Central Queensland Coal Project

Appendix 5a - Surface Water and Groundwater Quality Results

Supplementary Environmental Impact Statement

CENTRAL QUEENSLAND COAL PROJECT
SURFACE WATER RESULTS

Feb-17

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/L	Turbidity (NTU) mg/L	Temperature °C	
St1	22/02/2017	8.15	13103	12141	5.07	12.6	29.9	
Ba1	22/02/2017	DRY						
De1	22/02/2017	DRY						
De2	22/02/2017	7.65	271.9	260.8	3.01	XXX	27.1	
De3	22/02/2017	7.48	373.7	365.2	1.3	XXX	26.2	
De4	22/02/2017	7.51	258.8	241.5	2.8	116	28.7	
T01	22/02/2017	8.04	872	842	2.53	14.5	26.6	
T02	22/02/2017	8.1	2737	2521	8.35	3.3	29.5	

Notes:
Turbidity XXX = >880 (probe maximum)

May-17

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/L	Turbidity (NTU) mg/L	Temperature °C	
St1	1/05/2017	7.09	1127	1154	5.57	12.3	23.7	
Ba1x	4/05/2017	7.57	1293	1366	5.62	6	22.2	
De1	2/05/2017	7.48	380.4	424.1	5.55	23.5	19.7	
De2	2/05/2017	7.2	348.9	385.6	6.03	28.7	20	
De3	1/05/2017	6.98	355.9	393.9	6.22	32.9	20	
De4	2/05/2017	7.6	404.5	445	6.88	14	20.2	
T01	2/05/2017	7.49	713	750	4.85	4	22.3	
T02	2/05/2017	7.88	836	850	5.7	2.5	24.1	

Jun-17

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/L	Turbidity (NTU) mg/L	Temperature °C	
St1	12/06/2017	7.54	122.7	1361	5.96	5.9*	19.9	
Ba1x	15/06/2017	7.38	1288	1407	4.85	6.4	20.1	
De1	13/06/2017	7.41	353.9	427.8	4.6	10.2*	16	
De2	13/06/2017	7.5	357.9	293.8	5.51	17.7*	15.6	
De3	13/06/2017	7.38	318.3	386.2	5.46	18.6*	15.8	
De4	13/06/2017	7.5	382.3	466.2	5.5	14.1*	16.1	
T01	15/06/2017	7.62	742	-	5.57	18.2	20	
T02	13/06/2017	7.68	788	882	6.01	2.2*	19.3	
T03x	13/06/2017	7.58	1133	1299	5.19	3.9*	18.3	

Aug-17

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/L	Turbidity (NTU) mg/L	Temperature °C	
St1	7/08/2017	7.85	2480		6.33	3.8	24.4	
Ba1	7/08/2017	DRY						
De1	10/08/2017	7.66	406.7	516.7	5.46	2.8	14	
De2	9/08/2017	7.73	395.6	433.6	6.18	9.2	20.4	
De3	8/08/2017	7.55	590	609	4.16	2.2	23.3	
De4	8/08/2017	6.92	565	653	3.32	7.8	18.0	
T01	8/08/2017	7.91	902	1011	6.38	11.0	19.3	
T02	8/08/2017	7.89	1205	1303	9.03	2.0	21.0	
T03	8/08/2017	8.01	2235	2293	10.66	0.5	23.6	

Sep-17

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/L	Turbidity (NTU) mg/L	Temperature °C	
St1	26/09/2017	7.64	3317		105.1	2.5	25.0	
Ba1	DRY							
De1	28/09/2017	8.13	805		74.8	16.0	28.6	
De2	28/09/2017	7.83	502		53.8	8.3	25.7	
De3	28/09/2017	8.09	704		52.9	7.5	25.0	
De4	27/09/2017	7.53	748		43.8	18.5	21.0	
T01	27/09/2017	7.93	1090		76.2	2.1	23.8	
T02	27/09/2017	8.06	1577		112.9	1.9	24.8	
T03X	27/09/2017	7.81	2670		114.6	4.8	24.5	

Nov-17

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) %S	Turbidity (NTU) mg/L	Temperature °C	
St1	7/11/2017	7.9	1425	1289	80.3	23	30.8	
Ba1	DRY							
De1	8/11/2017	7.87	410.5	420	37.4	49.1	24.7	
De2	8/11/2017	7.69	211.5	210.4	46.8	493	25.3	
De3	10/11/2017	7.83	356	384.6	87	32.4	21.1	
De4	12/11/2017	7.53	634	604	65.4	5.7	27.6	
T01	8/11/2017	7.9	1020	978	75.1	17.8	27.3	
T02	12/11/2017	8.43	983	971	79.2	6.8	25.6	
T03	12/11/2017	8.4	1091	1090	85	20.6	25.1	

Dec-17

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) %S	Turbidity (NTU) mg/L	Temperature °C	
De5	20/12/2017	7.73	253.3	227.6	3.98	87	30.9	**New Location** **Approxmate Depth of 0.4m**

Jan-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU) mg/L	Temperature °C	
St1	17/01/2018	8.15	2786	2765	6.45	18.1	31.9	
Ba1	Dry							
De1	15/01/2018	8.46	464.7	445	5.97	97.0	27.6	
De2	16/01/2018	8.2	188.8	191.7	4.03	880	24.3	
De3	16/01/2018	7.95	284.6	284	1.05	452	25.1	
De4	18/01/2018	7.81	715	686	5.57	67	27.2	
De5	18/01/2018	7.94	270.9	260.4	4.98	756	27.0	
T01	18/01/2018	7.85	246.8	238.9	5.08	396	26.6	
T02	18/01/2018	7.93	475.4	439.9	4.99	22.4	29.2	
T03	17/01/2018	8.39	892	847	6.67	5.5	27.7	
Wet2	18/01/2018	7.03	59.7	53	6.01	6.4	31.5	New location (wetland) approximate depth of 0.4

Notes:
Turbidity XXX = >880 (probe maximum)

Feb-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU) mg/L	Temperature °C	
St1	14/02/2018	8.58	43.2	36.9	4.87	13.8	35.5	
Ba1	DRY							
De1	12/02/2018	7.5	431.2	399	4.48	322.0	29.7	
De2	13/02/2018	7.8	197.7	192.5	1.58	880	26.5	
De3	13/02/2018	8.35	35.9	33.3	7.87	880	25.9	
De4	15/02/2018	7.39	301.7	298.6	2.43	102	30.7	
De5	15/02/2018	7.85	422.8	370	7.71	422	31.5	
T01	14/02/2018	7.76	169.9	150.9	8.31	61.5	28.2	
T02	14/02/2018	8.13	87.2		7.98	8.8	33.2	
T03	14/02/2018	8.48	131.6	102.4	7.85	4	34.2	
Wet2	18/01/2018	7.03	59.7	53	6.01	6.4	31.5	New location (wetland) approximate depth of 0.4

Mar-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU) mg/L	Temperature °C	
St1	Was not sampled due to access issues as a result of recent rain							
Ba1	DRY							
De1	12/03/2018	7.89	610	583	5.61	238.0	27.4	
De2	13/03/2018	7.16	148.8	151.1	3.09	>880	24.7	
De3	13/03/2018	7.4	354.3	345.1	1.8	>880	26.3	
De4	14/03/2018	6.96	215.4	210	1.7	>880	26.1	
De5	14/03/2018	7.26	239.4	232.3	1.43	>880	26.7	
T01	13/03/2018	7.49	414.1	388.3	3.48	15	28.4	
T02	14/03/2018	9.01	480.1	440.5	4	7.7	29.7	
T03	14/03/2018	7.92	621	601	3.88	4.4	28.1	
St2	14/03/2018	8.07	7003	6459	4.49	20	29.4	

Notes:
Turbidity XXX = >880 (probe maximum)

Apr-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU) mg/L	Temperature °C	
ST1	12/04/2018	7.35	1992	1981	4.27	30.2	25.3	
Ba1	DRY							
De1	9/04/2018	DRY						
De2	10/04/2018	7.93	201.7	202.8	3.72	880 *	25.2	
De3	10/04/2018	DRY						
De4	12/04/2018	7.73	213	223.7	3.64	690	22.5	
De5	12/04/2018	7.97	225.6	229.1	2.46	880 *	23.1	
T01	11/04/2018	8.43	538	572	4.01	10.4	23.3	
T02	11/04/2018	7.77	592	599	2.62	133	24.3	
T03	11/04/2018	7.43	2057	2124	3.87	28.6	23.4	
St2	11/04/2018	7.93	17861	17921	6.29	30.1	25.3	

Notes:
* Turbidity = >880 (probe maximum)

May-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU)	Temperature °C	
ST1	10/05/2018	8.02	2715	2669	6.18	19	25.9	
Ba1		DRY						
De1		DRY						
De2		DRY						
De3		DRY						
De4	11/05/2018	7.86	194.9	212.3	3.97	639	20.8	
De5	11/05/2018	8.49	231.9	250.4	4.09	880*	21.2	
T01	9/05/2018	7.81	418.4	440.6	5.27	31.6	22.5	
T02	10/05/2018	8.09	600	623	4.1	10.2	23.0	
T03	10/05/2018	7.76	3203	3401	3.62	22.2	22.0	
St2	10/05/2018	7.89	24257	23422	5.41	16.2	26.8	

Notes:

* Turbidity = >880 (probe maximum)

Jun-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU)	Temperature °C	
ST1	5/06/2018	7.97	2534	2973	8.5	15.5	17.3	Water looks high
Ba1		DRY						
De1		DRY						
De2	4/06/2018	9.54	219	271.4	77.2	880*	14.3	Water very low
De3		DRY						
De4	6/06/2018	8.45	710	762	10.16	98	21.4	shallow pool - very dry
De5	6/06/2018	8.63	181	214.6	10.15	662	16.8	Very low - 0.5m deep max
T01	7/06/2018	9.52	347.6	439	6.19	3.5	14.2	Lots of algae, water low
T02	6/06/2018	9.8	469.2	583.8	7.11	8.8	14.5	Water low but extends across creek channel, lots of algae
T03	6/06/2018	9.13	1015	1144	11.95	6.7	19.1	Lots of algae and floating plants
St2	5/06/2018	7.69	17209	22935	7.4	22	11.9	Tide going out

Notes:
* Turbidity = >880 (probe maximum)

Jul-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU)	Temperature °C	
ST1	3/07/2018	7.36	3214	3549	8.52	8.9	20	Brown clear colour, lily pads
Ba1		DRY						
De1	2/07/2018	DRY						
De2	5/07/2018	DRY						Water very low
De3	4/07/2018	6.19	562	631	2.81	72.5	19.2	Pools
De4	4/07/2018	6.19	206.3	230.8	48.5	514	19.4	Milky clay colour
De5	4/07/2018	7.23	229.2	240.3	6.27	724	22.6	Milky clay colour
T01	4/07/2018	6.24	273.9	308.9	7.3	2.1	19.1	Clear, sheen
T02	4/07/2018	7.29	1278	1385	6.16	4.5	21.0	Very clear with Lily pads
T03	4/07/2018	7.22	1187	1302	7.38	4.3	20.4	Lots of algae and floating plants
St2	3/07/2018	6.8	29181	29112	5.74	8.8	25.1	Low tide, clear/green coclour (light green)

Notes:

* Turbidity = >880 (probe maximum)

Early Aug-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (FNU)	Temperature °C	
ST1	1/08/2018	8.25	8030	NA	*	3.8	20.69	Brown clear colour, lily pads
Ba1		DRY						
De1	31/07/2018	DRY						
De2	31/07/2018	DRY						Water very low
De3	31/07/2018	8.04	628	NA	4.51	30.3	15.85	Pools
De4	31/07/2018	7.73	267	NA	4.81	297	15.4	Milky clay colour
De5	31/07/2018	7.68	261	NA	5.52	394	20.08	Milky clay colour
T01	1/08/2018	8.21	559	NA	*	*	17.8	Clear, sheen, low water level
T02	31/07/2018	8.05	1320	NA	*	0.8	22.6	Very clear with Lily pads
T03	31/07/2018	8.21	1350	NA	3.5	1.6	24.5	Lots of algae and floating plants
St2	1/08/2018	8.00	33400	NA	*	0.0*	22.93	Low tide, clear/green coclour (light green)

Notes:

Turbidity = >880 (probe maximum)

* Water quality meter issues

Laboratory results utilised

NA = Specific Conductance - (SPC) µS/cm not available in the water quality meter.

Late Aug-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU)	Temperature °C	
ST1	28/08/2018	7.98	14167	14444	10	5	23.8	Clear, Lillies
Ba1		DRY						
De1	29/08/2018	DRY						
De2	29/08/2018	DRY						
De3	30/08/2018	DRY						
De4	29/08/2018	7.78	258.8	310.8	6.82	459.3	16.2	Milky clay colour, pool
De5	29/08/2018	7.35	246.2	308.4	4.85	713.3	14.4	Milky clay colour
T01	28/08/2018	8.58	1163	1265	9.85	2.1	18.1	Clear, vegetation.
T02	29/08/2018	7.72	1360	1493	7.32	2.5	20.3	Very clear with Lily pads
T03	29/08/2018	7.83	1237	1398	7.9	5.6	19.0	Lots of algae and floating plants
St2	28/08/2018	7.76	37794	38407	7.92	9	24.2	Slow flow, clear/green colour

Sep-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU)	Temperature °C	
ST1	25/09/2018	7.6	18183	17953	5.1	11.3	26.5	Clear, lillies, lots of birds
Ba1		DRY						
De1	24/09/2018	DRY						
De2	27/09/2018	DRY						
De3	26/09/2018	DRY						
De4	26/09/2018	7.77	257.4	267.3	4.31	576	23.0	Milky clay colour, pool
De5	26/09/2018	7.63	431.2	449	4.1	280	22.9	Cloudy milky clay colour, small pool
T01	26/09/2018	8.37	746	797	8.7	11.6	21.5	Clear, vegetation, small amount of sheen
T02	26/09/2018	7.9	1687	1709	6.06	5.3	24.3	Clear, lillies, lots of birds
T03	26/09/2018	7.9	1614	1625	3.97	7.3	21.4	Clear, lillies, lots of birds
St2	25/09/2018	7.72	27205	30643	5.21	14.6	19.2	Clear/ light green colour - low tide

Oct-18

Sample ID	Date Measured	Field Measurements						Comments
		pH pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Dissolved Oxygen (DO) mg/l	Turbidity (NTU)	Temperature °C	
ST1	23/10/2018	7.11	18148	16177	3.92	8.4	29.4	Clear, lillies
Ba1		DRY						
De1	22/10/2018	DRY						
De2	23/10/2018	DRY						
De3	24/10/2018	DRY						
De4	24/10/2018	DRY						
De5	24/10/2018	7.7	373.6	346.3	3.65	206	29.1	muddy / sediment
T01	23/10/2018	7.15	1039	1000	4.02	5.3	27.2	pods / algal
T02	24/10/2018	8.5	1125	1032	4.77	22.3	25.8	Various aqauatic plants dominant on surface
T03	24/10/2018	6.62	1659	1636	2.33	16	25.8	algal dominant in surface
St2	23/10/2018	7	42250	37538	66.5*	13.1	31.7	Fairly Clear

* %S

Feb 2017

			LAB ID	EB1703534001		EB1703534002	EB1703534003			EB1703534005	EB1703534006	EB1703534004
			SAMPLE DATE	22/02/2017		22/02/2017	22/02/2017			22/02/2017	22/02/2017	22/02/2017
			SAMPLE ID	St1	Ba1	To1	To2	To3	De1	De2	De3	De4
ANALYTE	**CAS No.**	**Unit**	**LOR**									
Total Dissolved Solids @180°C		mg/L	10	7,810		348	1,660			1,540	3,570	236
TDS (calculated)		*mg/L*	-	*7,880*		*392*	*1,442*			*186*	*247*	*154*
Suspended Solids (SS)		mg/L	5	13		-5	-5			1100	161	32
ED037P: Alkalinity by PC Titrator												
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	-1		-1	-1			-1	-1	-1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	-1		-1	-1			-1	-1	-1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	194		122	115			74	80	54
Total Alkalinity as CaCO3		mg/L	1	194		122	115			74	80	54
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA												
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	501		12	22			8	4	12
ED045G: Chloride by Discrete Analyser												
Chloride	16887-00-6	mg/L	1	4510		119	849			34	68	31
ED093F: Dissolved Major Cations												
Calcium	7440-70-2	mg/L	1	128		20	65			4	3	4
Magnesium	7439-95-4	mg/L	1	286		18	76			4	5	5
Sodium	7440-23-5	mg/L	1	2150		72	286			42	66	32
Potassium	7/09/7440	mg/L	1	68		2	3			3	2	4
EG020F: Dissolved Metals by ICP-MS												
Aluminium	7429-90-5	mg/L	0.01	-0.01		-0.01	-0.01			-0.01	0.06	-0.01
Arsenic	7440-38-2	mg/L	0.001	0.004		0.002	0.002			0.003	0.002	0.002
Barium	7440-39-3	mg/L	0.001	0.271		0.028	0.15			0.022	0.034	0.03
Cadmium	7440-43-9	mg/L	0.0001	-0.0001		-0.0001	-0.0001			-0.0001	-0.0001	-0.0001
Chromium	7440-47-3	mg/L	0.001	-0.001		-0.001	-0.001			-0.001	-0.001	-0.001
Cobalt	7440-48-4	mg/L	0.001	-0.001		-0.001	-0.001			-0.001	0.001	-0.001
Copper	7440-50-8	mg/L	0.001	0.002		-0.001	-0.001			0.001	-0.001	-0.001
Lead	7439-92-1	mg/L	0.001	-0.001		-0.001	-0.001			-0.001	-0.001	-0.001
Manganese	7439-96-5	mg/L	0.001	0.006		0.102	0.153			0.382	0.366	0.202
Molybdenum	7439-98-7	mg/L	0.001	0.002		-0.001	-0.001			-0.001	-0.001	-0.001
Nickel	7440-02-0	mg/L	0.001	0.001		-0.001	-0.001			0.003	0.002	0.002
Selenium	7782-49-2	mg/L	0.01	-0.01		-0.01	-0.01			-0.01	-0.01	-0.01
Silver	7440-22-4	mg/L	0.001	-0.001		-0.001	-0.001			-0.001	-0.001	-0.001
Uranium	7440-61-1	mg/L	0.001	-0.001		-0.001	-0.001			-0.001	-0.001	-0.001
Vanadium	7440-62-2	mg/L	0.01	-0.01		-0.01	-0.01			-0.01	-0.01	-0.01
Zinc	7440-66-6	mg/L	0.005	0.025		-0.005	-0.005			-0.005	-0.005	0.012
Iron	7439-89-6	mg/L	0.05	-0.05		-0.05	0.07			0.08	0.08	-0.05
EG035F: Dissolved Mercury by FIMS												
Mercury	7439-97-6	mg/L	0.0001	-0.0001		-0.0001	-0.0001			-0.0001	-0.0001	-0.0001
EK040P: Fluoride by PC Titrator												
Fluoride	16984-48-8	mg/L	0.1	0.4		0.3	0.3			0.2	0.2	0.2
EK055G: Ammonia as N by Discrete Analyser												
Ammonia as N	7664-41-7	mg/L	0.01	0.05		0.05	0.05			0.12	0.25	0.03
EK057G: Nitrite as N by Discrete Analyser												
Nitrite as N	14797-65-0	mg/L	0.01	-0.01		-0.01	-0.01			-0.01	-0.01	-0.01
EK058G: Nitrate as N by Discrete Analyser												
Nitrate as N	14797-55-8	mg/L	0.01	-0.01		0.02	0.05			0.05	0.03	0.02
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser												
Nitrite + Nitrate as N		mg/L	0.01	-0.01		0.02	0.05			0.05	0.03	0.02
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser												
Total Kjeldahl Nitrogen as N		mg/L	0.1	1.2		0.6	0.7			4	5.5	1.5
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser												
Total Nitrogen as N		mg/L	0.1	1.2		0.6	0.8			4	5.5	1.5
EK067G: Total Phosphorus as P by Discrete Analyser												
Total Phosphorus as P		mg/L	0.01	0.16		0.06	0.05			1.38	1.26	0.21
EK071G: Reactive Phosphorus as P by discrete analyser												
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	0.01		-0.01	-0.01			0.01	0.01	-0.01
EN055: Ionic Balance												
Total Anions		meq/L	0.01	142		6.04	26.7			2.6	3.6	2.2
Total Cations		meq/L	0.01	125		5.66	22			2.43	3.48	2.1
Ionic Balance		%	0.01	6.13		3.26	9.62			----	1.65	----
EP080/071: Total Petroleum Hydrocarbons												

C6 - C9 Fraction		µg/L	20	-20		-20	-20			-20	-20	-20
C10 - C14 Fraction		µg/L	50	-50		-50	-50			-50	-50	50
C15 - C28 Fraction		µg/L	100	-100		-100	-100			200	180	150
C29 - C36 Fraction		µg/L	50	-50		-50	-50			150	200	70
C10 - C36 Fraction (sum)		µg/L	50	-50		-50	-50			350	380	270
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions												
C6 - C10 Fraction	C6_C10	µg/L	20	-20		-20	-20			-20	-20	-20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	-20		-20	-20			-20	-20	-20
>C10 - C16 Fraction		µg/L	100	-100		-100	-100			-100	-100	-100
>C16 - C34 Fraction		µg/L	100	-100		-100	-100			280	330	180
>C34 - C40 Fraction		µg/L	100	-100		-100	-100			-100	-100	-100
>C10 - C40 Fraction (sum)		µg/L	100	-100		-100	-100			280	330	180
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	-100		-100	-100			-100	-100	-100
EP080: BTEXN												
Benzene	71-43-2	µg/L	1	-1		-1	-1			-1	-1	-1
Toluene	108-88-3	µg/L	2	-2		-2	-2			3	-2	-2
Ethylbenzene	100-41-4	µg/L	2	-2		-2	-2			-2	-2	-2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	-2		-2	-2			-2	-2	-2
ortho-Xylene	95-47-6	µg/L	2	-2		-2	-2			-2	-2	-2
Total Xylenes	1330-20-7	µg/L	2	-2		-2	-2			-2	-2	-2
Sum of BTEX		µg/L	1	-1		-1	-1			3	-1	-1
Naphthalene	91-20-3	µg/L	5	-5		-5	-5			-5	-5	-5

May 2017

			LAB ID	EB1708799004	EB1709053005	EB1708799003	EB1708799006		EB1708799007	EB1708799008	EB1708799009	EB1708799005
			SAMPLE DATE	1/05/2017	4/05/2017	02/05/2017	02/05/2017		02/05/2017	02/05/2017	02/05/2017	02/05/2017
			SAMPLE ID	St1	Ba1x	T01	T02	T03	De1	De2	De3	De4
ANALYTE	**CAS No.**	**Unit**	**LOR**									
Total Dissolved Solids @180°C		mg/L	10	687	906	432	615		298	274	290	318
TDS (calculated)		*mg/L*		*779*	*823*	*520*	*582*		*294*	*267*	*273*	*302*
Suspended Solids (SS)		mg/L	5	10.00	6.00	6.00	8.00		6.00	<5	15.00	6.00
ED037P: Alkalinity by PC Titrator												
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1		<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1		<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	148.00	60.00	141.00	140.00		86.00	81.00	83.00	87.00
Total Alkalinity as CaCO3		mg/L	1	148.00	60.00	141.00	140.00		86.00	81.00	83.00	87.00
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA												
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	40	41	32	33		17	15	16	16
ED045G: Chloride by Discrete Analyser												
Chloride	16887-00-6	mg/L	1	318	434	167	210		88	76	76	91
ED093F: Dissolved Major Cations												
Calcium	7440-70-2	mg/L	1	34	25	35	39		14	12	13	13
Magnesium	7439-95-4	mg/L	1	33	48	26	30		12	11	11	13
Sodium	7440-23-5	mg/L	1	169	197	85	96		55	51	52	60
Potassium	7/09/7440	mg/L	1	4	4	3	3		3	3	3	3
EG020F: Dissolved Metals by ICP-MS												
Aluminium	7429-90-5	mg/L	0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	mg/L	0.001	0.112	0.201	0.074	0.082		0.057	0.052	0.058	0.072
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	0.002	<0.001	0.018	<0.001		0.002	0.002	0.003	<0.001
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.43	0.055	0.009	0.035		0.078	0.04	0.201	0.169
Molybdenum	7439-98-7	mg/L	0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	0.001	0.001	0.002	<0.001		0.001	0.001	0.002	0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05
EG035F: Dissolved Mercury by FIMS												
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator												
Fluoride	16984-48-8	mg/L	0.1	0.2	0.1	0.2	0.2		<0.1	<0.1	<0.1	<0.1
EK055G: Ammonia as N by Discrete Analyser												
Ammonia as N	7664-41-7	mg/L	0.01	0.06	0.03	0.02	0.02		0.02	<0.01	<0.01	0.01
EK057G: Nitrite as N by Discrete Analyser												
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser												
Nitrate as N	14797-55-8	mg/L	0.01	0.06	<0.01	<0.01	<0.01		<0.01	<0.01	0.02	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser												
Nitrite + Nitrate as N		mg/L	0.01	0.06	<0.01	<0.01	<0.01		<0.01	<0.01	0.02	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser												
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.6	0.1	0.2	0.2		0.2	0.2	0.3	0.2
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser												
Total Nitrogen as N		mg/L	0.1	0.7	0.1	0.2	0.2		0.2	0.2	0.3	0.2
EK067G: Total Phosphorus as P by Discrete Analyser												
Total Phosphorus as P		mg/L	0.01	0.03	0.02	0.22	0.08		0.16	0.15	0.15	0.02
EK071G: Reactive Phosphorus as P by discrete analyser												
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
EN055: Ionic Balance												
Total Anions		meq/L	0.01	12.8	14.3	8.19	9.41		4.55	4.07	4.14	4.64
Total Cations		meq/L	0.01	11.9	13.9	7.66	8.67		4.16	3.8	3.89	4.4
Ionic Balance		%	0.01	3.63	1.51	3.37	4.1		4.58	3.5	3.02	2.58
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20		<20	<20	<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50		<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100		<100	<100	<100	<100
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50		<50	<50	<50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50		<50	<50	<50	<50

EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions												
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20		<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20		<20	<20	<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100		<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100		<100	<100	<100	<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100		<100	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100		<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100		<100	<100	<100	<100
EP080: BTEXN												
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1		<1	<1	<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2		<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2		<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2		<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2		<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2		<2	<2	<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1		<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5		<5	<5	<5	<5
EP080S: TPH(V)/BTEX Surrogates												
1.2-Dichloroethane-D4	17060-07-0	%	2	100	104	101	102		100	102	99.2	101
Toluene-D8	2037-26-5	%	2	102	102	99.4	101		101	102	102	101
4-Bromofluorobenzene	460-00-4	%	2	95.3	93.6	91.5	93.5		93.7	95.3	93.8	92.5

June 2017

			LAB ID	EB1712259003	EB1712405006	EB1712405007	EB1712259008	EB1712259009	EB1712259004	EB1712259005	EB1712259006	EB1712259007
			SAMPLE DATE	12/06/2017	16/06/2017	15/06/2017	13/06/2017	13/06/2017	13/06/2017	13/06/2017	13/06/2017	13/06/2017
			SAMPLE ID	St1	Ba1x	T01	T02	T03	De1	De2	De3	De4
ANALYTE	**CAS No.**	**Unit**	**LOR**									
Total Dissolved Solids @180°C		mg/L	10	869	1010	620	576	889	261	233	267	295
TDS (calculated)		*mg/L*		*970*	*830*	*632*	*651*	*931*	*315*	*280*	*318*	357
Suspended Solids (SS)		mg/L	5	6.00	<5	<5	<5	16.00	<5	9.00	<5	7.00
ED037P: Alkalinity by PC Titrator												
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	179.00	56	161	142.00	167.00	98.00	92.00	104.00	105.00
Total Alkalinity as CaCO3		mg/L	1	179.00	56	161	142.00	167.00	98.00	92.00	104.00	105.00
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA												
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	48	41	36	35	47	14	12	12	13
ED045G: Chloride by Discrete Analyser												
Chloride	16887-00-6	mg/L	1	420	455	227	251	404	88	75	85	112
ED093F: Dissolved Major Cations												
Calcium	7440-70-2	mg/L	1	35	26	41	43	62	16	9	8	13
Magnesium	7439-95-4	mg/L	1	36	48	22	35	49	13	9	10	14
Sodium	7440-23-5	mg/L	1	209	187	106	110	163	62	60	73	74
Potassium	7/09/7440	mg/L	1	3	4	3	3	2	2	3	2	3
EG020F: Dissolved Metals by ICP-MS												
Aluminium	7429-90-5	mg/L	0.01	0.030	<0.01	<0.01	0.010	<0.01	<0.01	<0.01	0.550	<0.01
Arsenic	7440-38-2	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Barium	7440-39-3	mg/L	0.001	0.094	0.198	0.072	0.087	0.125	0.055	0.048	0.057	0.056
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.122	0.044	0.064	0.040	0.085	0.034	0.008	0.081	0.144
Molybdenum	7439-98-7	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002	0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.006	<0.005	<0.005	<0.005	0.027	<0.005	<0.005	<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.370	<0.05
EG035F: Dissolved Mercury by FIMS												
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator												
Fluoride	16984-48-8	mg/L	0.1	0.2	<0.1	0.2	0.2	0.2	<0.1	<0.1	0.1	0.1
EK055G: Ammonia as N by Discrete Analyser												
Ammonia as N	7664-41-7	mg/L	0.01	0.03	0.02	0.04	0.02	0.02	0.06	0.02	0.02	0.02
EK057G: Nitrite as N by Discrete Analyser												
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser												
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	0.03
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser												
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	0.03
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser												
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.3	0.2	0.2	0.2	0.3	0.3	0.5	0.2	0.2
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser												
Total Nitrogen as N		mg/L	0.1	0.3	0.2	0.2	0.2	0.3	0.3	0.5	0.2	0.2
EK067G: Total Phosphorus as P by Discrete Analyser												
Total Phosphorus as P		mg/L	0.01	<0.01	0.02	0.01	0.01	0.02	0.02	0.04	0.02	0.02
EK071G: Reactive Phosphorus as P by discrete analyser												
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EN055: Ionic Balance												
Total Anions		meq/L	0.01	16.4	14.8	10.4	10.6	15.7	4.73	4.2	4.72	5.53
Total Cations		meq/L	0.01	13.9	13.5	8.54	9.89	14.3	4.62	3.88	4.45	5.1
Ionic Balance		%	0.01	8.4	4.68	9.65	3.69	4.82	1.24	4.05	3.02	4.06
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions												
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20

C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN												
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5
EP080S: TPH(V)/BTEX Surrogates												
1.2-Dichloroethane-D4	17060-07-0	%	2	94.8	106	110	94.6	95.1	95.2	95.3	95.4	96.9
Toluene-D8	2037-26-5	%	2	101	96.5	94	99.4	96.6	97.9	96.8	97.3	95.6
4-Bromofluorobenzene	460-00-4	%	2	99.7	112	108	98.8	97.8	95.9	95.6	95.4	96.8

