

ANALYTICAL REPORT

CLIENT:	Eclipse Resources	REPORT NO:	2019_1371
TEST REQUEST:	AS 4454 -2012 Test Methods B-G, I-J ⁽¹⁾	LAB SAMPLE ID:	2019_1371
ADDRESS:	PO Box 474, Subiaco WA	DATE RECEIVED:	1/11/2019
CLIENT SAMPLE ID:	Soil Conditioner 1 CoC#ES343	DATE TESTED:	14/11/2019 – 20/11/2019
SAMPLING LOCATION:	Abercrombie	DATE REPORTED:	20/11/2019

TEST RESULTS

Analyte	Result	Unit	AS4454 Compliance Requirement	Test Method
Electrical Conductivity	0.80	mS/cm	< 10	Appendix B of AS 4454-2012
pH	7.58		> 5	Appendix B of AS 4454-2012
Ammonium-N (in extract)	64.8	mg/L	< 200	Appendix B of AS 4454-2012
Ammonium-N (dry weight)	350	mg/kg		Appendix B of AS 4454-2012
Nitrate-N (in extract)	10	mg/L	≥ 10 ⁽²⁾	Appendix B of AS 4454-2012
Nitrate-N (dry weight)	54	mg/kg		Appendix B of AS 4454-2012
Total N (dry weight)	1.49	%	≥ 0.8 ⁽²⁾	Appendix C of AS 4454-2012
Phosphate-P (in extract)	0.06	mg/L	≤ 5 ⁽³⁾ , <1 ⁽⁴⁾	Appendix B of AS 4454-2012
Phosphate-P (dry weight)	0.34	mg/kg		Appendix B of AS 4454-2012
Total P (dry weight)	0.02	%	< 0.1 ⁽³⁾	Appendix D of AS 4454-2012
Carbon (dry weight)	29.9	%	≥ 20	Appendix C of AS 4454-2012
C:N Ratio	20			Appendix C of AS 4454-2012
Organic Matter (dry weight)	50.8	%		Appendix C of AS 4454-2012
Sulphur (dry weight)	0.12	%		Appendix C of AS 4454-2012
Calcium (dry weight)	30 856	mg/kg		Appendix D of AS 4454-2012
Magnesium (dry weight)	2 192	mg/kg		Appendix D of AS 4454-2012
Sodium (dry weight)	30.8	mg/kg	< 10 000	Appendix D of AS 4454-2012
Potassium (dry weight)	279	mg/kg		Appendix D of AS 4454-2012
Arsenic	1.05	mg/kg	20	Appendix D of AS 4454-2012
Cadmium	<0.01	mg/kg	1	Appendix D of AS 4454-2012
Chromium	60.9	mg/kg	100	Appendix D of AS 4454-2012
Copper	12.3	mg/kg	150	Appendix D of AS 4454-2012
Lead	1.09	mg/kg	150	Appendix D of AS 4454-2012
Mercury	<0.01	mg/kg	1	Appendix D of AS 4454-2012
Nickel	9.04	mg/kg	60	Appendix D of AS 4454-2012
Zinc	305	mg/kg	300	Appendix D of AS 4454-2012

(1) Appendix D includes the following parameters not tested by Bioscience Pty. Ltd.: boron, selenium, molybdenum, organohalides, chlorinated organic pesticides (OCPs), polychlorinated biphenyls (PCBs), and pathogens (*Salmonella*, *Escherichia coli*, thermotolerant coliforms).

(2) If a contribution to plant nutrition is claimed.

(3) For products that claim to be for P-sensitive plants.

(4) If applied to sandy soils.

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ANALYTICAL REPORT

CLIENT:	Eclipse Resources	REPORT NO:	2019_1115
TEST REQUEST:	AS 4454 -2012 Test Methods B-G, I-J ⁽¹⁾	LAB SAMPLE ID:	2019_1115
ADDRESS:	PO Box 474, Subiaco WA	DATE RECEIVED:	11/09/2019
CLIENT SAMPLE ID:	Soil Conditioner coc# ES333	DATE TESTED:	16/09/2019 – 27/09/2019
SAMPLING LOCATION:	Abercrombie	DATE REPORTED:	1/10/2019

TEST RESULTS

Analyte	Result	Unit	AS4454 Compliance Requirement	Test Method
Bioassay	136	Growth Index	≥ 60	Appendix F of AS 4454-2012
Wettability	0:09	minutes	< 7:00	Appendix E of AS 4454-2012
Apparent Density	0.5	kg/L		Appendix J of AS 4454-2012
Bulk Density	0.3	kg/L		Appendix J of AS 4454-2012
Moisture content (as received)	41.4	%	> 25 – 37 ⁽⁵⁾	Appendix I of AS 4454-2012
Particle Size Grading				
• > 16mm	0.00	%		Appendix G of AS 4454-2012
• > 5mm to < 16mm	3.94	%		Appendix G of AS 4454-2012
• < 5mm	96.1	%		Appendix G of AS 4454-2012
Contamination				
• glass, metal and hard plastic > 2mm	0.00	%	≤ 0.5	Appendix I of AS 4454-2012
• light plastic, plastic film > 5mm	0.00	%	≤ 0.05	Appendix I of AS 4454-2012
• stones and clods of clay >5mm	2.00	%	≤ 5	Appendix I of AS 4454-2012

(5) Maximum = % OM + 6, when OM > 40%; maximum = % OM + 10 when OM < 40%.

These results reflect our findings for the received sample only.

Tested by: GM, FMc

Date: 16/09/2019 – 27/09/2019

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