

# COFFS HARBOUR LABORATORY

Environmental Analysis

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GALINTEL  
KEVINELKS  
P. O. BOX 396  
COFFS HARBOUR NSW 2450

BATCHNUMBER: 19/2227  
No. of SAMPLES: 7  
DATE COLLECTED: 17/09/19  
DATE RECEIVED: 18/09/19  
TIME RECEIVED: 11:00  
DATE TESTING COMMENCED:  
18/09/19

## REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
19/2227/1	POINT 1, 20.00PM, 17.9.19, K ELKS
19/2227/2	POINT 3, 20.00PM, 17.9.19, K ELKS
19/2227/3	POINT 4, 20.00PM, 17.9.19, K ELKS
19/2227/4	POINT 5, 20.00PM, 17.9.19, K ELKS
19/2227/5	POINT 6, 20.00PM, 17.9.19, K ELKS
19/2227/6	POINT 7, 20.00PM, 17.9.19, K ELKS
19/2227/7	POINT 8, 20.00PM, 17.9.19, K ELKS

ANALYSIS	UNITS	19/2227/1	19/2227/2	19/2227/3	19/2227/4	METHODNO
pH	pH unit	5.9	6.2	7.0	5.7	APHA 4500-H+ B
Conductivity	$\mu$ S/cm	290	102	90	649	APHA 2510 B
Total Suspended Solids	mg/L	31	28	94	98	APHA 2540 D
Total Dissolved Solids	mg/L	185	65	57	415	EL7B
Total Hardness	mg CaCO <sub>3</sub> /L	20	15	22	93	EL9A
Alkalinity	mg CaCO <sub>3</sub> /L	3	4	13	7	APHA 2320 B
Chloride	mg/L	79.0	22.0	11.0	147	APHA 4110 C
Sulphate	mg/L	1.1	1.5	3.8	34.0	APHA 4110 C
Calcium	mg/L	7.0	5.2	5.8	17	EL9A
Magnesium	mg/L	0.51	0.52	1.7	12	EL9A
Sodium	mg/L	4.8	3.3	6.9	58	EL9A
Potassium	mg/L	1.7	1.2	3.1	5.5	EL9A
Zinc	mg/L	55.2	7.3	0.63	32.5	EL9A
Zinc - Filtered	mg/L	52	7.0	0.37	30	EL9A



Accredited for compliance with ISO/IEC 17025 - Testing  
[Accreditation Numbers: 12359 (Chemical) & 14565 (Microbiological)]

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian and International standards.

ANALYSIS	UNITS	19/2227/1	19/2227/2	19/2227/3	19/2227/4	METHODNO
Copper	mg/L	0.21	0.25	0.047	0.070	EL9A
Copper - Filtered	mg/L	0.14	0.17	0.014	0.037	EL9A
Nickel	mg/L	0.12	0.55	<0.005	<0.005	EL9A
Nickel - Filtered	mg/L	0.11	0.52	<0.005	<0.005	EL9A
Manganese	mg/L	0.39	0.36	0.16	0.55	EL9A
Manganese - Filtered	mg/L	0.37	0.34	0.065	0.50	EL9A
Iron	mg/L	6.36	3.71	2.94	2.88	EL9A
Iron - Filtered	mg/L	1.24	0.61	0.068	0.065	EL9A
Lead	mg/L	0.14	0.13	0.042	0.10	EL9A
Lead - Filtered	mg/L	0.097	<0.010	0.010	0.011	EL9A
Cobalt#	mg/L	<0.008	0.015	<0.008	<0.008	EL9A
Cobalt - Filtered#	mg/L	<0.008	0.012	<0.008	<0.008	EL9A
Chromium Trivalent	mg/L	0.058	0.077	0.005	0.004	EL9A
Chromium - Hexavalent*	mg/L	0.010	0.009	0.001	0.001	NW D2
Chromium	mg/L	0.070	0.083	0.006	<0.003	EL9A
Ammonia Nitrogen	mg/L	2.06	0.51	0.43	3.85	EL13F