August 2017

			LAB ID	EB1716277003	EB1716277004	EB1716277005	EB1716277006	EB1716473005	EB1716473006	EB1716277007	EB1716277008
			SAMPLE DATE	07/08/2017	08/08/2017	08/08/2017	08/08/2017	09/08/2017	09/08/2017	08/08/2017	08/08/2017
			SAMPLE ID	St1	To1	To2	To3	DE2	DE1	De3	De4
ANALYTE	**CAS No.**	**Unit**	**LOR**								
pH		pH		8.17	8.09	8.14	8.12			8.07	7.76
Electrical Conductivity		µS/cm		2890	1130	1500	2610	Labs did not sample		661	742
Total Dissolved Solids @180°C		mg/L	10	1,600	642	834	1,590	284	327	369	417
TDS (calculated)		*mg/L*		*1,631*	*692*	*871*	*1,409*	*307*	*364*	*436*	471
Suspended Solids (SS)		mg/L	5	7	30	8	<5	8	<5	<5	<5
ED037P: Alkalinity by PC Titrator											
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	228	160	149	159	97	112	165	139
Total Alkalinity as CaCO3		mg/L	1	228	160	149	159	97	112	165	139
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	88	36	35	58	11	12	8	23
ED045G: Chloride by Discrete Analyser											
Chloride	16887-00-6	mg/L	1	734	258	390	708	86	109	105	137
ED093F: Dissolved Major Cations											
Calcium	7440-70-2	mg/L	1	67	49	58	91	14	19	14	13
Magnesium	7439-95-4	mg/L	1	70	37	49	79	11	14	15	14
Sodium	7440-23-5	mg/L	1	389	113	155	276	64	70	89	112
Potassium	7/09/7440	mg/L	1	4	3	2	3	3	3	3	1
EG020F: Dissolved Metals by ICP-MS											
Aluminium	7429-90-5	mg/L	0.01	<0.01	0.02	0.01	<0.01	<0.01	<0.01	0.04	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001
Barium	7440-39-3	mg/L	0.001	0.144	0.092	0.112	0.174	0.042	0.058	0.061	0.081
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
Copper	7440-50-8	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.001
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.013	0.011	0.006	0.018	0.003	0.018	0.124	1.28
Molybdenum	7439-98-7	mg/L	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05
EG035F: Dissolved Mercury by FIMS											
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator											
Fluoride	16984-48-8	mg/L	0.1	0.2	0.2	0.2	0.2	<0.1	<0.1	0.1	0.1
EK055G: Ammonia as N by Discrete Analyser											
Ammonia as N	7664-41-7	mg/L	0.01	<0.01	0.03	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.2	0.9	0.4	0.2	0.4	0.4	0.3	<0.1
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
Total Nitrogen as N		mg/L	0.1	0.2	0.9	0.4	0.2	0.4	0.4	0.3	<0.1
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P		mg/L	0.01	0.01	0.13	0.03	<0.01	0.04	0.02	0.01	0.02
EK071G: Reactive Phosphorus as P by discrete analyser											
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EN055: Ionic Balance											
Total Anions		meq/L	0.01	27.1	11.2	14.7	24.4	4.59	5.56	6.42	7.12

Total Cations		meq/L	0.01	26.1	10.5	13.7	23.1	4.46	5.22	5.88	6.70
Ionic Balance		%	0.01	1.81	3.42	3.47	2.59	1.42	3.16	4.42	3.06
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN											
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5	<5	<5	<5

September 2017

			LAB ID	EB1720032004	EB1720032005	EB1720032006	EB1720032007	EB1720206002	EB1720206003	EB1720206004	EB1720032010
			SAMPLE DATE	27/09/2017	27/09/2017	27/09/2017	27/09/2017	28/09/2017	28/09/2017	28/09/2017	27/09/2017
			SAMPLE ID	St1	T01	T02	T03	De1	De2	De3	De4
ANALYTE	**CAS No.**	**Unit**	**LOR**								
Total Dissolved Solids @180°C		mg/L	10	2,130	832	1,290	1,770	446	263	419	483
TDS (calculated)		*mg/L*	-	*2,268*	*763*	*1,037*	*1,699*	*538*	*349*	*539*	*577*
Suspended Solids (SS)		mg/L	5	9	<5	8	6	14	8	7	9
ED037P: Alkalinity by PC Titrator											
Hydroxide Alkalinity as CaCO3	DMO-210-00	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	241	144	119	104	163	106	210	158
Total Alkalinity as CaCO3		mg/L	1	241	144	119	104	163	106	210	158
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	113	38	37	57	10	11	4	19
ED045G: Chloride by Discrete Analyser											
Chloride	16887-00-6	mg/L	1	1120	318	536	982	171	107	126	192
ED093F: Dissolved Major Cations											
Calcium	7440-70-2	mg/L	1	91	48	57	88	21	13	16	16
Magnesium	7439-95-4	mg/L	1	100	48	66	101	23	14	18	19
Sodium	7440-23-5	mg/L	1	546	132	193	341	106	72	116	132
Potassium	7/09/7440	mg/L	1	4	3	3	3	6	3	3	2
EG020F: Dissolved Metals by ICP-MS											
Aluminium	7429-90-5	mg/L	0.01	<0.01	0.01	<0.01	0.01	0.02	<0.01	0.01	0.01
Arsenic	7440-38-2	mg/L	0.001	0.002	<0.001	<0.001	<0.001	0.002	0.001	0.002	0.001
Barium	7440-39-3	mg/L	0.001	0.195	0.092	0.106	0.153	0.059	0.043	0.058	0.085
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003
Copper	7440-50-8	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.012	0.03	0.008	0.016	1.74	0.013	0.016	4.02
Molybdenum	7439-98-7	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.001	0.001	0.002
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
EG035F: Dissolved Mercury by FIMS											
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator											
Fluoride	16984-48-8	mg/L	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1
EK055G: Ammonia as N by Discrete Analyser											

Ammonia as N	7664-41-7	mg/L	0.01	0.01	0.02	0.02	<0.01	0.03	<0.01	<0.01	0.04
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.2	0.3	0.4	0.4	1.1	0.4	0.3	0.3
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
Total Nitrogen as N		mg/L	0.1	0.2	0.3	0.4	0.4	1.1	0.4	0.3	0.3
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P		mg/L	0.01	0.02	0.02	0.02	0.02	0.03	<0.01	<0.01	0.14
EK071G: Reactive Phosphorus as P by discrete analyser											
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
EN055: Ionic Balance											
Total Anions		meq/L	0.01	38.8	12.6	18.3	31.0	8.29	5.36	7.83	8.97
Total Cations		meq/L	0.01	36.6	12.2	16.7	27.6	7.70	5.01	7.40	8.15
Ionic Balance		%	0.01	2.84	1.91	4.34	5.72	3.65	3.43	2.83	4.75
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN											
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5	<5	<5	<5

November 2017

			LAB ID	EB1723513007	EB1723513005	EB1723721006	EB1723721007	EB1723513003	EB1723513004	EB1723666004	EB1723721008
			SAMPLE DATE	7/11/2017	8/11/2017	12/11/2017	12/11/2017	8/11/2017	8/11/2017	10/11/2017	12/11/2017
			SAMPLE ID	St1	To1	To2	T03	De1	De2	De3	De4
ANALYTE	**CAS No.**	**Unit**	**LOR**								
Total Dissolved Solids @180°C		mg/L	10	799	623	560	662	252	567	249	330
TDS (calculated)		*mg/L*	-	*841*	*629*	*623*	*737*	*269*	*143*	*283*	*404*
Suspended Solids (SS)		mg/L	5	10	14	<5	8	23	50	18	7
ED037P: Alkalinity by PC Titrator											
Hydroxide Alkalinity as CaCO3	DMO-210-00	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	130	139	117	126	109	56	115	125
Total Alkalinity as CaCO3		mg/L	1	130	139	117	126	109	56	115	125
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	36	31	26	24	8	6	4	6
ED045G: Chloride by Discrete Analyser											
Chloride	16887-00-6	mg/L	1	363	237	251	295	53	27	50	118
ED093F: Dissolved Major Cations											
Calcium	7440-70-2	mg/L	1	38	42	43	51	14	5	8	17
Magnesium	7439-95-4	mg/L	1	39	34	37	46	12	5	8	18
Sodium	7440-23-5	mg/L	1	203	112	120	165	45	28	70	89
Potassium	7/09/7440	mg/L	1	3	3	3	2	4	3	2	3
EG020F: Dissolved Metals by ICP-MS											
Aluminium	7429-90-5	mg/L	0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.06	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.004	<0.001
Barium	7440-39-3	mg/L	0.001	0.087	0.08	0.07	0.092	0.048	0.028	0.04	0.045
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.107	0.033	0.019	0.028	0.146	0.063	0.021	0.26
Molybdenum	7439-98-7	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	0.001	<0.001	<0.001	<0.001	0.002	0.002	0.002	0.002
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.21	<0.05
EG035F: Dissolved Mercury by FIMS											
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator											
Fluoride	16984-48-8	mg/L	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	<0.1
EK055G: Ammonia as N by Discrete Analyser											

Ammonia as N	7664-41-7	mg/L	0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.08	0.01	<0.01
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.4	0.5	0.5	0.5	0.6	1	0.8	0.5
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
Total Nitrogen as N		mg/L	0.1	0.4	0.5	0.5	0.5	0.6	1	0.8	0.5
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P		mg/L	0.01	0.07	0.05	0.05	0.08	0.06	0.2	0.09	0.04
EK071G: Reactive Phosphorus as P by discrete analyser											
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EN055: Ionic Balance											
Total Anions		meq/L	0.01	13.6	10.1	9.96	11.3	3.84	2	3.79	5.95
Total Cations		meq/L	0.01	14	9.84	10.5	13.6	3.74	1.96	4.15	6.28
Ionic Balance		%	0.01	1.54	1.33	2.58	8.92	1.23	----	4.56	2.67
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100	130	<100	<100
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50	130	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100	130	<100	<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100	130	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN											
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5	<5	<5	<5

December 2017

			LAB ID	
			SAMPLE DATE	
			SAMPLE ID	De5
ANALYTE	**CAS No.**	**Unit**	**LOR**	
Total Dissolved Solids @180°C		mg/L	10	**268**
		mg/L		
Suspended Solids (SS)		mg/L	5	**64**
ED037P: Alkalinity by PC Titrator				
Hydroxide Alkalinit	DMO-210-001	mg/L	1	<1
Carbonate Alkalini	3812-32-6	mg/L	1	<1
Bicarbonate Alkali	71-52-3	mg/L	1	**47**
Total Alkalinity as CaCO3		mg/L	1	**47**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA				
Sulfate as SO4 - Tu	14808-79-8	mg/L	1	**3**
ED045G: Chloride by Discrete Analyser				
Chloride	16887-00-6	mg/L	1	**24**
ED093F: Dissolved Major Cations				
Calcium	7440-70-2	mg/L	1	**5**
Magnesium	7439-95-4	mg/L	1	**5**
Sodium	7440-23-5	mg/L	1	**20**
Potassium	7/09/7440	mg/L	1	**3**
EG020F: Dissolved Metals by ICP-MS				
Aluminium	7429-90-5	mg/L	0.01	
Arsenic	7440-38-2	mg/L	0.001	
Barium	7440-39-3	mg/L	0.001	
Cadmium	7440-43-9	mg/L	0.0001	
Chromium	7440-47-3	mg/L	0.001	
Cobalt	7440-48-4	mg/L	0.001	
Copper	7440-50-8	mg/L	0.001	
Lead	7439-92-1	mg/L	0.001	
Manganese	7439-96-5	mg/L	0.001	
Molybdenum	7439-98-7	mg/L	0.001	
Nickel	7440-02-0	mg/L	0.001	
Selenium	7782-49-2	mg/L	0.01	
Silver	7440-22-4	mg/L	0.001	
Uranium	7440-61-1	mg/L	0.001	
Vanadium	7440-62-2	mg/L	0.01	
Zinc	7440-66-6	mg/L	0.005	
Iron	7439-89-6	mg/L	0.05	
EG035F: Dissolved Mercury by FIMS				
Mercury	7439-97-6	mg/L	0.0001	
EK040P: Fluoride by PC Titrator				
Fluoride	16984-48-8	mg/L	0.1	**<0.5**
EK055G: Ammonia as N by Discrete Analyser				
Ammonia as N	7664-41-7	mg/L	0.01	**0.03**
EK057G: Nitrite as N by Discrete Analyser				
Nitrite as N	14797-65-0	mg/L	0.01	**<0.01**

EK058G: Nitrate as N by Discrete Analyser				
Nitrate as N	14797-55-8	mg/L	0.01	**<0.01**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser				
Nitrite + Nitrate as N		mg/L	0.01	**<0.01**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser				
Total Kjeldahl Nitrogen as N		mg/L	0.1	**1**
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser				
Total Nitrogen as N		mg/L	0.1	**1**
EK067G: Total Phosphorus as P by Discrete Analyser				
Total Phosphorus as P		mg/L	0.01	**0.1**
EK071G: Reactive Phosphorus as P by discrete analyser				
Reactive Phosphor	14265-44-2	mg/L	0.01	<0.01
EN055: Ionic Balance				
Total Anions		meq/L	0.01	
Total Cations		meq/L	0.01	
Ionic Balance		%	0.01	
EP080/071: Total Petroleum Hydrocarbons				
C6 - C9 Fraction		µg/L	20	<20
C10 - C14 Fraction		µg/L	50	<50
C15 - C28 Fraction		µg/L	100	<100
C29 - C36 Fraction		µg/L	50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions				
C6 - C10 Fraction	C6_C10	µg/L	20	<20
C6 - C10 Fraction	C6_C10-BTEX	µg/L	20	<20
>C10 - C16 Fraction		µg/L	100	<100
>C16 - C34 Fraction		µg/L	100	<100
>C34 - C40 Fraction		µg/L	100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100
>C10 - C16 Fraction minus Naphthale		µg/L	100	<100
EP080: BTEXN				
Benzene	71-43-2	µg/L	1	<1
Toluene	108-88-3	µg/L	2	<2
Ethylbenzene	100-41-4	µg/L	2	<2
meta- & para-Xyle	108-38-3 106-42-3	µg/L	2	<2
ortho-Xylene	95-47-6	µg/L	2	<2
Total Xylenes	1330-20-7	µg/L	2	<2
Sum of BTEX		µg/L	1	<1
Naphthalene	91-20-3	µg/L	5	<5

January 2018

			LAB ID	EB1802268008	EB1802263002	EB1802263004	EB1802268005	EB1802004004	EB1802004009	EB1802004006	EB1802263001	EB1802263003	EB1802263005
			SAMPLE DATE	17-Jan-18	18-Jan-18	18-Jan-18	17-Jan-18	16-Jan-18	16-Jan-18	16-Jan-18	18-Jan-18	18-Jan-18	18-Jan-18
			SAMPLE ID	St1	To1	To2	T03	De1	De2	De3	De4	De5	Wet2
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10	790	318	250	549	247	1130	506	402	570	56
TDS (calculated)		*mg/L*	-	*741*	*141*	*267*	*503*	*275*	*124*	*168*	*404*	*140*	*22*
Suspended Solids (SS)		mg/L	5	13	62	14	6	18	44	34	36	100	8
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	123	55	82	116	106	58	76	113	46	13
Total Alkalinity as CaCO3		mg/L	1	123	55	82	116	106	58	76	113	46	13
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	27	4	6	21	6	4	2	12	5	<1
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1	333	29	78	186	54	12	25	131	39	<1
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1	39	10	20	34	15	4	6	14	4	2
Magnesium	7439-95-4	mg/L	1	38	7	14	26	12	4	7	18	5	1
Sodium	7440-23-5	mg/L	1	149	22	46	91	55	27	32	88	29	2
Potassium	7/09/7440	mg/L	1	4	2	3	3	3	2	3	3	2	<1
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01	<0.01	0.03	0.03	<0.01	0.02	0.02	0.21	<0.01	0.03	0.02
Arsenic	7440-38-2	mg/L	0.001	0.002	0.002	0.003	0.002	0.002	0.001	0.004	0.001	0.001	<0.001
Barium	7440-39-3	mg/L	0.001	0.124	0.036	0.035	0.05	0.039	0.019	0.023	0.065	0.021	0.004
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	0.001	0.001	<0.001	<0.001	0.002	0.002	0.002	0.002	0.002	<0.001
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.199	0.017	0.112	0.014	0.013	0.019	0.006	0.276	0.044	0.019
Molybdenum	7439-98-7	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002	0.002	0.001	0.002	<0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.005	<0.005	0.008	<0.005	<0.005	0.006	<0.005	<0.005	0.006
Iron	7439-89-6	mg/L	0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	0.23	<0.05	0.07	0.76
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	<0.1
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01	<0.01	0.02	0.02	0.04	<0.01	0.1	0.03	<0.01	<0.01	<0.01
EK057G: Nitrite as N by Discrete Analyser													
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser													
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													

Nitrite + Nitrate as N		mg/L	0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.3	1.8	0.4	0.4	0.6	1.8	1.4	0.4	1.6	0.9
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1	0.3	1.8	0.4	0.4	0.6	1.8	1.4	0.4	1.6	0.9
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01	0.02	0.16	0.03	0.01	0.07	0.49	0.22	0.04	0.22	0.08
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01	12.4	2	3.96	8	3.77	1.58	2.26	6.2	2.12	0.26
Total Cations		meq/L	0.01	11.6	2.08	4.23	7.87	4.2	1.75	2.34	6.08	1.92	0.27
Ionic Balance		%	0.01	3.14	----	3.23	0.82	5.51	5.21	----	0.96	----	----
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100	<100	130	<100	<100	<100	<100	<100	<100	<100	180
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	50
C10 - C36 Fraction (sum)		µg/L	50	<50	130	<50	<50	<50	<50	<50	<50	<50	230
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100	<100	130	<100	<100	<100	<100	<100	<100	100	200
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	130	<100	<100	<100	<100	<100	<100	100	200
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN													
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

February 2018

			LAB ID	EB1804404009	EB1804404008	EB1804404011	EB1804404012	EB1804139006	EB1804139007	EB1804139008	EB1804404010	EB1804404006
			SAMPLE DATE	14/02/2018	14/02/2018	14/02/2018	14/02/2018	12/02/2018	13/02/2018	13/02/2018	14/02/2018	15/02/2018
			SAMPLE ID	ST1	T01	T02	T03	De1	De2	De3	De4	De5
ANALYTE	**CAS No.**	**Unit**	**LOR**									
pH		pH Unit						7.68	7.55	7.26		
Total Dissolved Solids @180°C		mg/L	10	6,020	189	404	606	2,920	1,490	2,780	240	483
TDS (calculated)		*mg/L*	-	*6,249*	*194*	*432*	*601*	*269*	*149*	*245*	*182*	*181*
Electrical Conductivity		µS/cm		10,100	289	706	1,030	398	186	361	274	278
Suspended Solids (SS)		mg/L	5	17	7	14	<5	205	120	248	27	16
ED037P: Alkalinity by PC Titrator												
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	4	<1	<1	27	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	199	82	120	100	77	65	72	62	64
Total Alkalinity as CaCO3		mg/L	1	203	82	120	127	77	65	72	62	64
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA												
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	405	3	6	10	14	5	5	4	5
ED045G: Chloride by Discrete Analyser												
Chloride	16887-00-6	mg/L	1	3280	36	156	265	77	21	73	39	45
ED093F: Dissolved Major Cations												
Calcium	7440-70-2	mg/L	1	134	14	26	29	5	3	2	5	4
Magnesium	7439-95-4	mg/L	1	249	9	22	31	4	4	4	7	6
Sodium	7440-23-5	mg/L	1	1880	30	73	124	72	33	70	48	40
Potassium	7/09/7440	mg/L	1	55	2	2	3	2	3	2	3	3
EG020F: Dissolved Metals by ICP-MS												
Aluminium	7429-90-5	mg/L	0.01	<0.01	0.02	0.02	0.02	0.01	0.02	0.69	0.04	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.003	0.004	0.002	0.002	0.002	0.002	0.003	0.002	0.003
Barium	7440-39-3	mg/L	0.001	0.261	0.024	0.031	0.048	0.015	0.014	0.016	0.024	0.026
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	0.001	0.002	0.001	<0.001	0.002	0.002	0.002	0.002	0.002
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.11	0.09	0.021	0.007	0.003	0.024	0.014	0.109	0.03
Molybdenum	7439-98-7	mg/L	0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002	0.002	0.002	0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.46	0.14	<0.05
EG035F: Dissolved Mercury by FIMS												
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator												
Fluoride	16984-48-8	mg/L	0.1	0.4	0.2	0.2	0.2	0.5	0.2	0.1	0.2	0.2
EK055G: Ammonia as N by Discrete Analyser												

Ammonia as N	7664-41-7	mg/L	0.01	0.06	0.03	0.02	0.14	0.1	0.17	0.08	0.04	0.08
EK057G: Nitrite as N by Discrete Analyser												
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser												
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser												
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser												
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.3	0.6	0.3	0.4	3.1	2.6	4.0	0.8	1.1
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser												
Total Nitrogen as N		mg/L	0.1	0.3	0.6	0.3	0.4	3.1	2.6	4.0	0.8	1.1
EK067G: Total Phosphorus as P by Discrete Analyser												
Total Phosphorus as P		mg/L	0.01	0.65	0.06	0.02	0.03	1.92	0.64	1.05	0.1	0.2
EK071G: Reactive Phosphorus as P by discrete analyser												
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01
EN055: Ionic Balance												
Total Anions		meq/L	0.01	105	2.72	6.92	10.2	4.00	2.00	3.60	2.42	2.65
Total Cations		meq/L	0.01	110	2.80	6.33	9.47	3.76	1.99	3.52	2.99	2.51
Ionic Balance		%	0.01	2.48	----	4.44	3.82	3.10	----	1.08	----	----
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	160	<100	<100	<100	<100	110
C29 - C36 Fraction		µg/L	50	<50	<50	<50	50	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	210	<50	<50	<50	<50	110
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions												
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	180	<100	<100	<100	<100	<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	180	<100	<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN												
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5

March 2018

			LAB ID		EB1806701010	EB1806947005	EB1806947004	EB1806701004	EB1806701007	EB1806701009	EB1806947009	EB1806947008	EB1806947011
			SAMPLE DATE		13/03/2018	14/03/2018	14/03/2018	12/03/2018	13/03/2018	13/03/2018	14/03/2018	14/03/2018	14/03/2018
			SAMPLE ID	ST1	T01	T02	T03	De1	De2	De3	De4	De5	St2
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10		255	286	371	302	2,080	1,610	1,160	1,350	2,830
TDS (calculated)		*mg/L*	-		*229*	*269*	*320*	*242*	*108*	*148*	*146*	*135*	*2,734*
Electrical Conductivity		µS/cm			352	396	518	344	119	198	195	180	4,740
Suspended Solids (SS)		mg/L	5		12	12	10	61	91	44	147	260	16
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1		75	85	84	84	44	50	59	50	187
Total Alkalinity as CaCO3		mg/L	1		75	85	84	84	44	50	59	50	187
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1		8	10	10	7	8	7	3	6	158
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1		59	78	110	54	15	29	24	23	1390
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1		16	19	24	6	<1	2	3	2	83
Magnesium	7439-95-4	mg/L	1		12	14	17	7	1	3	4	4	108
Sodium	7440-23-5	mg/L	1		40	42	54	62	24	38	31	28	745
Potassium	7/09/7440	mg/L	1		2	2	2	3	1	2	2	2	22
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01		0.31	0.21	0.13	0.31	3.14	3.5	4.01	5.57	<0.01
Arsenic	7440-38-2	mg/L	0.001		0.002	0.002	0.002	0.002	<0.001	0.001	0.002	0.001	0.003
Barium	7440-39-3	mg/L	0.001		0.033	0.037	0.047	0.028	0.011	0.017	0.028	0.026	0.087
Cadmium	7440-43-9	mg/L	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	0.002	0.003	0.003	0.004	<0.001
Cobalt	7440-48-4	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	mg/L	0.001		0.001	0.001	0.001	0.002	0.003	0.002	0.003	0.003	<0.001
Lead	7439-92-1	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Manganese	7439-96-5	mg/L	0.001		0.002	0.002	0.019	0.002	0.037	0.008	0.186	0.016	<0.001
Molybdenum	7439-98-7	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001		<0.001	<0.001	<0.001	0.002	0.003	0.003	0.003	0.004	<0.001
Selenium	7782-49-2	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	7439-89-6	mg/L	0.05		0.22	0.19	0.16	0.29	1.64	2.05	2.32	3.15	<0.05
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1		0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.2
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01		<0.01	0.02	0.04	0.08	0.14	0.09	0.17	0.13	0.02
EK057G: Nitrite as N by Discrete Analyser													

Not sampled due to access issues a

Nitrite as N	14797-65-0	mg/L	0.01	ssociated with recent rain	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser													
Nitrate as N	14797-55-8	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	0.02	0.01	<0.01	0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													
Nitrite + Nitrate as N		mg/L	0.01		<0.01	<0.01	<0.01	<0.01	0.02	0.01	<0.01	0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1		0.5	0.5	0.3	1.1	3.1	2.6	3.1	6.8	0.5
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1		0.5	0.5	0.3	1.1	3.1	2.6	3.1	6.8	0.5
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01		0.04	0.01	<0.01	0.15	0.86	0.48	0.64	0.74	<0.01
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01		3.33	4.11	4.99	3.35	1.47	1.96	1.92	1.77	46.2
Total Cations		meq/L	0.01		3.58	3.98	5	3.65	1.59	2.05	1.88	1.7	46
Ionic Balance		%	0.01		3.59	1.59	0.07	4.31	----	----	----	----	0.26
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20		<20	<20	<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction		µg/L	50		<50	<50	<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100		<100	<100	<100	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction		µg/L	50		<50	<50	<50	<50	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)		µg/L	50		<50	<50	<50	<50	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20		<20	<20	<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20		<20	<20	<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction		µg/L	100		<100	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100		<100	<100	<100	<100	<100	<100	120	110	<100
>C34 - C40 Fraction		µg/L	100		<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100		<100	<100	<100	<100	<100	<100	120	110	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100		<100	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN													
Benzene	71-43-2	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5

April 2018

			LAB ID	EB1809197012	EB1809197014	EB1809197010	EB1809197005	EB1809197004	DRY	EB1808995006	DRY	EB1809197009	EB1809197008
			SAMPLE DATE	12/04/2018	11/04/2018	11/04/2018	11/04/2018	11/04/2018		10/04/2018		12/04/2018	12/04/2018
			SAMPLE ID	ST1	ST2	T01	T02	T03	De1	De2	De3	DE4	DE5
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10	839	10,100	238	303	1,350		820		631	1,280
TDS (calculated)		*mg/L*	-	*1,192*	*10,839*	*265*	*314*	*1,180*		*141*		*140*	*144*
Electrical Conductivity		µS/cm		1,950	17,800	400	497	2,040		178		197	198
Suspended Solids (SS)		mg/L	5	16	72	9	9	7		166		225	116
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1		<1		<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1		<1		<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	179	274	90	94	130		58		57	56
Total Alkalinity as CaCO3		mg/L	1	179	274	90	94	130		58		57	56
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	48	711	7	6	13		10		3	4
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1	542	6010	70	98	625		20		25	28
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1	52	219	18	24	78		2		3	4
Magnesium	7439-95-4	mg/L	1	50	381	12	17	67		2		4	4
Sodium	7440-23-5	mg/L	1	277	3090	46	52	235		34		33	33
Potassium	7/09/7440	mg/L	1	4	93	2	2	3		2		2	2
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01	<0.01	<0.01	0.01	0.01	<0.01		0.01		0.13	0.02
Arsenic	7440-38-2	mg/L	0.001	0.003	0.003	0.002	0.002	0.002		0.002		0.001	0.002
Barium	7440-39-3	mg/L	0.001	0.119	0.182	0.032	0.05	0.11		0.01		0.015	0.02
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		<0.0001		<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	<0.001	0.016	<0.001	0.001	<0.001		0.003		0.002	0.002
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.206	0.122	0.017	0.038	0.033		0.008		0.039	0.002
Molybdenum	7439-98-7	mg/L	0.001	<0.001	0.002	<0.001	<0.001	<0.001		0.002		<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	0.003	<0.001	<0.001	<0.001		0.001		0.001	<0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	0.001	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	0.023	<0.005	<0.005	<0.005		<0.005		<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05		0.15	<0.05
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		<0.0001		<0.0001	<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1	0.2	0.5	0.2	0.2	0.2		0.2		0.1	0.1
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01	0.09	0.13	0.04	0.04	0.03		0.12		0.09	0.06
EK057G: Nitrite as N by Discrete Analyser													
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser													
Nitrate as N	14797-55-8	mg/L	0.01	0.1	0.05	<0.01	<0.01	<0.01		0.08		0.02	<0.01

EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													
Nitrite + Nitrate as N		mg/L	0.01	0.1	0.05	<0.01	<0.01	<0.01		0.08		0.02	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.4	0.6	0.4	0.4	0.4		3.9		2.7	2.4
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1	0.5	0.6	0.4	0.4	0.4		4		2.7	2.4
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01	0.02	0.08	0.02	0.02	<0.01		1.12		0.62	0.54
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		0.02		<0.01	<0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01	19.9	190	3.92	4.77	20.5		1.93		1.91	1.99
Total Cations		meq/L	0.01	18.9	179	3.94	4.91	19.7		1.79		1.96	2.02
Ionic Balance		%	0.01	2.59	2.91	0.24	1.47	1.97		----		----	----
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20		<20		<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50		<50		<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100		<100		<100	<100
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50		<50		<50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50		<50		<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20		<20		<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20		<20		<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100		<100		<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100		<100		120	<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100		<100		<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100		<100		120	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100		<100		<100	<100
EP080: BTEXN													
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1		<1		<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1		<1		<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5		<5		<5	<5

May 2018

			LAB ID	EB1811542014	EB1811542009	EB1811402007	EB1811542005	EB1811542004				EB1811542013	EB1811542012
			SAMPLE DATE	10/05/2018	10/05/2018	09/05/2018	10/05/2018	10/05/2018	Dry	Dry	Dry	11/05/2018	11/05/2018
			SAMPLE ID	ST1	ST2	T01	T02	T03	De1	De2	De3	DE4	DE5
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10	1,620	17,100	290	371	2,170				788	1,190
TDS (calculated)		*mg/L*	-	*1,648*	*14,468*	*291*	*390*	*1,915*				*154*	*161*
Electrical Conductivity		µS/cm		2,830	24,400	461	651	3,530				222	244
Suspended Solids (SS)		mg/L	5	9	<5	7	6	19				162	562
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1				<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1				<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	228	278	103	110	227				62	61
Total Alkalinity as CaCO3		mg/L	1	228	278	103	110	227				62	61
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	72	949	8	5	44				4	6
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1	766	8280	74	137	1010				29	33
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1	65	236	20	28	91				4	4
Magnesium	7439-95-4	mg/L	1	68	512	14	20	84				5	5
Sodium	7440-23-5	mg/L	1	392	4020	47	64	405				34	35
Potassium	7/09/7440	mg/L	1	6	131	2	1	3				2	3
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				0.05	0.01
Arsenic	7440-38-2	mg/L	0.001	0.003	0.003	0.001	0.001	0.001				0.002	0.001
Barium	7440-39-3	mg/L	0.001	0.148	0.229	0.031	0.059	0.229				0.017	0.022
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001				<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	0.001	0.002	<0.001	<0.001	<0.001				0.002	0.002
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.296	0.138	0.009	0.071	0.229				0.011	0.009
Molybdenum	7439-98-7	mg/L	0.001	<0.001	0.003	<0.001	<0.001	<0.001				<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	0.009	0.001	<0.001	<0.001				<0.001	0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	0.002	<0.001	<0.001	<0.001				<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005	0.008
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	0.05				0.08	<0.05
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001				<0.0001	<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1	0.2	0.5	0.2	0.2	0.2				0.2	0.1
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01	0.07	0.13	<0.01	0.05	0.06				0.04	0.09
EK057G: Nitrite as N by Discrete Analyser													
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser													
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	0.02	<0.01	<0.01	0.01				0.02	<0.01

EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													
Nitrite + Nitrate as N		mg/L	0.01	<0.01	0.02	<0.01	<0.01	0.01				0.02	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.4	0.6	0.3	0.3	0.3				1.3	3.2
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1	0.4	0.6	0.3	0.3	0.3				1.3	3.2
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01	0.02	<0.05	0.03	0.02	0.27				0.29	0.53
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01	27.7	259	4.31	6.17	33.9				2.14	2.27
Total Cations		meq/L	0.01	26	232	4.24	5.85	29.1				2.14	2.21
Ionic Balance		%	0.01	3.01	5.45	0.77	2.61	7.6				----	----
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20				<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50				<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	360
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50				<50	80
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50				<50	440
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20				<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20				<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	410
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100				<100	410
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100				<100	<100
EP080: BTEXN													
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1				<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2				<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2				<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2				<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2				<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2				<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1				<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5				<5	<5

