

Adani Carmichael Coal Mine Project

Groundwater Quality data

February 2022

	Sample Type:	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
	Sample Date:	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	17/02/2022	17/02/2022	17/02/2022
Client sample ID (1st):		C025P2	C19001SP	C006P3R	C007P2	C19026SP	C027P1	C027P2	C19010SP	C19011SP	C19012SP	C919013SPR	Duplicate J	C18011SP	C18010SP	Moses Spring
Hydro-stratigraphic unit:		Tertiary	Alluvium	Colinlea	Bandanna	Colinlea	Alluvium	Dunda Beds	Clematis	Dunda Beds	Rewan	Rewan		Clematis	Clematis	Spring
Analyte grouping/Analyte	Unit															
pH Value	pH Unit	7.4	7.53	8.09	7.51	8.21	6.76	6.57	8.21	8.28	12.2	11.8	8.43	7.7	7.99	8.13
Electrical Conductivity @ 25°C	µS/cm	13700	27800	1260	13700	919	152	487	639	795	9650	5060	793	633	600	525
Total Dissolved Solids @180°C	mg/L	7620	17500	720	9220	520	138	311	357	442	3450	1460	443	354	339	297
Total Alkalinity as CaCO3	mg/L	384	862	412	254	412	22	34	158	145	1870	781	141	120	193	147
Sulfate as SO4 - Turbidimetric	mg/L	433	896	5	365	<1	9	9	<1	<1	193	64	<1	2	<1	<1
Chloride	mg/L	4970	9650	152	5220	38	17	126	105	173	686	458	172	126	77	82
Calcium	mg/L	114	262	17	316	10	3	2	2	4	73	5	4	2	2	1
Magnesium	mg/L	111	379	7	285	2	2	2	<1	<1	1	<1	<1	<1	<1	<1
Sodium	mg/L	2800	5940	258	2540	209	16	78	129	158	1170	643	161	125	130	111
Potassium	mg/L	55	102	5	40	4	3	5	6	4	240	64	4	12	12	9
Aluminium	mg/L	<0.01	<0.05	<0.01	<0.01	<0.01	0.37	0.04	0.02	0.01	8.47	3.62	0.01	<0.01	<0.01	0.01
Arsenic	mg/L	<0.001	0.009	<0.001	<0.001	<0.001	0.004	0.002	<0.001	<0.001	0.02	0.008	<0.001	0.002	<0.001	0.001
Cadmium	mg/L	<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	<0.0001	<0.0001
Chromium	mg/L	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.08	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/L	<0.001	0.006	<0.001	<0.001	<0.001	0.003	0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	<0.001	<0.005	<0.001	<0.001	<0.001	0.012	0.003	<0.001	<0.001	0.03	<0.001	<0.001	<0.001	0.01	<0.001
Lead	mg/L	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/L	1.43	0.711	0.024	0.252	0.016	0.169	0.084	0.011	0.038	0.15	<0.001	0.039	0.003	0.043	0.003
Molybdenum	mg/L	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.144	0.171	0.005	<0.001	0.003	<0.001
Nickel	mg/L	0.002	<0.005	0.001	<0.001	<0.001	0.004	0.002	<0.001	<0.001	0.006	0.014	<0.001	<0.001	0.006	<0.001
Selenium	mg/L	<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	<0.01	<0.01
Silver	mg/L	<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	<0.001	<0.001
Uranium	mg/L	<0.001	0.092	<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
Vanadium	mg/L	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	mg/L	<0.005	<0.025	<0.005	<0.005	<0.005	0.009	<0.005	<0.005	<0.005	0.041	<0.005	<0.005	<0.005	0.014	<0.005
Boron	mg/L	1.38	2.45	0.21	0.68	0.2	0.08	0.18	0.12	0.07	0.15	0.12	0.06	0.14	0.11	0.1
Iron	mg/L	6.6	0.06	<0.05	1.67	<0.05	2.5	1.78	0.08	<0.05	3.98	0.08	<0.05	0.14	0.14	0.08
Mercury	mg/L	<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
Fluoride	mg/L	0.6	0.4	2	0.7	2.3	0.2	0.2	<0.1	0.4	1.5	1.4	0.4	0.3	0.3	0.4
Ammonia as N	mg/L	0.37	0.02	0.29	0.72	0.3	0.04	0.02	0.16	0.24	5.13	4.58	0.23	0.04	<0.01	0.09
Nitrite as N	mg/L	<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
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	<0.01	<0.01	<0.01	0.3	<0.01
Total Phosphorus as P	mg/L	0.09	0.06	0.03	<0.05	<0.01	0.07	0.15	0.19	<0.01	0.03	0.03	<0.01	0.11	0.05	0.16
Sulfide as S2-	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	5.4	0.4	<0.1	0.1	<0.1	<0.1
C6 - C9 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	30	50	<20	<20	<20	<20
C6 - C10 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	20	50	<20	<20	<20	<20
>C10 - C40 Fraction (sum)	µg/L	<100	<100	<100	<100	<100	<100	110	<100	<100	650	940	<100	<100	<100	<100
Sum of BTEX	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	5	1	<1	<1	<1	<1

