DUST MONITORING REPORT (APRIL TO JUNE 2025)

CONCRUSH FACILITY, TERALBA

Prepared for CONCRUSH PTY LTD

Prepared by RCA AUSTRALIA

RCA ref 13589a-263/0

JULY 2025

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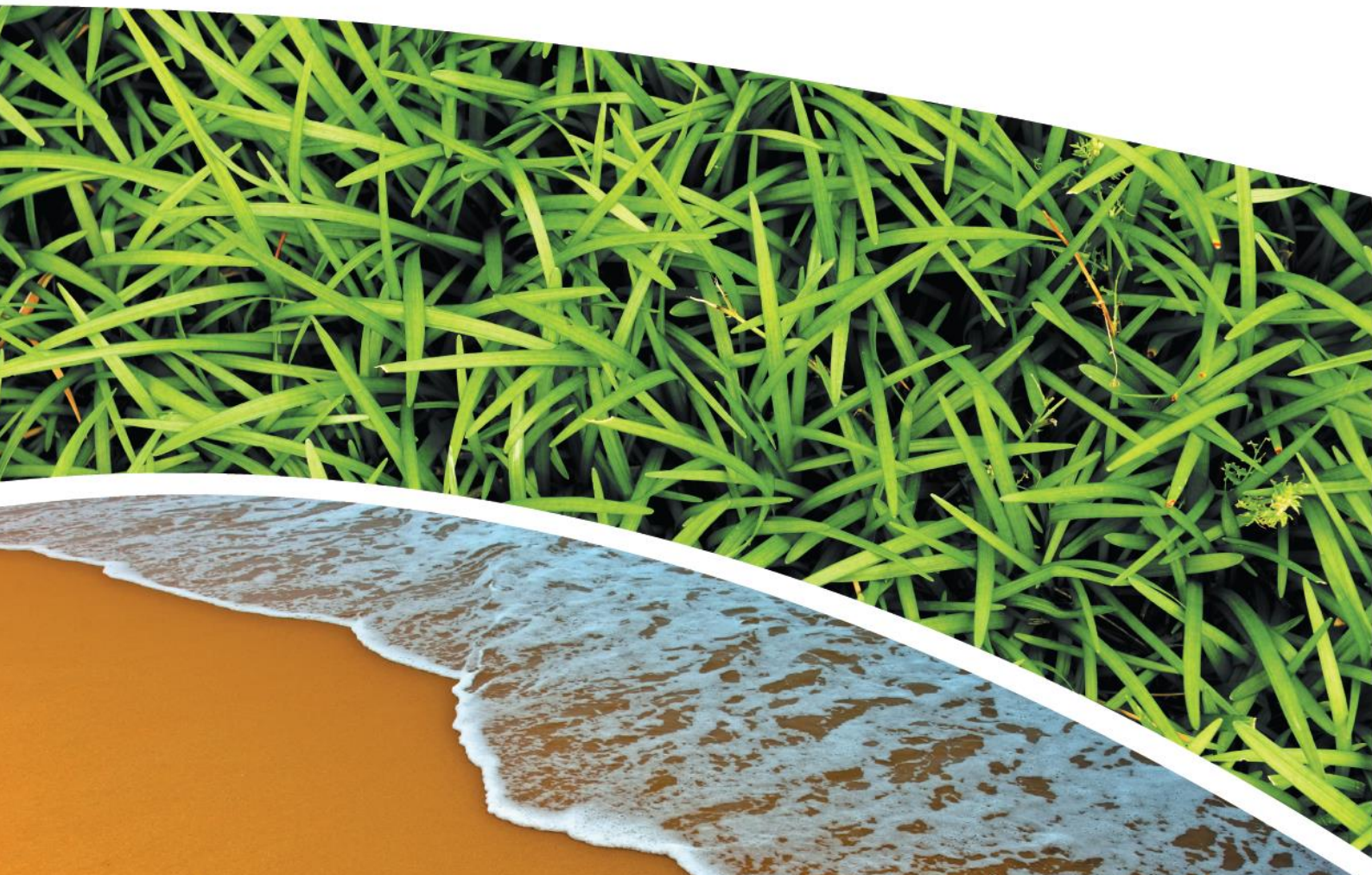

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DOCUMENT STATUS						
Rev No	**Comment**	**Author**	**Reviewer**	**Approved for Issue (Project Manager)**		
				Name	**Signature**	**Date**
/0	Final	M. Hayyat	F Brooker	M. Hayyat		15.07.2025

DOCUMENT DISTRIBUTION				
Rev No	**Copies**	**Format**	**Issued to**	**Date**
/0	1	Electronic (email)	Concrush Pty Ltd – Kevin Thompson – kevin@concrush.com.au Ross Lo Monaco – ross@concrush.com.au	15.07.2025
/0	1	Electronic report	RCA – job archive	15.07.2025

Contents

RCA ref 13589a-263/0

15 July 2025

Concrush Pty Ltd
21 Racecourse Road
Teralba NSW 2284

Attention: Kevin Thompson
CC: Ross Lo Monaco

RCA AUSTRALIA
GEOTECHNICAL • ENVIRONMENTAL

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DUST MONITORING REPORT (APRIL TO JUNE 2025)
CONCRUSH FACILITY, TERALBA

1 INTRODUCTION

This report presents the findings of dust monitoring undertaken at the Concrush resource recovery facility, situated in Teralba, NSW that covers the period between 1st April 2025 and 30th June 2025, noting that real time dust data has not been recorded since January 2025 due to a power outage. Concrush are aware of the electrical issue.