June 2018

			LAB ID	EB1813780005	EB1813780003	EB1813918009	EB1813918005	EB1813918004		EB1813780008		EB1813918013	EB1813918012
			SAMPLE DATE	05/06/2018	05/06/2018	06/06/2018	06/06/2018	06/06/2018	Dry	04/06/2018	Dry	06/06/2018	06/06/2018
			SAMPLE ID	ST1	ST2	T01	T02	T03	De1	De2	De3	De4	De5
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10	1930	18500	293	382	730		2490		522	975
TDS (calculated)		*mg/L*	-										
Electrical Conductivity		µS/cm		3440	28100	490	637	1220		204		791	224
Suspended Solids (SS)		mg/L	5	12	15	7	8	8		44		30	44
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1		<1		<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1		<1		<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	239	266	100	105	123		47		136	52
Total Alkalinity as CaCO3		mg/L	1	239	266	100	105	123		47		136	52
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	83	1280	8	7	7		5		27	7
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1	928	9720	85	138	330		24		168	31
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1	79	303	21	26	45		2		9	4
Magnesium	7439-95-4	mg/L	1	80	633	15	20	40		2		14	5
Sodium	7440-23-5	mg/L	1	478	5370	50	69	188		37		132	36
Potassium	7/09/7440	mg/L	1	6	177	2	1	2		2		<1	3
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		0.85		<0.01	0.02
Arsenic	7440-38-2	mg/L	0.001	0.002	0.003	0.001	<0.001	0.001		<0.001		0.001	0.001
Barium	7440-39-3	mg/L	0.001	0.171	0.218	0.041	0.049	0.092		0.016		0.041	0.021
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		<0.0001		<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	0.002	0.003	<0.001	<0.001	0.001		0.016		<0.001	0.001
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.042	0.143	0.006	0.009	0.012		0.005		0.008	<0.001
Molybdenum	7439-98-7	mg/L	0.001	<0.001	0.003	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	0.002	0.002	<0.001	<0.001	<0.001		0.005		<0.001	0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	0.002	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005		0.030		<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05		0.62		<0.05	<0.05
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		<0.0001		<0.0001	<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1	0.2	0.5	0.2	0.2	0.2		0.2		0.2	0.1
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01	0.02	0.06	0.06	0.05	0.20		0.13		0.06	0.07
EK057G: Nitrite as N by Discrete Analyser													
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	0.02
EK058G: Nitrate as N by Discrete Analyser													
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		0.13		<0.01	<0.01

EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		0.13		<0.01	0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.3	0.5	0.3	0.3	0.5		3.2		0.4	1.9
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1	0.3	0.5	0.3	0.3	0.5		3.3		0.4	1.9
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01	0.01	<0.05	0.01	0.01	0.02		0.92		0.04	0.36
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01		0.01		<0.01	<0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01	32.7	306	4.56	6.14	11.9		1.72		8.02	2.06
Total Cations		meq/L	0.01	31.5	305	4.51	5.97	13.8		1.92		7.34	2.25
Ionic Balance		%	0.01	1.88	0.14	0.59	1.37	7.22		----		4.40	----
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20		<20		<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	60	<50	<50		<50		<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100		<100		<100	130
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50		<50		<50	60
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	60	<50	<50		<50		<50	190
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20		<20		<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20		<20		<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100		<100		<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100		<100		<100	170
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100		<100		<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100		<100		<100	170
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100		<100		<100	<100
EP080: BTEXN													
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1		<1		<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2		<2		<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1		<1		<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5		<5		<5	<5

July 2018

			LAB ID	EB1816282008	EB1816282004	EB1816291014	EB1816291004	EB1816291003			EB1816291010	EB1816291008	EB1816291007
			SAMPLE DATE	03/07/2018	03/07/2018	04/07/2018	04/07/2018	04/07/2018	Dry	Dry	04/07/2018	04/07/2018	04/07/2018
			SAMPLE ID	ST1	ST2	T01	T02	T03	De1	De2	De3	De4	De5
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10	2,160	19,900	300	894	801			353	764	782
TDS (calculated)		*mg/L*	-	*1,976*	*19,081*	*324*	*827*	*760*			*338*	*171*	*167*
Electrical Conductivity		µS/cm		3,690	30,500	505	1,460	1,260			539	244	238
Suspended Solids (SS)		mg/L	5	<5	<5	65	6	<5			37	160	352
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1			<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1			<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	243	257	114	151	149			85	69	65
Total Alkalinity as CaCO3		mg/L	1	243	257	114	151	149			85	69	65
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	98	1430	9	8	8			27	5	5
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1	906	10900	88	402	340			101	32	34
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1	72	297	20	44	41			7	4	4
Magnesium	7439-95-4	mg/L	1	91	693	16	41	36			8	6	6
Sodium	7440-23-5	mg/L	1	507	5260	50	145	151			87	36	35
Potassium	7/09/7440	mg/L	1	5	186	2	2	2			4	3	3
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	0.02			0.56	0.06	0.02
Arsenic	7440-38-2	mg/L	0.001	0.002	0.002	0.001	<0.001	0.001			0.002	0.002	0.002
Barium	7440-39-3	mg/L	0.001	0.206	0.19	0.041	0.085	0.077			0.025	0.023	0.02
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001			0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	0.001	<0.001	<0.001	<0.001	0.001			0.002	0.001	0.002
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.018	0.098	0.008	0.031	0.096			0.015	0.017	0.003
Molybdenum	7439-98-7	mg/L	0.001	<0.001	0.004	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	0.001	<0.001	<0.001	<0.001			0.002	0.001	0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	0.002	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005	<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05			0.35	0.09	<0.05
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1	0.3	0.7	0.2	0.2	0.2			<0.1	0.2	0.2
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01	0.04	0.11	0.02	0.02	0.02			0.02	0.07	0.08
EK057G: Nitrite as N by Discrete Analyser													
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser													
Nitrate as N	14797-55-8	mg/L	0.01	0.01	0.03	<0.01	<0.01	0.01			0.2	0.01	0.02

EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													
Nitrite + Nitrate as N		mg/L	0.01	0.01	0.03	<0.01	<0.01	0.01			0.2	0.01	0.02
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.5	<0.5	0.3	0.3	0.3			0.6	1.7	1.6
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1	0.5	<0.5	0.3	0.3	0.3			0.8	1.7	1.6
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01	0.03	0.08	0.01	0.02	0.02			0.1	0.4	0.37
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01	32.4	342	4.95	14.5	12.7			5.11	2.38	2.36
Total Cations		meq/L	0.01	33.3	305	4.54	11.9	11.6			4.89	2.34	2.29
Ionic Balance		%	0.01	1.23	5.71	4.28	9.81	4.54			2.15	----	----
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20			<20	<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50			<50	<50	60
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100			110	<100	230
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50			60	<50	100
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50			170	<50	390
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20			<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20			<20	<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100			<100	<100	150
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100			150	<100	200
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100			<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100			150	<100	350
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100			<100	<100	150
EP080: BTEXN													
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1			<1	<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1			<1	<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5			<5	<5	<5

Early August 2018

			LAB ID	EB1818736016	EB1818736017	EB1818736018	EB1818736005	EB1818736004			EB1818736011	EB1818736009	EB1818736008
			SAMPLE DATE	1/08/2018	1/08/2018	1/08/2018	31/07/2018	31/07/2018	Dry	Dry	31/07/2018	31/07/2018	31/07/2018
			SAMPLE ID	ST1	ST2	T01	T02	T03	De1	De2	De3	De4	De5
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10	4,580	22,800	298	766	722			350	605	735
TDS (calculated)		*mg/L*	-	*4,654*	*21,273*	*349*	*761*	*814*			*440*	*180*	*169*
Electrical Conductivity		µS/cm		8,030	33,400	559	1,320	1,350			628	267	261
pH				8.25	8.00	8.21	8.05	8.21			8.04	7.73	7.68
Suspended Solids (SS)		mg/L	5	14	22	10	19	30			53	87	81
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1			<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1			<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	257	264	112	132	156			173	72	67
Total Alkalinity as CaCO3		mg/L	1	257	264	112	132	156			173	72	67
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	284	1580	10	6	8			8	4	4
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1	2610	11500	100	357	352			88	32	34
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1	114	347	25	48	49			11	5	4
Magnesium	7439-95-4	mg/L	1	167	826	18	39	38			13	6	5
Sodium	7440-23-5	mg/L	1	1140	6480	57	148	174			105	41	37
Potassium	7/09/7440	mg/L	1	25	217	2	2	2			3	3	3
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01	<0.01	<0.05	<0.01	<0.01	<0.01			0.16	0.67	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.002	<0.005	0.001	<0.001	0.001			0.001	0.002	0.002
Barium	7440-39-3	mg/L	0.001	0.287	0.209	0.047	0.091	0.108			0.067	0.028	0.024
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001			<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001			0.001	0.002	0.002
Lead	7439-92-1	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.114	0.146	0.007	0.06	0.076			0.009	0.009	0.002
Molybdenum	7439-98-7	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001			<0.001	0.001	0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.05	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.05	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.025	<0.005	<0.005	<0.005			<0.005	<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05			0.16	0.41	<0.05
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1	0.3	0.6	0.2	0.2	0.2			0.2	0.1	0.2
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01	0.02	0.11	0.07	0.03	0.02			0.06	0.06	0.08
EK057G: Nitrite as N by Discrete Analyser													
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser													

Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.4	0.5	0.3	0.5	0.8			0.4	1.4	1.5
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1	0.4	0.5	0.3	0.5	0.8			0.4	1.4	1.5
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01	0.02	<0.05	<0.01	0.02	0.07			0.04	0.3	0.31
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	0.02	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01	84.7	362	5.27	12.8	13.2			6.1	2.42	2.38
Total Cations		meq/L	0.01	69.6	373	5.26	12.1	13.2			6.26	2.6	2.3
Ionic Balance		%	0.01	9.73	1.38	0.07	2.96	0.08			1.27	----	----
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20			<20	<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50			<50	<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100			<100	<100	<100
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50			<50	<50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50			<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20			<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20			<20	<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100			<100	<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100			<100	<100	<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100			<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100			<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100			<100	<100	<100
EP080: BTEXN													
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1			<1	<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2			<2	<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1			<1	<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5			<5	<5	<5

Late August 2018

			LAB ID	EB1821026011	EB1821026012	EB1821026001	EB1821026014	EB1821026016				EB1821026015	EB1821026004
			SAMPLE DATE	28/08/2018	28/08/2018	28/08/2018	29/08/2018	29/08/2018	Dry	Dry	Dry	29/08/2018	29/08/2018
			SAMPLE ID	ST1	ST2	T01	T02	T03	De1	De2	De3	De4	De5
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10	8,800	25,800	319	861	776				600	707
TDS (calculated)		*mg/L*	-	*8,611*	*25,126*	*374*	*899*	*894*				*219*	*210*
Electrical Conductivity		µS/cm		14,100	37,800	580	1,500	1,410				309	301
Suspended Solids (SS)		mg/L	5	9	25	<5	17	44				52	54
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1				<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1				<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	266	276	126	139	168				89	83
Total Alkalinity as CaCO3		mg/L	1	266	276	126	139	168				89	83
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	563	1880	9	5	9				5	4
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1	4930	13300	98	450	393				39	42
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1	147	383	22	46	48				5	5
Magnesium	7439-95-4	mg/L	1	343	959	22	51	48				9	8
Sodium	7440-23-5	mg/L	1	2240	8020	66	175	188				48	46
Potassium	7/09/7440	mg/L	1	63	246	3	2	3				4	3
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01	0.01	<0.05	0.09	0.02	0.01				0.02	0.14
Arsenic	7440-38-2	mg/L	0.001	0.002	<0.005	0.001	<0.001	<0.001				0.002	0.002
Barium	7440-39-3	mg/L	0.001	0.388	0.188	0.049	0.102	0.118				0.031	0.027
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0005	0.0002	<0.0001	<0.0001				<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001				<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.005	0.005	<0.001	<0.001				<0.001	0.002
Copper	7440-50-8	mg/L	0.001	<0.001	<0.005	0.001	<0.001	<0.001				0.002	0.001
Lead	7439-92-1	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001				<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.077	0.242	0.004	0.078	0.016				0.008	0.014
Molybdenum	7439-98-7	mg/L	0.001	0.002	<0.005	0.001	<0.001	<0.001				<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001				<0.001	<0.001
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.05	<0.01	<0.01	<0.01				<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001				<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	0.001	<0.005	<0.001	<0.001	<0.001				<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.05	<0.01	<0.01	<0.01				<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.025	0.014	<0.005	0.01				<0.005	0.007
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05				0.05	0.1
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001				<0.0001	<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1	0.4	0.6	0.2	0.2	0.2				0.2	0.2
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01	0.05	0.08	0.02	0.04	0.06				0.04	0.04
EK057G: Nitrite as N by Discrete Analyser													
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser													
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	0.03				<0.01	<0.01

EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.01	<0.01	<0.01	0.03				<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.6	0.7	0.4	0.4	0.8				1.7	1.3
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1	0.6	0.7	0.4	0.4	0.8				1.7	1.3
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01	<0.05	0.07	0.01	0.02	0.06				0.33	0.34
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	0.01	<0.01	<0.01	<0.01				0.01	<0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01	156	420	5.47	15.6	14.6				2.98	2.93
Total Cations		meq/L	0.01	135	453	5.86	14.2	14.6				3.18	2.98
Ionic Balance		%	0.01	7.39	3.82	3.41	4.77	0.1				3.21	----
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20				<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50				<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	<100
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50				<50	<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50				<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20				<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20				<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100				<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100				<100	<100
EP080: BTEXN													
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1				<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2				<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2				<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2				<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2				<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2				<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1				<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5				<5	<5

September 2018

			LAB ID	EB1823276008	EB1823276004	EB1823428010	EB1823428004	EB1823428003				EB1823428008	EB1823428007
			SAMPLE DATE	25/09/2018	25/09/2018	26/09/2018	26/09/2018	26/09/2018	Dry	Dry	Dry	26/09/2018	26/09/2018
			SAMPLE ID	St1	St2	T01	T02	T03	De1	De2	De3	De4	De5
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10	12400	25100	384	1210	819				1000	972
TDS (calculated)		*mg/L*	-										
Electrical Conductivity		µS/cm		17700	35500	638	1830	1460				271	404
Suspended Solids (SS)		mg/L	5	30	66	48	25	9				74	1320
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1				<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	<1	<1				<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	272	286	154	145	173				78	93
Total Alkalinity as CaCO3		mg/L	1	272	286	154	145	173				78	93
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	678	1720	7	4	6				7	20
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1	6400	12700	107	515	378				33	60
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1	219	463	29	57	52				5	7
Magnesium	7439-95-4	mg/L	1	400	1010	22	54	48				7	9
Sodium	7440-23-5	mg/L	1	3020	7630	61	205	225				41	56
Potassium	7/09/7440	mg/L	1	84	253	3	4	3				4	5
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01	<0.01	0.02	0.17	0.01	<0.01				0.04	0.02
Arsenic	7440-38-2	mg/L	0.001	0.003	0.004	0.002	0.001	0.001				0.003	0.002
Barium	7440-39-3	mg/L	0.001	0.311	0.189	0.062	0.111	0.092				0.024	0.041
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001				<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Copper	7440-50-8	mg/L	0.001	<0.001	0.001	<0.001	0.001	<0.001				0.002	0.002
Lead	7439-92-1	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	0.082	0.178	0.052	0.053	0.054				0.002	0.087
Molybdenum	7439-98-7	mg/L	0.001	0.002	0.004	<0.001	<0.001	<0.001				<0.001	<0.001
Nickel	7440-02-0	mg/L	0.001	0.002	0.001	<0.001	<0.001	0.002				0.001	0.002
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001	0.003	0.002	<0.001	<0.001	<0.001				<0.001	<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.006	<0.005	<0.005	<0.005	<0.005				<0.005	<0.005
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05				0.07	0.05
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001				<0.0001	<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1	0.4	0.6	0.2	0.2	0.2				0.2	0.2
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01	0.04	<0.01	0.03	0.03	0.03				0.04	0.16
EK057G: Nitrite as N by Discrete Analyser													
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser													
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				0.01	0.02

EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				0.01	0.02
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1	0.6	<0.5	0.7	0.5	0.6				1.3	4.8
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1	0.6	<0.5	0.7	0.5	0.6				1.3	4.8
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01	0.05	0.07	0.06	0.02	0.04				0.32	1.08
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01	200	400	6.24	17.5	14.2				2.64	3.97
Total Cations		meq/L	0.01	177	444	5.99	16.3	16.4				2.71	3.65
Ionic Balance		%	0.01	6.02	5.31	2.07	3.55	7.06				----	4.11
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20				<20	<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50				<50	<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	140
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50				<50	110
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50				<50	250
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20				<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20				<20	<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	210
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100				<100	<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100				<100	210
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100				<100	<100
EP080: BTEXN													
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1				<1	<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2				<2	<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2				<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2				<2	<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2				<2	<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2				<2	<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1				<1	<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5				<5	<5

October 2018

			LAB ID	EB1825694007	EB1825694004	EB1825694006	EB1825866004	EB1825866003					EB1825866007
			SAMPLE DATE	23/10/2018	23/10/2018	23/10/2018	24/10/2018	24/10/2018	Dry	Dry	Dry	Dry	24/10/2018
			SAMPLE ID	ST1	ST2	T01	T02	T03	De1	De2	De3	De4	De5
ANALYTE	**CAS No.**	**Unit**	**LOR**										
Total Dissolved Solids @180°C		mg/L	10	12,200	29,100	414	672	1,030					314
TDS (calculated)		*mg/L*	-										
Electrical Conductivity		µS/cm		18,000	38,500	700	1,040	1,650					328
Suspended Solids (SS)		mg/L	5	15	14	10	288	243					86
ED037P: Alkalinity by PC Titrator													
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1	<1	<1	<1	<1	<1					<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1	<1	<1	<1	5	<1					<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1	228	245	143	91	174					85
Total Alkalinity as CaCO3		mg/L	1	228	245	143	96	174					85
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA													
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1	637	1870	3	4	3					4
ED045G: Chloride by Discrete Analyser													
Chloride	16887-00-6	mg/L	1	6040	13600	125	285	450					49
ED093F: Dissolved Major Cations													
Calcium	7440-70-2	mg/L	1	224	455	35	35	49					11
Magnesium	7439-95-4	mg/L	1	406	1020	24	36	44					11
Sodium	7440-23-5	mg/L	1	2670	8030	69	133	198					42
Potassium	7/09/7440	mg/L	1	79	246	5	2	4					6
EG020F: Dissolved Metals by ICP-MS													
Aluminium	7429-90-5	mg/L	0.01	<0.01	<0.05	0.01	0.02	0.01					5.03
Arsenic	7440-38-2	mg/L	0.001	0.003	0.005	0.003	0.002	0.002					0.004
Barium	7440-39-3	mg/L	0.001	0.464	0.251	0.064	0.061	0.112					0.177
Cadmium	7440-43-9	mg/L	0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001					<0.0001
Chromium	7440-47-3	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001					0.004
Cobalt	7440-48-4	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001					0.004
Copper	7440-50-8	mg/L	0.001	0.002	<0.005	0.002	<0.001	0.013					0.007
Lead	7439-92-1	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001					0.007
Manganese	7439-96-5	mg/L	0.001	0.119	0.093	0.136	0.011	0.036					0.445
Molybdenum	7439-98-7	mg/L	0.001	0.002	0.005	0.001	<0.001	<0.001					<0.001
Nickel	7440-02-0	mg/L	0.001	0.001	<0.005	<0.001	<0.001	0.003					0.006
Selenium	7782-49-2	mg/L	0.01	<0.01	<0.05	<0.01	<0.01	<0.01					<0.01
Silver	7440-22-4	mg/L	0.001	<0.001	<0.005	<0.001	<0.001	<0.001					<0.001
Uranium	7440-61-1	mg/L	0.001	0.001	<0.005	<0.001	<0.001	<0.001					<0.001
Vanadium	7440-62-2	mg/L	0.01	<0.01	<0.05	<0.01	<0.01	<0.01					0.02
Zinc	7440-66-6	mg/L	0.005	<0.005	<0.025	<0.005	0.009	0.022					0.011
Iron	7439-89-6	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05					6.08
EG035F: Dissolved Mercury by FIMS													
Mercury	7439-97-6	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001					<0.0001
EK040P: Fluoride by PC Titrator													
Fluoride	16984-48-8	mg/L	0.1	0.4	0.6	0.2	0.2	0.2					0.2
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N	7664-41-7	mg/L	0.01	0.06	0.16	0.06	<0.01	<0.01					0.02
EK057G: Nitrite as N by Discrete Analyser													
Nitrite as N	14797-65-0	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01
EK058G: Nitrate as N by Discrete Analyser													
Nitrate as N	14797-55-8	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01

EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser													
Nitrite + Nitrate as N		mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser													
Total Kjeldahl Nitrogen as N		mg/L	0.1	2.3	0.7	0.6	0.9	1.3					1
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser													
Total Nitrogen as N		mg/L	0.1	2.3	0.7	0.6	0.9	1.3					1
EK067G: Total Phosphorus as P by Discrete Analyser													
Total Phosphorus as P		mg/L	0.01	0.19	0.11	0.03	0.06	0.11					0.17
EK071G: Reactive Phosphorus as P by discrete analyser													
Reactive Phosphorus as P	14265-44-2	mg/L	0.01	<0.01	0.02	<0.01	<0.01	<0.01					<0.01
EN055: Ionic Balance													
Total Anions		meq/L	0.01	188	427	6.44	10	16.2					3.16
Total Cations		meq/L	0.01	163	462	6.85	10.5	14.8					3.43
Ionic Balance		%	0.01	7.25	3.91	3.05	2.45	4.68					4.1
EP080/071: Total Petroleum Hydrocarbons													
C6 - C9 Fraction		µg/L	20	<20	<20	<20	<20	<20					<20
C10 - C14 Fraction		µg/L	50	<50	<50	<50	<50	<50					<50
C15 - C28 Fraction		µg/L	100	<100	<100	<100	<100	<100					<100
C29 - C36 Fraction		µg/L	50	<50	<50	<50	<50	<50					<50
C10 - C36 Fraction (sum)		µg/L	50	<50	<50	<50	<50	<50					<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions													
C6 - C10 Fraction	C6_C10	µg/L	20	<20	<20	<20	<20	<20					<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20	<20	<20	<20	<20	<20					<20
>C10 - C16 Fraction		µg/L	100	<100	<100	<100	<100	<100					<100
>C16 - C34 Fraction		µg/L	100	<100	<100	<100	<100	<100					<100
>C34 - C40 Fraction		µg/L	100	<100	<100	<100	<100	<100					<100
>C10 - C40 Fraction (sum)		µg/L	100	<100	<100	<100	<100	<100					<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100	<100	<100	<100	<100	<100					<100
EP080: BTEXN													
Benzene	71-43-2	µg/L	1	<1	<1	<1	<1	<1					<1
Toluene	108-88-3	µg/L	2	<2	<2	<2	<2	<2					<2
Ethylbenzene	100-41-4	µg/L	2	<2	<2	<2	<2	<2					<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2	<2	<2	<2	<2	<2					<2
ortho-Xylene	95-47-6	µg/L	2	<2	<2	<2	<2	<2					<2
Total Xylenes	1330-20-7	µg/L	2	<2	<2	<2	<2	<2					<2
Sum of BTEX		µg/L	1	<1	<1	<1	<1	<1					<1
Naphthalene	91-20-3	µg/L	5	<5	<5	<5	<5	<5					<5

CENTRAL QUEENSLAND COAL PROJECT GROUNDWATER RESULTS

Feb-17

Sample ID	Date Measured	Field Measurements					
		Purge Volume	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
BH5X	24/02/2017	1	6.569	7.36	6967	6948	25.2
		60	6.565	7.24	11736	11587	25.7
BH32	23/02/2017	1	2.245	7.19	649	610	28.4
		80	2.251	6.44	463.7	436.8	28.4
BH34	23/02/2017	1	5.431	7.9	3190	3019	26.3
		120	5.665	7.019	5132		25.2
BH7	21/02/2017	GRAB	N/A	6.68	5419	5284	26

May-17

Sample ID	Date Measured	Field Measurements					
		Purge Volume	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
BH5X	3/05/2017	DAMAGED FOLLOWING CYCLONE DEBBIE					
BH34	3/05/2017	1	4.63	7.07	3767	3688	25.9
		150	4.94	6.86	3887	3954	24
BH16	1/05/2017	1	2.9	7.14	222.8	215	25.9
		75	2.9	6.1	341.3	340.4	25.2
BH1x	1/05/2017	1	4.53	6.04	68.4	67.1	26
		75	4.5	6.26	142.5	143	24.8
BH6X	3/05/2017	1	6.38	8.4	2344	2324	25.5
		35	6.59	7.83	2156	2150	25.2
BH29	3/05/2017	1	2.1	7	379.8	374.6	25.9
		85	2.1	6.56	320.2	317.9	25.7
BH30	3/05/2017	1	4.47	7.3	122.8	121.1	25.2
		270	5.33	7.7	12311	12313	24.8
BH13	4/05/2017	1	12.8	6.76	3439	3410	25.5
		150	16.45	7	3103	3052	25.8
BH37	3/05/2017	DRY					

Jun-17

Sample ID	Date Measured	Field Measurements					
		Purge Volume	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
BH32	15/06/2017	1	4.73	7.02	3601	3722	23.4
		160	5.17	6.86	3677	3790	23.4
BH16	12/06/2017	1	3.29	6.73	356.1	361	24.6
		80	3.3	6.47	297.7	299.7	24.6
BH1X	12/06/2017	1	5.23	6.7	388.1	382.4	25.7
		80	5.26	6.7	663	668	24.5
BH6X	15/06/2017	1	6.61	8.03	1753	1792	23.9
		40	6.7	7.35	1412	1434	24.1
BH29	15/06/2017	1	2.13	6.53	478.2	486.2	24.3
		90	2.15	6.3	244.2	247.8	24.2
BH30	15/06/2017	1	4.56	6.25	3251	3344	23.7
		320	5.59	6.44	12507	12808	23.8
BH13	16/06/2017	1	12.83	6.59	4600	4659	24.4
		160	15.16	6.68	5563	5355	26.5

Aug-17

Sample ID	Date Measured	Field Measurements					
		Purge Volume	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
BH16	7/08/2017	1	4.1	6.39	374.9	373.2	23.7
		80	4.1	6.48	372.8	379.3	24.1
BH1x	7/08/2017	1	5.72	7.16	704	677	27
		80	5.73	6.72	694	687	25.4
BH6x	9/08/2017	1	6.67	7.87	1840	1983	21.1
		40	6.7	7.34	1333	1429	21.4
BH32	9/08/2017	1	5.43	7.34	3421	3614	22.5
		160	5.4	6.92	3856	4037	22.7
BH30	9/08/2017	1	4.63	6.29	3074	3193	23.1
		320	5.6	6.5	15225	15861	22.9
BH29	9/08/2017	1	2.16	6.58	591	617	22.8
		90	2.16	6.31	264.4	276.8	22.6
BH13	10/08/2017	1	12.81	6.86	5365	5604	22.6
		200	15.49	6.67	6294	6189	25.9

Sep-17

Sample ID	Date Measured	Field Measurements					
		Purge Volume	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
BH16	26/09/2017	1	6.01	6.82	769	-	24.2
		60	6.03	6.77	733	-	24.3
BH1x	26/09/2017	1	4.1	6.63	398	-	23.5
		58	4.14	6.45	408.7	-	23.7
BH6x	28/09/2017	1	6.67	8.06	1782	-	25.2
		24	6.72	7.7	1663	-	25.1
BH32	26/09/2017	1	5.28	7.32	4261	-	24.4
		140	5.51	7.14	4424	-	24.4
BH30	26/09/2017	1	4.75	6.84	3875	-	24.4
		210	5.72	6.48	17861	-	23.8
BH29	26/09/2017	1	2.17	7.84	328	-	23.3
		80	2.18	6.62	284.9	-	23
BH13	28/09/2017	1	12.85	7.18	6577	-	26.2
		210	15.47	7.13	7190	-	26.3

Nov-17

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
BH13	9/11/2017	1	12.77	6.76	7180	7128	25.3
		210	15.48	6.7	5610	5604	24.9
BH6X	9/11/2017	1	6.66	7.09	2965	2985	24.6
		20	6.61	7.07	2525	2554	24.4
BH32	9/11/2017	1	5	7.7	4294	4405	23.8
		150	5.41	6.84	4319	4460	23.4
BH30	9/11/2017	1	4.8	6.2	4172	4305	23.4
		270	5.98	6.46	17787	18273	23.6
BH29	9/11/2017	1	2.15	7.15	312.4	319.2	23.8
		80	2.16	6.32	288.6	296.4	23.6
BH1X	7/11/2017	1	6.1	7.06	840	853	24.1
		56	6.18	6.8	766	780	24
BH16	7/11/2017	1	4.3	6.53	413.1	415.9	23.7
		57	4.35	6.46	455	468.8	23.4

Nov-17

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08**	8/11/2017	1	11.14	7.42	14450	14058	26.5
		35	13.53	7.49	14253	14080	25.6
WMP06	10/11/2017	1	17.7	7.07	2531.0	2499	25.7
WMP08D*	8/11/2017	1	15	7.66	14950	14868	25.3
WMP09	11/11/2017	1	12	7.24	20751	20376	26.0
		60	12.61	6.88	21502	21032	26.2
WMP10	11/11/2017	1	8.95	7.05	16348	16320	25.2
		100	13.25	7.02	16300	16324	24.9
WMP04D	11/11/2017	1	14.71	6.83	29526	29531	24.8
		200	18.98	6.89	24689	25231	23.8
WMP04	12/11/2017	1	12.4	11.76	11324	11378	24.7
		60	16.55	11.69	11973	12030	24.7
WMP12	12/11/2017	1	17	11.96	4429	4477	24.5
WMP05	12/11/2017	1	9.9	7.46	1592	1592	25
		30	12.12	7.41	2690	2733	24.2

* NO SAMPLES TAKEN

** SAMPLES LABELLED AS WMP08D

Early Dec-17

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	4/12/2017	1	10.86	7.05	22200	21784	26.5
		60	13.51	6.94	23432	22146	27.2
WMP08D	4/12/2017	1	10.49	7.6	14263	13859	26.5
		200	13.98	7.44	13736	14345	27.3
WMP09	4/12/2017	1	11.94	6.8	20837	20068	26.8
		40	12.56	6.85	20046	20063	26.5

Late Dec-17

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	18/12/2017	1	11.5	6.92	25084	24209	26.8
		60	14.12	7.12	26578	25677	26.8
WMP08D	18/12/2017	1	10.52	7.48	14946	15033	27.5
		240	14.24	7.47	15548	15088	26.5
WMP09	18/12/2017	1	11.96	6.8	23045	22100	27.1
		40	12.55	6.84	22574	22065	26.3
WMP06	19/12/2017	1	17.62	6.87	3891	3864	25.2
		20	18.29	6.83	3901	3806	26.2
WMP07	19/12/2017	NO WATER					
WMP10	19/12/2017	1	8.71	7.08	18234	17648	27.2
		120	13.56	7.17	17424	16983	26.3
WMP04D	20/12/2017	1	12.36	7.01	25519	25564	25.3
		320	19.72	6.99	27804	27289	25.7
WMPO4	20/12/2017	1	12.32	8.66	9588	9557	25.2
		100	17.33	9.3	11852	11716	25.5
WMP12	20/12/2017	1	17	9.37	4963	4914	25.5
		12	17.4	8.57	4550	4479	25.8
WMP02	20/12/2017	1	17.2	7.04	14398	14332	25.3
		20	17.24	6.82	16225	18113	25.4
WMP05	20/12/2017	1	7.48	7.48	1865	1857	25.3
		60	11.52	7.26	3506	3486	25.3

Jan-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	15/01/2018	1	10.7	7	25347	24998	25.8
		60	12.93	6.86	26389	25932	25.8
WMP08D	15/01/2018	1	10.4	7.65	14369	14160	26.0
		240	14.4	7.36	14707	14348	25.9
WMP09	15/01/2018	1	11.96	6.84	21590	21092	26.3
		60	12.69	6.82	21589	21260	25.8
WMP06	16/01/2018	1	17.6	6.71	5281	5266	25.0
		10	17.8	6.77	5279	5295	24.9
WMP07		NO WATER (can dip a water level but cannot bail a sample)					
WMP10	16/01/2018	1	8.65	7.06	16473	16358	25.3
		80	13.25	7.03	16862	16708	25.2
WMP04D	17/01/2018	1	12.32	6.95	23796	23761	25.0
		260	19.49	6.9	27774	25997	26.4
WMP04	17/01/2018	1	12.4	8.08	9690	9658	25.2
		120	17.6	8.15	18109	17451	26.9
WMP12	17/01/2018	1	17.37	6.97	8315	8334	24.9
WMP02	17/01/2018	1	17.17	6.79	14806	14715	27.2
		10	17.2	6.74	14851	14884	25.6
WMP05	17/01/2018	1	7.56	7.27	1703	1665	25.8
		60	11.64	7.12	3482	3486	25
WMP13	17/01/2018	1	14.9	6.93	23113	22774	25
		80	27.46	6.69	31921	32261	24.5

