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APPENDIX 8-3

LABORATORY REPORTS
GROUNDWATER

Element Materials Technology
Unit 3 Deeside Point
Zone 3
Deeside Industrial Park
Deeside
CH5 2UA

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McCarthy Keville & O'Sullivan Ltd
2nd Floor
H91VW84
Tuam Road
Galway
Ireland

Attention :	Monika Kabza
Date :	4th August, 2025
Your reference :	240142-C
Our reference :	Test Report 25/12042 Batch 1
Location :	Knocknacarra King Construction
Date samples received :	23rd July, 2025
Status :	Final Report
Issue :	202508041054

Three samples were received for analysis on 23rd July, 2025 of which three 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 - 8.471 kg of CO2

Scope 1&2&3 emissions - 20.019 kg of CO2

Authorised By:

Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-C
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12042

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
$H=H_2SO_4$, Z=ZnAc, N=NaOH, $HN=HN0_3$

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Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-8	9-16	17-24								LOD/LOR	Units	Method No.
Sample ID	BH01	BH26	BH25										
Depth													
COC No / misc													
Containers	V H HN N P G	V H HN N P G	V H HN N P G										
Sample Date	21/07/2025 12:30	21/07/2025 13:00	21/07/2025 13:45										
Sample Type	Ground Water	Ground Water	Ground Water										
Batch Number	1	1	1										
Date of Receipt	23/07/2025	23/07/2025	23/07/2025										
Dissolved Antimony #	<2	<2	<2								<2	ug/l	TM30/PM14
Dissolved Arsenic #	3.1	<2.5	<2.5								<2.5	ug/l	TM30/PM14
Dissolved Barium #	6	4	14								<3	ug/l	TM30/PM14
Dissolved Boron	81	152	37								<12	ug/l	TM30/PM14
Dissolved Cadmium #	<0.5	<0.5	20.3								<0.5	ug/l	TM30/PM14
Dissolved Calcium #	69.1	134.2	84.8								<0.2	mg/l	TM30/PM14
Total Dissolved Chromium #	<1.5	<1.5	<1.5								<1.5	ug/l	TM30/PM14
Dissolved Copper #	<7	<7	<7								<7	ug/l	TM30/PM14
Total Dissolved Iron #	352	<20	<20								<20	ug/l	TM30/PM14
Dissolved Lead #	<5	<5	6								<5	ug/l	TM30/PM14
Dissolved Magnesium #	7.6	15.0	5.0								<0.1	mg/l	TM30/PM14
Dissolved Manganese #	517	38	1997								<2	ug/l	TM30/PM14
Dissolved Mercury #	<1	<1	<1								<1	ug/l	TM30/PM14
Dissolved Nickel #	2	<2	4								<2	ug/l	TM30/PM14
Dissolved Potassium #	7.9	4.9	2.5								<0.1	mg/l	TM30/PM14
Dissolved Selenium #	<3	<3	<3								<3	ug/l	TM30/PM14
Dissolved Sodium #	52.2	42.1	22.6								<0.1	mg/l	TM30/PM14
Dissolved Zinc #	7	5	53								<3	ug/l	TM30/PM14
PAH MS													
Naphthalene #	<0.1	<0.1	<0.1								<0.1	ug/l	TM4/PM30
Acenaphthylene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Acenaphthene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Fluorene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Phenanthrene #	0.006	0.005	0.006								<0.005	ug/l	TM4/PM30
Anthracene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Fluoranthene #	<0.005	0.005	<0.005								<0.005	ug/l	TM4/PM30
Pyrene #	<0.005	0.005	<0.005								<0.005	ug/l	TM4/PM30
Benzo(a)anthracene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Chrysene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Benzo(bk)fluoranthene #	<0.008	<0.008	<0.008								<0.008	ug/l	TM4/PM30
Benzo(a)pyrene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Indeno(123cd)pyrene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Dibenzo(ah)anthracene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Benzo(ghi)perylene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
PAH 16 Total #	<0.173	<0.173	<0.173								<0.173	ug/l	TM4/PM30
Benzo(b)fluoranthene	<0.008	<0.008	<0.008								<0.008	ug/l	TM4/PM30
Benzo(k)fluoranthene	<0.008	<0.008	<0.008								<0.008	ug/l	TM4/PM30
PAH Surrogate % Recovery	82	83	79								<0	%	TM4/PM30
Methyl Tertiary Butyl Ether #	<0.1	<0.1	<0.1								<0.1	ug/l	TM15/PM10
Benzene #	<0.5	<0.5	<0.5								<0.5	ug/l	TM15/PM10
Toluene #	<5	<5	<5								<5	ug/l	TM15/PM10
Ethylbenzene #	<1	<1	<1								<1	ug/l	TM15/PM10

Element Materials Technology

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-C
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12042

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
$H=H_2SO_4$, Z=ZnAc, N=NaOH, HN=$HN0_3$

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Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-8	9-16	17-24								LOD/LOR	Units	Method No.
Sample ID	BH01	BH26	BH25										
Depth													
COC No / misc													
Containers	V H HN N P G	V H HN N P G	V H HN N P G										
Sample Date	21/07/2025 12:30	21/07/2025 13:00	21/07/2025 13:45										
Sample Type	Ground Water	Ground Water	Ground Water										
Batch Number	1	1	1										
Date of Receipt	23/07/2025	23/07/2025	23/07/2025										
m/p-Xylene #	<2	<2	<2								<2	ug/l	TM15/PM10
o-Xylene #	<1	<1	<1								<1	ug/l	TM15/PM10
Surrogate Recovery Toluene D8	90	86	92								<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	95	90	96								<0	%	TM15/PM10
TPH CWG													
Aliphatics													
>C5-C6 #	<10	<10	<10								<10	ug/l	TM36/PM12
>C6-C8 #	<10	<10	<10								<10	ug/l	TM36/PM12
>C8-C10 #	<10	<10	<10								<10	ug/l	TM36/PM12
>C10-C12 #	<5	<5	<5								<5	ug/l	TM5/PM16/PM30
>C12-C16 #	80	<10	<10								<10	ug/l	TM5/PM16/PM30
>C16-C21 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>C21-C35 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
Total aliphatics C5-35 #	80	<10	<10								<10	ug/l	TM5/TM36/PM12/PM16/PM30
Aromatics													
>C5-EC7 #	<10	<10	<10								<10	ug/l	TM36/PM12
>EC7-EC8 #	<10	<10	<10								<10	ug/l	TM36/PM12
>EC8-EC10 #	<10	<10	<10								<10	ug/l	TM36/PM12
>EC10-EC12 #	<5	<5	<5								<5	ug/l	TM5/PM16/PM30
>EC12-EC16 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>EC16-EC21 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>EC21-EC35 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
Total aromatics C5-35 #	<10	<10	<10								<10	ug/l	TM5/TM36/PM12/PM16/PM30
Total aliphatics and aromatics(C5-35) #	80	<10	<10								<10	ug/l	TM5/TM36/PM12/PM16/PM30
Phenol #	<0.01	<0.01	<0.01								<0.01	mg/l	TM26/PM0
Sulphate as SO4 #	21.4	48.1	20.0								<0.5	mg/l	TM38/PM0
Chloride #	59.8	95.3	48.5								<0.3	mg/l	TM38/PM0
Ortho Phosphate as P #	<0.03	0.03	<0.03								<0.03	mg/l	TM38/PM0
Total Oxidised Nitrogen as N #	<0.2	5.0	3.0								<0.2	mg/l	TM38/PM0
Free Cyanide #	<0.01	<0.01	<0.01								<0.01	mg/l	TM89/PM0
Total Cyanide #	<0.01	0.02	<0.01								<0.01	mg/l	TM89/PM0
Ammoniacal Nitrogen as N #	1.41	0.06	0.19								<0.03	mg/l	TM38/PM0
Hexavalent Chromium	<0.006	<0.006	<0.006								<0.006	mg/l	TM38/PM0
Total Alkalinity as CaCO3 #	230	292	238								<1	mg/l	TM75/PM0
Sulphide	<0.01	<0.01	<0.01								<0.01	mg/l	TM107/PM0
Thiocyanate	<0.02	<0.02	<0.02								<0.02	mg/l	TM107/PM0

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All solid results are expressed on a dry weight basis unless stated otherwise.

