RB Geotechnical

7 Carr Manor View, Leeds, LS17 5AG

Telephone: 07909331251

Email:rbgeotechnical@gmail.com

Land Adjacent to 212 Commonside (Plot 1)

Validation Report for Contaminated Land Soil Remediation

August 2026

Document Control

Project:	Land Adjacent to 212 Commonside (Plot 1) Validation Report for Contaminated Land Remediation
Client:	HWF Ltd
Job Number:	RBG532

Prepared and Issued by Ross Blake BSc MSc FGS, Engineer. Signed :

Issue	Date	Status
001	August 2026	Final

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Disclaimer

This report was produced by RB Geotechnical for HWF Ltd (The client), for the specific purposes of verifying the remediation works at Plot 1 of the proposed new residential development at the Land Adjacent to 212 Commonside in Batley, West Yorkshire. This report may not be used by anyone else other than the client without their express permission. In any event, RB Geotechnical accepts no liability for any costs, liabilities or losses arising from the use of reliance upon the contents of this report by anyone other than the client.

1.0 Introduction

RB Geotechnical has been commissioned by HWF Ltd (The client) to prepare this Validation Report for the proposed residential development at Land Adjacent to 212 Commonside in Batley, West Yorkshire.

The site has been the subject of an Intrusive Investigation, Phase I Desk Study and Remediation Strategy, sources referenced below:

- Patrick Parsons Consulting Engineers, Former Thornhill Motors Ground Investigation, June 2013;
- RB Geotechnical, Phase I Desk Study Report, Land Adjacent to 212 Commonside, RBG457, April 2025; and
- RB Geotechnical, Land Adjacent to 212 Commonside, Remediation Strategy, RBG462, April 2025;

The Remediation Strategy Report (RBG462) and its appendices should be read in conjunction with this report.

2.0 Report Objectives

The purpose of this Validation Report is to validate the successful implementation of site remediation to ensure a safe and regulatory compliant redevelopment of the site.

3.0 Proposed Development

The proposed development at this stage is to comprise the construction of a new detached house with detached garage in the North of the site.

4.0 Site Specific Risk Assessment

Table 4.1 sets out the site-specific risk pathways identified that could potentially be present following the redevelopment of the site. It was established that due to historical construction and demolition on the site, there was risk of contaminated soils being present, which could affect the proposed new development.

A Phase II Intrusive Investigation was previously carried out in 2013, comprising a number of machine excavated trial pits to allow for shallow soil samples to be collected from across the site for soil contamination testing.

Ground conditions were found to comprise Made Ground to depths of 0.40m to 0.90m, containing ash, sandstone and mixed gravelly clays, with the natural stratum encountered beneath this, extending to the base of the trail pits at depths from 1.0m to 1.50m as a stiff slightly gravelly CLAY. Intact Mudstone was encountered at depths from around 1.80mbgl.

The following ground model was established:

- Groundwater was not encountered in any exploratory holes undertaken;
- A total of five soil samples were collected and tested for a range of soil contaminants. Elevated levels of PAH’s were encountered within the shallow Made Ground tested.

Table 4.1 Identified Site Specific Risks

Source	Receptor	Pathway	Comment
Elevated levels of PAH's	End Users	Ingestion of contaminated soil or dust, through skin contact or inhalation in proposed new soft landscaped areas.	Excavation of soils in proposed soft landscaped areas to maximum depth of 600mm and replacement with minimum 300mm of clean imported sub-soil and 300mm of clean imported Topsoil.
	Construction Workers	Ingestion of contaminated soil or dust, through skin contact or inhalation.	Skin contact will be minimised through the use of PPE and suitable washing facilities. The presence of all elevated contaminants will be noted on the construction file.

5.0 Remediation Strategy

Based on the above risk assessment, the following remedial objectives were established for this site:

- Break any potential human exposure pathways to contaminated soils;
- To protect all construction and ground workers who will be exposed to the soil and thus be potentially exposed to the contaminants within it; and

- To satisfy the requirements of the regulatory authorities (i.e., the Local Planning Authority, Environment Agency and National House Builders Council).

The following remedial measures had been devised for the site:

- In the proposed soft landscaped areas of the site, the excavation of the top 600mm of current soils is required to ensure a sufficient thickness has been removed and replacement with clean imported sub-soil (300mm thickness) and a clean imported topsoil (300mm thickness);

The excavation of the shallow soils across the proposed soft landscaped areas would prevent direct contact between potentially contaminated soils and humans. This will be followed by importation and placement of a clean topsoil. This material should be free of foreign debris, building materials and timber.

All site workers will be made aware of the potential for contamination in the soils and a programme of works will be identified to protect workers handling any soil. The method of site working will be in accordance with all necessary guidelines set out by HSE and CIRIA. Washing facilities will be provided and site workers will be encouraged to wash prior to eating and use appropriate PPE when on site to minimise any skin contact with the soil.

