

Cootamundra Gundagai Regional Council

PO Box 420

Cootamundra NSW 2590

Friday, August 2, 2019



NATA Accredited Laboratory
Number: 9597

Accredited for compliance with
ISO/IEC 17025 - Testing

LABORATORY ANALYSIS REPORT

Report Number:1907-0043

Page 1 of 3

For all enquiries related to this report please quote document number: 1907-0043

<u>Facility:</u>	<u>Order #</u>	<u>Date Received</u>
<u>Sample Type</u>	<u>Collected By</u>	
Water		10-July-2019

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
19Jul-0140	Tip Dam 1 Surface 08.07.19 10.00	Alkalinity, Total as CaCO3	50 mg/L	APHA 2320 B	2
		Ammonia as N	<0.1 mg/L	APHA 4500-NH3 F	0.1
		Calcium (acid extractable)	11.4 mg/L	APHA 3030 E/3120 B	0.03
		Chloride	29.1 mg/L	APHA 4110 B	0.1
		Conductivity	209 µS/cm	APHA 2510 B	1
		Fluoride	0.1 mg/L	APHA 4110 B	0.1
		Iron (acid extractable)	1.01 mg/L	APHA 3030 E/3120 B	0.01
		Magnesium (acid extractable)	4.27 mg/L	APHA 3030 E/3120 B	0.02
		Manganese (acid extractable)	0.051 mg/L	APHA 3030 E/3120 B	0.001
		Nitrate as N	<0.1 mg/L	APHA 4110 B	0.1
		Phenolics - Total	0.3 mg/L	* APHA 5530 D	0.2
		pH	7.8 pH units	APHA 4500-H+ B	
		Potassium (acid extractable)	8.0 mg/L	APHA 3030 E/3120 B	0.2
		Sodium (acid extractable)	21.2 mg/L	APHA 3030 E/3120 B	0.05
		Refer to ALS Report Number:	19-33332	Analysis by ALS, Melbourne (acc no. 992)	
		Sulphate	12.2 mg/L	APHA 4110 B	0.5
		Total Organic Carbon	8.7 mg/L	Analysis by ALS Melbourne (acc no: 992)	
		Total Suspended Solids	2 mg/L	APHA 2540 D	2
19Jul-0141	Tip Dam 2 Surface 08.07.19 10.10	Phenolics - Total	2.1 mg/L	* APHA 5530 D	0.2

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<u>Facility:</u>	<u>Order #</u>	<u>Date Received</u>
<u>Sample Type</u> Water	<u>Collected By</u>	10-July-2019

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
19Jul-0141	Tip Dam 2 Surface 08.07.19 10.10	Refer to ALS Report Number:	19-33332	Analysis by ALS, Melbourne (acc no. 992)	
19Jul-0142	Tip Dam 3 Surface 08.07.19 10.20	Phenolics - Total Refer to ALS Report Number:	0.3 mg/L 19-33332	* APHA 5530 D Analysis by ALS, Melbourne (acc no. 992)	0.2
19Jul-0143	Tip Dam 4 Surface 08.07.19 10.30	Alkalinity, Total as CaCO ₃ Ammonia as N Calcium (acid extractable) Chloride Conductivity Fluoride Iron (acid extractable) Magnesium (acid extractable) Manganese (acid extractable) Nitrate as N Phenolics - Total pH Potassium (acid extractable) Sodium (acid extractable) Refer to ALS Report Number:	72 mg/L 0.3 mg/L 15.2 mg/L 47.6 mg/L 300 µS/cm 0.2 mg/L 2.87 mg/L 7.19 mg/L 0.267 mg/L <0.1 mg/L 0.5 mg/L 7.6 pH units 11.4 mg/L 27.7 mg/L 19-33332	APHA 2320 B APHA 4500-NH ₃ F APHA 3030 E/3120 B APHA 4110 B APHA 2510 B APHA 4110 B APHA 3030 E/3120 B APHA 3030 E/3120 B APHA 3030 E/3120 B APHA 4110 B * APHA 5530 D APHA 4500-H+ B APHA 3030 E/3120 B APHA 3030 E/3120 B Analysis by ALS, Melbourne (acc no. 992)	2 0.1 0.03 0.1 1 0.1 0.01 0.02 0.001 0.1 0.2 0.2 0.05