Element Materials Technology

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-C
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12042

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
$H=H_2SO_4$, Z=ZnAc, N=NaOH, $HN=HN0_3$

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Sample ID	BH01	BH26	BH25										
Depth													
COC No / misc													
Containers	V H HN N P G	V H HN N P G	V H HN N P G										
Sample Date	21/07/2025 12:30	21/07/2025 13:00	21/07/2025 13:45										
Sample Type	Ground Water	Ground Water	Ground Water										
Batch Number	1	1	1										
Date of Receipt	23/07/2025	23/07/2025	23/07/2025										
Electrical Conductivity @25C #	669	949	670								<2	uS/cm	TM76/PM0
pH #	7.17	7.04	7.04								<0.01	pH units	TM73/PM0

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-C
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12042

SVOC Report : **Liquid**

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Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-8	9-16	17-24									
Sample ID	BH01	BH26	BH25									
Depth												
COC No / misc												
Containers	V H HN N P G	V H HN N P G	V H HN N P G									
Sample Date	21/07/2025 12:30	21/07/2025 13:00	21/07/2025 13:45									
Sample Type	Ground Water	Ground Water	Ground Water									
Batch Number	1	1	1									
Date of Receipt	23/07/2025	23/07/2025	23/07/2025									
SVOC MS												
Phenols												
2-Chlorophenol #	<1	<1	<1									
2-Methylphenol #	<0.5	<0.5	<0.5									
2-Nitrophenol	<0.5	<0.5	<0.5									
2,4-Dichlorophenol #	<0.5	<0.5	<0.5									
2,4-Dimethylphenol	<1	<1	<1									
2,4,5-Trichlorophenol #	<0.5	<0.5	<0.5									
2,4,6-Trichlorophenol	<1	<1	<1									
4-Chloro-3-methylphenol #	<0.5	<0.5	<0.5									
4-Methylphenol	<1	<1	<1									
4-Nitrophenol	<10	<10	<10									
Pentachlorophenol	<1	<1	<1									
Phenol	<1	<1	<1									
PAHs												
2-Chloronaphthalene #	<1	<1	<1									
2-Methylnaphthalene #	<1	<1	<1									
Phthalates												
Bis(2-ethylhexyl) phthalate	<5	<5	<5									
Butylbenzyl phthalate	<1	<1	<1									
Di-n-butyl phthalate #	<1.5	<1.5	<1.5									
Di-n-Octyl phthalate	<1	<1	<1									
Diethyl phthalate #	<1	<1	<1									
Dimethyl phthalate	<1	<1	<1									
Other SVOCs												
1,2-Dichlorobenzene #	<1	<1	<1									
1,2,4-Trichlorobenzene #	<1	<1	<1									
1,3-Dichlorobenzene #	<1	<1	<1									
1,4-Dichlorobenzene #	<1	<1	<1									
2-Nitroaniline	<1	<1	<1									
2,4-Dinitrotoluene #	<0.5	<0.5	<0.5									
2,6-Dinitrotoluene	<1	<1	<1									
3-Nitroaniline	<1	<1	<1									
4-Bromophenylphenylether #	<1	<1	<1									
4-Chloroaniline	<1	<1	<1									
4-Chlorophenylphenylether #	<1	<1	<1									
4-Nitroaniline	<0.5	<0.5	<0.5									
Azobenzene #	<0.5	<0.5	<0.5									
Bis(2-chloroethoxy)methane #	<0.5	<0.5	<0.5									
Bis(2-chloroethyl)ether #	<1	<1	<1									
Carbazole #	<0.5	<0.5	<0.5									
Dibenzofuran #	<0.5	<0.5	<0.5									
Hexachlorobenzene #	<1	<1	<1									
Hexachlorobutadiene #	<1	<1	<1									
Hexachlorocyclopentadiene	<1	<1	<1									
Hexachloroethane #	<1	<1	<1									
Isophorone #	<0.5	<0.5	<0.5									
N-nitrosodi-n-propylamine #	<0.5	<0.5	<0.5									
Nitrobenzene #	<1	<1	<1									
Surrogate Recovery 2-Fluorobiphenyl	124	122	124									
Surrogate Recovery p-Terphenyl-d14	138 SV	131 SV	130									

LOD/LOR	Units	Method No.
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<10	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0	%	TM16/PM30
<0	%	TM16/PM30

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-C
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12042

VOC Report : **Liquid**

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EMT Sample No.	1-8	9-16	17-24									
Sample ID	BH01	BH26	BH25									
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COC No / misc												
Containers	V H HN N P G	V H HN N P G	V H HN N P G									
Sample Date	21/07/2025 12:30	21/07/2025 13:00	21/07/2025 13:45									
Sample Type	Ground Water	Ground Water	Ground Water									
Batch Number	1	1	1									
Date of Receipt	23/07/2025	23/07/2025	23/07/2025									
VOC MS												
Dichlorodifluoromethane	<2	<2	<2								<2	ug/l	TM15/PM10
Methyl Tertiary Butyl Ether #	<0.1	<0.1	<0.1								<0.1	ug/l	TM15/PM10
Chloromethane #	<3	<3	<3								<3	ug/l	TM15/PM10
Vinyl Chloride #	<0.1	<0.1	<0.1								<0.1	ug/l	TM15/PM10
Bromomethane	<1	<1	<1								<1	ug/l	TM15/PM10
Chloroethane #	<3	<3	<3								<3	ug/l	TM15/PM10
Trichlorofluoromethane #	<3	<3	<3								<3	ug/l	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<3	<3	<3								<3	ug/l	TM15/PM10
Dichloromethane (DCM) #	<3	<3	<3								<3	ug/l	TM15/PM10
trans-1-2-Dichloroethene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,1-Dichloroethane #	<3	<3	<3								<3	ug/l	TM15/PM10
cis-1-2-Dichloroethene #	<3	<3	<3								<3	ug/l	TM15/PM10
2,2-Dichloropropane	<1	<1	<1								<1	ug/l	TM15/PM10
Bromochloromethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Chloroform #	<2	<2	<2								<2	ug/l	TM15/PM10
1,1,1-Trichloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
1,1-Dichloropropene #	<3	<3	<3								<3	ug/l	TM15/PM10
Carbon tetrachloride #	<2	<2	<2								<2	ug/l	TM15/PM10
1,2-Dichloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Benzene #	<0.5	<0.5	<0.5								<0.5	ug/l	TM15/PM10
Trichloroethene (TCE) #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2-Dichloropropane #	<2	<2	<2								<2	ug/l	TM15/PM10
Dibromomethane #	<3	<3	<3								<3	ug/l	TM15/PM10
Bromodichloromethane #	<2	<2	<2								<2	ug/l	TM15/PM10
cis-1-3-Dichloropropene	<2	<2	<2								<2	ug/l	TM15/PM10
Toluene #	<5	<5	<5								<5	ug/l	TM15/PM10
trans-1-3-Dichloropropene	<2	<2	<2								<2	ug/l	TM15/PM10
1,1,2-Trichloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3	<3								<3	ug/l	TM15/PM10
1,3-Dichloropropane #	<2	<2	<2								<2	ug/l	TM15/PM10
Dibromochloromethane	<2	<2	<2								<2	ug/l	TM15/PM10
1,2-Dibromoethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Chlorobenzene #	<2	<2	<2								<2	ug/l	TM15/PM10
1,1,1,2-Tetrachloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Ethylbenzene #	<1	<1	<1								<1	ug/l	TM15/PM10
m/p-Xylene #	<2	<2	<2								<2	ug/l	TM15/PM10
o-Xylene #	<1	<1	<1								<1	ug/l	TM15/PM10
Styrene	<2	<2	<2								<2	ug/l	TM15/PM10
Bromoform	<2	<2	<2								<2	ug/l	TM15/PM10
Isopropylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,1,2,2-Tetrachloroethane	<4	<4	<4								<4	ug/l	TM15/PM10
Bromobenzene #	<2	<2	<2								<2	ug/l	TM15/PM10
1,2,3-Trichloropropane #	<3	<3	<3								<3	ug/l	TM15/PM10
Propylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
2-Chlorotoluene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,3,5-Trimethylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
4-Chlorotoluene #	<3	<3	<3								<3	ug/l	TM15/PM10
tert-Butylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2,4-Trimethylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
sec-Butylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
4-Isopropyltoluene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,3-Dichlorobenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,4-Dichlorobenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
n-Butylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2-Dichlorobenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2-Dibromo-3-chloropropane	<2	<2	<2								<2	ug/l	TM15/PM10
1,2,4-Trichlorobenzene	<3	<3	<3								<3	ug/l	TM15/PM10
Hexachlorobutadiene	<3	<3	<3								<3	ug/l	TM15/PM10
Naphthalene	<2	<2	<2								<2	ug/l	TM15/PM10
1,2,3-Trichlorobenzene	<3	<3	<3								<3	ug/l	TM15/PM10
Surrogate Recovery Toluene D8	90	86	92								<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	95	90	96								<0	%	TM15/PM10

Element Materials Technology

Notification of Deviating Samples

RECEIVED: 05/08/2026

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-C
Location: Knocknacarra King Construction
Contact: Monika Kabza

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 25/12042						

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 deviating if set 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.: 25/12042

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°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 35°C ±5°C.

Where Mineral Oil 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 HCl (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 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.

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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.

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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.

Tentatively Identified Compounds (TICs)

Where Tentatively Identified Compounds (TICs) are reported, up to 10 Tentatively Identified Compounds will be listed where there is found to be a greater than 80% match with the NIST library. The reported concentration is determined semi-quantitively, with a matrix specific limit of detection. Note, other compounds may be present but are not reported.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	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.
CO	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
TB	Trip Blank Sample
OC	Outside Calibration Range

RECEIVED: 05/08/2026

EMT Job No: 25/12042

RECEIVED: 06/08/2026

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	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.				
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.	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/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.	Yes			
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16/PM30	please refer to PM16/PM30 and PM12 for method details	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.				
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			
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.	Yes			
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				

EMT Job No: 25/12042

RECEIVED: 06/08/2026

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
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	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			
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) - All anions comparable to BS ISO 15923-1: 2013l	PM0	No preparation is required.				
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) - All anions comparable to BS ISO 15923-1: 2013l	PM0	No preparation is required.	Yes			
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.	PM0	No preparation is required.	Yes			
TM75	Modified US EPA method 310.1 (1978). Determination of Alkalinity by Metrohm automated titration analyser.	PM0	No preparation is required.	Yes			
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.	Yes			
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.	PM0	No preparation is required.	Yes			
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM0	No preparation is required.				