6.0 Verification of Remedial Measures

6.1.1 Excavation of Contaminated Soils

A total of 600mm of soil was excavated from across the proposed soft landscaped area around Plot 1 and following its excavation these contaminated soils were transported off site. Photographs in Appendix A (Appendix A1) show the removal of these contaminated soils, also confirming the thickness of soil removed. The soil was removed by PMW Quarries Ltd, with the invoice shown in Appendix B.

6.1.2 Imported soils

A total of 40 tonnes (approximately 300m^3) of Topsoil was imported by PWM Quarries Ltd (Invoices shown in Appendix B) and placed in the areas of the proposed soft landscaped areas. As per section 8.1.3 and 8.1.4 in the Remediation Strategy Report, soil laboratory testing was carried out on three samples of this imported topsoil, with laboratory results shown in Appendix C. Test results show the soil does not exceed any SGV's for the proposed end use.

6.1.3 Physical Validation

Sufficient thickness of newly placed topsoil was physically validated in the form of photographic evidence showing thickness of soil (in Appendix A3). Three samples of this topsoil were collected and tested and as confirmed in section 6.1.2, test results show no SGV's were exceeded.

7.0 Waste Removal

In accordance with the European Waste Directive, all waste was removed from site and was disposed of to a suitably licenced tip. Appendix B shows evidence of the company used to remove the contaminated topsoil.

8.0 Conclusion

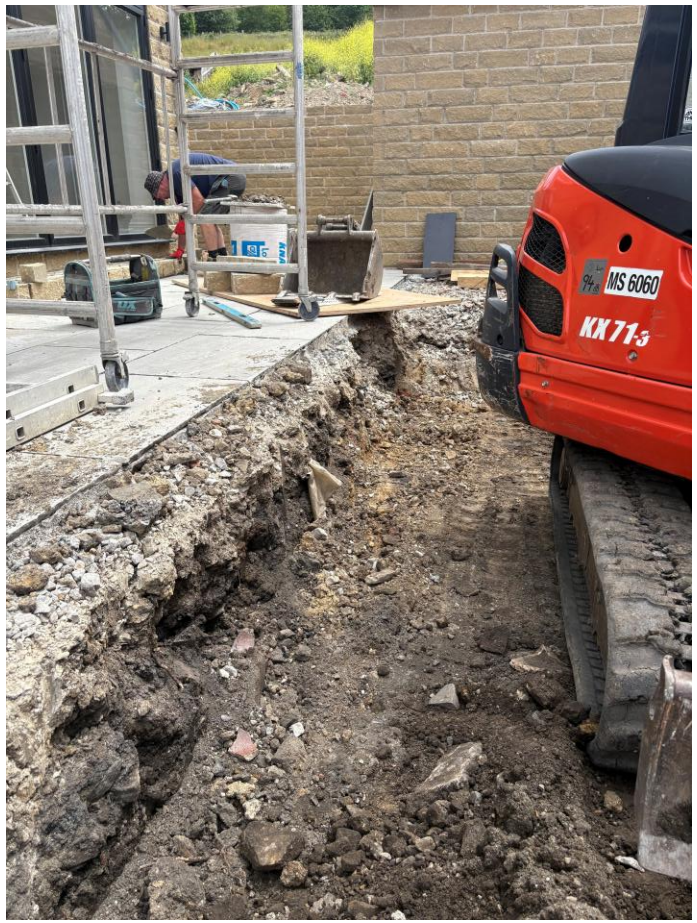
It is concluded that the remediation of the site at Land Adjacent to Commonside (Plot 1) has been generally carried out in accordance with the RB Geotechnical Remediation Strategy devised in April 2025. Where there have been minor amendments, there is not considered to be any residual unacceptable risk to human health.

APPENDIX A – PHOTOS OF EXCAVATION AND PLACEMENT OF CLEAN SOILS

Appendix A - Photos

Appendix A1 – Soil Excavation

Excavation of soil



Excavation of soil



Appendix A1 – Soil Excavation

Depth of excavation of soil



Excavation of soil



Appendix A2 – Soil Placement

Spreading of topsoil



Spreading of topsoil



Appendix A2 – Soil Placement

Thickness of soil excavated



After placement of topsoil showing thickness placed



APPENDIX B – INVOICES

PMW Quarries.co.uk

HOLMFIRTH ROAD, SHEPLEY, HUDDERSFIELD HD8 8BB
TELEPHONE: 01484 606213 FAX: 01484 604057
VAT NO. 975 5464 73 COMPANY REG NO. 6962567