The site was an operational facility over the entirety of the monitored area for the reporting period. Some construction is ongoing in the northern portion of the site for Sediment Basin 1 and the new weighbridge.

The monitoring undertaken has been detailed in an Operational Air Quality Management Plan (OAQMP, Ref [1]).

2 SITE IDENTIFICATION AND DESCRIPTION

The site is described as 21 Racecourse Road, Teralba and part Lot 2, DP 220347. Additional site details are shown in **Table 1** and the site extent is shown in **Figure 1** below.

Table 1 *Site Details*

Current zoning (Ref [2])	E5 – Heavy Industrial.
Current use	Concrush resource recovery facility.
Size of site	Approximately 4.8ha.
Surrounding land use to the: **North**	Lot 1 DP220347. Industrial – storage yard for pre-cast concrete panels operated by others.
South	Part of Lot 2 DP220347. Industrial – scrap metal recycling yard operated by others.
East	Racecourse Road and then Cockle Creek.
West	Main Northern Rail line and then wetlands.
Nearest sensitive receptor (human health)	Residential housing, located approximately 360m southeast across Cockle Creek.
Nearest sensitive receptor (environmental)	Cockle Creek, located approximately 35 m east and wetland approximately 30 m west.

Figure 1 *Project Site Location and Layout (aerial as of 25 May 2025)*

3 MONITORING DETAILS

A total of five (5) monitoring locations are situated on site as shown in **Figure 2** below. At four (4) of these locations (DG1A-DG4A) there are dust depositional bottles situated on stands installed[1] in accordance with the relevant Australian Standard (Ref [3]). An additional dust gauge (DG5A) is situated on the southern portion of the roof of the office adjacent to the weigh station along with the real-time dust monitor.

Figure 2 *Approximate Placement of Dust Deposition Gauges and Real Time Monitor (aerial as of 25 May 2025).*

[1] It is noted that DG3A may be partially obscured by the nearby maintenance building depending on the wind direction and particle size.

3.1 GUIDELINES

The NSW EPA guidelines (Ref [4]) nominate the criteria for depositional dust as detailed in **Table 2** below.

Table 2 *Depositional Dust: Impact Assessment Criteria*

Average Period	Maximum increase in deposited dust level	Maximum total deposited dust level	Sampling Frequency
Annual	2.0 g/m^2 /month	4.0 g/m^2/month	Monthly

The NSW EPA guidelines (Ref [4]) nominate additional criteria:

- Particulate matter less than 2.5 micrometres in diameter (i.e., $PM_{2.5}$) daily average 0.025 mg/m^3, annual average 0.008 mg/m^3.
- Particulate matter less than 10 micrometres in diameter (i.e., PM_{10}) daily average 0.05 mg/m^3, annual average 0.025 mg/m^3.
- Total suspended particles (TSP) annual average 0.09 mg/m^3.

It is noted that there is no relevant Australian Standard for the methodology employed by the real time monitor, nor is the methodology included in the NSW EPA guidelines (Ref [5]); however, concentrations recorded by the real time monitor are considered appropriate for comparative purposes to trigger a review of dust control measures.

The Environmental Impact Statement for the expansion of the Concrush resource recovery facility to incorporate the southern portion of the site, refer **Figure 1**, included air quality monitoring and provided predicted values of $PM_{2.5}$ and PM_{10}. Extracts of the modelled contours are presented in **Figure 3** below noting that the contours are presented in μg/m^3.

Based on the modelled contours, the daily averages at the location of the real time dust monitor have been predicted as:

- $PM_{2.5}$ >0.01 mg/m^3.
- PM_{10} 0.045 mg/m^3.