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McCarthy Keville & O'Sullivan Ltd
2nd Floor
H91VW84
Tuam Road
Galway
Ireland

Attention :	Monika Kabza
Date :	14th August, 2025
Your reference :	240142-i
Our reference :	Test Report 25/12044 Batch 1
Location :	Knocknacarra King Construction
Date samples received :	23rd July, 2025
Status :	Final Report
Issue :	202508141532

Three samples were received for analysis on 23rd July, 2025 of which three 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 - 8.905 kg of CO2

Scope 1&2&3 emissions - 21.045 kg of CO2

Authorised By:

Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-i
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12044

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
H=H_2SO_4, Z=ZnAc, N=NaOH, HN=$HN0_3$

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Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-8	9-16	17-24								LOD/LOR	Units	Method No.
Sample ID	BH08	BH19	BH02										
Depth													
COC No / misc													
Containers	V H HN N P G	V H HN N P G	V H HN N P G										
Sample Date	21/07/2025	21/07/2025	21/07/2025										
Sample Type	Ground Water	Ground Water	Ground Water										
Batch Number	1	1	1										
Date of Receipt	23/07/2025	23/07/2025	23/07/2025										
Dissolved Antimony #	<2	<2	<2								<2	ug/l	TM30/PM14
Dissolved Arsenic #	<2.5	<2.5	<2.5								<2.5	ug/l	TM30/PM14
Dissolved Barium #	8	91	3								<3	ug/l	TM30/PM14
Dissolved Boron	22	44	45								<12	ug/l	TM30/PM14
Dissolved Cadmium #	<0.5	<0.5	<0.5								<0.5	ug/l	TM30/PM14
Dissolved Calcium #	49.2	45.0	44.1								<0.2	mg/l	TM30/PM14
Total Dissolved Chromium #	<1.5	<1.5	<1.5								<1.5	ug/l	TM30/PM14
Dissolved Copper #	<7	<7	<7								<7	ug/l	TM30/PM14
Total Dissolved Iron #	36	1579	22								<20	ug/l	TM30/PM14
Dissolved Lead #	<5	<5	<5								<5	ug/l	TM30/PM14
Dissolved Magnesium #	3.8	11.8	4.8								<0.1	mg/l	TM30/PM14
Dissolved Manganese #	7	3715	44								<2	ug/l	TM30/PM14
Dissolved Mercury #	<1	<1	<1								<1	ug/l	TM30/PM14
Dissolved Nickel #	<2	6	<2								<2	ug/l	TM30/PM14
Dissolved Potassium #	1.4	5.5	2.3								<0.1	mg/l	TM30/PM14
Dissolved Selenium #	<3	<3	<3								<3	ug/l	TM30/PM14
Dissolved Sodium #	18.6	76.0	21.2								<0.1	mg/l	TM30/PM14
Dissolved Zinc #	5	12	6								<3	ug/l	TM30/PM14
PAH MS													
Naphthalene #	<0.1	<0.1	<0.1								<0.1	ug/l	TM4/PM30
Acenaphthylene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Acenaphthene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Fluorene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Phenanthrene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Anthracene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Fluoranthene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Pyrene #	<0.005	<0.005	0.005								<0.005	ug/l	TM4/PM30
Benzo(a)anthracene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Chrysene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Benzo(bk)fluoranthene #	<0.008	<0.008	<0.008								<0.008	ug/l	TM4/PM30
Benzo(a)pyrene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Indeno(123cd)pyrene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Dibenzo(ah)anthracene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Benzo(ghi)perylene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
PAH 16 Total #	<0.173	<0.173	<0.173								<0.173	ug/l	TM4/PM30
Benzo(b)fluoranthene	<0.008	<0.008	<0.008								<0.008	ug/l	TM4/PM30
Benzo(k)fluoranthene	<0.008	<0.008	<0.008								<0.008	ug/l	TM4/PM30
PAH Surrogate % Recovery	71	83	82								<0	%	TM4/PM30
Methyl Tertiary Butyl Ether #	<0.1	<0.1	<0.1								<0.1	ug/l	TM15/PM10
Benzene #	<0.5	<0.5	<0.5								<0.5	ug/l	TM15/PM10
Toluene #	<5	<5	<5								<5	ug/l	TM15/PM10
Ethylbenzene #	<1	<1	<1								<1	ug/l	TM15/PM10

Element Materials Technology

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-i
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12044

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
$H=H_2SO_4$, Z=ZnAc, N=NaOH, HN=$HN0_3$

RECEIVED: 05/08/2025

Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-8	9-16	17-24								LOD/LOR	Units	Method No.
Sample ID	BH08	BH19	BH02										
Depth													
COC No / misc													
Containers	V H HN N P G	V H HN N P G	V H HN N P G										
Sample Date	21/07/2025	21/07/2025	21/07/2025										
Sample Type	Ground Water	Ground Water	Ground Water										
Batch Number	1	1	1										
Date of Receipt	23/07/2025	23/07/2025	23/07/2025										
m/p-Xylene #	<2	<2	<2								<2	ug/l	TM15/PM10
o-Xylene #	<1	<1	<1								<1	ug/l	TM15/PM10
Surrogate Recovery Toluene D8	85	91	99								<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	102	96	103								<0	%	TM15/PM10
TPH CWG													
Aliphatics													
>C5-C6 #	<10	<10	<10								<10	ug/l	TM36/PM12
>C6-C8 #	<10	<10	<10								<10	ug/l	TM36/PM12
>C8-C10 #	<10	<10	<10								<10	ug/l	TM36/PM12
>C10-C12 #	<5	<5	<5								<5	ug/l	TM5/PM16/PM30
>C12-C16 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>C16-C21 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>C21-C35 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
Total aliphatics C5-35 #	<10	<10	<10								<10	ug/l	TM5/TM36/PM12/PM16/PM30
Aromatics													
>C5-EC7 #	<10	<10	<10								<10	ug/l	TM36/PM12
>EC7-EC8 #	<10	<10	<10								<10	ug/l	TM36/PM12
>EC8-EC10 #	<10	<10	<10								<10	ug/l	TM36/PM12
>EC10-EC12 #	<5	<5	<5								<5	ug/l	TM5/PM16/PM30
>EC12-EC16 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>EC16-EC21 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>EC21-EC35 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
Total aromatics C5-35 #	<10	<10	<10								<10	ug/l	TM5/TM36/PM12/PM16/PM30
Total aliphatics and aromatics(C5-35) #	<10	<10	<10								<10	ug/l	TM5/TM36/PM12/PM16/PM30
Phenol #	<0.01	<0.01	<0.01								<0.01	mg/l	TM26/PM0
Sulphate as SO4 #	14.9	21.8	19.9								<0.5	mg/l	TM38/PM0
Chloride #	55.8	79.5	46.3								<0.3	mg/l	TM38/PM0
Ortho Phosphate as P #	<0.03	<0.03	<0.03								<0.03	mg/l	TM38/PM0
Total Oxidised Nitrogen as N #	5.6	<0.2	1.7								<0.2	mg/l	TM38/PM0
Free Cyanide #	<0.01	<0.01	<0.01								<0.01	mg/l	TM89/PM0
Total Cyanide #	<0.01	<0.01	<0.01								<0.01	mg/l	TM89/PM0
Ammoniacal Nitrogen as N #	<0.03	1.09	0.03								<0.03	mg/l	TM38/PM0
Hexavalent Chromium	<0.006	<0.006	<0.006								<0.006	mg/l	TM38/PM0
Total Alkalinity as CaCO3 #	86	226	108								<1	mg/l	TM75/PM0
Sulphide	<0.01	<0.01	<0.01								<0.01	mg/l	TM107/PM0
Thiocyanate	<0.02	<0.02	<0.02								<0.02	mg/l	TM107/PM0

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Element Materials Technology

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-i
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12044

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
$H=H_2SO_4$, Z=ZnAc, N=NaOH, $HN=HN0_3$

RECEIVED: 05/08/2025

Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-8	9-16	17-24								LOD/LOR	Units	Method No.
Sample ID	BH08	BH19	BH02										
Depth													
COC No / misc													
Containers	V H HN N P G	V H HN N P G	V H HN N P G										
Sample Date	21/07/2025	21/07/2025	21/07/2025										
Sample Type	Ground Water	Ground Water	Ground Water										
Batch Number	1	1	1										
Date of Receipt	23/07/2025	23/07/2025	23/07/2025										
Electrical Conductivity @25C #	444	705	405								<2	uS/cm	TM76/PM0
pH #	7.03	6.80	6.50								<0.01	pH units	TM73/PM0

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-i
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12044

