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Memo

Date 20 July 2015

To James Duggleby - Senior Hydrogeologist AGL Upstream Investments Pty Ltd

From Chris Richard

Ref 2268520B-RES-MEM-002 RevA

Subject Gloucester Gas Project - FY15 Q4 Monitoring Update - July 2015

This memo presents updated hydrographs for all Gloucester Gas Project groundwater monitoring bores and hydrograph and salinity traces (measured as electrical conductivity) for surface water monitoring sites to June 2015. Full analysis and discussion of these results will be presented in the comprehensive 2015 Annual Report which will detail all groundwater and surface water level and quality results from the 2014/15 monitoring period.

For the FY15 Q4 period:

- Data for the period between December 2014 and May 2014 are unrecoverable from TCMB04 and TTMB02.
- The data logger at TTMB03 failed and has been replaced.
- The data logger at FKMB01A failed and has been replaced.

Figures 1 - 8: Groundwater hydrographs for Stage 1 and 2 nested monitoring bore sites

Figures 9 and 10: Surface water levels and electrical conductivity for all monitoring sites

Figure 11: Groundwater levels at the PL03 Vibrating Wire Piezometer and WKMB05

Figures A.1 – A.22: Individual Stage 1 and 2 groundwater monitoring bore hydrographs

Figures A.23 – A.30: Individual surface water level and electrical conductivity hydrographs

Figure A.31: Individual PL03 Vibrating Wire Piezometer hydrographs

Figures A.32 – A.34: Individual hydrographs from WKMB05 sensors

Tables 1 to 5 – Stage 1 and stage 2 groundwater quality results

Table 6 – Surface water quality results

Yours sincerely

Chris Richard
Environmental Scientist

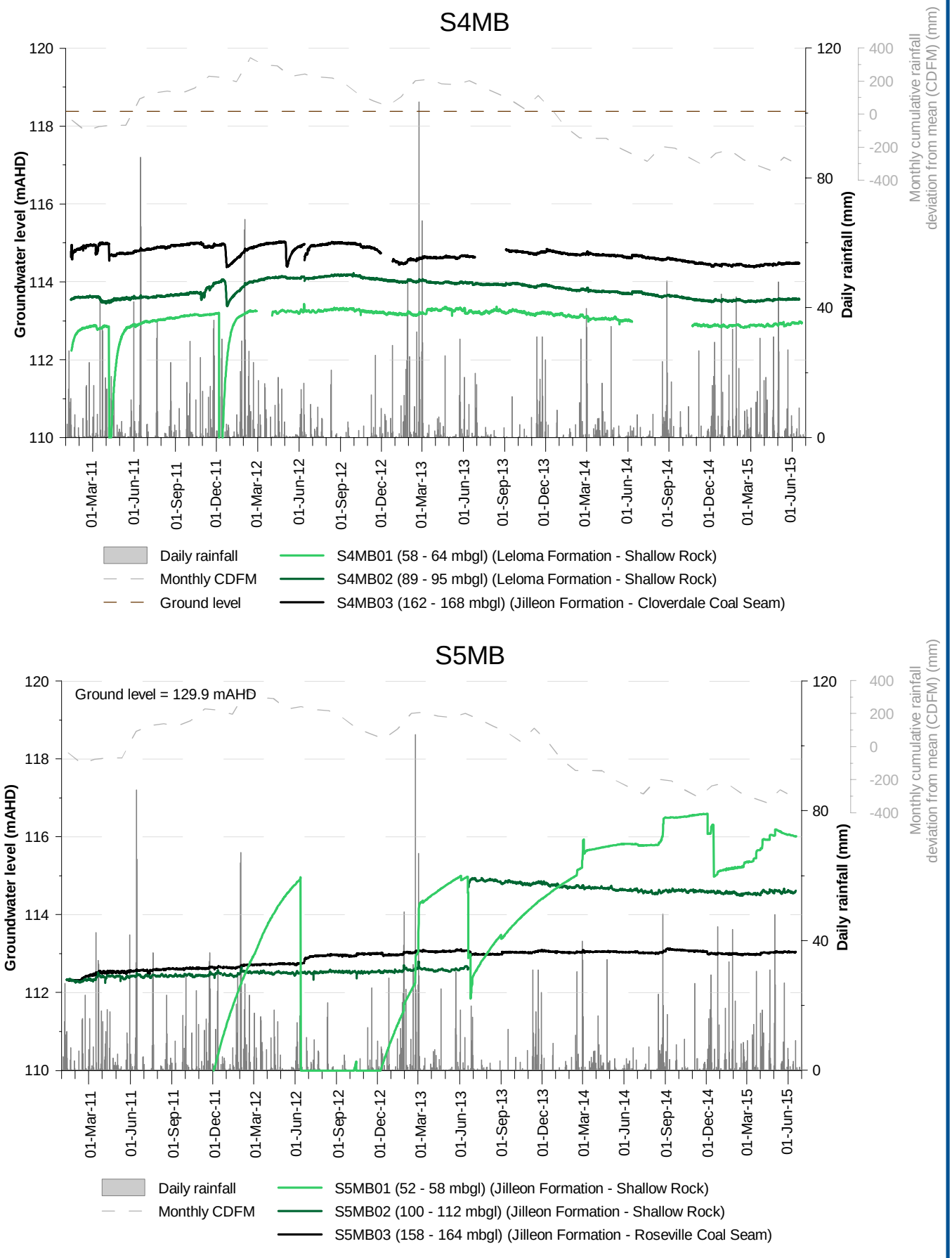
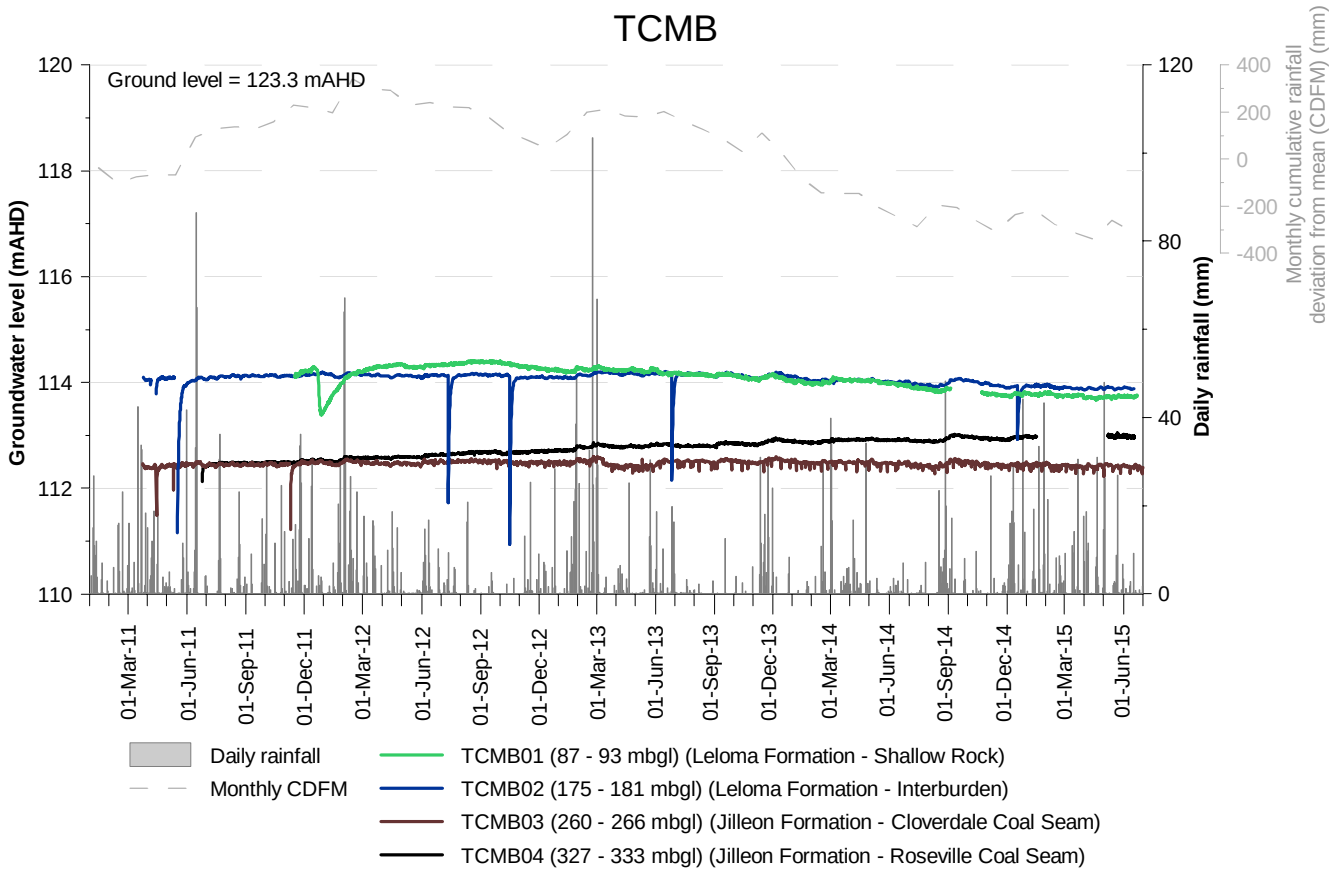


Figure 1: S4 and S5 monitoring bores



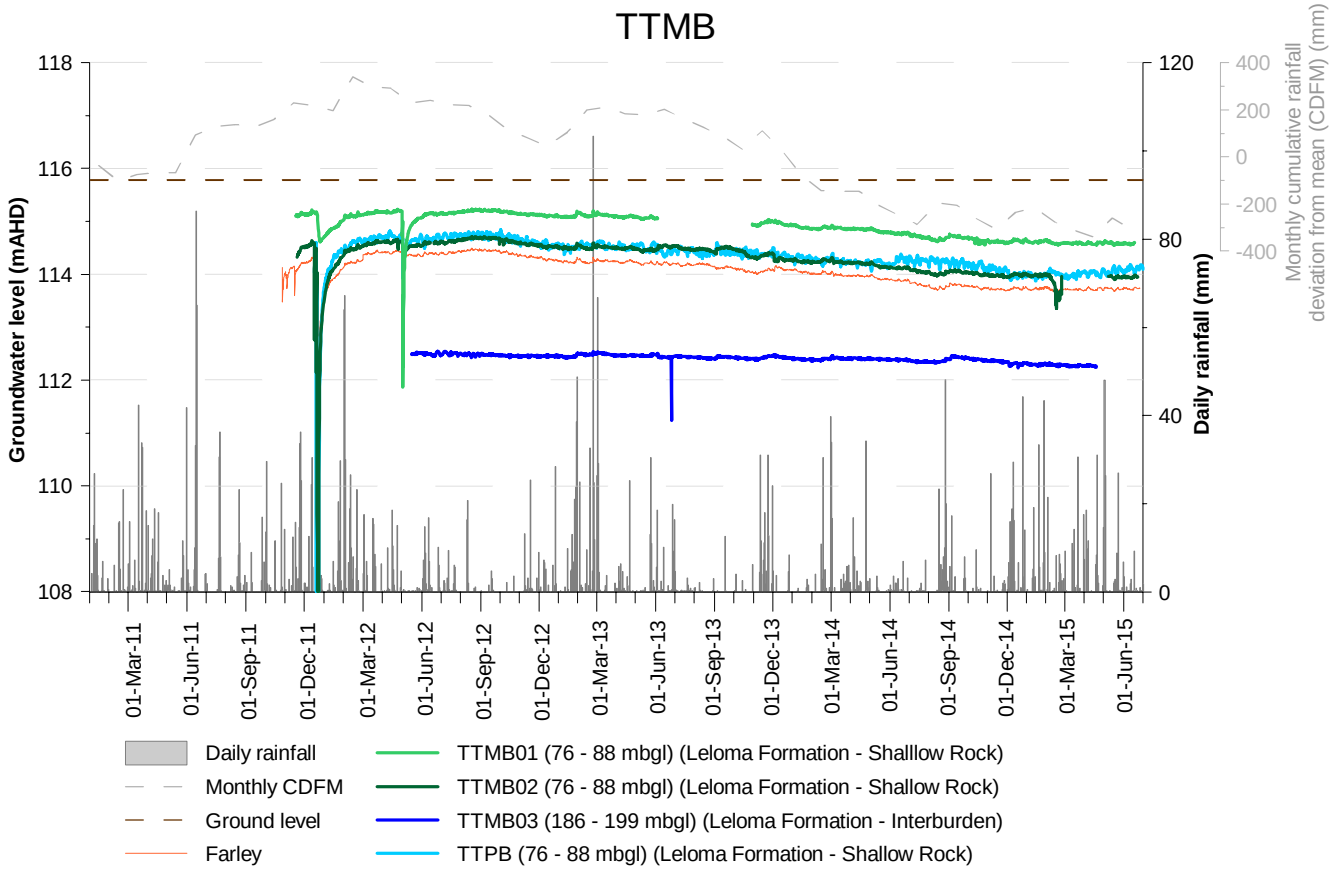


Figure 2: TCMB and TTMB monitoring bores

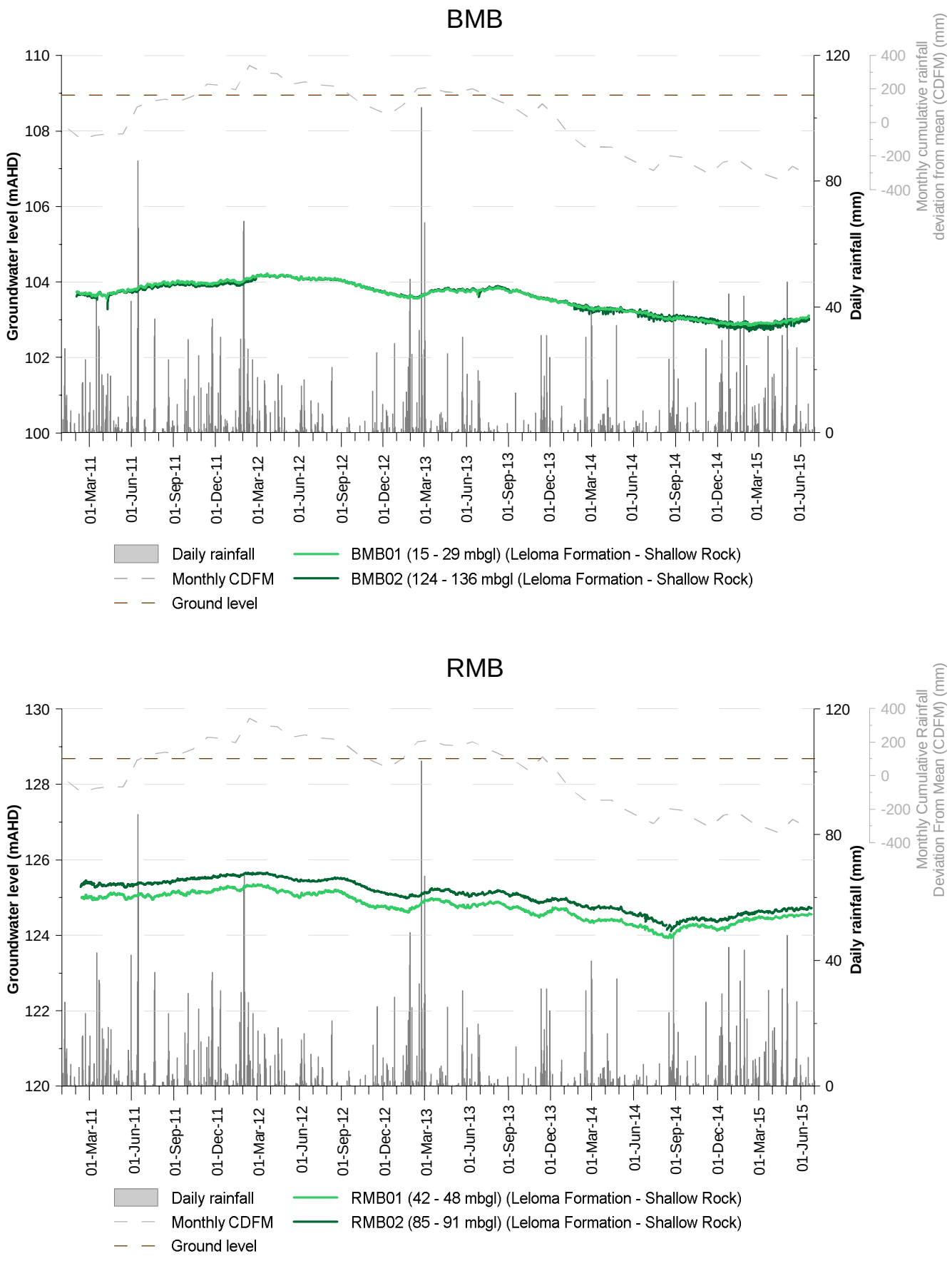
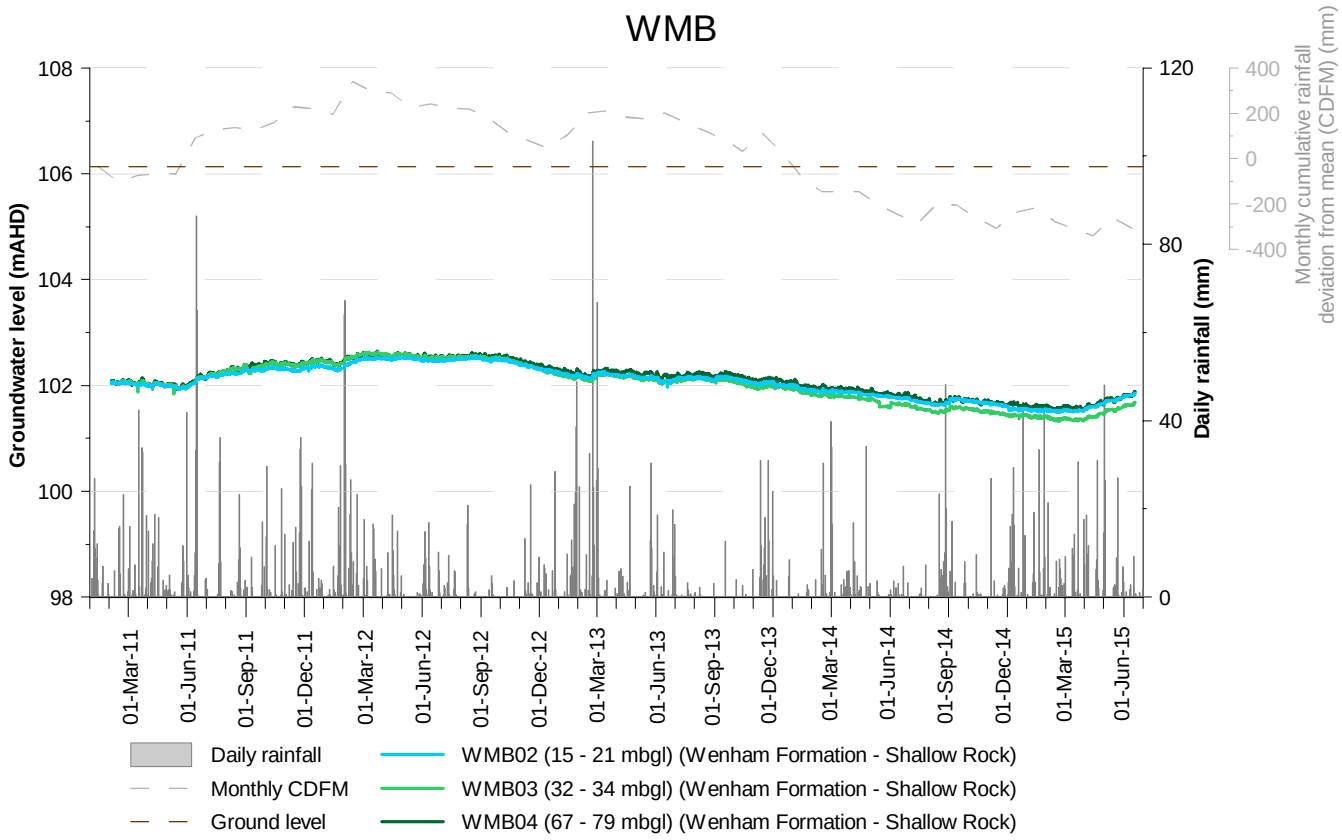


Figure 3: BMB and RMB monitoring bores



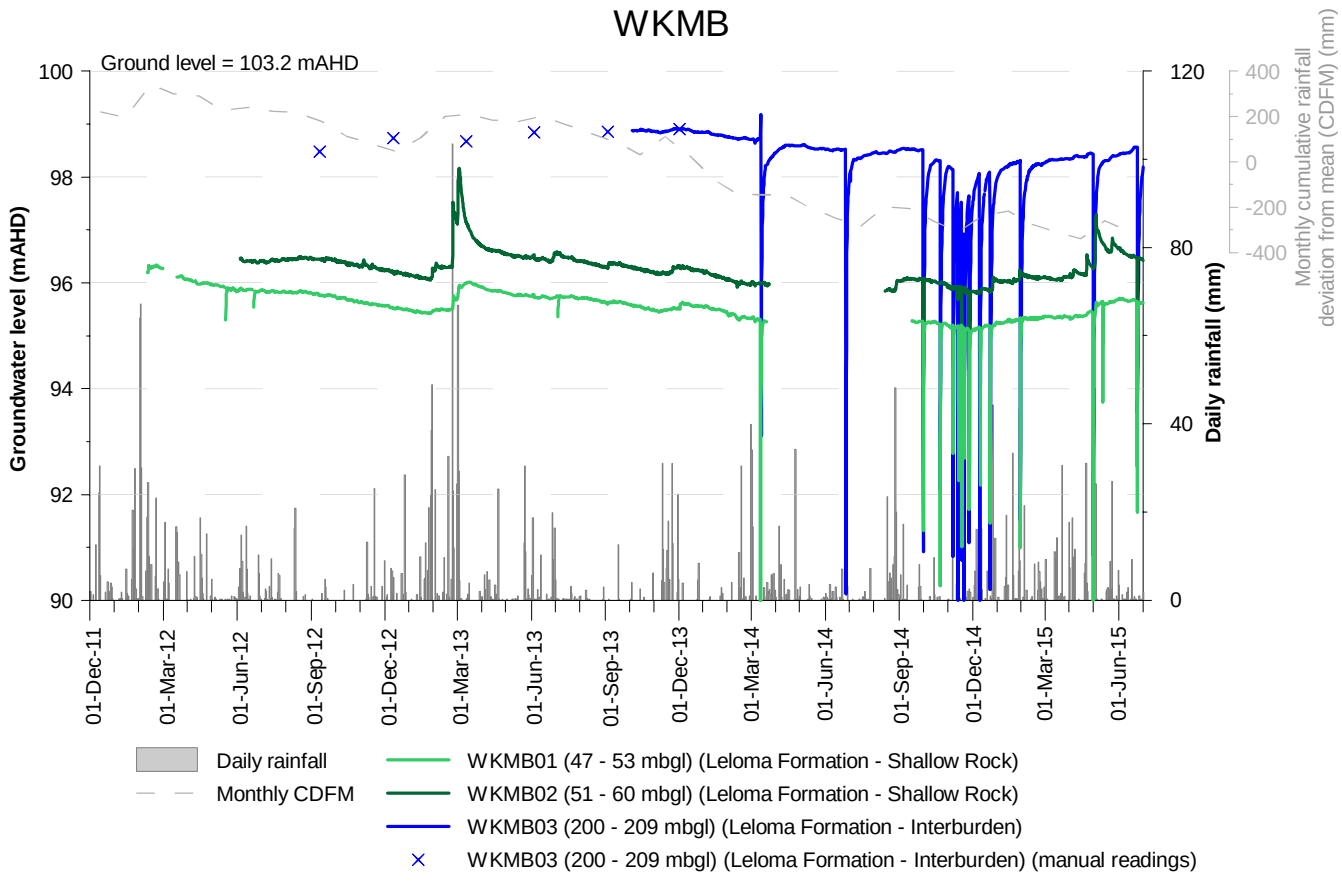
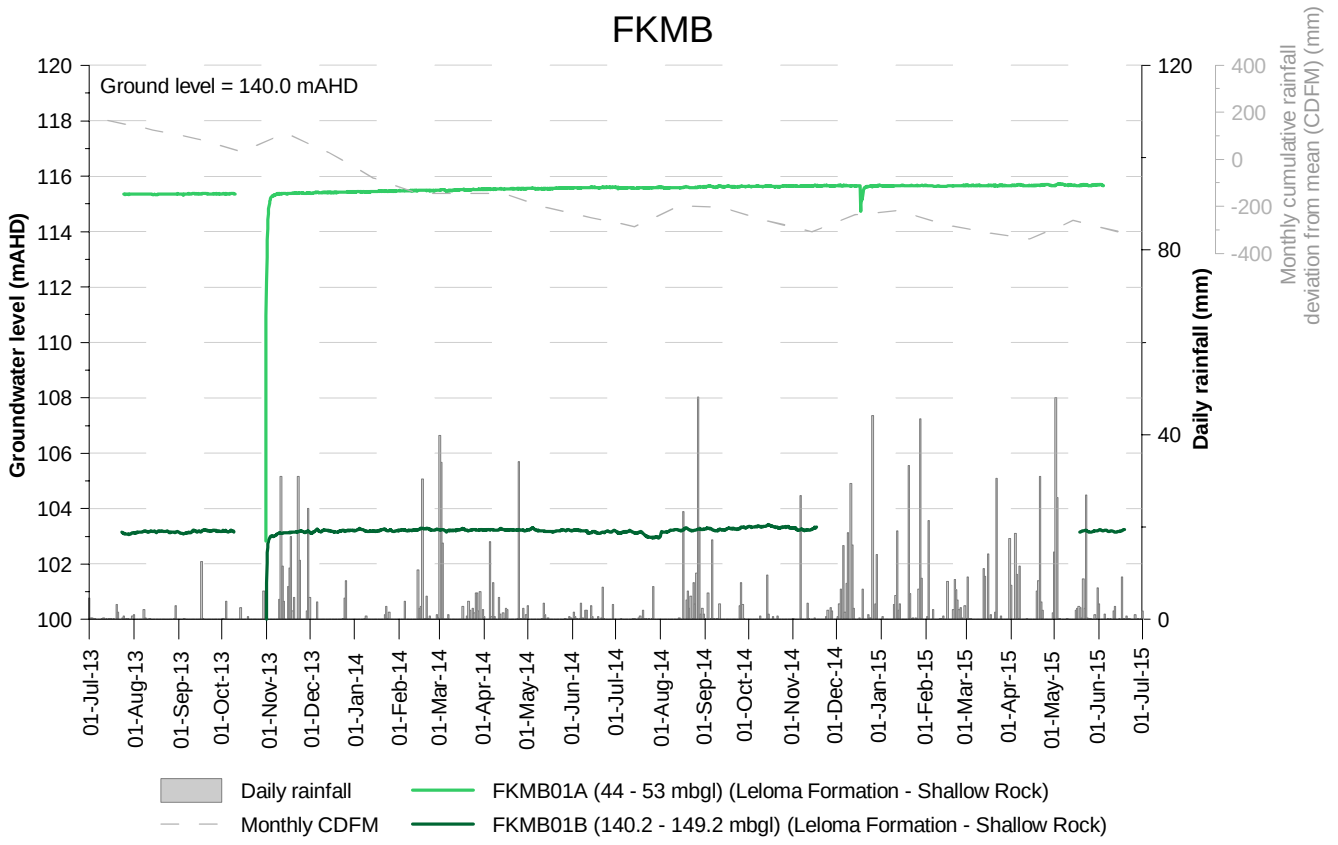


