

Inleel William
JK Williams Pty Ltd
39-53 Jack Williams Drive,
Penrith NSW 2750

iwilliam@jkw.com.au

Re: Dust Monitoring November 2023 – Westlink

Dear Sir,

Compliance Health & Environmental Consulting (CHEC) were engaged by JK Williams Pty Ltd to undertake monthly Depositional Dust Monitoring for the site located at 63 Abbotts Road, Kemps Creek, identified as Lot 11 in DP252503.

Six Dust Deposition Gauges (DDG1-DDG6) were installed at representative locations along the Site boundary nearest to sensitive receptors, in accordance with the guidelines provided by AS/NZS 3580.1.1:2016. Refer to **Figure 1**-Site layout with sample locations.

The gauges were constructed in accordance with AS/NZ3580.1.1:2016-Methods for sampling and analysis of ambient air. Method 10.1: Determination of particulate matter-deposited matter-Gravimetric method.

A 150mm diameter glass funnel was placed within a 4L glass collection bottle using a rubber stopper with a drain. Each DDG was then placed within a PVC casing for protection and fixed to a star picket on site. Bird protection was constructed on the PVC pipe to prevent birds perching on the funnel. Gauges were placed 2m above ground level. This dust report details results from the 31st October to 1st December 2023.

Dust is assessed as insoluble solids as defined by AS 3580.10.1-1991 (AM-19) and is made up of both combustible and non-combustible materials. The obligation to monitor dust relates to the primary activity, being soil disturbance as a result of earthworks, therefore, the non-combustible and dissolved component (generally recognised as mineral salts) are the primary measurements of concern to determine compliance.

The sampling method does not provide real time data, but provides an estimate of the mean surface concentration of deposited matter settling from the air over a period of one month.

The gauges were analysed at a NATA certified laboratory where the collected sediment was weighed and dried to measure particles in the air, less the combustible matter to give total non-combustible material collected in the deposition gauges. The resultant data represents the potential exposure to dust for those receptors, being local residences.

The depositional dust monitoring criteria are as follows:

- Annual average total deposited dust level is 4g/m²/month.
- Maximum monthly increase in deposited dust level is 2g/m²/month

Table 1 indicates that the highest recorded dust concentration was observed at DDG6, having a total solids concentration of 7.3g/m² that included 6.6g/m² of insoluble solids. The insoluble solids contained 6.4g/m² of combustible solids, and 0.2g/m² of non-combustible solids (mineral dust). Refer to **Attachment 1** – NATA Certified Results.



Table 1 –November Dust Deposition Analysis (g/m²/month)

Gauge	Insoluble	Combustible	Non-Combustible	Soluble	Total
DDG1	3.2	3	0.2	3.7	6.9
DDG4	4.3	4.1	0.2	1.8	6.1
DDG5	2.1	1.9	0.2	2.4	4.4
DDG6	6.6	6.4	0.2	0.7	7.3

Table 2 indicates that significant reductions of -13.7g/m² and -6.4g/m² of insoluble solids were observed at DDG4 and DDG6 respectively. Minor increases of 1g/m² and 0.6g/m² were observed at DDG1 and DDG5 respectively, though were compliant with the monthly increase criteria of 2g/m².

Rolling averages of insoluble solids and non-combustible solids concentrations within DDG4 and DDG6 exceeded the annual average criteria of 4g/m²/month.

Table 2 –Monthly Changes and Rolling Averages (g/m²/month)

Gauge	Total Dust (AS3580.10.1-2016)		Non-Combustible Solids	
	Monthly Δ	Rolling Avg	Monthly Δ	Rolling Avg
DDG1	1	2.1	-1.8	1.2
DDG4	-13.7	7.2	-16.8	5.9
DDG5	0.5	1.4	1.3	0.9
DDG6	-6.4	6	-11.8	4.3
Criteria	2	4	--	--

The significant concentrations of dust observed last month have appeared to reduced significantly, though it is noted that individual concentrations at DDG4 and DDG6 still exceeded the criteria of 4g/m². As such, it is recommended that dust suppression activities continue in order to further reduce dust concentrations.

