Soils - Certificate of Analysis - E25-00-5679

Client:	JR Richards & Sons Pty Ltd	Laboratory:	Environmental Analysis Laboratory
Contact:	Phil Hay	Contact:	EAL Customer Service Team
Address:	PO Box 500, NSW 2428, Australia	Address:	Military Road, East Lismore NSW 2480, Australia
Telephone:	02 6555 7007	Telephone:	(02) 6620 3678
Email:	phil.hay@jrrichards.com.au	Email:	eal@scu.edu.au

Customer reference:	PO 169875	Request ID:	EAL /E25-00-5679
Number of samples:	1	Report ID:	E25-00-5679_EALS1_1
Date samples received:	26 May 2025	Issue date:	10 June 2025

Authorised by:	Brian Smith
Position:	Senior Technical Officer

Comments: EAL is a NATA accredited laboratory (14960), accredited for compliance with ISO/IEC 17025 - Testing.

Samples received on 23/05/2025.

Certificate of Analysis

Request ID: EAL/E25-00-5679 Report ID: E25-00-5679_EALS1_1 Issue date: 10 June 2025

				Client Sample ID:	Molong Irrigation 2025
				Sample Depth:	100mm
				Sample Date:	20 May 2025
				Sampled By:	Tony
				Your Client:	JRR
				EAL Sample ID:	E25-00-5679-0001
Parameter	**Unit**	**Method Reference**	**LOR**	---	AS4454:2012 Composted Product
Moisture Content 105°C	%	** AS4454:2012 Appendix I	<0.1	16	>25
pH	---	** Rayment & Lyons 2011 - 4A1 & 3A1 (1:5 Water)	---	6.11	>5
Electrical Conductivity	dS/m	** Rayment & Lyons 2011 - 4A1 & 3A1 (1:5 Water)	---	0.0900	<10
Total Carbon	%	Inhouse S4a	<0.03	2.94	≥20
Total Nitrogen	%	Inhouse S4a	<0.02	0.29	≥0.8 See Notes
Carbon / Nitrogen Ratio	---	Inhouse S4a	<0.1	10.3	---
Organic Matter	%	Inhouse S4a	---	5.00	---
Sulfur	%	** ICPOES Total S - Compost	<0.01	0.03	---
Calcium	%	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.01	0.17	---
Magnesium	%	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.01	0.10	---
Potassium	%	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.01	0.25	---
Sodium	%	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.01	< 0.01	<1
Phosphorus	%	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.01	0.04	≤0.1 See Notes
Zinc	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	38.2	<300
Manganese	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	2680	---
Iron	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	37100	---
Copper	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	33.8	<150
Boron	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<2	4.31	<100
Silicon	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<50	763	---
Aluminium	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	20100	---
Molybdenum	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.2	1.23	---
Cobalt	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	18.3	---
Selenium	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.5	< 0.5	<5
Nitrogen : Sulfur Ratio	---	** Calculation	<0.1	11.2	---
Nitrogen : Phosphorus Ratio	---	** Calculation	<0.1	6.4	---
Nitrogen : Potassium Ratio	---	** Calculation	<0.1	1.2	---
Chloride	mg/kg	** Rayment & Lyons 2011 - 5A3a	<0.1	26.2	---
Phosphorus Sorption	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	493	---
Phosphorus Sorption Index	---	** Inhouse S18b (Based on Abbott 1985)	<1	112	---
Nitrate-N - KCl extractable	mg/kg	** Inhouse S37	<0.1	6.7	---
Ammonium-N - KCl extractable	mg/kg	** Inhouse S37	<0.1	48.1	---

Notes:

- Conversions to kg/ha = mg/kg x 2.24.
- The chloride estimate result (Electrical Conductivity x 640) is considered an estimate, and is generally an over-estimate.

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Notes:

- Total Acid Extractable Nutrients indicate a store of nutrients.
- LOR' means less than limit of reporting. 'ND' means not detected. 'NA' means not applicable. 'NR' means not requested.
- Analysis completed in a NATA accredited laboratory.
- ** denotes NATA accreditation does not cover the performance of this service.
- .. denotes not requested, no data/information or no guidelines available.
- All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (available on request or at scu.edu.au/eal).
- Analysis conducted between sample arrival date and reporting date.
- This report is not to be reproduced except in full.
- Results only relate to the item tested.
- Indicative guidelines are based on those in AS4454:2012 for a composted product.
- Methods from Rayment and Lyons, 2011. Soil Chemical Methods - Australasia. CSIRO Publishing, Collingwood.
- All analysis is on a dry weight (DW) basis - testing conducted on finely ground sample dried at 40 °C, with results corrected to 105 °C.
- All results presented as a 40°C oven dried weight. Soil sieved and lightly crushed to < 2 mm.
- Conversions for 1 mg/kg = 1 ppm 1 % = 10,000 ppm.
- Conversions for 1 cmol+/kg = 230 mg/kg Sodium, 390 mg/kg Potassium, 122 mg/kg Magnesium, 200 mg/kg Calcium