Figure 4: WMB and WKMB monitoring bores



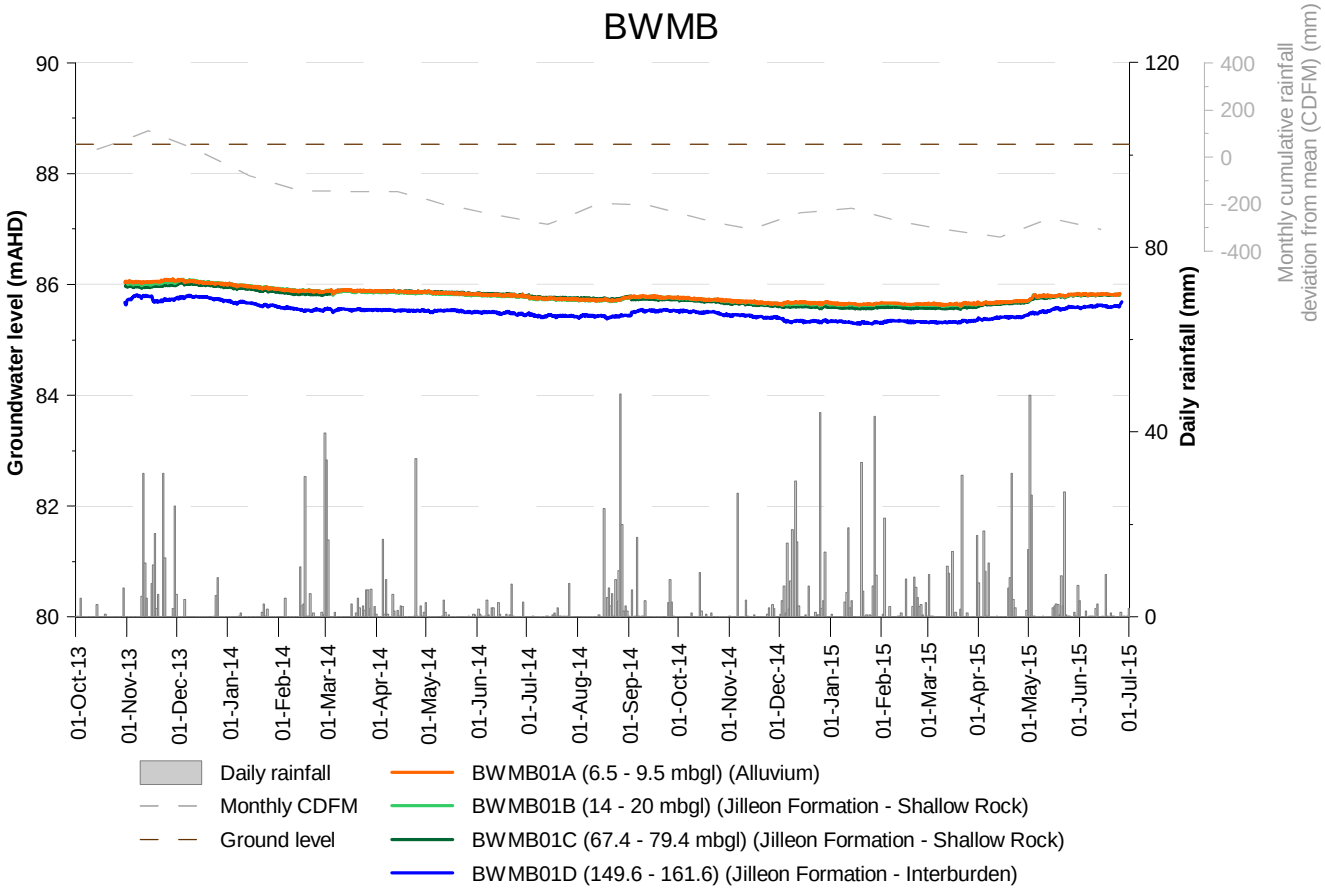


Figure 5: FKMB and BWMB monitoring bores

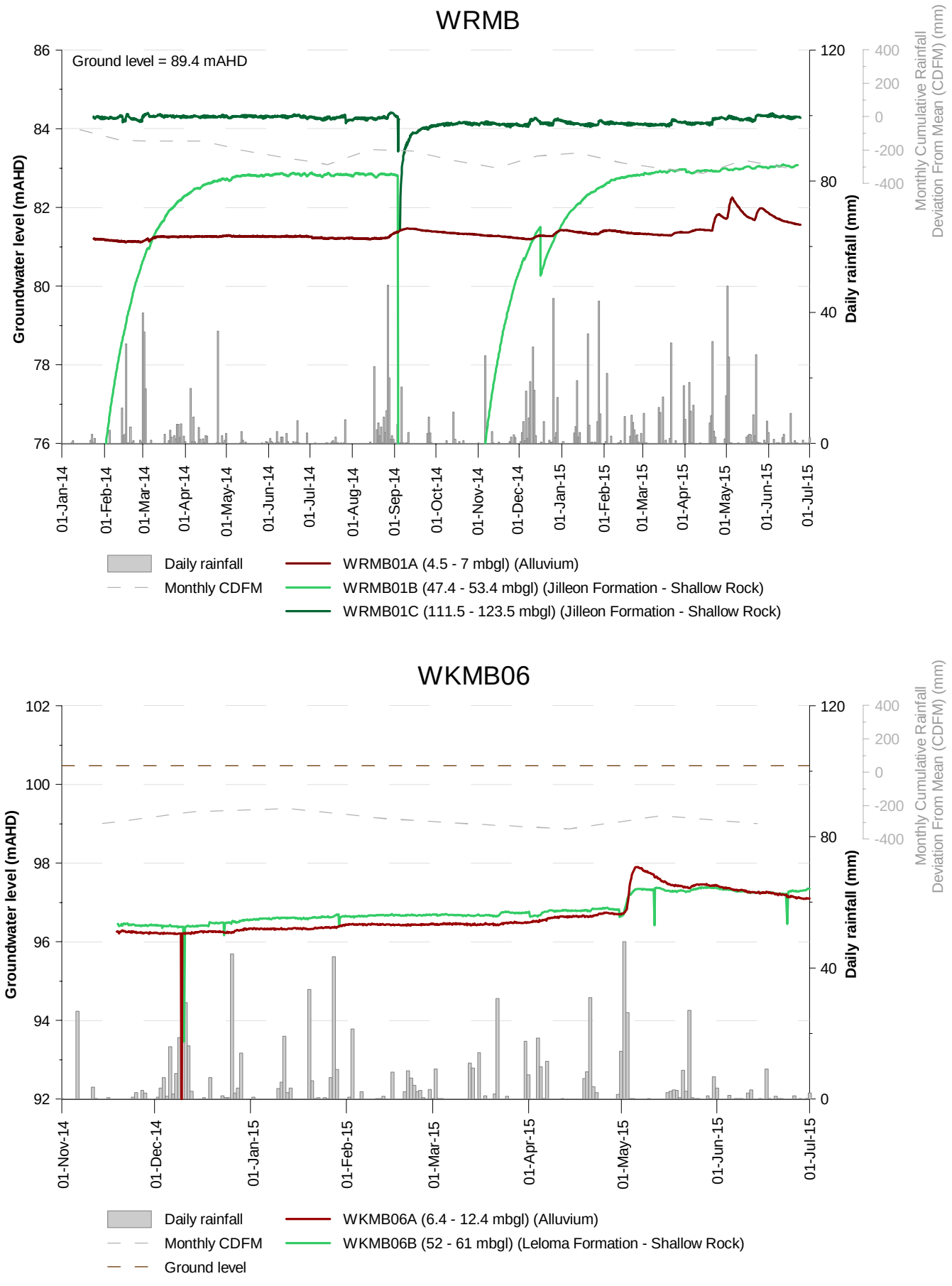
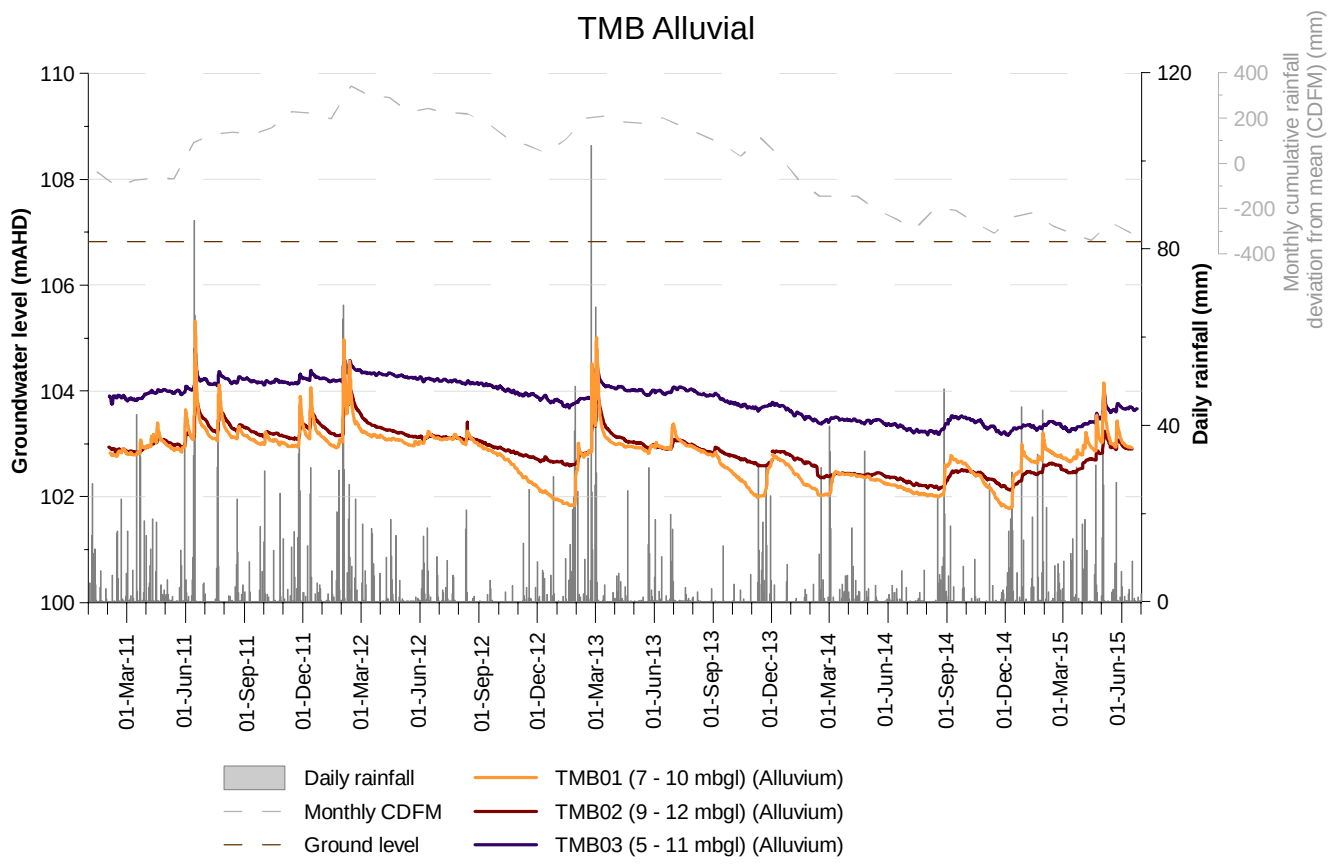


Figure 6: WRMB and WKMB06 monitoring bores



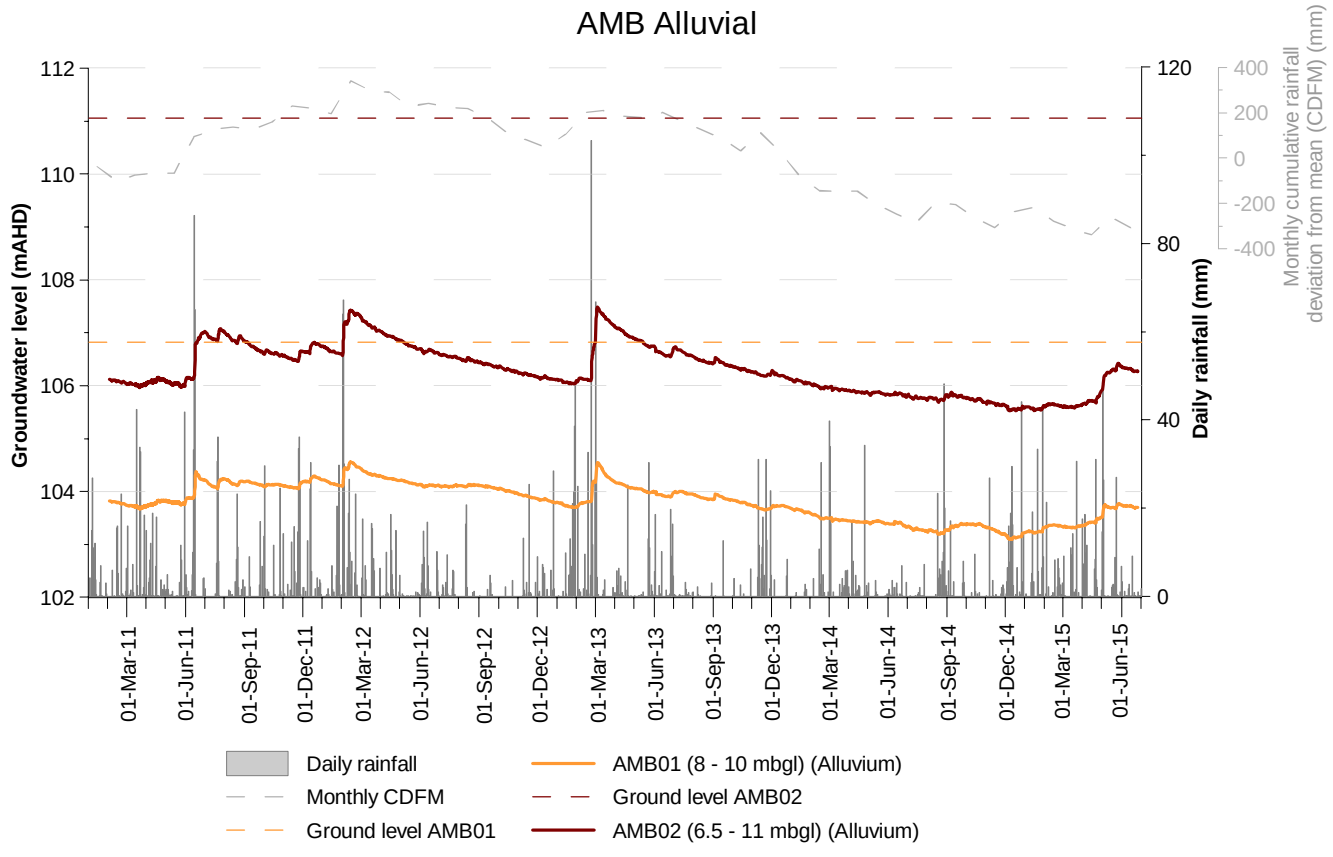


Figure 7: TMB and AMB Alluvial monitoring bores

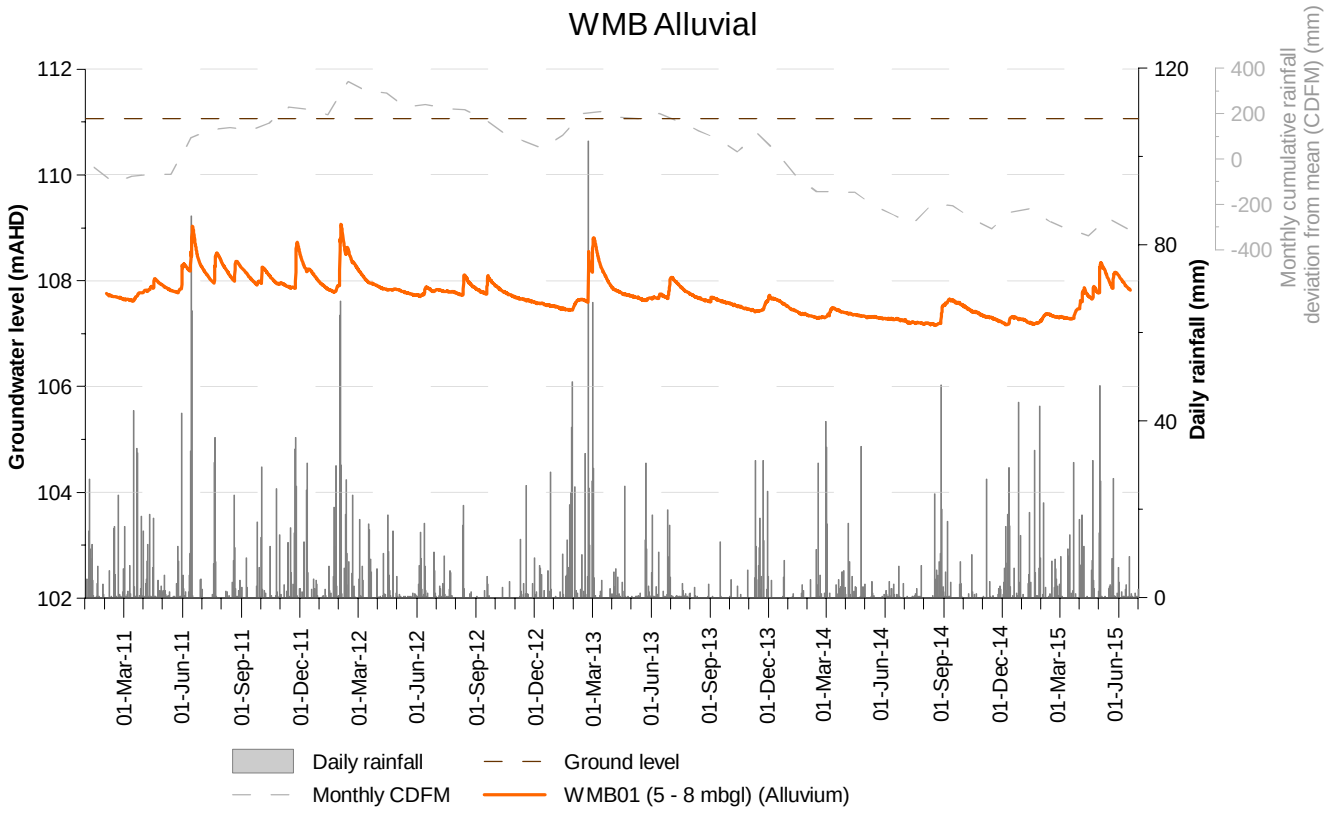
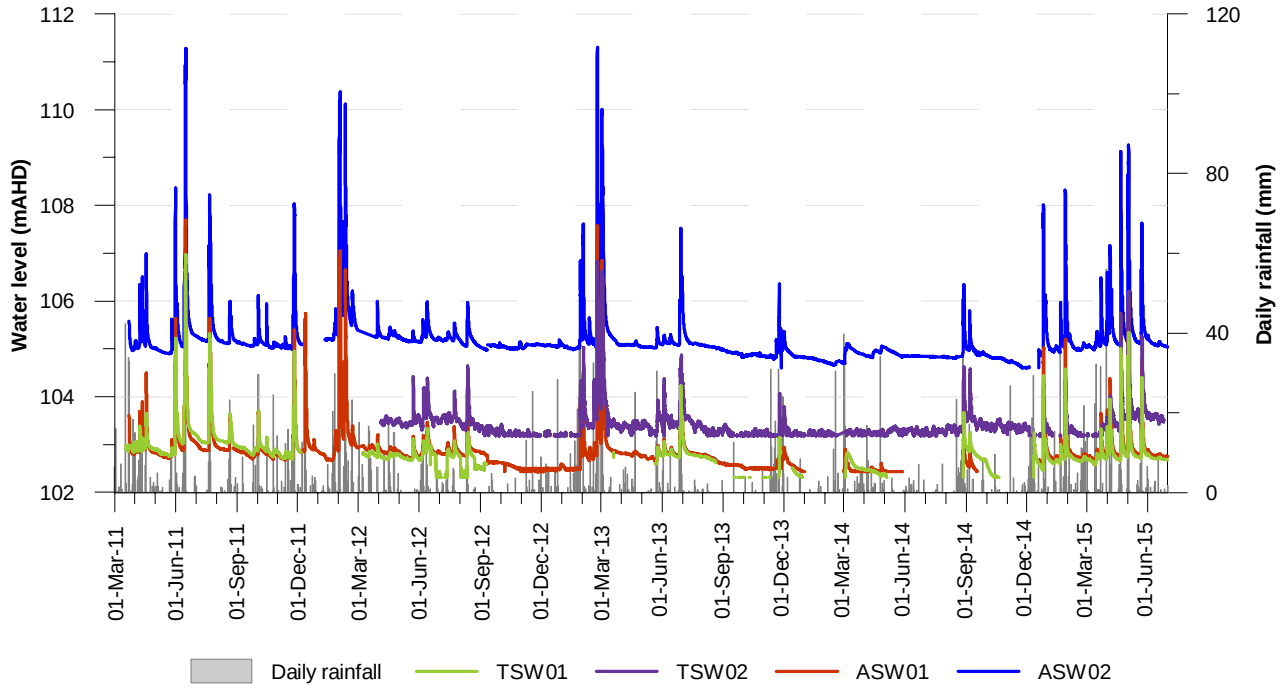


Figure 8: WMB Alluvial monitoring bore



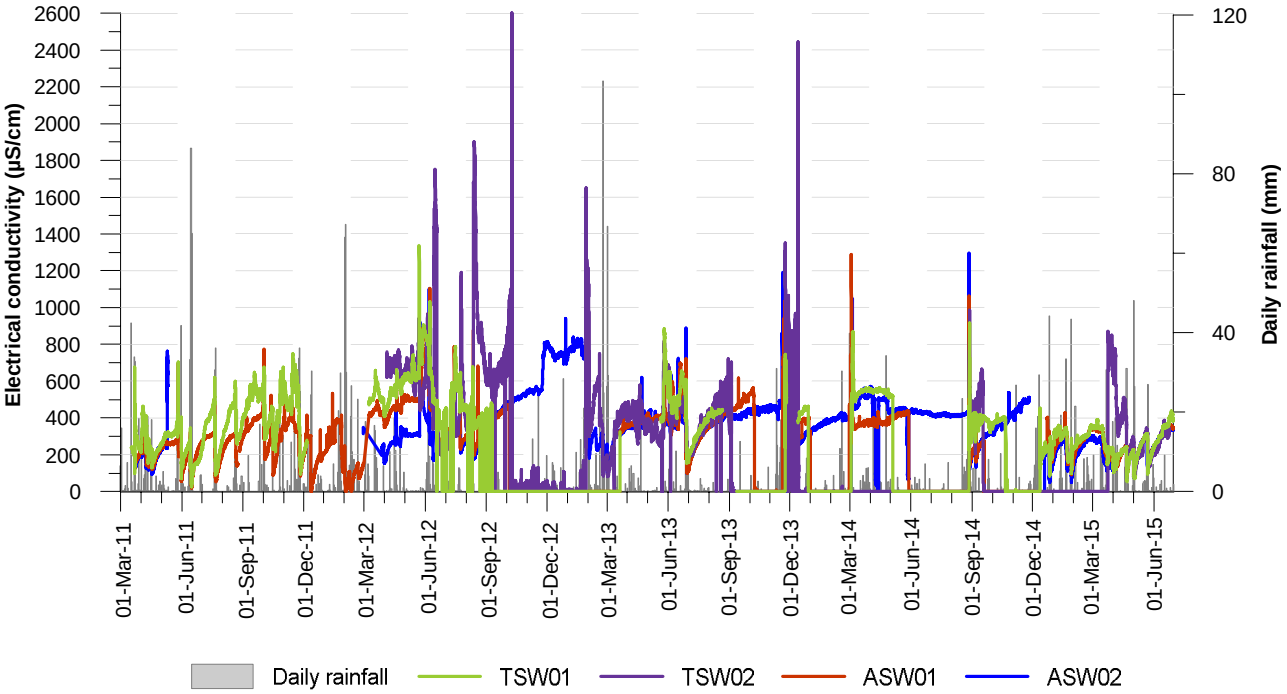
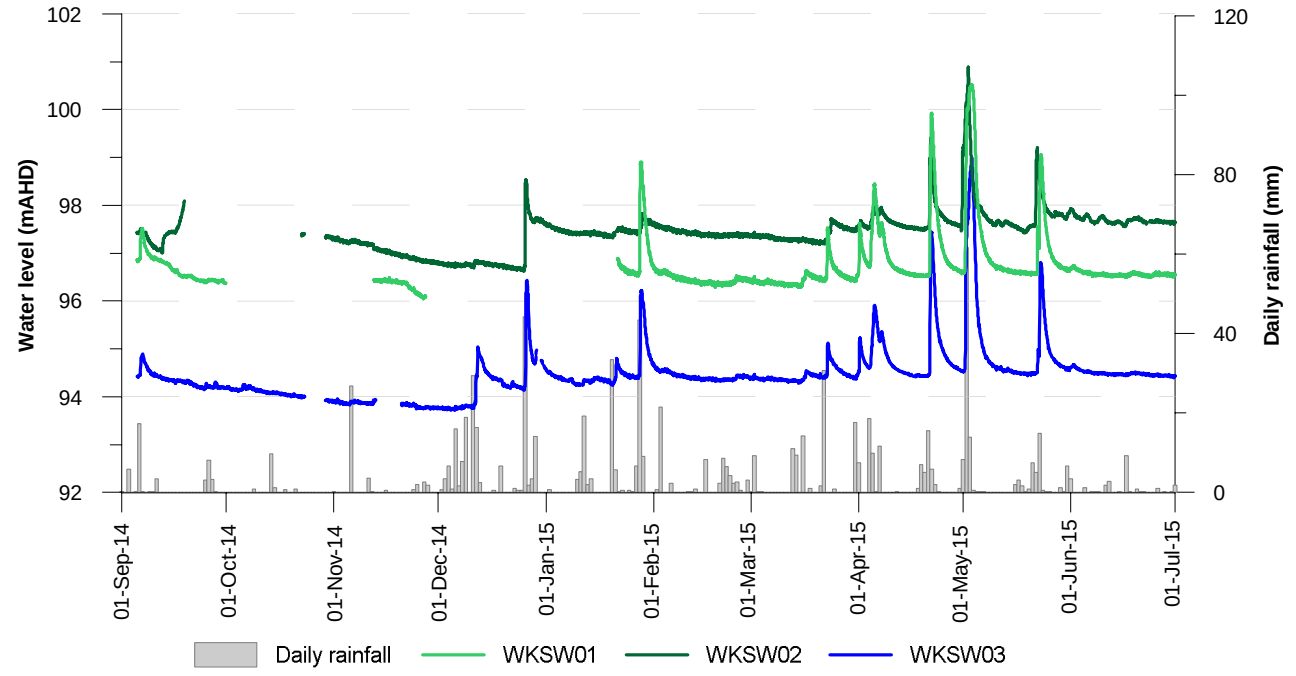


Figure 9: TSW01, TSW02, ASW01 and ASW02 surface water levels and electrical conductivity



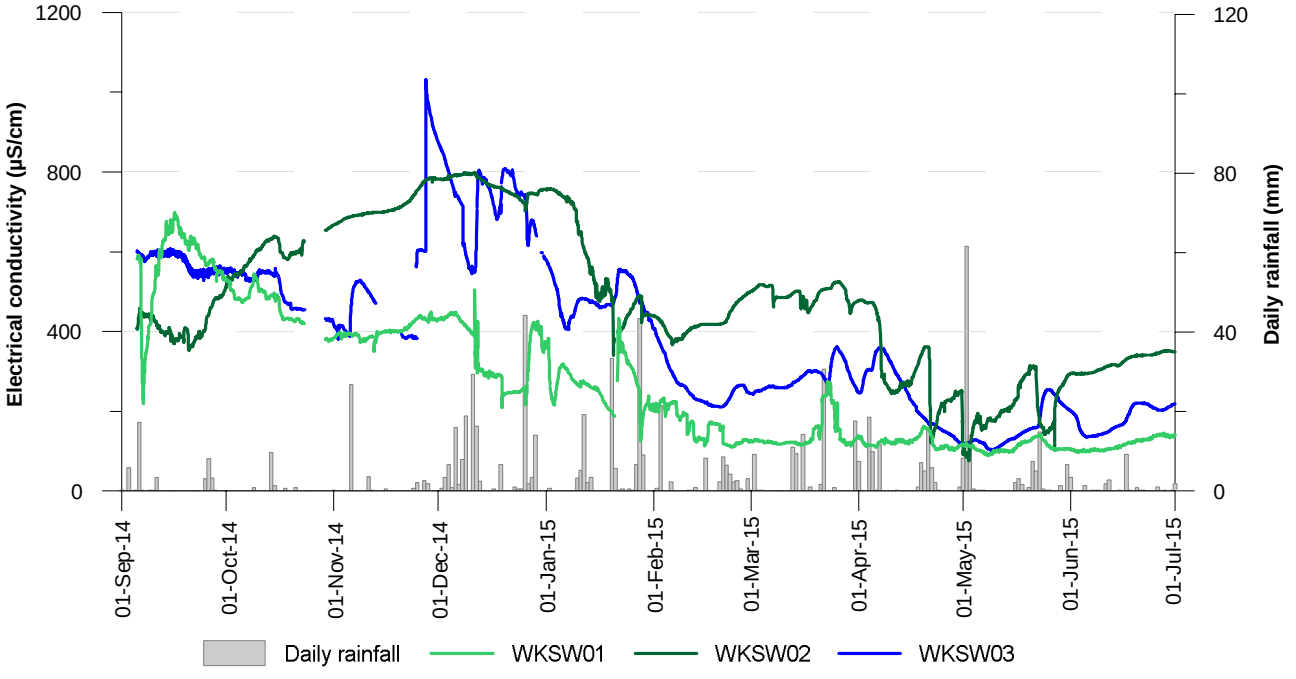
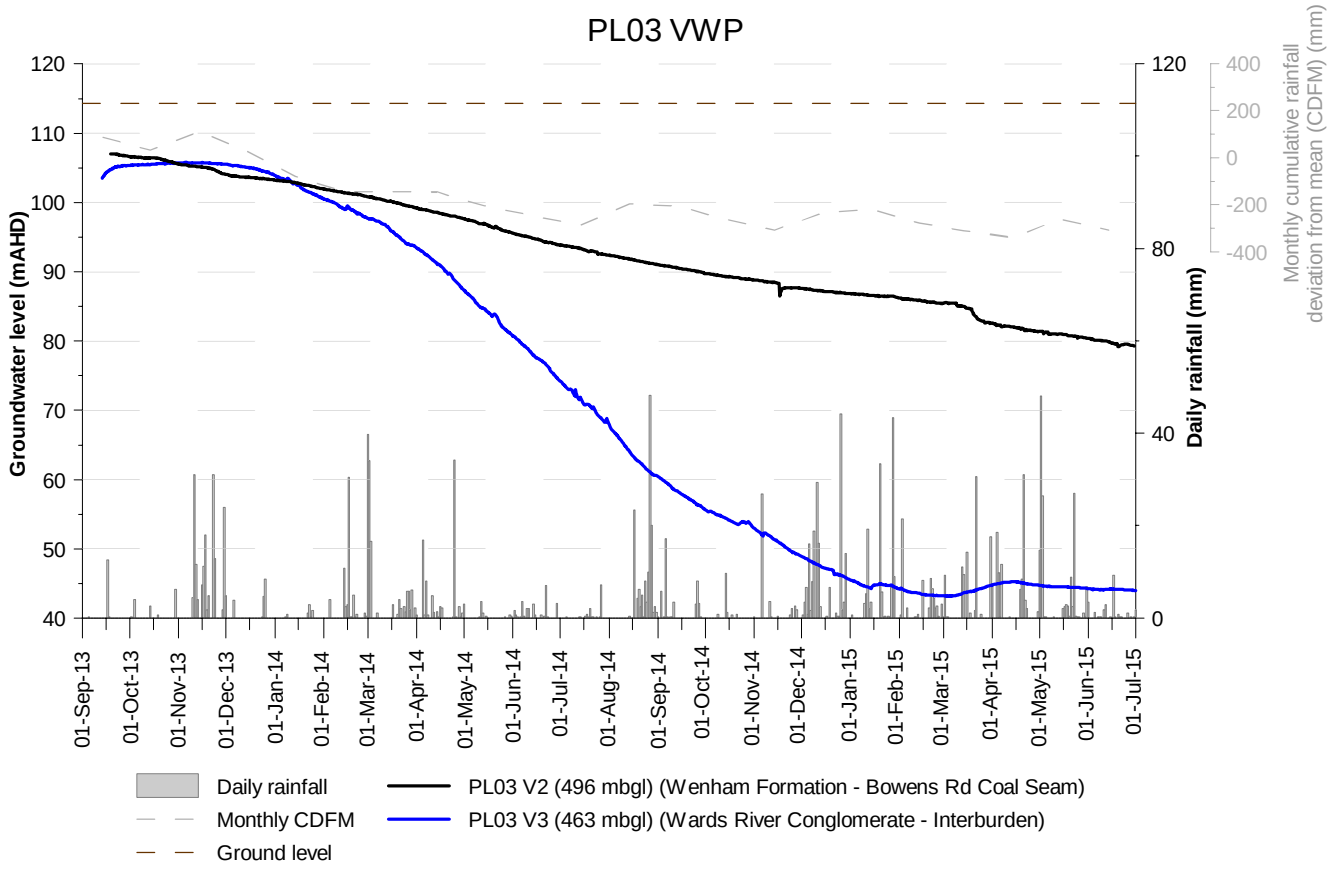