KEVIN SULLIVAN

INVOICE Page 1 of 1

Invoice No:	00211211
Invoice Date:	23/06/2026
Account Ref:	CASH/COD

ACCOUNTS DIRECT LINE: 01484 600270

Date	Quantity	Goods	Ticket No	Order No	Collection/Delivery	Rate	Price
22/06/26	15000	TOPSOIL SCREENED	052016	KEVIN SULLIVAN	210-212 Commonside Batley	20.50	307.50
22/06/26	1	GRABMUCK170504	052018	KEVIN SULLIVAN	210-212 Commonside Batley	0.00	265.00
22/06/26	1	GRABMUCK170504	052289	KEVIN SULLIVAN	210-212 Commonside Batley	0.00	265.00

Fuel Surcharge 6% 50.25

Total Cost:	**887.75**
Total VAT:	**177.55**
Total Invoice Value:	**1,065.30**

If this invoice has not already been settled, please pay by return.
Payment can be made by cheque (payable to PMW Quarries Ltd and posted to the address at the top of this invoice), by card payment over the phone, or by BACs transfer to PMW Quarries Ltd, Sorting Code 40-51-62, Account No. 32700845.
Thank you.

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PMW Quarries.co.uk

HOLMFIRTH ROAD, SHEPLEY, HUDDERSFIELD HD8 8BB
TELEPHONE: 01484 606213 FAX: 01484 604057
VAT NO. 975 5464 73 COMPANY REG NO. 6962567

KEVIN SULLIVAN

INVOICE Page 1 of 1

Invoice No:	00211257
Invoice Date:	24/06/2026
Account Ref:	CASH/COD

ACCOUNTS DIRECT LINE: 01484 600270

Date	Quantity	Goods	Ticket No	Order No	Collection/Delivery	Rate	Price
23/06/26	15000	TOPSOIL SCREENED	052670	KEVIN SULLIVAN	210-212 Commonside Batley	20.50	307.50

Fuel Surcharge 6% 18.45

Total Cost:	**325.95**
Total VAT:	**65.19**
Total Invoice Value:	**391.14**

If this invoice has not already been settled, please pay by return.
Payment can be made by cheque (payable to PMW Quarries Ltd and posted to the address at the top of this invoice), by card payment over the phone, or by BACs transfer to PMW Quarries Ltd, Sorting Code 40-51-62, Account No. 32700845.
Thank you.

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PMW Quarries.co.uk

HOLMFIRTH ROAD, SHEPLEY, HUDDERSFIELD HD8 8BB
TELEPHONE: 01484 606213 FAX: 01484 604057
VAT NO. 975 5464 73 COMPANY REG NO. 6962567

KEVIN SULLIVAN

INVOICE Page 1 of 1

Invoice No:	00211311
Invoice Date:	25/06/2026
Account Ref:	CASH/COD

ACCOUNTS DIRECT LINE: 01484 600270

Date	Quantity	Goods	Ticket No	Order No	Collection/Delivery	Rate	Price
24/06/26	10000	10 TON OF TOPSOIL SCREENED	052588	KEVIN SULLIVAN	210-212 Commonside Batley	26.45	264.50
					Fuel Surcharge 6%		15.87

Total Cost:	**280.37**
Total VAT:	**56.07**
Total Invoice Value:	**336.44**

If this invoice has not already been settled, please pay by return.
Payment can be made by cheque (payable to PMW Quarries Ltd and posted to the address at the top of this invoice), by card payment over the phone, or by BACs transfer to PMW Quarries Ltd, Sorting Code 40-51-62, Account No. 32700845.
Thank you.

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APPENDIX C – SOIL LABORATORY TEST RESULTS

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 26/08540
Issue Number: 1 **Date:** 30 July, 2026

Client:
RB Geotechnical
7 Carr Manor View
Leeds
UK
LS17 5AG

Project Manager: Ross Blake
Project Name: Commonside
Project Ref: n/a
Order No: N/A
Date Samples Received: 08/07/26
Date Instructions Received: 09/07/26
Date Analysis Completed: 30/07/26

Approved by:

