

Unit 7-8 Hawarden Business Park Manor Road (off Manor Lane) Hawarden Deeside CH5 3US

Tel: (01244) 528777

email: hawardencustomerservices@alsglobal.com Website: www.alsenvironmental.co.uk

SLR Consulting Ireland CSA House Unit 7 Dundrum Business Park Windy Harbour Dublin Dublin14

Attention: Orlaith Tyrrell

CERTIFICATE OF ANALYSIS

Date of report Generation: 01 December 2022

Customer: SLR Consulting Ireland
Sample Delivery Group (SDG): 221124-74

Your Reference: 501.064821.00001

Location: Stradone Quarry, Co. Cavan

 Report No:
 670597

 Order Number:
 8320

We received 2 samples on Thursday November 24, 2022 and 2 of these samples were scheduled for analysis which was completed on Thursday December 01, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.

Incorrect sampling dates and/or sample information will affect the validity of results.

The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager





1291



Validated Validated

Superseded Report:

 SDG:
 221124-74
 Report Number:
 670597

 Client Ref.:
 501.064821.00001
 Location:
 Stradone Quarry, Co. Cavan

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
27211948	QV1		0.00 - 0.00	22/11/2022
27211960	SW1		0.00 - 0.00	22/11/2022

Only received samples which have had analysis scheduled will be shown on the following pages.



SDG: 221124-74 Client Ref.: 501.064821.00001 Report Number: 670597

Superseded Report: Location: Stradone Quarry, Co. Cavan

Results Legend 27211948 27211960 Lab Sample No(s) X Test No Determination Possible Customer Q Y Sample Reference Sample Types -S - Soil/Solid UNS - Unspecified Solid GW - Ground Water **AGS Reference** SW - Surface Water LE - Land Leachate PL - Prepared Leachate PR - Process Water 0.00 0.00 - 0.00 SA - Saline Water Depth (m) 0.00 TE - Trade Effluent TS - Treated Sewage US - Untreated Sewage RE - Recreational Water 500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) 500ml Plastic (ALE208) 250ml BOD (ALE212) 0.5l glass bottle (ALE227) H2SO4 (ALE244) HNO3 Filtered (ALE204) H2SO4 (ALE244) HNO3 Filtered (ALE204) NaOH (ALE245) ZnAc (ALE246) ZnAc (ALE246) DW - Drinking Water Non-regulatory NaOH (ALE245) Vial (ALE297) Vial (ALE297) UNL - Unspecified Liquid SL - Sludge Container G - Gas OTH - Other WS Sample Type WS Ammonium Low All NDPs: 0 Tests: 2 X Χ All Anions by Kone (w) NDPs: 0 Tests: 2 Х Х BOD True Total All NDPs: 0 Tests: 2 X X Dissolved Metals by ICP-MS All NDPs: 0 Tests: 2 X Χ EPH CWG (Aliphatic) Aqueous GC (W) All NDPs: 0 Tests: 2 X X EPH CWG (Aromatic) Aqueous GC (W) All NDPs: 0 Tests: 2 Х X Fluoride All NDPs: 0 Tests: 2 X X GRO by GC-FID (W) All NDPs: 0 Tests: 2 Х Х Low Level Cyanide (W) All NDPs: 0 Tests: 2 Χ Mercury Dissolved All NDPs: 0 Tests: 2 X X Nitrite by Kone (w) All NDPs: 0 Tests: 2 X Х pH Value All NDPs: 0 Tests: 2 X X Phosphate by Kone (w) All NDPs: 0 Tests: 2 Х Х Sulphide All NDPs: 0 Tests: 2 Х X Suspended Solids All NDPs: 0 Tests: 2 X X

Validated

Superseded Report:

CERTIFICATE OF ANALYSIS

ALS

SDG: 221124-74 **Client Ref**.: 501.064821.00001

Report Number: 670597

Location: Stradone Quarry, Co. Cavan

Results Legend X Test N No Determination	Lab Sample No(s)									27211948								27211960
Possible Sample Types -	Custome Sample Refer	=								QV1								SW1
S - Soil/Solid UNS - Unspecified Solid GW - Ground Water SW - Surface Water LE - Land Leachate	AGS Refere	nce																
PL - Prepared Leachate PR - Process Water SA - Saline Water TE - Trade Effluent TS - Treated Sewage	Depth (m)								0.00 - 0.00								0.00 - 0.00
US - Untreated Sewage RE - Recreational Water DW - Drinking Water Non-regulatory UNL - Unspecified Liquid SL - Sludge G - Gas OTH - Other	Containe	r	0.5l glass bottle (ALE227)	250ml BOD (ALE212)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml BOD (ALE212)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
	Sample Ty	pe	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS
TPH CWG (W)	All	NDPs: 0 Tests: 2	Х								Х							
VOC MS (W)	All	NDPs: 0 Tests: 2							X								X	