Feb-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	12/02/2018	1	10.77	6.66	27569	26268	27.6
		60	13.36	6.74	26908	26251	26.3
WMP08D	12/02/2018	1	10.45	7.36	14807	14294	26.9
		240	14.28	7.34	14578	14293	26.1
WMP09	12/02/2018	1	11.98	6.62	21938	21251	26.7
		60	17.94	6.79	22002	21472	26.4
WMP06	13/02/2018	1	17.6	6.75	6158	6140	25.1
		10	18.9	6.77	5933	5905	25.1
WMP07		NO WATER (can dip a water level but cannot bail a sample)					
WMP13	14/02/2018	1	14.94	8.03	7.3	7.1	26.4
		80	17.3	7.62	270.6	252.7	25.7

Mar-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	12/03/2018	1	10.2	7.64	362.1	347.7	26.7
		100	15.64	6.83	21470	20526	27.5
WMP08D	12/03/2018	1	10.35	6.69	180.1	174	26.9
		240	14.1	7.33	14701	14396	26.7
WMP09	12/03/2018	1	11.96	7.26	2944	2874	26.3
		60	13.2	6.85	12863	12650	25.9
WMP06	13/03/2018	1	17.61	6.36	1135	1135	24.9
		10	18.14	6.42	1489	1489	25.3
WMP07	13/03/2018	NO WATER (can dip a water level but cannot bail a sample)					
WMP10	13/03/2018	1	8.94	6.81	17785	17604	25.5
		100	13.27	7.02	16624	16398	25.8
WMP04D	14/03/2018	1	12.33	6.89	22239	22321	24.8
		320	17.32	7.07	27266	25762	28
WMP04	14/03/2018	1	12.45	7.69	10280	10259	25.1
		120	17.63	8.95	21684	21260	26
WMP12	14/03/2018	1	17.51	6.97	3252	3137	26.9
		7	17.56	6.94	5464	5486	24.9
WMP02	14/03/2018	1	17.88	6.71	5751	5627	26.1
		40	17.9	6.63	14059	13843	25.8
WMP05	14/03/2018	1	7.6	7.31	1689	1341	26.9
		70	12.33	7.35	2696	2693	25.1
WMP13	14/03/2018	1	14.95	6.93	14712	14700	25
		100	17.6	6.23	45569	46016	24.5
BH6X	13/03/2018	1	6.6	7.44	1843	1746	28
		40	6.61	7.28	1619	1612	25.3
BH13	15/03/2018	1	12.7	6.55	6162	6282	24
		200	16.23	6.49	6026	5885	26.3

Apr-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	9/04/2018	1	11.2	7.12	16069	15935	25.4
		100	16.01	6.84	22360	22300	25.3
WMP08D	9/04/2018	1	10.44	7.54	13816	13806	26.0
		240	14.98	7.36	14560	14524	25.1
WMP09	9/04/2018	1	11.99	6.87	18668	18438	25.6
		60	13.11	6.64	19778	19619	25.4
WMP06	10/04/2018	1	17.64	7.42	1558	1556	25.0
		10	18.24	6.62	1857	1856	25.0
WMP07		NO WATER (can dip a water level but cannot bail a sample)					
WMP10	10/04/2018	1	9.19	7.05	15667	15970	24
		100	13.7	6.82	16321	16404	24.8
WMP04D	11/04/2018	1	12.36	6.47	22490	22842	24.3
		320	19.7	6.96	26181	25953	25.7
WMP04	11/04/2018	1	12.5	6.55	11773	11941	24.2
		120	17.73	8.31	19616	20027	23.9
WMP12	11/04/2018	1	17.56	6.78	8846	8755	25.5
		2	*	6.82	7661	7815	24
WMP02	12/04/2018	1	17.9	6.32	11345	11716	23.4
		40	17.92	6.49	15166	15627	23.5
WMP05	12/04/2018	1	7.68	7.25	1563	1577	24.6
		60	12.1	7.21	2222	2258	24.2
WMP13	11/04/2018	1	15	6.57	44375	45620	23.6
		100	17.32	6.29	44632	46166	23.3
WMP11	11/04/2018	1	13.66	6.89	23092	23044	25.1
		120	17.55	7	25206	24824	25.8
WMP11D	11/04/2018	1	13.26	6.56	30299	30478	24.7
		280	20.45	6.75	30714	30954	24.6
WMP14	11/04/2018	1	18.83				
		**					
WMP15	10/04/2018	1	11.44	12.01	10556	10376	25.9
		160	14.32	7.88***	8490	8361	25.8
BH16	12/04/2018	1	4.75	6.72	461.2	461	25.1
		60	4.75	6.69	522	530	24.2
BH1X	12/04/2018	1	6.5	6.97	1448	1428	25.7
		50	6.53	6.76	1215	1239	24

* Not purged since we couldn't get any water. Left for 30 min when samples were collected.

**Only approx. 5cm of water in each bail, left. Returned next day and there was no enough water in the well to be purged/sampled.

*** pH calibration confirmed pH 7.

May-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	8/05/2018	1	11.17	6.95	22268	22186	25.2
		91*	16.39	7.04	22265	22204	25.2
WMP08D	8/05/2018	1	10.48	7.54	14334	14195	25.5
		240	14.6	7.57	14315	14272	25.1
WMP09	8/05/2018	1	12.03	6.78	20071	19720	26.0
		60	13.14	6.93	20789	20409	26.0
WMP06	9/05/2018	1	17.64	6.97	2370	2342	24.8
		10	18.17	6.78	2334	2331	25.0
WMP07	9/05/2018	NOT ABLE TO RETRIEVE WATER AS PER PREVIOUS FIELDTRIPS (can dip a water level but cannot bail a sample)					
WMP10	9/05/2018	1	9.47	6.97	16236	16442	24.4
		100	14.02	7.36	16335	16473	24.6
WMP04D	10/05/2018	1	12.36	6.64	22911	23518	24.1
		320	19.26	7.05	24989	24825	25.4
WMP04	10/05/2018	1	12.5	7.63	12005	12208	24.1
		83***	16.8	8.01	19671	19752	24.9
WMP12	10/05/2018	1	17.61	7.02	9705	9813	24.4
		****					
WMP02	11/05/2018	1	17.92	7.06	11121	11404	23.8
		40	17.93	7.04	15335	15704	23.8
WMP05	11/05/2018	1	7.77	7.41	1484	1505	24.3
		60	12.03	7.41	2152	2191	24.1
WMP13	10/05/2018	1	15.03	6.47	42856	44015	23.7
		100	17.41	6.54	44903	46273	23.5
WMP11	10/05/2018	1	13.58	7.22	24515	24561	25.1
		120	17.44	6.9	30546	30595	24.9
WMP11D	10/05/2018	1	13.25	6.76	30204	30247	24.9
		280	20.7	7.05	30547	30512	25.1
WMP14	9/05/2018	1	18.87	No Water			
		**					
WMP15	9/05/2018	1	11.33	7.7	3217	3197	25.3
		160	14.12	7.24	4589	4536	25.6
BH16	10/05/2018	1	4.84	7.67	511	506	25.4
		60	4.85	7.88	471	471.5	24.6
BH1X	10/05/2018	1	6.55	7.42	1267	1258	25.3
		50	6.59	7.14	1131	1147	24.2

* Stopped purging at 90 (SWL 16.44) as it was less than 1 m from the bottom. Lots of sediments on bail. Left for 30 minutes and it only recharged 0.05. Sampled at 91.

**Unable to retrieve water. Only approx. 5cm of water in each bail. Same as per April sampling event.

*** At 82L (SWL 17.80) only half/ one quarter of bails were being retrieved. Left to recharge for 50 minutes. Sampled at 83L (SWL 16.80)

**** Not able to get water. Only less than half bailer. Sampled at 1 bail.

Jun-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	4/06/2018	1	11.33	7.1	21770	21690	25.2
		80	15.89	7.05	21635	21891	24.6
WMP08D	4/06/2018	1	10.49	7.73	13025	12971	25.2
		200	13.64	7.72	13042	13130	24.7
WMP09	6/06/2018	1	12.06	6.76	17936	18116	24.6
		60	12.92	7.27	19104	18912	25.6
WMP06	7/06/2018	1	17.69	7.69	2479	2529	24.2
		10	18.26	7.35	2516	2558	24.2
WMP07	7/06/2018	**NOT ABLE TO RETRIEVE WATER AS PER PREVIOUS FIELDTRIPS (can dip a water level but cannot bail a sample)**					
WMP10	6/06/2018	1	9.7	7.45	15034	15559	23.7
		100	13.69	7.73	15039	15278	24.2
WMP04D	6/06/2018	1	12.39	7.41	21068	21306	24.5
		280	18.23	7.35	22231	22399	24.6
WMP04	6/06/2018	1	12.5	8.02	11351	11489	24.4
		75	17.02	7.78	14583	14803	24.3
WMP12*	6/06/2018	1	17.66	No Water			
WMP02	6/06/2018	1	17.87	7.05	12519	12851	23.7
		45	17.94	6.87	14780	15221	23.6
WMP05	6/06/2018	1	7.82	8.1	1346	1356	24.6
		60	11.9	7.54	1988	2011	24.4
WMP13	5/06/2018	1	15.07	6.85	37408	39598	22
		100	16.71	6.77	39613	41329	23.1
WMP11	5/06/2018	1	13.6	6.84	26348	26571	24.4
		110	16.86	6.89	27935	27997	24.8
WMP11D	5/06/2018	1	13.28	6.96	26694	27138	24.2
		125	16.19	7.01	26996	27320	24.4
WMP14*	7/06/2018	1	18.87	No Water			
WMP15	7/06/2018	1	11.3	7.99	2812	2835	24.7
		160	13.37	7.9	3656	3622	25.6
BH16	5/06/2018	1	4.95	8.43	415.7	423.4	24
		60	4.95	7.14	455.1	464.9	24.1
BH1X	5/06/2018	1	6.61	7.12	1147	1157	24.6
		50	6.65	7.45	996	1014	24.3

* no water was sampled - water only just touching bottom of bailer

Jul-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	2/07/2018	1	11.16	6.44	23511	23143	25.8
		100	15.93	6.49	22992	22973	25.1
WMP08D	2/07/2018	1	10.56	7.12	13280	13181	25.4
		200	14.19	6.98	13209	13241	24.9
WMP09	2/07/2018	1	12.12	6.42	18710	19013	24.2
		60	13.20	6.49	19508	19393	25.3
WMP06	5/07/2018	1	17.67	5.92	2953	3040	23.3
		10	18.16	6.29	2904	3016	22.7
WMP07	5/07/2018	**NOT ABLE TO RETRIEVE WATER AS PER PREVIOUS FIELDTRIPS (can dip a water level but cannot bail a sample)**					
WMP10	4/07/2018	1	9.94	6.57	15613	15805	24.4
		120	14.59	6.64	15632	15807	24.4
WMP04D	4/07/2018	1	12.38	6.42	20524	22043	21.4
		320	19.18	6.45	21646	22585	23.1
WMP04	4/07/2018	1	12.53	7.3	11061	11466	23.4
		105**	17.75	7.3	17624	19146	20.9
WMP12*	4/07/2018	1		No Water			
WMP02	4/07/2018	1	17.94	6.08	11507	11912	23.2
		30	17.95	6.14	13895	14452	23.0
WMP05	4/07/2018	1	7.92	7.26	1591	1600	24.5
		60	11.66	6.8	2102	2116	24.7
WMP13	3/07/2018	1	15.06	5.71	42279	43023	24.0
		100	17.1	5.58	42511	43640	23.6
WMP11	3/07/2018	1	13.6	6.33	27524	27798	24.5
		150	18.21	6.27	27787	28465	23.8
WMP11D	3/07/2018	1	13.28	6.29	27302	28220	23.3
		280	18.56	6.27	27535	28325	23.5
WMP14*	5/07/2018	1		No Water			
WMP15	5/07/2018	1	11.26	7.01	3051	3075	24.6
		160	13.39	6.66	3568	3570	24.9
BH16	3/07/2018	1	5.03	7.46	462.7	471.8	24.1
		50	5.04	6.38	535	543	24.2
BH1X	3/07/2018	1	6.7	6.55	1221	1243	24.1
		50	6.7	6.53	1187	1226	23.3

* no water was sampled - water only just touching bottom of bailer

** stopped at 105 bails as was pulling up half sediment filled bails. Sampled at 105.

Early Aug-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
		1	12.15	NA	NA	NA	NA
WMP08***	2/08/2018	91****	16.29	NA	NA	NA	NA
		1	10.55	NA	NA	NA	NA
WMP08D***	2/08/2018	280	16.12	NA	NA	NA	NA
		1	12.21	NA	NA	NA	NA
WMP09***	2/08/2018	60	13.40	NA	NA	NA	NA
		1	17.74	6.61	5168	NA	22.30
WMP06	31/07/2018	10	18.3	6.72	5203	NA	21.65
		1	60.21				
WMP07	2/08/2018	NOT ABLE TO RETRIEVE WATER AS PER PREVIOUS FIELDTRIPS (can dip a water level but cannot bail a sample)					
		1	11.28	7.10	18100	NA	24.18
WMP10***	31/07/2018	120	15.62	7.15	18200	NA	23.20
		1	12.44	6.89	32700	NA	25.18
WMP04D***	31/07/2018	320	19.84	7.06	32430	NA	23.4
		1	12.6	7.69	22070	NA	24.63
WMP04	31/07/2018	91**	16.44	8.05	33550	NA	23.67
		1	17.77	No Water			
WMP12*	31/07/2018						
		1	17.94	6.78	18950	NA	23.17
WMP02	31/07/2018	30	17.99	6.77	23450	NA	22.5
		1	8.01	7.40	2138	NA	24.61
WMP05	31/07/2018	60	12.19	7.46	2971	NA	23.43
		1	16.20	6.35	63100	NA	21.5
WMP13***	1/08/2018	100	17.42	6.47	60390	NA	20.96
		1	14.43	6.72	32260	NA	25.32
WMP11***	1/08/2018	150	17.18	NA	45570***	NA	23.45
		1	14.73	6.72	37780	NA	24.04
WMP11D***	1/08/2018	280	19.99	NA	39210	NA	24.17
		1	18.88	No Water			
WMP14*	31/07/2018						
		1	11.28	NA	NA	NA	NA
WMP15***	2/08/2018	150	14.15	NA	NA	NA	NA
		1	5.15	NA	466***	NA	23.64
BH16***	1/08/2018	50	5.15	NA	490***	NA	23.72
		1	6.76	NA	4154***	NA	23.6
BH1X	1/08/2018	50	6.77	NA	2240***	NA	27.5

Refer to the Laboratory Analytical Data for pH and EC Results

* no water was sampled - water only just touching bottom of bailer

** stopped at 90 bails as was pulling up half sediment filled bails. Waited for 1:20hr to recharge and sampled at 91L. We started having issues with the water quality m

*** Water Quality Meter - Issues with some reading. Refer/Compare to Lab results.

**** Left for 70 minutes due to sedments in bail. Sampled at 91L.

NA = Specific Conductance - (SPC) µS/cm not available in the water quality meter.

Late Aug-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	30/08/2018	1	11.1	6.76	26981		25.5
		90	16.78	6.79	27344		25.2
WMP08D	27/08/2018	1	11.06	7.21	15436		25.8
		280	18.07	7.28	14843		25.6
WMP09	27/08/2018	1	12.21	6.39	22114		26.9
		60	13.78	6.47	21749		26.7
WMP06	28/08/2018	1	17.72	6.8	4289		24.6
		10	18.26	6.73	4280		24.5
WMP07	29/08/2018	DRY	60.14				
		NOT ABLE TO RETRIEVE WATER AS PER PREVIOUS FIELDTRIPS (water column of 0.46m)					
WMP10	30/08/2018	1	10.35	7.13	17570		25.0
		120	16.2	6.93	18416		25.0
WMP04D	30/08/2018	1	12.45	6.74	23737		24.0
		320	18.73	6.88	25192		24.7
WMP04	30/08/2018	1	12.57	7.61	13536		23.9
		92****	16.86	7.33	24966		24.6
WMP12	29/08/2018	DRY	17.8	No Water			
WMP02	29/08/2018	1	17.99	6.61	14233		22.2
		30	17.99	6.6	16569		23.2
WMP05	29/08/2018	1	8.01	7.90	1439		24
		55	12.25	7.38	2121		24.1
WMP13	28/08/2018	1	15.09	5.93	47166		22.2
		100**	17.95	6.14	47580		24
WMP11	28/08/2018	1	14.06	6.4	33762		27.0
		*	15.84	6.42	35116		30.9
		*	15.88	6.43	35621		31.0
		60**	18.77	6.45	31976		26.3
		100**	16.56	6.52	33333		28.6
WMP11D	28/08/2018	1	13.35	6.5	31550		25.2
		200***	19.79	6.46	32458		26.6
WMP14	29/08/2018	DRY	18.85	No Water			
WMP15	30/08/2018	1	11.27	7.88	3834		25.9
		150	13.64	7.11	4099		25.8
BH16	28/08/2018	1	5.25	6.74	960		24.3
		50	5.26	6.53	692		23.8
BH1X	28/08/2018	1	6.8	7.45	1156		24.1
		50	6.82	7.08	1070		23.9

* Low flow method used. Volume purged unknown

** Bail method using the pump

*** Low flow method used after 140l purged.

**** Well went dry. Left for 75 minutes to recharge and sample.

Sep-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	24/09/2018	1	11.33	6.67	25898		26
		80	14.87	6.86	25825		25.8
WMP08D	24/09/2018	1	10.61	7.35	13637		25.7
		250	14.58	7.35	13590		25.3
WMP09	24/09/2018	1	12.26	6.66	19688		25.1
		50	12.99	6.61	20144		25.4
WMP06	27/09/2018	1	1	6.47	4384		24.0
		10	11	6.55	4466		26.1
WMP07	27/09/2018	DRY					
		NOT ABLE TO RETRIEVE WATER AS PER PREVIOUS FIELDTRIPS (water column of 0.46m)					
WMP10	26/09/2018	1	10.55	6.90	16217		25.0
		100	14.48	7.04	16599		25.6
WMP04D	26/09/2018	1	12.46	6.8	22740		24.7
		300	17.74	6.92	22918		24.9
WMP04	26/09/2018	1	12.67	7.57	12678		23.7
		81	15.78	7.58	14756		24.4
WMP12	26/09/2018	DRY		No Water			
WMP02	26/09/2018	1	18	6.81	13390		24.9
		45	18.05	6.68	15814		24.1
WMP05	26/09/2018	1	8.2	7.92	1422		25.8
		60	11.94	7.33	2026		24.8
WMP13	25/09/2018	1	15.10	6.54	43794		24.2
		65	16.77	6.44	44688		23.5
WMP11	25/09/2018	1	13.67	6.79	27624		24.2
		140	16.54	6.58	29618		25.2
WMP11D	25/09/2018	1	13.37	6.56	28007		23.4
		290	18.36	6.66	29122		24.7
WMP14	27/09/2018	DRY		No Water			
WMP15	27/09/2018	1	11.3	7.52	3485		25.5
		132	13.43	6.96	3680		25.7
BH16	25/09/2018	1	5.34	6.63	677		23.9
		50	5.36	6.63	692		23.8
BH1X	25/09/2018	1	6.86	7.53	1075		24.3
		40	6.89	7.06	1062		24.1

Oct-18

Sample ID	Date Measured	Field Measurements					
		Purge Volume (L)	SWL	pH	Electrical Conductivity - (EC) µS/cm	Specific Conductance - (SPC) µS/cm	Temperature °C
WMP08	23/10/2018	1	11	6.45	26101		26
		80	*	5.64	26020		25.7
WMP08D	23/10/2018	1	*	6.49	13496		25.9
		250	*	7.04	13832		25
WMP09	22/10/2018	1	12.25	6.16	19725		26.5
		50	13.17	6.26	20083		26.1
WMP06	22/10/2018	1	17.74	5.51	4632		25.2
		10	18.3	5.79	4596		24.9
WMP07	22/10/2018	DRY					
		NOT ABLE TO RETRIEVE WATER AS PER PREVIOUS FIELDTRIPS (water column of 0.46m)					
WMP10	24/10/2018	4	*	6.77	18028		26.5
		100	*	7.45	17725		25.3
WMP04D	24/10/2018	3	*	6.3	23637		25.1
		300	*	7.13	25549		25.1
WMP04	24/10/2018	1	*	7	12049		25.1
		80	*	7.87	15457		25.1
WMP12	24/10/2018	DRY		No Water			
WMP02	24/10/2018	4	*	6.09	14147		24.7
		48	*	6.9	17344		24.3
WMP05	24/10/2018	4	*	7.95	1546		25.2
		60	*	7.79	2459		25.4
WMP13	23/10/2018	1	*	6.18	51600		24.4
		65	*	6.37	51650		23.8
WMP11	25/10/2018	4	*	6.63	31045		25.9
		140	*	6.91	31412		24.9
WMP11D	25/10/2018	4	*	6.47	30485		24.5
		300	*	6.91	30854		24.7
WMP14	22/10/2018	DRY		No Water			
WMP15	23/10/2018	1	*	5.83	3792		26.6
		140	*	6.44	3820		26.5
BH16	23/10/2018	1	*	5.23	785		25.9
		48	*	5.97	708		24.3
BH1X	23/10/2018	1	*	7.03	2450		25.4
		40	*	6.85	1800		24.5

* Issues with the GW Interface Probe

February 2017

		LAB ID	ANZECC Protection of Auquatic Ecosystems (2000) Water - Freshwater 95% protection level	ADWG	EB1703752003	EB1703752001	EB1703752002	EB1703534007
		SAMPLE DATE			24/02/2017	23/02/2017	23/02/2017	21/02/2017
		SAMPLE ID			BH32	BH34	BH5X	BH07
ANALYTE	Unit	LOR						
Field Parameters (Laboratory)								
Electrical Conductivity	*uS/cm*				430	5220	11800	
pH	*pH unit*				6.71	7.46	7.65	
Total Dissolved Solids @180°C	mg/L	1			300	3960	8920	3440
TDS (calculated)	*mg/L*				*245*	*3436*	*7659*	
Suspended Solids (SS)	mg/L	5			14	16	51	28
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	1			34	532	488	597
Total Alkalinity as CaCO3	mg/L	1			34	532	488	597
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	mg/L	1			46	324	468	596
ED045G: Chloride by Discrete Analyser								
Chloride	mg/L	1			77	1420	4100	1340
ED093F: Dissolved Major Cations								
Calcium	mg/L	1			5	314	345	309
Magnesium	mg/L	1			11	220	338	191
Sodium	mg/L	1			63	503	1770	683
Potassium	mg/L	1			1	4	37	1
EG020F: Dissolved Metals by ICP-MS								
Aluminium	mg/L	0.01	0.0055	0.2	<0.01	<0.01	<0.01	<0.01
Arsenic	mg/L	0.001	0.0024	0.01	<0.001	<0.001	0.007	<0.001
Barium	mg/L	0.001		2	0.013	0.053	0.065	0.044
Cadmium	mg/L	0.0001	0.002	0.002	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	0.001	0.0014	2	<0.001	<0.001	0.001	<0.001
Cobalt	mg/L	0.001			<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	0.001	0.011	0.02	0.002	<0.001	<0.001	<0.001
Lead	mg/L	0.001	0.0034	0.01	0.011	0.642	1.27	0.232
Zinc	mg/L	0.005	0.008	3	<0.001	<0.001	<0.001	<0.001
Manganese	mg/L	0.001	0.19	0.1	<0.001	<0.001	<0.001	<0.001
Molybdenum	mg/L	0.001			<0.01	<0.01	<0.01	<0.01
Selenium	mg/L	0.01			<0.001	<0.001	<0.001	<0.001
Silver	mg/L	0.001			<0.001	0.001	0.002	0.002
Uranium	mg/L	0.001			<0.01	<0.01	<0.01	<0.01
Vanadium	mg/L	0.01			0.005	<0.005	0.101	0.005
Iron	mg/L	0.05		0.3	<0.05	<0.05	3.96	0.07
EG035F: Dissolved Mercury by FIMS								
Mercury	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	mg/L	0.1			<0.1	0.8	0.6	0.5
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	mg/L	0.01			0.09	1.5	0.21	0.05
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	mg/L	0.01			<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser								

Nitrate as N	mg/L	0.01			0.11	0.14	0.05	0.16
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	mg/L	0.01			0.11	0.14	0.05	0.16
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Total Kjeldahl Nitrogen as N	mg/L	0.1			0.3	1.8	<0.5	<0.1
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser								
Total Nitrogen as N	mg/L	0.1			0.4	1.9	<0.5	0.2
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	mg/L	0.01			0.06	0.15	0.26	0.04
EK071G: Reactive Phosphorus as P by discrete analyser								
Reactive Phosphorus as P	mg/L	0.01			0.04	0.16	<0.01	0.01
EN055: Ionic Balance								
Total Anions	meq/L	0.01			3.81	57.4	135	62.1
Total Cations	meq/L	0.01			3.92	55.8	123	60.9
Ionic Balance	%	0.01			1.44	1.48	4.72	1.03
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	µg/L	20			<20	<20	<20	<20
C10 - C14 Fraction	µg/L	50			<50	<50	<50	<50
C15 - C28 Fraction	µg/L	100			<100	<100	130	<100
C29 - C36 Fraction	µg/L	50			<50	<50	100	<50
C10 - C36 Fraction (sum)	µg/L	50			<50	<50	230	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	µg/L	20			<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	µg/L	20			<20	<20	<20	<20
>C10 - C16 Fraction	µg/L	100			<100	<100	<100	<100
>C16 - C34 Fraction	µg/L	100			<100	<100	200	<100
>C34 - C40 Fraction	µg/L	100			<100	<100	<100	<100
>C10 - C40 Fraction (sum)	µg/L	100			<100	<100	200	<100
>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100			<100	<100	<100	<100
EP080: BTEXN								
Benzene	µg/L	1			<1	<1	<1	<1
Toluene	µg/L	2			<2	<2	<2	<2
Ethylbenzene	µg/L	2			<2	<2	<2	<2
meta- & para-Xylene	µg/L	2			<2	<2	<2	<2
ortho-Xylene	µg/L	2			<2	<2	<2	<2
Total Xylenes	µg/L	2			<2	<2	<2	<2
Sum of BTEX	µg/L	1			<1	<1	<1	<1
Naphthalene	µg/L	5			<5	<5	<5	<5

ANZECC exceedance

ADWG exceedance

May 2017

	LAB ID		ANZECC Protection of Auquatic Ecosystems (2000) Water - Freshwater 95% protection level	ADWG	EB1709053-001	EB1709053-002	EB1709053-003	EB1709053-004	EB1708799-001	EB1708799-002	EB1709053-006
	SAMPLE DATE				3/05/2017	3/05/2017	3/05/2017	3/05/2017	1/05/2017	1/05/2017	4/05/2017
	SAMPLE ID				BH6X	BH29	BH30	BH32	BH16	BH1X	BH13
ANALYTE	**Unit**	**LOR**									
Field Parameters (Laboratory)											
Total Dissolved Solids @180°C	mg/L	1			832	219	6530	2640	286	270	2110
TDS (calculated)	*mg/L*				*1510*	*208*	*8216*	*2779*	*301*	*297*	*1983*
Suspended Solids (SS)	mg/L	5			115	19	18	36	32	63	167
ED037P: Alkalinity by PC Titrator											
Hydroxide Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	1			719	41	301	594	123	107	354
Total Alkalinity as CaCO3	mg/L	1			719	41	301	594	123	107	354
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	mg/L	1			42	36	729	178	18	15	62
ED045G: Chloride by Discrete Analyser											
Chloride	mg/L	1			264	52	4470	999	45	67	874
ED093F: Dissolved Major Cations											
Calcium	mg/L	1			86	4	616	270	23	16	111
Magnesium	mg/L	1			47	9	740	178	14	11	168
Sodium	mg/L	1			177	57	1280	424	46	43	331
Potassium	mg/L	1			15	<1	6	4	3	3	3
EG020F: Dissolved Metals by ICP-MS											
Aluminium	mg/L	0.01	0.0055	0.2	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
Arsenic	mg/L	0.001	0.0024	0.01	0.004	<0.001	0.003	<0.001	<0.001	0.052	0.001
Barium	mg/L	0.001		2	0.08	0.01	0.166	0.04	0.052	0.077	0.045
Cadmium	mg/L	0.0001	0.002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	0.001	0.0014	2	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.002
Cobalt	mg/L	0.001			<0.001	<0.001	0.002	<0.001	0.003	<0.001	0.003
Nickel	mg/L	0.001	0.011	0.02	<0.001	<0.001	0.002	<0.001	0.002	0.002	0.003
Lead	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	0.005	0.008	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008
Manganese	mg/L	0.001	0.19	0.1	0.12	0.006	2.98	0.386	0.895	1.28	1.13
Molybdenum	mg/L	0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Selenium	mg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	mg/L	0.001			<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	mg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	mg/L	0.05		0.3	0.54	<0.05	3.95	<0.05	0.55	10	0.15
EG035F: Dissolved Mercury by FIMS											
Mercury	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator											
Fluoride	mg/L	0.1			0.6	0.1	0.2	0.7	0.2	0.1	0.4
EK055G: Ammonia as N by Discrete Analyser											
Ammonia as N	mg/L	0.01			125	0.1	0.94	10.7	0.05	0.92	0.18
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	mg/L	0.01			0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	mg/L	0.01			<0.01	3.94	<0.01	<0.01	0.03	0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N	mg/L	0.01			<0.01	3.94	<0.01	<0.01	0.03	0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N	mg/L	0.1			110	0.6	1.1	9.9	0.6	2	1.2
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
Total Nitrogen as N	mg/L	0.1			110	4.5	1.1	9.9	0.6	2	1.2
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P	mg/L	0.01			3.71	0.09	0.13	0.66	0.12	0.93	0.24
EK071G: Reactive Phosphorus as P by discrete analyser											
Reactive Phosphorus as P	mg/L	0.01			1.55	0.04	<0.01	0.55	0.04	0.02	0.02
EN055: Ionic Balance											
Total Anions	meq/L	0.01			22.7	3.32	147	43.8	4.1	4.34	33
Total Cations	meq/L	0.01			25.1	3.42	147	46.7	4.38	4.28	33.8
Ionic Balance	%	0.01			5.02	1.48	0.06	3.22	3.25	0.7	1.23
EP080/071: Total Petroleum Hydrocarbons											

C6 - C9 Fraction	µg/L	20			<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction	µg/L	50			<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction	µg/L	100			190	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction	µg/L	50			280	<50	<50	<50	<50	60	<50
C10 - C36 Fraction (sum)	µg/L	50			470	<50	<50	<50	<50	60	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	µg/L	20			<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	µg/L	20			<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction	µg/L	100			<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction	µg/L	100			450	<100	<100	<100	<100	120	110
>C34 - C40 Fraction	µg/L	100			<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)	µg/L	100			450	<100	<100	<100	<100	120	110
>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100			<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN											
Benzene	µg/L	1			<1	<1	<1	<1	<1	<1	<1
Toluene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Total Xylenes	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Sum of BTEX	µg/L	1			<1	<1	<1	<1	<1	<1	<1
Naphthalene	µg/L	5			<5	<5	<5	<5	<5	<5	<5