Figure 10: WKSW01, WKSW02 and WKSW03 surface water levels and electrical conductivity



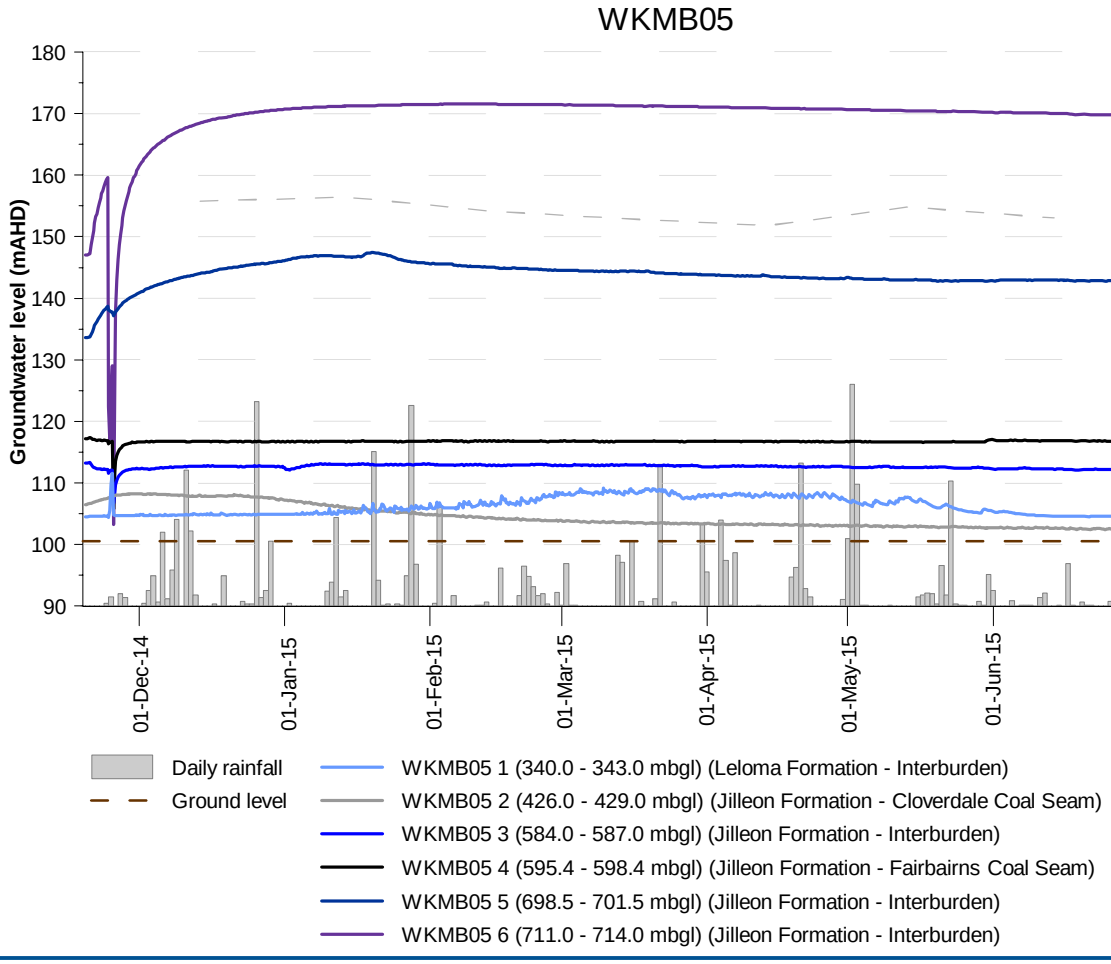
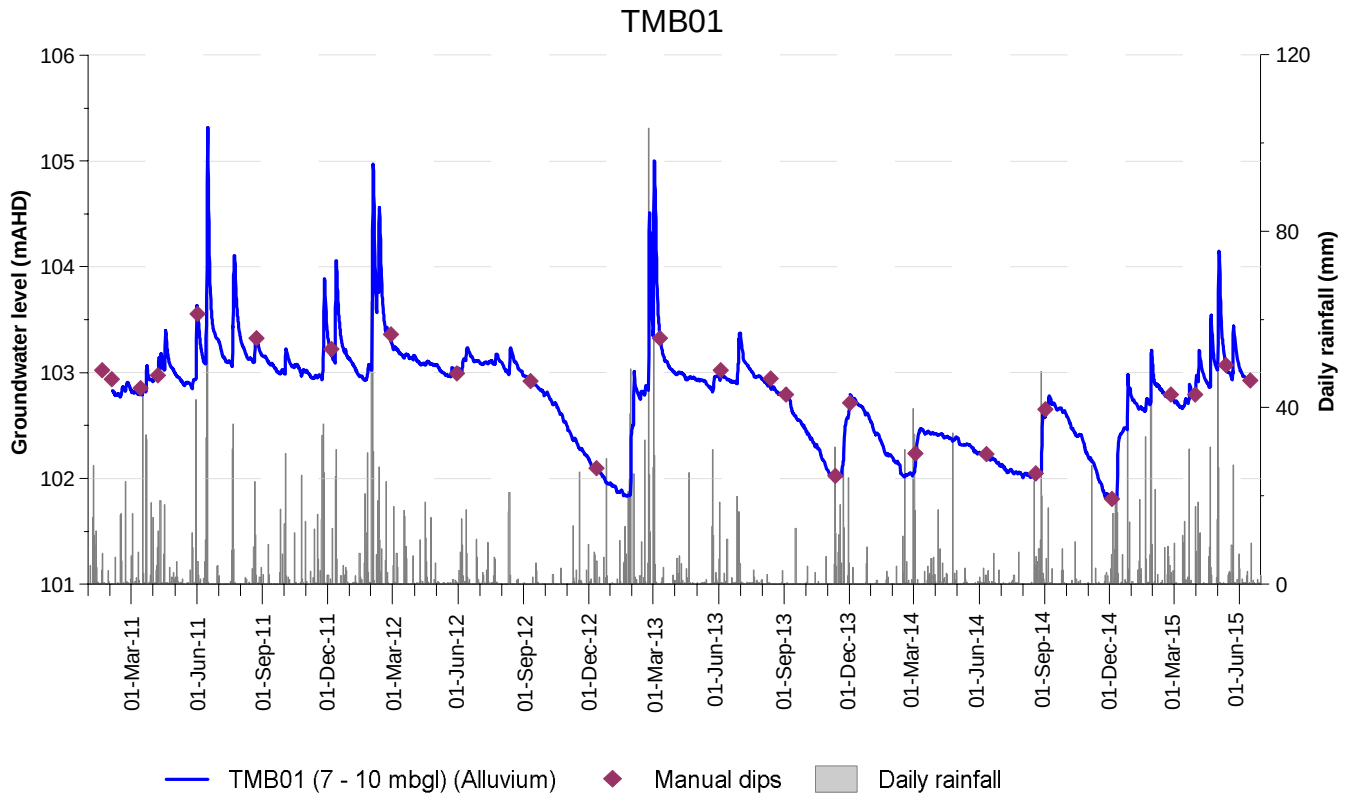


Figure 11: PL03 vibrating wire piezometer and WKMB05 multizone monitoring well



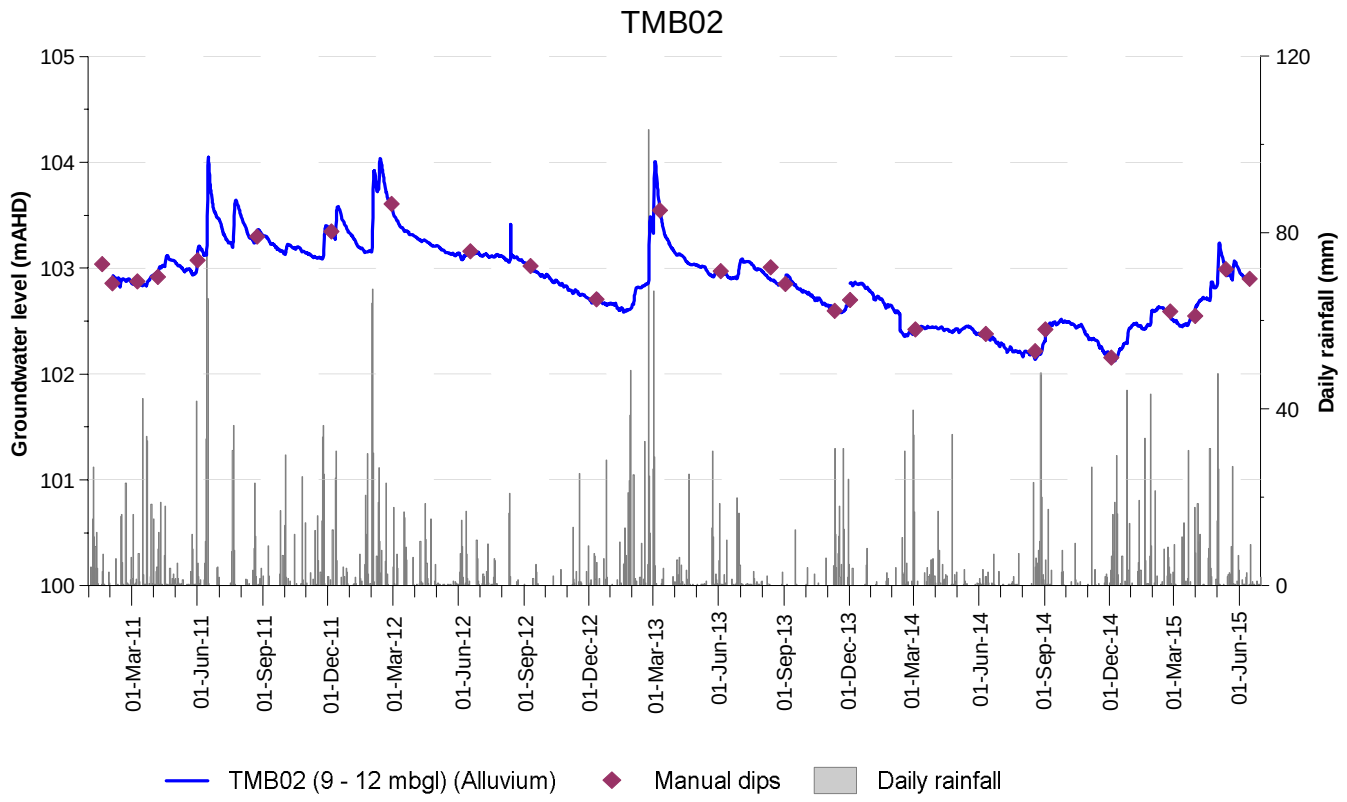


Figure A.1: TMB01 and TMB02 monitoring bores

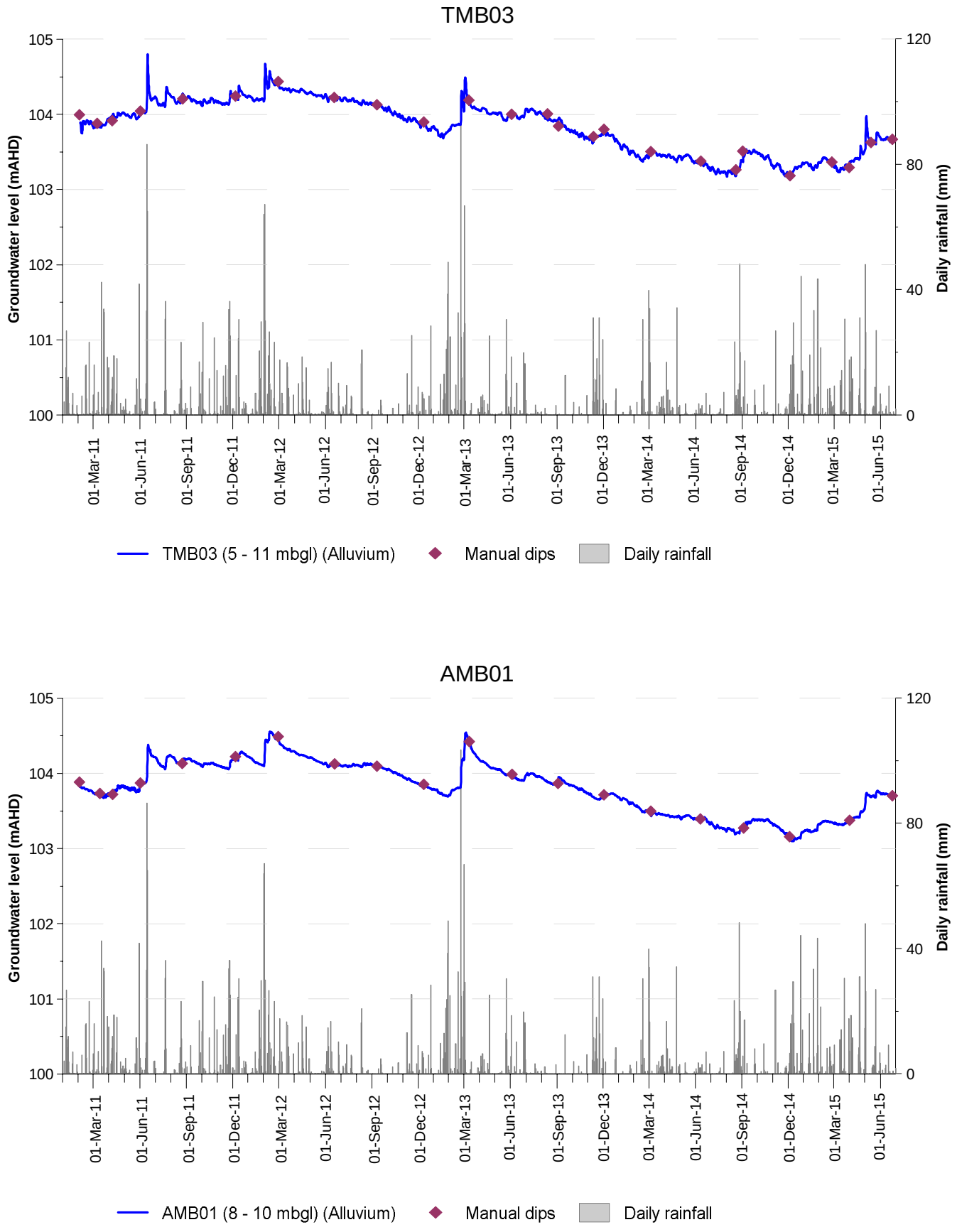


Figure A.2: TMB03 and AMB01 monitoring bores

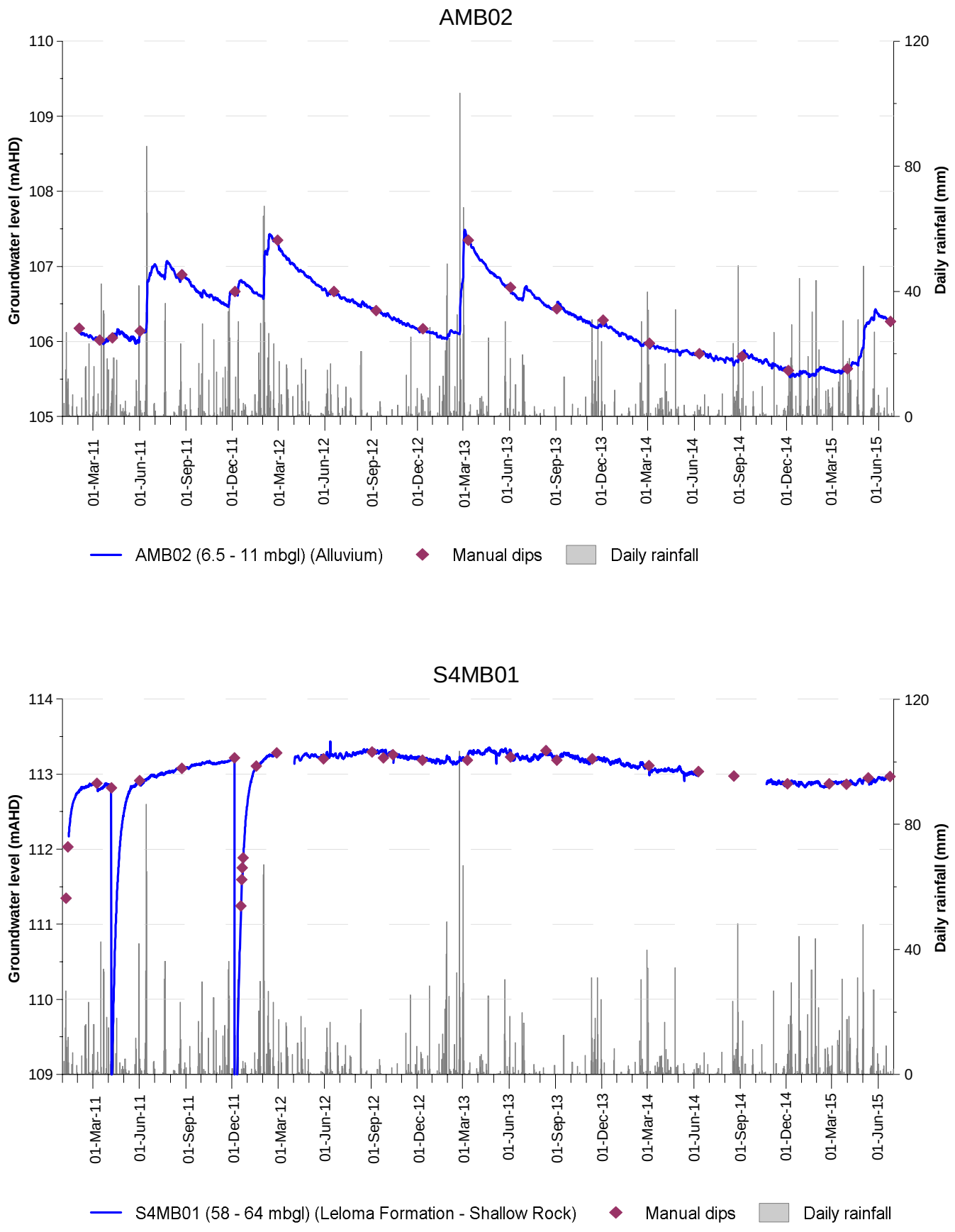
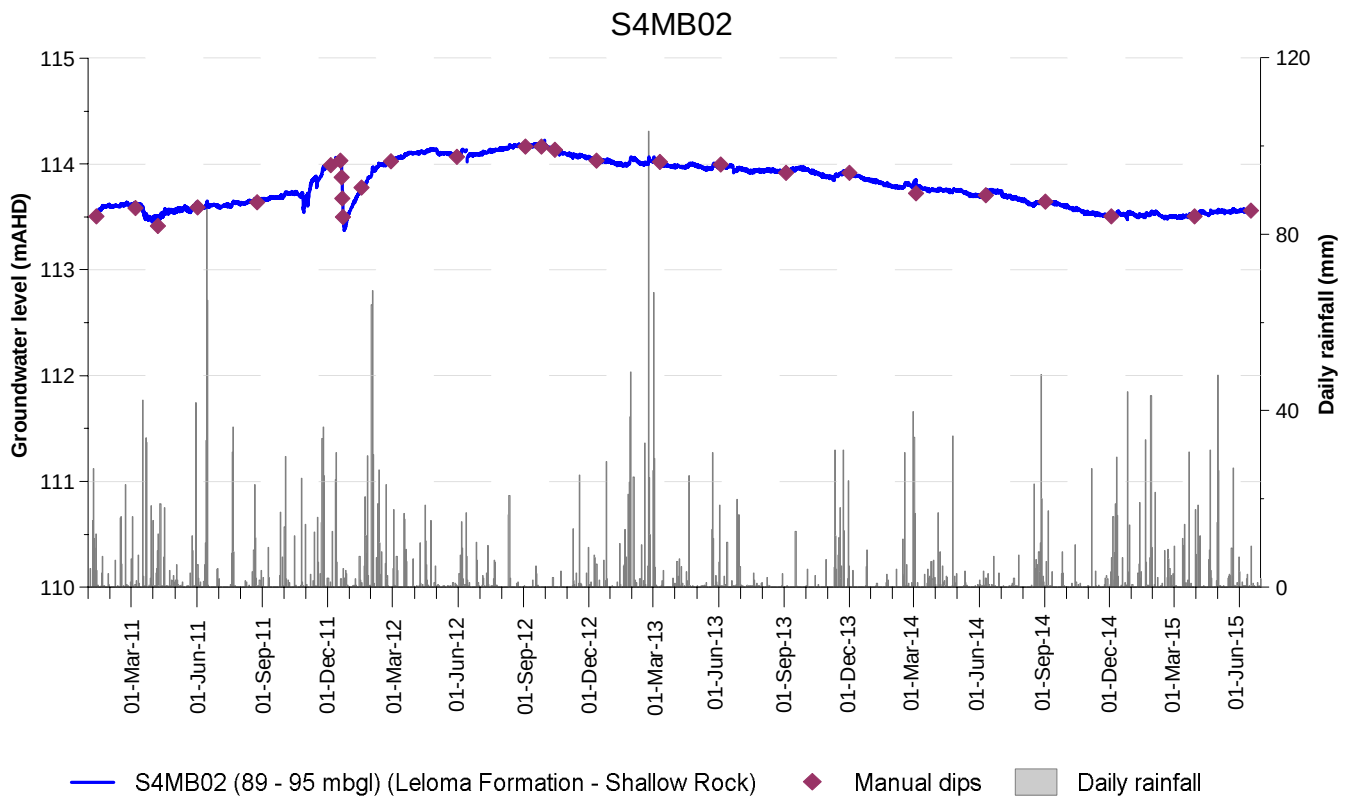


Figure A.3: AMB02 and S4MB01 monitoring bores



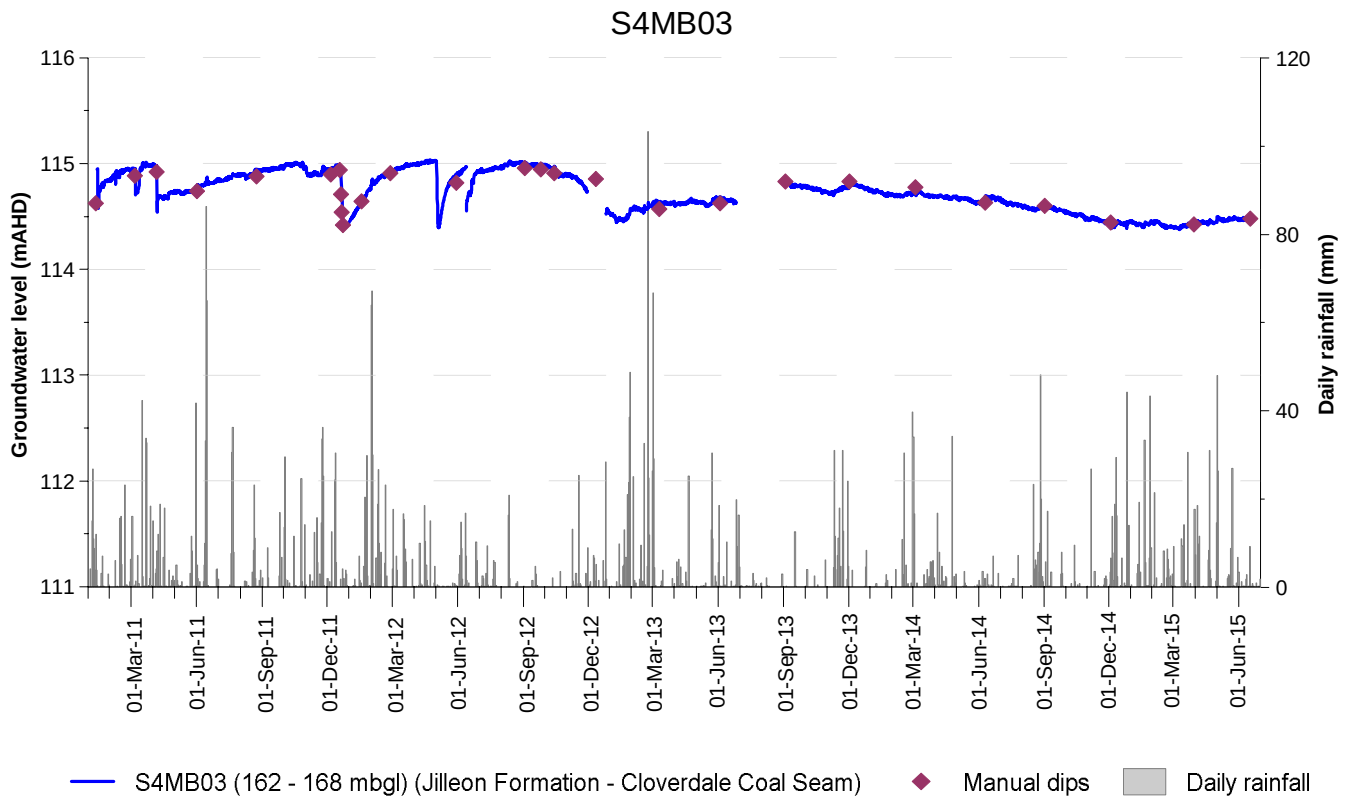


Figure A.4: S4MB02 and S4MB03 monitoring bores

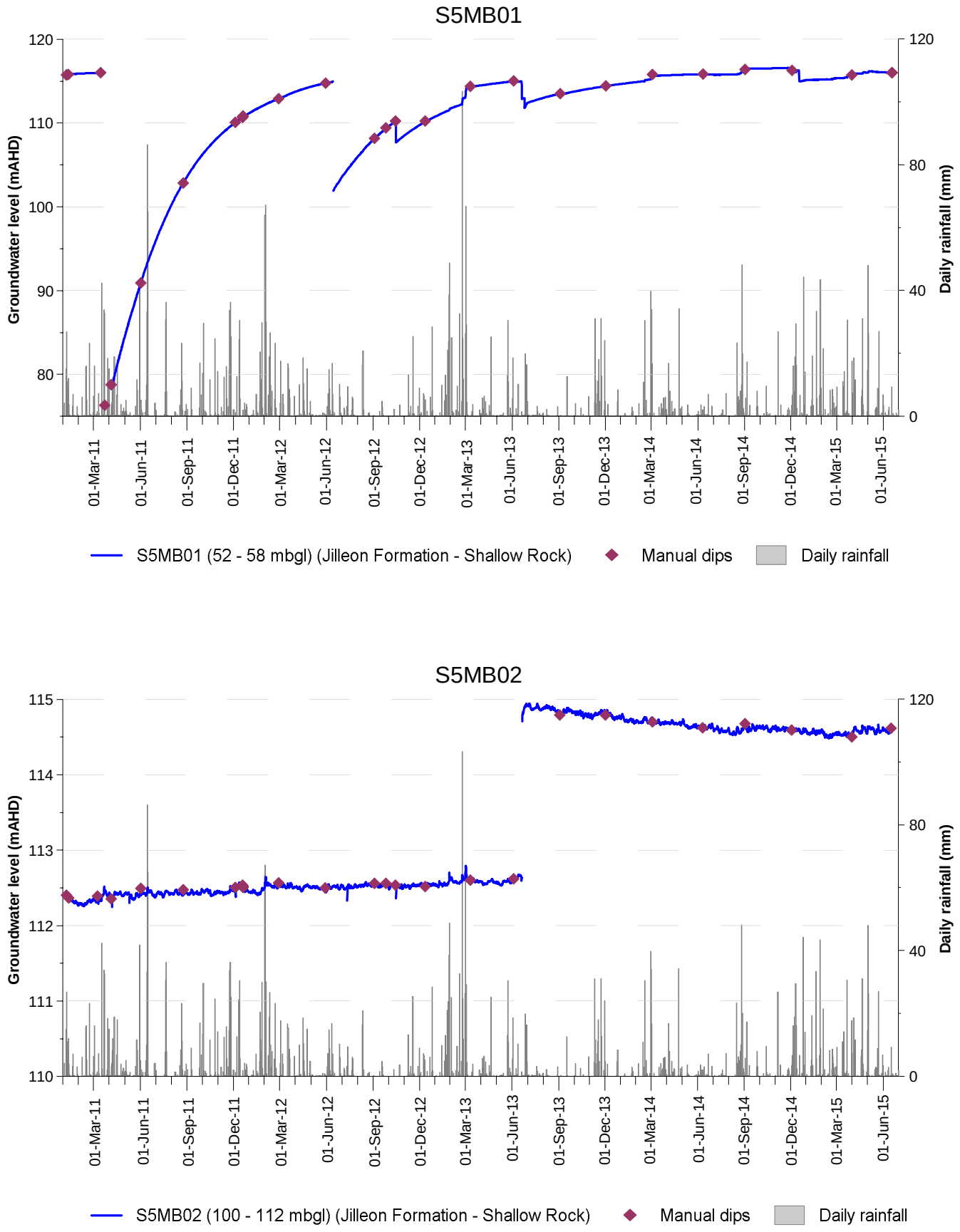
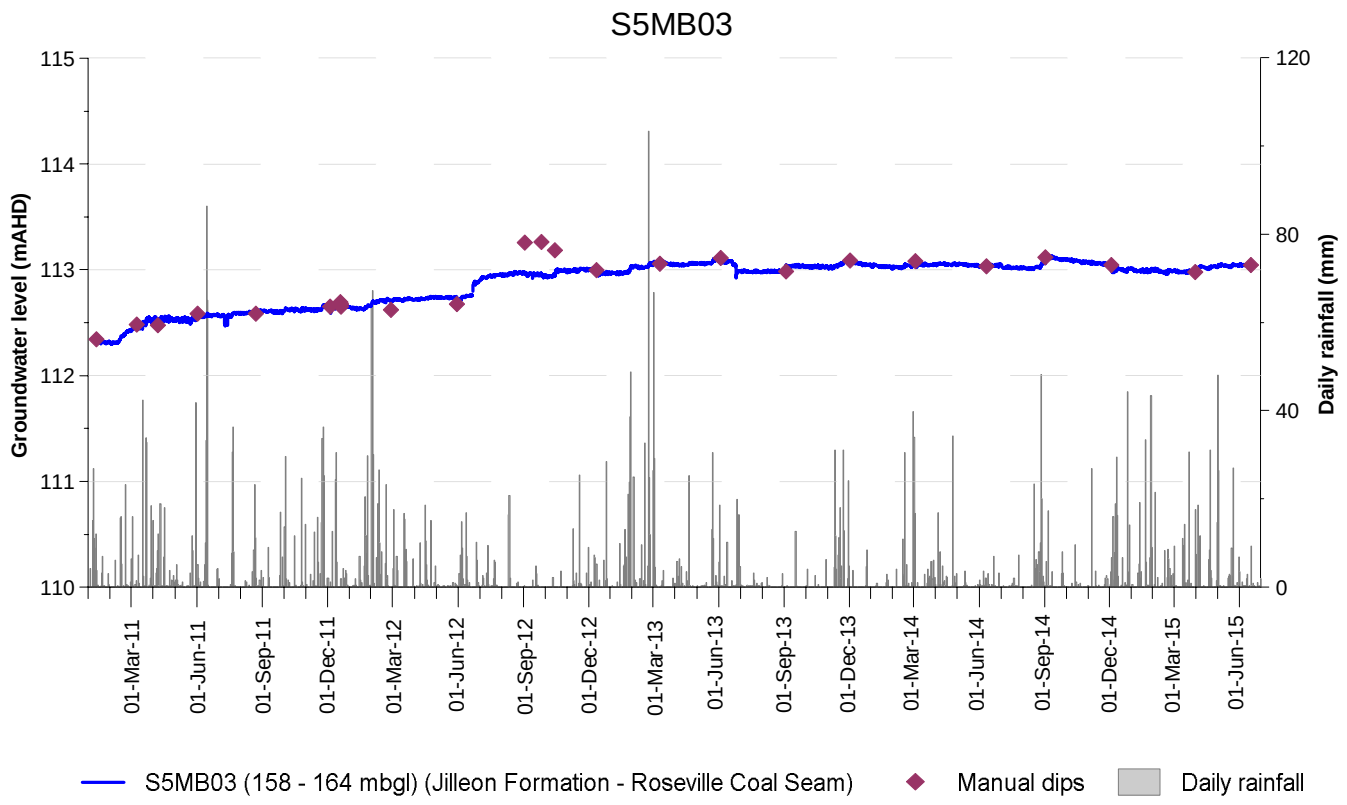