Superseded Report:

CERTIFICATE OF ANALYSIS



SDG: 221124-74 **Client Ref**.: 501.064821.00001

Report Number: 670597

Location: Stradone Quarry, Co. Cavan

					_		
Results Legend # ISO17025 accredited. M mCERTS accredited.		Customer Sample Ref.	QV1	SW1	Ĭ		
aq Aqueous / settled sample. diss.filt Dissolved / filtered sample.		Depth (m)	0.00 - 0.00	0.00 - 0.00			
tot.unfilt Total / unfiltered sample. * Subcontracted - refer to subcontractor report for		Sample Type Date Sampled	Surface Water (SW) 22/11/2022	Surface Water (SW) 22/11/2022			
accreditation status. ** % recovery of the surrogate standard to check the		Sample Time					
efficiency of the method. The results of individual compounds within samples aren't corrected for the		Date Received SDG Ref	24/11/2022 221124-74	24/11/2022 221124-74			
recovery (F) Trigger breach confirmed		Lab Sample No.(s)	27211948	27211960			
1-4+§@ Sample deviation (see appendix) Component	LOD/Units	AGS Reference Method					
Suspended solids, Total	<2 mg/l	TM022	<2	13.8	╛		
BOD, unfiltered	<1 mg/l	TM045	* <1	<1	#		
BOD, unintered	\1 mg/i	1101045	-1 #		#		
Ammoniacal Nitrogen as N (low level)	<0.01 mg/	TM099	0.041 #	<0.01	#		
Ammoniacal Nitrogen Low as NH3	<0.01 mg/	TM099	0.0498 #	<0.01	#		
Ammoniacal Nitrogen Low as NH4	<0.01 mg/	TM099	0.0527 #	<0.01	#		
Sulphide	<0.01 mg/	TM101	<0.01	<0.01	7		
Fluoride	<0.5 mg/l	TM104	<0.5	<0.5	7		
Aluminium (diss.filt)	<10 µg/l	TM152	<10 #	30.1	#		
Antimony (diss.filt)	<1 µg/l	TM152	<1 #	<1	#		
Arsenic (diss.filt)	<0.5 µg/l	TM152	<0.5	<0.5	#		
Barium (diss.filt)	<0.2 µg/l	TM152	20.9	28.8	#		
Boron (diss.filt)	<10 µg/l	TM152	16 #	<10	#		
Cadmium (diss.filt)	<0.08 µg/	I TM152	<0.08	<0.08	#		
Chromium (diss.filt)	<1 µg/l	TM152	3.52 #	<1	#		
Copper (diss.filt)	<0.3 µg/l	TM152	0.888	3.44	#		
Lead (diss.filt)	<0.2 µg/l	TM152	<0.2	<0.2	#		
Manganese (diss.filt)	<3 µg/l	TM152	18.7 #	145	#		
Nickel (diss.filt)	<0.4 µg/l	TM152	4.25 #	4.73	#		
Phosphorus (diss.filt)	<10 µg/l	TM152	<10 #	<10	#		
Selenium (diss.filt)	<1 µg/l	TM152	<1 #	<1	#		
Vanadium (diss.filt)	<1 µg/l	TM152	<1 #	<1	#		
Zinc (diss.filt)	<1 µg/l	TM152	3.56 #		#		
Sodium (Dis.Filt)	<0.076 mg		7.4 #		#		
Magnesium (Dis.Filt)	<0.036 mg		29.1		#		
Potassium (Dis.Filt)	<0.2 mg/l		4.48		#		
Calcium (Dis.Filt)	<0.2 mg/l		225 #		#		
Iron (Dis.Filt)	<0.019 mg		<0.019 #		#		
Mercury (diss.filt)	<0.01 µg/		<0.01	<0.01	\Box		
Nitrite as NO2	<0.05 mg/		<0.05 #		#		
Sulphate	<2 mg/l	TM184	534 #		#		
Chloride	<2 mg/l	TM184	11.1 #		#		
Phosphate (Ortho as P)	<0.02 mg/		<0.02 #		#		
Nitrate as NO3	<0.3 mg/l	TM184	0.48 #	3.23	#		



SDG: 221124-74 **Client Ref**.: 501.064821.00001

Report Number: 670597

Location: Stradone Quarry, Co. Cavan

Superseded Report:

Results Legend

ISO17025 accredited.

