

COFFS HARBOUR LABORATORY

Environmental Analysis Page 1 of 5



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

BATCHNUMBER: 18/2717
No. of SAMPLES: 10
DATE COLLECTED: 29/11/18
DATE RECEIVED: 05/12/18
TIME RECEIVED: 15:00
DATE TESTING COMMENCED:
05/12/18

REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
18/2717/1	POINT 1
18/2717/2	POINT 2A
18/2717/3	POINT 2B
18/2717/4	POINT 3
18/2717/5	POINT 5
18/2717/6	POINT 6
18/2717/7	POINT 7
18/2717/8	POINT 9
18/2717/9	LITTLE PIT
18/2717/10	PIT 6

ANALYSIS	UNITS	18/2717/1	18/2717/2	18/2717/3	18/2717/4	METHOD NO
pH	pH unit	6.1	6.3	6.5	7.0	APHA 4500-H+ B
Conductivity	µS/cm	243	77	70	100	APHA 2510 B
Total Suspended Solids	mg/L	5	631	402	6	APHA 2540 D
Total Dissolved Solids	mg/L	156	49	45	64	EL7B
Total Hardness	mg CaCO ₃ /L	46	33	25	20	EL9A
Alkalinity	mg CaCO ₃ /L	5	14	10	14	APHA 2320 B
Chloride	mg/L	56	7.0	5.8	11	EL10A
Sulfate	mg/L	2.9	4.5	3.8	3.0	EL9A
Calcium	mg/L	17	6.7	5.3	7.2	EL9A
Magnesium	mg/L	0.75	3.9	2.9	0.53	EL9A
Sodium	mg/L	4.6	3.7	3.4	3.9	EL9A
Potassium	mg/L	1.9	5.4	3.8	1.5	EL9A
Zinc	mg/L	18.4	1.5	1.2	2.2	EL9A
Zinc - Filtered	mg/L	18	0.66	0.49	2.0	EL9A



Accredited for compliance with ISO/IEC 17025.
[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.

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ANALYSIS	UNITS	18/2717/1	18/2717/2	18/2717/3	18/2717/4	METHODNO
Copper	mg/L	0.094	0.094	0.10	0.047	EL9A
Copper - Filtered	mg/L	0.077	0.013	0.014	0.045	EL9A
Nickel	mg/L	0.15	0.013	0.011	<0.005	EL9A
Nickel - Filtered	mg/L	0.15	0.006	<0.005	<0.005	EL9A
Manganese	mg/L	0.65	0.55	0.42	0.039	EL9A
Manganese - Filtered	mg/L	0.63	0.15	0.050	0.036	EL9A
Iron	mg/L	0.93	15.0	11.7	0.23	EL9A
Iron - Filtered	mg/L	0.14	0.054	0.043	0.046	EL9A
Lead	mg/L	<0.010	0.10	0.065	<0.010	EL9A
Lead - Filtered	mg/L	<0.010	<0.010	<0.010	<0.010	EL9A
Cobalt#	mg/L	<0.008	<0.008	<0.008	<0.008	EL9A
Cobalt - Filtered#	mg/L	<0.008	<0.008	<0.008	<0.008	EL9A
Chromium Trivalent	mg/L	0.006	0.020	0.024	0.011	EL9A
Chromium - Hexavalent*	mg/L	<0.001	<0.001	<0.001	0.017	NW D2
Chromium	mg/L	0.006	0.020	0.024	0.028	EL9A
Ammonia Nitrogen	mg/L	0.73	<0.05	<0.05	0.19	EL13F

ANALYSIS	UNITS	18/2717/5	18/2717/6	18/2717/7	18/2717/8	METHODNO
pH	pH unit	5.6	5.1	4.4	7.3	APHA 4500-H+ B
Conductivity	µS/cm	48	40	85	28,900	APHA 2510 B
Total Suspended Solids	mg/L	<4	8	4	99	APHA 2540 D
Total Dissolved Solids	mg/L	31	25	54	18,500	EL7B
Total Hardness	mg CaCO ₃ /L	4	<1	3	3,230	EL9A
Alkalinity	mg CaCO ₃ /L	3	2	<2	97	APHA 2320 B
Chloride	mg/L	5.7	3.0	12	9,380	EL10A
Sulfate	mg/L	1.1	<0.50	0.88	1,490	EL9A
Calcium	mg/L	0.94	0.19	0.45	210	EL9A
Magnesium	mg/L	0.35	0.073	0.48	657	EL9A
Sodium	mg/L	2.3	0.27	3.8	5,350	EL9A
Potassium	mg/L	0.20	0.11	0.20	251	EL9A
Zinc	mg/L	0.77	1.0	2.4	0.32	EL9A
Zinc - Filtered	mg/L	0.76	0.99	2.3	0.24	EL9A
Copper	mg/L	0.027	0.016	0.064	0.015	EL9A
Copper - Filtered	mg/L	0.022	0.014	0.061	0.004	EL9A
Nickel	mg/L	<0.005	<0.005	0.008	0.005	EL9A
Nickel - Filtered	mg/L	<0.005	<0.005	0.007	0.005	EL9A
Manganese	mg/L	0.032	0.014	0.27	0.20	EL9A
Manganese - Filtered	mg/L	0.031	0.012	0.26	0.12	EL9A
Iron	mg/L	0.12	0.48	0.73	3.60	EL9A
Iron - Filtered	mg/L	0.058	0.10	0.026	0.028	EL9A
Lead	mg/L	<0.010	0.24	0.17	0.023	EL9A
Lead - Filtered	mg/L	<0.010	0.13	0.16	0.017	EL9A
Cobalt#	mg/L	<0.008	<0.008	<0.008	<0.008	EL9A
Cobalt - Filtered#	mg/L	<0.008	<0.008	<0.008	<0.008	EL9A
Chromium Trivalent	mg/L	<0.003	0.003	<0.003	0.006	EL9A



