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation. Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

Age of Diesel

The age of release estimation is based on the nC17/pristane ratio only as prescribed by Christensen and Larsen (1993) and Kaplan, Galperin, Alimi et al., (1996).

Age estimation should be treated with caution as it can be influenced by site specific factors of which the laboratory are not aware.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
В	Indicates analyte found in associated method blank.
DR	Dilution required.
М	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
СО	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
ТВ	Trip Blank Sample
OC	Outside Calibration Range
AA	x3 Dilution
AB	x5 Dilution
1	

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16/PM30	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16/PM30	please refer to PM16/PM30 and PM12 for method details				
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.				
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.				
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma –Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified				
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co- elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.				
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013I	PM0	No preparation is required.				
ТМ60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.				

EMT Job No: 24/993

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
ТМ73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377- 3:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.				
ТМ89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM0	No preparation is required.				

Method Code Appendix





APPENDIX 7 - Geotechnical Testing Results

ALDI MAFON ROAD, TREHARRIS GEO-ENVIRONMENTAL APPRAISAL GRO-20287-4925







Contract Number: PSL23/10038

Report Date: 19 December 2023

Client's Reference: GRO-20287

Client Name: Groundtech Consulting First Floor Lloyd House Orford Court Greenfold Way WN7 3XJ

For the attention of: Andrew Janson

Contract Title:	Aldi Treharris
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Date Received:	28/11/2023
Date Commenced:	28/11/2023
Date Completed:	19/12/2023

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. 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 other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins (Director)



(Assistant Laboratory Manager)

5 – 7 Hexthorpe Road, Hexthorpe, Doncaster, DN4 0AR Tel: 01302 768098 Email R Berriman (Quality Manager)



S Eyre (Senior Technician) S Royle (Laboratory Manager)



T Watkins (Senior Technician)

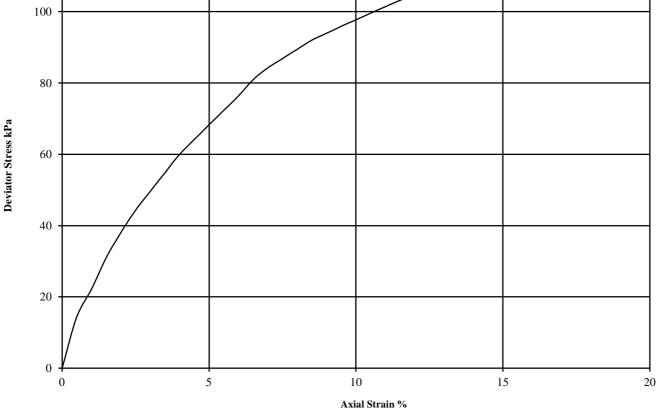
Page 1 of

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
WS08		UT	1.50	2.00	Soft brown slightly gravelly very sandy CLAY.
CP02		UT	1.20	1.65	Firm brown slightly gravelly sandy CLAY.
CP03		UT	1.20	1.65	Soft brown slightly gravelly very sandy CLAY.
CP04		UT	1.20	1.65	Brown slightly gravelly sandy CLAY.

					Contract No:
\mathbf{A}	PSI		Aldi Treha	muia	PSL23/10038
			Alui 1 rena	Client Ref:	
4043	PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY				ORD-20287-3856
	PSLRF011	Issue No.1	Approved by: L Pavey	03/01/2022	

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE BS1377 : Part7 : 1990: Clause 8 **Hole Number: CP02 Top Depth (m):** 1.20 Sample Number: **Base Depth (m):** 1.65 **Sample Type** UT 120 100



Diamete	er (mm):	102	Height	(mm):	204	Test:	UU Sing	gle Stage	Remarks:	
Specimen	Moisture	Bulk	Dry	Cell	Corr. Max.	Shear	Failure	Mode	Undisturbed Sample	
	Content	Density	Density	Pressure	Deviator	Strength	Strain	of	Sample taken from top of tube	
	(%)	(Mg/m3)	(Mg/m3)	(kPa)	Stress	Cu	(%)	Failure	Rate of strain = 2 %/min	
					(kPa)	(kPa)			Latex Membrane used 0.2 mm thick,	
				3	(_{1 3}) _f	$^{1}/_{2}(_{1})_{f}$			Correction applied 0.34	
1	23	2.08	1.70	24	113	56	19.5	Plastic	See summary of soil descriptions	