SVOC Report : **Liquid**

RECEIVED: 05/08/2026

Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-8	9-16	17-24									
Sample ID	BH08	BH19	BH02									
Depth												
COC No / misc												
Containers	V H HN N P G	V H HN N P G	V H HN N P G									
Sample Date	21/07/2025	21/07/2025	21/07/2025									
Sample Type	Ground Water	Ground Water	Ground Water									
Batch Number	1	1	1									
Date of Receipt	23/07/2025	23/07/2025	23/07/2025									
SVOC MS												
Phenols												
2-Chlorophenol #	<1	<1	<1								<1	ug/l	TM16/PM30
2-Methylphenol #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
2-Nitrophenol	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
2,4-Dichlorophenol #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
2,4-Dimethylphenol	<1	<1	<1								<1	ug/l	TM16/PM30
2,4,5-Trichlorophenol #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
2,4,6-Trichlorophenol	<1	<1	<1								<1	ug/l	TM16/PM30
4-Chloro-3-methylphenol #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
4-Methylphenol	<1	<1	<1								<1	ug/l	TM16/PM30
4-Nitrophenol	<10	<10	<10								<10	ug/l	TM16/PM30
Pentachlorophenol	<1	<1	<1								<1	ug/l	TM16/PM30
Phenol	<1	<1	<1								<1	ug/l	TM16/PM30
PAHs												
2-Chloronaphthalene #	<1	<1	<1								<1	ug/l	TM16/PM30
2-Methylnaphthalene #	<1	<1	<1								<1	ug/l	TM16/PM30
Phthalates												
Bis(2-ethylhexyl) phthalate	<5	<5	<5								<5	ug/l	TM16/PM30
Butylbenzyl phthalate	<1	<1	<1								<1	ug/l	TM16/PM30
Di-n-butyl phthalate #	<1.5	<1.5	<1.5								<1.5	ug/l	TM16/PM30
Di-n-Octyl phthalate	<1	<1	<1								<1	ug/l	TM16/PM30
Diethyl phthalate #	<1	<1	<1								<1	ug/l	TM16/PM30
Dimethyl phthalate	<1	<1	<1								<1	ug/l	TM16/PM30
Other SVOCs												
1,2-Dichlorobenzene #	<1	<1	<1								<1	ug/l	TM16/PM30
1,2,4-Trichlorobenzene #	<1	<1	<1								<1	ug/l	TM16/PM30
1,3-Dichlorobenzene #	<1	<1	<1								<1	ug/l	TM16/PM30
1,4-Dichlorobenzene #	<1	<1	<1								<1	ug/l	TM16/PM30
2-Nitroaniline	<1	<1	<1								<1	ug/l	TM16/PM30
2,4-Dinitrotoluene #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
2,6-Dinitrotoluene	<1	<1	<1								<1	ug/l	TM16/PM30
3-Nitroaniline	<1	<1	<1								<1	ug/l	TM16/PM30
4-Bromophenylphenylether #	<1	<1	<1								<1	ug/l	TM16/PM30
4-Chloroaniline	<1	<1	<1								<1	ug/l	TM16/PM30
4-Chlorophenylphenylether #	<1	<1	<1								<1	ug/l	TM16/PM30
4-Nitroaniline	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
Azobenzene #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
Bis(2-chloroethoxy)methane #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
Bis(2-chloroethyl)ether #	<1	<1	<1								<1	ug/l	TM16/PM30
Carbazole #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
Dibenzofuran #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
Hexachlorobenzene #	<1	<1	<1								<1	ug/l	TM16/PM30
Hexachlorobutadiene #	<1	<1	<1								<1	ug/l	TM16/PM30
Hexachlorocyclopentadiene	<1	<1	<1								<1	ug/l	TM16/PM30
Hexachloroethane #	<1	<1	<1								<1	ug/l	TM16/PM30
Isophorone #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
N-nitrosodi-n-propylamine #	<0.5	<0.5	<0.5								<0.5	ug/l	TM16/PM30
Nitrobenzene #	<1	<1	<1								<1	ug/l	TM16/PM30
Surrogate Recovery 2-Fluorobiphenyl	124	123	122								<0	%	TM16/PM30
Surrogate Recovery p-Terphenyl-d14	131 SV	131 SV	130								<0	%	TM16/PM30

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-i
Location: Knocknacarra King Construction
Contact: Monika Kabza
EMT Job No: 25/12044

VOC Report : **Liquid**

RECEIVED: 05/08/2026

Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-8	9-16	17-24									
Sample ID	BH08	BH19	BH02									
Depth												
COC No / misc												
Containers	V H HN N P G	V H HN N P G	V H HN N P G									
Sample Date	21/07/2025	21/07/2025	21/07/2025									
Sample Type	Ground Water	Ground Water	Ground Water									
Batch Number	1	1	1									
Date of Receipt	23/07/2025	23/07/2025	23/07/2025									
VOC MS												
Dichlorodifluoromethane	<2	<2	<2								<2	ug/l	TM15/PM10
Methyl Tertiary Butyl Ether #	<0.1	<0.1	<0.1								<0.1	ug/l	TM15/PM10
Chloromethane #	<3	<3	<3								<3	ug/l	TM15/PM10
Vinyl Chloride #	<0.1	<0.1	<0.1								<0.1	ug/l	TM15/PM10
Bromomethane	<1	<1	<1								<1	ug/l	TM15/PM10
Chloroethane #	<3	<3	<3								<3	ug/l	TM15/PM10
Trichlorofluoromethane #	<3	<3	<3								<3	ug/l	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<3	<3	<3								<3	ug/l	TM15/PM10
Dichloromethane (DCM) #	4	5	<3								<3	ug/l	TM15/PM10
trans-1-2-Dichloroethene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,1-Dichloroethane #	<3	<3	<3								<3	ug/l	TM15/PM10
cis-1-2-Dichloroethene #	<3	<3	<3								<3	ug/l	TM15/PM10
2,2-Dichloropropane	<1	<1	<1								<1	ug/l	TM15/PM10
Bromochloromethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Chloroform #	<2	<2	<2								<2	ug/l	TM15/PM10
1,1,1-Trichloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
1,1-Dichloropropene #	<3	<3	<3								<3	ug/l	TM15/PM10
Carbon tetrachloride #	<2	<2	<2								<2	ug/l	TM15/PM10
1,2-Dichloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Benzene #	<0.5	<0.5	<0.5								<0.5	ug/l	TM15/PM10
Trichloroethene (TCE) #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2-Dichloropropane #	<2	<2	<2								<2	ug/l	TM15/PM10
Dibromomethane #	<3	<3	<3								<3	ug/l	TM15/PM10
Bromodichloromethane #	<2	<2	<2								<2	ug/l	TM15/PM10
cis-1-3-Dichloropropene	<2	<2	<2								<2	ug/l	TM15/PM10
Toluene #	<5	<5	<5								<5	ug/l	TM15/PM10
trans-1-3-Dichloropropene	<2	<2	<2								<2	ug/l	TM15/PM10
1,1,2-Trichloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3	<3								<3	ug/l	TM15/PM10
1,3-Dichloropropane #	<2	<2	<2								<2	ug/l	TM15/PM10
Dibromochloromethane	<2	<2	<2								<2	ug/l	TM15/PM10
1,2-Dibromoethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Chlorobenzene #	<2	<2	<2								<2	ug/l	TM15/PM10
1,1,1,2-Tetrachloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Ethylbenzene #	<1	<1	<1								<1	ug/l	TM15/PM10
m/p-Xylene #	<2	<2	<2								<2	ug/l	TM15/PM10
o-Xylene #	<1	<1	<1								<1	ug/l	TM15/PM10
Styrene	<2	<2	<2								<2	ug/l	TM15/PM10
Bromoform	<2	<2	<2								<2	ug/l	TM15/PM10
Isopropylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,1,2,2-Tetrachloroethane	<4	<4	<4								<4	ug/l	TM15/PM10
Bromobenzene #	<2	<2	<2								<2	ug/l	TM15/PM10
1,2,3-Trichloropropane #	<3	<3	<3								<3	ug/l	TM15/PM10
Propylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
2-Chlorotoluene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,3,5-Trimethylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
4-Chlorotoluene #	<3	<3	<3								<3	ug/l	TM15/PM10
tert-Butylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2,4-Trimethylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
sec-Butylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
4-Isopropyltoluene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,3-Dichlorobenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,4-Dichlorobenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
n-Butylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2-Dichlorobenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2-Dibromo-3-chloropropane	<2	<2	<2								<2	ug/l	TM15/PM10
1,2,4-Trichlorobenzene	<3	<3	<3								<3	ug/l	TM15/PM10
Hexachlorobutadiene	<3	<3	<3								<3	ug/l	TM15/PM10
Naphthalene	<2	<2	<2								<2	ug/l	TM15/PM10
1,2,3-Trichlorobenzene	<3	<3	<3								<3	ug/l	TM15/PM10
Surrogate Recovery Toluene D8	85	91	99								<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	102	96	103								<0	%	TM15/PM10

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Element Materials Technology

Notification of Deviating Samples

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Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-i
Location: Knocknacarra King Construction
Contact: Monika Kabza

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 25/12044						

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 deviating if set 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.: 25/12044

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°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 35°C ±5°C.

Where Mineral Oil 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 HCl (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 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.

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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.

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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.

Tentatively Identified Compounds (TICs)

Where Tentatively Identified Compounds (TICs) are reported, up to 10 Tentatively Identified Compounds will be listed where there is found to be a greater than 80% match with the NIST library. The reported concentration is determined semi-quantitively, with a matrix specific limit of detection. Note, other compounds may be present but are not reported.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	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.
CO	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
TB	Trip Blank Sample
OC	Outside Calibration Range

RECEIVED: 05/08/2026

EMT Job No: 25/12044

RECEIVED: 06/08/2026

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	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.				
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.	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/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.	Yes			
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16/PM30	please refer to PM16/PM30 and PM12 for method details	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.				
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			
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.	Yes			
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				

EMT Job No: 25/12044

RECEIVED: 06/08/2026

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
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	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			
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) - All anions comparable to BS ISO 15923-1: 2013l	PM0	No preparation is required.				
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) - All anions comparable to BS ISO 15923-1: 2013l	PM0	No preparation is required.	Yes			
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.	PM0	No preparation is required.	Yes			
TM75	Modified US EPA method 310.1 (1978). Determination of Alkalinity by Metrohm automated titration analyser.	PM0	No preparation is required.	Yes			
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.	Yes			
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.	PM0	No preparation is required.	Yes			
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM0	No preparation is required.				