ANALYSIS	UNITS	19/2227/5	19/2227/6	19/2227/7		METHODNO
pH	pH unit	4.7	4.0	7.5		APHA 4500-H+ B
Conductivity	µS/cm	51	151	138		APHA 2510 B
Total Suspended Solids	mg/L	43	24	40		APHA 2540 D
Total Dissolved Solids	mg/L	33	97	89		EL7B
Total Hardness	mg CaCO <sub>3</sub> /L	2	8	42		EL9A
Alkalinity	mg CaCO <sub>3</sub> /L	<2	<2	19		APHA 2320 B
Chloride	mg/L	8.7	29.0	17.0		APHA 4110 C
Sulphate	mg/L	0.70	<0.50	6.5		APHA 4110 C
Calcium	mg/L	0.39	2.2	16		EL9A
Magnesium	mg/L	0.18	0.53	0.82		EL9A
Sodium	mg/L	0.65	3.8	5.4		EL9A
Potassium	mg/L	0.46	0.24	2.9		EL9A
Zinc	mg/L	5.6	9.4	3.6		EL9A
Zinc - Filtered	mg/L	5.4	9.1	2.1		EL9A
Copper	mg/L	0.043	0.20	0.098		EL9A
Copper - Filtered	mg/L	0.026	0.19	0.016		EL9A
Nickel	mg/L	0.010	0.035	0.015		EL9A
Nickel - Filtered	mg/L	<0.005	0.037	<0.005		EL9A
Manganese	mg/L	0.038	0.94	0.083		EL9A
Manganese - Filtered	mg/L	0.024	0.95	0.049		EL9A
Iron	mg/L	1.77	12.5	3.21		EL9A
Iron - Filtered	mg/L	0.13	0.038	<0.004		EL9A
Lead	mg/L	1.5	0.13	0.010		EL9A
Lead - Filtered	mg/L	1.3	0.13	<0.010		EL9A
Cobalt#	mg/L	<0.008	<0.008	<0.008		EL9A
Cobalt - Filtered#	mg/L	<0.008	<0.008	<0.008		EL9A



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ANALYSIS	UNITS	19/2227/5	19/2227/6	19/2227/7		METHODNO
Chromium Trivalent	mg/L	0.008	0.006	0.015		EL9A
Chromium - Hexavalent*	mg/L	<0.001	0.004	0.002		NW_D2
Chromium	mg/L	0.013	0.013	0.018		EL9A
Ammonia Nitrogen	mg/L	0.51	0.70	0.29		EL13F

ANALYSIS	UNITS	19/2227/1	19/2227/2	19/2227/3	19/2227/4	METHODNO
<b>TOTAL RECOVERABLE HYDROCARBONS</b>						
TRH C6-C9*	ug/L	<25	<25	<25	<25	NGCMS 1121
TRH C10-C14*	ug/L	<25	<25	<25	<25	NGCMS 1112
TRH C15-C28*	ug/L	<100	<100	<100	<100	NGCMS 1112
TRH C29-C36*	ug/L	<100	<100	<100	<100	NGCMS 1112
<b>TOTAL RECOVERABLE HYDROCARBON*</b>						
TRH C6- C10	ug/L	<25	<25	<25	<25	NGCMS 1121
TRH C6- C10 less BTEX (F1)	ug/L	<25	<25	<25	<25	NGCMS_1121
TRH>C10-C16	ug/L	<25	<25	<25	<25	NGCMS 1112
TRH>C10 - C16 less Naph (F2)	ug/L	<25	<25	<25	<25	NGCMS_1112
TRH>C16-C34(F3)	ug/L	<100	<100	<100	<100	NGCMS 1112
TRH>C34-C40(F4)	ug/L	<100	<100	<100	<100	NGCMS 1112

ANALYSIS	UNITS	19/2227/5	19/2227/6	19/2227/7		METHODNO
<b>TOTAL RECOVERABLE HYDROCARBONS</b>						
TRH C6-C9*	ug/L	<25	<25	<25		NGCMS 1121
TRH C10-C14*	ug/L	<25	<25	<25		NGCMS 1112
TRH C15-C28*	ug/L	<100	<100	<100		NGCMS 1112
TRH C29-C36*	ug/L	<100	<100	<100		NGCMS 1112
<b>TOTAL RECOVERABLE HYDROCARBON*</b>						
TRH C6- C10	ug/L	<25	<25	<25		NGCMS 1121
TRH C6- C10 less BTEX (F1)	ug/L	<25	<25	<25		NGCMS_1121
TRH>C10-C16	ug/L	<25	<25	<25		NGCMS 1112
TRH>C10 - C16 less Naph (F2)	ug/L	<25	<25	<25		NGCMS_1112
TRH>C16-C34(F3)	ug/L	<100	<100	<100		NGCMS 1112
TRH>C34-C40(F4)	ug/L	<100	<100	<100		NGCMS 1112

**Comments**

Sample(s) collected by client and analysed as received in accordance with "Standard Methods for the Examination of Water & Wastewater", 23rd Edition, 2017, APHA. Raw data sheets stating analysis dates are available upon request.

Tests marked with '#' are not covered by NATA Accreditation.

Note: Microbiological results are membrane presumptive.

Measurement Uncertainty is available upon request.

\* Analysis conducted by a subcontracted laboratory (NATA Accreditation Number 198) RN1247804.

Report Date: [30/09/19] Accreditation Numbers: 12359 (Chemical) & 14565 (Microbiological)

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