Aldi Treharris

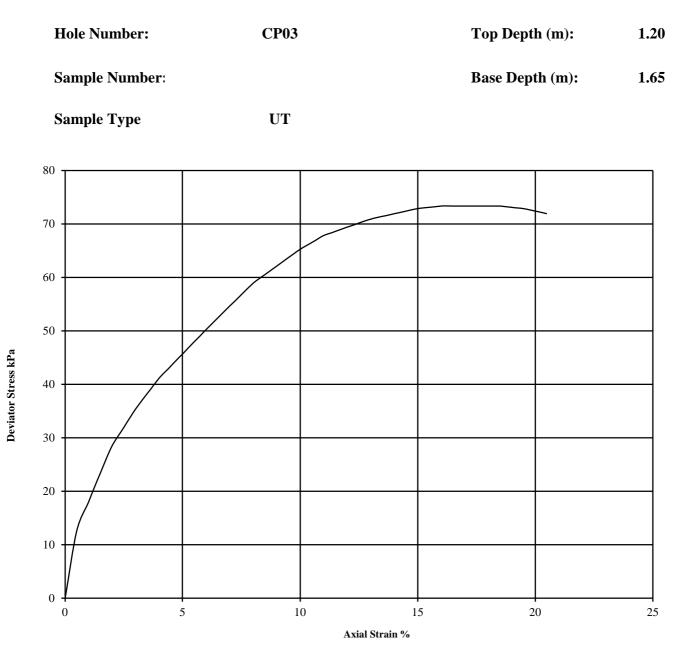
Contract No: PSL23/10038 **Client Ref:** ORD-20287-3856

03/01/2023

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8



Diamete	er (mm):	102	Height	(mm):	204	Test:	UU Single Stage		Remarks:
Specimen	Moisture	Bulk	Dry	Cell	Corr. Max.	Shear	Failure Mode		Undisturbed Sample
	Content	Density	Density	Pressure	Deviator	Strength	Strain	of	Sample taken from top of tube
	(%)	(Mg/m3)	(Mg/m3)	(kPa)	Stress	Cu	(%)	Failure	Rate of strain = 2 %/min
					(kPa)	(kPa)			Latex Membrane used 0.2 mm thick,
				3	(_{1 3}) _f	¹ / ₂ (_{1 3}) _f			Correction applied 0.34
1	22	2.10	1.72	24	73	37	16.5	Plastic	See summary of soil descriptions



Aldi Treharris

Contract No: PSL23/10038 **Client Ref:** ORD-20287-3856

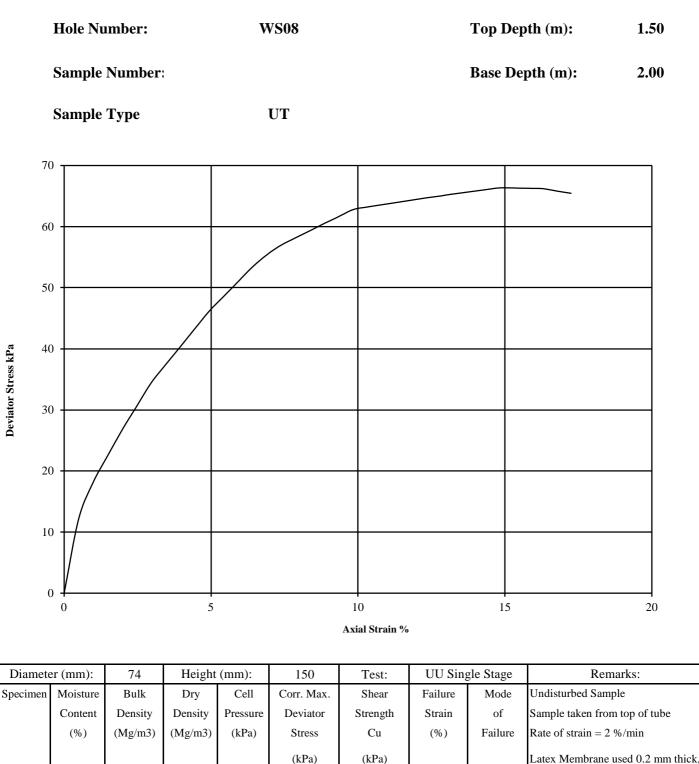
Issue No.1

Approved by: L Pavey

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8



				. ,			· /		
					(kPa)	(kPa)			Latex Membrane used 0.2 mm thic
				3	(_{1 3}) _f	¹ / ₂ (_{1 3}) _f			Correction applied 0.46
-	21	2.12	1.76	30	66	33	14.8	Plastic	See summary of soil descriptions