Figure A.5: S5MB01 and S5MB02 monitoring bores



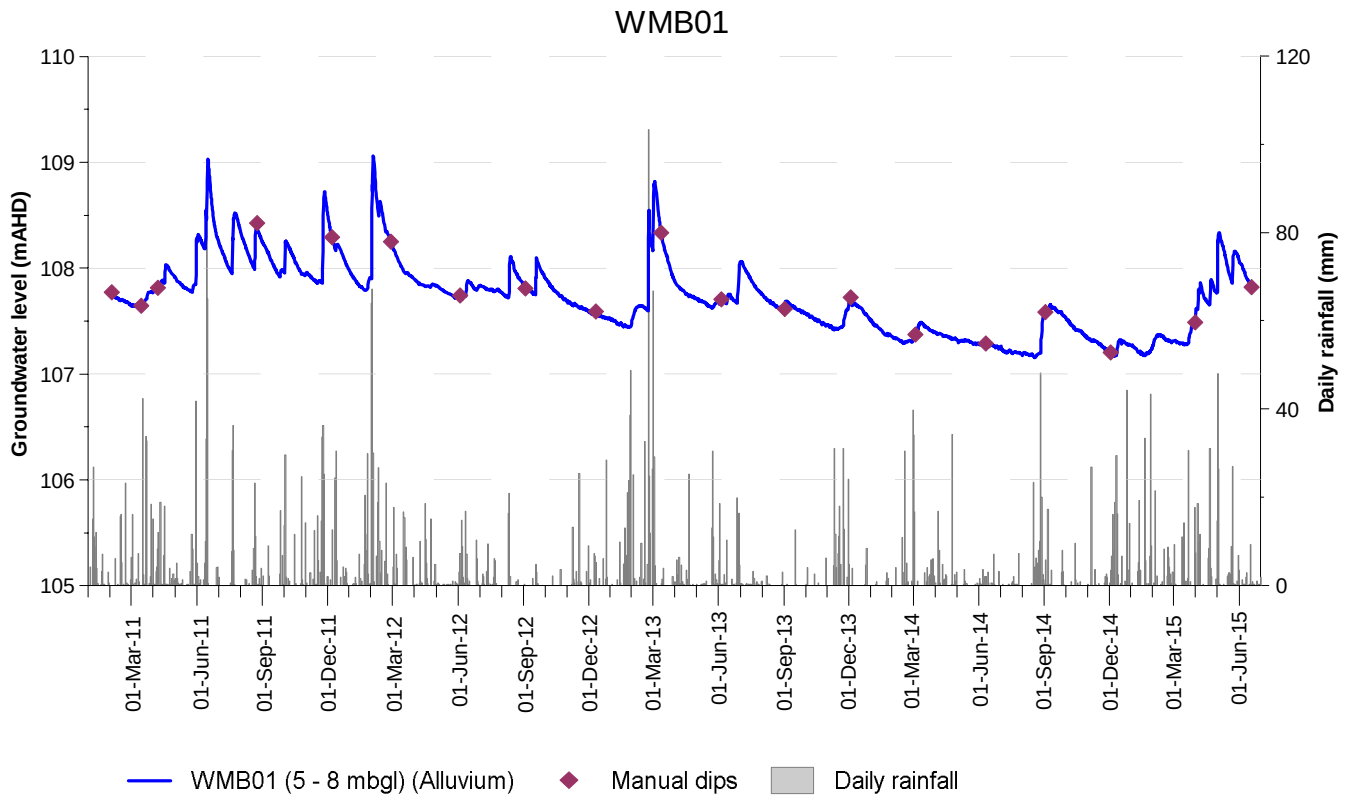


Figure A.6: S5MB03 and WMB01 monitoring bores

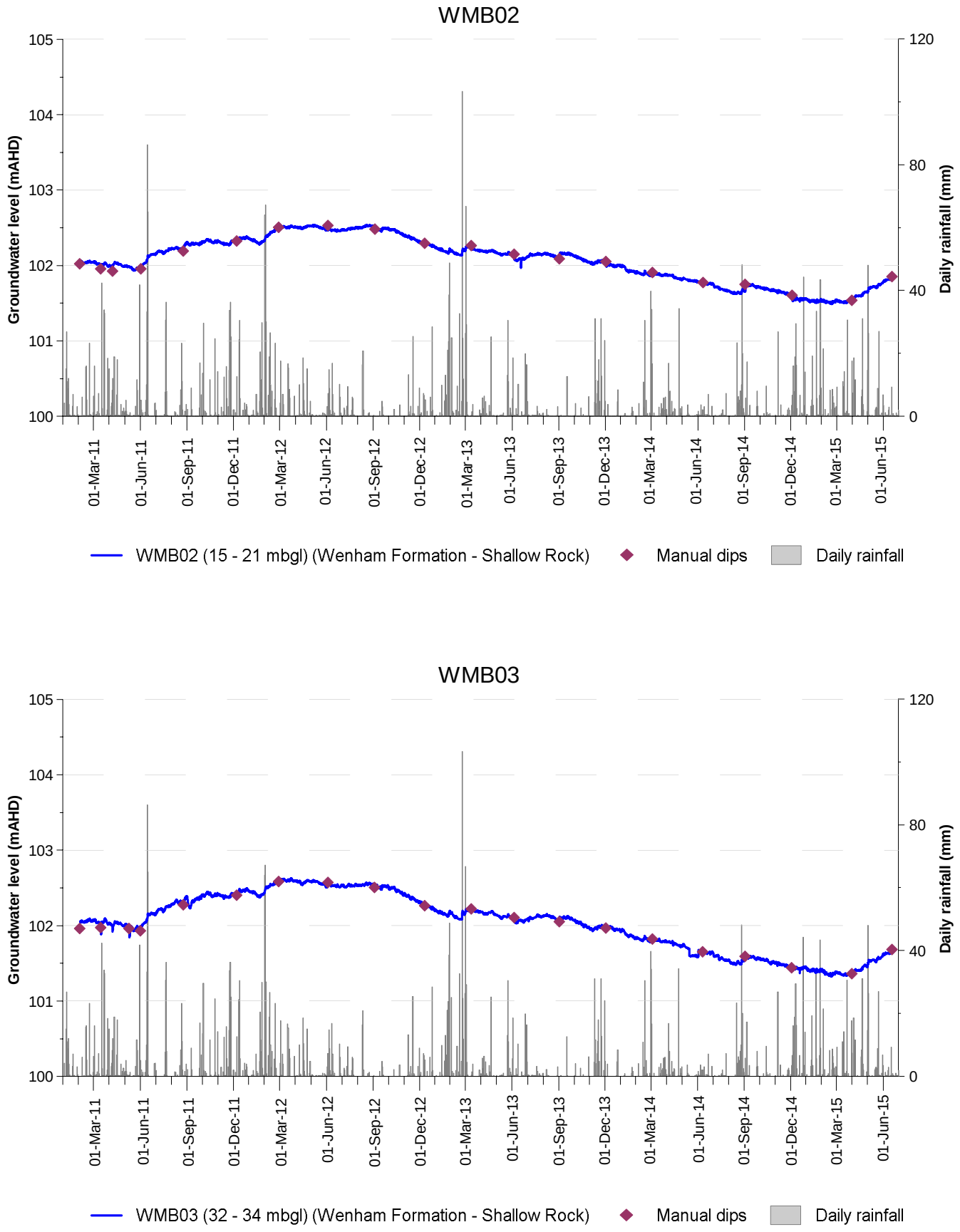
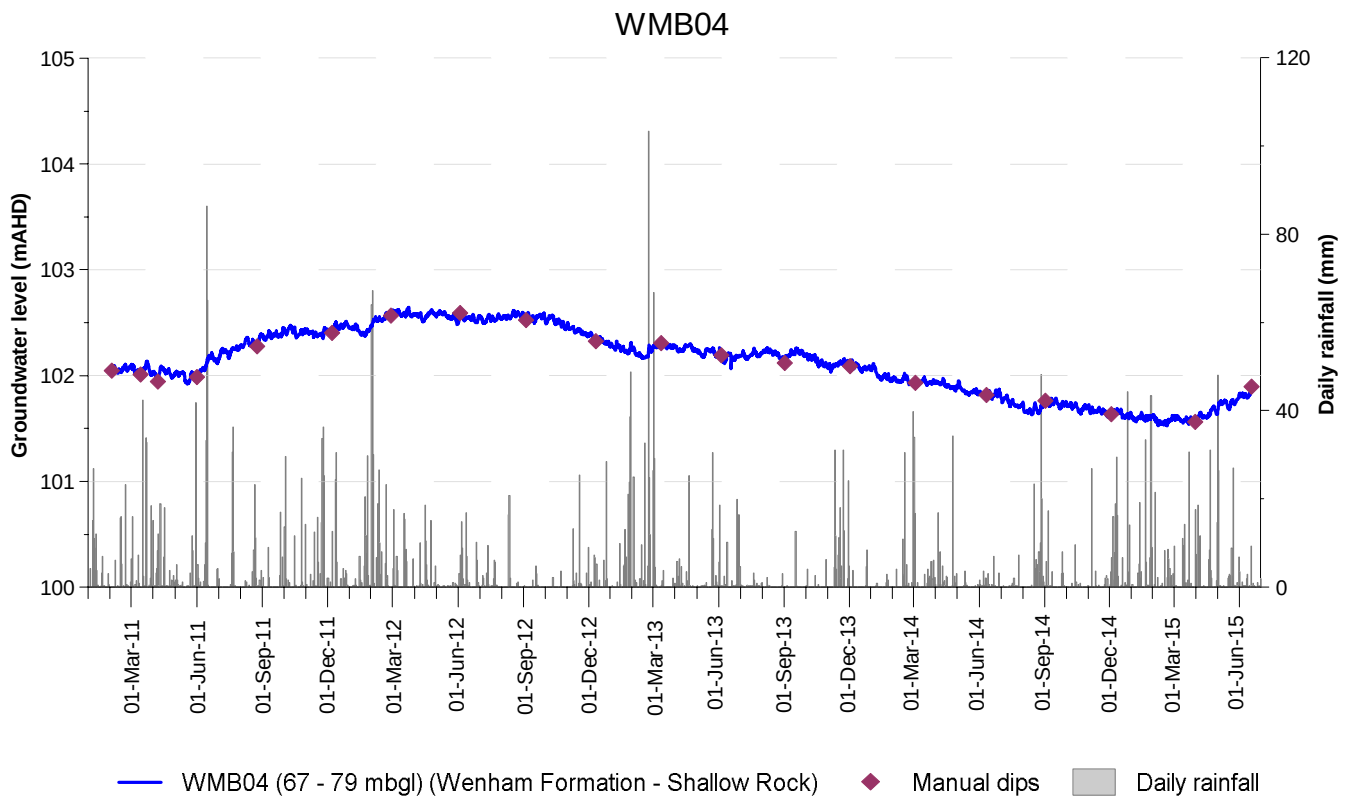


Figure A.7: WMB02 and WMB03 monitoring bores



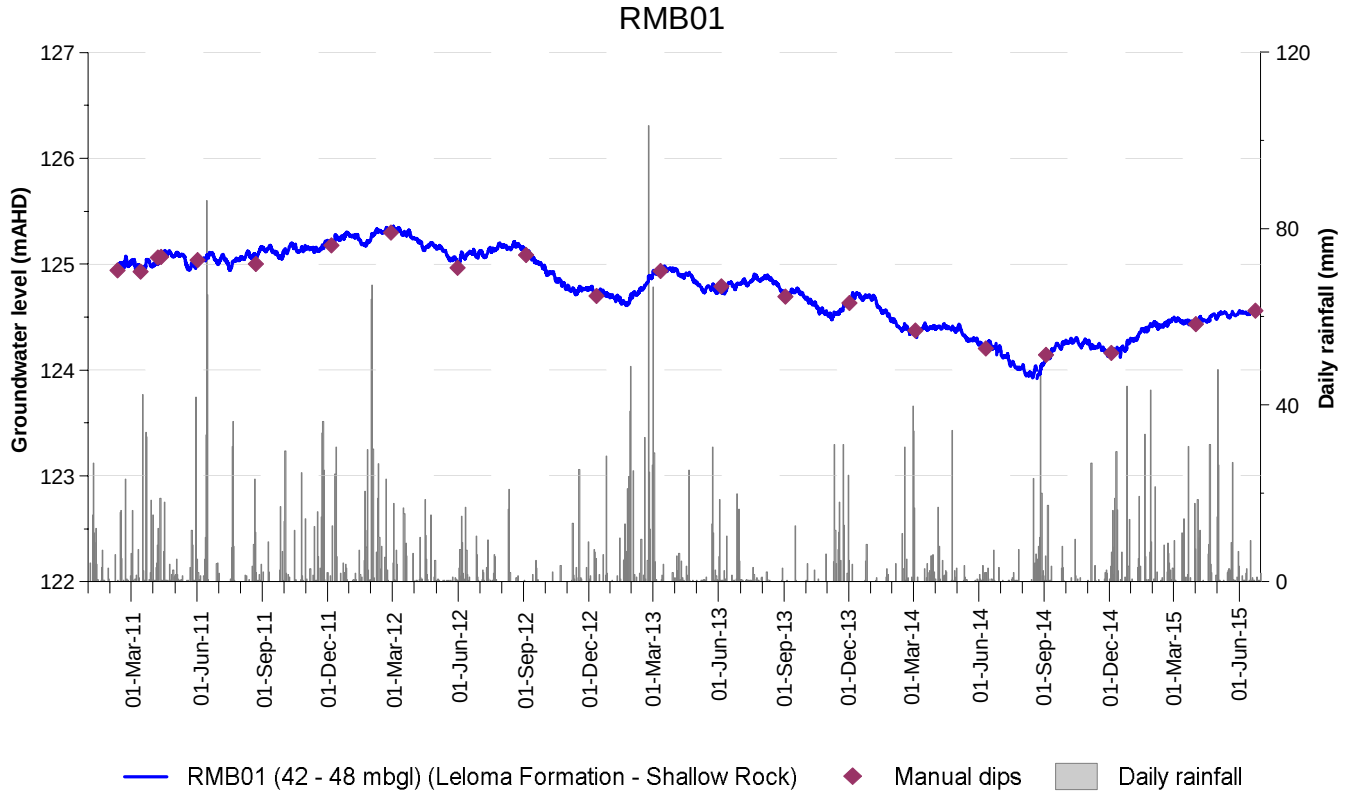
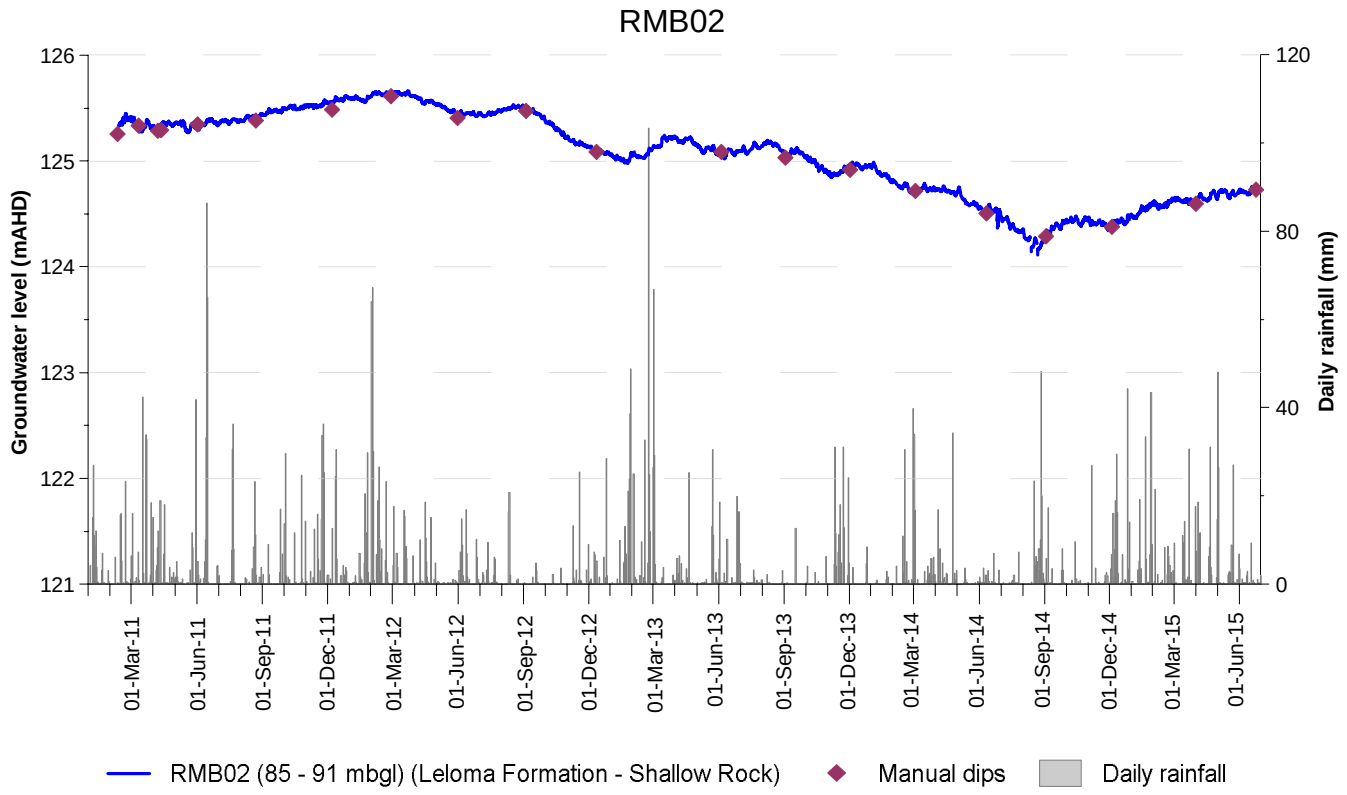


Figure A.8: WMB04 and RMB01 monitoring bores



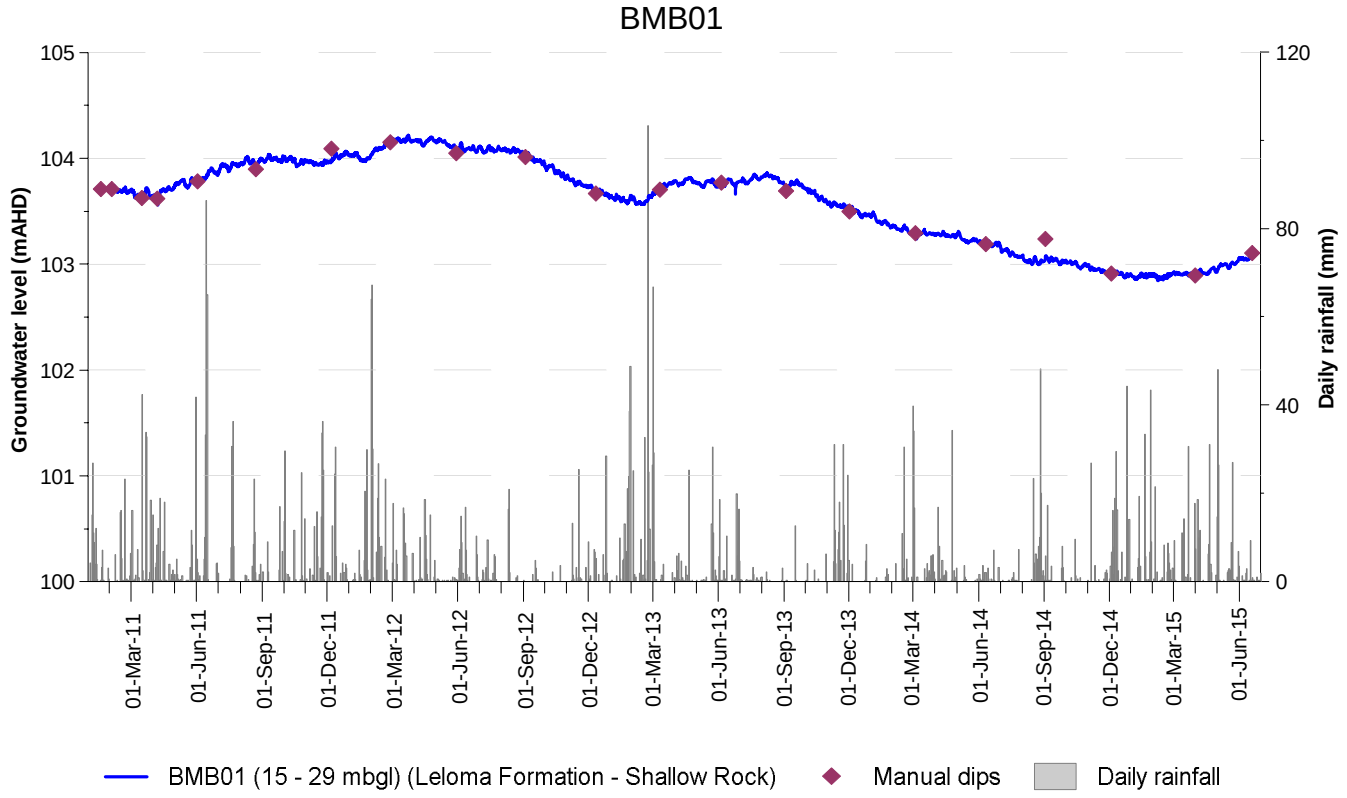


Figure A.9: RMB02 and BMB01 monitoring bores

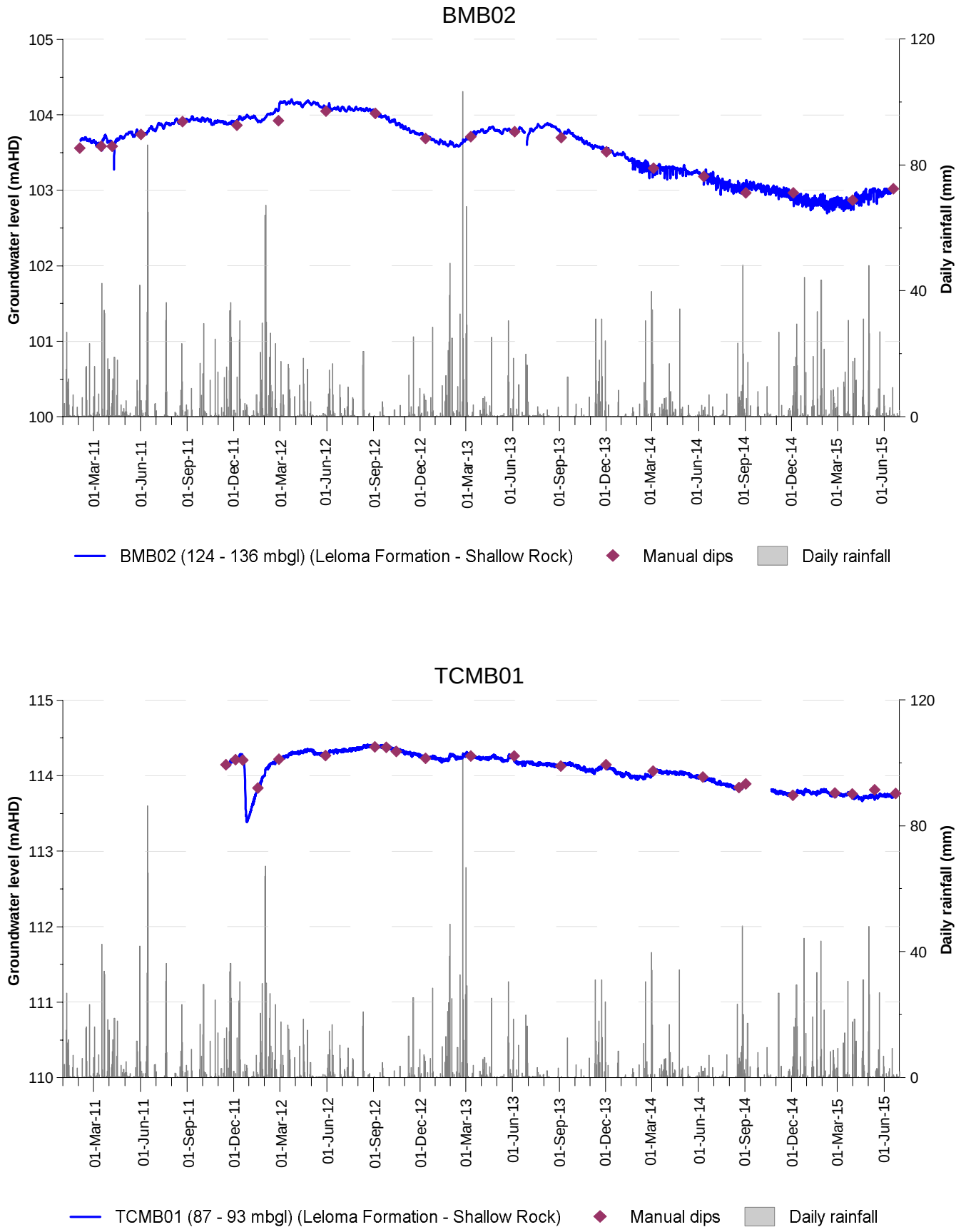
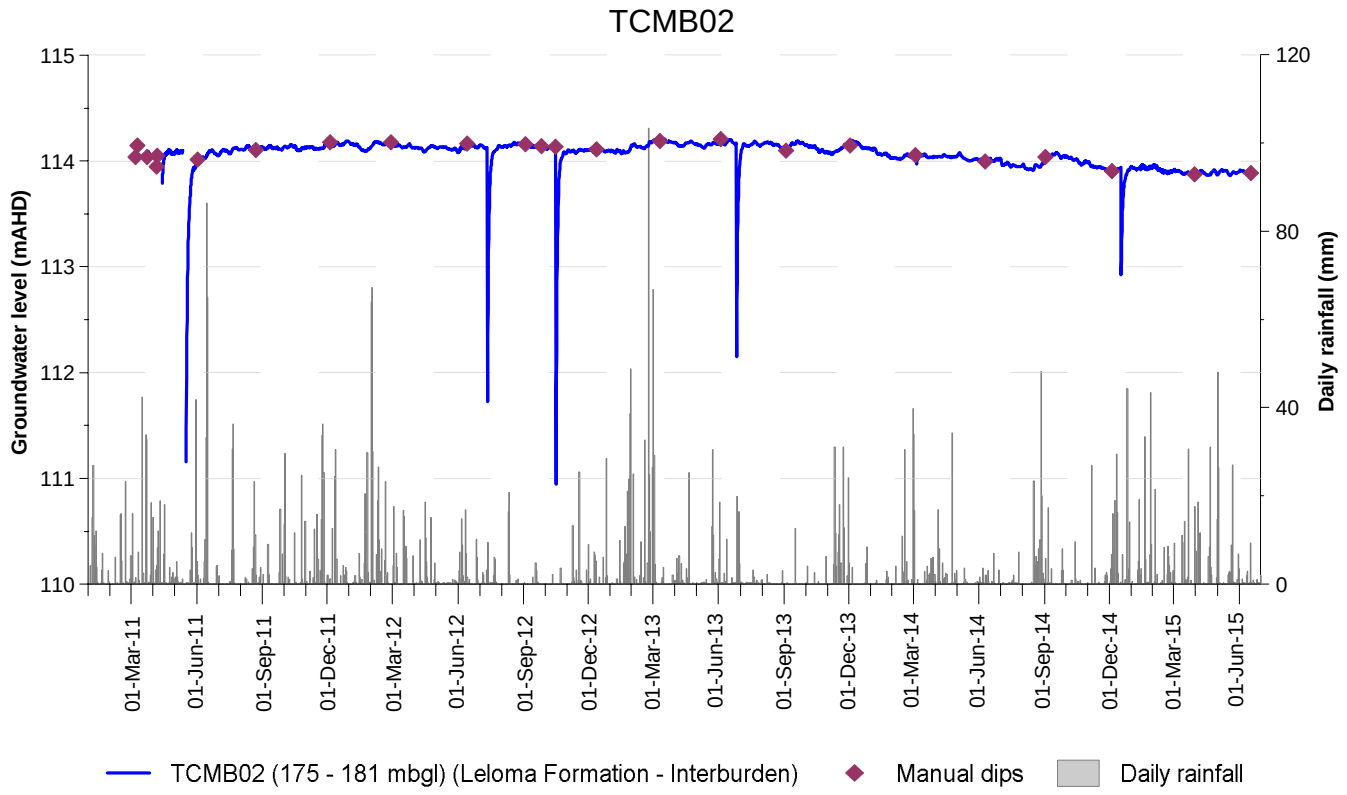


