

Table 2
Summary of Groundwater Field Parameters - November 2019

Well ID	Sampling Event	Date Measured	SWL (mbTOC)	BOC (mbTOC)	Dissolved Oxygen (ppm)	Electrical Conductivity (us/cm)	pH	Ox-Red Potential (mV)	Temperature (°C)	Comments
CSM_BH02	Event 14 - Nov 2019	13/11/2019	20.342	33.65	0.19	1008	6.88	-94	20.7	Light brown, cloudy, no odour/sheen
CSM_BH04	Event 14 - Nov 2019	13/11/2019	21.21	34.37	0.33	601	6.29	-52.7	22.2	Clear/cloudy, no odour/sheen
CSM_BH06	Event 14 - Nov 2019	13/11/2019	20.825	35.39	0.47	971	6.16	40.8	23	Clear, slight brown, no odour/sheen
CSM_BH08	Event 14 - Nov 2019	13/11/2019	13.755	33.23	0.17	520	6.55	-28.4	20.9	Clear, no odour/sheen
CSM_BH09S	Event 14 - Nov 2019	14/11/2019	4.215	6.59	0.64	574	5.64	100.4	19.3	Clear, slight red, no odour/sheen
CSM_BH10S	Event 14 - Nov 2019	14/11/2019	4.795	9.82	0.61	229.5	5.33	220.4	20.8	Clear, no odour/sheen
GASW_BH7	Event 14 - Nov 2019	14/11/2019	3.97	6.17	0.58	432.4	4.36	274.2	21.1	Clear, no odour/sheen
GASW_BH10	Event 14 - Nov 2019	13/11/2019	19.396	24.79	0.31	1285	6.39	-124.1	21	Clear to slightly cloudy, no odour/sheen
GASW_BH11	Event 14 - Nov 2019	14/11/2019	4.57	8.05	0.61	297.3	5.52	135.7	21.4	Clear/cloudy, no odour/sheen
GASW_BH23	Event 14 - Nov 2019	14/11/2019	2.698	3.92	0.04	949	7.33	-181.9	21.5	Clear, hydrocarbon odour and sheen
GASW_BH25a	Event 14 - Nov 2019	14/11/2019	1.36	2.95	0.02	551	8.5	-278	22	Clear, hydrocarbon odour, no sheen
SRT_BH047	Event 14 - Nov 2019	15/11/2019	5.022	6.95	1.2	424.7	7.76	127.4	20.3	Cloudy, light grey, no odour/sheen
SRT_BH052	Event 14 - Nov 2019	15/11/2019	6.265	7.93	3.72	369.2	7.58	138.2	20.1	Clear/cloudy, no odour/sheen
SRT_BH059	Event 14 - Nov 2019	15/11/2019	4.142	6	4.41	362.8	9.93	160.6	20.5	Clear, no odour/sheen
SRT_CBH015	Event 14 - Nov 2019	15/11/2019	4.3	5.92	1.03	188.2	5.17	272	20.8	Clear, no odour/sheen
SRT_CBH017	Event 14 - Nov 2019	15/11/2019	3.291	4.94	0.69	256.1	6.2	179.5	20.7	Clear, no odour/sheen