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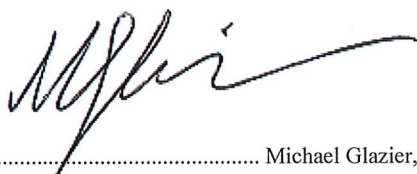
For all enquiries related to this report please quote document number: 1907-0043

Facility:	Order #	Date Received
Sample Type	Collected By	
Water		10-July-2019

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
19Jul-0143	Tip Dam 4 Surface 08.07.19 10.30	Sulphate	7.3 mg/L	APHA 4110 B	0.5
		Total Organic Carbon	12 mg/L	Analysis by ALS Melbourne (acc no: 992)	
		Total Suspended Solids	36 mg/L	APHA 2540 D	2

Note:

** NATA Accreditation does not cover the performance of this service.*



Signed Michael Glazier, Laboratory Manager.

*All samples analysed as received.
All soil results are reported on a dry basis.
The EAL takes no responsibility for the end use of results within this report.
This report shall not be reproduced except in full.
This report replaces any previously issued report*

CERTIFICATE OF ANALYSIS

Batch No:	19-33332	<i>Page</i>	Page 1 of 4
<i>Final Report</i>	766952	<i>Laboratory</i>	Scoresby Laboratory
<i>Client:</i>	Environmental and Analytical Laboratories	<i>Address</i>	Caribbean Business Park, 22 Dalmore Drive, Scoresby, VIC 3179
<i>Contact:</i>	David Wade	<i>Phone</i>	03 8756 8000
<i>Address:</i>	Charles Sturt University Locked Bag 588 WAGGA WAGGA NSW 2678	<i>Fax</i>	03 9763 1862
		<i>Contact:</i>	Brad Snibson Client Manager Brad.Snibson@alsglobal.com
<i>PO No:</i>	P0197464	<i>Date Sampled:</i>	08-Jul-2019 - 10-Jul-2019
<i>Sampler Name:</i>	EAL	<i>Date Samples Received:</i>	12-Jul-2019
<i>ALS Program Ref:</i>	EAL	<i>Date Issued:</i>	22-Jul-2019
<i>Program Description:</i>	Analysis for EAL		
<i>Client Ref:</i>	Analysis		

The hash (#) below indicates methods not covered by NATA accreditation in the performance of this service.

Analysis	Method	Laboratory	Analysis	Method	Laboratory
E.coli & FC MPN	MM804	Scoresby	CHC	WP084	Scoresby
Cyanide	WK026SF	Scoresby	HVOL	WP074	Scoresby
Legionella	MM527	Scoresby	MAH	EP125A	Scoresby
PAH	WP075B	Scoresby	TOC (SFA)	WP005SF 002SF	Scoresby
TRH F2	# WP071	Scoresby	TRH & TPH (>C10)	WP071	Scoresby
TRH (C6-C10) & F1	WP071 (F1 not NATA)	Scoresby			

Analysis conducted outside holding time due to late arrival or delayed extraction/analysis. Based on APHA, VICEPA, AS & NEPM. Results are approximate and for indicative purposes only.

Late Sample Arrival - Legionella[6181628,6181629]

TOC is analysed as NPOC and VOCs if present may be compromised when removing inorganic carbon.

All Microbiological analysis analysed outside the recommended H/T, results are indicative only.

Signatories

Name	Title	Name	Title
Hao Zhang	Team Leader Organics	Joseph De Alwis	Analyst
Kosta Christopoulos	Deputy Team Leader Organics	Tanya Dukhno	Analyst



Accreditation No. 992
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Samples not collected by ALS and are tested as received.

Soil microbiological testing was commenced within 4 days from the day collected unless otherwise stated.

MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate.

MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate.

Calculated results are based on raw data.

