

Certificate of Analysis

Client: Land & Water Services Ltd

Project: 26052723

Quote: BEC260144490 V2.1

Project Ref: C2-224

Site: Llangynidr (Mon & Brec)

Contact: Avi Verber

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No. Samples Received: 5

Date Received: 20/05/2026

Analysis Completed: 10/06/2026

Date Issued: 11/06/2026

Report Type: Version 01

This report supersedes any versions previously issued by the laboratory



Reported by Customer Service Coordinator
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**Project Number: 26052723**

Client: Land & Water Services Ltd
Date Issued: 11/06/2026
Project Name: C2-224 - Llangynidr (Mon & Brec)

Samples Analysed

<u>Text ID</u>	<u>Sample Reference</u>	<u>Sampling Date</u>	<u>Sample Type</u>	<u>Sample Description</u>
26052723-001	IV WG2	18/05/2026 00:00:00	SOLID	Silt Sample
26052723-002	Top Field East	18/05/2026 00:00:00	SOLID	Silt Sample
26052723-003	Top Field West	18/05/2026 00:00:00	SOLID	Silt Sample
26052723-004	Bottom Field	18/05/2026 00:00:00	SOLID	Silt Sample
26052723-005	Heron WH	18/05/2026 00:00:00	SOLID	Silt Sample

Analysis Results

SOCOTEC Sample ID:	26052723-001	26052723-002	26052723-003	26052723-004	26052723-005
Sampling Date:	18/05/2026 00:00	18/05/2026 00:00	18/05/2026 00:00	18/05/2026 00:00	18/05/2026 00:00