Table 1
Summary of Groundwater Analytical Results - November 2019

	Iron speciation	Inorganics				Acidity & Alkalinity		Major Ions						Nutrients		Metals								BTEXN												
	Ferrous Iron	pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Calcium	Magnesium	Potassium	Sodium	Chloride	Sulfate	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Lead (Filtered)	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene (BTEXN)	BTEX (Sum of Total) - Lab Calc				
	mg/L	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L				
EQL	0.05	0.1	10	1	0.005	10	20	0.5	0.5	0.5	0.5	1	5	0.01	0.02	0.001	0.0002	0.001	0.001	0.001	0.005	0.0001	0.001	0.005												
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																									5000	NL	NL				NL	NL				
2-4m																									5000	NL	NL				NL	NL				
4-8m																									5000	NL	NL				NL	NL				
>8m																									5000	NL	NL				NL	NL				
NEPM 2013 Table 1C GILs, Marine Waters					0.004												0.0007	0.0044	0.0013	0.0044		0.0001	0.007	0.015	500						50					
NHMRC Recreational Guidelines 2008 - Health					0.8								5000			0.1	0.02		20	0.1	5	0.01	0.2		10	8000	3000			6000						
Sydney Water Trade Waste Acceptance Standards 2018-19 (non-domestic)		7-10			1											1	1	3	5	2	10	0.03	3	5	100	500	1000			1000						
Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																																
CSM_BH02	CSM_BH02	13/11/2019	Normal	688512	1.8	7.9	620	4600	<0.005	<10	330	50	42	5.5	120	520	29	0.02	0.03	0.002	<0.0002	<0.001	<0.001	<0.001	0.29	<0.0001	0.025	0.01	<1	<1	<1	<1	<2	<3	<10	-
CSM_BH04	CSM_BH04	13/11/2019	Normal	688512	2.8	8	410	350	<0.005	<10	270	6.9	12	4.2	140	71	39	0.09	<0.02	<0.001	<0.0002	<0.001	<0.001	<0.001	0.33	<0.0001	0.01	<0.005	<1	<1	<1	<1	<2	<3	<10	-
CSM_BH06	CSM_BH06	13/11/2019	Normal	688512	2.7	7.4	570	66	<0.005	<10	200	43	35	5.1	100	210	26	0.03	<0.02	0.001	<0.0002	<0.001	0.013	<0.001	0.33	<0.0001	0.053	0.024	<1	<1	<1	<1	<2	<3	<10	-
CSM_BH08	CSM_BH08	13/11/2019	Normal	688512	5.7	7.5	310	5.9	<0.005	<10	100	11	15	3.5	77	100	43	0.01	0.03	<0.001	<0.0002	<0.001	<0.001	<0.001	0.29	<0.0001	0.007	<0.005	<1	<1	<1	<1	<2	<3	<10	-
CSM_BH09S	CSM_BH09S	14/11/2019	Normal	688512	6.5	7	400	55	<0.005	<10	55	5.5	8.4	3.4	110	65	180	0.03	<0.02	<0.001	<0.0002	<0.001	0.002	<0.001	0.88	<0.0001	0.008	0.041	<1	<1	<1	<1	<2	<3	<10	-
CSM_BH10S	CSM_BH10S	14/11/2019	Normal	688512	<0.05	6.2	170	69	<0.005	<10	<20	3.4	5.1	2.3	35	45	56	<0.01	1.1	<0.001	<0.0002	<0.001	<0.001	<0.001	0.47	<0.0001	0.002	<0.005	<1	<1	<1	<1	<2	<3	<10	-
GASW_BH10	GASW_BH10	13/11/2019	Normal	688512	11	7.1	930	200	<0.005	<10	440	82	58	15	150	730	<5	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	<0.001	0.49	0.0002	0.018	<0.005	<1	<1	<1	<1	<2	<3	<10	-
GASW_BH11	GASW_BH11	14/11/2019	Normal	688512	1.9	6.5	170	1600	<0.005	<10	53	5	7	1.9	50	97	51	0.02	<0.02	<0.001	<0.0002	<0.001	0.001	<0.001	0.2	<0.0001	0.002	0.012	8	<1	<1	<1	<2	<3	<10	-
GASW_BH23	GASW_BH23	14/11/2019	Normal	688512	7.8	8.1	710	23	0.026	<10	210	170	14	19	48	33	320	0.66	<0.02	0.004	<0.0002	<0.001	<0.001	<0.001	0.33	<0.0001	<0.001	<0.005	3200	260	<50	<50	<100	<150	<500	-
GASW_BH25A	GASW_BH25A	14/11/2019	Normal	688512	0.35	8.3	410	53	0.032	<10	120	86	5.5	6.8	31	85	180	0.46	<0.02	0.006	<0.0002	<0.001	0.008	0.001	0.11	<0.0001	0.008	0.026	2200	870	<50	<50	<100	<150	<500	-
GASW_BH7	GASW_BH7	14/11/2019	Normal	688512	16	4	280	8.3	<0.005	<10	<20	2.7	4.2	0.6	65	28	150	0.02	0.04	<0.001	<0.0002	<0.001	0.003	0.002	0.098	<0.0001	0.002	0.036	130	8	1	2	3	4	<10	-
QC01	CSM_BH04	13/11/2019	Interlab_D	ES1937682	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	0.0001	<0.001	<0.001	<0.001	<0.001	-	<0.0001	0.01	<0.005	<1	<2	<2	<2	<2	<2	<5	<1	
QC02	CSM_BH10S	14/11/2019	Field_D	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.001	-	<0.0001	0.002	<0.005	<1	<1	<1	<1	<2	<3	<10	-	
SRT_BH047	SRT_BH047	15/11/2019	Normal	688512	<0.05	8.3	330	89	<0.005	<10	120	54	8.8	1	32	52	9.5	<0.01	21	<0.001	<0.0002	<0.001	0.002	<0.001	<0.005	<0.0001	0.001	<0.005	<1	<1	<1	<1	<2	<3	<10	-
SRT_BH052	SRT_BH052	15/11/2019	Normal	688512	<0.05	7.6	240	64	<0.005	<10	78	23	4.5	1.5	43	49	31	<0.01	6.9	<0.001	<0.0002	<0.001	0.018	0.002	<0.005	<0.0001	0.006	0.035	<1	<1	<1	<1	<2	<3	<10	-
SRT_BH059	SRT_BH059	15/11/2019	Normal	688512	<0.05	8	270	3.6	<0.005	<10	180	61	8.2	6.1	11	43	14	<0.01	2.1	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.005	<0.0001	<0.001	<0.005	<1	<1	<1	<1	<2	<3	<10	-
SRT_CBH015	SRT_CBH015	15/11/2019	Normal	688512	<0.05	6.3	140	2.9	<0.005	<10	22	3.1	5.6	3.5	19	64	41	0.02	2.8	<0.001	<0.0002	<0.001	0.001	<0.001	6.3	<0.0001	0.01	0.022	<1	<1	<1	<1	<2	<3	<10	-
SRT_CBH017	SRT_CBH017	15/11/2019	Normal	688512	0.07	7.2	150	5.1	<0.005	<10	77	14	11	3.6	24	50	30	<0.01	0.19	<0.001	<0.0002	<0.001	<0.001	<0.001	1.3	<0.0001	0.005	0.008	<1	<1	<1	<1	<2	<3	<10	-