	Sample Type:	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
	Sample Date:	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	21/02/2022
Client sample ID (1st):		C18014SP	Little Moses	HD02	Duplicate C	C19014SP	C19015SP	C19017SP	C19018SP	C19009SP	C14003SP	C14004SP	C9838SPR	Duplicate I	C918014SPR	C014P2
Hydro-stratigraphic unit:		Clematis	Spring	Clematis		Clematis	Dunda Beds	Rewan	Bandanna	Rewan	Joe Joe	Joe Joe	Rewan			Bandanna
Analyte grouping/Analyte	Unit															
pH Value	pH Unit	7.35	6.93	7.4	8.15	8.31	8.13	12	11.8	12	6.62	7.17	6.39	6.45	7.21	8.17
Electrical Conductivity @ 25°C	µS/cm	209	430	165	694	637	697	4680	4120	6280	51900	52200	411	404	537	1980
Total Dissolved Solids @180°C	mg/L	248	252	148	385	350	390	1400	1450	3710	45800	44400	251	227	306	984
Total Alkalinity as CaCO3	mg/L	30	43	76	141	153	144	1040	934	1360	71	100	17	17	28	338
Sulfate as SO4 - Turbidimetric	mg/L	2	1	<1	<1	<1	<1	21	35	47	2520	2060	7	6	4	<1
Chloride	mg/L	44	109	5	144	122	141	196	130	325	20900	20100	113	116	159	455
Calcium	mg/L	2	6	11	3	2	3	61	56	27	2540	2950	3	2	1	19
Magnesium	mg/L	4	9	7	<1	<1	<1	<1	<1	7	1480	1260	6	6	12	4
Sodium	mg/L	28	57	9	146	134	146	500	469	781	9100	9040	73	69	84	386
Potassium	mg/L	7	8	4	5	8	5	26	142	50	30	46	4	4	10	7
Aluminium	mg/L	0.25	0.02	<0.01	<0.01	<0.01	<0.01	3.33	0.76	56.6	<0.05	<0.05	<0.01	<0.01	<0.01	0.01
Arsenic	mg/L	<0.001	<0.001	0.008	<0.001	<0.001	<0.001	0.003	0.017	0.022	0.007	<0.005	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	0.056	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/L	<0.001	0.004	0.013	<0.001	<0.001	<0.001	<0.001	<0.001	0.01	0.035	<0.005	0.001	0.001	<0.001	<0.001
Copper	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.007	<0.001	0.017	<0.005	<0.005	0.001	0.001	<0.001	<0.001
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.011	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Manganese	mg/L	<0.001	0.276	1.66	0.047	0.013	0.047	0.066	<0.001	0.743	2.41	7.21	0.003	0.003	<0.001	0.008
Molybdenum	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.061	0.187	0.14	<0.005	<0.005	<0.001	<0.001	<0.001	0.002
Nickel	mg/L	0.005	0.002	0.002	<0.001	<0.001	<0.001	0.007	0.004	0.032	0.028	<0.005	0.002	0.002	0.006	<0.001
Selenium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<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	<0.001	<0.005	<0.005	<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	0.001	<0.005	<0.005	<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	0.09	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01
Zinc	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	0.134	0.075	<0.025	<0.025	0.01	0.009	<0.005	<0.005
Boron	mg/L	0.06	0.1	<0.05	0.1	0.09	0.1	0.08	0.16	0.13	2.7	0.44	0.15	0.14	0.17	0.38
Iron	mg/L	0.23	0.8	5.53	<0.05	0.08	<0.05	1.62	<0.05	35.2	21.2	0.58	<0.05	<0.05	<0.05	0.12
Mercury	mg/L	<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
Fluoride	mg/L	0.1	0.1	0.1	0.3	0.4	0.4	1.2	2.4	2.2	0.2	0.1	0.2	<0.1	0.2	1.5
Ammonia as N	mg/L	<0.01	<0.01	0.56	0.19	0.16	0.19	9.85	3.37	11.8	0.92	1.55	<0.01	<0.01	<0.01	0.9
Nitrite as N	mg/L	<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
Nitrate as N	mg/L	0.34	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.22	0.21	0.16	<0.01
Total Phosphorus as P	mg/L	0.2	0.02	0.1	0.02	0.22	0.02	0.02	0.01	0.28	<0.05	<0.10	<0.01	<0.01	0.01	0.02
Sulfide as S2-	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.6	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
C6 - C9 Fraction	µg/L	<20	<20	<20	<20	<20	-	30	<20	60	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction	µg/L	<20	<20	<20	<20	<20	-	30	<20	60	<20	<20	<20	<20	<20	<20
>C10 - C40 Fraction (sum)	µg/L	<100	<100	<100	<100	<100	<100	870	490	1420	<100	<100	<100	<100	<100	<100
Sum of BTEX	µg/L	<1	<1	<1	<1	<1	-	<1	<1	22	<1	<1	<1	<1	<1	<1