Element Materials Technology
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RECEIVED: 05/08/2026

McCarthy Keville & O'Sullivan Ltd
2nd Floor
H91VW84
Tuam Road
Galway
Ireland

Attention :	Monika Kabza
Date :	19th August, 2025
Your reference :	240142-1
Our reference :	Test Report 25/10229 Batch 1
Location :	Knocknacarra
Date samples received :	23rd June, 2025
Status :	Final Report
Issue :	202508191012

Three samples were received for analysis on 23rd June, 2025 of which three 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 - 7.602 kg of CO2

Scope 1&2&3 emissions - 17.966 kg of CO2

Authorised By:



Sean Anglish
Project Coordinator

Please include all sections of this report if it is reproduced

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-1
Location: Knocknacarra
Contact: Monika Kabza
EMT Job No: 25/10229

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
$H=H_2SO_4$, Z=ZnAc, N=NaOH, HN=$HN0_3$

RECEIVED: 05/08/2025

Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-9	10-18	19-27								LOD/LOR	Units	Method No.
Sample ID	BH25	BH19	BH01										
Depth													
COC No / misc													
Containers	V H HN N Z P G	V H HN N Z P G	V H HN N Z P G										
Sample Date	17/06/2025 11:20	17/06/2025 12:10	17/06/2025 13:00										
Sample Type	Ground Water	Ground Water	Ground Water										
Batch Number	1	1	1										
Date of Receipt	23/06/2025	23/06/2025	23/06/2025										
Dissolved Antimony #	<2	<2	<2								<2	ug/l	TM30/PM14
Dissolved Arsenic #	4.8	<2.5	4.7								<2.5	ug/l	TM30/PM14
Dissolved Barium #	3	59	18								<3	ug/l	TM30/PM14
Dissolved Boron	186	61	144								<12	ug/l	TM30/PM14
Dissolved Cadmium #	<0.5	<0.5	<0.5								<0.5	ug/l	TM30/PM14
Dissolved Calcium #	52.4	51.4	46.3								<0.2	mg/l	TM30/PM14
Total Dissolved Chromium #	<1.5	<1.5	<1.5								<1.5	ug/l	TM30/PM14
Dissolved Copper #	<7	<7	<7								<7	ug/l	TM30/PM14
Total Dissolved Iron #	97	186	223								<20	ug/l	TM30/PM14
Dissolved Lead #	<5	<5	<5								<5	ug/l	TM30/PM14
Dissolved Magnesium #	17.8	14.4	12.0								<0.1	mg/l	TM30/PM14
Dissolved Manganese #	100	1247	264								<2	ug/l	TM30/PM14
Dissolved Mercury #	<1	<1	<1								<1	ug/l	TM30/PM14
Dissolved Nickel #	4	6	5								<2	ug/l	TM30/PM14
Dissolved Potassium #	11.1	6.6	11.5								<0.1	mg/l	TM30/PM14
Dissolved Selenium #	<3	<3	<3								<3	ug/l	TM30/PM14
Dissolved Sodium #	68.6	59.1	58.3								<0.1	mg/l	TM30/PM14
Dissolved Zinc #	5	12	6								<3	ug/l	TM30/PM14
PAH MS													
Naphthalene #	<0.1	<0.1	<0.1								<0.1	ug/l	TM4/PM30
Acenaphthylene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Acenaphthene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Fluorene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Phenanthrene #	0.020	0.008	0.017								<0.005	ug/l	TM4/PM30
Anthracene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Fluoranthene #	0.012	0.005	0.010								<0.005	ug/l	TM4/PM30
Pyrene #	0.011	0.005	0.007								<0.005	ug/l	TM4/PM30
Benzo(a)anthracene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Chrysene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Benzo(bk)fluoranthene #	<0.008	<0.008	<0.008								<0.008	ug/l	TM4/PM30
Benzo(a)pyrene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Indeno(123cd)pyrene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Dibenzo(ah)anthracene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
Benzo(ghi)perylene #	<0.005	<0.005	<0.005								<0.005	ug/l	TM4/PM30
PAH 16 Total #	<0.173	<0.173	<0.173								<0.173	ug/l	TM4/PM30
Benzo(b)fluoranthene	<0.008	<0.008	<0.008								<0.008	ug/l	TM4/PM30
Benzo(k)fluoranthene	<0.008	<0.008	<0.008								<0.008	ug/l	TM4/PM30
PAH Surrogate % Recovery	87	91	85								<0	%	TM4/PM30
Methyl Tertiary Butyl Ether #	<0.1	<0.1	<0.1								<0.1	ug/l	TM15/PM10
Benzene #	<0.5	<0.5	<0.5								<0.5	ug/l	TM15/PM10
Toluene #	<5	<5	<5								<5	ug/l	TM15/PM10
Ethylbenzene #	<1	<1	<1								<1	ug/l	TM15/PM10

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-1
Location: Knocknacarra
Contact: Monika Kabza
EMT Job No: 25/10229

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
H=H_2SO_4, Z=ZnAc, N=NaOH, HN=$HN0_3$

RECEIVED: 05/08/2025

Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-9	10-18	19-27								LOD/LOR	Units	Method No.
Sample ID	BH25	BH19	BH01										
Depth													
COC No / misc													
Containers	V H HN N Z P G	V H HN N Z P G	V H HN N Z P G										
Sample Date	17/06/2025 11:20	17/06/2025 12:10	17/06/2025 13:00										
Sample Type	Ground Water	Ground Water	Ground Water										
Batch Number	1	1	1										
Date of Receipt	23/06/2025	23/06/2025	23/06/2025										
m/p-Xylene #	<2	<2	<2								<2	ug/l	TM15/PM10
o-Xylene #	<1	<1	<1								<1	ug/l	TM15/PM10
Surrogate Recovery Toluene D8	97	103	101								<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	100	101	99								<0	%	TM15/PM10
TPH CWG													
Aliphatics													
>C5-C6 #	<10	<10	<10								<10	ug/l	TM36/PM12
>C6-C8 #	<10	<10	<10								<10	ug/l	TM36/PM12
>C8-C10 #	<10	<10	<10								<10	ug/l	TM36/PM12
>C10-C12 #	75	42	57								<5	ug/l	TM5/PM16/PM30
>C12-C16 #	2350	2220	1780								<10	ug/l	TM5/PM16/PM30
>C16-C21 #	30	30	30								<10	ug/l	TM5/PM16/PM30
>C21-C35 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
Total aliphatics C5-35 #	2455	2292	1867								<10	ug/l	TM5/TM36/PM12/PM16/PM30
Aromatics													
>C5-EC7 #	<10	<10	<10								<10	ug/l	TM36/PM12
>EC7-EC8 #	<10	<10	<10								<10	ug/l	TM36/PM12
>EC8-EC10 #	<10	<10	<10								<10	ug/l	TM36/PM12
>EC10-EC12 #	<5	<5	<5								<5	ug/l	TM5/PM16/PM30
>EC12-EC16 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>EC16-EC21 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>EC21-EC35 #	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
Total aromatics C5-35 #	<10	<10	<10								<10	ug/l	TM5/TM36/PM12/PM16/PM30
Total aliphatics and aromatics(C5-35) #	2455	2292	1867								<10	ug/l	TM5/TM36/PM12/PM16/PM30
Sulphate as SO4 #	53.6	34.1	43.2								<0.5	mg/l	TM38/PM0
Chloride #	125.0	109.8	108.2								<0.3	mg/l	TM38/PM0
Ortho Phosphate as P #	<0.03	<0.03	<0.03								<0.03	mg/l	TM38/PM0
Total Oxidised Nitrogen as N #	1.3	<0.2	<0.2								<0.2	mg/l	TM38/PM0
Free Cyanide #	<0.01	<0.01	<0.01								<0.01	mg/l	TM89/PM0
Total Cyanide #	<0.01	<0.01	<0.01								<0.01	mg/l	TM89/PM0
Ammoniacal Nitrogen as N #	1.06	1.27	3.23								<0.03	mg/l	TM38/PM0
Hexavalent Chromium	<0.006	<0.006	<0.006								<0.006	mg/l	TM38/PM0
Total Alkalinity as CaCO3 #	214	156	212								<1	mg/l	TM75/PM0
Sulphide	<0.01	<0.01	<0.01								<0.01	mg/l	TM107/PM0
Thiocyanate	<0.02	<0.02	<0.02								<0.02	mg/l	TM107/PM0
Electrical Conductivity @25C #	961	755	876								<2	uS/cm	TM76/PM0
pH #	7.81	7.77	7.77								<0.01	pH units	TM73/PM0

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-1
Location: Knocknacarra
Contact: Monika Kabza
EMT Job No: 25/10229