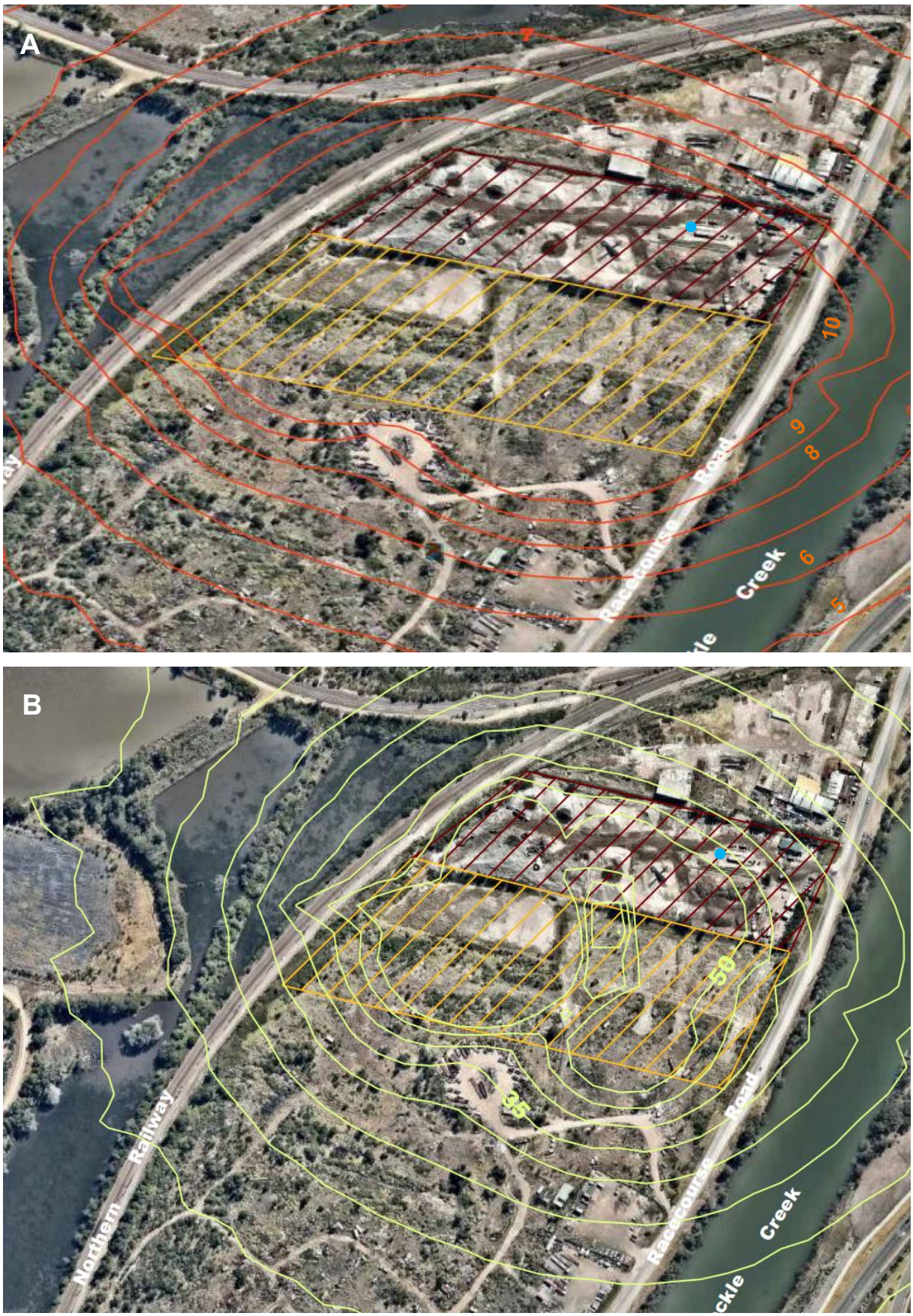


Figure 3 *Predicted Daily $PM_{2.5}$ (A, top) and PM_{10} (B, bottom) impacts with location of real time dust monitor marked with blue dot. All numbers are in units of $\mu g/m^3$.*

3.2 WEATHER

The real time dust monitors recorded conditions every five (5) minutes continuously through the monitoring period. The monitor provides data with regards to wind direction and speed, air temperature, relative humidity, and air pressure.

It is noted that no data has been recorded since 18 December 2024 due to storm damage such that there is no power to the unit. As a result, there is no real time data available for this quarter.

4 MONITORING RESULTS

4.1 DEPOSITIONAL DUST GAUGES

Depositional dust bottles were collected on a monthly basis by RCA staff on 28th April, 30th May, and 30th June 2025. All gauges and funnels were intact and unbroken. The field sheets are included as **Appendix A**.

The results of the monitoring at each of the locations for this quarter and the twelve (12) month rolling average at the end of the quarter are presented below in **Table 3**.

All results were either less than the previous month or increased by less that the NSW EPA criterion of 2 g/m^2/month except for those at DG2A between May and June 2025, (refer to **Table 3**).

The 12-month rolling annual average for all five (5) dust gauges are below the annual criterion of 4 g/m^2 (Ref [4]) as shown in **Table 3**.

Laboratory report sheets are included in **Appendix B**.

Table 3 *Dust Monitoring Results for Quarter*

	Insoluble Solids (g/m^2)			Ash (g/m^2)			Combustible Matter (g/m^2)			12-Month Rolling Average Insoluble Solids (g/m^2)
	31/03/25 – 28/04/25	28/04/25 – 30/05/25	30/05/25 – 30/06/25	31/03/25 – 28/04/25	28/04/25 – 30/05/25	30/05/25 – 30/06/25	31/03/25 – 28/04/25	28/04/25 – 30/05/25	30/05/25 – 30/06/25	
DG1A (east)	3.0	0.7	1.8	1.1	0.3	1.2	1.9	0.4	0.6	3.7
DG2A (south)	0.8	0.5	3.2	0.5	0.3	2.5	0.3	0.2	0.7	2.6
DG3A (west)	1.4	0.9	0.8	0.4	0.2	0.3	1.0	0.7	0.5	3.4
DG4A (north)	0.8	0.4	1.5	0.5	0.2	1.1	0.3	0.2	0.4	2.9
DG5A (roof)	1.2	0.9	2.5	0.9	0.6	1.9	0.3	0.3	0.6	2.4

BOLD identifies where results are in excess of annual average criterion of 4.0 g/m^2/month (Ref [4]) which does not apply to individual monthly results.
Underline identifies where results are greater than the criterion for increase from the previous month.

The majority of detected insoluble solids are related to 'ash' which comprises non-combustible matter and would include the types of particles that may originate from the Concrush site however would also be present in dust from other sources. Some coal dust originating from adjacent sites may also remain in the 'ash' component of the sample. The monthly insoluble solids and ash results are shown for the previous twelve (12) months in **Figure 4** and **Figure 5** below.