Figure A.10: BMB02 and TCMB01 monitoring bores



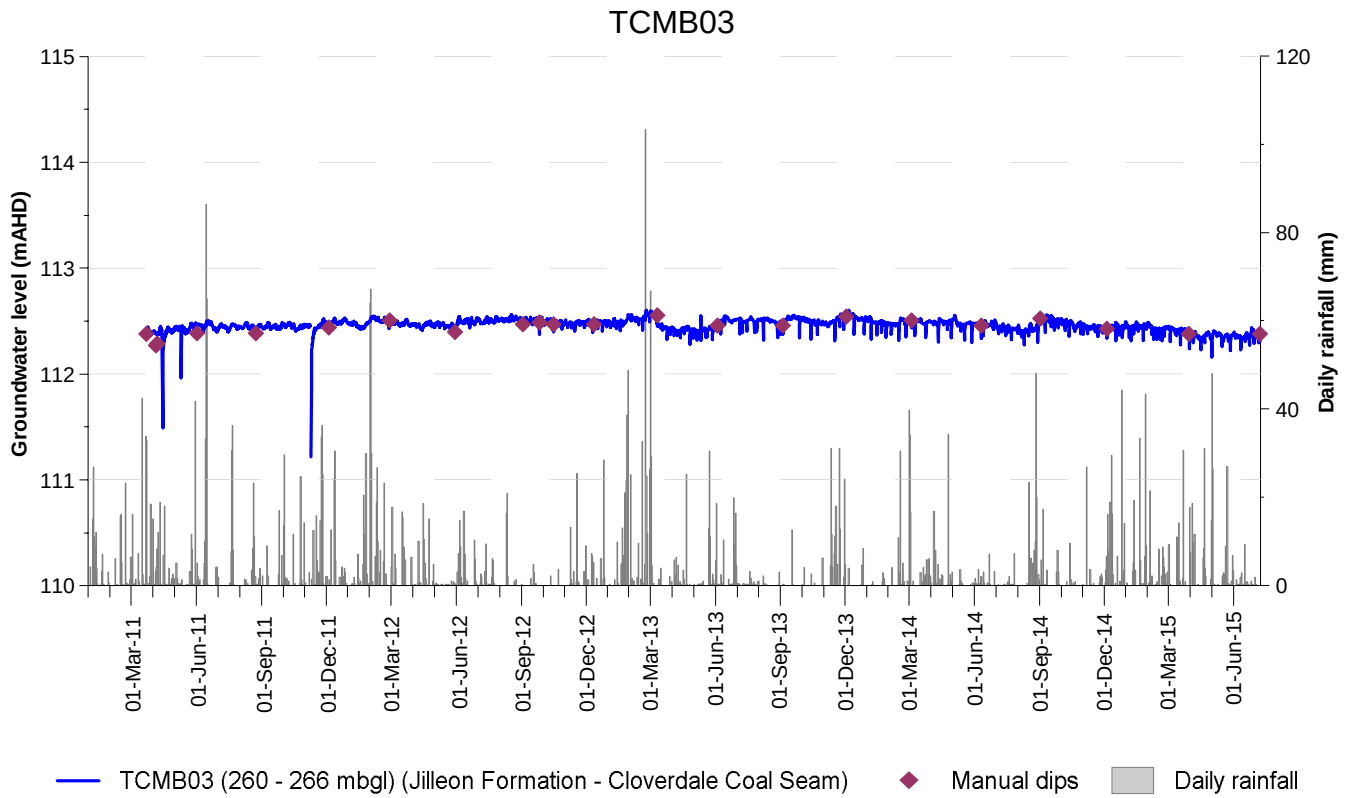
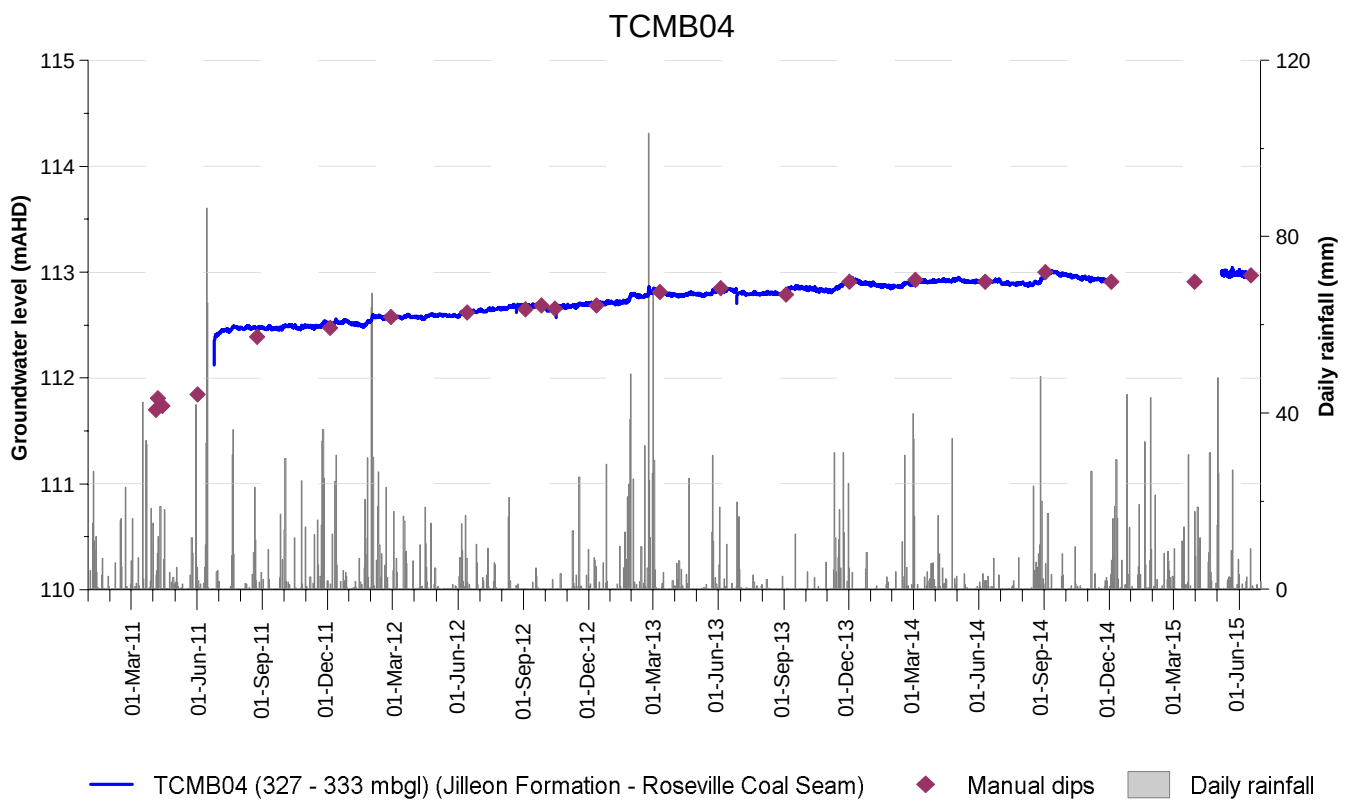


Figure A.11: TCMB02 and TCMB03 monitoring bores



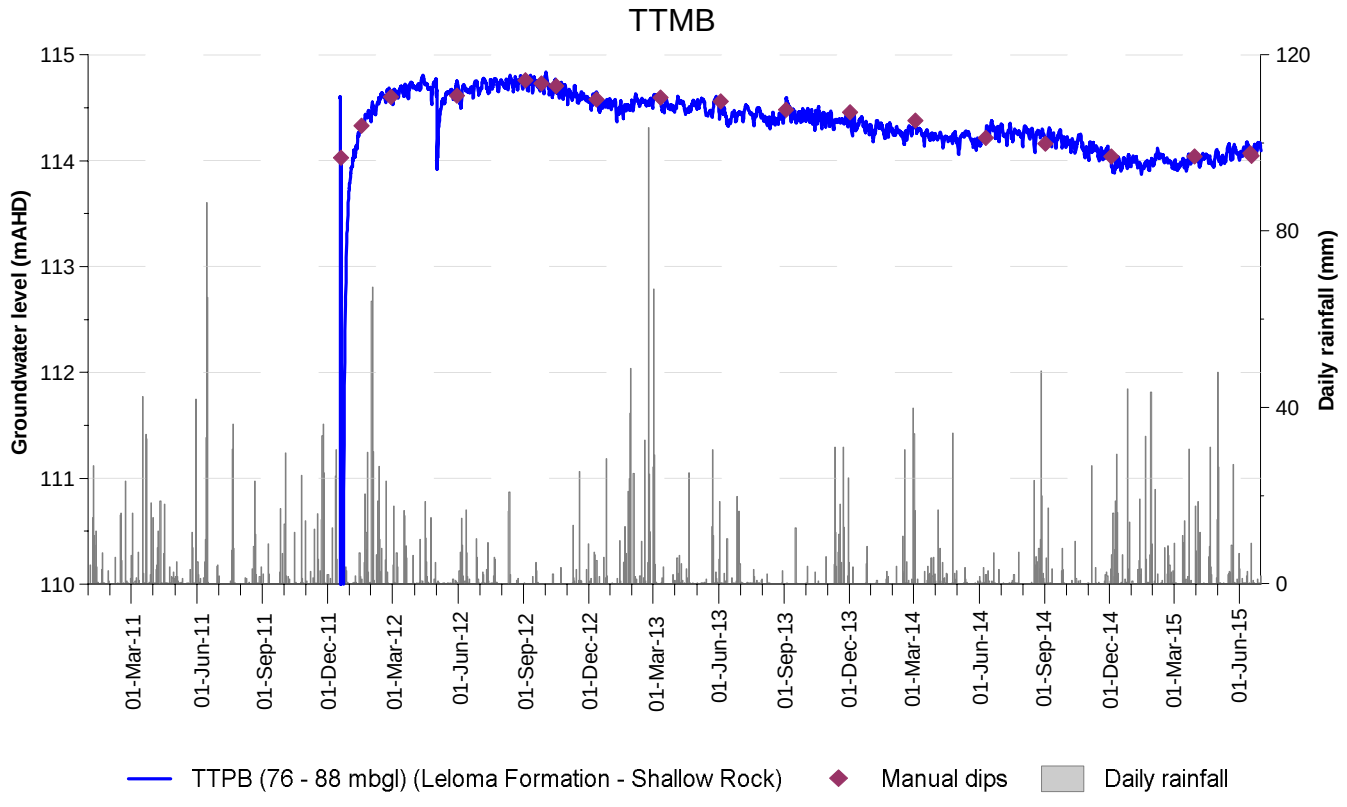


Figure A.12: TCMB04 and TTMB monitoring bores

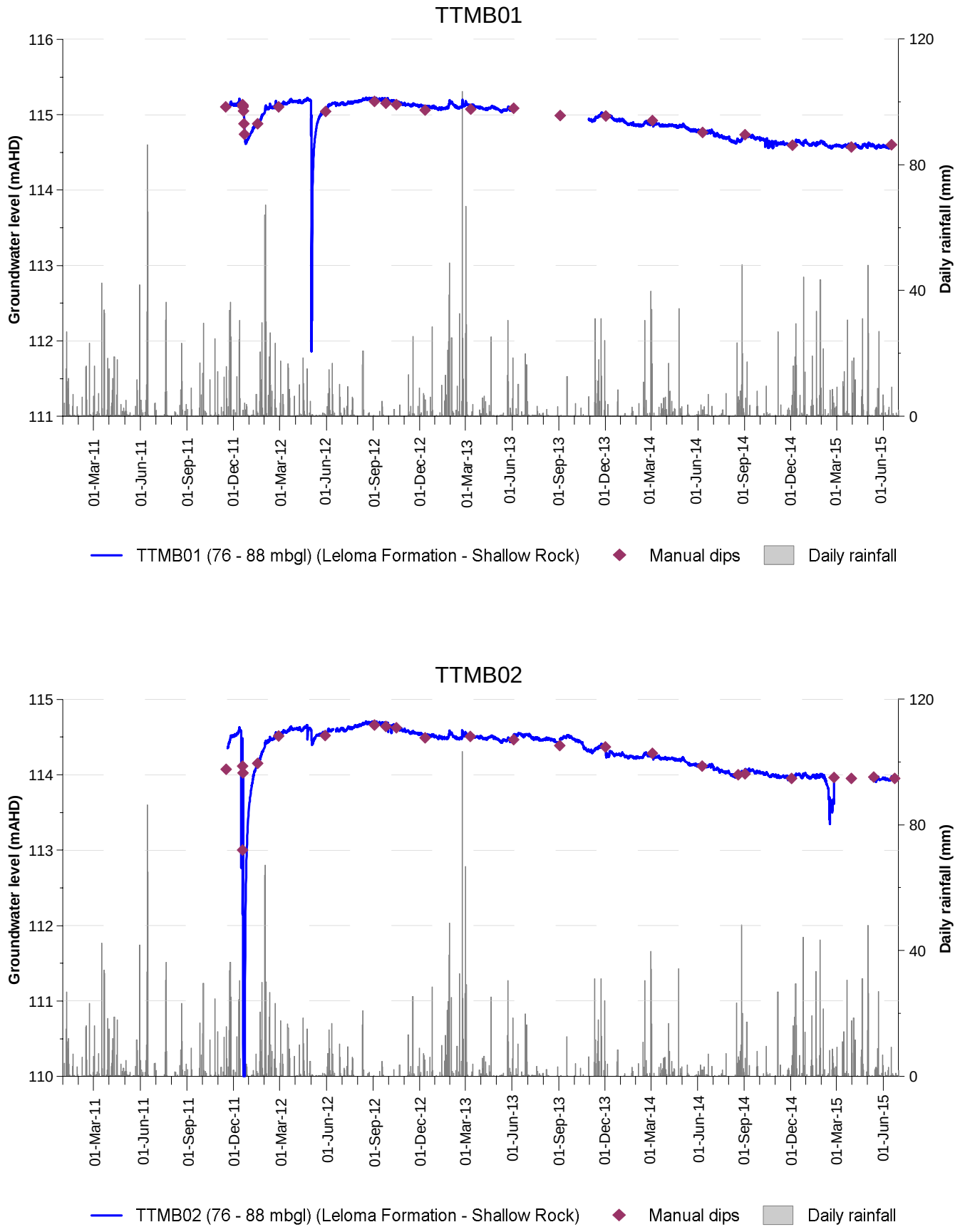
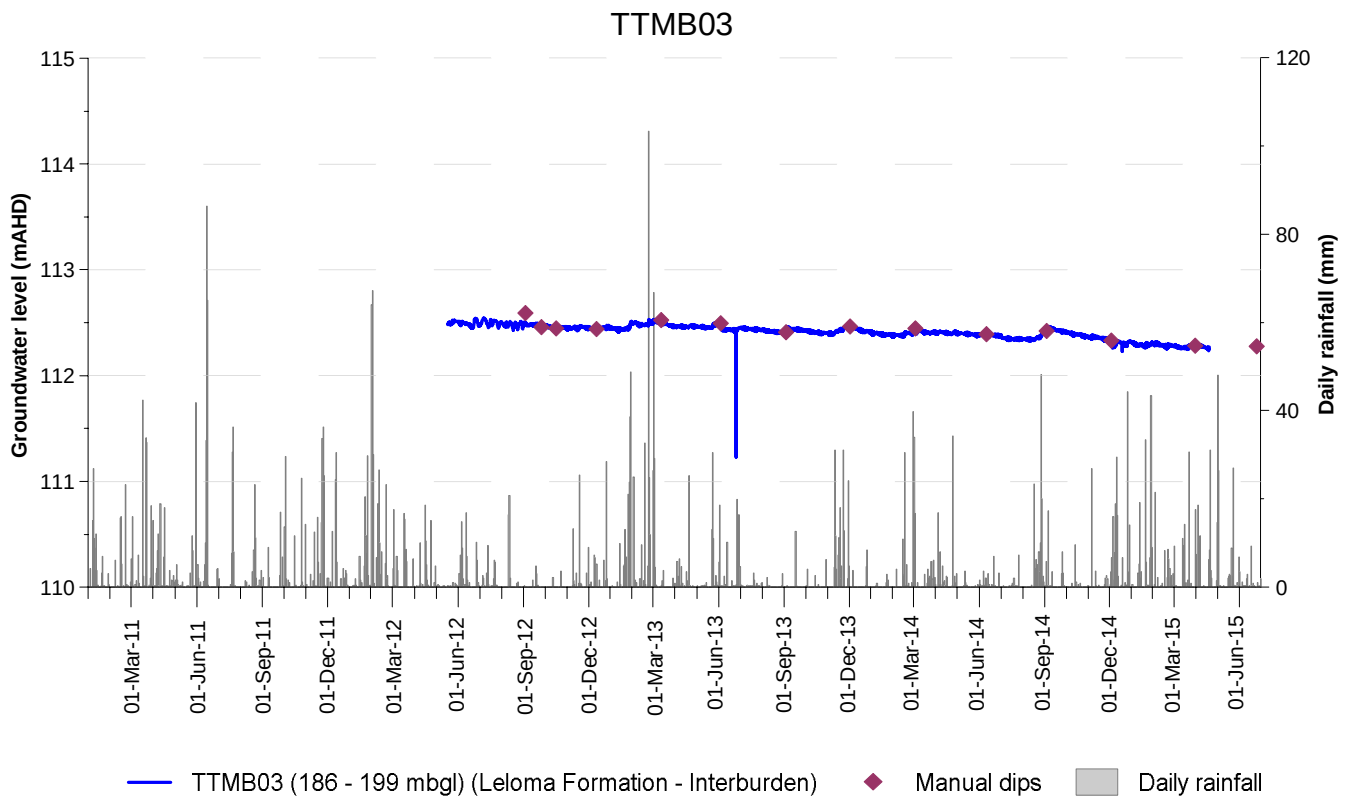


Figure A.13: TTMB01 and TTMB02 monitoring bores



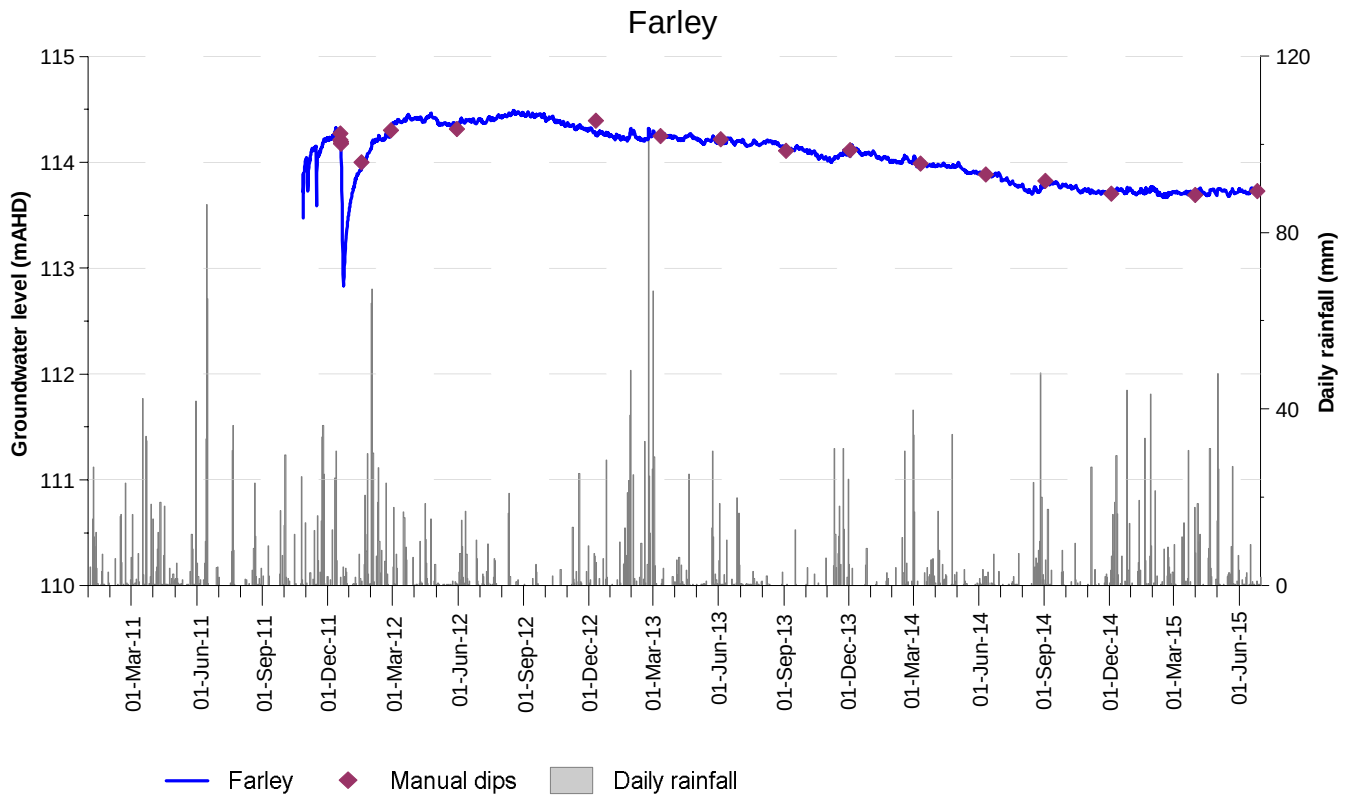
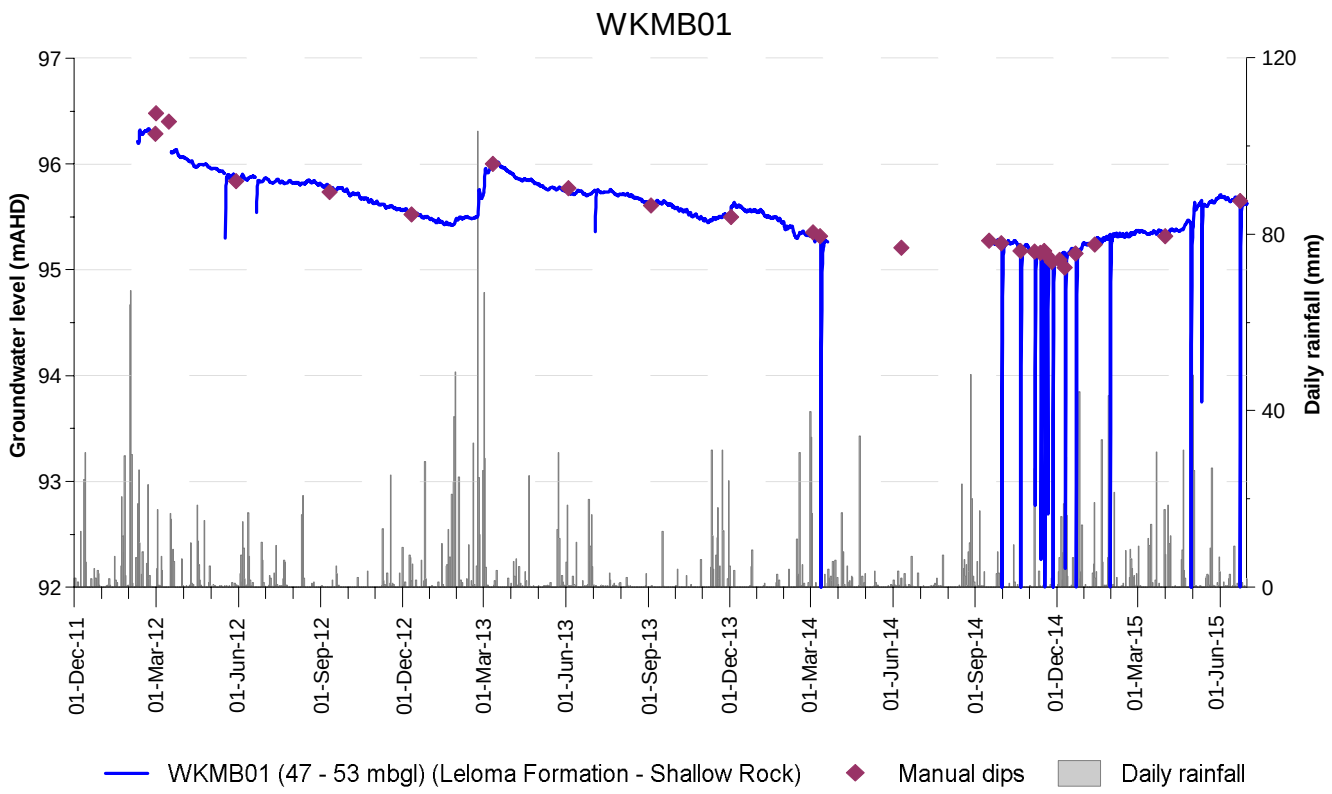