SVOC Report : **Liquid**

RECEIVED: 05/08/2026

Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-9	10-18	19-27									
Sample ID	BH25	BH19	BH01									
Depth												
COC No / misc												
Containers	V H HN N Z P G	V H HN N Z P G	V H HN N Z P G									
Sample Date	17/06/2025 11:20	17/06/2025 12:10	17/06/2025 13:00									
Sample Type	Ground Water	Ground Water	Ground Water									
Batch Number	1	1	1									
Date of Receipt	23/06/2025	23/06/2025	23/06/2025									
SVOC MS												
Phenols												
2-Chlorophenol #	<1	<1	<1									
2-Methylphenol #	<0.5	<0.5	<0.5									
2-Nitrophenol	<0.5	<0.5	<0.5									
2,4-Dichlorophenol #	<0.5	<0.5	<0.5									
2,4-Dimethylphenol	<1	<1	<1									
2,4,5-Trichlorophenol #	<0.5	<0.5	<0.5									
2,4,6-Trichlorophenol	<1	<1	<1									
4-Chloro-3-methylphenol #	<0.5	<0.5	<0.5									
4-Methylphenol	<1	<1	<1									
4-Nitrophenol	<10	<10	<10									
Pentachlorophenol	<1	<1	<1									
Phenol	<1	<1	<1									
PAHs												
2-Chloronaphthalene #	<1	<1	<1									
2-Methylnaphthalene #	<1	<1	<1									
Phthalates												
Bis(2-ethylhexyl) phthalate	<5	<5	<5									
Butylbenzyl phthalate	<1	<1	<1									
Di-n-butyl phthalate #	<1.5	<1.5	<1.5									
Di-n-Octyl phthalate	<1	<1	<1									
Diethyl phthalate #	<1	<1	<1									
Dimethyl phthalate	<1	<1	<1									
Other SVOCs												
1,2-Dichlorobenzene #	<1	<1	<1									
1,2,4-Trichlorobenzene #	<1	<1	<1									
1,3-Dichlorobenzene #	<1	<1	<1									
1,4-Dichlorobenzene #	<1	<1	<1									
2-Nitroaniline	<1	<1	<1									
2,4-Dinitrotoluene #	<0.5	<0.5	<0.5									
2,6-Dinitrotoluene	<1	<1	<1									
3-Nitroaniline	<1	<1	<1									
4-Bromophenylphenylether #	<1	<1	<1									
4-Chloroaniline	<1	<1	<1									
4-Chlorophenylphenylether #	<1	<1	<1									
4-Nitroaniline	<0.5	<0.5	<0.5									
Azobenzene #	<0.5	<0.5	<0.5									
Bis(2-chloroethoxy)methane #	<0.5	<0.5	<0.5									
Bis(2-chloroethyl)ether #	<1	<1	<1									
Carbazole #	<0.5	<0.5	<0.5									
Dibenzofuran #	<0.5	<0.5	<0.5									
Hexachlorobenzene #	<1	<1	<1									
Hexachlorobutadiene #	<1	<1	<1									
Hexachlorocyclopentadiene	<1	<1	<1									
Hexachloroethane #	<1	<1	<1									
Isophorone #	<0.5	<0.5	<0.5									
N-nitrosodi-n-propylamine #	<0.5	<0.5	<0.5									
Nitrobenzene #	<1	<1	<1									
Surrogate Recovery 2-Fluorobiphenyl	100	96	111									
Surrogate Recovery p-Terphenyl-d14	111	99	114									

LOD/LOR	Units	Method No.
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<10	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<0.5	ug/l	TM16/PM30
<1	ug/l	TM16/PM30
<0	%	TM16/PM30
<0	%	TM16/PM30

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-1
Location: Knocknacarra
Contact: Monika Kabza
EMT Job No: 25/10229

VOC Report : **Liquid**

RECEIVED: 08/08/2025

Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-9	10-18	19-27									
Sample ID	BH25	BH19	BH01									
Depth												
COC No / misc												
Containers	V H HN N Z P G	V H HN N Z P G	V H HN N Z P G									
Sample Date	17/06/2025 11:20	17/06/2025 12:10	17/06/2025 13:00									
Sample Type	Ground Water	Ground Water	Ground Water									
Batch Number	1	1	1									
Date of Receipt	23/06/2025	23/06/2025	23/06/2025									
VOC MS												
Dichlorodifluoromethane	<2	<2	<2								<2	ug/l	TM15/PM10
Methyl Tertiary Butyl Ether #	<0.1	<0.1	<0.1								<0.1	ug/l	TM15/PM10
Chloromethane #	<3	<3	<3								<3	ug/l	TM15/PM10
Vinyl Chloride #	<0.1	<0.1	<0.1								<0.1	ug/l	TM15/PM10
Bromomethane	<1	<1	<1								<1	ug/l	TM15/PM10
Chloroethane #	<3	<3	<3								<3	ug/l	TM15/PM10
Trichlorofluoromethane #	<3	<3	<3								<3	ug/l	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<3	<3	<3								<3	ug/l	TM15/PM10
Dichloromethane (DCM) #	<3	<3	<3								<3	ug/l	TM15/PM10
trans-1-2-Dichloroethene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,1-Dichloroethane #	<3	<3	<3								<3	ug/l	TM15/PM10
cis-1-2-Dichloroethene #	<3	<3	<3								<3	ug/l	TM15/PM10
2,2-Dichloropropane	<1	<1	<1								<1	ug/l	TM15/PM10
Bromochloromethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Chloroform #	<2	<2	3								<2	ug/l	TM15/PM10
1,1,1-Trichloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
1,1-Dichloropropene #	<3	<3	<3								<3	ug/l	TM15/PM10
Carbon tetrachloride #	<2	<2	<2								<2	ug/l	TM15/PM10
1,2-Dichloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Benzene #	<0.5	<0.5	<0.5								<0.5	ug/l	TM15/PM10
Trichloroethene (TCE) #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2-Dichloropropane #	<2	<2	<2								<2	ug/l	TM15/PM10
Dibromomethane #	<3	<3	<3								<3	ug/l	TM15/PM10
Bromodichloromethane #	<2	<2	<2								<2	ug/l	TM15/PM10
cis-1-3-Dichloropropene	<2	<2	<2								<2	ug/l	TM15/PM10
Toluene #	<5	<5	<5								<5	ug/l	TM15/PM10
trans-1-3-Dichloropropene	<2	<2	<2								<2	ug/l	TM15/PM10
1,1,2-Trichloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3	<3								<3	ug/l	TM15/PM10
1,3-Dichloropropane #	<2	<2	<2								<2	ug/l	TM15/PM10
Dibromochloromethane	<2	<2	<2								<2	ug/l	TM15/PM10
1,2-Dibromoethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Chlorobenzene #	<2	<2	<2								<2	ug/l	TM15/PM10
1,1,1,2-Tetrachloroethane #	<2	<2	<2								<2	ug/l	TM15/PM10
Ethylbenzene #	<1	<1	<1								<1	ug/l	TM15/PM10
m/p-Xylene #	<2	<2	<2								<2	ug/l	TM15/PM10
o-Xylene #	<1	<1	<1								<1	ug/l	TM15/PM10
Styrene	<2	<2	<2								<2	ug/l	TM15/PM10
Bromoform	<2	<2	<2								<2	ug/l	TM15/PM10
Isopropylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,1,2,2-Tetrachloroethane	<4	<4	<4								<4	ug/l	TM15/PM10
Bromobenzene #	<2	<2	<2								<2	ug/l	TM15/PM10
1,2,3-Trichloropropane #	<3	<3	<3								<3	ug/l	TM15/PM10
Propylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
2-Chlorotoluene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,3,5-Trimethylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
4-Chlorotoluene #	<3	<3	<3								<3	ug/l	TM15/PM10
tert-Butylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2,4-Trimethylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
sec-Butylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
4-Isopropyltoluene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,3-Dichlorobenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,4-Dichlorobenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
n-Butylbenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2-Dichlorobenzene #	<3	<3	<3								<3	ug/l	TM15/PM10
1,2-Dibromo-3-chloropropane	<2	<2	<2								<2	ug/l	TM15/PM10
1,2,4-Trichlorobenzene	<3	<3	<3								<3	ug/l	TM15/PM10
Hexachlorobutadiene	<3	<3	<3								<3	ug/l	TM15/PM10
Naphthalene	<2	<2	<2								<2	ug/l	TM15/PM10
1,2,3-Trichlorobenzene	<3	<3	<3								<3	ug/l	TM15/PM10
Surrogate Recovery Toluene D8	97	103	101								<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	100	101	99								<0	%	TM15/PM10

Element Materials Technology

Notification of Deviating Samples

RECEIVED: 05/08/2026

Client Name: McCarthy Keville & O'Sullivan Ltd
Reference: 240142-1
Location: Knocknacarra
Contact: Monika Kabza

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 25/10229						

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 deviating if set 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.: 25/10229

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°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 35°C ±5°C.

Where Mineral Oil 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 HCl (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 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.

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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.

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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.

Tentatively Identified Compounds (TICs)

Where Tentatively Identified Compounds (TICs) are reported, up to 10 Tentatively Identified Compounds will be listed where there is found to be a greater than 80% match with the NIST library. The reported concentration is determined semi-quantitively, with a matrix specific limit of detection. Note, other compounds may be present but are not reported.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	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.
CO	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
TB	Trip Blank Sample
OC	Outside Calibration Range

RECEIVED: 05/08/2026

EMT Job No: 25/10229

RECEIVED: 06/08/2026

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	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.				
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.	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/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.	Yes			
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16/PM30	please refer to PM16/PM30 and PM12 for method details	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.				
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			
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
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				
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	Yes			

RECEIVED: 06/08/2026

EMT Job No: 25/10229

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
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			
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) - All anions comparable to BS ISO 15923-1: 2013I	PM0	No preparation is required.				
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) - All anions comparable to BS ISO 15923-1: 2013I	PM0	No preparation is required.	Yes			
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.	PM0	No preparation is required.	Yes			
TM75	Modified US EPA method 310.1 (1978). Determination of Alkalinity by Metrohm automated titration analyser.	PM0	No preparation is required.	Yes			
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.	Yes			
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.	PM0	No preparation is required.	Yes			
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM0	No preparation is required.				