M mCERTS accredited.
aq Aqueous / settled sample.
diss.fill Dissolved filtered sample.
tot.unfilt Total / unfiltered sample.

* Subcontracted - refer to subcontractor report for accreditation status.

* * * recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery

(F) Trigger breach confirmed

1-4+5@ Sample deviation (see appendix) Customer Sample Ref. QV1 SW1 Depth (m) Sample Type Date Sampled 0.00 - 0.00 0.00 - 0.00 Surface Water (SW) 22/11/2022 Surface Water (SW) 22/11/2022 Sample Time Date Received 24/11/2022 24/11/2022 221124-74 27211948 221124-74 27211960 SDG Ref Lab Sample No.(s) AGS Reference Component LOD/Units Method Total Oxidised Nitrogen as N TM184 0.108 0.729 <0.1 mg/l # TM256 рΗ 8.01 7.9 <1 pH Units Conductivity @ 20 deg.C < 0.02 TM256 1.06 0.408 # mS/cm # Cyanide, Total (low level) <5 µg/l TM279 <5 <5 # Cyanide, Free (low level) <2.5 µg/l TM279 <2.5 <2.5

Report Number: 670597 SDG: 221124-74

Superseded Report: Client Ref.: 501.064821.00001 Location: Stradone Quarry, Co. Cavan

PH CWG (W) Results Legend	Ci	ıstomer Sample Ref.	QV1	SW1		
# ISO17025 accredited. M mCERTS accredited. aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample.		Depth (m) Sample Type	0.00 - 0.00 Surface Water (SW)	0.00 - 0.00 Surface Water (SW)		
* Subcontracted - refer to subcontractor report for accreditation status. ** ** recovery of the surrogate standard to check the efficiency of the method. The results of individual		Date Sampled Sample Time	22/11/2022	22/11/2022		
compounds within samples aren't corrected for the recovery (F) Trigger breach confirmed		Date Received SDG Ref Lab Sample No.(s)	24/11/2022 221124-74 27211948	24/11/2022 221124-74 27211960		
1-4+§@ Sample deviation (see appendix)	1.05/11.11	AGS Reference				
omponent RO Surrogate % recovery**	LOD/Units %	Method TM245	89	87		
RO >C5-C12	<50 µg/l	TM245	<50 #	<50 #		
iphatics >C5-C6	<10 µg/l	TM245	<10	<10		
iphatics >C6-C8	<10 µg/l	TM245	<10	<10		
iphatics >C8-C10	<10 µg/l	TM245	<10	<10		
liphatics >C10-C12	<10 µg/l	TM245	<10	<10		
liphatics >C12-C16 (aq)	<10 µg/l	TM174	<10	<10		
liphatics >C16-C21 (aq)	<10 µg/l	TM174	<10	<10		
liphatics >C21-C35 (aq)	<10 µg/l	TM174	<10	<10		
otal Aliphatics >C12-C35 (aq)	<10 µg/l	TM174	<10	<10		
Aromatics >EC5-EC7	<10 µg/l	TM245	<10	<10		
vromatics >EC7-EC8	<10 µg/l	TM245	<10	<10		
romatics >EC8-EC10	<10 µg/l	TM245	<10	<10		
romatics >EC10-EC12	<10 µg/l	TM245	<10	<10		
romatics >EC12-EC16 (aq)	<10 µg/l	TM174	<10	<10		
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174	<10	<10		
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174	<10	<10		
otal Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174	<10	<10		
otal Aliphatics & Aromatics >C5-35	<10 µg/l	TM174	<10	<10		
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174	<10	<10		

SDG: 221124-74 Report Number: 670597 Superseded Report:

Client Ref.: 501.064821.00001 Location: Stradone Quarry, Co. Cavan

VO	С	MS	(W)