Customer ID:	IV WG2	Top Field East	Top Field West	Bottom Field	Heron WH
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Method Code	Analysis	MDL	Accred.					
CLANDPREP	Total Moisture at 35°C	0.1 %	N	20.2	22.5	22.9	23.3	74.5
	Major Constituents	-	N	SILT	SILT	SILT	SILT	SILT
	Minor Constituents	-	N	Roots	Roots	Roots	Roots	Miscellaneous
	Miscellaneous Constituents	-	N	Organic Matter	Organic Matter	Organic Matter	Organic Matter	Organic Matter
	Colour of Material	-	N	Brown	Brown	Brown	Brown	Brown/Grey
SUB002	Asbestos Identification	-	N					NAIS
PHSOIL	pH (2.5:1 extraction)	1 pH units	M ^A	5.8	5.8	5.8	5.7	6.6
TSCONW	Conductivity in 5:1 Water Extract	10 µS/cm	N ^A	54	25	35	36	
ANC	Carbonate Content (%CaCO ₃)	0.2 % m/m	N ^A	1.2	2.4	4.9	<0.2	
LOI(%MM)	LOI @ 550°C	0.2 % m/m	N ^A	8.3	6.8	8.8	8.0	
WSLM59	Total Organic Carbon	0.02 % m/m	U ^A	2.11	2.00	2.07	2.37	10.5
WSLM59	Soil Organic Matter	0.04 % m/m	U ^A					18.0
WSLM60	Extractable Phosphorus as P	2 mg/l (s)	U	15.0	19.5	20.9	30.5	
ISEFSS	Fluoride as F	0.2 mg/kg	U ^A	<0.2	<0.4	<0.4	<0.2	<0.2
SFAP1	Total Cyanide	0.5 mg/kg	M ^A					<2.0
SFAP1	Phenol Index	0.5 mg/kg	U ^A					<2.0
SFAP1	Sulphide as S	0.5 mg/kg	N ^A					12.6
ICPMSS	Antimony as Sb	0.1 mg/kg	U ^A					<0.1
ICPMSS	Arsenic as As	0.3 mg/kg	M ^A	10.8	10.4	11.2	12.1	4.6
ICPSOIL	Barium as Ba	0.5 mg/kg	M ^A					175
ICPMSS	Cadmium as Cd	0.2 mg/kg	M ^A	0.3	0.3	0.3	0.4	0.4
ICPMSS	Total Chromium as Cr	1.2 mg/kg	M ^A	23.9	22.1	24.3	18.6	21.5
KONENS	Chromium (VI) as Cr	0.1 mg/kg	N ^A					0.2
ICPMSS	Copper as Cu	1.6 mg/kg	M ^A	12.1	9.2	113.4	13.5	23.3
ICPMSS	Lead as Pb	0.7 mg/kg	M ^A	31.5	22.9	26.9	30.7	31.6
ICPMSS	Mercury as Hg	0.5 mg/kg	M ^A	<0.5	<0.5	<0.5	<0.5	<0.5
ICPMSS	Molybdenum as Mo	0.5 mg/kg	M ^A	0.6	0.9	0.7	0.7	0.7
ICPMSS	Nickel as Ni	2 mg/kg	M ^A	17.0	17.2	18.4	15.6	21.1
ICPMSS	Selenium as Se	0.5 mg/kg	M ^A	2.7	2.3	4.5	2.2	3.4
ICPMSS	Zinc as Zn	16 mg/kg	M ^A	70.5	64.5	122.4	71.3	111.5
ICPBOR	Boron as B	0.5 mg/kg	M ^A	<0.5	<0.5	0.6	<0.5	1.0
ICPEXCH	Magnesium as Mg (mg/l)	5 mg/l (s)	N	102	150	140	126	
	Potassium as K (mg/l)	5 mg/l (s)	N	112	122	88	104	
PICALC	Magnesium Index	-	N	3	3	3	3	
	Phosphorus Index	-	N	1	2	2	3	
	Potassium Index	-	N	1	<0	1	1	
BTXHSXA	Benzene (HS_1D_AR)	10 µg/kg	M ^A					<39
	Toluene (HS_1D_AR)	5 µg/kg	M ^A					<20
	Ethylbenzene (HS_1D_AR)	5 µg/kg	M ^A					<20
	m/p-Xylene (HS_1D_AR)	10 µg/kg	M ^A					<39
GROHSA	o-Xylene (HS_1D_AR)	5 µg/kg	M ^A					<20
	>C6-C10 (HS_1D_Total)	0.2 mg/kg	M ^A					<0.784
GROHSA/BTEXHSA	Total GRO C5-C10 (HS_1D_Total)	0.2 mg/kg	M ^A					<0.784
	C5-C6 Aliphatic (HS_1D_AL)	0.2 mg/kg	M ^A					<0.784
	>C6-C8 Aliphatic (HS_1D_AL)	0.2 mg/kg	M ^A					<0.784
	>C8-C10 Aliphatic (HS_1D_AL)	0.2 mg/kg	M ^A					<0.784
	C5-C7 Aromatic (HS_1D_AR)	0.01 mg/kg	M ^A					<0.039
	>C7-C8 Aromatic (HS_1D_AR)	0.005 mg/kg	M ^A					<0.020
	>C8-C10 Aromatic (HS_1D_AR)	0.02 mg/kg	M ^A					<0.079
TPHFIDUS (Aliphatic)	Total TPH >C8-C40 (Aliphatic) (EH_CU_1D_AL)	20 mg/kg	U ^A					<78.4
	>C10-C12 (Aliphatic) (EH_CU_1D_AL)	4 mg/kg	U ^A					<15.7
	>C12-C16 (Aliphatic) (EH_CU_1D_AL)	4 mg/kg	U ^A					<15.7
	>C16-C21 (Aliphatic) (EH_CU_1D_AL)	4 mg/kg	U ^A					<15.7
	>C21-C35 (Aliphatic) (EH_CU_1D_AL)	10 mg/kg	U ^A					47.6
	>C35-C44 (Aliphatic) (EH_CU_1D_AL)	6 mg/kg	N ^A					<23.5
TPHFIDUS (Aromatic)	Total TPH >C8-C40 (Aromatic) (EH_CU_1D_AR)	20 mg/kg	U ^A					216
	>C10-C12 (Aromatic) (EH_CU_1D_AR)	4 mg/kg	U ^A					<15.7
	>C12-C16 (Aromatic) (EH_CU_1D_AR)	4 mg/kg	U ^A					<15.7
	>C16-C21 (Aromatic) (EH_CU_1D_AR)	4 mg/kg	U ^A					<15.7
	>C21-C35 (Aromatic) (EH_CU_1D_AR)	10 mg/kg	U ^A					156
	>C35-C44 (Aromatic) (EH_CU_1D_AR)	6 mg/kg	N ^A					47.6
TPHFIDUS (SCU)	Total TPH >C8-C40 (SCU) (EH_CU_1D_Total)	20 mg/kg	N ^A					126
	>C10-C25 (SCU) (EH_CU_1D_Total)	10 mg/kg	N ^A					61.7
	>C25-C40 (SCU) (EH_CU_1D_Total)	10 mg/kg	N ^A					62.7
PAHMSUS	Acenaphthene	0.08 mg/kg	M ^A					<0.31
	Acenaphthylene	0.08 mg/kg	U ^A					<0.31
	Anthracene	0.08 mg/kg	U ^A					<0.31
	Benzo[a]anthracene	0.08 mg/kg	M ^A					0.57
	Benzo[a]pyrene	0.08 mg/kg	M ^A					0.50
	Benzo[b]fluoranthene	0.08 mg/kg	M ^A					0.81
	Benzo[g,h,i]perylene	0.08 mg/kg	M ^A					0.36
	Benzo[k]fluoranthene	0.08 mg/kg	M ^A					0.38
	Chrysene	0.08 mg/kg	M ^A					0.76
	Dibenzo[a,h]anthracene	0.08 mg/kg	M ^A					<0.31
	Fluoranthene	0.08 mg/kg	M ^A					1.17
	Fluorene	0.08 mg/kg	M ^A					<0.31
	Indeno[1,2,3-cd]pyrene	0.08 mg/kg	M ^A					0.43
	Naphthalene	0.08 mg/kg	M ^A					<0.31
	Phenanthrene	0.08 mg/kg	M ^A					0.52