Figure A.14: TTMB03 and Farley monitoring bores



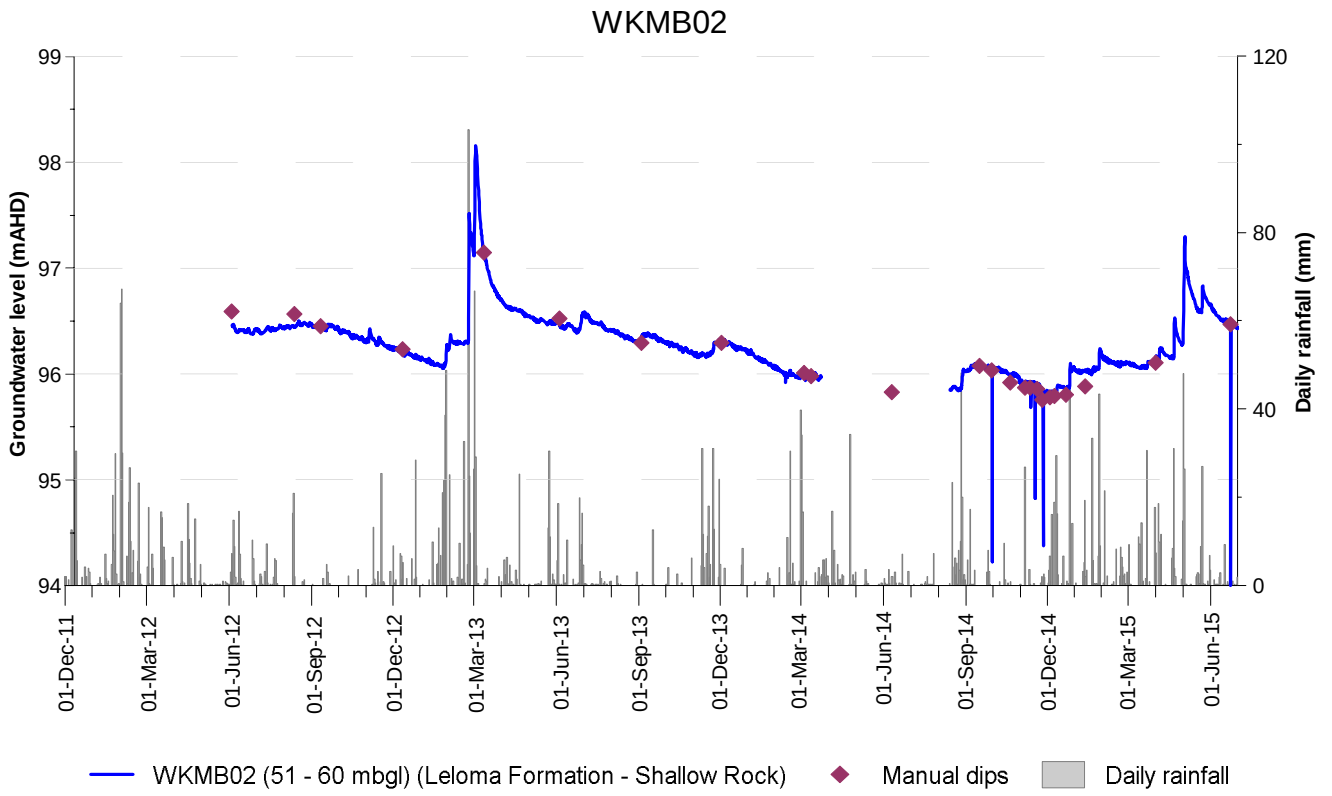


Figure A.15: WKMB01 and WKMB02 monitoring bores

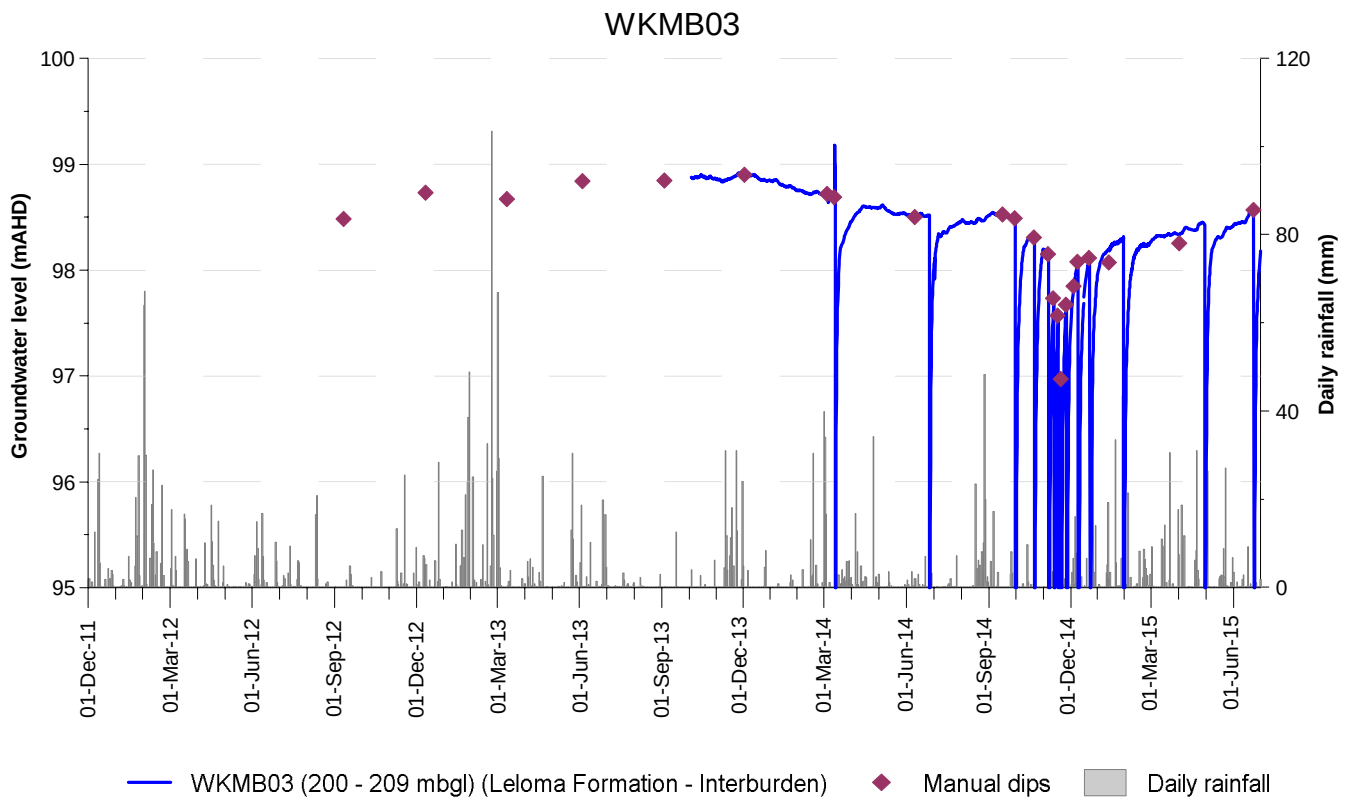
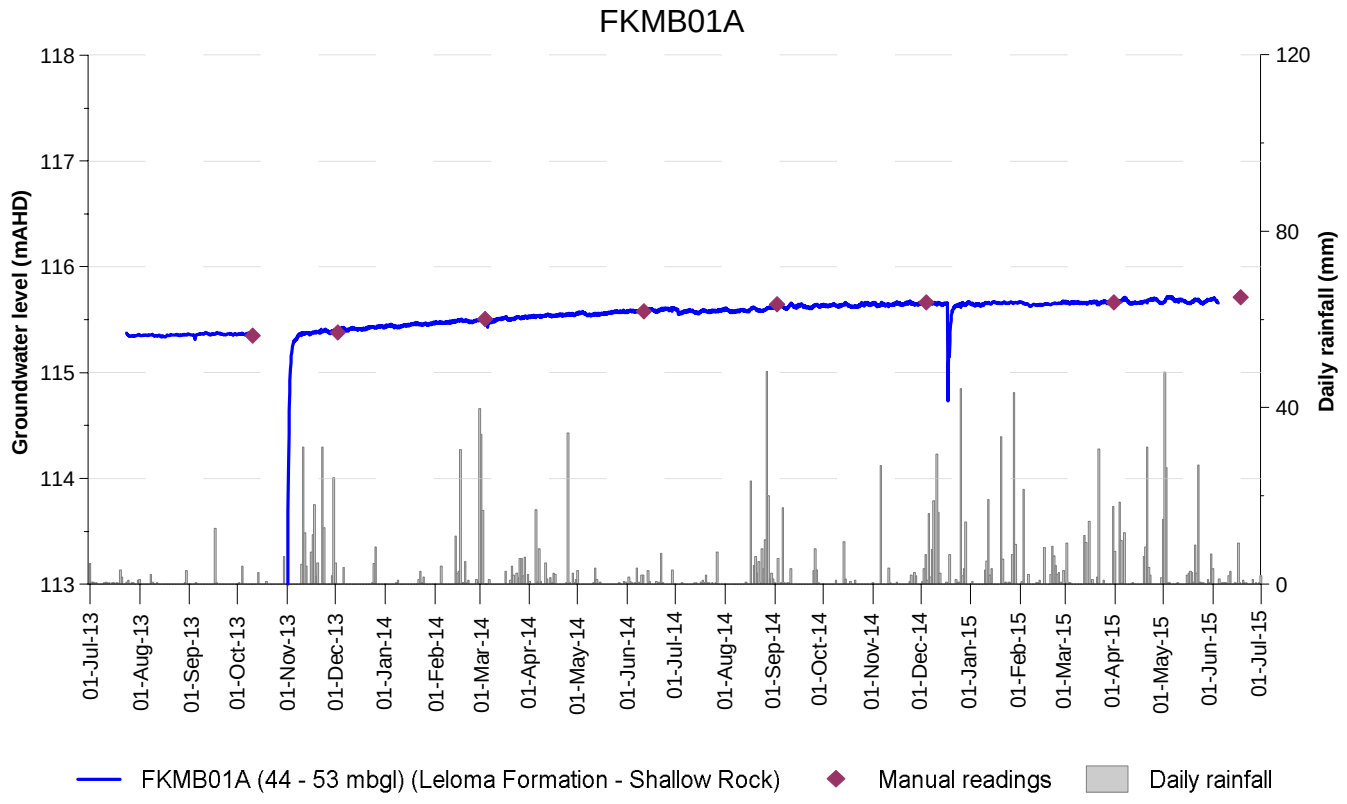


Figure A.16: WKMB03 monitoring bore



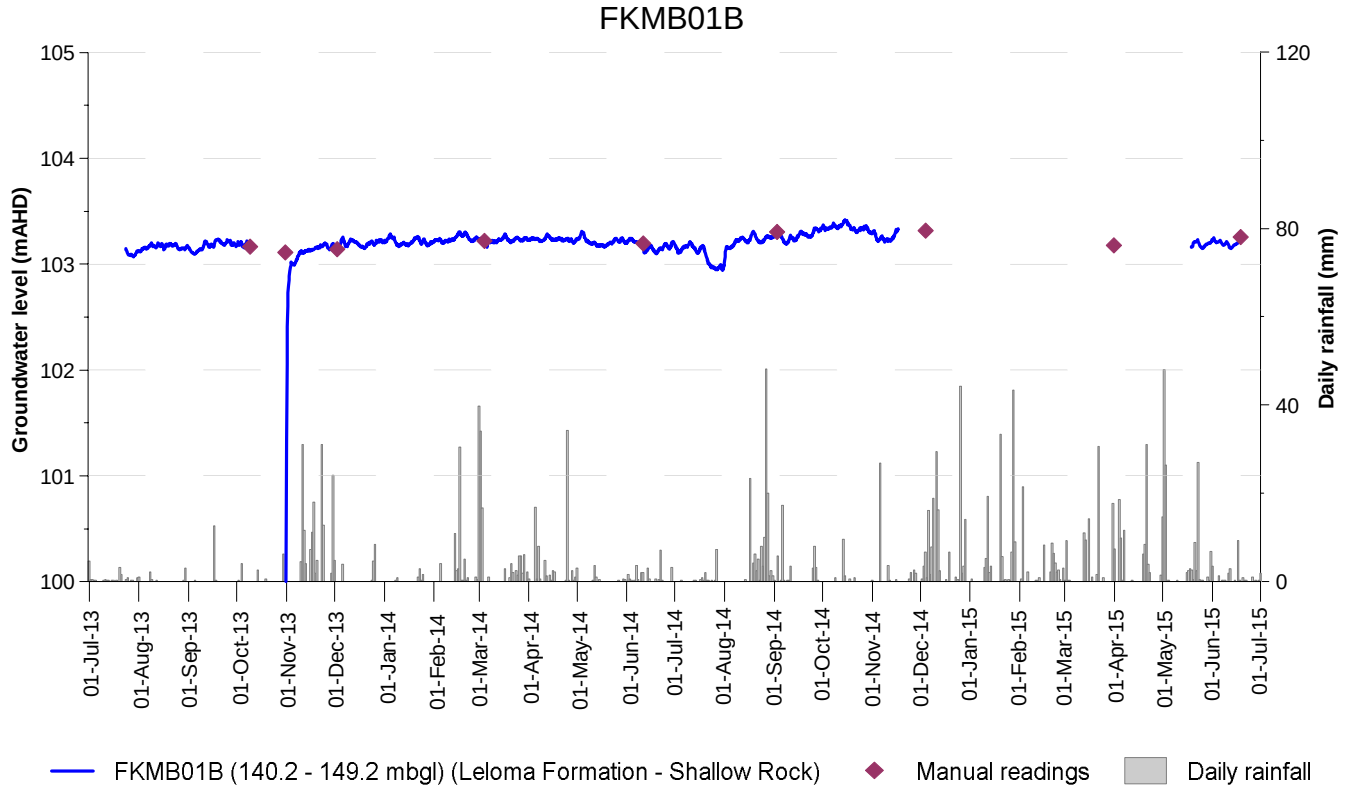
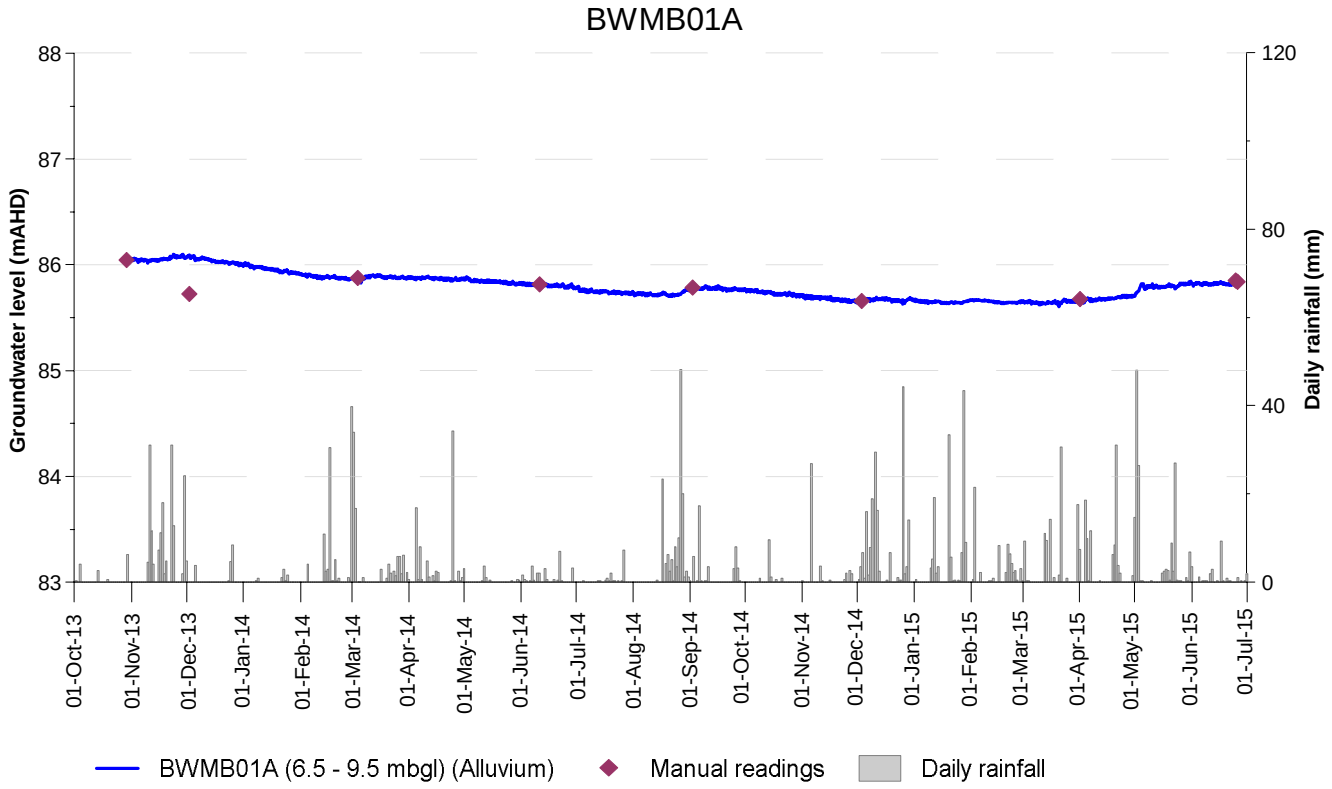


Figure A.17: FKMB01A and FKMB01B monitoring bores



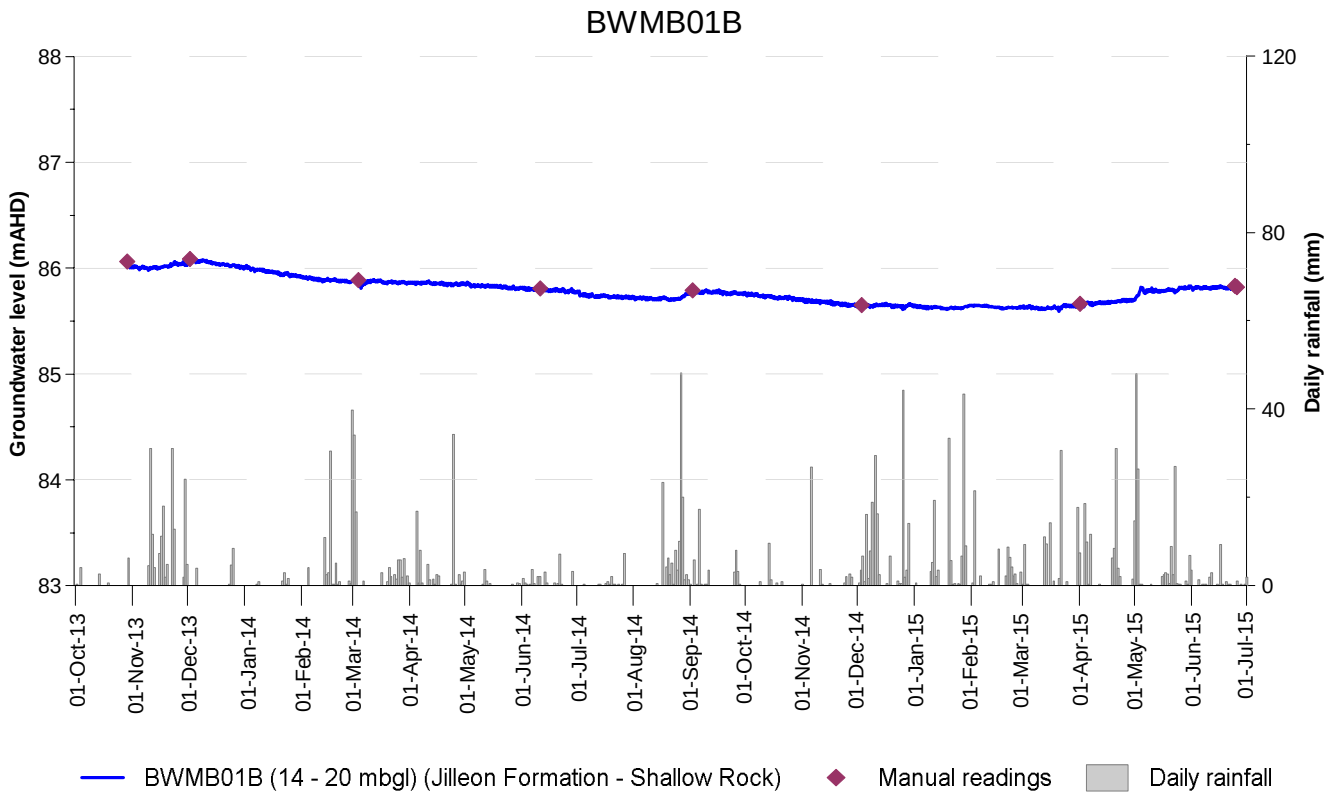
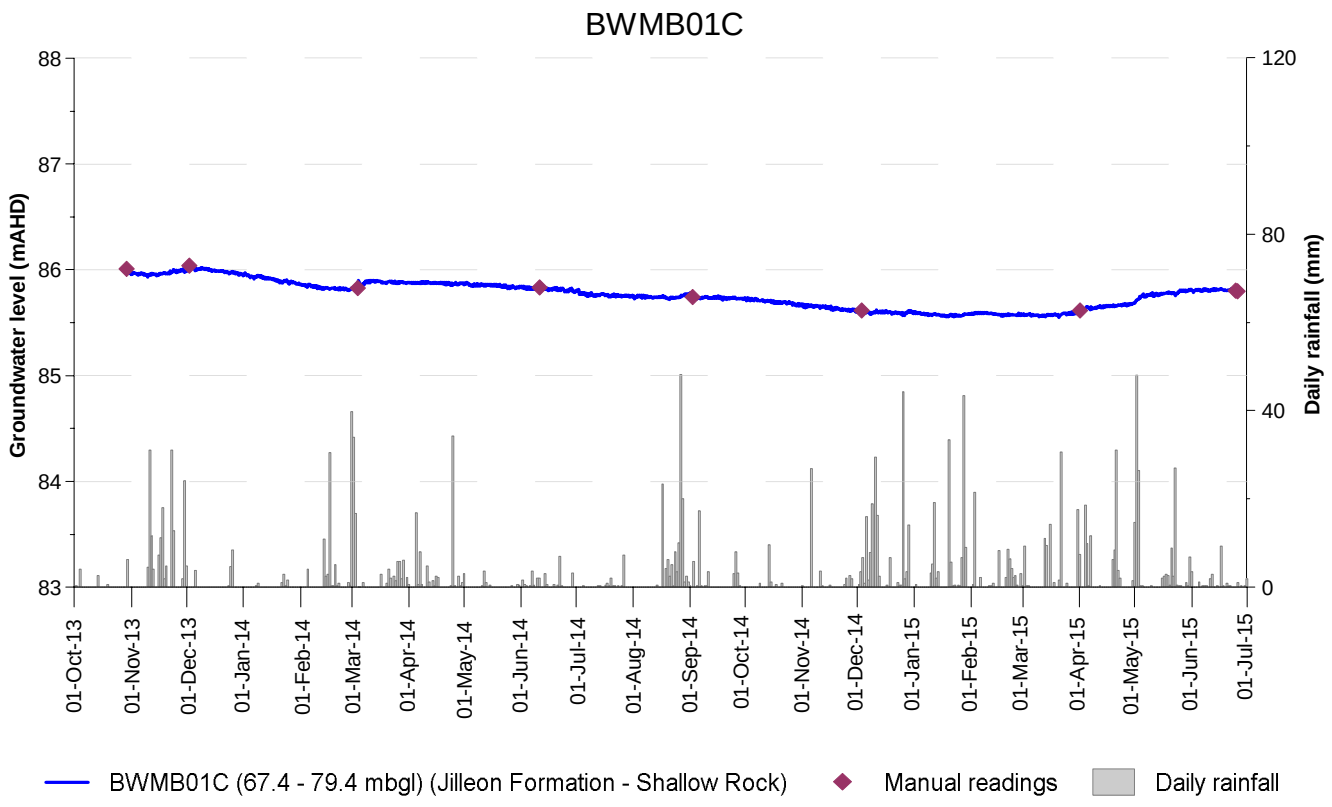


Figure A.18: BWMB01A and BWMB01B monitoring bores



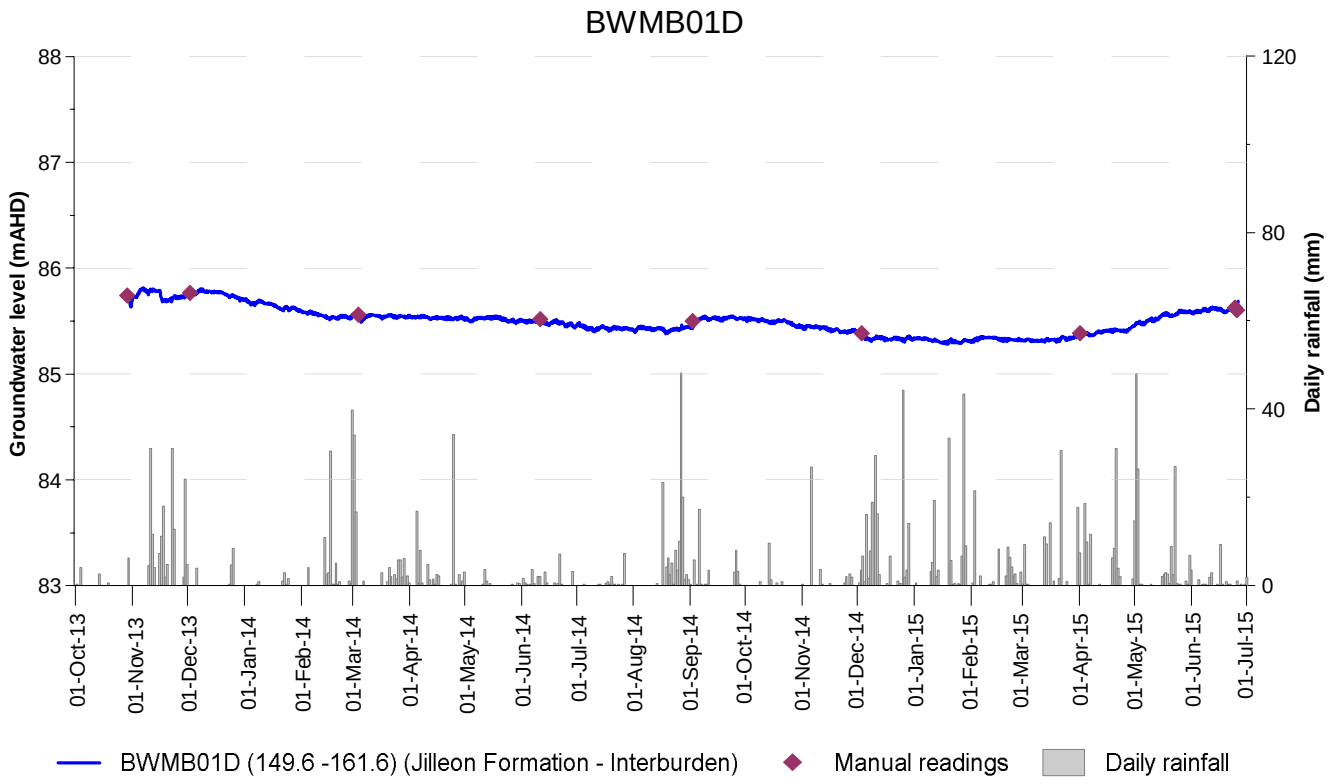
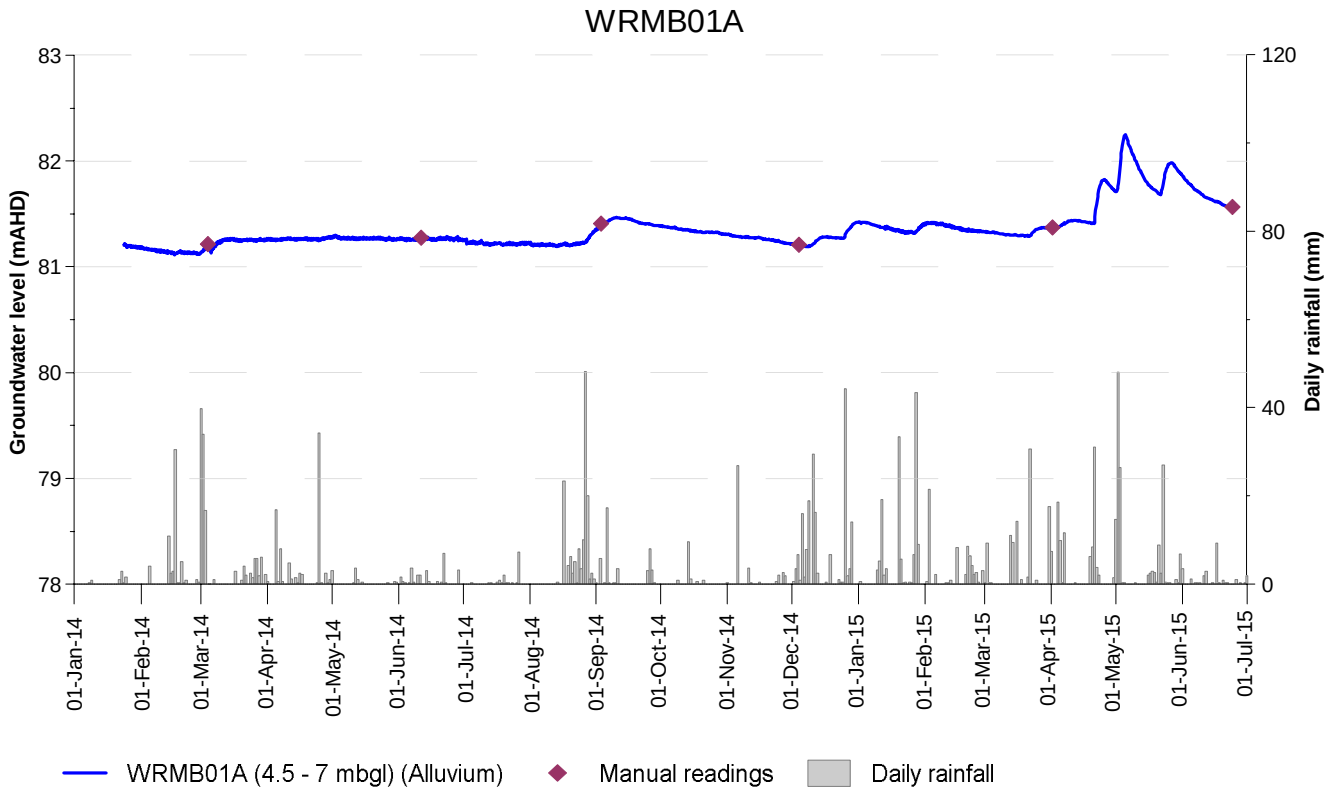