[illegible]

	Sample Type:	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
	Sample Date:	21/02/2022	21/02/2022	21/02/2022	21/02/2022	21/02/2022	21/02/2022	23/02/2022	23/02/2022	23/02/2022	23/02/2022	23/02/2022	23/02/2022	23/02/2022	22/02/2022	22/02/2022	22/02/2022
Client sample ID (1st):		C914108PTR	C14015SP	Duplicate E	C180119SP	C180122SP	C9180124SPR	C555P1	C558P1	C012P1	C012P2	C011P3	C024P3	C975SP	C19022SP	C18009SP	
Hydro-stratigraphic unit:		Joe Joe	Joe Joe		Joe Joe	Composite Bore	Joe Joe	Rewan	Tertiary	Joe Joe	Joe Joe	Colinlea	Colinlea	Colinlea	Weathered Tertiary	Weathered Tertiary	
Analyte grouping/Analyte	Unit																
pH Value	pH Unit	6.55	7.55	6.59	6.79	7	6.51	7.75	7.44	7.1	8.01	8.06	7.16	6.8	7.35	7.39	
Electrical Conductivity @ 25°C	µS/cm	527	2430	535	700	6960	469	805	8920	1870	2450	889	1330	591	46300	20200	
Total Dissolved Solids @180°C	mg/L	284	1260	282	388	3850	295	470	6570	1110	1490	492	780	332	42300	21300	
Total Alkalinity as CaCO3	mg/L	27	125	28	50	19	21	137	248	82	275	221	105	42	239	60	
Sulfate as SO4 - Turbidimetric	mg/L	14	58	15	5	74	6	<1	262	54	46	<1	22	24	2350	890	
Chloride	mg/L	135	686	135	189	2450	124	182	3280	589	688	171	395	152	16800	8920	
Calcium	mg/L	4	18	5	4	115	2	7	84	28	82	22	12	2	2190	1700	
Magnesium	mg/L	4	14	4	3	112	3	7	234	32	30	5	25	6	1240	504	
Sodium	mg/L	88	448	87	118	1220	80	143	1810	341	439	176	235	110	8140	3670	
Potassium	mg/L	5	9	5	4	19	4	7	28	11	14	9	9	5	26	23	
Aluminium	mg/L	<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	<0.05	<0.05	
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	0.002	<0.001	0.006	<0.001	0.016	<0.005	
Cadmium	mg/L	<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	<0.0005	<0.0005	
Chromium	mg/L	<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	<0.005	0.024	
Cobalt	mg/L	0.001	<0.001	0.001	<0.001	0.003	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.005	<0.005	
Copper	mg/L	<0.001	0.004	<0.001	<0.001	<0.001	0.008	<0.001	0.047	<0.001	<0.001	0.002	<0.001	0.002	0.008	0.015	
Lead	mg/L	<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	<0.005	<0.005	
Manganese	mg/L	0.043	0.163	0.042	0.015	0.253	0.004	0.206	0.013	0.019	0.179	0.034	0.142	0.051	2.57	0.028	
Molybdenum	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.006	0.032	
Nickel	mg/L	0.002	0.002	0.002	0.001	0.003	0.003	0.002	0.024	<0.001	<0.001	<0.001	0.026	0.001	0.024	0.018	