The prevailing wind for this month was from the west north-west as shown on **Figure 2**. The average wind speed for the month was 3.2km/hr with a maximum of 35.4km/h occurring from the east south-east. The prevailing winds suggests that the associated exceedances likely attributed by onsite dust generative activities.

The reduction in concentrations this month is a positive sign, though dust suppression should continue to be a priority to further reduce concentrations in the coming months.

If any further information is required regarding this matter, please feel free to contact the undersigned during business hours.

Regards,

Jayden Gross

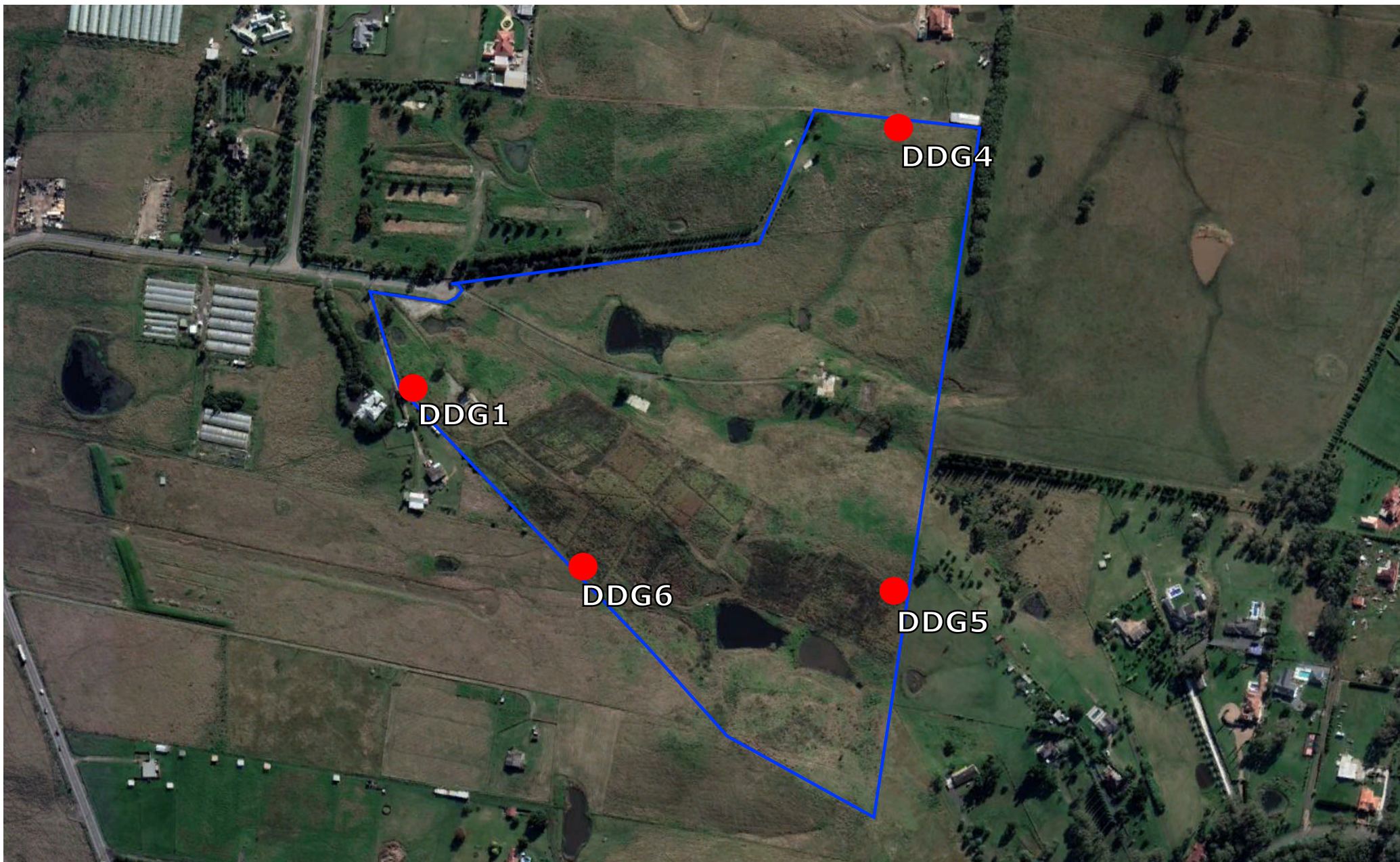
Environmental Consultant

Compliance Health & Environmental Consulting Pty Ltd




Figure 1 – Site Layout





 Dust Deposition Gauge Location

 Site Area

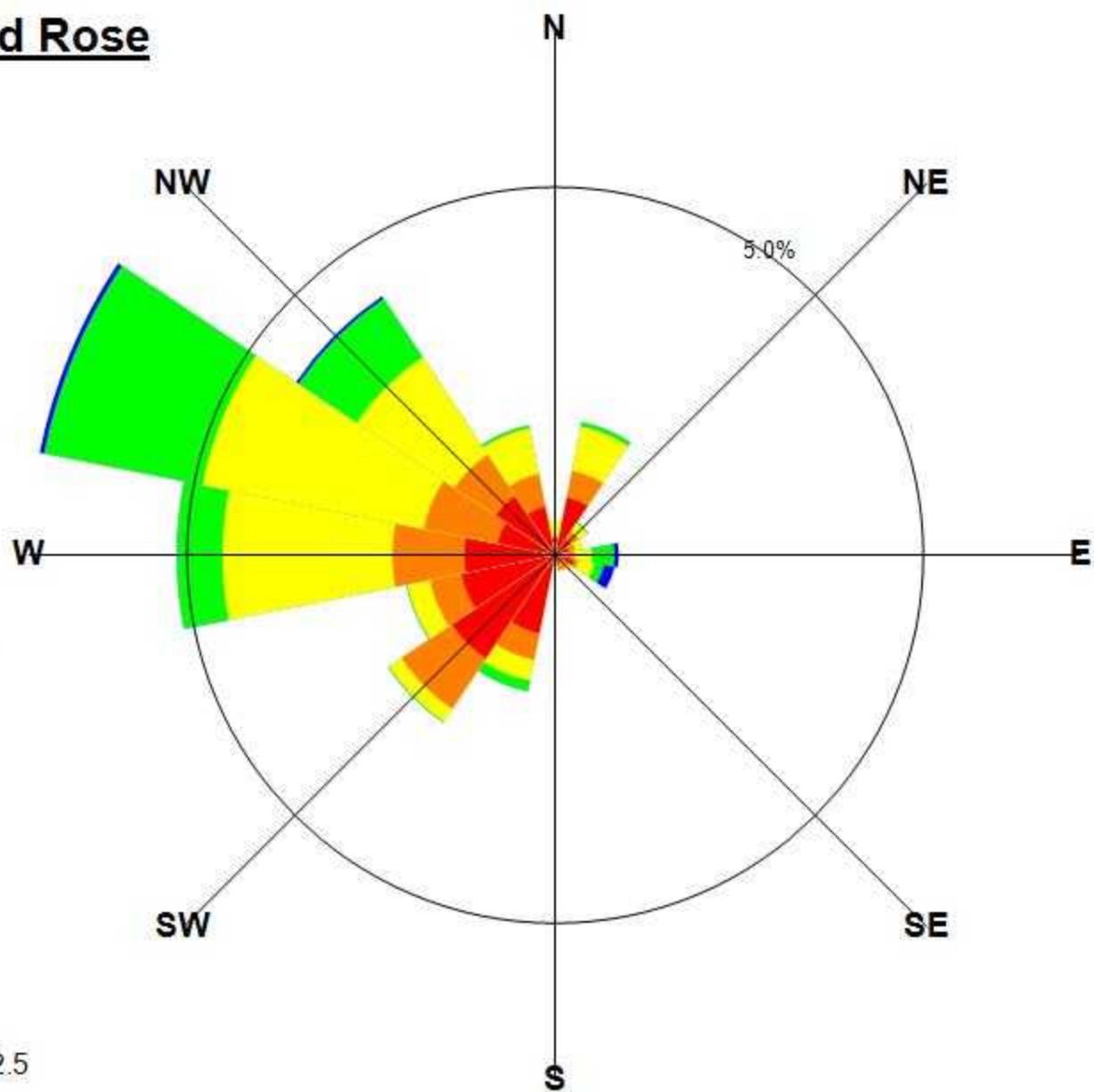


Title				Dust Deposition Gauge Locations			
Site Address		Project No.		Figure No.		Date	
63 Abbotts Road, Kemps Creek		CH1475		1		23/08/2023	
Client		Scale		Compiled		Revision	
JK Williams Pty Ltd		NTS		CV		Rev. 1	



Figure 2 – Wind Rose Diagram

November Wind Rose



Wind Speed (km/hr)



Average value: 3.2
Maximum value: 35.4
Prevailing direction: 292.5



Attachment 1 – NATA Certified Laboratory Results

Compliance Health & Environmental Consulting P/L
PO Box 275
Gosford
NSW 2250



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: RESULTS - ALL SRAS HERE ONLY - NO INVOICES