Figure A.19: BWMB01C and BWMB01D monitoring bores



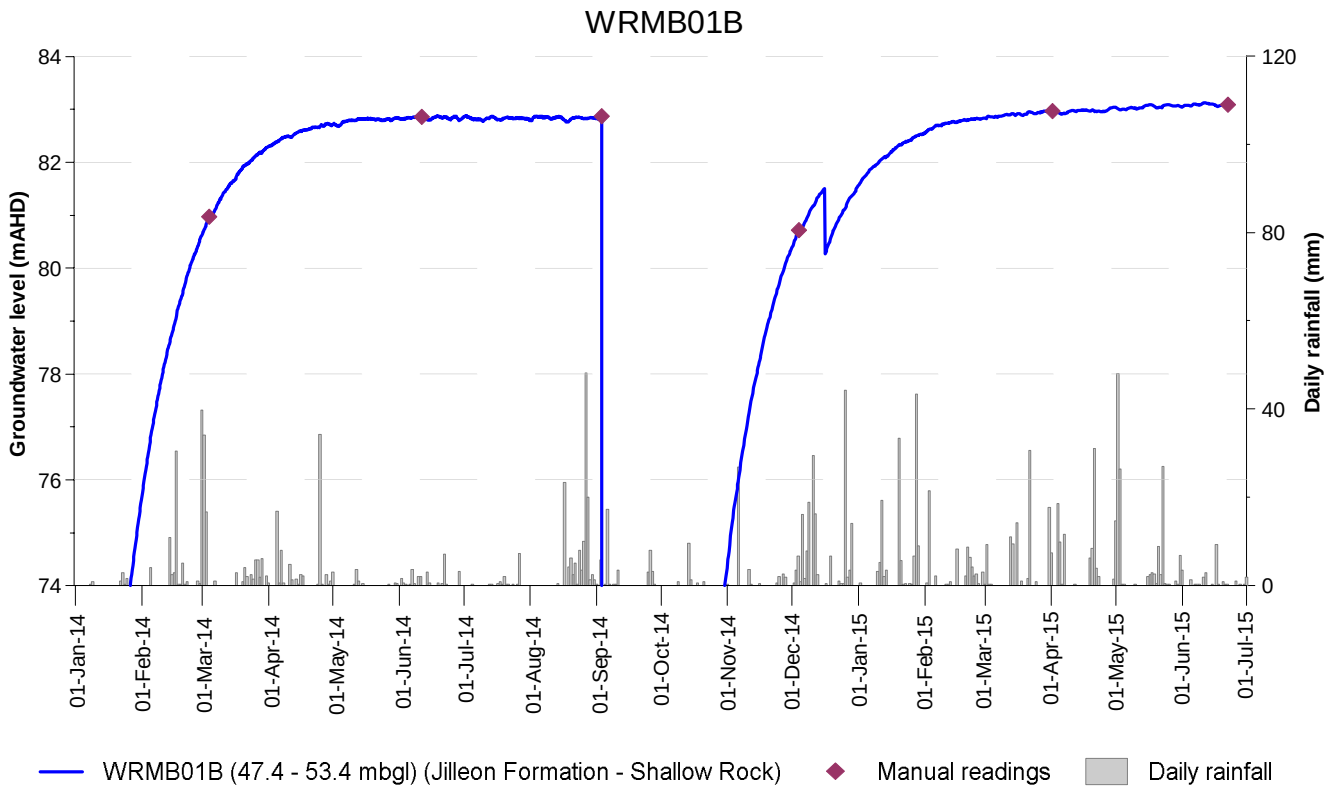


Figure A.20: WRMB01A and WRMB01B monitoring bores

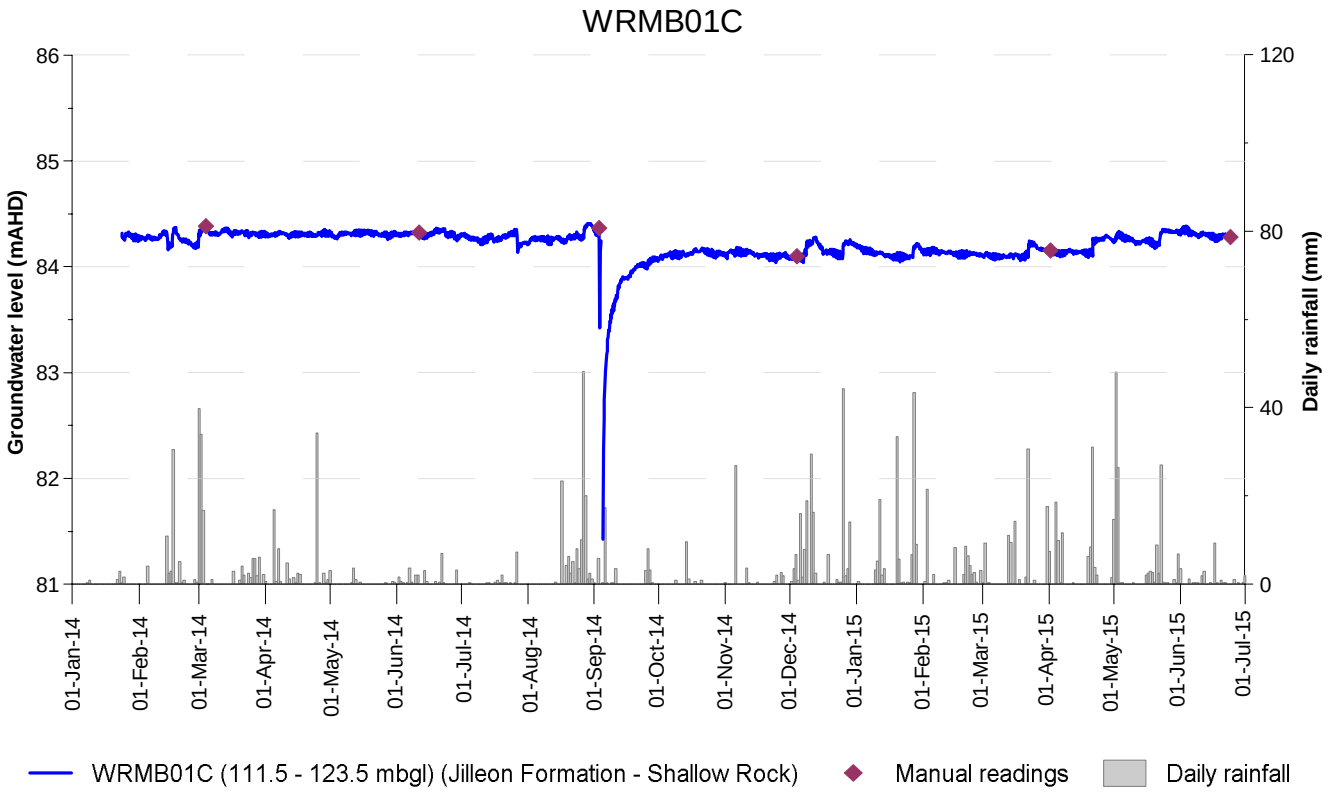
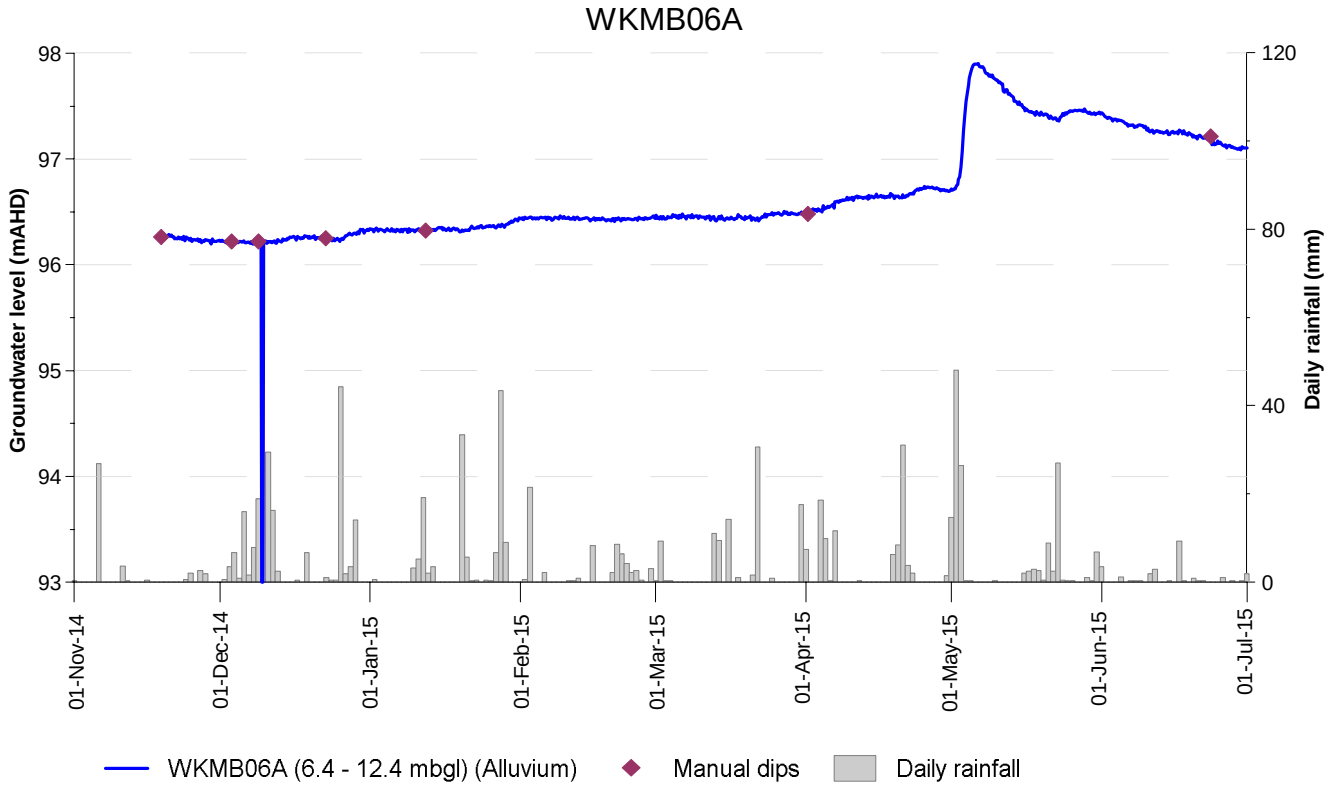


Figure A.21: WRMB01C monitoring bore



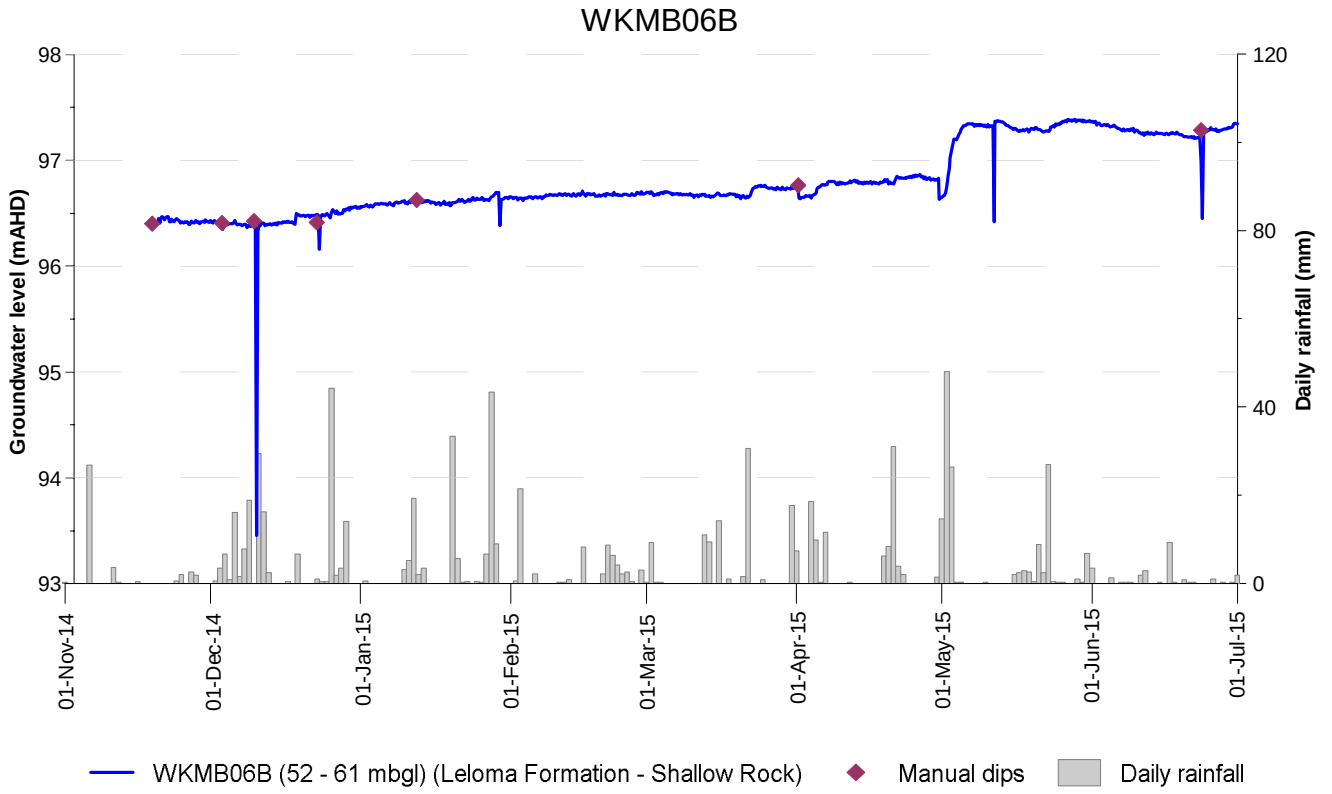


Figure A.22: WKMB06A and WKMB06B monitoring bores

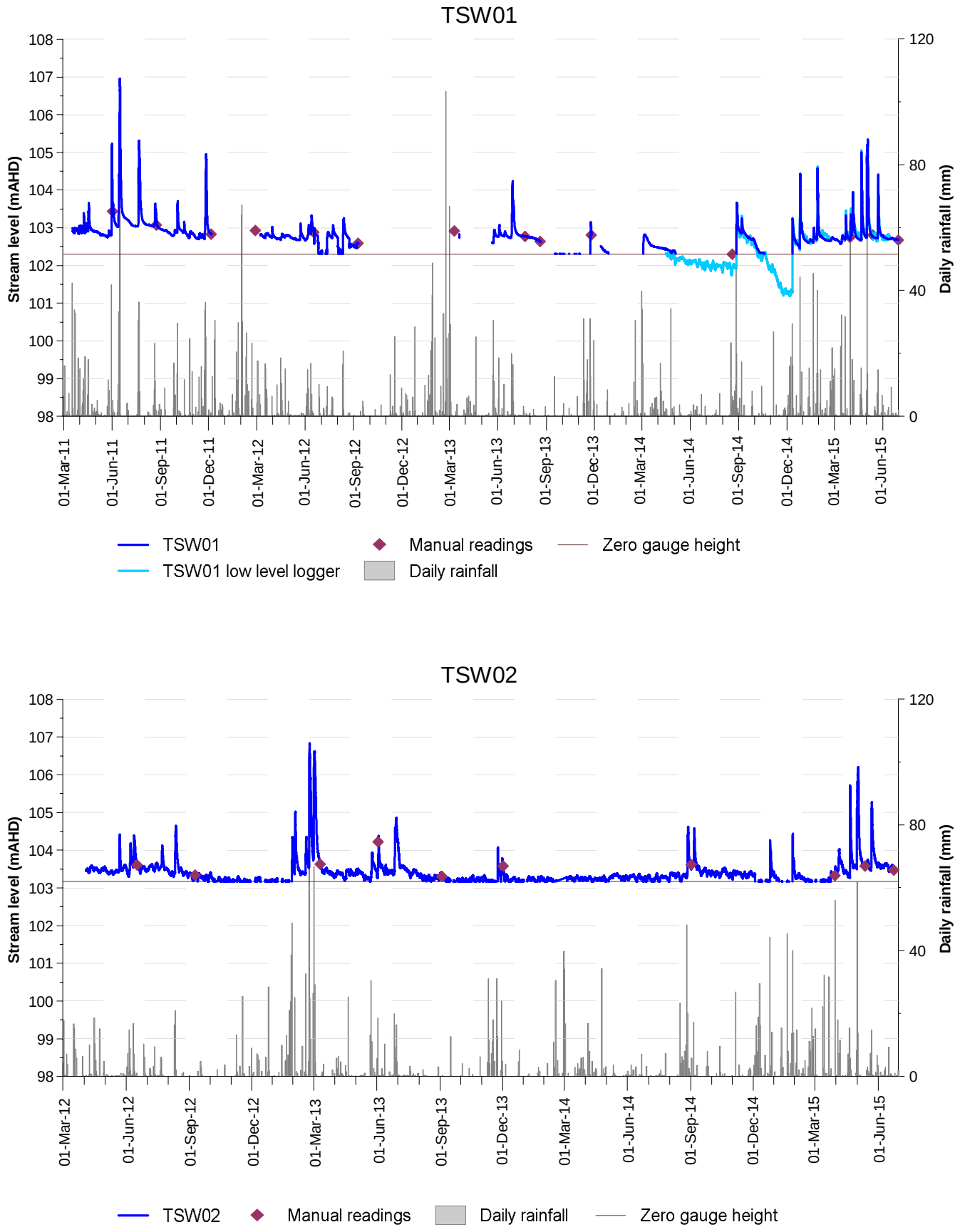
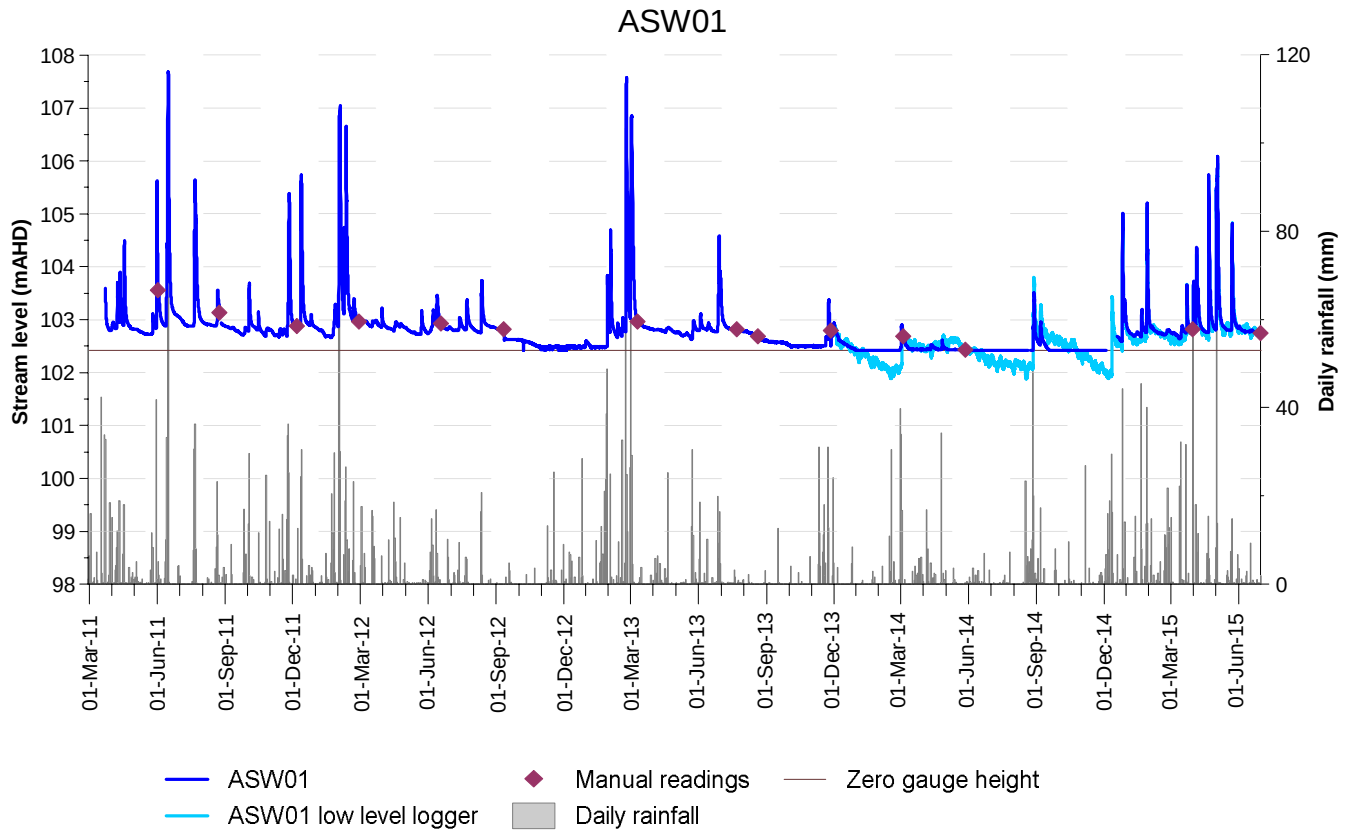


Figure A.23: TSW01 and TSW02 stream levels



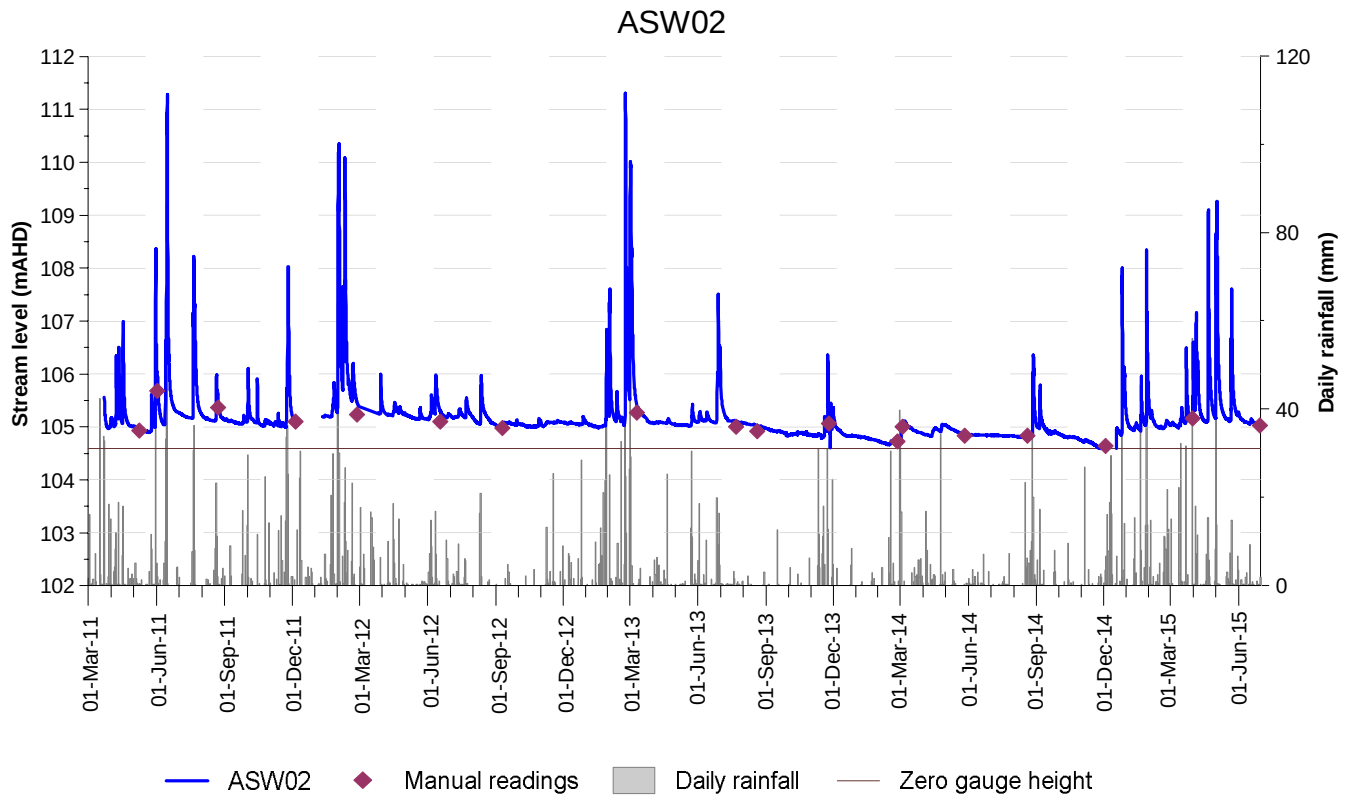
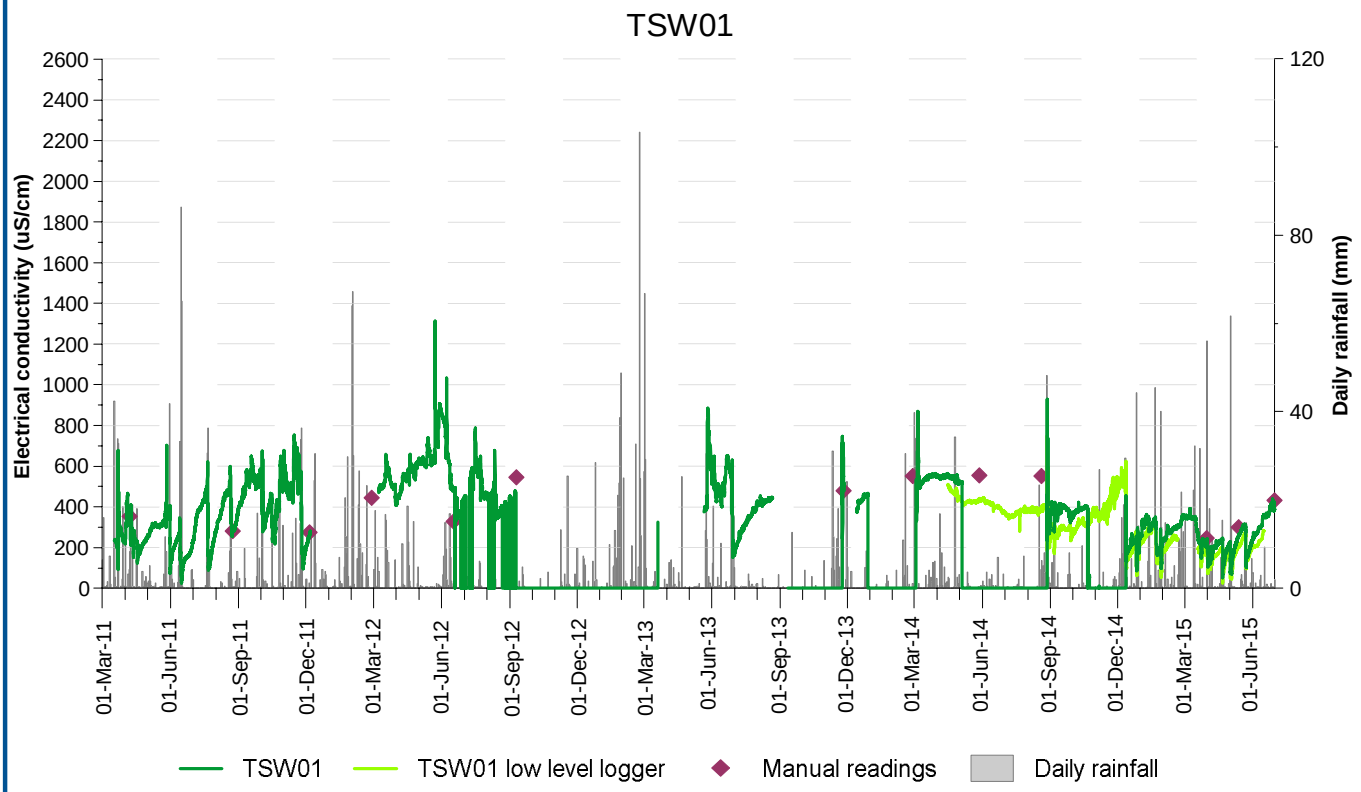


Figure A.24: ASW01 and ASW02 stream levels



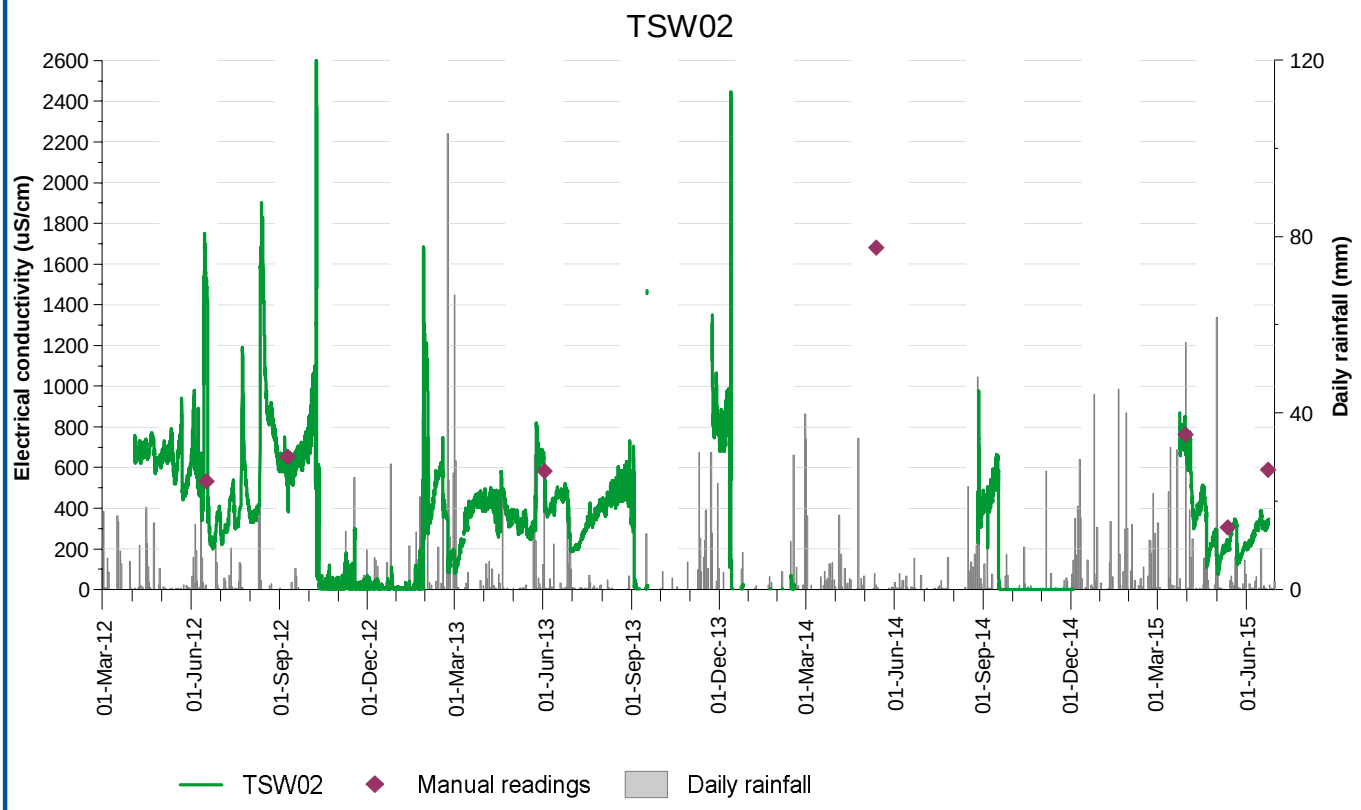
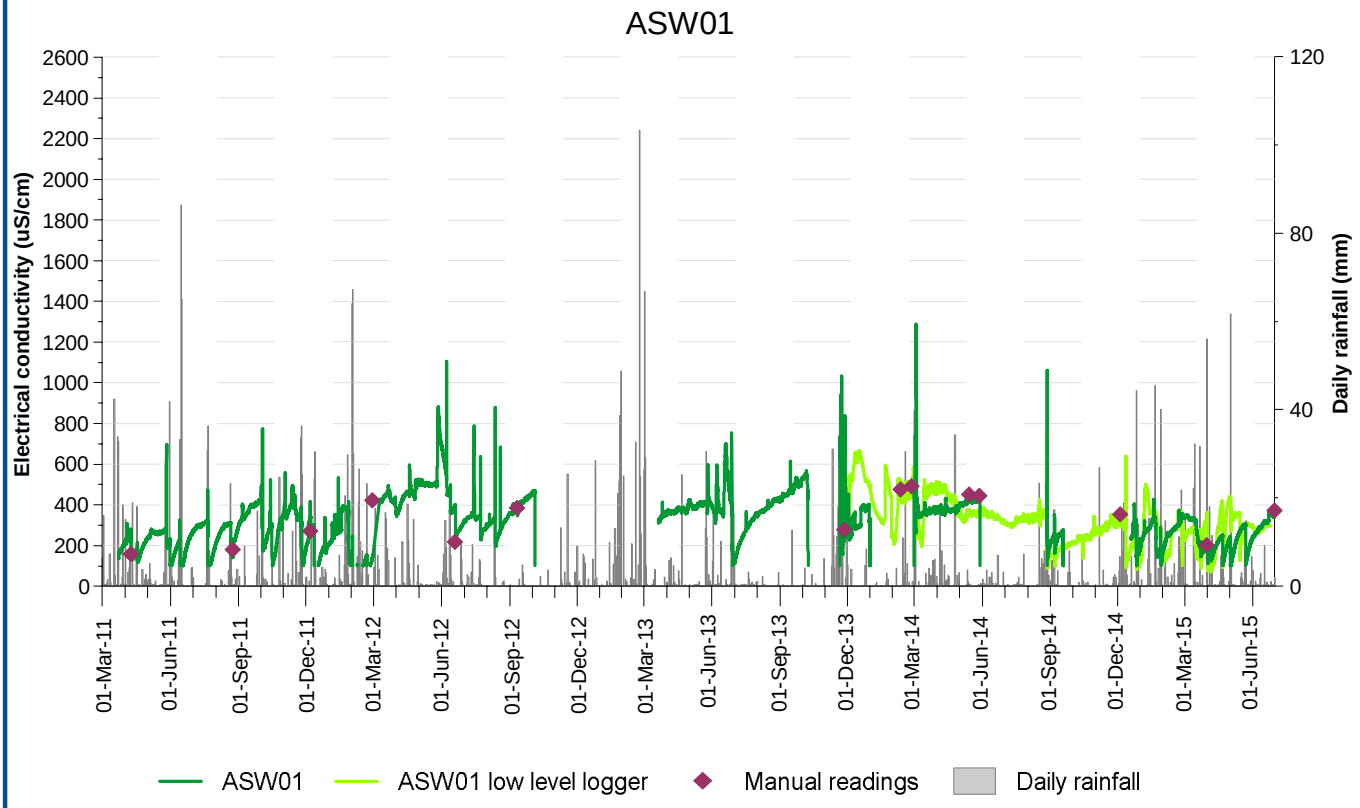