1

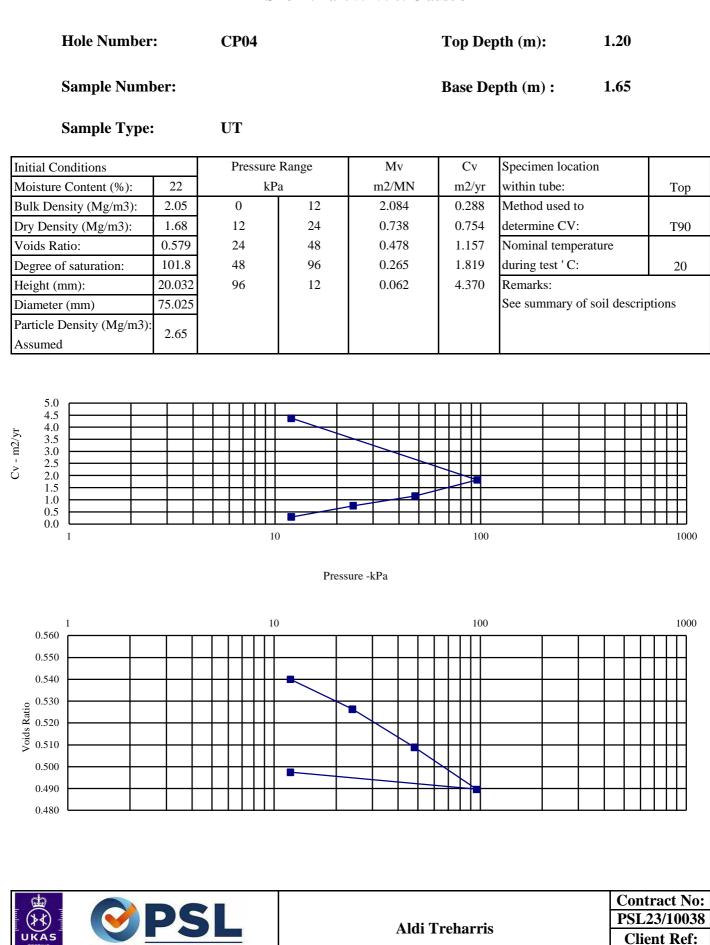
Aldi Treharris

Contract No: PSL23/10038 **Client Ref:** ORD-20287-3856

PSLRF025 Issue No.1 Approved by: L Pavey

ONE DIMENSIONAL CONSOLIDATION TEST

BS 1377: Part 5: 1990: Clause 3



PSLRF072

4043

Approved by: L Pavey

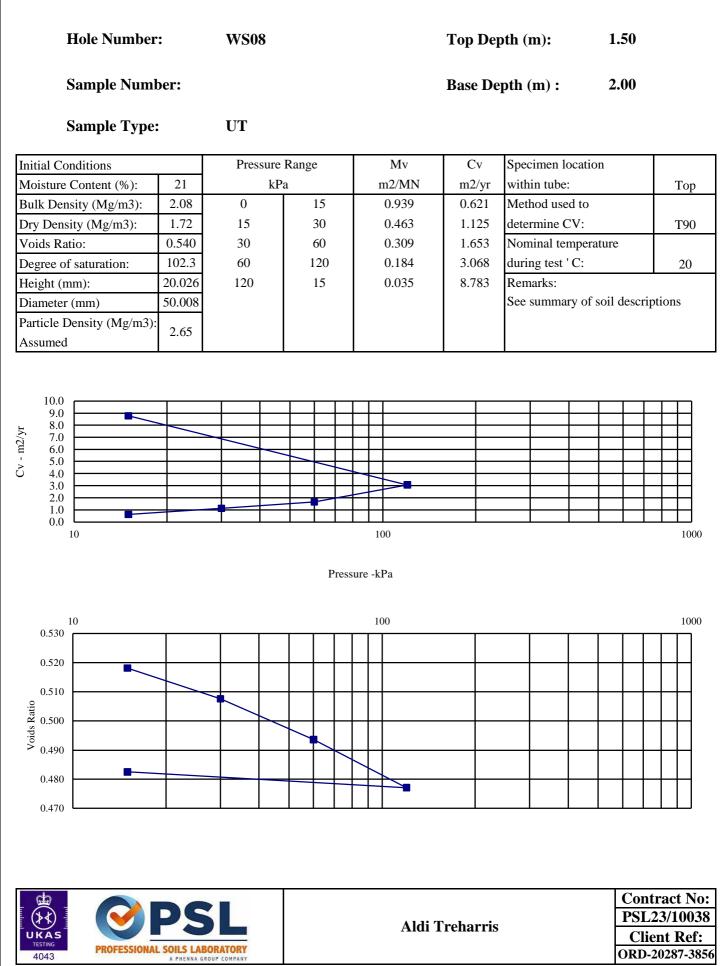
PROFESSIONAL SOILS LABORATORY

Date: 03/01/2023

ORD-20287-3856

ONE DIMENSIONAL CONSOLIDATION TEST

BS 1377: Part 5: 1990: Clause 3



PSLRF072

Approved by: L Pavey

Issue No.1







Contract Number: PSL24/0386

Report Date: 19 January 2024

Client's Reference: GRO-20287-3948

Client Name: Groundtech Consulting First Floor Lloyd House Orford Court Greenfold Way WN7 3XJ

For the attention of: Rebecca Rowlinson

Contract Title: Aldi Tr	eharris
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Date Received:	16/1/2024
Date Commenced:	16/1/2024
Date Completed:	19/1/2024

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. 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 other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins (Managing Director)