	Sample Type:	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
	Sample Date:	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	23/02/2022
Client sample ID (1st):		C14002SP	C914001SPR	C14028SP	C14027SP	C14021SP	Duplicate F	C14023SP	C14024SP	C180117SP	C556P1	C19029SP	C008P1	C008P2	C025P2	Duplicate K	
Hydro-stratigraphic unit:		Joe Joe	Joe Joe	Alluvium	Alluvium	Clematis		Dunda Beds	Composite Bore	Dunda Beds	Rewan	Colinlea	Rewan	Bandanna	Tertiary		
Analyte grouping/Analyte	Unit																
pH Value	pH Unit	7.71	7.54	7.67	7.48	7.09	6.67	8.07	6.7	6.79	6.88	8.16	7.6	8.26	7.7	8.16	
Electrical Conductivity @ 25°C	µS/cm	10200	17900	44800	48500	582	465	714	482	221	239	967	19000	2700	12500	904	
Total Dissolved Solids @180°C	mg/L	6860	13800	26600	33100	321	257	400	275	160	177	574	14400	1570	8540	530	
Total Alkalinity as CaCO3	mg/L	139	194	362	207	41	67	142	72	40	35	344	313	441	384	221	
Sulfate as SO4 - Turbidimetric	mg/L	380	1340	1820	2200	21	10	2	10	9	9	<1	205	86	439	<1	
Chloride	mg/L	3860	7000	16300	18300	154	106	155	105	38	46	110	7630	647	4710	172	
Calcium	mg/L	278	828	749	844	5	3	4	2	<1	<1	6	459	33	113	23	
Magnesium	mg/L	111	427	1110	1270	12	7	1	6	2	2	4	401	16	116	5	
Sodium	mg/L	2170	3630	9070	10100	98	94	165	92	48	50	233	4220	596	3020	179	
Potassium	mg/L	30	68	130	121	17	8	8	8	2	2	7	88	9	57	9	
Aluminium	mg/L	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	
Arsenic	mg/L	0.001	0.002	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	
Cadmium	mg/L	<0.0001	<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	<0.0001	
Chromium	mg/L	<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	<0.001	
Cobalt	mg/L	<0.001	<0.001	0.011	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	0.006	<0.001	0.011	<0.001	<0.001	<0.001	
Copper	mg/L	<0.001	0.104	0.009	<0.005	<0.001	<0.001	<0.001	<0.001	0.008	0.003	<0.001	0.002	0.001	<0.001	0.002	
Lead	mg/L	<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	<0.001	
Manganese	mg/L	0.922	0.832	2.74	4.3	0.002	0.07	0.055	0.07	0.009	0.041	0.016	1.71	0.05	1.36	0.034	
Molybdenum	mg/L	0.002	<0.001	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001	
Nickel	mg/L	0.001	0.001	0.006	0.018	<0.001	0.001	<0.001	0.001	0.002	0.001	<0.001	0.05	<0.001	<0.001	<0.001	
Selenium	mg/L	<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	<0.01	
Silver	mg/L	<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	<0.001	
Uranium	mg/L	<0.001	0.003	0.058	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.014	<0.001	<0.001	<0.001	
Vanadium	mg/L	<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	<0.01	
Zinc	mg/L	0.007	0.084	0.032	0.028	0.005	0.007	<0.005	0.007	0.014	0.008	0.005	0.019	0.013	0.007	0.014	
Boron	mg/L	1	1.7	2.97	2.48	0.13	0.19	0.12	0.18	0.1	0.15	0.36	1.48	0.28	1.48	0.45	
Iron	mg/L	2.57	5.45	0.99	3.47	<0.05	0.12	<0.05	0.12	2.1	<0.05	0.28	1.26	<0.05	6.41	0.38	
Mercury	mg/L	<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	
Fluoride	mg/L	0.2	0.3	0.3	0.2	0.1	0.2	0.4	0.2	0.3	0.2	6.5	0.5	0.8	0.5	1.2	
Ammonia as N	mg/L	0.23	0.4	0.18	0.48	<0.01	<0.01	0.14	0.01	0.06	0.02	0.15	1.21	1.22	0.38	0.21	
Nitrite as N	mg/L	<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	
Nitrate as N	mg/L	<0.01	<0.01	<0.01	0.04	0.16	0.04	<0.01	0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	
Total Phosphorus as P	mg/L	0.01	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	0.01	0.14	0.05	<0.05	0.02	0.1	0.01	
Sulfide as S2-	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.2	<0.1	<0.1	
C6 - C9 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
C6 - C10 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
>C10 - C40 Fraction (sum)	µg/L	<100	<100	<100	<100	<100	<100	<100	<100	130	<100	<100	100	<100	<100	<100	
Sum of BTEX	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	