ANZECC exceedance

ADWG exceedance

June 2017

	LAB ID		ANZECC Protection of Auquatic Ecosystems (2000) Water - Freshwater 95% protection level	ADWG	EB1712405001	EB1712405002	EB1712405003	EB1712405004	EB1712259001	EB1712259002	EB1712405005
	SAMPLE DATE				15/06/2017	15/06/2017	15/06/2017	15/06/2017	12/06/2017	12-Jun-17	16/06/2017
	SAMPLE ID				BH6X	BH29	BH30	BH32	BH16	BH1X	BH13
ANALYTE	Unit	LOR									
Field Parameters (Laboratory)											
Total Dissolved Solids @180°C	mg/L	1			962	196	11400	2780	221	408	4020
TDS (calculated)	*mg/L*				*1223*	*186*	*9218*	*2792*	*291*	*541*	*3343*
Suspended Solids (SS)	mg/L	5			332	45	20	<5	32	253	44
ED037P: Alkalinity by PC Titrator											
Hydroxide Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	1			523	52	331	527	151	200	511
Total Alkalinity as CaCO3	mg/L	1			523	52	331	527	151	200	511
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	mg/L	1			46	35	873	228	8	22	98
ED045G: Chloride by Discrete Analyser											
Chloride	mg/L	1			250	34	5040	1040	25	122	1560
ED093F: Dissolved Major Cations											
Calcium	mg/L	1			89	3	709	278	17	31	213
Magnesium	mg/L	1			48	6	818	177	11	21	333
Sodium	mg/L	1			143	44	1360	422	43	87	508
Potassium	mg/L	1			8	<1	6	3	2	4	4
EG020F: Dissolved Metals by ICP-MS											
Aluminium	mg/L	0.01	0.0055	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Arsenic	mg/L	0.001	0.0024	0.01	0.004	<0.001	0.002	<0.001	<0.001	0.032	0.002
Barium	mg/L	0.001		2	0.067	0.006	0.132	0.03	0.058	0.162	0.119
Cadmium	mg/L	0.0001	0.002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	0.001	0.0014	2	<0.001	<0.001	0.001	<0.001	0.002	0.001	0.001
Cobalt	mg/L	0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	0.001	0.011	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	mg/L	0.001	0.0034	0.01	0.129	0.006	3.41	0.345	0.468	0.803	1.98
Zinc	mg/L	0.005	0.008	3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
Manganese	mg/L	0.001	0.19	0.1	<0.001	<0.001	0.002	<0.001	0.002	0.002	0.001
Molybdenum	mg/L	0.001			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	mg/L	0.01			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/L	0.001			<0.001	<0.001	0.001	0.001	<0.001	<0.001	0.002
Uranium	mg/L	0.001			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium	mg/L	0.01			0.058	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	mg/L	0.05		0.3	0.43	<0.05	4.4	<0.05	0.25	8.91	1.31
EG035F: Dissolved Mercury by FIMS											
Mercury	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator											
Fluoride	mg/L	0.1			0.7	0.1	0.2	0.7	0.2	0.2	0.3
EK055G: Ammonia as N by Discrete Analyser											
Ammonia as N	mg/L	0.01			26.1	0.04	0.85	1.77	0.06	0.47	0.67
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	mg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	mg/L	0.01			<0.01	0.41	<0.01	<0.01	0.01	0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N	mg/L	0.01			<0.01	0.41	<0.01	<0.01	0.01	0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N	mg/L	0.1			35.4	0.4	0.9	2	0.3	1.1	0.9
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
Total Nitrogen as N	mg/L	0.1			35.4	0.4	0.9	2	0.3	1.1	0.9
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P	mg/L	0.01			4.29	0.14	0.14	0.13	0.07	0.55	0.06
EK071G: Reactive Phosphorus as P by discrete analyser											
Reactive Phosphorus as P	mg/L	0.01			0.46	0.04	<0.01	0.1	0.04	0.04	<0.01
EN055: Ionic Balance											
Total Anions	meq/L	0.01			18.4	2.73	167	44.6	3.89	7.9	56.2
Total Cations	meq/L	0.01			16.7	2.56	162	46.9	3.68	7.16	60.2
Ionic Balance	%	0.01			4.84		1.5	2.47	2.82	4.87	3.42
EP080/071: Total Petroleum Hydrocarbons											

C6 - C9 Fraction	µg/L	20			<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction	µg/L	50			<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction	µg/L	100			110	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction	µg/L	50			580	<50	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)	µg/L	50			690	<50	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	µg/L	20			<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	µg/L	20			<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction	µg/L	100			<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction	µg/L	100			640	<100	<100	<100	<100	<100	<100
>C34 - C40 Fraction	µg/L	100			<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)	µg/L	100			640	<100	<100	<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100			<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN											
Benzene	µg/L	1			<1	<1	<1	<1	<1	<1	<1
Toluene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Total Xylenes	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Sum of BTEX	µg/L	1			<1	<1	<1	<1	<1	<1	<1
Naphthalene	µg/L	5			<5	<5	<5	<5	<5	<5	<5

ANZECC exceedance

ADWG exceedance

August 2017

	LAB ID		ANZECC Protection of Auquatic Ecoystems (2000) Water - Freshwater 95% protection level	ADWG	EB1716473001	EB1716473002	EB1716473003	EB1716473004	EB1716277001	EB1716277002	EB1716473007
	SAMPLE DATE				09/08/2017	09/08/2017	09/08/2017	09/08/2017	7/08/2017	7/08/2017	09/08/2017
	SAMPLE ID				BH6X	BH29	BH30	BH32	BH16	BH1X	BH13
ANALYTE	Unit	LOR									
Field Parameters (Laboratory)											
pH	pH unit				Labs did not sample				7.35	7.46	
Electrical Conductivity	µS/cm								426	739	Labs did not sample
Total Dissolved Solids @180°C	mg/L	1			577	208	11600	2630	262	431	4150
TDS (calculated)	*mg/L*				*1108*	*199*	*10310*	*2588*	*311*	*519*	*3397*
Suspended Solids (SS)	mg/L	5			92	20	8	7	32	69	44
ED037P: Alkalinity by PC Titrator											
Hydroxide Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	1			24	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	1			432	53	253	319	139	196	388
Total Alkalinity as CaCO3	mg/L	1			456	53	253	319	139	196	388
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	mg/L	1			37	36	1050	287	8	17	109
ED045G: Chloride by Discrete Analyser											
Chloride	mg/L	1			214	38	5480	1020	49	109	1620
ED093F: Dissolved Major Cations											
Calcium	mg/L	1			102	4	841	254	24	33	231
Magnesium	mg/L	1			47	7	986	180	14	21	370
Sodium	mg/L	1			143	49	1630	454	42	90	585
Potassium	mg/L	1			8	<1	7	3	3	4	5
EG020F: Dissolved Metals by ICP-MS											
Aluminium	mg/L	0.01	0.0055	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Arsenic	mg/L	0.001	0.0024	0.01	0.004	<0.001	0.003	<0.001	<0.001	0.024	0.002
Barium	mg/L	0.001		2	0.077	0.008	0.164	0.034	0.071	0.139	0.132
Cadmium	mg/L	0.0001	0.002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	0.001	0.0014	2	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Cobalt	mg/L	0.001			<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001
Nickel	mg/L	0.001	0.011	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	mg/L	0.001	0.0034	0.01	0.126	0.007	3.25	0.326	0.639	0.603	2.08
Zinc	mg/L	0.005	0.008	3	<0.001	<0.001	<0.001	<0.001	0.003	0.001	0.002
Manganese	mg/L	0.001	0.19	0.1	<0.001	<0.001	0.001	<0.001	0.001	0.003	<0.001
Molybdenum	mg/L	0.001			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	mg/L	0.01			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/L	0.001			<0.001	<0.001	0.002	0.001	<0.001	<0.001	0.002
Uranium	mg/L	0.001			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium	mg/L	0.01			0.012	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	mg/L	0.05		0.3	0.32	<0.05	3.63	<0.05	0.15	4.49	0.86
EG035F: Dissolved Mercury by FIMS											
Mercury	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator											
Fluoride	mg/L	0.1			0.5	<0.1	0.1	0.5	0.2	0.2	0.2
EK055G: Ammonia as N by Discrete Analyser											
Ammonia as N	mg/L	0.01			24.3	<0.01	0.73	0.55	0.3	0.5	0.68
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	mg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	mg/L	0.01			0.01	0.25	0.01	<0.01	0.01	0.01	0.04
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N	mg/L	0.01			0.01	0.25	0.01	<0.01	0.01	0.01	0.04
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N	mg/L	0.1			25	<0.1	0.7	0.6	0.2	0.8	0.7
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
Total Nitrogen as N	mg/L	0.1			25	0.2	0.7	0.6	0.2	0.8	0.7
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P	mg/L	0.01			2.28	0.13	0.18	0.06	0.09	0.39	0.08
EK071G: Reactive Phosphorus as P by discrete analyser											
Reactive Phosphorus as P	mg/L	0.01			0.64	0.04	<0.01	0.05	0.04	<0.01	<0.01
EN055: Ionic Balance											
Total Anions	meq/L	0.01			15.9	2.88	182	41.1	4.33	7.34	55.7
Total Cations	meq/L	0.01			15.4	2.91	194	47.3	4.25	7.39	67.6

Ionic Balance	%	0.01			1.71	----	3.38	7	0.84	0.32	9.6
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	µg/L	20			<20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction	µg/L	50			<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction	µg/L	100			<100	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction	µg/L	50			140	<50	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)	µg/L	50			140	<50	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	µg/L	20			<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	µg/L	20			<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction	µg/L	100			<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction	µg/L	100			200	<100	<100	<100	<100	<100	<100
>C34 - C40 Fraction	µg/L	100			<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)	µg/L	100			200	<100	<100	<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100			<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN											
Benzene	µg/L	1			<1	<1	<1	<1	<1	<1	<1
Toluene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Total Xylenes	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Sum of BTEX	µg/L	1			<1	<1	<1	<1	<1	<1	<1
Naphthalene	µg/L	5			<5	<5	<5	<5	<5	<5	<5

ANZECC exceedance

ADWG exceedance

September 2017

	LAB ID		ANZECC Protection of Auquatic Ecosystems (2000) Water - Freshwater 95% protection level	ADWG	EB1720206001	EB1720032001	EB1720032008	EB1720032009	EB1720032002	EB1720032003	EB1720206005
	SAMPLE DATE				28/09/2017	27/09/2017	27/09/2017	27/09/2017	27/09/2017	27/09/2017	28/09/2017
	SAMPLE ID				BH6X	BH29	BH30	BH32	BH16	BH1X	BH13
ANALYTE	Unit	LOR									
Field Parameters (Laboratory)											
Total Dissolved Solids @180°C	mg/L	1			922	198	12000	3490	424	287	5480
TDS (calculated)	*mg/L*				*1235*	*207*	*13088*	*3277*	*550*	*325*	*4145*
Suspended Solids (SS)	mg/L	5			122	16	22	21	50	14	26
ED037P: Alkalinity by PC Titrator											
Hydroxide Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	1			577	50	355	521	225	139	563
Total Alkalinity as CaCO3	mg/L	1			577	50	355	521	225	139	563
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	mg/L	1			38	47	1100	315	10	11	116
ED045G: Chloride by Discrete Analyser											
Chloride	mg/L	1			198	37	7570	1350	117	52	1980
ED093F: Dissolved Major Cations											
Calcium	mg/L	1			101	4	970	305	33	23	247
Magnesium	mg/L	1			50	8	1260	211	23	16	439
Sodium	mg/L	1			132	50	1740	456	82	49	667
Potassium	mg/L	1			11	<1	7	3	4	3	6
EG020F: Dissolved Metals by ICP-MS											
Aluminium	mg/L	0.01	0.0055	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Arsenic	mg/L	0.001	0.0024	0.01	0.004	<0.001	0.003	<0.001	0.018	0.002	0.002
Barium	mg/L	0.001		2	0.07	0.008	0.164	0.037	0.139	0.081	0.112
Cadmium	mg/L	0.0001	0.002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	0.001	0.0014	2	<0.001	<0.001	0.001	<0.001	<0.001	0.002	0.002
Cobalt	mg/L	0.001			0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001
Nickel	mg/L	0.001	0.011	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	mg/L	0.001	0.0034	0.01	0.116	0.006	3.32	0.348	0.573	0.586	1.77
Zinc	mg/L	0.005	0.008	3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
Manganese	mg/L	0.001	0.19	0.1	<0.001	<0.001	0.002	<0.001	0.001	0.002	0.002
Molybdenum	mg/L	0.001			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	mg/L	0.01			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/L	0.001			<0.001	<0.001	0.002	0.001	<0.001	<0.001	0.002
Uranium	mg/L	0.001			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium	mg/L	0.01			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	mg/L	0.05		0.3	0.41	<0.05	3.75	<0.05	5.61	0.15	0.98
EG035F: Dissolved Mercury by FIMS											
Mercury	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator											
Fluoride	mg/L	0.1			0.5	<0.1	0.2	0.7	0.2	0.1	0.4
EK055G: Ammonia as N by Discrete Analyser											
Ammonia as N	mg/L	0.01			40.5	0.02	0.85	0.54	4.2	0.06	0.47
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	mg/L	0.01			0.07	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	mg/L	0.01			<0.01	0.13	0.02	0.01	<0.01	0.03	0.1
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N	mg/L	0.01			0.04	0.13	0.02	0.01	<0.01	0.03	0.11
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N	mg/L	0.1			50.2	0.2	0.8	0.6	4.8	0.2	0.7
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
Total Nitrogen as N	mg/L	0.1			50.2	0.3	0.8	0.6	4.8	0.2	0.8
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P	mg/L	0.01			3.22	0.07	0.14	0.05	0.64	0.13	0.65
EK071G: Reactive Phosphorus as P by discrete analyser											
Reactive Phosphorus as P	mg/L	0.01			1.28	0.04	<0.01	0.04	<0.01	0.03	<0.01
EN055: Ionic Balance											
Total Anions	meq/L	0.01			17.9	3.02	244	55	8	4.47	69.5
Total Cations	meq/L	0.01			15.2	3.03	228	52.5	7.51	4.67	77.6
Ionic Balance	%	0.01			8.24	0.19	3.3	2.37	3.16	2.18	5.51
EP080/071: Total Petroleum Hydrocarbons											

C6 - C9 Fraction	µg/L	20			<20	<20	<20	<20	30	<20	<20
C10 - C14 Fraction	µg/L	50			<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction	µg/L	100			120	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction	µg/L	50			170	<50	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)	µg/L	50			290	<50	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	µg/L	20			<20	<20	<20	<20	30	<20	<20
C6 - C10 Fraction minus BTEX (F1)	µg/L	20			<20	<20	<20	<20	<20	<20	<20
>C10 - C16 Fraction	µg/L	100			<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction	µg/L	100			240	<100	<100	<100	<100	<100	<100
>C34 - C40 Fraction	µg/L	100			<100	<100	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)	µg/L	100			240	<100	<100	<100	<100	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100			<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN											
Benzene	µg/L	1			<1	<1	<1	<1	<1	<1	<1
Toluene	µg/L	2			<2	<2	<2	<2	17	<2	<2
Ethylbenzene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Total Xylenes	µg/L	2			<2	<2	<2	<2	<2	<2	<2
Sum of BTEX	µg/L	1			<1	<1	<1	<1	17	<1	<1
Naphthalene	µg/L	5			<5	<5	<5	<5	<5	<5	<5

ANZECC exceedance

ADWG exceedance

November 2017

	LAB ID		ANZECC Protection of Auquatic Ecoystems (2000) Water - Freshwater 95% protection level	ADWG	EB1723666006	EB1723666001	EB1723666002	EB1723666003	EB1723513001	EB1723513002	EB1723666005
	SAMPLE DATE				10/11/2017	10/11/2017	10/11/2017	10/11/2017	07/11/2017	07/11/2017	10/11/2017
	SAMPLE ID				BH6X	BH29	BH30	BH32	BH16	BH1X	BH13
ANALYTE	**Unit**	**LOR**									
Field Parameters (Laboratory)											
Total Dissolved Solids @180°C	mg/L	1			866	190	16700	2930	297	439	3310
TDS (calculated)	*mg/L*				*1792*	*179*	*11806*	*3007*	*364*	*589*	*3506*
Suspended Solids (SS)	mg/L	5			408	6	14	34	34	128	7
ED037P: Alkalinity by PC Titrator											
Hydroxide Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	1			<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	1			1070	42	371	521	154	238	523
Total Alkalinity as CaCO3	mg/L	1			1070	42	371	521	154	238	523
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	mg/L	1			16	42	1060	306	15	20	101
ED045G: Chloride by Discrete Analyser											
Chloride	mg/L	1			182	34	6630	1180	59	120	1700
ED093F: Dissolved Major Cations											
Calcium	mg/L	1			98	3	876	265	28	37	179
Magnesium	mg/L	1			50	6	1090	185	17	23	326
Sodium	mg/L	1			119	43	1690	432	54	94	558
Potassium	mg/L	1			21	<1	7	3	3	4	4
EG020F: Dissolved Metals by ICP-MS											
Aluminium	mg/L	0.01	0.0055	0.2	----	----	----	----	----	----	----
Arsenic	mg/L	0.001	0.0024	0.01	----	----	----	----	----	----	----
Barium	mg/L	0.001		2	----	----	----	----	----	----	----
Cadmium	mg/L	0.0001	0.002	0.002	----	----	----	----	----	----	----
Chromium	mg/L	0.001		0.05	----	----	----	----	----	----	----
Copper	mg/L	0.001	0.0014	2	----	----	----	----	----	----	----
Cobalt	mg/L	0.001			----	----	----	----	----	----	----
Nickel	mg/L	0.001	0.011	0.02	----	----	----	----	----	----	----
Lead	mg/L	0.001	0.0034	0.01	----	----	----	----	----	----	----
Zinc	mg/L	0.005	0.008	3	----	----	----	----	----	----	----
Manganese	mg/L	0.001	0.19	0.1	----	----	----	----	----	----	----
Molybdenum	mg/L	0.001			----	----	----	----	----	----	----
Selenium	mg/L	0.01			----	----	----	----	----	----	----
Silver	mg/L	0.001			----	----	----	----	----	----	----
Uranium	mg/L	0.001			----	----	----	----	----	----	----
Vanadium	mg/L	0.01			----	----	----	----	----	----	----
Iron	mg/L	0.05		0.3	----	----	----	----	----	----	----
EG035F: Dissolved Mercury by FIMS											
Mercury	mg/L	0.0001	0.0006	0.001	----	----	----	----	----	----	----
EK040P: Fluoride by PC Titrator											
Fluoride	mg/L	0.1			0.4	0.1	0.2	0.8	0.2	0.2	0.4
EK055G: Ammonia as N by Discrete Analyser											
Ammonia as N	mg/L	0.01			----	----	----	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	mg/L	0.01			----	----	----	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	mg/L	0.01			----	----	----	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N	mg/L	0.01			----	----	----	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N	mg/L	0.1			----	----	----	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
Total Nitrogen as N	mg/L	0.1			----	----	----	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P	mg/L	0.01			----	----	----	----	----	----	----
EK071G: Reactive Phosphorus as P by discrete analyser											
Reactive Phosphorus as P	mg/L	0.01			----	----	----	----	----	----	----
EN055: Ionic Balance											
Total Anions	meq/L	0.01			26.8	2.67	216	50.1	5.05	8.56	60.5
Total Cations	meq/L	0.01			14.7	2.51	207	47.3	5.22	7.93	60.1
Ionic Balance	%	0.01			29.2	----	2.22	2.82	1.64	3.8	0.31
EP080/071: Total Petroleum Hydrocarbons											

C6 - C9 Fraction	µg/L	20			----	----	----	----	----	----	----
C10 - C14 Fraction	µg/L	50			----	----	----	----	----	----	----
C15 - C28 Fraction	µg/L	100			----	----	----	----	----	----	----
C29 - C36 Fraction	µg/L	50			----	----	----	----	----	----	----
C10 - C36 Fraction (sum)	µg/L	50			----	----	----	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	µg/L	20			----	----	----	----	----	----	----
C6 - C10 Fraction minus BTEX (F1)	µg/L	20			----	----	----	----	----	----	----
>C10 - C16 Fraction	µg/L	100			----	----	----	----	----	----	----
>C16 - C34 Fraction	µg/L	100			----	----	----	----	----	----	----
>C34 - C40 Fraction	µg/L	100			----	----	----	----	----	----	----
>C10 - C40 Fraction (sum)	µg/L	100			----	----	----	----	----	----	----
>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100			----	----	----	----	----	----	----
EP080: BTEXN											
Benzene	µg/L	1			----	----	----	----	----	----	----
Toluene	µg/L	2			----	----	----	----	----	----	----
Ethylbenzene	µg/L	2			----	----	----	----	----	----	----
meta- & para-Xylene	µg/L	2			----	----	----	----	----	----	----
ortho-Xylene	µg/L	2			----	----	----	----	----	----	----
Total Xylenes	µg/L	2			----	----	----	----	----	----	----
Sum of BTEX	µg/L	1			----	----	----	----	----	----	----
Naphthalene	µg/L	5			----	----	----	----	----	----	----

ANZECC exceedance

ADWG exceedance

November 2017

			LAB ID	ANZECC Protection of Aquatic Ecosystems (2000) Water - Freshwater 95% protection level	ADWG	EB1723513006	EB1723721001	EB1723721002	EB1723721003	EB1723721004	EB1723721005
			SAMPLE DATE			8/11/2017	11/11/2017	12/11/2017	11/11/2017	12/11/2017	11/11/2017
			SAMPLE ID			WMP08D	WMP09	WMP04	WMP04D	WMP05	WMP10
ANALYTE	CAS No.	Unit	LOR								
Total Dissolved Solids @180°C		mg/L	10			8870	14400	5760	17000	1640	10500
TDS (calculated)		*mg/L*				*8709*	*14007*	*6435*	*16161*	*1954*	*5296*
Suspended Solids (SS)		mg/L	5			24	236	401	48	838	749
ED037P: Alkalinity by PC Titrator											
Hydroxide Alkalinity as CaCO3	DMO-210-00	mg/L	1			<1	<1	249	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	56	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			281	850	<1	677	657	1250
Total Alkalinity as CaCO3		mg/L	1			281	850	305	677	657	1250
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA											
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			237	834	90	413	72	682
ED045G: Chloride by Discrete Analyser											
Chloride	16887-00-6	mg/L	1			4910	7400	3660	9340	500	5340
ED093F: Dissolved Major Cations											
Calcium	7440-70-2	mg/L	1			119	341	140	270	44	97
Magnesium	7439-95-4	mg/L	1			111	500	<1	582	53	245
Sodium	7440-23-5	mg/L	1			2980	3890	2140	4720	482	3420
Potassium	7/09/7440	mg/L	1			8	4	31	9	<1	8
EG020F: Dissolved Metals by ICP-MS											
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	<0.01	**0.61**	<0.01	<0.01	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	<0.001	0.001	<0.001	0.001	0.001	0.001
Barium	7440-39-3	mg/L	0.001		2	0.092	0.133	0.238	0.103	0.218	0.3
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	**0.166**	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	0.0014		<0.001	**0.002**	<0.001	0.001	**0.002**	**0.002**
Copper	7440-50-8	mg/L	0.001	0.0014	2	<0.001	0.001	**0.009**	0.001	<0.001	0.001
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	0.07	0.495	<0.001	0.095	**0.8**	**0.573**
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	<0.001	0.001	**0.202**	0.003	0.003	0.003
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	<0.001	0.003	<0.001	<0.001	0.002	0.001
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001		0.017	<0.001	0.012	<0.001	0.007	0.005	0.007
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.008	3	**0.01**	**0.026**	<0.005	**0.06**	**0.034**	**0.029**
Iron	7439-89-6	mg/L	0.05	0.35	0.3	<0.05	<0.05	0.08	<0.05	<0.05	<0.05
EG035F: Dissolved Mercury by FIMS											
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator											
Fluoride	16984-48-8	mg/L	0.1		1.5	0.7	0.5	0.7	0.4	0.7	0.3
EK055G: Ammonia as N by Discrete Analyser											
Ammonia as N	7664-41-7	mg/L	0.01		0.5	**0.83**	0.01	0.19	0.02	0.03	0.03
EK057G: Nitrite as N by Discrete Analyser											
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	0.02	0.03	<0.01	<0.01

EK058G: Nitrate as N by Discrete Analyser											
Nitrate as N	14797-55-8	mg/L	0.01		50	0.01	0.02	0.07	0.32	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser											
Nitrite + Nitrate as N		mg/L	0.01			0.01	0.02	0.09	0.35	<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser											
Total Kjeldahl Nitrogen as N		mg/L	0.1			0.9	<0.5	<0.5	<0.5	0.8	<0.5
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser											
Total Nitrogen as N		mg/L	0.1			0.9	<0.5	<0.5	<0.5	0.8	<0.5
EK067G: Total Phosphorus as P by Discrete Analyser											
Total Phosphorus as P		mg/L	0.01			0.02	0.42	0.59	0.1	0.8	0.61
EK071G: Reactive Phosphorus as P by discrete analyser											
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			<0.01	0.07	<0.01	<0.01	0.06	0.02
EN055: Ionic Balance											
Total Anions		meq/L	0.01			149	243	111	286	28.7	190
Total Cations		meq/L	0.01			145	227	101	267	27.5	174
Ionic Balance		%	0.01			1.41	3.32	4.88	3.38	2.14	4.35
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction		µg/L	20			40	<20	130	<20	<20	50
C10 - C14 Fraction		µg/L	50			<50	70	160	<50	90	<50
C15 - C28 Fraction		µg/L	100			110	310	160	310	220	<100
C29 - C36 Fraction		µg/L	50			120	120	<50	160	120	<50
C10 - C36 Fraction (sum)		µg/L	50			230	500	320	470	430	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C6 - C10 Fraction	C6_C10	µg/L	20			40	<20	130	<20	<20	50
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			40	<20	130	<20	<20	50
>C10 - C16 Fraction		µg/L	100			<100	<100	150	<100	<100	<100
>C16 - C34 Fraction		µg/L	100			200	370	170	440	290	100
>C34 - C40 Fraction		µg/L	100			100	<100	<100	110	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100			300	370	320	550	290	100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	150	<100	<100	<100
EP080: BTEXN											
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2		0.025	2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106	µg/L	2			<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1			2	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5
* Samples labelled as WP08D											

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

Early December 2017

			LAB ID	ANZECC Protection of Aquatic Ecosystems (2000) Water - Freshwater 95% protection level	ADWG	EB1725924001	EB1725924002	EB1725924003
			SAMPLE DATE			06/12/2017	06/12/2017	06/12/2017
			SAMPLE ID			WMP08	WMP08D	WMP09
ANALYTE	CAS No.	Unit	LOR					
Total Dissolved Solids @180°C		mg/L	10			15300	8180	14300
TDS (calculated)		*mg/L*				*15518*	*8629*	*13728*
Suspended Solids (SS)		mg/L	5			532	50	243
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-00	mg/L	1			<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			610	254	776
Total Alkalinity as CaCO3		mg/L	1			610	254	776
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1410	254	893
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	mg/L	1			8020	5000	7240
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	mg/L	1			379	96	257
Magnesium	7439-95-4	mg/L	1			474	100	466
Sodium	7440-23-5	mg/L	1			4480	2860	3920
Potassium	7/09/7440	mg/L	1			8	8	4
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	0.03	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.002	0.001	0.002
Barium	7440-39-3	mg/L	0.001		2	0.269	0.101	0.153
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001		0.05	0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.008	<0.001	0.007
Copper	7440-50-8	mg/L	0.001	0.0014	2	<0.001	<0.001	<0.001
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	2.2	0.18	0.917
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.005	0.002	0.001
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.004	<0.001	0.003
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01

Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001		0.017	0.011	0.002	0.01
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.027	<0.005	0.022
Iron	7439-89-6	mg/L	0.05	0.35	0.3	<0.05	0.08	<0.05
EG035F: Dissolved Mercury by FIMS								
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	mg/L	0.1		1.5	0.5	0.7	0.5
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.09	0.79	0.05
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N		mg/L	0.01			<0.01	0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Total Kjeldahl Nitrogen as N		mg/L	0.1			0.6	0.8	<0.5
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser								
Total Nitrogen as N		mg/L	0.1			0.6	0.8	<0.5
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P		mg/L	0.01			0.42	0.07	0.23
EK071G: Reactive Phosphorus as P by discrete analyser								
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			<0.01	<0.01	0.04
EN055: Ionic Balance								
Total Anions		meq/L	0.01			268	151	238
Total Cations		meq/L	0.01			253	138	222
Ionic Balance		%	0.01			2.84	4.77	3.59
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction		µg/L	20			90	70	30
C10 - C14 Fraction		µg/L	50			80	<50	<50
C15 - C28 Fraction		µg/L	100			3070	<100	240
C29 - C36 Fraction		µg/L	50			6070	60	130
C10 - C36 Fraction (sum)		µg/L	50			9220	60	370

EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	µg/L	20			100	70	30
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			100	60	30
>C10 - C16 Fraction		µg/L	100			<100	<100	<100
>C16 - C34 Fraction		µg/L	100			7400	100	320
>C34 - C40 Fraction		µg/L	100			5390	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100			12800	100	320
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100
EP080: BTEXN								
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1
Toluene	108-88-3	µg/L	2		0.025	<2	5	<2
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2
meta- & para-Xylene	108-38-3 106	µg/L	2			<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2
Sum of BTEX		µg/L	1			<1	5	<1
Naphthalene	91-20-3	µg/L	5			<5	<5	<5

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

Late December 2017

			LAB ID	ANZECC Protection of Aquatic Ecosystems (2000) Water - Freshwater 95% protection level	ADWG	EB1727237001	EB1727237002	EB1727237003	EB1727237004	EB1727237005	EB172738600	EB172738600	EB172738600	EB172738600	EB172738600
			SAMPLE DATE			20/12/2017	20/12/2017	20/12/2017	20/12/2017	20/12/2017	20/12/2017	20/12/2017	20/12/2017	20/12/2017	20/12/2017
			SAMPLE ID			WMP08	WMP08D	WMP09	WMP10	WMP06	WMP04	WMP04D	WMP12	WMP02	WMP05
ANALYTE	CAS No.	Unit	LOR												
Total Dissolved Solids @180°C		mg/L	10			17600	8320	14800	11000	3380	8440	17200	3380	11400	1960
TDS (calculated)		*mg/L*				*16171*	*8903*	*14227*	*11222*	*2395*	*7969*	*15948*	*2773*	*9390*	*2448*
Suspended Solids (SS)		mg/L	5			426	24	303	1770	27900	3010	230	19100	24500	506
ED037P: Alkalinity by PC Titrator															
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	42	<1	89	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			658	270	802	1160	557	74	645	439	406	822
Total Alkalinity as CaCO3		mg/L	1			658	270	802	1160	557	116	645	528	406	822
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA															
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1260	211	938	705	58	192	464	107	546	105
ED045G: Chloride by Discrete Analyser															
Chloride	16887-00-6	mg/L	1			8150	4940	7160	5020	845	4920	9080	1170	5260	654
ED093F: Dissolved Major Cations															
Calcium	7440-70-2	mg/L	1			368	101	304	99	96	58	200	91	285	42
Magnesium	7439-95-4	mg/L	1			590	122	560	273	89	87	609	40	478	60
Sodium	7440-23-5	mg/L	1			4990	3190	4280	3700	609	2550	4800	715	2320	583
Potassium	7/09/7440	mg/L	1			8	8	5	9	2	20	8	2	1	<1
EG020F: Dissolved Metals by ICP-MS				ANZEEC											
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	1.69	<0.01	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.003	0.004	0.002	0.003	0.024	0.003	0.001	0.006	0.003	0.002
Barium	7440-39-3	mg/L	0.001		2	0.197	0.126	0.13	0.228	0.323	0.121	0.085	0.123	0.454	0.262
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.001	0.055	<0.001	0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.004	<0.001	0.007	<0.001	0.021	<0.001	0.001	0.001	0.021	0.002
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.002	<0.001	0.002	0.002	<0.001	0.002	0.001	0.002	<0.001	0.001
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	1.23	0.422	0.899	0.16	9.05	0.002	0.087	0.167	2.99	0.669
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.004	0.002	0.001	0.004	0.004	0.102	0.003	0.012	0.002	0.002
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.002	<0.001	0.003	0.001	0.007	<0.001	<0.001	0.002	0.006	<0.001
Selenium	7782-49-2	mg/L	0.01	0.011	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001		0.017	0.01	0.002	0.01	0.006	0.004	<0.001	0.005	0.004	0.007	0.006
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.015	<0.005	0.032	0.011	0.007	<0.005	0.058	0.01	0.009	0.01
Iron	7439-89-6	mg/L	0.05	0.35	0.3	<0.05	0.4	<0.05	<0.05	6.41	<0.05	0.06	1.02	0.06	<0.05
EG035F: Dissolved Mercury by FIMS															
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator															
Fluoride	16984-48-8	mg/L	0.1		1.5	0.4	0.6	0.5	0.3	0.3	0.5	<0.5	1	0.8	0.6
EK055G: Ammonia as N by Discrete Analyser															
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.11	0.81	0.06	0.05	0.16	0.02	0.04	0.49	0.07	0.06
EK057G: Nitrite as N by Discrete Analyser															
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.06	0.12	0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser															
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	0.04	<0.01	<0.01	<0.01	0.1	0.36	0.14	1.88	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser															
Nitrite + Nitrate as N		mg/L	0.01			<0.01	0.04	<0.01	<0.01	<0.01	0.11	0.42	0.26	1.89	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser															
Total Kjeldahl Nitrogen as N		mg/L	0.1			<0.5	0.7	<0.5	1.6	7.7	9.6	0.6	31.8	11.2	0.5
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser															