L Knight (Assistant Laboratory Manager) R Berriman (Associate Director) S Royle (Laboratory Manager)

S Eyre (Senior Technician)

T Watkins (Senior Technician)

Page 1 of

5 – 7 Hexthorpe Road, Hexthorpe, Doncaster, DN4 0AR Tel: 01302 768098 Email:

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
WS05		D	1.50		Grey slightly gravelly very sandy very silty CLAY
WS12		D	2.00		Brown slightly clayey very silty SAND
CP03		D	1.70		Brown gravelly very sandy very silty CLAY
WS01		D	1.50		Grey very sandy slightly clayey SILT
WS06		D	1.60		Brown gravelly very sandy very silty CLAY
CP02		D	1.70		Brown slightly gravelly very sandy very silty CLAY

				Contract No:	
- (≯≮) -	PSI		Aldi Treharr	ia	PSL24/0386
			Alui Trenarr	Client Ref:	
4043	PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY				GRO-20287-3948
	PSLRF011	Issue No.1	Approved by: L Pavey	03/01/2022	

SUMMARY OF SOIL CLASSIFICATION TESTS

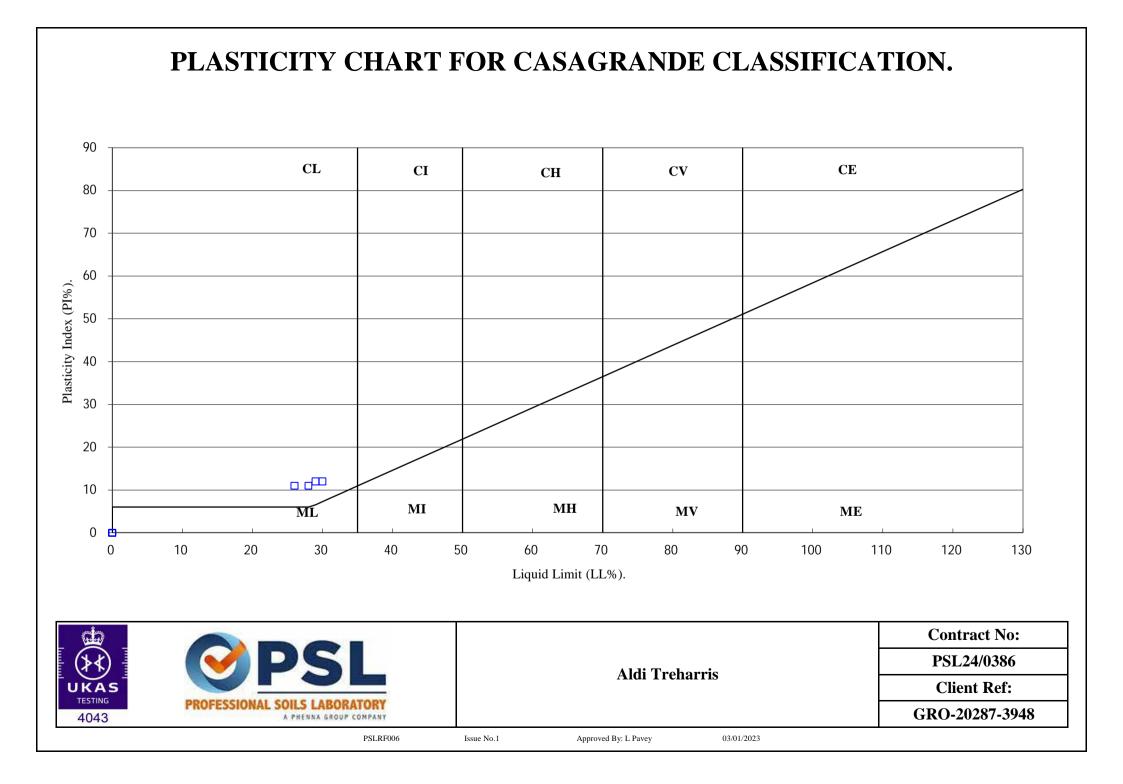
(BS1377 : PART 2 : 1990)