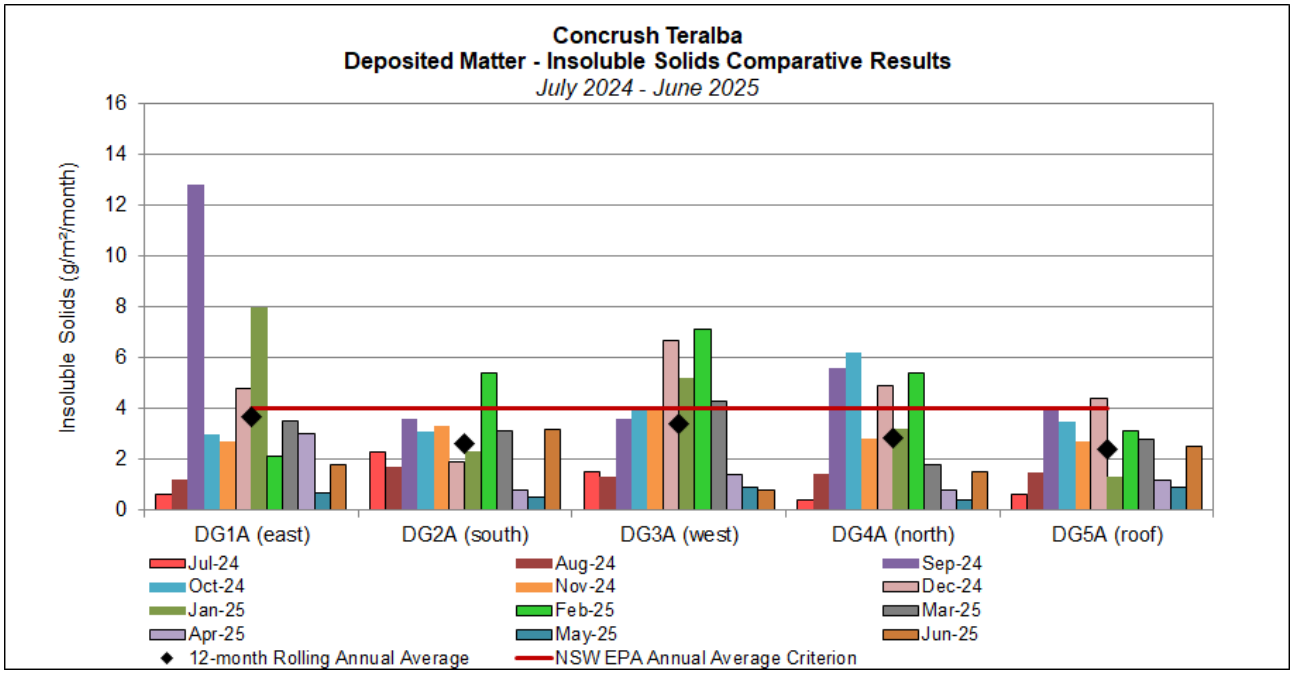


Figure 4 *Dust Monitoring Results (Insoluble Solids) for the Past 12 Months*

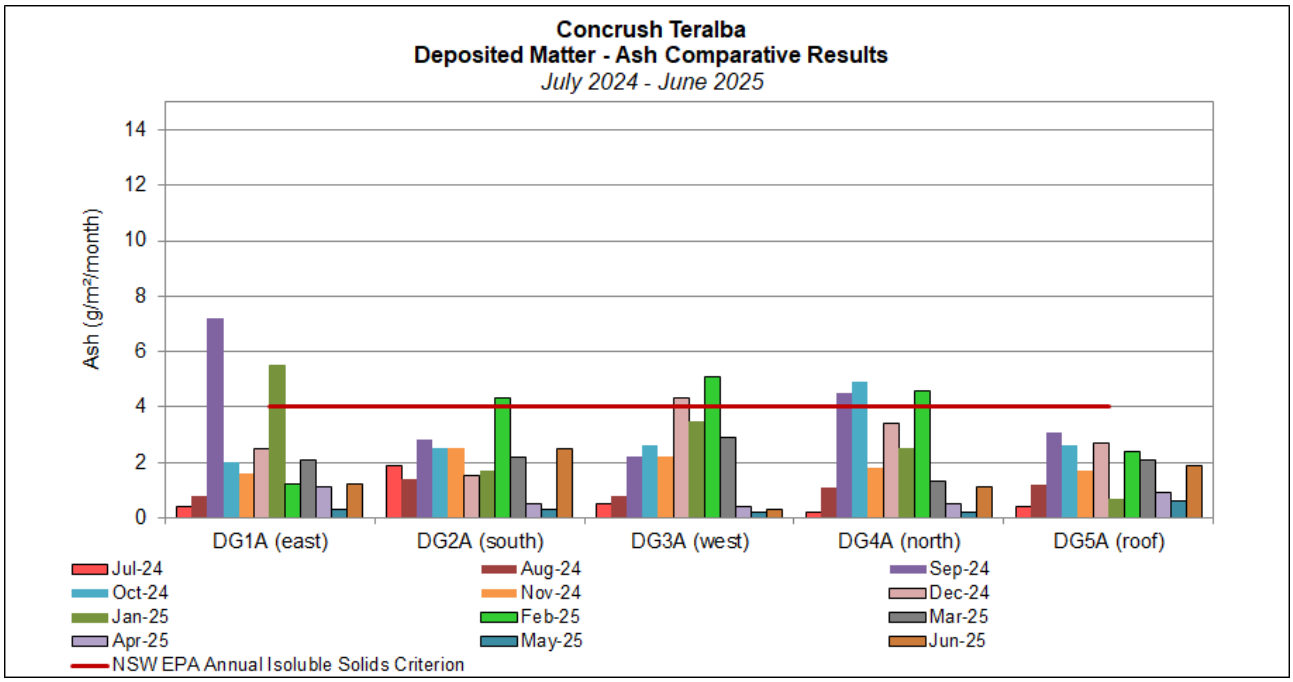


Figure 5 *Dust Monitoring Results (Ash) for the Past 12 Months*

5 ASSESSMENT OF DUST MANAGEMENT EFFECTIVENESS

The quarterly monitoring data indicates issues with effectiveness of site dust controls. It is noted that the OAQMP (Ref [1]) has been implemented since the works on the expansion component has been completed.