Total Nitrogen as N		mg/L	0.1			<0.5	0.7	<0.5	1.6	7.7	9.7	1	32.1	13.1	0.5
EK067G: Total Phosphorus as P by Discrete Analyser															
Total Phosphorus as P		mg/L	0.01			0.46	<0.05	0.09	1.47	3.65	5.95	<0.05	15.1	7.27	0.26
EK071G: Reactive Phosphorus as P by discrete analyser															
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	0.14	0.03	0.03
EN055: Ionic Balance															
Total Anions		meq/L	0.01			269	149	238	179	36.2	145	279	45.8	168	37
Total Cations		meq/L	0.01			284	154	248	188	38.6	121	269	39	154	32.4
Ionic Balance		%	0.01			2.69	1.62	2.07	2.48	3.32	8.86	1.75	8.02	4.14	6.72
EP080/071: Total Petroleum Hydrocarbons															
C6 - C9 Fraction		µg/L	20			80	40	30	110	960	20	<20	240	40	<20
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<50	340	<50	<50	80	<50	<50
C15 - C28 Fraction		µg/L	100			1300	<100	100	<100	15400	140	<100	5980	350	<100
C29 - C36 Fraction		µg/L	50			2460	<50	<50	<50	26200	<50	<50	10200	140	<50
C10 - C36 Fraction (sum)		µg/L	50			3760	<50	100	<50	41900	140	<50	16300	490	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions															
C6 - C10 Fraction	C6_C10	µg/L	20			80	40	30	110	950	20	<20	240	40	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			80	40	30	110	950	20	<20	240	40	<20
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	550	<100	<100	140	<100	<100
>C16 - C34 Fraction		µg/L	100			2990	<100	120	110	33600	160	<100	13000	450	<100
>C34 - C40 Fraction		µg/L	100			2160	<100	<100	<100	20000	<100	<100	8480	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100			5150	<100	120	110	54200	160	<100	21600	450	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	550	<100	<100	140	<100	<100
EP080: BTEXN															
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<5	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<5	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2			<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<5	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<5	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

January 2018

			LAB ID	ANZECC Protection of Aquatic Ecosystems (2000) Water - Freshwater 95% protection level	ADWG	EB1802004001	EB1802004002	EB1802004003	EB1802004007	EB1802004005	EB1802268001	EB1802268002	EB1802268004	EB1802268006	EB1802268007	EB1802268003
			SAMPLE DATE			16/01/2018	16/01/2018	16/01/2018	16/01/2018	16/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
			SAMPLE ID			WMP08	WMP08D	WMP09	WMP10	WMP06	WMP04	WMP04D	WMP12	WMP02	WMP05	WMP13
ANALYTE	**CAS No.**	**Unit**	**LOR**													
Total Dissolved Solids @180°C		mg/L	10			18100	8370	14600	9410	2910	10400	17200	4290	10800	2310	22300
TDS (calculated)		*mg/L*				17262	8857	13865	11534	3359	9544	16554	4934	9800	2553	21337
Suspended Solids (SS)		mg/L	5			247	34	243	823	364	4280	187	34900	3560	480	343
ED037P: Alkalinity by PC Titrator																
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	34	<1	<1	<1	40	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			674	270	774	1160	716	244	640	596	412	780	390
Total Alkalinity as CaCO3		mg/L	1			674	270	774	1160	716	278	640	596	412	820	390
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1600	193	743	751	78	218	459	148	514	104	1290
ED045G: Chloride by Discrete Analyser																
Chloride	16887-00-6	mg/L	1			8870	5090	7250	5390	1380	5760	9370	2500	5380	674	12100
ED093F: Dissolved Major Cations																
Calcium	7440-70-2	mg/L	1			387	103	308	86	105	107	201	183	301	42	841
Magnesium	7439-95-4	mg/L	1			574	112	514	252	108	195	654	181	540	66	1150
Sodium	7440-23-5	mg/L	1			5000	3020	4100	3630	805	2910	5080	1190	2560	666	5470
Potassium	7/09/7440	mg/L	1			7	8	4	8	2	14	9	4	1	<1	8
EG020F: Dissolved Metals by ICP-MS																
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	0.01	0.02	<0.01	0.02	<0.01	0.02	0.02	0.02	0.01	<0.01	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.003	0.004	0.002	0.003	0.021	0.004	0.001	0.004	0.002	0.002	0.002
Barium	7440-39-3	mg/L	0.001		2	0.218	0.141	0.125	0.209	0.419	0.254	0.09	0.355	0.441	0.225	0.185
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.001	0.008	<0.001	0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.005	<0.001	0.006	0.004	0.006	<0.001	<0.001	<0.001	0.002	<0.001	0.008
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.002	<0.001	0.001	<0.001	0.003	<0.001	<0.001	0.003	0.002	<0.001	0.002
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	1.31	0.341	0.719	0.992	3.92	0.046	0.093	0.122	0.381	0.323	1.93
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.003	<0.001	<0.001	0.002	0.009	0.047	0.002	0.008	0.002	0.002	0.004
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.002	<0.001	0.002	0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	0.007
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001		0.017	0.01	0.001	0.01	0.007	0.008	0.001	0.004	0.004	0.005	0.005	0.04
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.025	<0.005	0.03	0.04	0.011	<0.005	0.098	0.01	<0.005	0.013	0.128
Iron	7439-89-6	mg/L	0.05	0.35	0.3	0.06	0.35	<0.05	0.24	2.9	<0.05	0.06	<0.05	<0.05	<0.05	<0.05
EG035F: Dissolved Mercury by FIMS																
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator																
Fluoride	16984-48-8	mg/L	0.1		1.5	0.5	0.7	0.5	0.3	0.5	0.5	0.3	<1.0	0.6	0.5	0.2
EK055G: Ammonia as N by Discrete Analyser																
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.08	0.81	0.02	0.03	0.01	<0.01	0.04	0.27	0.03	0.06	0.22
EK057G: Nitrite as N by Discrete Analyser																
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.2	0.03	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser																
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	<0.01	0.03	0.01	<0.01	0.25	0.34	0.62	2.19	0.04	0.04
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																
Nitrite + Nitrate as N		mg/L	0.01			<0.01	<0.01	0.03	0.01	<0.01	0.25	0.38	0.82	2.22	0.04	0.04
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																
Total Kjeldahl Nitrogen as N		mg/L	0.1			0.2	0.8	0.2	8.5	0.5	<0.5	<0.5	2.5	1.8	<0.5	0.7
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																
Total Nitrogen as N		mg/L	0.1			0.2	0.8	0.2	8.5	0.5	<0.5	<0.5	3.3	4	<0.5	0.7
EK067G: Total Phosphorus as P by Discrete Analyser																
Total Phosphorus as P		mg/L	0.01			0.12	0.03	0.11	0.48	0.2	0.18	0.09	3.74	2.3	0.2	0.11
EK071G: Reactive Phosphorus as P by discrete analyser																
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			0.12	0.03	0.11	0.48	0.2	0.01	<0.01	0.06	0.04		<0.01

EN055: Ionic Balance																
Total Anions		meq/L	0.01			297	153	235	191	54.8	172	287	85.5	171	37.6	376
Total Cations		meq/L	0.01			284	146	236	183	49.2	148	285	75.9	171	36.5	375
Ionic Balance		%	0.01			2.2	2.36	0.14	2.06	5.44	7.56	0.28	5.96	0.04	1.44	0.16
EP080/071: Total Petroleum Hydrocarbons																
C6 - C9 Fraction		µg/L	20			60	<20	<20	60	300	<20	<20	80	<20	<20	80
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<50	120	<50	<50	480	<50	<50	80
C15 - C28 Fraction		µg/L	100			1000	<100	<100	<100	1990	480	<100	7680	220	<100	640
C29 - C36 Fraction		µg/L	50			1840	<50	<50	<50	3250	700	<50	51300	110	60	130
C10 - C36 Fraction (sum)		µg/L	50			2840	<50	<50	<50	5360	1180	<50	59500	330	60	850
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																
C6 - C10 Fraction	C6_C10	µg/L	20			60	<20	<20	60	320	<20	<20	80	<20	<20	70
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			60	<20	<20	60	320	<20	<20	80	<20	<20	70
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	170	<100	<100	600	<100	<100	110
>C16 - C34 Fraction		µg/L	100			2270	<100	100	<100	4220	2320	<100	70400	290	140	580
>C34 - C40 Fraction		µg/L	100			1700	<100	<100	<100	2820	280	<100	35800	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100			3970	<100	100	<100	7210	2600	<100	107000	290	140	690
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	170	<100	<100	600	<100	<100	110
EP080: BTEXN																
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

February 2018

			LAB ID	ANZECC Protection of Aquatic Ecosystems (2000) Water - Freshwater 95% protection level	ADWG	EB1804139001	EB1804139002	EB1804139003	EB1804139005	EB1804404007
			SAMPLE DATE			12/02/2018	12/02/2018	12/02/2018	13/02/2018	15/02/2018
			SAMPLE ID			WMP08	WMP08D	WMP09	WMP06	WMP13
ANALYTE	CAS No.	Unit	LOR							
pH		pH units				7.5	7.9	7.5	7.19	7.77
Total Dissolved Solids @180°C		mg/L	10			19200	8700	14800	4400	28300
TDS (calculated)		*mg/L*				*18138*	*8975*	*14163*	*3860*	*27079*
Electrical Conductivity		µS/cm				27400	14800	22000	6160	43300
Suspended Solids (SS)		mg/L	5			283	64	128	3520	425
ED037P: Alkalinity by PC Titrator										
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			779	273	795	824	481
Total Alkalinity as CaCO3		mg/L	1			779	273	795	824	481
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA										
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1740	216	915	101	1580
ED045G: Chloride by Discrete Analyser										
Chloride	16887-00-6	mg/L	1			9270	5220	7580	1580	15500
ED093F: Dissolved Major Cations										
Calcium	7440-70-2	mg/L	1			422	105	280	103	1130
Magnesium	7439-95-4	mg/L	1			607	111	503	125	1590
Sodium	7440-23-5	mg/L	1			5140	2980	3910	938	6680
Potassium	7/09/7440	mg/L	1			7	8	4	2	8
EG020F: Dissolved Metals by ICP-MS										
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	0.02	<0.01	<0.01	<0.05
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.003	0.005	0.002	0.021	<0.005
Barium	7440-39-3	mg/L	0.001		2	0.21	0.143	0.103	0.427	0.256
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.005
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.005	<0.001	0.004	0.006	0.016
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.001	<0.001	<0.001	0.003	<0.005
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.001	<0.005
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	1.32	0.32	0.483	2.62	3.55
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.002	0.001	<0.001	0.006	<0.005
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.002	<0.001	0.002	0.002	0.008
Selenium	7782-49-2	mg/L	0.01	0.011	0.01	<0.01	<0.01	<0.01	<0.01	<0.05
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	0.001	<0.001	<0.001	<0.001	0.009
Uranium	7440-61-1	mg/L	0.001		0.017	0.01	0.001	0.008	0.008	0.035
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.01	<0.05
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.026	<0.005	0.027	0.01	<0.025
Iron	7439-89-6	mg/L	0.05	0.35	0.3	<0.05	0.35	<0.05	1.75	0.52
EG035F: Dissolved Mercury by FIMS										
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator										
Fluoride	16984-48-8	mg/L	0.1		1.5	0.4	0.6	0.5	0.5	0.2

EK055G: Ammonia as N by Discrete Analyser										
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.08	0.79	0.01	0.07	0.17
EK057G: Nitrite as N by Discrete Analyser										
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser										
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	<0.01	<0.01	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser										
Nitrite + Nitrate as N		mg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser										
Total Kjeldahl Nitrogen as N		mg/L	0.1			<0.5	0.8	<0.5	3.3	0.8
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser										
Total Nitrogen as N		mg/L	0.1			<0.5	0.8	<0.5	3.3	0.8
EK067G: Total Phosphorus as P by Discrete Analyser										
Total Phosphorus as P		mg/L	0.01			0.28	0.11	0.10	1.76	0.16
EK071G: Reactive Phosphorus as P by discrete analyser										
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			0.04	<0.01	0.06	<0.01	<0.01
EN055: Ionic Balance										
Total Anions		meq/L	0.01			313	157	249	63.1	480
Total Cations		meq/L	0.01			295	144	226	56.3	478
Ionic Balance		%	0.01			3.04	4.31	4.89	5.74	0.18
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction		µg/L	20			70	30	<20	390	50
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<280	<50
C15 - C28 Fraction		µg/L	100			640	<100	<100	14500	170
C29 - C36 Fraction		µg/L	50			1210	<50	<50	25700	80
C10 - C36 Fraction (sum)		µg/L	50			1850	<50	<50	40200	250
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions										
C6 - C10 Fraction	C6_C10	µg/L	20			70	50	20	400	50
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			70	50	20	400	50
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<280	<100
>C16 - C34 Fraction		µg/L	100			1520	<100	<100	33400	210
>C34 - C40 Fraction		µg/L	100			1050	<100	<100	20800	<100
>C10 - C40 Fraction (sum)		µg/L	100			2570	<100	<100	54200	210
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<280	<100
EP080: BTEXN										
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	µg/L	2			<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

March 2018

			LAB ID	of Aquatic Ecosystems (2000)	ADWG	EB1806701001	EB1806701002	EB1806701003	EB1806701008	EB1806701006	EB1806947001	EB1806947002	EB1806947003	EB1806947006	EB1806947007	EB1806947011	EB1806701005	EB1806947013
			SAMPLE DATE	Water - Freshwater		12/03/2018	12/03/2018	12/03/2018	13/03/2018	13/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	14/03/2018	13/03/2018	15/03/2018
			SAMPLE ID	95% protection		WMP08	WMP08D	WMP09	WMP10	WMP06	WMP04	WMP04D	WMP12	WMP02	WMP05	WMP13	BH6X	BH13
ANALYTE	**CAS No.**	**Unit**	**LOR**															
Total Dissolved Solids @180°C		mg/L	10			13600	8330	9650	9730	1230	15100	15600	2920	8750	1520	36900	872	3370
TDS (calculated)		*mg/L*				13334	8529	9946	10573	1349	12441	15369	3106	8758	1948	29333	1115	3287
Electrical Conductivity		µS/cm				21300	14300	16100	16300	1960	20800	25000	5270	13800	2580	45700	1540	5490
Suspended Solids (SS)		mg/L	5			1620	192	725	1190	13000	16500	228	22600	2000	34800	529	419	50
ED037P: Alkalinity by PC Titrator																		
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			604	273	610	1150	415	51	678	310	336	622	511	483	478
Total Alkalinity as CaCO3		mg/L	1			604	273	610	1150	415	51	678	310	336	622	511	483	478
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																		
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1140	236	625	688	20	473	377	101	442	114	1650	44	105
ED045G: Chloride by Discrete Analyser																		
Chloride	16887-00-6	mg/L	1			6800	4850	5140	4860	419	7440	8770	1570	5040	498	16600	196	1580
ED093F: Dissolved Major Cations																		
Calcium	7440-70-2	mg/L	1			312	112	216	89	52	465	236	120	272	39	1300	102	194
Magnesium	7439-95-4	mg/L	1			437	109	357	244	50	185	569	120	472	51	1800	50	302
Sodium	7440-23-5	mg/L	1			3900	2880	2860	3280	297	3800	4580	814	2120	486	7350	126	517
Potassium	7/09/7440	mg/L	1			6	8	3	8	1	15	9	1	1	<1	6	7	4
EG020F: Dissolved Metals by ICP-MS																		
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.003	0.003	0.002	0.002	0.004	0.002	<0.001	0.002	0.001	<0.001	<0.005	0.003	<0.001
Barium	7440-39-3	mg/L	0.001		2	0.212	0.168	0.11	0.146	0.168	0.24	0.126	0.278	0.36	0.54	0.171	0.044	0.056
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	0.001	<0.001	0.014	0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.004	<0.001	0.003	0.001	0.007	<0.001	0.001	0.003	0.002	<0.001	0.01	<0.001	0.004
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.002	0.001	0.002	0.002	<0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.005	<0.001	0.001
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	1.38	0.577	0.619	0.367	3.43	<0.001	0.179	1.26	0.399	<0.001	2.62	0.15	1.13
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.004	<0.001	0.001	0.003	0.002	0.033	0.002	0.002	0.001	0.005	<0.005	<0.001	0.001
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.002	<0.001	0.002	<0.001	0.003	<0.001	<0.001	0.001	0.003	0.001	0.006	<0.001	0.002
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.005	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001		0.017	0.004	<0.001	0.003	0.005	0.001	<0.001	0.005	0.002	0.003	0.005	0.015	<0.001	0.001
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.013	0.027	0.015	<0.005	<0.005	<0.005	0.085	<0.005	0.039	<0.005	0.038	<0.005	0.006
Iron	7439-89-6	mg/L	0.05	0.35	0.3	<0.05	<0.05	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.05	0.2	0.08	<0.05
EG035F: Dissolved Mercury by FIMS																		
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator																		
Fluoride	16984-48-8	mg/L	0.1		1.5	0.6	0.6	0.5	0.3	0.3	<1.0	0.4	<1.0	0.6	1.1	0.1	0.6	0.4
EK055G: Ammonia as N by Discrete Analyser																		
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.2	0.91	0.06	0.1	0.26	0.22	0.1	0.21	0.03	0.07	0.45	31	0.12
EK057G: Nitrite as N by Discrete Analyser																		
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.08	<0.01	<0.01	<0.01	0.02	0.03
EK058G: Nitrate as N by Discrete Analyser																		
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	<0.01	0.02	<0.01	<0.01	0.47	0.44	0.42	2.53	0.04	<0.01	0.01	0.24
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																		
Nitrite + Nitrate as N		mg/L	0.01			<0.01	<0.01	0.02	<0.01	<0.01	0.48	0.46	0.5	2.53	0.04	<0.01	0.03	0.27
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																		
Total Kjeldahl Nitrogen as N		mg/L	0.1			2.8	1.1	0.9	1.3	4.3	12.2	0.9	18.5	1.4	19.2	0.9	36.5	0.4
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																		
Total Nitrogen as N		mg/L	0.1			2.8	1.1	0.9	1.3	4.3	12.7	1.4	19	3.9	19.2	0.9	36.5	0.7
EK067G: Total Phosphorus as P by Discrete Analyser																		
Total Phosphorus as P		mg/L	0.01			1.58	0.07	0.34	0.8	1.29	9.66	0.08	8.68	1.48	16.2	0.21	3.68	0.08
EK071G: Reactive Phosphorus as P by discrete analyser																		
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			<0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.02	0.04	0.08	0.07	<0.01	0.06	<0.01
EN055: Ionic Balance																		
Total Anions		meq/L	0.01			228	147	170	174	20.5	221	269	52.6	158	28.8	513	16.1	56.3
Total Cations		meq/L	0.01			221	140	165	167	19.6	204	258	51.3	145	27.3	533	14.9	57.1
Ionic Balance		%	0.01			1.4	2.49	1.66	2.05	2.17	3.92	2.04	1.24	4.44	2.79	1.92	3.97	0.72
EP080/071: Total Petroleum Hydrocarbons																		
C6 - C9 Fraction		µg/L	20			60	30	<20	40	60	<20	<20	40	<20	30	30	<20	<20
C10 - C14 Fraction		µg/L	50			70	<50	<50	<50	120	<50	<50	60	<50	60	<50	<50	<50
C15 - C28 Fraction		µg/L	100			5770	<100	130	<100	8850	920	<100	4220	<100	1290	<100	<100	<100
C29 - C36 Fraction		µg/L	50			10800	<50	70	<50	15400	380	<50	7360	<50	890	<50	220	<50

C10 - C36 Fraction (sum)		µg/L	50			16600	<50	200	<50	24400	1300	<50	11600	<50	2240	<50	220	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																		
C6 - C10 Fraction	C6_C10	µg/L	20			60	20	<20	40	50	<20	<20	40	<20	30	30	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			60	20	<20	40	50	<20	<20	40	<20	30	30	<20	<20
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	180	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100			13500	<100	180	<100	19900	1200	<100	9420	<100	1920	<100	270	<100
>C34 - C40 Fraction		µg/L	100			8910	<100	<100	<100	12000	170	<100	6330	<100	560	<100	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100			22400	<100	180	<100	32100	1370	<100	15800	<100	2480	<100	270	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	180	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN																		
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

April 2018

			LAB ID	of Aquatic Ecosystems (2000)		EB1808995001	EB1808995002	EB1808995003	EB1808995007	EB1808995004	EB1809197001	EB1809197002	EB1809197003	EB1809197006	EB1809197007	EB1809197011	EB1808995005	EB1809197013	EB1809197015	EB1809197016	EB1809197017
			SAMPLE DATE	Water - Freshwater	ADWG	09/04/2018	09/04/2018	09/04/2018	10/04/2018	10/04/2018	11/04/2018	11/04/2018	11/04/2018	12/04/2018	12/04/2018	11/04/2018	10/04/2018	12/04/2018	11/04/2018	11/04/2018	12/04/2018
			SAMPLE ID	95% protection		WMP08	WMP08D	WMP09	WMP10	WMP06	WMP04	WMP04D	WMP12	WMP02	WMP05	WMP13	WMP15	BH1X	WMP11	WMP11D	BH16
ANALYTE	CAS No.	Unit	LOR																		
Total Dissolved Solids @180°C		mg/L	10			15700	8710	13700	9840	1170	14400	17600	5960	11000	1580	37400	4600	415	17700	21900	300
TDS (calculated)		*mg/L*				15301.635	8836.003	13083.016	11248.37	1236.414	13099.571	16080.57	4813.145	10205.372	1674.81	30142.12	4874.07	772.255	14833.945	18493.31	368.995
Electrical Conductivity		µS/cm				23600	14800	20600	17000	1810	22500	26700	7960	16700	2170	49000	8330	1130	26000	32000	492
Suspended Solids (SS)		mg/L	5			299	126	564	2770	9400	10700	360	20900	1420	5280	573	150	68	224	61	52
ED037P: Alkalinity by PC Titrator																					
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			625	263	727	1160	373	142	686	312	392	535	509	340	374	412	526	164
Total Alkalinity as CaCO3		mg/L	1			625	263	727	1160	373	145	686	312	392	535	509	340	374	412	526	164
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																					
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1180	208	828	729	21	358	408	142	516	133	1680	156	10	63	197	12
ED045G: Chloride by Discrete Analyser																					
Chloride	16887-00-6	mg/L	1			7830	5140	6900	5260	381	7850	9240	2650	5800	365	17200	2660	135	8790	10700	51
ED093F: Dissolved Major Cations																					
Calcium	7440-70-2	mg/L	1			316	100	255	91	55	192	278	172	330	15	1240	75	37	429	599	27
Magnesium	7439-95-4	mg/L	1			513	108	488	234	42	402	568	207	509	37	1790	114	23	479	587	16
Sodium	7440-23-5	mg/L	1			4690	2950	3720	3510	280	4110	4740	1260	2570	471	7600	1440	100	4550	5750	59
Potassium	7/09/7440	mg/L	1			8	8	4	8	1	14	9	1	1	<1	8	13	10	11	13	3
EG020F: Dissolved Metals by ICP-MS																					
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	0.02	<0.01	0.02	<0.01	0.01	<0.01	0.12	0.02	0.01	<0.05	0.03	<0.01	0.01	0.02	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.004	0.004	0.002	0.002	0.012	0.005	<0.001	0.004	0.002	0.002	<0.005	0.002	0.015	0.005	0.011	0.002
Barium	7440-39-3	mg/L	0.001		2	0.217	0.132	0.109	0.153	0.18	0.268	0.098	0.338	0.335	0.105	0.184	0.117	0.093	5.42	3.58	0.062
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.001	0.011	<0.001	<0.001	<0.001	<0.001	<0.005	0.03	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.004	<0.001	0.004	0.002	0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.007	0.001	<0.001	0.012	0.007	0.002
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.002	0.003	0.002	0.002	0.004	0.002	<0.001	0.004	0.002	0.002	<0.005	0.019	0.001	0.018	0.018	0.008
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	0.002	<0.001	0.001	0.002	<0.001
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	1.28	0.204	0.435	0.502	0.423	0.029	0.079	0.157	0.085	0.14	1.84	0.186	0.329	3.51	0.373	0.519
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.002	<0.001	<0.001	0.002	0.006	0.045	<0.001	0.005	0.002	0.002	<0.005	0.054	<0.001	0.009	0.007	<0.001
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.005	0.007	0.003	0.013	0.014	0.002
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001		0.017	0.008	<0.001	0.008	0.007	0.002	0.002	0.005	0.001	0.004	0.003	0.029	<0.001	<0.001	0.003	0.006	<0.001
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.017	<0.005	0.015	0.008	<0.005	<0.005	0.068	<0.005	<0.005	<0.005	<0.025	0.059	<0.005	0.047	1.16	0.01
Iron	7439-89-6	mg/L	0.05	0.35	0.3	0.17	0.24	<0.05	<0.05	0.33	<0.05	<0.05	0.09	<0.05	<0.05	0.88	<0.05	0.35	0.1	0.35	0.12
EG035F: Dissolved Mercury by FIMS																					
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator																					
Fluoride	16984-48-8	mg/L	0.1		1.5	0.6	0.8	0.5	0.5	0.4	0.4	0.4	0.4	0.7	1	0.2	0.9	0.2	0.2	0.1	0.2
EK055G: Ammonia as N by Discrete Analyser																					
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.29	0.77	0.06	0.05	0.15	0.15	0.08	0.25	0.07	0.12	0.21	0.08	35.5	1.08	2.52	0.14
EK057G: Nitrite as N by Discrete Analyser																					
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.06	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser																					
Nitrate as N	14797-55-8	mg/L	0.01		50	0.03	0.01	0.03	<0.01	0.01	0.23	0.39	1.32	2.48	0.04	0.24	0.03	0.12	0.04	0.05	0.05
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																					
Nitrite + Nitrate as N		mg/L	0.01			0.03	0.01	0.03	<0.01	0.01	0.24	0.4	1.38	2.48	0.04	0.24	0.03	0.13	0.04	0.05	0.05
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																					
Total Kjeldahl Nitrogen as N		mg/L	0.1			0.8	1	<0.5	2	5.1	2.4	1.2	21.1	1.7	3.4	0.9	0.4	40.6	1.7	3.4	0.5
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																					
Total Nitrogen as N		mg/L	0.1			0.8	1	<0.5	2	5.1	2.6	1.6	22.5	4.2	3.4	1.1	0.4	40.7	1.7	3.4	0.6
EK067G: Total Phosphorus as P by Discrete Analyser																					
Total Phosphorus as P		mg/L	0.01			0.33	<0.05	0.32	1.46	2	1.82	0.16	8.95	1.21	2.66	0.12	0.23	2.43	0.11	<0.05	0.16
EK071G: Reactive Phosphorus as P by discrete analyser																					
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			0.01	<0.01	0.06	0.02	0.01	<0.01	0.01	0.02	0.12	0.07	<0.01	0.13	1.43	<0.01	<0.01	0.03
EN055: Ionic Balance																					
Total Anions		meq/L	0.01			258	154	226	187	18.6	232	283	83.9	182	23.8	530	85.1	11.5	257	316	4.96
Total Cations		meq/L	0.01			262	142	215	177	18.4	222	267	80.4	170	24.3	540	76.1	10.9	259	329	5.31
Ionic Balance		%	0.01			0.82	4.1	2.63	2.77	0.62	2.2	2.88	2.12	3.41	1.1	0.9	5.57	2.68	0.3	1.89	3.33
EP080/071: Total Petroleum Hydrocarbons																					
C6 - C9 Fraction		µg/L	20			80	<20	<20	30	50	<20	<20	20	<20	<20	20	50	<20	250	100	<20
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<50	150	<50	<50	<50	<50	<50	<50	<50	<50	70	50	<50
C15 - C28 Fraction		µg/L	100			1570	<100	260	280	11700	370	<100	4710	150	360	130	290	120	710	440	<100
C29 - C36 Fraction		µg/L	50			2750	<50	140	80	14800	150	<50	8320	60	240	<50	320	340	1140	380	50
C10 - C36 Fraction (sum)		µg/L	50			4320	<50	400	360	26600	520	<50	13000	210	600	130	610	460	1920	870	50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																					
C6 - C10 Fraction	C6_C10	µg/L	20			80	<20	<20	30	50	<20	<20	20	<20	<20	30	50	<20	250	110	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			80	<20	<20	30	50	<20	<20	20	<20	<20	30	50	<20	250	110	<20
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	220	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100			3440	<100	370	330	23700	490	<100	10400	200	530	160	550	410	1460	660	100
>C34 - C40 Fraction		µg/L	100			2480	<100	<100	<100	7370	<100	<100	7130	<100	140	<100	200	<100	1150	320	<100
>C10 - C40 Fraction (sum)		µg/L	100			5920	<100	370	330	31300	490	<100	17500	200	670	160	750	410	2610	980	100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	220	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN																					
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	<2
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3	<1
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