					Moisture	Linear	Particle	Liquid	Plastic	Plasticity	Passing	
Hole	Sample	Sample	Тор	Base	Content	Shrinkage	Density	Limit	Limit	Index	.425mm	Remarks
Number	Number	Туре	Depth	Depth	%	%	Mg/m ³	%	%	%	%	
			m	m	Clause 3.2	Clause 6.5	Clause 8.2	Clause 4.3/4	Clause 5.3	Clause 5.4		
WS05		D	1.50		17			29	17	12	96	Low Plasticity CL
WS12		D	2.00		25				NP			
CP03		D	1.70		14			26	15	11	76	Low Plasticity CL
WS01		D	1.50		16				NP			
WS06		D	1.60		20			30	18	12	87	Low Plasticity CL
CP02		D	1.70		19			28	17	11	99	Low Plasticity CL

SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.

	PSI		Aldi Trehai	mic	Contract No: PSL24/0386
UKAS			Alui Trenal	118	Client Ref:
4043	PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY				GRO-20287-3948
	PSLRF006	Issue No.1	Approved By: L Pavey	03/01/2023	







Professional Soils Laboratory 5/7 Hexthorpe Road Hexthorpe Doncaster DN4 0AR

Analytical Test Report: L24/00463/PSL - 24-40898

Your Project Reference:	PSL24/0386 Aldi Treharris		
Your Order Number:	PSL24/0386	Samples Received / Instructed:	19/01/2024 / 19/01/2024
Report Issue Number:	1	Sample Tested:	19/01 to 25/01/2024
Samples Analysed:	6 soil samples	Report issued:	25/01/2024



James Gane Analytical Services Manager CTS Group

Notes:

General

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report unless otherwise requested

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30°C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.

Uncertainty of measurement values are available on request.

Samples were supplied by customer, results apply to the samples as received.

Deviating Samples

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

Accreditation Key

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

Date of Issue: 30.10.2023 Issued by: J. Gane Issue No: 4

Rev No: 5





Project Reference - PSL24/0386 Aldi Treharris

Analytical Test Results - Chemical Analysis

Lab Reference			336653	336654	336655	336656	336657	336658
Client Sample ID			-		-	-	-	-
Client Sample Location			W\$05	W\$12	CP03	WS01	WS06	CP02
Client Sample Type			D	D	D	D	D	D
Client Sample Number			-	-	-	-	-	-
Depth - Top (m)			1.50	2.00	1.70	1.50	1.60	1.70
Depth - Bottom (m)			1.50	2.00	1.70	1.50	1.60	1.70
Date of Sampling			-	-	-	-	-	-
Time of Sampling			-	-	-	-	-	-
Sample Matrix			Clay	Clay	Clay	Clay	Clay	Clay
Determinant	Units	Accreditation						
Water soluble sulphate (as SO ₄)	(mg/l)	u	< 10	< 10	< 10	24	11	< 10
Acid Soluble Sulphate	(%)	u	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total Sulphur	(%)	UKAS	0.02	< 0.01	0.02	0.01	0.02	0.02
pH Value	pH Units	MCERTS	7.4	7.0	4.6	7.1	6.9	4.8
Water Soluble Chloride	(mg/l)	u	14	26	9.4	37	3.7	12
Water Soluble Nitrate (As NO ₃)	(mg/l)	u	1.8	2.3	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble Magnesium	(mg/l)	u	4.8	1.6	< 1.5	5.3	5.9	< 1.5
Water Soluble Ammonium Ion	(mg/l)	u	1.3	4.4	1.3	4.5	1.3	1.3





L24/00463/PSL - 24-40898 Project Reference - PSL24/0386 Aldi Treharris Sample Descriptions