RCA's observations on the sampling days (28th April, 30th May and 30th June 2025) regarding site activities that are associated with dust generation and suppression were:

- Excavators and crusher were operating at the time of all site inspections.
- Sprinklers and water truck were in operation however not on all stockpiles and not all site inspections.
- Customers' vehicles were observed during all the site inspections.
- RCA observed at least localised dust during the time of all site inspections.

RCA's photographs during the time of fieldwork are shown in **Figure 6** below.

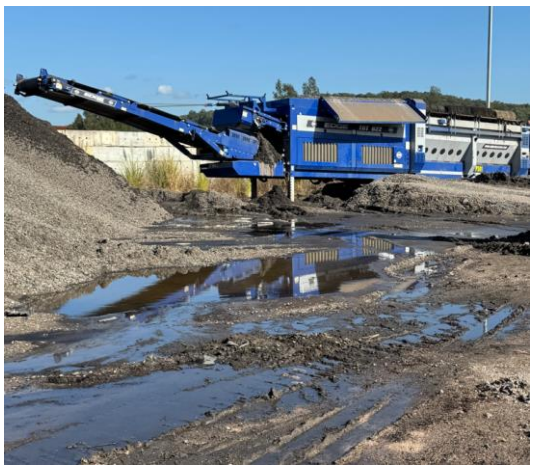
	
Crusher in operation, looking northeast 28th April 2025	**Excavator in operation at mulch stockpile, looking east, northeast 28th April 2025**
	
Crusher in operation, looking southwest 30th May 2025	**Water applied for dust suppression at stockpile, looking southwest 30th May 2025**
	
Water Cart in operation, looking southwest 30th June 2025	**Crusher in operation, looking south 30th June 2025**

Figure 6 *Site Photographs during Sampling and Inspections*

RCA recommends that dust suppression measures should be carried out whenever rain is not actively falling, particularly during warm or windy weather such that evaporation effects are minimised, and that the extent of coverage from the sprinklers is monitored with adjustment of the sprinkler position / flow rate as necessary to maintain a damp stockpile surface. RCA would also recommend regular use of the street-sweeper on the surface of the weighbridges and water application on the trafficable areas.

6 LIMITATIONS

This report has been prepared for Concrush Pty Ltd in accordance with an agreement with RCA Australia (RCA). The services performed by RCA have been conducted in a manner consistent with that generally exercised by members of its profession and consulting practice.

This report has been prepared for the sole use of Concrush Pty Ltd. The report may not contain sufficient information for purposes of other uses or for parties other than Concrush Pty Ltd. This report shall only be presented in full and may not be used to support objectives other than those stated in the report without written permission from RCA Australia.

Yours faithfully

RCA AUSTRALIA

Muhammad Hayyat
Environmental Engineer
MEng (Env), Beng

REFERENCES

[1] RCA Australia, *Operational Air Quality Management Plan (OAQMP) for Expansion of the Concrush Resource Recovery Facility*, RCA ref 13589-802 V3, June 2023.

[2] Lake Macquarie City Council, *Local Environmental Plan 2014, under the Environmental Planning and Assessment Act 1979*, published 2014.

[3] AS/NZS 3580.1.1:2016 *Methods for sampling and analysis of ambient air: Guide to siting air monitoring equipment*, May 2016.

[4] NSW EPA, *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*, August 2022.

[5] NSW EPA, *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*, January 2022.

Appendix A

Field Sheets

RCA AUSTRALIA
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STATIC DUST GAUGES – FIELD SHEET

Client: Concrush
Location: 21 Racecourse Road, Teralba
Date On: 28/3/2025
Date Off: 28/4/2025

Job Number: 13589a
Month/Year: 04/2025
Personnel: AH/SM
Field Sheet: Page 1 of 1

Field ID (Job No + Gauge No.)	Lab ID (To be entered by Lab Technician on receipt of samples)	Time Serviced	Funnel Number (if replaced)	Approx. Volume	Notes	Comments
						Eg. Colour, contamination, bird droppings, insects etc
DG1A		9:50		80%		I
DG2A		10:15		80%		T
DG3A		10:35		80%		T, T
DG4A		12:40		90%		T
DG5A		12:40		80%		T
						Photographs taken of dust gauge inlet & bottle contents (Y/N)

OBSERVATIONS OF DUST GENERATING ACTIVITIES & SUPPRESSION MEASURES

Dust cart on site (Y/N). Dust cart in operation (Y/N)
Sprinklers on all stockpiles (Y/N). Sprinklers in operation (Y/N)
Equipment in operation? Y
Customer activity? Not busy.
Dust observed? NO
Photographs taken (Y/N).