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ANALYSIS	UNITS	18/2717/5	18/2717/6	18/2717/7	18/2717/8	METHODNO
Chromium - Hexavalent*	mg/L	<0.001	<0.001	<0.001	<0.001	NW D2
Chromium	mg/L	<0.003	0.003	<0.003	0.006	EL9A
Ammonia Nitrogen	mg/L	0.28	0.44	0.19	<0.05	EL13F

ANALYSIS	UNITS	18/2717/9	18/2717/10			METHODNO
pH	pH unit	7.4	4.5			APHA 4500-H+ B
Conductivity	µS/cm	158	631			APHA 2510 B
Total Suspended Solids	mg/L	273	220			APHA 2540 D
Total Dissolved Solids	mg/L	101	404			EL7B
Total Hardness	mg CaCO ₃ /L	52	134			EL9A
Alkalinity	mg CaCO ₃ /L	36	<2			APHA 2320 B
Chloride	mg/L	15	171			EL10A
Sulfate	mg/L	6.7	55			EL9A
Calcium	mg/L	18	29			EL9A
Magnesium	mg/L	1.5	15			EL9A
Sodium	mg/L	8.0	17			EL9A
Potassium	mg/L	3.2	90			EL9A
Zinc	mg/L	14.2	0.69			EL9A
Zinc - Filtered	mg/L	3.0	0.85			EL9A
Copper	mg/L	0.38	0.052			EL9A
Copper - Filtered	mg/L	0.034	0.032			EL9A
Nickel	mg/L	0.012	0.008			EL9A
Nickel - Filtered	mg/L	<0.005	0.007			EL9A
Manganese	mg/L	0.30	0.38			EL9A
Manganese - Filtered	mg/L	0.031	0.28			EL9A
Iron	mg/L	18.3	3.59			EL9A
Iron - Filtered	mg/L	0.01	1.25			EL9A
Lead	mg/L	0.087	0.018			EL9A
Lead - Filtered	mg/L	<0.010	0.013			EL9A
Cobalt#	mg/L	<0.008	<0.008			EL9A
Cobalt - Filtered#	mg/L	<0.008	<0.008			EL9A
Chromium Trivalent	mg/L	0.087	0.006			EL9A
Chromium - Hexavalent*	mg/L	0.001	<0.001			NW D2
Chromium	mg/L	0.088	0.006			EL9A
Ammonia Nitrogen	mg/L	<0.05	0.34			EL13F

ANALYSIS	UNITS	18/2717/1	18/2717/2	18/2717/3	18/2717/4	METHODNO
TOTAL RECOVERABLE HYDROCARBONS						
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
TOTAL RECOVERABLE HYDROCARBON*						



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ANALYSIS	UNITS	18/2717/1	18/2717/2	18/2717/3	18/2717/4	METHODNO
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	18/2717/5	18/2717/6	18/2717/7	18/2717/8	METHODNO
TOTAL RECOVERABLE HYDROCARBONS						
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
TOTAL RECOVERABLE HYDROCARBON*						
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	18/2717/9	18/2717/10			METHODNO
TOTAL RECOVERABLE HYDROCARBONS						
TRH C6-C9*	ug/L	<25	<25			NGCMS 1121
TRH C10-C14*	ug/L	<25	<25			NGCMS 1112
TRH C15-C28*	ug/L	<100	<100			NGCMS 1112
TRH C29-C36*	ug/L	<100	<100			NGCMS 1112
TOTAL RECOVERABLE HYDROCARBON*						
TRH C6- C10	ug/L	<25	<25			NGCMS 1121
TRH C6- C10 less BTEX (F1)	ug/L	<25	<25			NGCMS_1121
TRH>C10-C16	ug/L	<25	<25			NGCMS 1112
TRH>C10 - C16 less Naph (F2)	ug/L	<25	<25			NGCMS_1112
TRH>C16-C34(F3)	ug/L	<100	<100			NGCMS 1112
TRH>C34-C40(F4)	ug/L	<100	<100			NGCMS 1112



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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.

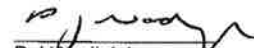
*Analysis conducted by a subcontracted laboratory (NATA Accreditation Number 198) RN 1217165.

Report Date: 18/12/18



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Approved:


B J Wadleigh
Laboratory Manager