Notes:					
nt	not tested	<XX	Below LOD	XX	> screen value
nc	no criteria	XX	Detection		

										Round	Groundwater Round 1			Groundwater Round 2					
										Sample ID	BH25	BH19	BH01	BH01	BH26	BH25	BH08	BH19	BH02
										Sample Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
										Sampled Date	17/06/2025	17/06/2025	17/06/2025	21/07/2025	21/07/2025	21/07/2025	21/07/2025	21/07/2025	21/07/2025
Test	**Method**	**Units**	**LOD**	**GTV / IGV**	**No. of GTV / IGV Exceedances**	**Minimum (result above detection limit)**	**Mean**	**Maximum**	**No. of Samples**		x	x	x	x	x	x	x	x	x
Physicochemical																			
Apparent Colour	TM35/PM0	mg/l PtCo	<15	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
BOD (Settled)	TM58/PM0	mg/l	<1	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
COD (Settled)	TM57/PM0	mg/l	<7	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Dissolved Oxygen	TM58/PM0	mg/l	<1	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Total Organic Carbon	TM60/PM0	mg/l	<2	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Total Suspended Solids	TM37/PM0	mg/l	<10	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Turbidity	TM34/PM0	NTU	<0.1	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
pH	TM73/PM0	pH units	<0.01	≥ 6.5 and ≤ 9.5	0	6.5	7.2	7.81	9		**7.81**	**7.77**	**7.77**	**7.17**	**7.04**	**7.04**	**7.03**	**6.8**	**6.5**
Electrical Conductivity @25C	TM76/PM0	µS/cm	<2	1875	0	405	715	961	9		**961**	**755**	**876**	**669**	**949**	**670**	**444**	**705**	**405**
Total Alkalinity as CaCO3	TM75/PM0	mg/l	<1	nc	0	86	196	292	9		**214**	**156**	**212**	**230**	**292**	**238**	**86**	**226**	**108**
Nutrients																			
Ortho Phosphate as P	TM38/PM0	mg/l	<0.03	0.035	0	0.03	0.03	0.03	9		<0.03	<0.03	<0.03	<0.03	**0.03**	<0.03	<0.03	<0.03	<0.03
Ammoniacal Nitrogen as N	TM38/PM0	mg/l	<0.03	0.065	6	0.03	1.0	3.23	9		1.06	1.27	3.23	1.41	**0.06**	0.19	<0.03	1.09	**0.03**
Total Oxidised Nitrogen as N	TM38/PM0	mg/l	<0.2	nc	0	1.3	3.3	5.6	9		**1.3**	<0.2	<0.2	<0.2	**5**	**3**	**5.6**	<0.2	**1.7**
Nitrate as N	TM38/PM0	mg/l	<0.05	37.5	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Nitrite as N	TM38/PM0	mg/l	<0.006	0.375	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Ions, Anions and Inorganics																			
Fluoride	TM173/PM0	mg/l	<0.3	1	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Chloride	TM38/PM0	mg/l	<0.3	187.5	0	46.3	81	125	9		**125**	**109.8**	**108.2**	**59.8**	**95.3**	**48.5**	**55.8**	**79.5**	**46.3**
Free Cyanide	TM89/PM0	mg/l	<0.01	0.0375	0	0	-	0	9		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Cyanide	TM89/PM0	mg/l	<0.01	0.0375	0	0.02	0.02	0.02	9		<0.01	<0.01	<0.01	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01
Sulphate as SO4	TM38/PM0	mg/l	<0.5	187.5	0	14.9	31	53.6	9		**53.6**	**34.1**	**43.2**	**21.4**	**48.1**	**20**	**14.9**	**21.8**	**19.9**
Sulphide	TM107/PM0	mg/l	<0.01	187.5	0	0	-	0	9		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thiocyanate	TM107/PM0	mg/l	<0.02	nc	0	0	-	0	9		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Metals																			
Dissolved Aluminium	TM30/PM14	µg/l	<1.5	150	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Dissolved Antimony	TM30/PM14	µg/l	<2	nc	0	0	-	0	9		<2	<2	<2	<2	<2	<2	<2	<2	<2
Dissolved Arsenic	TM30/PM14	µg/l	<2.5	7.5	0	3.1	4.2	4.8	9		**4.8**	<2.5	**4.7**	**3.1**	<2.5	<2.5	<2.5	<2.5	<2.5
Dissolved Barium	TM30/PM14	µg/l	<3	100	0	3	23	91	9		**3**	**59**	**18**	**6**	**4**	**14**	**8**	**91**	**3**
Dissolved Beryllium	TM30/PM14	µg/l	<0.5	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Dissolved Boron	TM30/PM14	µg/l	<12	750	0	22	86	186	9		**186**	**61**	**144**	**81**	**152**	**37**	**22**	**44**	**45**
Dissolved Cadmium	TM30/PM14	µg/l	<0.5	3.75	1	20.3	20	20.3	9		<0.5	<0.5	<0.5	<0.5	<0.5	20.3	<0.5	<0.5	<0.5
Dissolved Calcium	TM30/PM14	mg/l	<0.2	200	0	44.1	64	134.2	9		**52.4**	**51.4**	**46.3**	**69.1**	**134.2**	**84.8**	**49.2**	**45**	**44.1**
Dissolved Cobalt	TM30/PM14	µg/l	<0.1	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Total Dissolved Chromium	TM30/PM14	µg/l	<1.5	37.5	0	0	-	0	9		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Hexavalent Chromium	TM38/PM0	mg/l	<0.006	7.5	0	0	-	0	9		<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Dissolved Copper	TM30/PM14	µg/l	<7	1500	0	0	-	0	9		<7	<7	<7	<7	<7	<7	<7	<7	<7
Total Dissolved Iron	TM30/PM14	µg/l	<20	200	3	22	356	1579	9		**97**	**186**	223	352	<20	<20	**36**	1579	**22**
Dissolved Lead	TM30/PM14	µg/l	<5	7.5	0	6	6.0	6	9		<5	<5	<5	<5	<5	**6**	<5	<5	<5
Dissolved Magnesium	TM30/PM14	mg/l	<0.1	50	0	3.8	10	17.8	9		**17.8**	**14.4**	**12**	**7.6**	**15**	**5**	**3.8**	**11.8**	**4.8**
Dissolved Manganese	TM30/PM14	µg/l	<2	50	6	7	881	3715	9		100	1247	264	517	**38**	1997	**7**	3715	**44**
Dissolved Mercury	TM30/PM14	µg/l	<1	0.75	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Molybdenum	TM30/PM14	µg/l	<0.2	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Dissolved Nickel	TM30/PM14	µg/l	<2	15	0	2	4.5	6	9		**4**	**6**	**5**	**2**	<2	**4**	<2	**6**	<2
Dissolved Phosphorus	TM30/PM14	µg/l	<0.7	0.035	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Dissolved Potassium	TM30/PM14	mg/l	<0.1	5	5	1.4	6.0	11.5	9		11.1	6.6	11.5	7.9	**4.9**	**2.5**	**1.4**	5.5	**2.3**
Dissolved Selenium	TM30/PM14	µg/l	<3	nc	0	0	-	0	9		<3	<3	<3	<3	<3	<3	<3	<3	<3
Dissolved Sodium	TM30/PM14	mg/l	<0.1	150	0	18.6	47	76	9		**68.6**	**59.1**	**58.3**	**52.2**	**42.1**	**22.6**	**18.6**	**76**	**21.2**
Dissolved Thallium	TM30/PM14	µg/l	<0.9	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Dissolved Vanadium	TM30/PM14	µg/l	<0.6	nc	0	0	-	0	0		nt	nt	nt	nt	nt	nt	nt	nt	nt
Dissolved Zinc	TM30/PM14	µg/l	<3	75	0	5	12	53	9		**5**	**12**	**6**	**7**	**5**	**53**	**5**	**12**	**6**
PAHs																			
Naphthalene	TM4/PM30	µg/l	<0.1	1	0	0	-	0	9		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	TM4/PM30	µg/l	<0.005	nc	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Acenaphthene	TM4/PM30	µg/l	<0.005	nc	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Fluorene	TM4/PM30	µg/l	<0.005	nc	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Phenanthrene	TM4/PM30	µg/l	<0.005	nc	0	0.005	0.01	0.02	9		**0.02**	**0.008**	**0.017**	**0.006**	**0.005**	**0.006**	<0.005	<0.005	<0.005
Anthracene	TM4/PM30	µg/l	<0.005	10000	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Fluoranthene	TM4/PM30	µg/l	<0.005	nc	0	0.005	0.008	0.012	9		**0.012**	**0.005**	**0.01**	<0.005	**0.005**	<0.005	<0.005	<0.005	<0.005
Pyrene	TM4/PM30	µg/l	<0.005	nc	0	0.005	0.007	0.011	9		**0.011**	**0.005**	**0.007**	<0.005	**0.005**	<0.005	<0.005	<0.005	**0.005**
Benzo(a)anthracene	TM4/PM30	µg/l	<0.005	nc	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chrysene	TM4/PM30	µg/l	<0.005	nc	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Benzo(bk)fluoranthene	TM4/PM30	µg/l	<0.008	0.5	0	0	-	0	9		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Benzo(b)fluoranthene	TM4/PM30	µg/l	<0.008	0.5	0	0	-	0	9		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Benzo(k)fluoranthene	TM4/PM30	µg/l	<0.008	0.05	0	0	-	0	9		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Benzo(a)pyrene	TM4/PM30	µg/l	<0.005	0.0075	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Indeno(123cd)pyrene	TM4/PM30	µg/l	<0.005	0.05	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Dibenzo(ah)anthracene	TM4/PM30	µg/l	<0.005	nc	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Benzo(ghi)perylene	TM4/PM30	µg/l	<0.005	0.05	0	0	-	0	9		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
PAH 16 Total	TM4/PM30	µg/l	<0.173	0.075	0	0	-	0	9		<0.173	<0.173	<0.173	<0.173	<0.173	<0.173	<0.173	<0.173	<0.173