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Description	Moisture Content (%)	Stone Content (%)	Passing 2mm test sieve (%)
336653	-	WS05	D	-	Brown slightly gravelly silty clay	-	-	78
336654	-	WS12	D	-	Brown slightly gravelly silty clay	-	-	88
336655		CP03	D	-	Brown slightly gravelly silty clay		-	62
336656		WS01	D	-	Brown slightly gravelly silty clay		-	62
336657		WS06	D	-	Brown slightly gravelly silty clay	-	-	90
336658	-	CP02	D	-	Brown slightly gravelly silty clay	-	-	65





Project Reference - PSL24/0386 Aldi Treharris

Sample Comments

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Comments
336653	-	WS05	D	-	
336654	-	W\$12	D	-	
336655	-	CP03	D	-	
336656	-	WS01	D	-	
336657	-	WS06	D	-	
336658	-	CP02	D	-	





Project Reference - PSL24/0386 Aldi Treharris

Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preperation	Test Details
ANIONSS	MS - CL - Anions by Aquakem (2:1Extract)	Oven dried	Passing 2mm test sieve	Determination of Anions (inc Sulphate, chloride etc.) in soils by Aquakem. Analysis is based on a 2:1 water to soil extraction ratio
PHS	MS - CL - pH in Soils	As received	Passing 10mm test sieve	Determination of pH in soils using a pH probe (using a 1:3 soil to water extraction)
ASSO4S	MS - CL - Acid Soluble Sulphate	Oven Dried	Passing 2mm test sieve	Determination of total sulphate in soils by acid extraction followed by ICP analysis
SAMPLEPREP	MS - CL - Sample Preparation		-	Preparation of samples (including determination of moisture content) to allow for subsequent analysis
1377TS-ELT	BS1377 Total Sulphur Content by HTC	Oven dried	BS1377 : Part 1 : 2016	Total Sulphur Content testing of Soil in accordance with BS 1377 : Part 3 : 2018 + A1 : 2021 Clause 7.10 (using Eltra CS-800 Analyser)
1377MGICP	BS1377 WS Magnesium (ICP)	Oven dried	Passing 2mm test sieve	Water Soluble Magnesium testing of Soil in accordance with BS 1377 : Part 3 : 2018 + A1 : 2021 Clause 10.





Project Reference - PSL24/0386 Aldi Treharris

Sample Deviations

Deviations are listed below against each sample and associated test method, where deviation(s) are noted it means data may not be representative of the sample at the time of sampling and it is possible that results provided may be compromised.

Observations on receipt

A - No date of sampling provided

C - Received in inappropriate container

H - Contains headspace

T - Temperature on receipt exceeds storage temperature

R - Sample(s) received with less than 96 hours for testing to commence/complete, any result formally classed as deviating will be marked with an X against the applicable test (i.e. RX)

Observations whilst in laboratory

X - Exceeds sampling to extraction or analysis timescales

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	e Client Sample Number Test	Deviations
336653	-	WS05	D	-	A
336654	-	WS12	D	-	A
336655	-	CP03	D	-	А
336656	-	WS01	D	-	А
336657	-	WS06	D	-	А
336658	-	CP02	D	-	А





APPENDIX 8 - Ground Gas Monitoring Results

ALDI MAFON ROAD, TREHARRIS GEO-ENVIRONMENTAL APPRAISAL GRO-20287-4925

SITE NAME:	ALC	I,MAFON,RC	DAD, TREHAR	RIS	ENGI	NEER:	William Sandiford Mitchell				
CLIENT:		ALDI STORI	es limited		DA	TE:			15/11/2023		
JOB NO:		GRO-2	20287								
Pressure Trend:	Steady	Weather:		CLEAR		Equipr	ment:		GFM	436	
	-										
Ambient:	0 ₂ (%v/v)	CH ₄ (%v/v)	CO ₂ (%v/v)	LEL	н ₂ S (ppm)	CO (ppm)					
Start	20.7	0.0	0.0	0.0	0.0	0.0					
Finish	20.7	0.0	0.0	0.0	0.0	0.0					