Report 1049956-A
 Project name **KEMPS CREEK**
 Project ID **1475**
 Received Date Dec 01, 2023

Client Sample ID			DDG1	DDG4	DDG5	DDG6
Sample Matrix			Dust Deposition	Dust Deposition	Dust Deposition	Dust Deposition
Eurofins Sample No.			S23-De0003144	S23-De0003145	S23-De0003146	S23-De0003147
Date Sampled			Dec 01, 2023	Dec 01, 2023	Dec 01, 2023	Dec 01, 2023
Test/Reference	LOR	Unit				
Dust Deposition						
Combustible Solids	0.1	g/m2/mth	3.0	4.1	1.9	6.4
Soluble Solids	0.1	g/m2/mth	3.7	1.8	2.4	0.7
Total Solids Dried at 103 °C to 105 °C	0.1	g/m2/mth	6.9	6.1	4.4	7.3
Volume (total)*	0.1	mL	1400	1400	1300	1400
Ash*	0.1	g/m2/mth	0.2	0.2	0.2	0.2
Insoluble Solids	0.1	g/m2/mth	3.2	4.3	2.1	6.6

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description

Dust Deposition

Testing Site

Sydney

Extracted

Dec 02, 2023

Holding Time

5 Days

- Method: LTM-INO-4160 Determination of Dust Deposition of Ambient Air



Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Asb) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Company Name:	Compliance Health & Environmental Consulting P/L	Order No.:		Received:	Dec 1, 2023 12:49 PM
Address:	PO Box 275 Gosford NSW 2250	Report #:	1049956	Due:	Dec 8, 2023
Project Name:	KEMPS CREEK	Phone:	02 4304 0091	Priority:	5 Day
Project ID:	1475	Fax:		Contact Name:	RESULTS - ALL SRAS HERE
Eurofins Analytical Services Manager : Bonnie Pu					

Sample Detail						Dust Deposition
Sydney Laboratory - NATA # 1261 Site # 18217						X
External Laboratory						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	DDG1	Dec 01, 2023		Dust Deposition	S23-De0003144	X
2	DDG4	Dec 01, 2023		Dust Deposition	S23-De0003145	X
3	DDG5	Dec 01, 2023		Dust Deposition	S23-De0003146	X
4	DDG6	Dec 01, 2023		Dust Deposition	S23-De0003147	X
Test Counts						4

Internal Quality Control Review and Glossary

General

- Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
- All soil/sediment/solid results are reported on a dry weight basis unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion unless otherwise stated.
- For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified in this report with blue colour indicates data provided by customers that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is 7 days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit	Colour: Pt-Co Units	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPa, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 70 – 130%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 5.4, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

- Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Comments**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

Bonnie Pu Analytical Services Manager
Dilani Samarakoon Senior Analyst-Inorganic



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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