May 2018

			LAB ID	of Aquatic Ecosystems (2000) Water - Freshwater 95% protection	ADWG	EB1811402001	EB1811402002	EB1811402003	EB1811402004	EB1811402006	EB1811542001	EB1811542002	EB1811542003	EB1811542010	EB1811542011	EB1811542008	EB1811402005	EB1811542015	EB1811542006	EB1811542007	EB1811542016
			SAMPLE DATE			08/05/2018	08/05/2018	08/05/2018	09/05/2018	09/05/2018	10/05/2018	10/05/2018	10/05/2018	11/05/2018	11/05/2018	10/05/2018	09/05/2018	10/05/2018	10/05/2018	10/05/2018	10/05/2018
			SAMPLE ID			WMP08	WMP08D	WMP09	WMP10	WMP06	WMP04	WMP04D	WMP12	WMP02	WMP05	WMP13	WMP15	BH1X	WMP11	WMP11D	BH16
ANALYTE	CAS No.	Unit	LOR																		
Total Dissolved Solids @180°C		mg/L	10			15400	8760	14200	10900	1360	15200	16100	5680	11900	1440	36700	2780	661	21700	21300	308
TDS (calculated)		*mg/L*				13919.101	8812.21	13022.086	10762.553	1542.147	14252.063	16088.214	5831.34	10445.513	1656.429	31215.8	3167.547	755.834	18474.259	18641.783	347.052
Electrical Conductivity		µS/cm				23000	14800	21500	17500	2360	24200	26000	10300	17800	2330	48700	4830	1170	32000	31800	488
Suspended Solids (SS)		mg/L	5			2880	93	394	4260	3220	167	128	11300	1140	2180	697	118	34	210	45	22
ED037P: Alkalinity by PC Titrator																					
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			661	282	837	1280	474	544	662	340	416	542	513	511	359	528	547	156
Total Alkalinity as CaCO3		mg/L	1			661	282	837	1280	474	544	662	340	416	542	513	511	359	528	547	156
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																					
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1270	215	857	754	20	322	385	169	544	134	1750	78	7	146	176	10
ED045G: Chloride by Discrete Analyser																					
Chloride	16887-00-6	mg/L	1			7700	5090	7300	5400	536	8480	9440	3420	6060	387	17500	1270	143	11300	11200	49
ED093F: Dissolved Major Cations																					
Calcium	7440-70-2	mg/L	1			344	107	292	72	45	199	199	192	298	24	1410	40	38	455	482	25
Magnesium	7439-95-4	mg/L	1			480	112	494	230	42	423	567	213	514	36	1900	77	22	631	599	14
Sodium	7440-23-5	mg/L	1			4580	3150	3910	3490	340	4150	4680	1420	2520	413	8020	1070	97	5280	5500	55
Potassium	7/09/7440	mg/L	1			7	8	4	8	<1	14	9	2	1	<1	7	8	9	10	12	3
EG020F: Dissolved Metals by ICP-MS																					
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.05	<0.01	0.13	<0.05	0.01	<0.01	<0.01	0.01	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.003	0.004	0.001	0.002	0.006	0.004	0.001	0.003	0.002	0.004	<0.005	0.002	0.016	0.004	0.017	0.002
Barium	7440-39-3	mg/L	0.001		2	0.179	0.115	0.078	0.116	0.125	0.346	0.107	0.485	0.326	0.183	0.144	0.099	0.123	4.21	2.82	0.052
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.005	0.008	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.003	<0.001	0.003	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.006	<0.001	<0.001	0.006	0.007	0.001
Copper	7440-50-8	mg/L	0.001	0.0014	2	<0.001	<0.001	<0.001	<0.001	0.004	0.002	<0.001	0.003	0.002	0.001	<0.005	<0.001	<0.001	0.003	0.002	0.004
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	0.978	0.27	0.337	0.424	0.164	0.074	0.067	0.05	0.053	0.301	1.71	0.116	0.461	1.98	0.554	0.419
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.002	<0.001	<0.001	0.002	0.006	0.026	<0.001	0.002	0.002	0.003	<0.005	0.02	<0.001	0.004	0.006	<0.001
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.008	0.003	<0.005	0.002	<0.001	0.002	0.008	<0.001
Selenium	7782-49-2	mg/L	0.01	0.0013	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	0.008	0.003	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001	0.002	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001		0.017	0.007	<0.001	0.009	0.007	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.003	0.006	<0.001
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.01	<0.01	0.002	0.004	0.002	0.008	0.003	0.023	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.007	0.081	0.016	<0.005	<0.005	<0.01	<0.01	0.01	<0.01	<0.01	<0.05	0.01	<0.005	0.008	0.038	<0.005
Iron	7439-89-6	mg/L	0.05	0.35	0.3	0.18	0.28	<0.05	<0.05	0.16	<0.05	<0.05	0.05	<0.05	0.12	0.98	0.1	1.07	1.89	2.01	0.06
EG035F: Dissolved Mercury by FIMS																					
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator																					
Fluoride	16984-48-8	mg/L	0.1		1.5	0.5	0.7	0.5	0.4	0.4	0.4	0.4	0.4	0.6	1	0.1	0.8	0.2	<0.1	<0.1	0.2
EK055G: Ammonia as N by Discrete Analyser																					
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.21	0.88	0.03	0.07	0.12	0.12	0.03	0.08	0.04	0.08	0.22	0.07	29.5	1.22	2.49	0.18
EK057G: Nitrite as N by Discrete Analyser																					
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser																					
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	<0.01	0.02	<0.01	<0.01	0.4	0.46	1.75	2.63	0.02	<0.01	<0.01	0.04	<0.01	<0.01	0.02
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																					
Nitrite + Nitrate as N		mg/L	0.01			<0.01	<0.01	0.02	<0.01	<0.01	0.4	0.47	1.79	2.63	0.02	<0.01	<0.01	0.04	<0.01	<0.01	0.02
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																					
Total Kjeldahl Nitrogen as N		mg/L	0.1			2.3	1	0.6	2.9	3	0.5	0.5	8.6	1.2	1.6	0.5	0.5	28.8	1.3	2.6	0.4
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																					
Total Nitrogen as N		mg/L	0.1			2.3	1	0.6	2.9	3	0.9	1	10.4	3.8	1.6	0.5	0.5	28.8	1.3	2.6	0.4
EK067G: Total Phosphorus as P by Discrete Analyser																					
Total Phosphorus as P		mg/L	0.01			1.58	0.01	0.22	1.68	1.05	0.1	0.07	4.16	0.78	0.98	0.11	0.16	2.26	0.09	<0.05	0.09
EK071G: Reactive Phosphorus as P by discrete analyser																					
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			<0.01	<0.01	0.02	0.02	<0.01	0.02	0.01	0.03	0.11	0.05	<0.01	0.09	1.55	<0.01	<0.01	0.04
EN055: Ionic Balance																					
Total Anions		meq/L	0.01			257	154	240	194	25	257	288	107	190	24.5	540	47.6	11.4	332	330	4.71
Total Cations		meq/L	0.01			256	152	225	174	20.5	226	260	88.9	167	22.1	576	55.1	10.3	304	313	4.87
Ionic Balance		%	0.01			0.15	0.63	3.24	5.18	9.92	6.46	4.95	9.12	6.65	5.17	3.17	7.22	5.07	4.36	2.74	1.69
EP080/071: Total Petroleum Hydrocarbons																					
C6 - C9 Fraction		µg/L	20			40	20	<20	30	40	<20	<20	30	<20	20	<20	<20	<20	140	130	<20
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<50	100	<50	<50	60	<50	<50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100			4960	<100	<100	200	10400	<100	<100	1970	<100	350	<100	<100	<100	600	180	<100
C29 - C36 Fraction		µg/L	50			9350	<50	<50	90	18300	<50	<50	3590	<50	250	<50	60	90	1010	140	<50
C10 - C36 Fraction (sum)		µg/L	50			14300	<50	<50	290	28800	<50	<50	5620	<50	600	<50	60	90	1610	320	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																					
C6 - C10 Fraction	C6_C10	µg/L	20			40	<20	<20	20	40	<20	<20	20	<20	20	<20	<20	<20	120	110	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			40	<20	<20	20	40	<20	<20	20	<20	20	<20	<20	<20	120	110	<20
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	150	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100			11800	<100	130	270	24000	<100	<100	4780	<100	550	<100	100	120	1370	260	<100
>C34 - C40 Fraction		µg/L	100			7190	<100	<100	<100	12100	<100	<100	3060	<100	150	<100	<100	<100	1000	120	<100
>C10 - C40 Fraction (sum)		µg/L	100			19000	<100	130	270	36200	<100	<100	7840	<100	700	<100	100	120	2370	380	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	150	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN																					
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	<2
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3	<1
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

June 2018

			LAB ID	of Aquatic Ecosystems (2000) Water - Freshwater 95% protection	ADWG	EB1813780001	EB1813780002	EB1813918006	EB1813918003	EB1813918008	EB1813918001	EB1813918002	Not Sampled	EB1813918010	EB1813918011	EB1813780004	EB1813918007	EB1813780006	EB1813780009	EB1813780010	EB1813780007
			SAMPLE DATE			04/06/2018	04/06/2018	06/06/2018	06/06/2018	06/06/2018	06/06/2018	06/06/2018		06/06/2018	06/06/2018	05/06/2018	06/06/2018	05/06/2018	05/06/2018	05/06/2018	05/06/2018
			SAMPLE ID			WMP08	WMP08D	WMP09	WMP10	WMP06	WMP04	WMP04D	WMP12	WMP02	WMP05	WMP13	WMP15	BH1X	WMP11	WMP11D	BH16
ANALYTE	CAS No.	Unit	LOR																		
Total Dissolved Solids @180°C		mg/L	10			16500	8690	14200	11100	1750	10400	16400		11600	1260	35600	2250	447	22300	21800	301
TDS (calculated)		*mg/L*				16393.12	9003.848	13421.072	11658.351	1878	10622.816	15351.65		10404.507	1618.731	34116.141	2508.513	654.456	19718.585	19500.558	333.366
Electrical Conductivity		µS/cm				25200	15000	20900	17100	2860	16100	24700		16800	2070	48800	4040	1080	32300	31600	523
Suspended Solids (SS)		mg/L	5			1230	248	296	1200	6220	976	122		1060	708	346	40	61	91	31	22
ED037P: Alkalinity by PC Titrator																					
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	12	<1		<1	<1	<1	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			640	276	714	1160	514	431	609		398	493	515	448	308	561	568	148
Total Alkalinity as CaCO3		mg/L	1			640	276	714	1160	514	442	609		398	493	515	448	308	561	568	148
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																					
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1420	226	847	772	21	195	367		553	136	1800	61	10	135	180	10
ED045G: Chloride by Discrete Analyser																					
Chloride	16887-00-6	mg/L	1			8480	5170	7030	5420	659	5680	8770		5820	372	19300	1030	130	11800	11600	55
ED093F: Dissolved Major Cations																					
Calcium	7440-70-2	mg/L	1			402	110	275	83	59	158	199		278	27	1490	32	29	549	546	21
Magnesium	7439-95-4	mg/L	1			502	102	483	249	62	320	534		536	34	2120	53	17	664	597	12
Sodium	7440-23-5	mg/L	1			4800	3050	3910	3710	448	3730	4730		2730	447	8770	779	86	5870	5870	51
Potassium	7/09/7440	mg/L	1			7	8	4	8	1	13	8		1	<1	6	6	6	10	12	3
EG020F: Dissolved Metals by ICP-MS																					
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01		<0.01	<0.01	<0.05	0.01	<0.01	<0.01	0.01	<0.01
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.002	0.004	0.002	0.002	0.012	0.003	0.001		0.002	0.004	<0.005	0.002	0.01	0.004	0.009	<0.001
Barium	7440-39-3	mg/L	0.001		2	0.16	0.128	0.087	0.142	0.191	0.267	0.17		0.309	0.191	0.125	0.11	0.104	4.26	2.22	0.048
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001		<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.001	<0.001	0.003	0.002	<0.001	<0.001	<0.001		<0.001	<0.001	0.006	<0.001	<0.001	0.005	0.004	0.001
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.003	0.002	<0.001	<0.001	0.002	0.002	<0.001		<0.001	0.001	<0.005	<0.001	0.003	0.002	0.002	0.002
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.005	<0.001	0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	0.616	0.285	0.365	0.562	0.31	0.102	0.066		0.029	0.066	1.59	0.122	0.367	1.87	0.338	0.553
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.001	<0.001	<0.001	0.002	0.002	0.02	<0.001		<0.001	0.005	<0.005	0.002	<0.001	0.001	0.003	<0.001
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.002	0.002	0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.005	<0.001	0.002	0.003	0.005	0.002
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	7440-61-1	mg/L	0.001		0.017	0.008	<0.001	0.01	0.008	0.003	0.002	0.005		0.007	0.004	0.02	<0.001	<0.001	0.002	0.004	<0.001
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.027	0.007	0.024	0.033	<0.005	<0.005	0.028		<0.005	<0.005	<0.025	0.017	0.01	0.018	0.013	<0.005
Iron	7439-89-6	mg/L	0.05	0.35	0.3	<0.05	0.3	0.05	<0.05	0.32	<0.05	<0.05		<0.05	<0.05	0.55	0.17	1.08	2.56	2.44	0.08
EG035F: Dissolved Mercury by FIMS																					
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator																					
Fluoride	16984-48-8	mg/L	0.1		1.5	0.5	0.7	0.5	0.4	0.4	0.6	0.4		0.6	1	0.1	0.7	0.2	<0.1	<0.1	0.2
EK055G: Ammonia as N by Discrete Analyser																					
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.1	0.87	0.07	0.11	0.38	0.38	0.06		0.01	0.12	0.23	0.09	26.3	1.38	2.31	0.11
EK057G: Nitrite as N by Discrete Analyser																					
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
EK058G: Nitrate as N by Discrete Analyser																					
Nitrate as N	14797-55-8	mg/L	0.01		50	0.04	0.03	0.02	0.01	0.03	0.08	0.46		2.64	0.04	<0.01	<0.01	0.03	0.03	<0.01	0.04
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																					
Nitrite + Nitrate as N		mg/L	0.01			0.04	0.03	0.02	0.01	0.03	0.08	0.47		2.64	0.04	<0.01	<0.01	0.03	0.03	0.01	0.04
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																					
Total Kjeldahl Nitrogen as N		mg/L	0.1			1.5	1.1	<0.5	1.6	4.9	1.2	0.6		1.2	1.4	0.5	0.1	22.4	1.3	2.3	0.4
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																					
Total Nitrogen as N		mg/L	0.1			1.5	1.1	<0.5	1.6	4.9	1.3	1.1		3.8	1.4	0.5	0.1	22.4	1.3	2.3	0.4
EK067G: Total Phosphorus as P by Discrete Analyser																					
Total Phosphorus as P		mg/L	0.01			0.48	0.09	0.11	0.61	2.71	0.33	0.06		0.64	0.74	0.09	0.08	1.85	<0.05	<0.05	0.08
EK071G: Reactive Phosphorus as P by discrete analyser																					
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			<0.01	<0.01	0.04	0.01	<0.02	0.03	0.02		0.11	0.06	<0.01	0.04	1.24	<0.01	<0.01	0.04
EN055: Ionic Balance																					
Total Anions		meq/L	0.01			282	156	230	192	29.3	173	267		184	23.2	592	39.3	10	347	342	4.72
Total Cations		meq/L	0.01			270	147	224	186	27.6	197	260		177	23.6	630	40	8.62	338	332	4.33
Ionic Balance		%	0.01			2.03	3.07	1.44	1.57	3.06	6.4	1.4		1.91	0.88	3.13	0.91	7.41	1.35	1.53	4.27
EP080/071: Total Petroleum Hydrocarbons																					
C6 - C9 Fraction		µg/L	20			<20	<20	<20	20	40	<20	<20		<20	<20	<20	<20	<20	20	<20	<20
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<50	310	<50	<50		<50	120	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction		µg/L	100			1760	<100	<100	110	13600	150	<100		100	210	<100	<100	130	180	<100	<100
C29 - C36 Fraction		µg/L	50			3460	<50	<50	<50	20600	60	<50		<50	90	<50	50	160	200	<50	<50
C10 - C36 Fraction (sum)		µg/L	50			5220	<50	<50	110	34500	210	<50		100	420	<50	50	290	380	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																					
C6 - C10 Fraction	C6_C10	µg/L	20			<20	<20	<20	20	40	<20	<20		<20	<20	<20	<20	<20	20	<20	<20
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			<20	<20	<20	20	40	<20	<20		<20	<20	<20	<20	<20	20	<20	<20
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	310	<100	<100		<100	<100	<100	<100	<100	<100	<100	<100
>C16 - C34 Fraction		µg/L	100			4050	<100	100	140	29200	190	<100		130	270	<100	120	260	300	<100	<100
>C34 - C40 Fraction		µg/L	100			3280	<100	<100	<100	12000	<100	<100		<100	<100	<100	<100	<100	210	<100	<100
>C10 - C40 Fraction (sum)		µg/L	100			7330	<100	100	140	41500	190	<100		130	270	<100	120	260	510	<100	<100
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	310	<100	<100		<100	<100	<100	<100	<100	<100	<100	<100
EP080: BTEXN																					
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	1	<1
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2	2	<2
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42	µg/L	2			<2	<2	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2	<2	<2
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2	<2		<2	<2	<2	<2	<2	<2	<2	<2
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	3	<1
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5		<5	<5	<5	<5	<5	<5	<5	<5

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

July 2018

			LAB ID	of Aquatic		EB1816282001	EB1816282002	EB1816282003	EB1816282005	EB1816282006	EB1816282007	EB1816291001	EB1816291002	EB1816291005	EB1816291006	EB1816291009	EB1816291011	EB1816291012	EB1816282009	EB1816282010			
			SAMPLE DATE	Ecosystems (2000)	ADWG	02/07/2018	02/07/2018	02/07/2018	03/07/2018	03/07/2018	03/07/2018	04/07/2018	04/07/2018	04/07/2018	04/07/2018	04/07/2018	05/07/2018	05/07/2018	03/07/2018	03/07/2018	Not Sampled	Not Sampled	Not Sampled
			SAMPLE ID	Water - Freshwater		WMP08	WMP08D	WMP09	WMP13	WMP11	WMP11D	WMP04	WMP04D	WMP02	WMP05	WMP10	WMP15	WMP06	BH1X	BH16	WMP12	WMP07	WMP14
ANALYTE	CAS No.	Unit	LOR	95% protection																			
Total Dissolved Solids @180°C		mg/L	10			16700	8660	13400	34300	20900	21400	15000	17200	11800	1350	11400	2220	1900	718	334			
TDS (calculated)		*mg/L*				16568.244	8918.102	13735.012	28349.823	18785.537	18205.523	13387.715	15786.564	9953.157	1621.399	11708.371	2451.621	2183.436	797.119	389.347			
Electrical Conductivity		µS/cm				26100	14900	21700	48200	31400	31400	21800	25000	16500	2210	17700	4040	3460	1300	589			
Suspended Solids (SS)		mg/L	5			224	199	463	243	252	45	6050	66	653	733	2420	51	1460	63	7			
ED037P: Alkalinity by PC Titrator																							
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			664	272	768	510	475	498	509	670	428	546	1270	484	589	396	155			
Total Alkalinity as CaCO3		mg/L	1			664	272	768	510	475	498	509	670	428	546	1270	484	589	396	155			
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																							
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1490	193	853	1760	74	177	280	379	520	136	734	58	39	9	12			
ED045G: Chloride by Discrete Analyser																							
Chloride	16887-00-6	mg/L	1			8980	5240	7610	15300	11700	10100	7860	9030	5580	362	5490	992	807	136	82			
ED093F: Dissolved Major Cations																							
Calcium	7440-70-2	mg/L	1			338	111	259	1110	487	444	190	200	282	24	69	29	67	34	26			
Magnesium	7439-95-4	mg/L	1			532	113	491	1850	667	592	422	601	538	34	246	54	71	22	16			
Sodium	7440-23-5	mg/L	1			4410	2920	3580	7700	5260	6270	4000	4750	2510	398	3610	721	479	101	60			
Potassium	7/09/7440	mg/L	1			7	8	4	6	10	12	14	9	<1	<1	9	6	1	10	3			
EG020F: Dissolved Metals by ICP-MS																							
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	0.01	<0.01	<0.05	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.01	0.02	<0.01	<0.01			
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.002	0.004	0.002	<0.005	0.003	0.017	0.004	0.001	0.002	0.004	0.002	0.001	0.011	0.009	<0.001			
Barium	7440-39-3	mg/L	0.001		2	0.136	0.115	0.083	0.116	4.97	2.94	0.265	0.12	0.279	0.172	0.142	0.108	0.259	0.121	0.078			
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.001	<0.001	0.003	<0.005	0.003	0.005	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.002			
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.002	<0.001	<0.001	0.007	<0.001	0.003	0.002	0.004	0.002	0.002	0.003	<0.001	0.003	0.001	0.001			
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	0.395	0.217	0.323	1.28	0.8	0.413	0.066	0.038	0.007	0.014	0.408	0.11	0.093	0.438	0.751			
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	<0.001	<0.001	<0.001	<0.005	<0.001	0.003	0.021	<0.001	<0.001	0.003	0.002	0.002	0.006	<0.001	<0.001			
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.001	<0.001	0.002	<0.005	0.001	0.004	<0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001			
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Uranium	7440-61-1	mg/L	0.001		0.017	0.008	<0.001	0.009	0.02	<0.001	0.003	0.002	0.005	0.006	0.004	0.008	<0.001	0.004	<0.001	<0.001			
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.019	0.026	0.03	<0.025	0.037	0.024	<0.005	0.02	<0.005	<0.005	0.01	0.033	<0.005	<0.005	0.005			
Iron	7439-89-6	mg/L	0.05	0.35	0.3	<0.05	0.27	<0.05	0.76	2.26	2.82	<0.05	<0.05	<0.05	<0.05	<0.05	0.19	<0.05	1.24	0.21			
EG035F: Dissolved Mercury by FIMS																							
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
EK040P: Fluoride by PC Titrator																							
Fluoride	16984-48-8	mg/L	0.1		1.5	0.6	0.9	0.6	0.2	<0.1	0.1	0.4	0.4	0.7	1.1	0.4	0.7	0.5	0.2	0.2			
EK055G: Ammonia as N by Discrete Analyser																							
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.08	0.81	0.05	0.23	1.49	2.74	0.08	0.02	0.03	0.09	0.08	0.08	0.12	45.6	0.16			
EK057G: Nitrite as N by Discrete Analyser																							
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
EK058G: Nitrate as N by Discrete Analyser																							
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	<0.01	0.03	<0.01	<0.01	0.02	0.29	0.43	2.75	0.02	0.02	<0.01	0.02	0.02	0.05			
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																							
Nitrite + Nitrate as N		mg/L	0.01			<0.01	<0.01	0.03	<0.01	<0.01	0.02	0.29	0.44	2.75	0.02	0.02	<0.01	0.02	0.02	0.05			
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																							
Total Kjeldahl Nitrogen as N		mg/L	0.1			<0.5	1	<0.5	<0.5	1.3	2.7	0.7	<0.5	<0.5	0.4	0.9	0.1	1.1	51	0.3			
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																							
Total Nitrogen as N		mg/L	0.1			<0.5	1	<0.5	<0.5	1.3	2.7	1	<0.5	2.8	0.4	0.9	0.1	1.1	51	0.4			
EK067G: Total Phosphorus as P by Discrete Analyser																							
Total Phosphorus as P		mg/L	0.01			0.25	0.06	0.15	0.13	0.1	0.07	0.87	<0.05	0.27	0.39	1.13	0.09	0.45	3.75	0.07			
EK071G: Reactive Phosphorus as P by discrete analyser																							
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			0.01	<0.01	0.04	<0.01	<0.01	<0.01	0.01	<0.01	0.11	0.06	0.01	0.04	<0.01	3.18	0.02			
EN055: Ionic Balance																							
Total Anions		meq/L	0.01			298	157	248	478	341	298	238	276	177	24	196	38.9	35.3	11.9	5.66			
Total Cations		meq/L	0.01			253	142	209	543	308	344	218	266	168	21.3	181	37.4	30	11.4	5.3			
Ionic Balance		%	0.01			8.17	5.08	8.45	6.3	5.06	7.06	4.2	1.79	2.69	5.84	3.87	1.91	8.1	2.14	3.28			
EP080/071: Total Petroleum Hydrocarbons																							
C6 - C9 Fraction		µg/L	20			<20	<20	<20	<20	20	40	<20	<20	<20	<20	<20	<20	50	180	<20			
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	90	300	<50			
C15 - C28 Fraction		µg/L	100			250	<100	120	<100	260	<100	230	<100	<100	<100	130	<100	4350	130	<100			
C29 - C36 Fraction		µg/L	50			350	<50	80	<50	470	<50	110	<50	<50	<50	80	<50	7600	390	<50			
C10 - C36 Fraction (sum)		µg/L	50			600	<50	200	<50	730	<50	340	<50	<50	<50	210	<50	12000	820	<50			
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																							
C6 - C10 Fraction	C6_C10	µg/L	20			<20	<20	<20	<20	20	40	<20	<20	<20	<20	<20	<20	50	180	<20			
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			<20	<20	<20	<20	20	40	<20	<20	<20	<20	<20	<20	50	50	<20			
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	110	290	<100			
>C16 - C34 Fraction		µg/L	100			500	<100	180	<100	560	<100	320	<100	<100	<100	180	<100	10000	330	<100			
>C34 - C40 Fraction		µg/L	100			310	<100	<100	<100	460	<100	<100	<100	<100	<100	<100	<100	6410	270	<100			
>C10 - C40 Fraction (sum)		µg/L	100			810	<100	180	<100	1020	<100	320	<100	<100	<100	180	<100	16500	890	<100			
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	110	290	<100			
EP080: BTEXN																							
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	132	<2			
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
meta- & para-Xylene	108-38-3 106-42	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	132	<1			
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

Early August 2018

ANALYTE	CAS No.	Unit	LOR	of Aquatic Ecosystems (2000) Water - Freshwater 95% protection	ADWG	EB1818830001 2/08/2018 WMP08	EB1818830002 2/08/2018 WMP08D	EB1818830003 2/08/2018 WMP09	EB1818736003 1/08/2018 WMP13	EB1818736012 1/08/2018 WMP11	EB1818736013 1/08/2018 WMP11D	EB1818736001 31/07/2018 WMP04	EB1818736002 31/07/2018 WMP04D	EB1818736006 31/07/2018 WMP02	EB1818736007 31/07/2018 WMP05	EB1818736010 31/07/2018 WMP10	EB1818830004 2/08/2018 WMP15	EB1818736014 31/07/2018 WMP06	EB1818736015 1/08/2018 BH1X	EB1818736020 1/08/2018 BH16	Not Sampled WMP12	Not Sampled WMP07	Not Sampled WMP14
Total Dissolved Solids @180°C		mg/L	10			17600	8580	14000	35300	20400	20600	17000	16100	10900	1330	11200	2410	2180	346	403			
pH Value		pH				7.36	7.74	7.18	7.03	7.3	7.32	7.99	7.5	7.26	7.86	7.64	7.56	7.28	7.55	7.1			
TDS (calculated)		*mg/L*				16802.13	8713.296	13647.68	31789.092	19507.508	19051.596	15867.22	15808.458	10760.615	1551.699	11926.487	2449.169	2598.721	904.203	460.317			
Electrical Conductivity		µS/cm				26600	14700	21900	47800	31200	31100	26200	25000	17500	2160	17900	4030	3970	1410	706			
Suspended Solids (SS)		mg/L	5			9650	125	889	402	173	50	133	194	1620	2510	1890	181	3980	62	57			
ED037P: Alkalinity by PC Titrator																							
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			717	260	799	506	478	512	506	663	430	502	1240	492	621	470	164			
Total Alkalinity as CaCO3		mg/L	1			717	260	799	506	478	512	506	663	430	502	1240	492	621	470	164			
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																							
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1470	210	871	1640	78	175	365	376	546	124	735	59	36	8	19			
ED045G: Chloride by Discrete Analyser																							
Chloride	16887-00-6	mg/L	1			8360	4960	6990	18100	11400	11100	9400	8990	6150	348	5600	941	954	143	113			
ED093F: Dissolved Major Cations																							
Calcium	7440-70-2	mg/L	1			378	105	275	1350	513	525	233	194	292	31	65	33	106	41	36			
Magnesium	7439-95-4	mg/L	1			600	112	532	2000	744	670	497	550	526	35	235	57	95	22	21			
Sodium	7440-23-5	mg/L	1			5110	3000	4000	8070	6170	5940	4740	4880	2720	398	3770	752	645	106	67			
Potassium	7/09/7440	mg/L	1			8	8	4	10	13	14	14	9	1	1	8	6	2	10	3			
EG020F: Dissolved Metals by ICP-MS																							
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	0.01	<0.01	<0.05	<0.05	<0.05	0.01	0.02	<0.01	0.29	0.02	0.05	0.02	<0.01	0.01			
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.002	0.002	0.001	<0.005	<0.005	0.018	0.004	0.001	0.003	0.004	0.002	0.001	0.02	0.012	0.001			
Barium	7440-39-3	mg/L	0.001		2	0.223	0.118	0.081	0.137	5.53	2.53	0.33	0.131	0.295	0.222	0.101	0.122	0.606	0.124	0.093			
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.002	<0.001	0.002	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.003	<0.001	0.002			
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.002	<0.001	<0.001	<0.005	<0.005	<0.005	0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.002			
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	0.639	0.157	0.276	1.48	0.768	0.379	0.04	0.039	0.01	0.911	0.168	0.119	1.94	0.465	0.931			
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.002	<0.001	<0.001	<0.005	<0.005	<0.005	0.023	<0.001	<0.001	0.003	0.002	0.001	0.002	<0.001	<0.001			
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.002	<0.001	0.002	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.002	0.002	0.001			
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Uranium	7440-61-1	mg/L	0.001		0.017	0.009	<0.001	0.009	0.02	<0.005	<0.005	0.002	0.005	0.006	0.002	0.007	<0.001	0.002	<0.001	<0.001			
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.009	0.019	0.029	0.035	0.05	0.029	<0.005	0.022	<0.005	0.013	0.006	0.086	0.026	<0.005	0.007			
Iron	7439-89-6	mg/L	0.05	0.35	0.3	0.08	0.47	0.05	0.73	2.33	3.65	<0.05	<0.05	<0.05	0.24	<0.05	0.16	6.73	1.92	0.13			
EG035F: Dissolved Mercury by FIMS																							
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
EK040P: Fluoride by PC Titrator																							
Fluoride	16984-48-8	mg/L	0.1		1.5	0.5	0.8	0.5	0.1	<0.1	<0.1	0.5	0.4	0.7	1.1	0.4	0.6	0.5	0.2	0.2			
EK055G: Ammonia as N by Discrete Analyser																							
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.15	0.86	0.05	0.07	1.19	2.02	0.04	0.03	0.11	0.17	0.16	0.08	0.14	65.7	0.15			
EK057G: Nitrite as N by Discrete Analyser																							
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
EK058G: Nitrate as N by Discrete Analyser																							
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	<0.01	0.02	<0.01	<0.01	0.01	0.43	0.4	2.84	0.05	<0.01	<0.01	<0.01	0.01	0.03			
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																							
Nitrite + Nitrate as N		mg/L	0.01			<0.01	<0.01	0.02	<0.01	<0.01	0.01	0.44	0.41	2.84	0.05	<0.01	<0.01	<0.01	0.01	0.03			
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																							
Total Kjeldahl Nitrogen as N		mg/L	0.1			0.8	1	0.7	0.6	1.5	2.4	<0.5	0.6	2.4	2.6	1.6	0.2	4.7	68.4	0.3			
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																							
Total Nitrogen as N		mg/L	0.1			0.8	1	0.7	0.6	1.5	2.4	<0.5	1	5.2	2.6	1.6	0.2	4.7	68.4	0.3			
EK067G: Total Phosphorus as P by Discrete Analyser																							
Total Phosphorus as P		mg/L	0.01			0.68	0.05	0.47	<0.05	<0.05	<0.05	<0.05	<0.05	1.09	1.37	1.18	0.13	2.21	5.35	0.1			
EK071G: Reactive Phosphorus as P by discrete analyser																							
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			<0.01	<0.01	0.04	<0.01	0.01	<0.01	0.02	<0.01	0.12	0.04	0.01	0.03	<0.01	2.74	0.01			
EN055: Ionic Balance																							
Total Anions		meq/L	0.01			281	149	231	555	333	327	283	275	193	22.4	198	37.6	40.1	13.6	6.86			
Total Cations		meq/L	0.01			291	145	232	583	356	340	259	267	176	21.8	187	39.2	41.2	13.4	6.52			
Ionic Balance		%	0.01			1.74	1.47	0.07	2.5	3.31	1.96	4.39	1.33	4.66	1.5	2.93	2.08	1.41	0.74	2.57			
EP080/071: Total Petroleum Hydrocarbons																							
C6 - C9 Fraction		µg/L	20			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	40	840	<20			
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<280	<50	<50			
C15 - C28 Fraction		µg/L	100			1230	<100	340	<100	<100	<100	<100	<100	<100	240	120	110	13300	110	<100			
C29 - C36 Fraction		µg/L	50			2330	50	200	<50	90	<50	<50	<50	50	150	70	120	24800	710	<50			
C10 - C36 Fraction (sum)		µg/L	50			3560	50	540	<50	90	<50	<50	<50	50	390	190	230	38100	820	<50			
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																							
C6 - C10 Fraction	C6_C10	µg/L	20			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	30	840	<20			
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	30	180	<20			
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<280	<100	<100			
>C16 - C34 Fraction		µg/L	100			2840	100	480	<100	130	<100	<100	<100	100	350	160	190	31400	700	<100			
>C34 - C40 Fraction		µg/L	100			2060	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	110	21500	160	<100			
>C10 - C40 Fraction (sum)		µg/L	100			4900	100	480	<100	130	<100	<100	<100	100	350	160	300	52900	860	<100			
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<280	<100	<100			
EP080: BTEXN																							
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	664	<2			
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
meta- & para-Xylene	108-38-3 106-42	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	664	<1			
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