BH Ref.	Gas Flow	Rate (I/hr)	Borehole Pressure		/lethane (%v/		Carbon Dic	oxide (%v/v)	Oxyger		Hydroger (pr	n Sulphide om)	Carbon Mon	ioxide (ppm)		o _{hg} CH ₄ (I/hr)	Atmos Press	PID (ppm)	Sheen (Y/N)	LNAPL (Y/N)	DNAPL (Y/N)	Depth to Water
		Steady	(mb)		Steady			Steady		Steady		Steady	Peak	Steady	(l/hr)	(1/111)	(mb)					(m bgl)
CP01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CP02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CP03	0.0	0.0	0.00	0.0	0.0	0.0	0.8	0.6	19.4	19.2	0.0	0.0	0.0	0.0	0.0008	0.0000	1001	-	Ν	N/A	N/A	1.60
CP04	0.0	0.0	0.00	0.0	0.0	0.0	1.2	0.9	17.7	18.0	0.0	0.0	0.0	0.0	0.0012	0.0000	1001	-	Ν	N/A	N/A	2.05
WS02	0.0	0.0	0.00	0.0	0.0	0.0	0.1	0.0	20.3	20.8	0.0	0.0	0.0	0.0	0.0001	0.0000	999	-	Ν	N/A	N/A	0.99
WS03	0.0	0.0	0.00	0.0	0.0	0.0	0.1	0.1	20.8	20.4	0.0	0.0	0.0	10.0	0.0001	0.0000	999	-	Ν	N/A	N/A	NGW
WS04	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	0.0000	999	-	Ν	N/A	N/A	1.26
WS05	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	0.0000	999	-	Ν	N/A	N/A	1.22
Notes: CP0)1 - CP02 FL	OODED																				



(SITE NAME:	ALD	I,MAFON,RC	DAD, TREHAR	RIS	ENGI	NEER:	William Sandiford Mitchell					
	CLIENT:		ALDI STORI	es limited		DA	TE:	28/11/2023					
	JOB NO:		GRO-2	20287									
Pr	essure Trend:	Falling	Weather:		CLEAR		Equipr	ment:		GFN	1 436		
	Ambient:	0 ₂ (%v/v)	CH ₄ (%v/v)	CO ₂ (%v/v)	LEL	н ₂ S (ppm)	CO (ppm)						
	Start	20.8	0.0	0.0	0.0	0.0	0.0						
	Finish	20.8	0.0	0.0	0.0	0.0	0.0						

BH Ref.	Gas Flow I	Rate (I/hr)	Borehole Pressure	Ν	/lethane (%v/		Carbon Dic	oxide (%v/v)	Oxyger		Hydrogen (pp	i Sulphide om)	Carbon Mon	ioxide (ppm)		$Q_{hg} CH_4$	Atmos Press	PID (ppm)	Sheen (Y/N)	LNAPL (Y/N)	DNAPL (Y/N)	Depth to Water
	Peak	Steady	(mb)		Steady			Steady		Steady		Steady	Peak	Steady	(l/hr)	(l/hr)	(mb)	(ppm)				(m bgl)
CP01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CP02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CP03	0.0	0.0	0.00	0.0	0.0	0.0	0.8	0.7	19.5	19.0	0.0	0.0	0.0	0.0	0.0008	0.0000	995	-	Ν	N/A	N/A	1.54
CP04	0.0	0.0	0.00	0.0	0.0	0.0	0.9	1.0	16.9	16.6	0.0	0.0	0.0	0.0	0.0009	0.0000	995	-	Ν	N/A	N/A	1.98
WS02	0.0	0.0	0.00	0.0	0.0	0.0	0.8	0.6	18.9	18.6	0.0	0.0	0.0	0.0	0.0008	0.0000	995	-	Ν	N/A	N/A	0.96
WS03	0.0	0.0	0.00	0.0	0.0	0.0	1.4	1.2	18.2	18.0	0.0	0.0	0.0	0.0	0.0014	0.0000	995	-	Ν	N/A	N/A	NGW
WS04	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	20.2	20.4	0.0	0.0	0.0	0.0	0.0000	0.0000	995	-	Ν	N/A	N/A	1.22
WS05	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	20.1	20.2	0.0	0.0	0.0	0.0	0.0000	0.0000	995	-	Ν	N/A	N/A	1.18
Notes: CPC	D1 AND CP0	2 FLOODED								·	•							·			·	



SITE NAME:	ALD	I,MAFON,RC	DAD, TREHAR	RIS	ENGI	NEER:	William Sandiford Mitchell					
CLIENT:		ALDI STORI	es limited		DA	TE:	07/12/2023					
JOB NO:		GRO-2	20287									
Pressure Trend:	Steady	Weather:		OVERCAST		Equipr	ment:		GFN	1 436		
Ambient:	0 ₂ (%v/v)	CH ₄ (%v/v)	CO ₂ (%v/v)	LEL	н ₂ S (ppm)	CO (ppm)						
Start	20.7	0.0	0.0	0.0	0.0	0.0						
Finish	20.7	0.0	0.0	0.0	0.0	0.0						