[illegible]

	Sample Type:	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
	Sample Date:	19/02/2022	20/02/2022	20/02/2022	20/02/2022	19/02/2022	19/02/2022	20/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022
Client sample ID (1st):		C919016SPR	C18005SP	C18006SP	C18004SP	C14016SP	C029P1	C029P2	C14006SP	C14008SP	C14029SP	C914030SPR	Duplicate G	C034P3	C035P1	C035P2
Hydro-stratigraphic unit:		Rewan	Weathered Tertiary	Weathered Tertiary	Weathered Tertiary	Joe Joe	Alluvium	Tertiary	Joe Joe	Joe Joe	Composite Bore	Joe Joe		Colinlea	Rewan	Bandanna
Analyte grouping/Analyte	Unit															
pH Value	pH Unit	8.57	7.19	7.21	7.36	7.98	7.9	7.51	7.16	6.69	6.82	6.79	6.82	7.24	7.54	7.46
Electrical Conductivity @ 25°C	µS/cm	753	51900	58300	40200	2620	28600	10600	8070	668	9430	574	9440	1760	3600	1510
Total Dissolved Solids @180°C	mg/L	417	44800	51800	34500	1490	16400	6140	4790	382	5890	326	6060	994	2040	838
Total Alkalinity as CaCO3	mg/L	201	196	223	193	197	2060	229	129	33	59	33	60	104	160	113
Sulfate as SO4 - Turbidimetric	mg/L	<1	2360	3040	823	61	936	268	201	14	499	12	504	25	55	20
Chloride	mg/L	121	20600	23200	14900	742	8980	3610	2780	182	3220	155	3220	519	1060	426
Calcium	mg/L	3	2450	2320	3110	45	40	80	177	7	200	6	202	23	15	11
Magnesium	mg/L	<1	1340	1660	1310	13	271	111	87	6	158	5	160	11	15	7
Sodium	mg/L	149	8500	11500	4580	464	6050	2010	1380	99	1620	89	1630	288	687	260
Potassium	mg/L	3	16	32	19	9	218	63	25	6	12	5	12	13	6	6
Aluminium	mg/L	0.02	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.01
Arsenic	mg/L	0.001	0.003	0.003	<0.002	0.006	0.001	0.003	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
Cadmium	mg/L	0.0004	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	<0.001	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/L	<0.001	0.015	0.011	0.002	<0.001	<0.001	<0.001	<0.001	0.01	0.004	0.008	0.004	<0.001	<0.001	<0.001
Copper	mg/L	<0.001	<0.002	0.004	<0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	mg/L	<0.001	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/L	0.017	1.45	1.09	0.085	0.216	0.047	0.18	0.358	0.087	0.066	0.256	0.067	0.231	0.113	0.105
Molybdenum	mg/L	0.006	0.007	0.008	<0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	<0.001	0.02	0.022	0.02	<0.001	0.001	<0.001	<0.001	0.013	0.01	0.012	0.011	<0.001	0.002	0.001
Selenium	mg/L	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	<0.001	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Uranium	mg/L	<0.001	0.101	0.047	0.034	<0.001	0.058	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	mg/L	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	mg/L	0.005	0.012	0.017	0.014	0.022	0.005	0.04	1.33	1.09	0.263	0.081	0.12	0.885	0.021	0.032
Boron	mg/L	<0.05	5.27	6.04	1.24	0.37	4.17	1.05	0.44	0.09	1.76	0.1	1.75	0.23	0.69	0.26
Iron	mg/L	<0.05	0.1	0.85	<0.10	0.23	0.29	1.52	8.05	1.95	1.35	1.14	0.9	2.69	0.21	0.37
Mercury	mg/L	<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
Fluoride	mg/L	0.4	<0.1	0.2	0.2	0.7	1.4	0.5	0.9	0.2	<0.1	0.2	0.1	0.3	0.7	0.3
Ammonia as N	mg/L	0.26	0.02	0.05	0.02	0.34	0.06	0.1	0.48	<0.01	0.04	<0.01	0.04	0.09	0.01	0.02
Nitrite as N	mg/L	<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
Nitrate as N	mg/L	<0.01	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phosphorus as P	mg/L	0.01	0.19	0.12	0.05	0.04	0.12	0.07	0.02	<0.01	0.17	0.01	0.18	<0.01	0.01	0.02
Sulfide as S2-	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
C6 - C9 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
C6 - C10 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
>C10 - C40 Fraction (sum)	µg/L	<100	<100	140	<100	<100	<100	<100	<100	<100	<100	<100	240	<100	<100	<100
Sum of BTEX	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