Notes:

A = Animals (frogs, lizards, snakes)
B = Bird Droppings
G = Grass (and seeds)
T = Tree Litter (twigs, leaves, gum nuts)
MF = Invalid sample: Missing funnel
EB = Invalid sample: Excess bird droppings
O = Organic Matter (specify)
F = Feathers
N = No foreign mater
I = Insects (and spiders)
FB = Invalid sample: Broken funnel
RN = Invalid sample: Refer to notes below

RCA AUSTRALIA
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STATIC DUST GAUGES – FIELD SHEET

Client: Concrush
Location: 21 Racecourse Road, Teralba
Date On: ~~28/3/2025~~ 28/4/2025
Date Off: ~~28/4/2025~~ 30/5/2025

Job Number: 13589a
Month/Year: 04/2025
Personnel: MM
Field Sheet: Page 1 of 1

Field ID (Job No + Gauge No.)	Lab ID (To be entered by Lab Technician on receipt of samples)	Time Serviced	Funnel Number (if replaced)	Approx. Volume	Notes	Comments
		11:20A		100%	I	Eg. Colour, contamination, bird droppings, insects etc
DG1A						
DG2A		12:02		100 %	T	
DG3A		12:36		60%	~~I~~ T	(2T)
DG4A		1:33		100%	T	
DG5A		1:36		100%	T	
						Photographs taken of dust gauge inlet & bottle contents (Y/N)

OBSERVATIONS OF DUST GENERATING ACTIVITIES & SUPPRESSION MEASURES

Dust cart on site (Y/N). Dust cart in operation (Y/N)
Sprinklers on all stockpiles (Y/N). Sprinklers in operation (Y/N)
Equipment in operation? ..... Yes .....
Customer activity? ..... Yes .....
Dust observed? ..... No .....Photographs taken (Y/N).

Notes:

A = Animals (frogs, lizards, snakes)
O = Organic Matter (specify)
B = Bird Droppings
F = Feathers
G = Grass (and seeds)
N = No foreign mater
T = Tree Litter (twigs, leaves, gum nuts)
I = Insects (and spiders)
MF = Invalid sample: Missing funnel
FB = Invalid sample: Broken funnel
EB = Invalid sample: Excess bird droppings
RN = Invalid sample: Refer to notes below

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STATIC DUST GAUGES – FIELD SHEET

Client: Concrush
Location: 21 Racecourse Road, Teralba
Date On: 31/5/2025
Date Off: 30/6/2025

Job Number: 13589a
Month/Year: 06/2025
Personnel: ~~AM~~ DB
Field Sheet: Page 1 of 1

Field ID (Job No + Gauge No.)	Lab ID (To be entered by Lab Technician on receipt of samples)	Time Serviced	Funnel Number (if replaced)	Approx. Volume	Notes	Comments
						Eg. Colour, contamination, bird droppings, insects etc
DG1A		9:56		0.5L		I, T
DG2A		10:30		0.5L		T
DG3A		10:40		0.5L		T
DG4A		12:10		0.5 L		T
DG5A		12:20		0.5L		clear T
						Photographs taken of dust gauge inlet & bottle contents (Y/N)

OBSERVATIONS OF DUST GENERATING ACTIVITIES & SUPPRESSION MEASURES

Dust cart on site (Y/N). Dust cart in operation (Y/N)
Sprinklers on all stockpiles (Y/N). Sprinklers in operation (Y/N)
Equipment in operation? Y (Bulldozer & Excavator)
Customer activity? Not busy
Dust observed? No Photographs taken (Y/N).

Notes:

A = Animals (frogs, lizards, snakes)
O = Organic Matter (specify)
B = Bird Droppings
F = Feathers
G = Grass (and seeds)
N = No foreign mater
T = Tree Litter (twigs, leaves, gum nuts)
I = Insects (and spiders)
MF = Invalid sample: Missing funnel
FB = Invalid sample: Broken funnel
EB = Invalid sample: Excess bird droppings
RN = Invalid sample: Refer to notes below

Appendix B

Laboratory Report Sheets

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 379079

Client Details

Client	RCA Australia
Attention	RCA Administrator
Address	PO Box 175, Carrington, NSW, 2294

Sample Details

Your Reference	**13589A**
Number of Samples	
Date samples received	28/04/2025
Date completed instructions received	28/04/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	05/05/2025
Date of Issue	05/05/2025

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Laura Schofield, Lab Manager

Authorised By
Nancy Zhang, Laboratory Manager

Dust Deposition AS 3580.10.1						
Our Reference		379079-1	379079-2	379079-3	379079-4	379079-5
Your Reference	UNITS	DG1A	DG2A	DG3A	DG4A	DG5A
Type Of Sample		Depositional Dust	Depositional Dust	Depositional Dust	Depositional Dust	Depositional Dust
Sampling Period Dates		28/03/2025 - 28/04/2025	28/03/2025 - 28/04/2025	28/03/2025 - 28/04/2025	28/03/2025 - 28/04/2025	28/03/2025 - 28/04/2025
Sampler Name		SH	SH	SH	SH	SH
Dust Gauge Start Date	--	28/03/2025	28/03/2025	28/03/2025	28/03/2025	28/03/2025
Dust Gauge End Date	--	28/04/2025	28/04/2025	28/04/2025	28/04/2025	28/04/2025
Sampler Name	-	SK	SK	SK	SK	SK
Dust - No. of Days Collected	--	31	31	31	31	31
Notes	-	I	I	I	I	I
Insoluble Solids	g/m^2 /month	3.0	0.8	1.4	0.8	1.2
Ash	g/m^2 /month	1.1	0.5	0.4	0.5	0.9
Combustible Matter	g/m^2 /month	1.9	0.3	1.0	0.3	0.3

Method ID	Methodology Summary
Ext-073-Q	Analysis of Dust Deposition by AS/NZS 3580.10.1 and in-house method ENV-LAB004, Analysed by Envirolab Newcastle