BH Ref.	Gas Flow Rate (I/hr)		Borehole Pressure	Methane (%v/v)			Carbon Dioxide (%v/v)		Oxygen (%v/v)		Hydrogen Sulphide (ppm)		Carbon Monoxide (ppm)		3	$Q_{hg} CH_4$	Atmos Press	PID (ppm)	Sheen (Y/N)	LNAPL (Y/N)	DNAPL (Y/N)	Depth to Water
		Steady	(mb)		Steady		Peak	Steady		Steady		Steady	Peak	Steady	(l/hr)	(l/hr)	(mb)	(ppm)		(17 N)		(m bgl)
CP01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CP02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CP03	0.0	0.0	0.00	0.0	0.0	0.0	1.9	1.6	20.4	20.4	0.0	0.0	0.0	0.0	0.0019	0.0000	986	-	Ν	N/A	N/A	1.33
CP04	0.0	0.0	0.00	0.0	0.0	0.0	1.3	1.1	20.4	20.5	0.0	0.0	0.0	0.0	0.0013	0.0000	986	-	N	N/A	N/A	1.98
WS02	0.0	0.0	0.00	0.0	0.0	0.0	0.4	0.3	19.6	20.0	0.0	0.0	0.0	0.0	0.0004	0.0000	986	-	N	N/A	N/A	0.97
WS03	0.0	0.0	0.00	0.0	0.0	0.0	0.2	0.2	20.3	20.4	0.0	0.0	0.0	0.0	0.0002	0.0000	986	-	N	N/A	N/A	NGW
WS04	0.0	0.0	0.00	0.0	0.0	0.0	0.2	0.2	20.5	20.5	0.0	0.0	0.0	0.0	0.0002	0.0000	986	-	N	N/A	N/A	1.23
WS05	0.0	0.0	0.00	0.0	0.0	0.0	0.2	0.2	19.6	20.0	0.0	0.0	0.0	0.0	0.0002	0.0000	986	-	N	N/A	N/A	1.27
Notes: Gw	Notes: Gw Flooding - recharge within the hour - CP01 CP02																					



SITE NAME:	ALD	I,MAFON,RC	DAD, TREHAR	RIS	ENGI	NEER:	Ethan Hitchcow						
CLIENT:		ALDI STORI	es limited		DA	TE:	04/01/2024						
JOB NO:		GRO-2	20287										
Pressure Trend:	Rising	Weather:		Overcast		Equipr	ment:		GFN	GFM 436			
								-					
Ambient:	O ₂ (%v/v)	CH ₄ (%v/v)	CO ₂ (%v/v)	LEL	н ₂ S (ppm)	CO (ppm)							
Start	20.6	0.0	0.0	0.0	0.0	0.0							
Finish	20.6	0.0	0.0	0.0	0.0	0.0							

BH Ref.	Gas Flow Rate (I/hr)		Borehole Pressure	Methane (%v/v)			Carbon Dioxide (%v/v)		Oxygen (%v/v)		Hydrogen Sulphide (ppm)		Carbon Monoxide (ppm)		5	$Q_{hg} CH_4$	Atmos Press	PID (ppm)	Sheen (Y/N)	LNAPL (Y/N)	DNAPL (Y/N)	Depth to Water
		Steady	(mb)		Steady			Steady		Steady		Steady		Steady	(l/hr)	(l/hr)	(mb)					(m bgl)
CP01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CP02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CP03	0.0	0.0	0.00	0.0	0.0	0.0	0.2	0.1	19.9	19.6	0.0	0.0	0.0	0.0	0.0002	0.0000	979	N	Ν	N/A	N/A	1.56
CP04	0.0	0.0	0.00	0.0	0.0	0.0	0.8	0.6	15.8	13.6	0.0	0.0	0.0	0.0	0.0008	0.0000	979	Ν	Ν	N/A	N/A	1.78
WS02	0.0	0.0	0.00	0.0	0.0	0.0	0.8	0.1	19.6	19.4	0.0	0.0	0.0	0.0	0.0008	0.0000	979	Ν	Ν	N/A	N/A	1.03
WS03	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	20.2	19.9	0.0	0.0	0.0	0.0	0.0000	0.0000	979	N	Ν	N/A	N/A	NGW
WS04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WS05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Notes: CP0	Notes: CP01 and CP02 were both flooded. WS04 was blocked by a lorry. WS05 couldn't be located.																					