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Analysis Results

SOCOTEC Sample ID:				26052723-001	26052723-002	26052723-003	26052723-004	26052723-005
Sampling Date:				18/05/2026 00:00	18/05/2026 00:00	18/05/2026 00:00	18/05/2026 00:00	18/05/2026 00:00
Customer ID:				IV WG2	Top Field East	Top Field West	Bottom Field	Heron WH
Method Code	Analysis	MDL	Accred.					
PAHMSUS	Pyrene	0.08 mg/kg	M [^]					0.91
	Total 8 Oil PAHs	0.56 mg/kg	U [^]					3.76
	Total PAH 16	1.28 mg/kg	U [^]					8.28
SUB022	Total Nitrogen as N	0.08 %	U	0.32*	0.39*	0.36*	0.29*	
Grid Reference	Eastings	-	N	316059	316013	315986	316215	322301
	Northings	-	N	219480	218935	218779	219109	216748

[illegible]

Deviating Sample Report

<u>Sample Reference</u>	<u>Text ID</u>	<u>Method Code</u>	Inadequate	Transit Cooling	Incorrect	Container	Incorrect	Label	Headspace	Incorrect/No	Preservative	No	Sampling Date	Holding	Time
Heron WH	26052723-005	BTEXHSA							✓						
Heron WH	26052723-005	GROHSA							✓						