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP

Company:	RCA Australia		**RCA Reference Number (i.e. report title)**		
Contact person:	Fiona Brooker		13589a		
Project Mgr:	Fiona Brooker		**PO No. (if applicable):**	Not applicable	
Sampler:	Stephen Hendrikson		**Envirolab Quote No. :**	BM8	
Address:	92 Hill St Carrington, NSW 2294		**Date results required:**	5/5/25	
Phone:	02 4902 9200	**Mob:** 0466 571 694			
Email results to:	administrator@rca.com.au + enviro@rca.com.au		**Lab comments:**		
Email invoice to:					

ENVIROLAB GROUP

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
02 9910 6200 sydney@envirolab.com.au

Sample information					Tests Required											Comments
Envirolab Sample ID	**Client Sample ID**	**Date sampled**	**Type of sample**	**# Containers**	E27970 - Dust Deposition gauges - 3 fractions (Si, Sc, Sa)											**Provide as much information about the sample as you can**
	DG1A	28/04/2025	Dust Gauge	1	x											Exposure Period
	DG2A	28/04/2025	Dust Gauge	1	x											28/03/2025
	DG3A	28/04/2025	Dust Gauge	1	x											to
	DG4A	28/04/2025	Dust Gauge	1	x											28/04/2025
	DG5A	28/04/2025	Dust Gauge	1	x											
			Total	5	5											

Relinquished by (company):	RCA Australia	**Received by (company):**	Envirolab	***Lab use only:***	
Print Name:	Stephen Hendrikson	**Print Name:**	Santhush Singh	**Job Number** 379079	**Cooling:** Ice / Ice Pack / None
Date & Time:	28/4/25 13:55	**Date & Time:**	28/4/25 13:50	**Temperature** 21°C	**Security Seal:** Intact / Broken / Not Used
Signature:		**Signature:**		**TAT Req:** SAME DAY / 1 / 2 / 3 / 4 / STD	

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	RCA Australia
Attention	RCA Administrator

Sample Login Details

Your reference	13589A
Envirolab Reference	379079
Date Sample Received	28/04/2025
Date Instructions Received	28/04/2025
Date Results Expected to be Reported	05/05/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	5
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	21
Cooling Method	None
Sampling Date Provided	

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Dust Deposition AS 3580.10.1
DG1A	✓
DG2A	✓
DG3A	✓
DG4A	✓
DG5A	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Envirolab Services Pty Ltd
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customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 382114

Client Details

Client	RCA Australia
Attention	RCA Administrator
Address	PO Box 175, Carrington, NSW, 2294

Sample Details

Your Reference	**13589A**
Number of Samples	5 Depositional Dust
Date samples received	30/05/2025
Date completed instructions received	30/06/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	11/06/2025
Date of Issue	11/06/2025

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Laura Schofield, Lab Manager

Authorised By
Nancy Zhang, Laboratory Manager

Dust Deposition AS 3580.10.1						
Our Reference		382114-1	382114-2	382114-3	382114-4	382114-5
Your Reference	UNITS	DG1A	DG2A	DG3A	DG4A	DG5A
Type of sample		Depositional Dust	Depositional Dust	Depositional Dust	Depositional Dust	Depositional Dust
Sampling Period Dates		28/03/2025 - 30/05/2025	28/03/2025 - 30/05/2025	28/03/2025 - 30/05/2025	28/03/2025 - 30/05/2025	28/03/2025 - 30/05/2025
Sampler Name		MH	MH	MH	MH	MH
Dust Gauge Start Date	--	28/03/2025	28/03/2025	28/03/2025	28/03/2025	28/03/2025
Dust Gauge End Date	--	30/05/2025	30/05/2025	30/05/2025	30/05/2025	30/05/2025
Sampler Name	-	MH	MH	MH	MH	MH
Dust - No. of Days Collected	--	63	63	63	63	63
Notes	-	I	I	IT	IT	I
Insoluble Solids	g/m^2 /month	0.7	0.5	0.9	0.4	0.9
Ash	g/m^2 /month	0.3	0.3	0.2	0.2	0.6
Combustible Matter	g/m^2 /month	0.4	0.2	0.7	0.2	0.3

Method ID	Methodology Summary
Ext-073-Q	Analysis of Dust Deposition by AS/NZS 3580.10.1 and in-house method ENV-LAB004, Analysed by Envirolab Newcastle - NATA Site No. 18077

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP

Company:	RCA Australia	**RCA Reference Number (i.e. report title)**	
Contact person:	Fiona Brooker	13589a	
Project Mgr:	Fiona Brooker	**PO No. (if applicable):**	Not applicable
Sampler:	MH	**Envirolab Quote No. :**	BM8
Address:	92 Hill St Carrington, NSW 2294	**Date results required:**	6.6.25
Phone:	02 4902 9200 **Mob:**	0401905593	
Email results to:	administrator@rca.com.au + enviro@rca.com.au	**Lab comments:**	
Email invoice to:			

ENVIROLAB GROUP

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
02 9910 6200 sydney@envirolab.com.au

Sample information					Tests Required											Comments
Envirolab Sample ID	**Client Sample ID**	**Date sampled**	**Type of sample**	**# Containers**	E27970 - Dust Deposition gauges - 3 fractions (Si, Sc, Sa)											**Provide as much information about the sample as you can**
	DG1A	30/05/2025	Dust Gauge	1	x											Exposure Period
	DG2A	30/05/2025	Dust Gauge	1	x											28/03/2025
	DG3A	30/05/2025	Dust Gauge	1	x											to
	DG4A	30/05/2025	Dust Gauge	1	x											30/05/2025
	DG5A	30/05/2025	Dust Gauge	1	x											
			Total	5	5											