Table 1
Summary of Groundwater Analytical Results - November 2019

					OP Pesticides																												PCBs								Herbicides										
					Tokuthion	Azinphos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Dinoseb				
EQL					2	2	2	2	20	2	20	2	20	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	20	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	100				
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																																			
2-4m																																																			
4-8m																																																			
>8m																																																			
NEPM 2013 Table 1C GILs, Marine Waters									0.009																																										
NHMRC Recreational Guidelines 2008 - Health						300	100		100						40	50	70	40		40	10	70	100	70	700		7	50	20		10	200		900	200		9		1000												
Sydney Water Trade Waste Acceptance Standards 2018-19 (non-domestic)																																																			
Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																																															
CSM_BH02	CSM_BH02	13/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
CSM_BH04	CSM_BH04	13/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
CSM_BH06	CSM_BH06	13/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
CSM_BH08	CSM_BH08	13/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
CSM_BH09S	CSM_BH09S	14/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
CSM_BH10S	CSM_BH10S	14/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
GASW_BH10	GASW_BH10	13/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100			
GASW_BH11	GASW_BH11	14/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100			
GASW_BH23	GASW_BH23	14/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100			
GASW_BH25A	GASW_BH25A	14/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100			
GASW_BH7	GASW_BH7	14/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100			
QC01	CSM_BH04	13/11/2019	Interlab_D	ES1937682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
QC02	CSM_BH10S	14/11/2019	Field_D	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
SRT_BH047	SRT_BH047	15/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
SRT_BH052	SRT_BH052	15/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
SRT_BH059	SRT_BH059	15/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SRT_CBH015	SRT_CBH015	15/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	15/11/2019	Normal	688512	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2