	Sample Type:	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG			
	Sample Date:	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	19/02/2022	20/02/2022	20/02/2022			
Client sample ID (1st):		C032P2	C9845SPR	C19028SP	C19004SP	C19003SP	C847SP	C848SP	Duplicate H	C9849SPR	C833SP	C18001SP	C19002SP			
Hydro-stratigraphic unit:		Bandanna	Tertiary	Rewan	Colinlea	Colinlea	Bandanna	Colinlea		Colinlea	Colinlea	Clematis	Clematis			
Analyte grouping/Analyte	Unit															
pH Value	pH Unit	8.36	6.86	7.89	8.34	8.07	6.59	7.33	8.06	7.61	10.2	7.82	6.68			
Electrical Conductivity @ 25°C	µS/cm	1280	1960	5560	2900	2930	351	2840	2650	2980	1230	670	334			
Total Dissolved Solids @180°C	mg/L	736	1300	3120	1600	1290	253	1450	1480	1640	562	334	192			
Total Alkalinity as CaCO3	mg/L	355	60	284	247	85	25	213	193	269	257	104	29			
Sulfate as SO4 - Turbidimetric	mg/L	<1	50	222	<1	<1	8	20	62	<1	1	8	6			
Chloride	mg/L	215	569	1550	819	898	84	832	744	847	198	141	76			
Calcium	mg/L	10	5	18	47	32	<1	26	44	35	1	4	8			
Magnesium	mg/L	3	16	50	5	10	2	24	13	18	<1	1	5			
Sodium	mg/L	247	341	1060	515	519	60	497	467	528	193	114	42			
Potassium	mg/L	5	8	13	9	13	2	18	9	22	51	17	4			
Aluminium	mg/L	0.02	<0.01	0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.02	<0.01	0.02			
Arsenic	mg/L	0.006	<0.001	0.006	<0.001	<0.001	<0.001	<0.001	0.006	<0.001	<0.001	0.001	<0.001			
Cadmium	mg/L	<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	mg/L	<0.001	0.001	<0.001	<0.001	<0.001	<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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Copper	mg/L	<0.001	0.006	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.004	<0.001			
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Manganese	mg/L	0.044	0.006	0.186	0.085	0.06	0.002	0.293	0.224	0.339	<0.001	0.016	0.009			
Molybdenum	mg/L	0.006	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	0.011	<0.001	<0.001			
Nickel	mg/L	<0.001	<0.001	0.003	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.002	0.002			
Selenium	mg/L	<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	mg/L	<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	mg/L	<0.001	<0.001	0.001	<0.001	<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	<0.01	<0.01	<0.01	<0.01			
Zinc	mg/L	<0.005	0.03	0.025	<0.005	<0.005	0.012	0.021	0.025	0.057	0.005	0.048	0.01			
Boron	mg/L	0.36	0.23	1.01	0.46	0.37	0.1	0.18	0.36	0.19	0.14	0.11	0.08			
Iron	mg/L	0.12	<0.05	0.44	0.2	<0.05	<0.05	1.51	0.21	3.96	<0.05	1.52	<0.05			
Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
Fluoride	mg/L	1	0.2	0.9	3.2	2.2	0.2	0.3	0.8	0.4	1.5	0.2	<0.1			
Ammonia as N	mg/L	0.35	<0.01	<0.01	0.42	0.17	<0.01	0.05	0.3	0.08	0.57	0.2	<0.01			
Nitrite as N	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Nitrate as N	mg/L	<0.01	0.11	<0.01	<0.01	<0.01	0.12	<0.01	<0.01	<0.01	<0.01	<0.01	0.23			
Total Phosphorus as P	mg/L	0.03	0.02	0.1	<0.01	0.02	<0.01	0.01	0.05	0.03	0.02	0.03	<0.01			
Sulfide as S2-	mg/L	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.4	<0.1	<0.1			
C6 - C9 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20			
C6 - C10 Fraction	µg/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20			
>C10 - C40 Fraction (sum)	µg/L	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100			
Sum of BTEX	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	6	<1	<1			