Late August 2018

ANALYTE	CAS No.	Unit	LOR	of Aquatic Ecosystems (2000) Water - Freshwater 95% protection	ADWG	EB1821164005 30/08/2018 WMP08	EB1821026002 27/08/2018 WMP08D	EB1821026003 27/08/2018 WMP09	EB1821026005 28/08/2018 WMP13	EB1821026006 28/08/2018 WMP11	EB1821026007 28/08/2018 WMP11D	EB1821164006 30/08/2018 WMP04	EB1821164002 30/08/2018 WMP04D	EB1821026013 29/08/2018 WMP02	EB1821026017 29/08/2018 WMP05	EB1821164003 30/08/2018 WMP10	EB1821164004 30/08/2018 WMP15	EB1821026010 28/08/2018 WMP06	EB1821026008 28/08/2018 BH1X	EB1821026009 28/08/2018 BH16	Not Sampled WMP12	Not Sampled WMP07	Not Sampled WMP14
Total Dissolved Solids @180°C		mg/L	10			18700	8480	13500	32800	18800	20500	16800	15700	10600	1310	10900	2330	2360	494	396			
TDS (calculated)		mg/L				16537.84	8813.292	14061.327	32250.87	19527.42	18723.066	14902.095	14782.502	10869.728	1622.202	11488.215	2414.379	2808.544	723.368	497.331			
Electrical Conductivity		µS/cm				27400	14600	21500	48000	30700	31400	25700	25100	17200	2100	18700	4080	4240	1040	710			
Suspended Solids (SS)		mg/L	5			2620	14	204	66	237	18	227	175	1320	4210	3900	109	1970	78	46			
ED037P: Alkalinity by PC Titrator																							
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			704	274	797	527	457	540	565	686	440	512	1270	484	684	310	182			
Total Alkalinity as CaCO3		mg/L	1			704	274	797	527	457	540	565	686	440	512	1270	484	684	310	182			
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																							
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1640	178	882	1700	40	187	364	394	541	127	799	59	48	10	19			
ED045G: Chloride by Discrete Analyser																							
Chloride	16887-00-6	mg/L	1			8640	5150	7510	17400	11100	11400	8730	8480	6120	351	5540	1010	1060	151	117			
ED093F: Dissolved Major Cations																							
Calcium	7440-70-2	mg/L	1			361	86	267	1410	545	426	206	164	266	30	59	35	88	36	34			
Magnesium	7439-95-4	mg/L	1			520	116	555	2100	716	679	488	499	614	46	212	49	108	27	25			
Sodium	7440-23-5	mg/L	1			4510	2940	3870	8990	6550	5360	4410	4400	2790	442	3320	664	665	113	75			
Potassium	7/09/7440	mg/L	1			7	8	4	6	10	11	14	8	1	<1	8	6	2	7	4			
EG020F: Dissolved Metals by ICP-MS																							
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	0.05	0.03	<0.05	<0.05	0.01	0.04	0.01	0.01	1.09	<0.01	<0.01	<0.01	0.02	0.02			
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.002	0.003	0.002	<0.005	<0.005	0.006	0.003	0.001	0.002	0.006	0.001	0.001	0.019	0.013	0.001			
Barium	7440-39-3	mg/L	0.001		2	0.16	0.119	0.088	0.112	8.15	1.07	0.299	0.132	0.289	0.267	0.089	0.139	0.328	0.146	0.097			
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	0.0002	<0.0001	<0.0005	<0.0005	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.005	<0.005	<0.001	0.005	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001			
Cobalt	7440-48-4	mg/L	0.001	0.0014		<0.001	0.003	0.004	0.005	<0.005	0.002	<0.001	<0.001	0.001	0.002	<0.001	<0.001	0.004	0.002	0.003			
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.002	<0.001	<0.001	<0.005	<0.005	<0.001	0.004	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	0.008			
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001			
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	0.27	0.174	0.361	1.72	0.68	0.166	0.066	0.034	0.03	0.25	0.312	0.129	2.21	0.773	0.971			
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	0.002	<0.001	0.001	<0.005	<0.005	0.001	0.019	<0.001	<0.001	0.003	0.002	0.001	0.001	<0.001	<0.001			
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.001	<0.001	<0.001	<0.005	<0.005	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Uranium	7440-61-1	mg/L	0.001		0.017	0.009	<0.001	0.01	0.023	<0.005	0.002	0.003	0.005	0.006	0.003	0.006	<0.001	0.002	<0.001	<0.001			
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.014	0.013	0.021	0.07	0.05	0.019	<0.005	0.01	<0.005	0.03	0.005	0.029	<0.005	0.033	0.011			
Iron	7439-89-6	mg/L	0.05	0.35	0.3	<0.05	0.5	<0.05	1.02	1.91	3.23	0.11	<0.05	<0.05	0.66	<0.05	0.16	5.79	1.27	0.08			
EG035F: Dissolved Mercury by FIMS																							
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
EK040P: Fluoride by PC Titrator																							
Fluoride	16984-48-8	mg/L	0.1		1.5	0.5	0.7	0.5	<0.5	<0.1	<0.1	0.4	0.4	0.6	1	0.4	0.6	0.5	0.2	0.2			
EK055G: Ammonia as N by Discrete Analyser																							
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.08	0.86	0.06	0.18	2.15	2.64	0.03	0.03	0.05	0.14	0.11	0.06	0.12	25	0.15			
EK057G: Nitrite as N by Discrete Analyser																							
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
EK058G: Nitrate as N by Discrete Analyser																							
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	0.02	0.03	<0.01	<0.01	<0.01	0.52	0.42	3.07	0.11	<0.01	<0.01	<0.01	0.01	0.04			
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																							
Nitrite + Nitrate as N		mg/L	0.01			<0.01	0.02	0.03	<0.01	<0.01	<0.01	0.52	0.43	3.07	0.11	<0.01	<0.01	<0.01	0.01	0.04			
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																							
Total Kjeldahl Nitrogen as N		mg/L	0.1			<0.5	1.2	0.7	0.7	1.8	2.5	<0.5	<0.5	1.5	4.5	<1.0	<0.1	3.2	21.3	0.3			
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																							
Total Nitrogen as N		mg/L	0.1			<0.5	1.2	0.7	0.7	1.8	2.5	0.5	<0.5	4.6	4.6	<1.0	<0.1	3.2	21.3	0.3			
EK067G: Total Phosphorus as P by Discrete Analyser																							
Total Phosphorus as P		mg/L	0.01			1.06	0.07	0.14	0.08	0.14	0.08	<0.05	0.08	1.1	3.22	2.69	0.09	1.44	2.32	0.1			
EK071G: Reactive Phosphorus as P by discrete analyser																							
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			<0.01	<0.01	0.05	<0.01	0.02	<0.01	0.01	<0.01	0.13	0.04	<0.01	0.02	<0.01	0.8	0.02			
EN055: Ionic Balance																							
Total Anions		meq/L	0.01			292	154	246	537	323	336	265	261	193	22.8	198	39.4	44.6	10.7	7.33			
Total Cations		meq/L	0.01			257	142	227	634	371	310	243	241	185	24.5	165	34.8	42.2	9.11	7.12			
Ionic Balance		%	0.01			6.33	4.23	3.95	8.34	6.94	3.97	4.43	4.04	1.98	3.67	9.16	6.16	2.66	7.83	1.48			
EP080/071: Total Petroleum Hydrocarbons																							
C6 - C9 Fraction		µg/L	20			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	50	<20	<20			
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	180	<50	<50			
C15 - C28 Fraction		µg/L	100			760	<100	<100	170	260	<100	<100	<100	<100	210	<100	<100	10800	<100	<100			
C29 - C36 Fraction		µg/L	50			1450	120	<50	150	470	<50	<50	<50	<50	120	<50	<50	19700	430	<50			
C10 - C36 Fraction (sum)		µg/L	50			2210	120	<50	320	730	<50	<50	<50	<50	330	<50	<50	30700	430	<50			
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																							
C6 - C10 Fraction	C6_C10	µg/L	20			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	50	<20	<20			
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	50	<20	<20			
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	210	<100	<100			
>C16 - C34 Fraction		µg/L	100			1750	160	<100	270	590	<100	<100	<100	<100	300	<100	<100	25500	450	<100			
>C34 - C40 Fraction		µg/L	100			1350	<100	<100	<100	470	<100	<100	<100	<100	<100	<100	<100	12500	<100	<100			
>C10 - C40 Fraction (sum)		µg/L	100			3100	160	<100	270	1060	<100	<100	<100	<100	300	<100	<100	38200	450	<100			
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	210	<100	<100			
EP080: BTEXN																							
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
meta- & para-Xylene	108-38-3 106-42	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

September 2018

ANALYTE	CAS No.	Unit	LOR	of Aquatic Ecosystems (2000) Water - Freshwater 95% protection	ADWG	LAB ID	EB1823276005	EB1823276006	EB1823276007	EB1823276009	EB1823276010	EB1823276001	EB1823276002	EB1823276003	EB1823428001	EB1823428002	EB1823428005	EB1823428006	EB1823428009	EB1823428011	EB1823428012			
						SAMPLE DATE	25/09/2018	25/09/2018	25/09/2018	25/09/2018	25/09/2018	24/09/2018	24/09/2018	24/09/2018	26/09/2018	26/09/2018	26/09/2018	26/09/2018	26/09/2018	27/09/2018	27/09/2018	Not Sampled	Not Sampled	Not Sampled
						SAMPLE ID	WMP13	WMP11	WMP11D	BH1X	BH16	WMP08	WMP08D	WMP09	WMP04	MWP04D	WMP02	WMP05	WMP10	WMP06	WMP15	WMP12	WMP07	WMP14
Total Dissolved Solids @180°C		mg/L	10				33700	18500	20800	615	421	17400	8430	14200	9200	14200	10500	1440	10600	2690	2220			
Electrical Conductivity		µS/cm					43900	29600	29100	1040	708	25000	13500	19800	16300	24400	17400	2210	18000	4730	4000			
Suspended Solids (SS)		mg/L	5				911	661	696	110	20	576	222	362	182	265	652	3050	2080	2830	84			
ED037P: Alkalinity by PC Titrator																								
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1				535	522	541	318	177	734	284	805	500	694	442	544	1290	719	489			
Total Alkalinity as CaCO3		mg/L	1				535	522	541	318	177	734	284	805	500	694	442	544	1290	719	489			
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																								
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1				1640	82	172	8	20	1540	205	760	163	354	533	112	715	54	52			
ED045G: Chloride by Discrete Analyser																								
Chloride	16887-00-6	mg/L	1				17000	11200	10900	163	132	8840	4970	7050	5370	8390	5830	359	5360	1120	970			
ED093F: Dissolved Major Cations																								
Calcium	7440-70-2	mg/L	1				1500	647	625	37	38	463	90	304	115	162	308	26	58	70	34			
Magnesium	7439-95-4	mg/L	1				2050	786	704	25	23	605	95	485	313	516	546	28	244	104	57			
Sodium	7440-23-5	mg/L	1				8060	6200	6060	138	79	5020	2560	3840	3430	4490	2760	364	3720	727	737			
Potassium	7/09/7440	mg/L	1				6	10	13	8	4	8	7	5	11	8	<1	<1	8	2	6			
EG020F: Dissolved Metals by ICP-MS																								
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2		<0.10	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	0.02	<0.01	0.01	0.57	<0.01	<0.01	0.01			
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01		<0.010	0.002	0.006	0.01	0.001	0.002	0.003	0.002	0.002	0.001	0.003	0.008	0.001	0.016	0.001			
Barium	7440-39-3	mg/L	0.001		2		0.187	4.24	1.38	0.074	0.074	0.123	0.112	0.069	0.182	0.132	0.306	0.194	0.081	0.233	0.137			
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002		<0.0010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
Chromium	7440-47-3	mg/L	0.001		0.05		<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	0.002	<0.001	<0.001	<0.001			
Cobalt	7440-48-4	mg/L	0.001	0.0014			<0.010	0.004	0.002	<0.001	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	0.003	<0.001			
Copper	7440-50-8	mg/L	0.001	0.0014	2		<0.010	<0.001	0.002	<0.001	0.002	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.004	0.001	0.002	<0.001			
Lead	7439-92-1	mg/L	0.001	0.0034	0.01		<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001			
Manganese	7439-96-5	mg/L	0.001	1.9	0.5		1.22	0.565	0.193	0.443	0.732	0.15	0.175	0.22	0.025	0.039	0.014	0.112	0.188	1.13	0.111			
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05		<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.016	<0.001	<0.001	0.002	0.002	0.002	<0.001			
Nickel	7440-02-0	mg/L	0.001	0.011	0.02		<0.010	0.001	0.002	0.002	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001			
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01		<0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Silver	7440-22-4	mg/L	0.001	0.00005	0.1		<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Uranium	7440-61-1	mg/L	0.001		0.017		0.018	<0.001	0.002	<0.001	<0.001	0.009	<0.001	0.009	0.002	0.004	0.006	0.002	0.007	0.004	<0.001			
Vanadium	7440-62-2	mg/L	0.01	0.006			<0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01			
Zinc	7440-66-6	mg/L	0.005	0.008	3		<0.050	0.089	0.041	<0.005	<0.005	0.017	0.012	0.026	0.019	0.022	<0.005	0.038	0.01	0.014	0.029			
Iron	7439-89-6	mg/L	0.05	0.35	0.3		0.83	3.16	0.82	0.6	0.09	<0.05	0.29	<0.05	<0.05	<0.05	<0.05	0.95	<0.05	2.18	0.22			
EG035F: Dissolved Mercury by FIMS																								
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
EK040P: Fluoride by PC Titrator																								
Fluoride	16984-48-8	mg/L	0.1		1.5		0.1	<0.1	<0.1	0.2	0.2	0.5	0.7	0.5	0.8	0.5	0.8	1.2	0.5	0.6	0.6			
EK055G: Ammonia as N by Discrete Analyser																								
Ammonia as N	7664-41-7	mg/L	0.01		0.5		0.19	1.35	2.5	23.7	0.13	0.04	0.88	0.02	0.07	0.05	0.05	0.11	0.08	0.15	0.1			
EK057G: Nitrite as N by Discrete Analyser																								
Nitrite as N	14797-65-0	mg/L	0.01		3		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
EK058G: Nitrate as N by Discrete Analyser																								
Nitrate as N	14797-55-8	mg/L	0.01		50		<0.01	<0.01	0.08	0.01	0.03	<0.01	<0.01	0.03	0.19	0.45	2.97	0.01	0.01	<0.01	<0.01			
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																								
Nitrite + Nitrate as N		mg/L	0.01				<0.01	<0.01	0.08	0.01	0.03	<0.01	<0.01	0.03	0.19	0.46	2.97	0.01	0.01	<0.01	<0.01			
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																								
Total Kjeldahl Nitrogen as N		mg/L	0.1				<0.5	1.8	2.2	22.8	0.2	1	0.8	<0.5	0.8	0.8	1.3	1.9	1.8	1.4	0.3			
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																								
Total Nitrogen as N		mg/L	0.1				<0.5	1.8	2.3	22.8	0.2	1	0.8	<0.5	1	1.3	4.3	1.9	1.8	1.4	0.3			
EK067G: Total Phosphorus as P by Discrete Analyser																								
Total Phosphorus as P		mg/L	0.01				0.17	0.46	0.12	2.76	0.08	0.38	0.09	0.13	0.11	0.06	0.98	1.28	1.08	0.49	0.08			
EK071G: Reactive Phosphorus as P by discrete analyser																								
Reactive Phosphorus as P	14265-44-2	mg/L	0.01				<0.01	<0.01	<0.01	0.8	0.02	0.01	<0.01	0.04	0.02	<0.01	0.12	0.05	0.01	<0.01	0.01			
EN055: Ionic Balance																								
Total Anions		meq/L	0.01				524	328	322	11.1	7.68	296	150	231	165	258	184	23.3	192	47.1	38.2			
Total Cations		meq/L	0.01				594	367	353	10.1	7.33	291	124	222	181	246	180	19.4	185	43.7	38.6			
Ionic Balance		%	0.01				6.25	5.59	4.62	4.74	2.32	0.79	9.6	1.88	4.66	2.35	1.1	9.1	1.82	3.7	0.5			
EP080/071: Total Petroleum Hydrocarbons																								
C6 - C9 Fraction		µg/L	20				<20	<20	<20	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	20	<20			
C10 - C14 Fraction		µg/L	50				<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	60	<50			
C15 - C28 Fraction		µg/L	100				270	100	<100	<100	<100	190	<100	<100	<100	<100	<100	<100	200	3540	<100			
C29 - C36 Fraction		µg/L	50				60	180	<50	160	<50	290	<50	<50	<50	<50	<50	<50	<50	6300	<50			
C10 - C36 Fraction (sum)		µg/L	50				330	280	<50	160	<50	480	<50	<50	<50	<50	<50	<50	200	9900	<50			
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																								
C6 - C10 Fraction	C6_C10	µg/L	20				<20	<20	<20	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	30	<20			
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20				<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	30	<20			
>C10 - C16 Fraction		µg/L	100				190	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	100	<100			
>C16 - C34 Fraction		µg/L	100				120	220	<100	180	<100	370	<100	<100	<100	<100	<100	<100	170	7900	<100			
>C34 - C40 Fraction		µg/L	100				<100	180	<100	<100	<100	260	<100	<100	<100	<100	<100	<100	<100	5450	<100			
>C10 - C40 Fraction (sum)		µg/L	100				310	400	<100	180	<100	630	<100	<100	<100	<100	<100	<100	170	13400	<100			
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100				190	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	100	<100			
EP080: BTEXN																								
Benzene	71-43-2	µg/L	1		0.001		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Toluene	108-88-3	µg/L	2		0.025		<2	<2	<2	22	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Ethylbenzene	100-41-4	µg/L	2		0.003		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
meta- & para-Xylene	108-38-3 106-42	µg/L	2				<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
ortho-Xylene	95-47-6	µg/L	2				<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Total Xylenes	1330-20-7	µg/L	2		0.02		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Sum of BTEX		µg/L	1				<1	<1	<1	22	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Naphthalene	91-20-3	µg/L	5				<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

October 2018

			LAB ID	of Aquatic		EB1825694001	EB1825694002	EB1825694003	EB1825694005	EB1825866009	EB1825866010	EB1825866001	EB1825866002	EB1825866005	EB1825866006	EB1825866008	EB1825694010	EB1825694011	EB1825694008	EB1825694009			
			SAMPLE DATE	Ecosystems (2000)	ADWG	23/10/2018	23/10/2018	23/10/2018	23/10/2018	24/10/2018	24/10/2018	24/10/2018	24/10/2018	24/10/2018	24/10/2018	24/10/2018	23/10/2018	23/10/2018	23/10/2018	23/10/2018	Not Sampled	Not Sampled	Not Sampled
			SAMPLE ID	Water - Freshwater		WMP08	WMP08D	WMP09	WMP13	WMP11	WMP11D	WMP04	WMP04D	WMP02	WMP05	WMP10	WMP15	WMP06	BH1X	BH16	WMP12	WMP07	WMP14
ANALYTE	CAS No.	Unit	LOR	95% protection																			
Total Dissolved Solids @180°C		mg/L	10			20200	9020	14900	41200	23500	21500	9850	18000	12600	1660	11300	2260	2720	699	480			
Electrical Conductivity		µS/cm				27800	14200	21600	47000	32000	31300	15900	25900	18300	2440	18400	4070	4920	1520	793			
Suspended Solids (SS)		mg/L	5			4440	47	268	496	3780	92	11200	2640	739	13000	3170	857	5120	194	100			
ED037P: Alkalinity by PC Titrator																							
Hydroxide Alkalinity as CaCO3	DMO-210-001	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Carbonate Alkalinity as CaCO3	3812-32-6	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Bicarbonate Alkalinity as CaCO3	71-52-3	mg/L	1			664	264	722	479	467	480	452	625	412	534	1180	440	695	410	178			
Total Alkalinity as CaCO3		mg/L	1			664	264	722	479	467	480	452	625	412	534	1180	440	695	410	178			
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA																							
Sulfate as SO4 - Turbidimetric	14808-79-8	mg/L	1			1640	200	784	1700	92	171	174	398	553	103	789	55	52	11	27			
ED045G: Chloride by Discrete Analyser																							
Chloride	16887-00-6	mg/L	1			9160	4990	7200	17700	10500	10400	5170	8610	6020	425	5340	1030	1220	173	127			
ED093F: Dissolved Major Cations																							
Calcium	7440-70-2	mg/L	1			423	97	286	1200	596	570	99	225	292	26	71	39	85	50	47			
Magnesium	7439-95-4	mg/L	1			507	121	522	1620	729	670	224	594	544	26	240	65	118	29	27			
Sodium	7440-23-5	mg/L	1			4500	3040	3760	6700	5840	5980	3060	4980	2780	417	3700	762	761	114	76			
Potassium	7/09/7440	mg/L	1			8	14	4	7	10	12	9	9	<1	<1	8	7	2	15	3			
EG020F: Dissolved Metals by ICP-MS																							
Aluminium	7429-90-5	mg/L	0.01	0.055	0.2	<0.01	0.02	<0.01	<0.05	<0.05	<0.05	<0.01	<0.01	0.02	1.46	<0.01	0.02	<0.01	<0.01	0.03			
Arsenic	7440-38-2	mg/L	0.001	0.024	0.01	0.003	0.003	0.002	0.005	<0.005	0.013	0.004	0.001	0.002	0.007	0.002	0.001	0.014	0.005	<0.001			
Barium	7440-39-3	mg/L	0.001		2	0.146	0.093	0.072	0.204	3.02	1.96	0.134	0.093	0.264	0.188	0.103	0.147	0.298	0.155	0.113			
Cadmium	7440-43-9	mg/L	0.0001	0.0002	0.002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
Chromium	7440-47-3	mg/L	0.001		0.05	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	0.004	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001			
Cobalt	7440-48-4	mg/L	0.001	0.0014		0.001	<0.001	0.002	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.002	0.002	<0.001	0.002	<0.001	0.003			
Copper	7440-50-8	mg/L	0.001	0.0014	2	0.002	0.003	0.002	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.004	0.001	0.002	0.003	0.002	0.002			
Lead	7439-92-1	mg/L	0.001	0.0034	0.01	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001			
Manganese	7439-96-5	mg/L	0.001	1.9	0.5	0.353	0.114	0.269	1.41	0.73	0.242	0.016	0.051	0.007	0.155	0.329	0.112	0.97	0.816	1.23			
Molybdenum	7439-98-7	mg/L	0.001	0.034	0.05	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	0.015	<0.001	<0.001	0.002	0.001	<0.001	0.003	<0.001	<0.001			
Nickel	7440-02-0	mg/L	0.001	0.011	0.02	0.002	<0.001	0.002	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.001	0.002	0.002			
Selenium	7782-49-2	mg/L	0.01	0.0011	0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Silver	7440-22-4	mg/L	0.001	0.00005	0.1	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Uranium	7440-61-1	mg/L	0.001		0.017	0.008	0.002	0.009	0.019	<0.005	<0.005	<0.001	0.004	0.005	0.003	0.008	<0.001	0.005	<0.001	<0.001			
Vanadium	7440-62-2	mg/L	0.01	0.006		<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01			
Zinc	7440-66-6	mg/L	0.005	0.008	3	0.032	<0.005	0.024	<0.025	0.102	0.103	<0.005	0.023	<0.005	0.049	<0.005	0.012	0.011	0.013	0.006			
Iron	7439-89-6	mg/L	0.05	0.35	0.3	<0.05	0.13	<0.05	0.93	3.09	2.45	<0.05	<0.05	<0.05	2	<0.05	0.14	1.3	3.09	0.22			
EG035F: Dissolved Mercury by FIMS																							
Mercury	7439-97-6	mg/L	0.0001	0.0006	0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
EK040P: Fluoride by PC Titrator																							
Fluoride	16984-48-8	mg/L	0.1		1.5	0.5	0.7	0.5	0.1	<0.1	<0.1	0.6	0.4	0.6	1	0.4	0.6	0.6	0.2	0.2			
EK055G: Ammonia as N by Discrete Analyser																							
Ammonia as N	7664-41-7	mg/L	0.01		0.5	0.21	0.86	0.03	0.26	0.86	2.35	<0.05	<0.01	0.02	0.25	0.03	0.11	0.17	69.2	0.34			
EK057G: Nitrite as N by Discrete Analyser																							
Nitrite as N	14797-65-0	mg/L	0.01		3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
EK058G: Nitrate as N by Discrete Analyser																							
Nitrate as N	14797-55-8	mg/L	0.01		50	<0.01	0.04	0.03	<0.01	<0.01	<0.01	0.04	0.27	2.9	0.07	0.01	<0.01	0.04	0.11	0.02			
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser																							
Nitrite + Nitrate as N		mg/L	0.01			<0.01	0.04	0.03	<0.01	<0.01	<0.01	0.04	0.28	2.9	0.07	0.01	<0.01	0.04	0.11	0.02			
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser																							
Total Kjeldahl Nitrogen as N		mg/L	0.1			5.9	1.4	1.1	1	4.3	2.6	4.6	2.7	1.2	7.7	2.7	1	2.7	82.7	0.7			
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser																							
Total Nitrogen as N		mg/L	0.1			5.9	1.4	1.1	1	4.3	2.6	4.6	3	4.1	7.8	2.7	1	2.7	82.8	0.7			
EK067G: Total Phosphorus as P by Discrete Analyser																							
Total Phosphorus as P		mg/L	0.01			5.32	0.15	0.19	0.13	2.67	0.11	4.66	0.98	0.73	5.51	2.84	0.62	0.65	6.56	0.23			
EK071G: Reactive Phosphorus as P by discrete analyser																							
Reactive Phosphorus as P	14265-44-2	mg/L	0.01			0.01	<0.01	0.09	<0.01	<0.01	<0.01	0.02	<0.01	0.13	0.03	<0.01	0.02	<0.01	2.92	0.01			
EN055: Ionic Balance																							
Total Anions		meq/L	0.01			306	150	234	544	307	306	158	264	190	24.8	191	39	49.4	13.3	7.7			
Total Cations		meq/L	0.01			259	147	221	485	344	344	157	277	180	21.6	184	40.6	47.1	15.1	7.95			
Ionic Balance		%	0.01			8.33	0.94	2.85	5.78	5.62	5.76	0.57	2.46	2.51	6.96	1.65	2.04	2.36	6.34	1.59			
EP080/071: Total Petroleum Hydrocarbons																							
C6 - C9 Fraction		µg/L	20			<20	<20	<20	<20	<20	<20	<20	<20	<20	30	<20	<20	40	600	<20			
C10 - C14 Fraction		µg/L	50			<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	160	4720	<50			
C15 - C28 Fraction		µg/L	100			370	<100	<100	<100	1300	140	600	320	<100	180	<100	370	5370	1950	<100			
C29 - C36 Fraction		µg/L	50			600	<50	<50	<50	2210	80	220	150	<50	100	<50	590	9370	1070	80			
C10 - C36 Fraction (sum)		µg/L	50			970	<50	<50	<50	3510	220	820	470	<50	280	<50	960	14900	7740	80			
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions																							
C6 - C10 Fraction	C6_C10	µg/L	20			<20	<20	<20	<20	<20	<20	<20	<20	<20	30	<20	<20	40	590	<20			
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	µg/L	20			<20	<20	<20	<20	<20	<20	<20	<20	<20	30	<20	<20	40	<200	<20			
>C10 - C16 Fraction		µg/L	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	220	3220	<100			
>C16 - C34 Fraction		µg/L	100			800	<100	<100	<100	2830	180	780	420	<100	240	<100	780	12000	2700	120			
>C34 - C40 Fraction		µg/L	100			530	<100	<100	<100	2260	<100	<100	<100	<100	<100	<100	590	8030	380	<100			
>C10 - C40 Fraction (sum)		µg/L	100			1330	<100	<100	<100	5090	180	780	420	<100	240	<100	1370	20200	6300	120			
>C10 - C16 Fraction minus Naphthalene (F2)		µg/L	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	220	3220	<100			
EP080: BTEXN																							
Benzene	71-43-2	µg/L	1		0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Toluene	108-88-3	µg/L	2		0.025	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	449	<2			
Ethylbenzene	100-41-4	µg/L	2		0.003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
meta- & para-Xylene	108-38-3 106-42	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
ortho-Xylene	95-47-6	µg/L	2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Total Xylenes	1330-20-7	µg/L	2		0.02	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Sum of BTEX		µg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	449	<1			
Naphthalene	91-20-3	µg/L	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			

Blue = Aquatic ecosystem trigger value is not available and thus a Low Reliability Trigger (LRT) has been applied

ANZECC exceedance

ADWG exceedance

Landholder Bore Overview

Site Location (ID)	RN	Easting	Northing	Elevation (m AHD)	Casing stick up (m ags)	Casing Diameter (m)	Total depth (m btoc)	Depth to water (m btoc)	Date	Field Parameter	Water Sampled	Condition	Comment
BH16	67652??	773592	7494520	17	0.26	0.147	9.405	5.371	20/02/2017	No	No	Poor	One well open to air (no cap)
BH20	57794??	773592	7494520	17					20/02/2017	No	No	Fair	Pump infrastructure installed
BH01X	Unknown	773561	7494524	17	0.3	0.124	10.826	6.75	20/02/2017	No	No	Poor	Open well - no cap
BH01	161292?	761920	7482423	67					21/02/2017	No	No	Poor	Mangled headworks
BH28 (BH05??)	97864??/Windmill 10	771053	7485988	47	0.2	0.125	Unknown	Obstruction at 1.716	21/01/2017	No	No	Poor	Obstruction at 1.716m
BH28A (BH05??)	97864??/Windmill 10	771056	7485987	45					21/01/2017	No	No	Fair	Pump infrastructure installed
BH08	91715											Unknown	Access NOT approved.
BH23	88146	765068	7485360		0.2				21/02/2017			Poor	Totally overgrown, unused, pump infrastructure installed
BH22	88145											Abandoned/destroyed	No longer exists
BH17	97829??	762574	7482280						21/01/2017	No	No	Fair	Pump infrastructure installed - not accessible
BH07	97562	765346	7475831	198	0.38	0.16	NA	NA	21/02/2017	No	Yes	Good	Solar pump installed and functional.
BH06	97866/88144??	769036	7475802	76	0.367	0.125	20.847	9.256	21/02/2017	No	No	Fair	Pump infrastructure installed
BH21	97866/88144??	769040	7475799	87	0.72	0.135	15.164	9.116	21/02/2017	No	No	Fair	Pump infrastructure installed (windmill)
BH02X	Unknown	769932	7477272	66	0.366	0.125	13.659	2.264	21/02/2017	No	No	Poor	Open well - disconnected pump infrastructure in well
BH03X	Unknown	766972	7479111	64	0.38	0.15	NA	NA	21/02/2017	No	No	Good	Solar pump installed and functional.
BH04X	Unknown	765542	7482007	55	0.35	0.155	NA	NA	21/02/2017	No	No	Good	Pump infrastructure installed. Domestic use
BH18	88891??	777605	7476010	75	0.13	0.14	14.185	5.95	23/02/2017	No	No	Poor	Cement headworks, pump not in use
BH04	111418??	772246	7496509	19	0.15	0.125	10.376	6.183	20/02/2017	No	No	Poor	No cap (bailer does not fit), possible surface ingress, well infrastructure (windmill) pump installed, pumps to tank approx 5 m away, not operating, used for stock watering
BH05X	Unknown	770918	7499541	14	0.16	0.14	10.746	6.569	24/02/2017	Yes	Yes	Fair	Although infrastructure installed, bailer could fit down alongside pump and did not encounter obstruction and/or get stuck. Dipping also possible
BH38												Abandoned/destroyed	Could not find/may not exist
BH14												Abandoned/destroyed	Coul not find/may not exist
BH36												Abandoned/destroyed	Coul not find/may not exist
BH37	Riverside 1	770505	7499287	12	0.17	0.14	6.954	Dry	24/02/2017	No	No		PVC casing, not used, broken stick up, cement headworks
BH6X	Unknown	770732	7499500	13	0.24	0.14	9.151	6.361	24/02/2017	No	No	Poor	Pvc casing. No cap, PVC with metal monument and concrete block, 12000ppm (anecdotal from landowner), not in use, used to have mill but blew over, formerly used to mix for concrete batching
BH33	Neerim 2??	774175	7475211	73	0.369	0.14	30.356	5.191	23/02/2017	No	No	Poor	PVC casing, no cap, not used, no headworks
BH32	Neerim 1??	775322	7477562	60	0.14	0.14	9.177	2.245	23/02/2017	Yes	Yes	Poor	PVC, not used, no cap
BH34	Neerim 3??	774433	7470634	109	0.36	0.13	17.118	5.431	23/02/2017	Yes	Yes	Poor	Not used, no well cap, good condition, strong sulphurous odour
BH35	Neerim 4??	774560	7470829	103	0.295	0.14	12.136	2.566	23/02/2017	No	No	Poor	Steel headworks, PVC casing, cement well seal, not in use, headworks rusted, strong sulphurous odour
BH19	New Bore 2??	772863	7474143	84	0.15	0.14	17.433	5.414	23/02/2017	No	No	Poor	PVC casing, not used, cement headworks, headworks rusted/broken