VOC MS (W) Results Legend					_		
# ISO17025 accredited. M mCERTS accredited.		Customer Sample Ref.	QV1	SW1			
aq Aqueous / settled sample. diss.filt Dissolved / filtered sample.		Depth (m)	0.00 - 0.00	0.00 - 0.00			
tot.unfilt Total / unfiltered sample. * Subcontracted - refer to subcontractor report for		Sample Type	Surface Water (SW)	Surface Water (SW)			
accreditation status. ** % recovery of the surrogate standard to check the		Date Sampled Sample Time	22/11/2022	22/11/2022			
efficiency of the method. The results of individual compounds within samples aren't corrected for the		Date Received SDG Ref	24/11/2022 221124-74	24/11/2022 221124-74			
recovery (F) Trigger breach confirmed		Lab Sample No.(s) AGS Reference	27211948	27211960			
1-4+§@ Sample deviation (see appendix) Component	LOD/Units	AGS Reference Method					
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1	<1			
D	4 "	T1 1000	#	#			
Benzene	<1 µg/l	TM208	<1 #	<1 #			
Toluene	<1 µg/l	TM208	<1 #	<1 #			
Ethylbenzene	<1 µg/l	TM208	<1 #	<1 #			
m,p-Xylene	<1 µg/l	TM208	<1 #	<1 #			
o-Xylene	<1 µg/l	TM208	<1 #	<1 #			
Sum of detected Xylenes	<2 µg/l	TM208	<2	<2			
Sum of BTEX	<5 µg/l	TM208	<5	<5			

ALS

CERTIFICATE OF ANALYSIS

 SDG:
 221124-74
 Report Number:
 670597
 Superseded Report:

 Client Ref.:
 501.064821.00001
 Location:
 Stradone Quarry, Co. Cavan

Table of Results - Appendix

Method No	Reference	Description
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters
TM045	MEWAM BOD5 2nd Ed.HMSO 1988 / Method 5210B, AWWA/APHA, 20th Ed., 1999; SCA Blue Book 130	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM104	Method 4500F, AWWA/APHA, 20th Ed., 1999	Determination of Fluoride using the Kone Analyser
TM152	ISO 17294-2:2016 Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS)	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4, Standard Methods for the examination of waters and wastewaters 20th Edition, PHA, Washington DC, USA. ISBN 0-87553-235-7 and The Determination of Alkalinity and Acidity in water HMSO, 1981, ISBN 0 11 751601 5.	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM279		Determination of Low Level Easily Liberatable (Free) Cyanides and Total Cyanides in Waters using the Skalar SANS+ System Segmented Flow Analyser

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Validated

Superseded Report:

CERTIFICATE OF ANALYSIS



SDG: 221124-74 **Client Ref.**: 501.064821.00001

Report Number: 670597

Location: Stradone Quarry, Co. Cavan

Test Completion Dates

Lab Sample No(s)	27211948	27211960
Customer Sample Ref.	QV1	SW1
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Туре	Surface Water	Surface Water
Ammonium Low	01-Dec-2022	01-Dec-2022
Anions by Kone (w)	28-Nov-2022	28-Nov-2022
BOD True Total	30-Nov-2022	30-Nov-2022
Dissolved Metals by ICP-MS	28-Nov-2022	28-Nov-2022
EPH CWG (Aliphatic) Aqueous GC (W)	01-Dec-2022	01-Dec-2022
EPH CWG (Aromatic) Aqueous GC (W)	01-Dec-2022	01-Dec-2022
Fluoride	28-Nov-2022	28-Nov-2022
GRO by GC-FID (W)	28-Nov-2022	28-Nov-2022
Low Level Cyanide (W)	01-Dec-2022	01-Dec-2022
Mercury Dissolved	28-Nov-2022	28-Nov-2022
Nitrite by Kone (w)	25-Nov-2022	25-Nov-2022
pH Value	25-Nov-2022	28-Nov-2022
Phosphate by Kone (w)	25-Nov-2022	25-Nov-2022
Sulphide	30-Nov-2022	01-Dec-2022
Suspended Solids	29-Nov-2022	29-Nov-2022
TPH CWG (W)	01-Dec-2022	01-Dec-2022
VOC MS (W)	28-Nov-2022	28-Nov-2022



SDG: 221124-74 **Client Ref:** 501.064821.00001

Report Number: 670597 Location: Stradone Quarry, Co. Cavan Superseded Report:

Appendix

General

- 1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.
- 2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.
- 3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.
- 4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.
- 5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.
- 6. NDP No determination possible due to insufficient/unsuitable sample.
- 7. Results relate only to the items tested.
- 8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.
- 9. Surrogate recoveries Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.
- 10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.
- 11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.
- 12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.
- 13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.
- 14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.
- 15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and sylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.
- 16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
- 17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. Tentatively Identified Compounds (TICs) are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "nixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. Sample Deviations

If a sample is classed as deviated then the associated results may be compromised.

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Matrix interference
•	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to late arrival of instructions or samples
§	Sampled on date not provided

20. Asbestos

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbe stos Type	Common Name
Chrysofile	White Asbesbs
Amosite	Brow n Asbests
Cio di dolite	Blue Asbe stos
Fibrous Act nolite	-
Fib to us Anthop hyll ite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 μ m diameter, longer than 5 μ m and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.