Richard Wong
Client Manager

Envirolab Job Number: 26/08540

Client Project Name: Commonside

Client Project Ref: n/a

Lab Sample ID	26/08540/1	26/08540/2	26/08540/3					Units	Limit of Detection	Method ref
Client Sample No	1	2	3							
Client Sample ID	TS01	TS02	TS03							
Depth to Top										
Depth To Bottom										
Date Sampled	06-Jul-26	06-Jul-26	06-Jul-26							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	4AE	4AE	4AE							
% Stones >10mm$_{A}$	<0.1	<0.1	<0.1					% w/w	0.1	A-T-044
Cyanide (free)$_{A}^{M\#}$	<1	<1	<1					mg/kg	1	A-T-042sFCN
Cyanide (total)$_{A}^{M\#}$	<1	<1	<1					mg/kg	1	A-T-042sTCN
Arsenic$_{D}^{M\#}$	3	3	3					mg/kg	1	A-T-024s
Cadmium$_{D}^{M\#}$	<1.0	<1.0	<1.0					mg/kg	1	A-T-024s
Copper$_{D}^{M\#}$	9	8	9					mg/kg	1	A-T-024s
Chromium$_{D}^{M\#}$	6	6	6					mg/kg	1	A-T-024s
Lead$_{D}^{M\#}$	18	18	19					mg/kg	1	A-T-024s
Mercury$_{D}$	<0.17	<0.17	<0.17					mg/kg	0.17	A-T-024s
Nickel$_{D}^{M\#}$	5	5	6					mg/kg	1	A-T-024s
Selenium$_{D}^{M\#}$	<1	<1	<1					mg/kg	1	A-T-024s
Zinc$_{D}^{M\#}$	35	34	36					mg/kg	1	A-T-024s
TPH total (>C6-C40)$_{A}^{M\#}$	27	29	37					mg/kg	10	A-T-007s

Envirolab Job Number: 26/08540

Client Project Name: Commonside

Client Project Ref: n/a

Lab Sample ID	26/08540/1	26/08540/2	26/08540/3					Units	Limit of Detection	Method ref
Client Sample No	1	2	3							
Client Sample ID	TS01	TS02	TS03							
Depth to Top										
Depth To Bottom										
Date Sampled	06-Jul-26	06-Jul-26	06-Jul-26							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	4AE	4AE	4AE							
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	NAD							A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-							A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-							A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	N/A							A-T-045

Envirolab Job Number: 26/08540

Client Project Name: Commonside

Client Project Ref: n/a

Lab Sample ID	26/08540/1	26/08540/2	26/08540/3					Units	Limit of Detection	Method ref
Client Sample No	1	2	3							
Client Sample ID	TS01	TS02	TS03							
Depth to Top										
Depth To Bottom										
Date Sampled	06-Jul-26	06-Jul-26	06-Jul-26							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	4AE	4AE	4AE							
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	<0.01	0.01					mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	<0.02	0.03					mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	<0.04	0.06					mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	<0.04	0.06					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	<0.05	0.06					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	<0.06	0.07					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	<0.08	0.15					mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	0.02					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	<0.03	0.04					mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	0.03					mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.03	<0.03	0.14					mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.08	<0.07	0.13					mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	0.11	<0.08	0.80					mg/kg	0.01	A-T-019s

Report Notes

General

•This report shall not be reproduced, except in full, without written approval from Envirolab.
•The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
•The results reported herein relate only to the material supplied to the laboratory.
•The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
•Analytical results reflect the quality of the sample at the time of analysis only.
•Opinions and Interpretations expressed are outside our scope of accreditation.
•A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
•If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
•Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "D" on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
Subscript "@"	Result is an opinion
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
"Trace Asbestos Identified" will be reported if there is not enough present to verify the type.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^0C / 11550µS/cm @ 20^0C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: RB Geotechnical, 7 Carr Manor View, Leeds, UK, LS17 5AG

Project No: 26/08540

Date Received: 09/07/2026 (am)

Project: Commonside

Cool Box Temperatures (°C): 20.8

Clients Project No: n/a

Lab Sample ID	26/08540/1	26/08540/2	26/08540/3
Client Sample No	1	2	3
Client Sample ID/Depth	TS01	TS02	TS03
Date Sampled	06/07/26	06/07/26	06/07/26
Deviation Code			
F	✓	✓	✓

Key
F *Maximum holding time exceeded between sampling date and analysis for analytes listed below*

HOLDING TIME EXCEEDANCES

Lab Sample ID	26/08540/1	26/08540/2	26/08540/3
Client Sample No	1	2	3
Client Sample ID/Depth	TS01	TS02	TS03
Date Sampled	06/07/26	06/07/26	06/07/26
Cyanide (free)	✓	✓	✓
Cyanide (total)	✓	✓	✓

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	26/08540/1	26/08540/2	26/08540/3
Client Sample No	1	2	3
Client Sample ID/Depth	TS01	TS02	TS03
Date Sampled	06/07/26	06/07/26	06/07/26
A-T-007s	15/07/2026	15/07/2026	15/07/2026
A-T-019s	20/07/2026	20/07/2026	20/07/2026
A-T-024s	30/07/2026	30/07/2026	30/07/2026
A-T-042sFCN	27/07/2026	27/07/2026	27/07/2026
A-T-042sTCN	27/07/2026	27/07/2026	27/07/2026
A-T-044	14/07/2026	14/07/2026	14/07/2026
A-T-045	10/07/2026	10/07/2026	10/07/2026

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report