Legionella species refers to Legionella species other than Legionella pneumophila

Measurement Uncertainties values for your compliance results are available at this link



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
6181624		19Jul-0140	WATER	08/07/19
6181625		19Jul-0141	WATER	08/07/19
6181626		19Jul-0142	WATER	08/07/19
6181627		19Jul-0143	WATER	08/07/19

Analysis - Analyte	Sample No.	6181624	6181625	6181626	6181627
	Site Code				
	Units				
TOC (SFA) - Total Organic Carbon	mg/L	8.7			12
Cyanide - Total Cyanide, as CN	mg/L		<0.005	<0.005	
MAH - Benzene	mg/L		<0.001	<0.001	
MAH - Toluene	mg/L		<0.001	<0.001	
MAH - Ethyl Benzene	mg/L		<0.001	<0.001	
MAH - Xylenes	mg/L		<0.003	<0.003	
TRH (C6-C10) & F1 - TPH C6-C9	mg/L		<0.1	<0.1	
TRH (C6-C10) & F1 - TRH C6-C10	mg/L		<0.1	<0.1	
TRH (C6-C10) & F1 - TRH C6-C10 minus BTEX	mg/L		<0.1	<0.1	
TRH F2 - TRH>C10-C16 minus Naphthalene	mg/L		<0.1	<0.1	
TRH & TPH (>C10) - TPH C10-C14	mg/L		<0.1	<0.1	
TRH & TPH (>C10) - TPH C15-C28	mg/L		<0.1	0.2	
TRH & TPH (>C10) - TPH C29-C36	mg/L		<0.1	<0.1	
TRH & TPH (>C10) - TRH>C10-C16	mg/L		<0.1	<0.1	
TRH & TPH (>C10) - TRH>C16-C34	mg/L		<0.1	0.2	
TRH & TPH (>C10) - TRH>C34-C40	mg/L		<0.1	<0.1	
TRH & TPH (>C10) - Sum of TRH>C10-C40	mg/L		<0.1	0.2	
PAH - Naphthalene	mg/L		<0.001	<0.001	
PAH - Acenaphthylene	mg/L		<0.001	<0.001	
PAH - Acenaphthene	mg/L		<0.001	<0.001	
PAH - Fluorene	mg/L		<0.001	<0.001	
PAH - Phenanthrene	mg/L		<0.001	<0.001	
PAH - Anthracene	mg/L		<0.001	<0.001	
PAH - Fluoranthene	mg/L		<0.001	<0.001	
PAH - Pyrene	mg/L		<0.001	<0.001	
PAH - Benz(a)anthracene	mg/L		<0.001	<0.001	
PAH - Chrysene	mg/L		<0.001	<0.001	
PAH - Benzo(b)fluoranthene	mg/L		<0.001	<0.001	
PAH - Benzo(k)fluoroanthene	mg/L		<0.001	<0.001	
PAH - Benzo(a)pyrene	mg/L		<0.001	<0.001	
PAH - Dibenz(a,h)anthracene	mg/L		<0.001	<0.001	
PAH - Benzo(g,h,i)perylene	mg/L		<0.001	<0.001	
PAH - Indeno(1,2,3-cd)pyrene	mg/L		<0.001	<0.001	
PAH - Total PAH	mg/L		<0.001	<0.001	
CHC - 1,2,3,4-Tetrachlorobenzene	mg/L	<0.001			<0.001
CHC - 1,2,3,5-Tetrachlorobenzene	mg/L	<0.001			<0.001
CHC - 1,2,3-Trichlorobenzene	mg/L	<0.001			<0.001
CHC - 1,2,4,5-Tetrachlorobenzene	mg/L	<0.001			<0.001
CHC - 1,2,4-Trichlorobenzene	mg/L	<0.001			<0.001
CHC - 1,2-Dichlorobenzene	mg/L	<0.001			<0.001
CHC - 1,3,5-Trichlorobenzene	mg/L	<0.001			<0.001
CHC - 1,3-Dichlorobenzene	mg/L	<0.001			<0.001
CHC - 1,4-Dichlorobenzene	mg/L	<0.001			<0.001
CHC - 2-Chloronaphthalene	mg/L	<0.001			<0.001
CHC - Benzal Chloride	mg/L	<0.001			<0.001
CHC - Benzotrichloride	mg/L	<0.001			<0.001
CHC - Benzylchloride	mg/L	<0.001			<0.001
CHC - Hexachloroethane	mg/L	<0.001			<0.001