Analysis Method

<u>Method Code</u>	<u>Method Description</u>	<u>Analysis Method</u>
ANC	ANC: Acid Neutralisation Capacity as CaCO3	Air Dried & Ground
BTEXHSA	BTEX by GCFID	As Received
CLANDPREP	CLand Prep and Dry Weight Correction to 35°C	As Received
CLANDPREP	Solid Material Description	As Received
Grid Reference	Custom Report- Grid Reference (Eastings-Northings)	
GROHSA	GRO (>C6-C10) Total	As Received
GROHSA/BTEXHSA	GRO CWG UK (C5-C10) Ali/Aro Split	As Received
ICPBOR	Boron (Water Soluble) by ICPOES	Air Dried & Ground
ICPEXCH	Extractable Magnesium by ICPOES (BS3882)	Air Dried & Ground
ICPEXCH	Extractable Potassium by ICPOES (BS3882)	Air Dried & Ground
ICPMSS	Antimony in Solids by ICPMS	Air Dried & Ground
ICPMSS	Arsenic in Solids by ICPMS	Air Dried & Ground
ICPMSS	Cadmium in Solids by ICPMS	Air Dried & Ground
ICPMSS	Chromium in Solids by ICPMS	Air Dried & Ground
ICPMSS	Copper in Solids by ICPMS	Air Dried & Ground
ICPMSS	Lead in Solids by ICPMS	Air Dried & Ground
ICPMSS	Mercury in Solids by ICPMS	Air Dried & Ground
ICPMSS	Molybdenum in Solids by ICPMS	Air Dried & Ground
ICPMSS	Nickel in Solids by ICPMS	Air Dried & Ground
ICPMSS	Selenium in Solids by ICPMS	Air Dried & Ground
ICPMSS	Zinc in Solids by ICPMS	Air Dried & Ground
ICPSOIL	Barium in Solids by ICPOES	Air Dried & Ground
ISEFSS	Fluoride (2:1) by ISE	Air Dried & Ground
KONENS	Chromium VI (Hexavalent) by Colorimetry	Air Dried & Ground
LOI(%MM)	LOI: Loss on Ignition @ 550°C	Air Dried & Ground
PAHMSUS	16 PAHs by GCMS with Total Oil 8	As Received
PHSOIL	pH (2.5:1)	As Received
PICALC	DEFRA Index Scale	Air Dried & Ground
SFAPI	Cyanide (Total) by SFA	As Received
SFAPI	Phenol Index (Total) by SFA	As Received
SFAPI	Sulphide by SFA	As Received
SUB002	Asbestos Stage 1 (with Stage 2 Trigger)	
SUB022	Nitrogen (Total)	Air Dried & Ground
TPHFIDUS (Aliphatic)	TPH (CWG UK) Aliphatic Split with Carbon Banding	As Received
TPHFIDUS (Aromatic)	TPH (CWG UK) Aromatic Split with Carbon Banding	As Received
TPHFIDUS (SCU)	TPH SCU Banded (>C10-C25) and (>C25-C40)	As Received
TSCONW	Electrical Conductivity (5:1)	Air Dried & Ground
WSLM59	SOM: Soil Organic Matter (%) (Calc)	Air Dried & Ground
WSLM59	TOC: Total Organic Carbon	Air Dried & Ground
WSLM60	Extractable Phosphorus	Air Dried & Ground



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Result Report Notes

Letters alongside results signify that the result has associated report notes.

The report notes are as follows:

Letter

Note

- | | |
|---|--|
| A | Due to the matrix of the sample the laboratory has had to deviate from our standard protocols to be able to process the sample and provide a result. Where applicable the accreditation has been removed and this should be taken into consideration when utilising the data. |
| B | The QC associated with this result has not wholly met the QMS requirements, the accreditation has therefore been removed. However, the Laboratory has confidence in the performance of the method as a whole and that the integrity of the data has not been significantly compromised. |
| C | Due to matrix interference, the internal standard and/or surrogate has not met the QMS requirements. This should be taken into consideration when utilising the data. |
| D | A non-standard volume or mass has been used for this test which has resulted in a raised detection limit. |
| E | Due to the parameter value being beyond our calibration range (and following the maximum size of dilution allowed, where applicable), the result cannot be quantified and as such the result will appear as a greater than symbol (>) with the accreditation removed. This data should be used for indicative purposes only. |
| F | Based on the sample history, appearance and smell a dilution was applied prior to testing. Unfortunately, the result is either above (>) or below (<) our calibration range. Results above our calibration range have accreditation removed. The data should be used for indicative purposes only. |
| G | The day 5 oxygen reading was below the capability of the instrument to detect, and therefore the calculated BOD has been reported unaccredited for guidance purposes only. |

HWOL Acronym Key

Acronym

Description

HS	Headspace Analysis
EH	Extractable Hydrocarbons - i.e everything extracted by the solvent(s)
CU	Clean up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
+	Operator to indicate cumulative e.g. EH_CU+HS_1D_Total



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Additional Information

This report refers to samples as received. SOCOTEC UK Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

The accreditation codes are as follows:

U = UKAS accredited analysis
M = MCERT accredited analysis
N = Unaccredited analysis

Any accreditation marked with ^ signify results are reported on a dry weight basis of 35 ° c.

All Air Dried and Ground Samples (ADG) are oven dried at less than 35° c.

This report shall not be reproduced except in full, without written approval of the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any results marked with * are not covered by our scope of UKAS accreditation. If applicable, further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis
NA = Sample is not amenable for the required analysis
ND = Results cannot be determined

Items listed with a 'SUB' method code prefix have been carried out by another SOCOTEC department or by an external subcontracted laboratory. Further information is available upon request.

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the subcontracted lab for information regarding any deviancies for this analysis.

Summaries of analysis methods are available upon request.

End of Certificate of Analysis