Relinquished by (company):	RCA Australia	**Received by (company):**	Envirolab Woodsfield	***Lab use only:***	
Print Name:	Mahmood	**Print Name:**		**Job Number**	389414 **Cooling:** Ice / Ice Pack / None
Date & Time:	30.5.25 / 3:27	**Date & Time:**	30/5/25 15:30	**Temperature**	19.4 **Security Seal:** Intact / Broken / Not Used
Signature:		**Signature:**		**TAT Req:**	SAME DAY / 1 / 2 / 3 / 4 / (STD)

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	RCA Australia
Attention	RCA Administrator

Sample Login Details

Your reference	13589A
Envirolab Reference	382114
Date Sample Received	30/05/2025
Date Instructions Received	30/06/2025
Date Results Expected to be Reported	11/06/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	5 Depositional Dust
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	19.4
Cooling Method	None
Sampling Date Provided	

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Dust Deposition AS 3580.10.1
DG1A	✓
DG2A	✓
DG3A	✓
DG4A	✓
DG5A	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 384639

Client Details

Client	RCA Australia
Attention	RCA Administrator
Address	PO Box 175, Carrington, NSW, 2294

Sample Details

Your Reference	**13589A**
Number of Samples	5 Depositional Dust
Date samples received	30/06/2025
Date completed instructions received	30/06/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	07/07/2025
Date of Issue	07/07/2025

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Laura Schofield, Lab Manager

Authorised By
Nancy Zhang, Laboratory Manager

Dust Deposition AS 3580.10.1						
Our Reference		384639-1	384639-2	384639-3	384639-4	384639-5
Your Reference	UNITS	DG1A	DG2A	DG3A	DG4A	DG5A
Type of sample		Depositional Dust	Depositional Dust	Depositional Dust	Depositional Dust	Depositional Dust
Sampler Name		AH	AH	AH	AH	AH
Dust Gauge Start Date	--	30/05/2025	30/05/2025	30/05/2025	30/05/2025	30/05/2025
Dust Gauge End Date	--	30/06/2025	30/06/2025	30/06/2025	30/06/2025	30/06/2025
Sampler Name	-	AH	AH	AH	AH	AH
Dust - No. of Days Collected	--	31	31	31	31	31
Notes	-	IT	I	IT	I	IT
Date prepared	-	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
Date analysed	-	02/07/2025	02/07/2025	02/07/2025	02/07/2025	02/07/2025
Insoluble Solids	g/m^2 /month	1.8	3.2	0.8	1.5	2.5
Ash	g/m^2 /month	1.2	2.5	0.3	1.1	1.9
Combustible Matter	g/m^2 /month	0.6	0.7	0.5	0.4	0.6

Method ID	Methodology Summary
Ext-073-Q	Analysis only of Dust Deposition by AS/NZS 3580.10.1 and in-house method ENV-LAB004, Analysed by Envirolab Newcastle - NATA Site No. 18077

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP

Company:	RCA Australia	**RCA Reference Number (i.e. report title)**	
Contact person:	Fiona Brooker	13589a	
Project Mgr:	Fiona Brooker	**PO No. (if applicable):**	Not applicable
Sampler:	Anh Hoang	**Envirolab Quote No. :**	BM8
Address:	92 Hill St Carrington, NSW 2294	**Date results required:**	STD
Phone:	02 4902 9200 **Mob:**		
Email results to:	administrator@rca.com.au + enviro@rca.com.au	**Lab comments:**	
Email invoice to:			

ENVIROLAB GROUP

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
02 9910 6200 sydney@envirolab.com.au

Sample Information					Tests Required												Comments
Envirolab Sample ID	**Client Sample ID**	**Date sampled**	**Type of sample**	**# Containers**	E27970 - Dust Deposition gauges - 3 fractions (Si, Sc, Sa)												**Provide as much information about the sample as you can**
	DG1A	30/06/2025	Dust Gauge	1	x												Exposure Period
	DG2A	30/06/2025	Dust Gauge	1	x												30/05/2025
	DG3A	30/06/2025	Dust Gauge	1	x												to
	DG4A	30/06/2025	Dust Gauge	1	x												30/06/2025
	DG5A	30/06/2025	Dust Gauge	1	x												
			Total	5	5												

Relinquished by (company):	RCA Australia	**Received by (company):**	Envirolab	***Lab use only:***	
Print Name:	Anh Hoang	**Print Name:**	Santhosh Joseph	**Job Number** 384639	**Cooling:** Ice / Ice Pack / None
Date & Time:	30.6.25 - 13:00	**Date & Time:**	30/6/25 13:15	**Temperature** 18	**Security Seal:** Intact / Broken / Not Used
Signature:		**Signature:**		**TAT Req:**	SAME DAY / 1 / 2 / 3 / 4 / STD

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	RCA Australia
Attention	RCA Administrator

Sample Login Details

Your reference	13589A
Envirolab Reference	384639
Date Sample Received	30/06/2025
Date Instructions Received	30/06/2025
Date Results Expected to be Reported	07/07/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	5 Depositional Dust
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	18
Cooling Method	None
Sampling Date Provided	

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Dust Deposition AS 3580.10.1
DG1A	✓
DG2A	✓
DG3A	✓
DG4A	✓
DG5A	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.