RECEIVED: 05/08/2026

Notes:				
nt	not tested	<XX	Below LOD	XX	> screen value
nc	no criteria	XX	Detection	

										Groundwater Round 1			Groundwater Round 2					
Round										Groundwater Round 1			Groundwater Round 2					
Sample ID										BH25	BH19	BH01	BH01	BH26	BH25	BH08	BH19	BH02
Sample Type										Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sampled Date										17/06/2025	17/06/2025	17/06/2025	21/07/2025	21/07/2025	21/07/2025	21/07/2025	21/07/2025	21/07/2025
Test	Method	Units	LOD	GTV / IGV	No. of GTV / IGV Exceedances	Minimum (result above detection limit)	Mean	Maximum	No. of Samples	x	x	x	x	x	x	x	x	x
VOCs																		
Benzene	TM15/PM10	µg/l	<0.5	0.75	0	0	-	0	9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bromochloromethane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bromodichloromethane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bromoform	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bromomethane	TM15/PM10	µg/l	<1	nc	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
sec-Butylbenzene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
tert-Butylbenzene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
Carbon tetrachloride	TM15/PM10	µg/l	<2	2	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Chlorobenzene	TM15/PM10	µg/l	<2	1	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Chloroethane	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
Chloroform	TM15/PM10	µg/l	<2	12	0	3	3.0	3	9	<2	<2	**3**	<2	<2	<2	<2	<2	<2
Chloromethane	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
2-Chlorotoluene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
4-Chlorotoluene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,2-Dichlorobenzene	TM16/PM30	µg/l	<1	nc	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	TM16/PM30	µg/l	<1	nc	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	TM16/PM30	µg/l	<1	nc	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromo-3-chloropropane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Dibromomethane	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,2-Dibromoethane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Dichlorodifluoromethane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethane	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,2-Dichloroethane	TM15/PM10	µg/l	<2	2.25	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-Dichloroethene (1,1 DCE)	TM15/PM10	µg/l	<3	30	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
cis-1-2-Dichloroethene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
trans-1-2-Dichloroethene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
Dichloromethane (DCM)	TM15/PM10	µg/l	<3	15	0	4	4.5	5	9	<3	<3	<3	<3	<3	<3	**4**	**5**	<3
1,2-Dichloropropane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,3-Dichloropropane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
2,2-Dichloropropane	TM15/PM10	µg/l	<1	nc	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
cis-1-3-Dichloropropene	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
trans-1-3-Dichloropropene	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	TM15/PM10	µg/l	<1	10	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
4-Isopropyltoluene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
Propylbenzene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
Styrene	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,1,2-Tetrachloroethane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	TM15/PM10	µg/l	<4	nc	0	0	-	0	9	<4	<4	<4	<4	<4	<4	<4	<4	<4
Tetrachloroethene (PCE)	TM15/PM10	µg/l	<3	7.5	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
Toluene	TM15/PM10	µg/l	<5	525	0	0	-	0	9	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichlorobenzene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,2,4-Trichlorobenzene	TM16/PM30	µg/l	<1	0.4	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	TM15/PM10	µg/l	<2	500	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2-Trichloroethane	TM15/PM10	µg/l	<2	nc	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
Trichloroethene (TCE)	TM15/PM10	µg/l	<3	7.5	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
Trichlorofluoromethane	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,2,3-Trichloropropane	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,2,4-Trimethylbenzene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
1,3,5-Trimethylbenzene	TM15/PM10	µg/l	<3	nc	0	0	-	0	9	<3	<3	<3	<3	<3	<3	<3	<3	<3
Vinyl Chloride	TM15/PM10	µg/l	<0.1	0.375	0	0	-	0	9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-Xylene	TM15/PM10	µg/l	<2	10	0	0	-	0	9	<2	<2	<2	<2	<2	<2	<2	<2	<2
o-Xylene	TM15/PM10	µg/l	<1	10	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl Tertiary Butyl Ether	TM15/PM10	µg/l	<0.1	10	0	0	-	0	9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobenzene	TM16/PM30	µg/l	<1	0.1	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	TM16/PM30	µg/l	<1	0.1	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorocyclopentadiene	TM16/PM30	µg/l	<1	0.1	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenols																		
4-Chloro-3-methylphenol	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	TM16/PM30	µg/l	<1	200	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Methylphenol	TM16/PM30	µg/l	<0.5	0.5	0	0	-	0	9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	TM16/PM30	µg/l	<1	nc	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Methylphenol	TM16/PM30	µg/l	<1	nc	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Nitrophenol	TM16/PM30	µg/l	<10	nc	0	0	-	0	9	<10	<10	<10	<10	<10	<10	<10	<10	<10
Pentachlorophenol	TM16/PM30	µg/l	<1	2	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenol	TM16/PM30	µg/l	<1	nc	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenol	TM26/PM0	mg/l	<0.01	nc	0	0	-	0	6	nt	nt	nt	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4,6-Trichlorophenol	TM16/PM30	µg/l	<1	200	0	0	-	0	9	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

RECEIVED: 05/08/2026

Notes:					
nt	not tested	<XX	Below LOD	XX	> screen value
nc	no criteria	**XX**	Detection		

RECEIVED: 05/08/2026

Test	Method	Units	LOD	GTV / IGV	No. of GTV / IGV Exceedances	Minimum (result above detection limit)	Mean	Maximum	No. of Samples	Round	Groundwater Round 1			Groundwater Round 2					
										Sample ID	BH25	BH19	BH01	BH01	BH26	BH25	BH08	BH19	BH02
										Sample Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
										Sampled Date	17/06/2025	17/06/2025	17/06/2025	21/07/2025	21/07/2025	21/07/2025	21/07/2025	21/07/2025	21/07/2025
											x	x	x	x	x	x	x	x	x
Other SVOCs																			
2-Chloronaphthalene	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitroaniline	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4-Dinitrotoluene	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dinitrotoluene	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
3-Nitroaniline	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Bromophenylphenylether	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chloroaniline	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Nitroaniline	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Azobenzene	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Butylbenzyl phthalate	TM16/PM30	µg/l	<1	5	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
Bis(2-chloroethoxy)methane	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bis(2-chloroethyl)ether	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
Bis(2-ethylhexyl) phthalate	TM16/PM30	µg/l	<5	6	0	0	-	0	9		<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbazole	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenzofuran	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diethyl phthalate	TM16/PM30	µg/l	<1	5	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
Dimethyl phthalate	TM16/PM30	µg/l	<1	5	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
Di-n-butyl phthalate	TM16/PM30	µg/l	<1.5	5	0	0	-	0	9		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Di-n-Octyl phthalate	TM16/PM30	µg/l	<1	5	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachloroethane	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
Isophorone	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrobenzene	TM16/PM30	µg/l	<1	10	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
N-nitrosodi-n-propylamine	TM16/PM30	µg/l	<0.5	nc	0	0	-	0	9		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylnaphthalene	TM16/PM30	µg/l	<1	nc	0	0	-	0	9		<1	<1	<1	<1	<1	<1	<1	<1	<1
TPH CWG																			
>C5-C6	TM36/PM12	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
>C6-C8	TM36/PM12	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
>C8-C10	TM36/PM12	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
>C10-C12	TM5/PM16/PM30	µg/l	<5	10	3	42	58	75	9		75	42	57	<5	<5	<5	<5	<5	<5
>C12-C16	TM5/PM16/PM30	µg/l	<10	10	4	80	1,608	2350	9		2350	2220	1780	80	<10	<10	<10	<10	<10
>C16-C21	TM5/PM16/PM30	µg/l	<10	10	3	30	30	30	9		30	30	30	<10	<10	<10	<10	<10	<10
>C21-C35	TM5/PM16/PM30	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
Total aliphatics C5-35	TM36/PM12/PM16/I	µg/l	<10	10	4	80	1,674	2455	9		2455	2292	1867	80	<10	<10	<10	<10	<10
>C5-EC7	TM36/PM12	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
>EC7-EC8	TM36/PM12	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
>EC8-EC10	TM36/PM12	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
>EC10-EC12	TM5/PM16/PM30	µg/l	<5	10	0	0	-	0	9		<5	<5	<5	<5	<5	<5	<5	<5	<5
>EC12-EC16	TM5/PM16/PM30	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
>EC16-EC21	TM5/PM16/PM30	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
>EC21-EC35	TM5/PM16/PM30	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
Total aromatics C5-35	TM36/PM12/PM16/I	µg/l	<10	10	0	0	-	0	9		<10	<10	<10	<10	<10	<10	<10	<10	<10
Total aliphatics and aromatics(C5-35)	TM36/PM12/PM16/I	µg/l	<10	7.5	4	80	1,674	2455	9		2455	2292	1867	80	<10	<10	<10	<10	<10