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
6181624		19Jul-0140	WATER	08/07/19
6181625		19Jul-0141	WATER	08/07/19
6181626		19Jul-0142	WATER	08/07/19
6181627		19Jul-0143	WATER	08/07/19

		6181624	6181625	6181626	6181627
CHC - Hexachlorobutadiene	mg/L	<0.001			<0.001
CHC - Hexachlorocyclopentadiene	mg/L	<0.001			<0.001
CHC - Pentachlorobenzene	mg/L	<0.001			<0.001
HVOL - 1,1,1,2-Tetrachloroethane	mg/L	<0.001			<0.001
HVOL - 1,1,2,2-Tetrachloroethane	mg/L	<0.001			<0.001
HVOL - 1,1-Dichloroethane	mg/L	<0.001			<0.001
HVOL - 1,1-Dichloroethene	mg/L	<0.001			<0.001
HVOL - 1,1-Dichloropropene	mg/L	<0.001			<0.001
HVOL - 1,2,3-Trichloropropane	mg/L	<0.001			<0.001
HVOL - 1,2-Dibromo-3-chloropropane	mg/L	<0.001			<0.001
HVOL - 1,2-Dibromoethane	mg/L	<0.001			<0.001
HVOL - 1,2-Dichloroethene [cis]	mg/L	<0.001			<0.001
HVOL - 1,2-Dichloroethene [trans]	mg/L	<0.001			<0.001
HVOL - 1,2-Dichloroethane	mg/L	<0.001			<0.001
HVOL - 1,2-Dichloropropane	mg/L	<0.001			<0.001
HVOL - 1,3-Dichloropropane	mg/L	<0.001			<0.001
HVOL - 1,3-Dichloropropene [cis]	mg/L	<0.001			<0.001
HVOL - 1,3-Dichloropropene [trans]	mg/L	<0.001			<0.001
HVOL - 2,2-Dichloropropane	mg/L	<0.001			<0.001
HVOL - 2-Chlorotoluene	mg/L	<0.001			<0.001
HVOL - 4-Chlorotoluene	mg/L	<0.001			<0.001
HVOL - Bromochloromethane	mg/L	<0.001			<0.001
HVOL - Bromodichloromethane	mg/L	<0.001			<0.001
HVOL - Bromobenzene	mg/L	<0.001			<0.001
HVOL - Bromoform (Tribromomethane)	mg/L	<0.001			<0.001
HVOL - Carbon Tetrachloride	mg/L	<0.001			<0.001
HVOL - Chloroform (Trichloromethane)	mg/L	<0.001			<0.001
HVOL - Chlorobenzene	mg/L	<0.001			<0.001
HVOL - Dibromochloromethane	mg/L	<0.001			<0.001
HVOL - Dibromomethane	mg/L	<0.001			<0.001
HVOL - Dichloromethane	mg/L	<0.002			<0.002
HVOL - Trichlorofluoromethane (CFC11)	mg/L	<0.002			<0.002
HVOL - Tetrachloroethene	mg/L	<0.001			<0.001
HVOL - Vinyl Chloride (Monomer)	mg/L	<0.002			<0.002
HVOL - 1,1,1-Trichloroethane	mg/L	<0.001			<0.001
HVOL - 1,1,2-Trichloroethane	mg/L	<0.001			<0.001
HVOL - Trichloroethene	mg/L	<0.001			<0.001

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 Batch No: 19-33332
 Report Number: 766952
 Client: Environmental and Analytical Laboratories
 ALS Program Ref: EAL
 Program Description: Analysis for EAL



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
6181628		19Jul-0116	WATER	09/07/19
6181629		19Jul-0117	WATER	09/07/19
6181630		19Jul-0147	SOIL	10/07/19

Analysis - Analyte	Sample No. Site Code Units	6181628	6181629	6181630
		E.coli & FC MPN - E.coli MPN	orgs/g dry wt	
E.coli & FC MPN - Faecal Coliforms MPN	orgs/g dry wt			<11
Legionella - Total Legionellae	cfu/mL	<10	<10	
Legionella - Legionella pneumophila	cfu/mL	<10	<10	
Legionella - Legionella Species other than L. pneumophila	cfu/mL	<10	<10	

A blank space indicates no test performed.