Figure A.25: TSW01 and TSW02 electrical conductivity



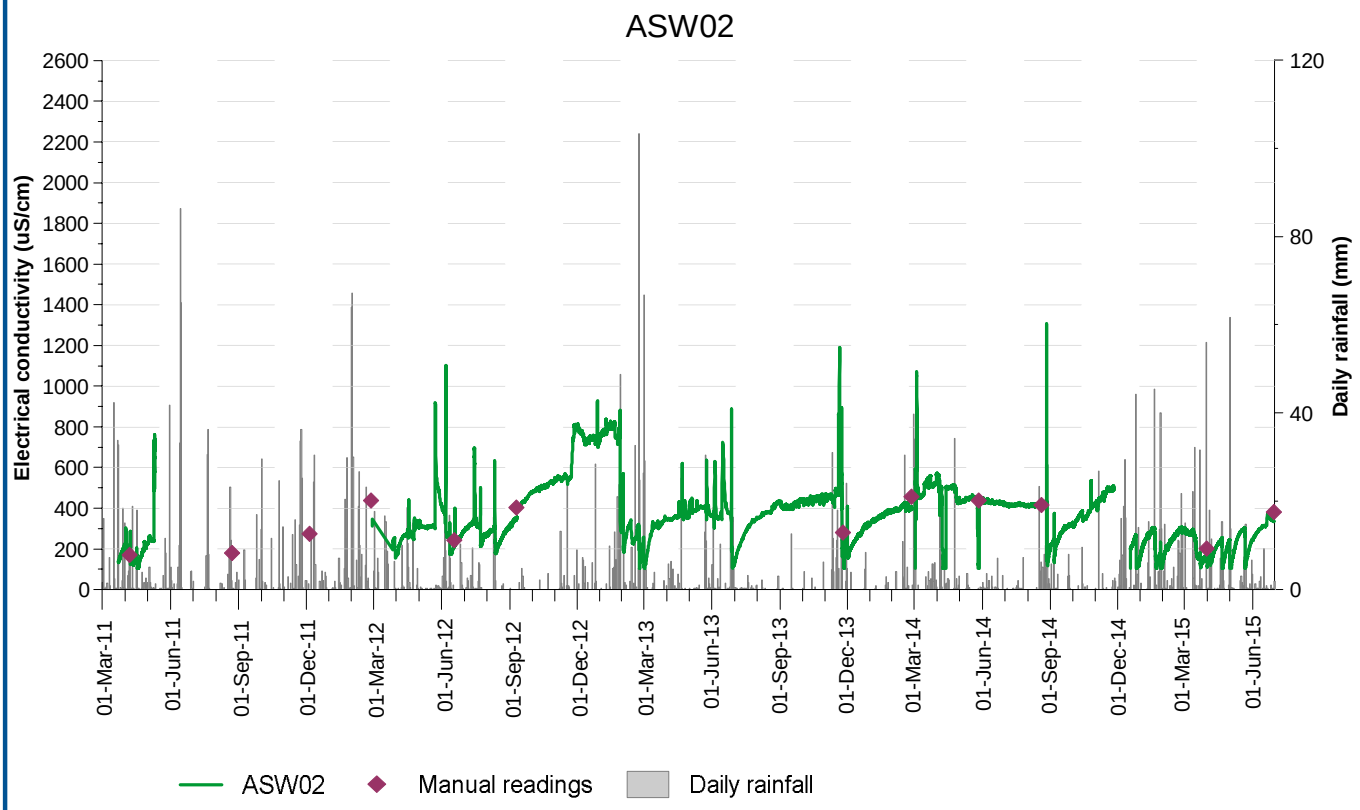


Figure A.26: ASW01 and ASW02 electrical conductivity

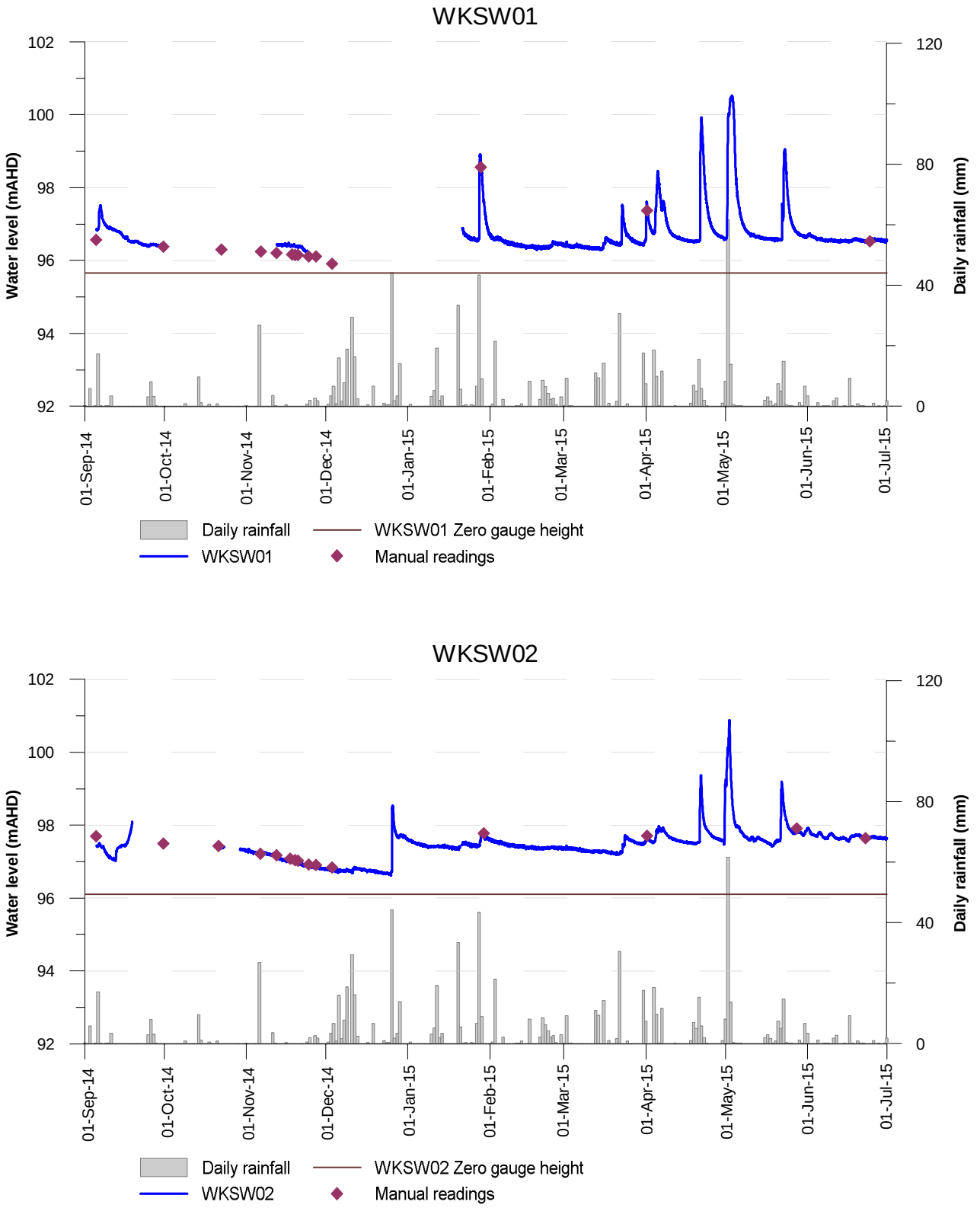


Figure A.27: WKSW01 and WKSW02 stream levels

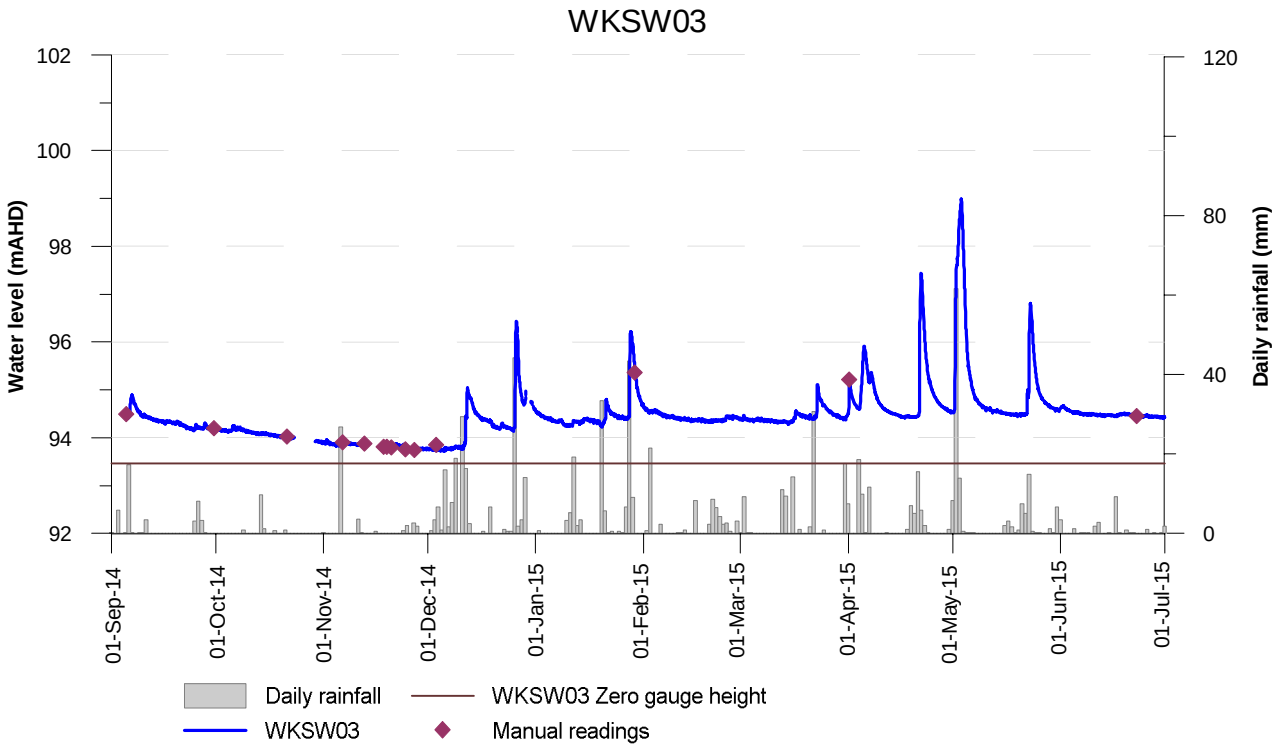


Figure A.28: WKSW03 stream levels

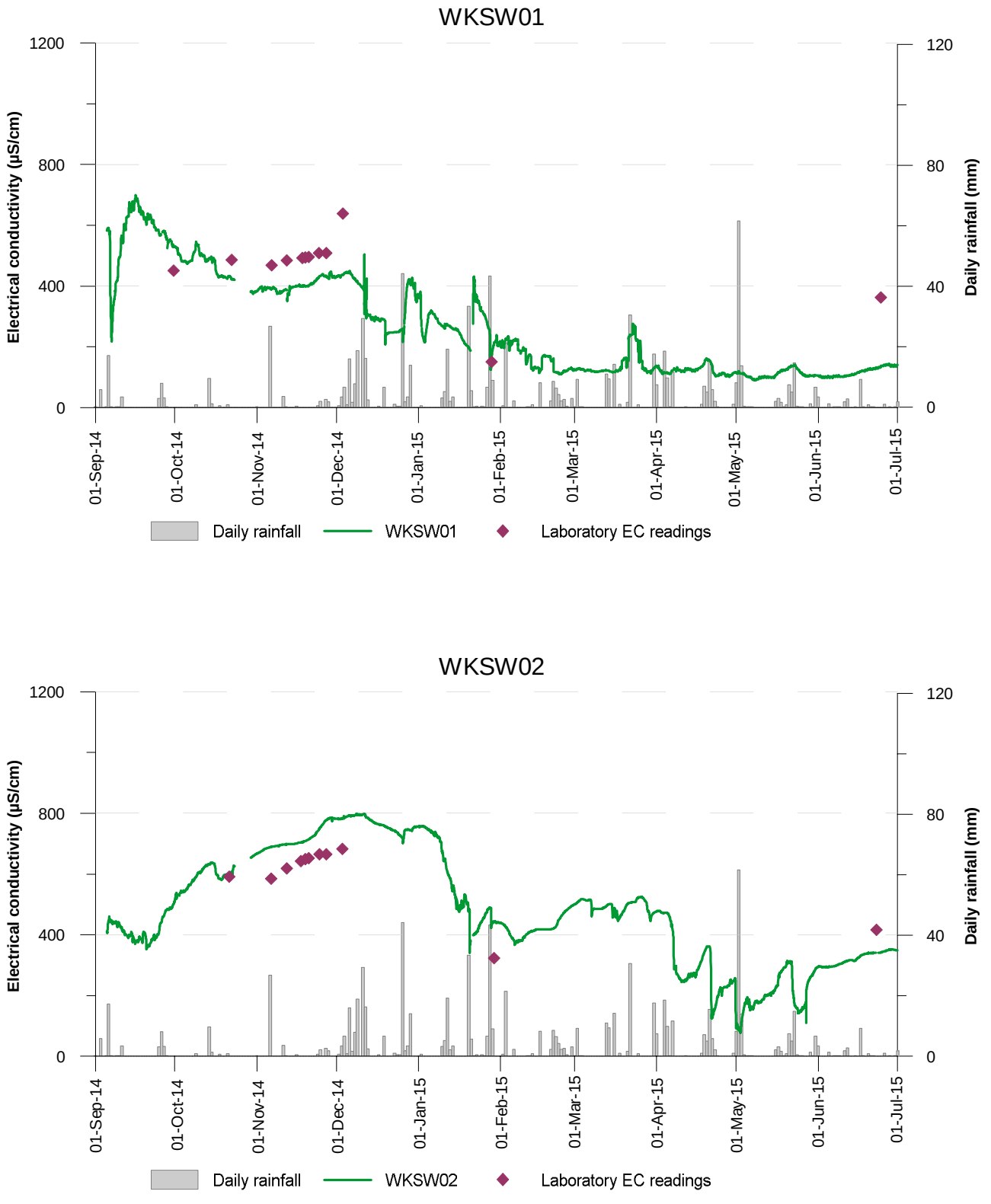


Figure A.29: WKSW01 and WKSW02 electrical conductivity

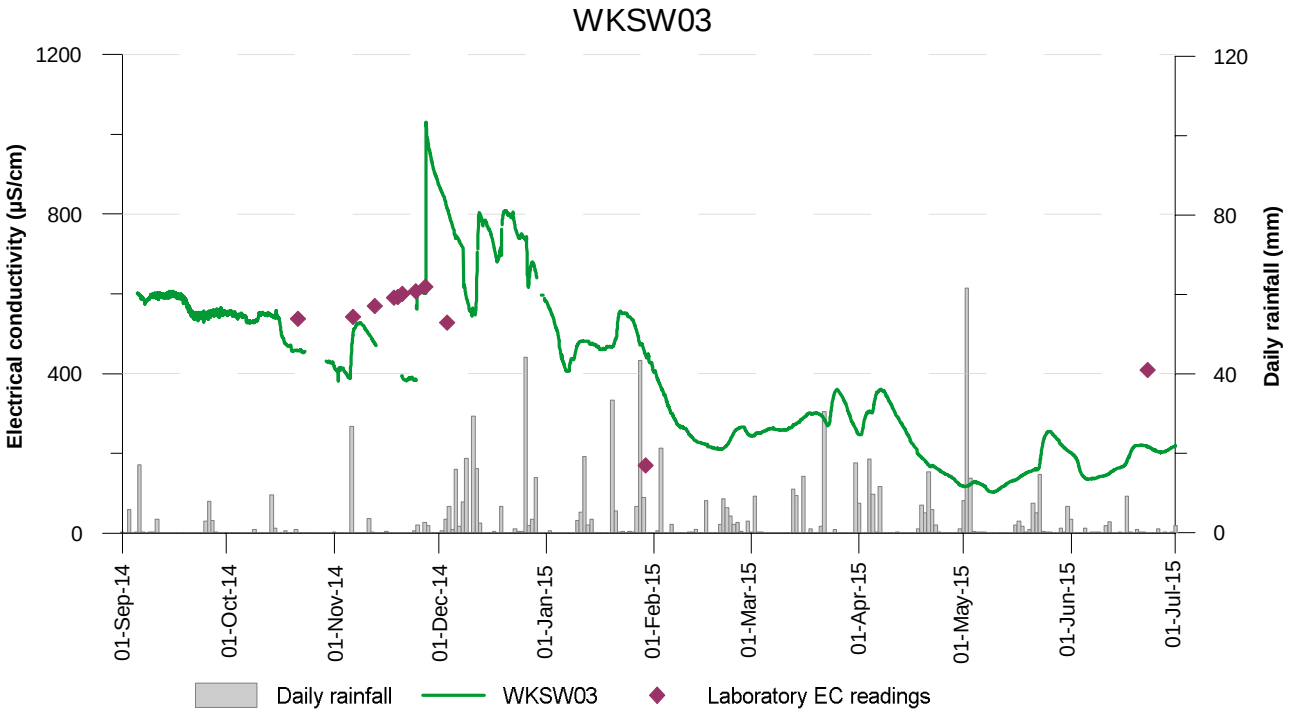
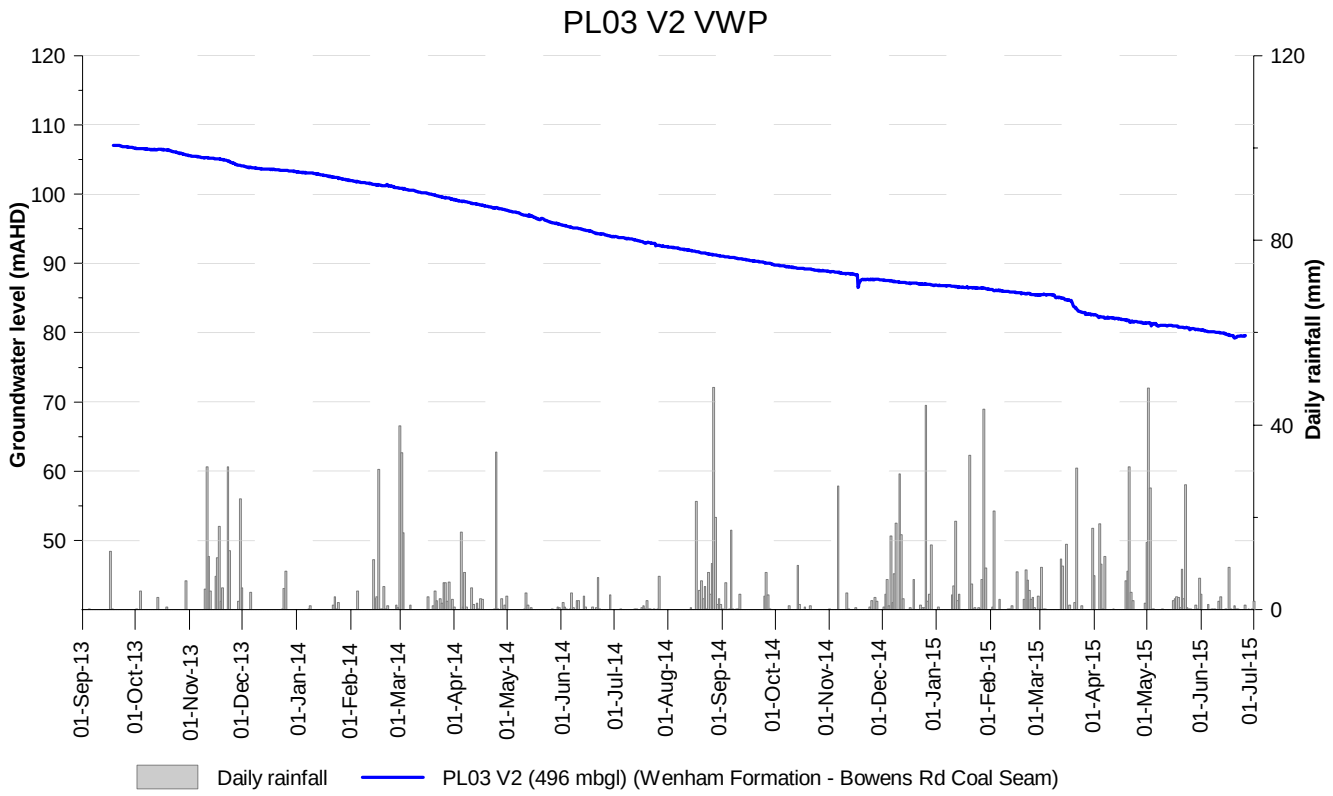


Figure A.30: WKSW03 electrical conductivity



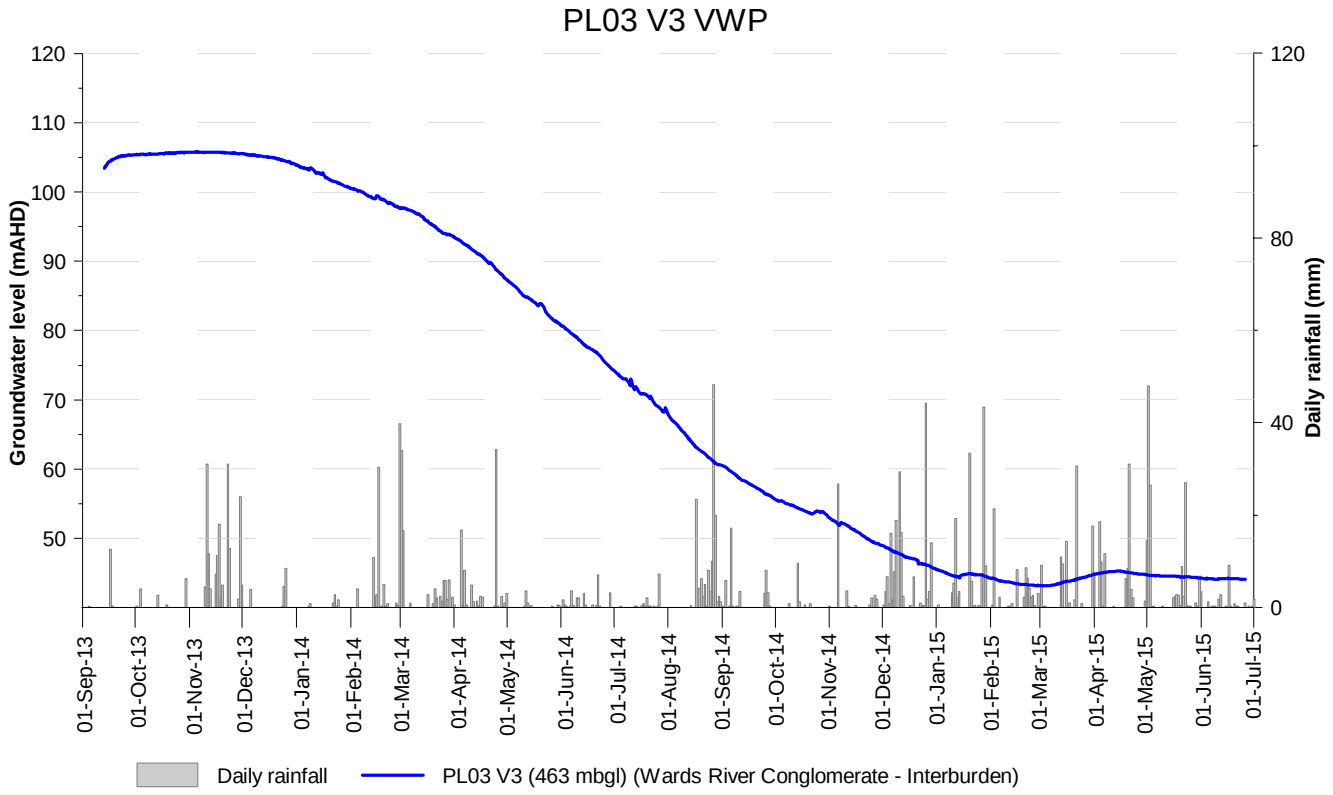
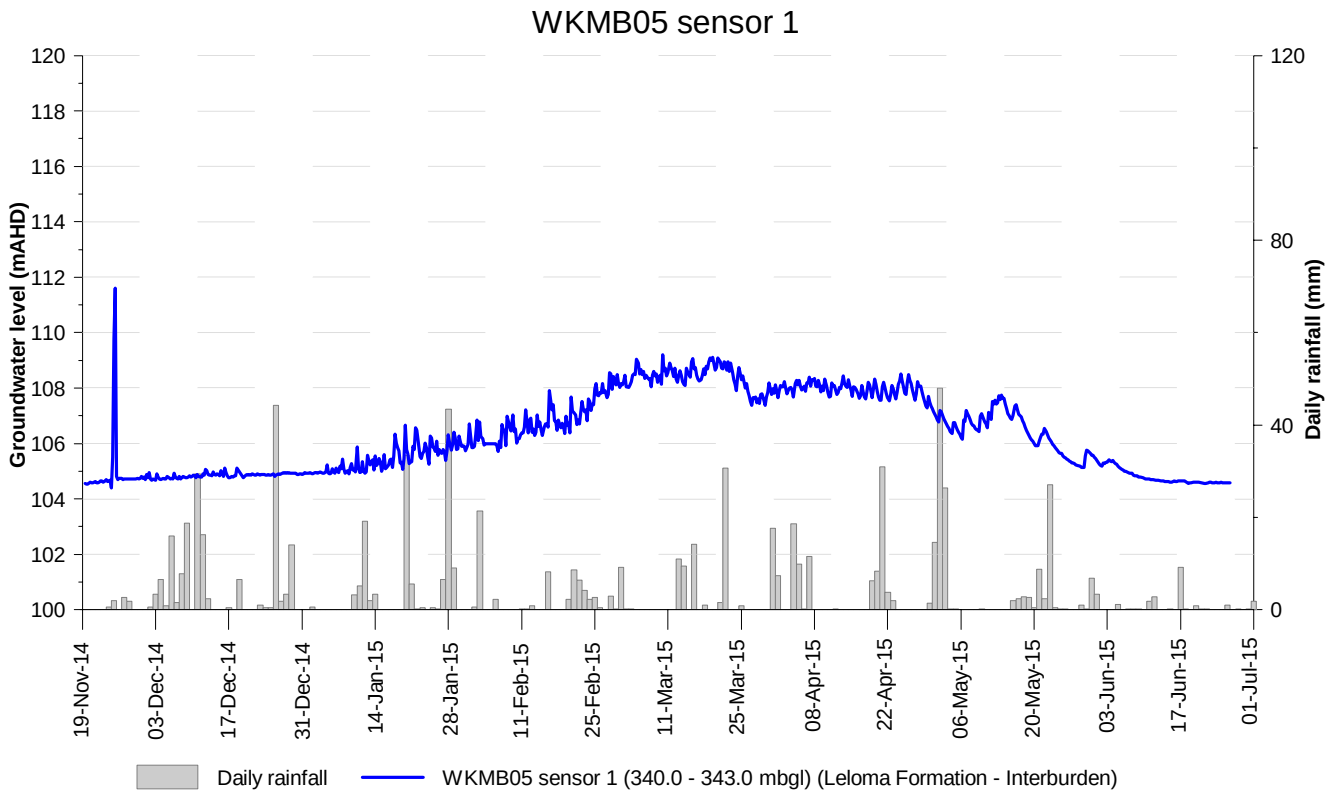


Figure A.31: PL03 VWP



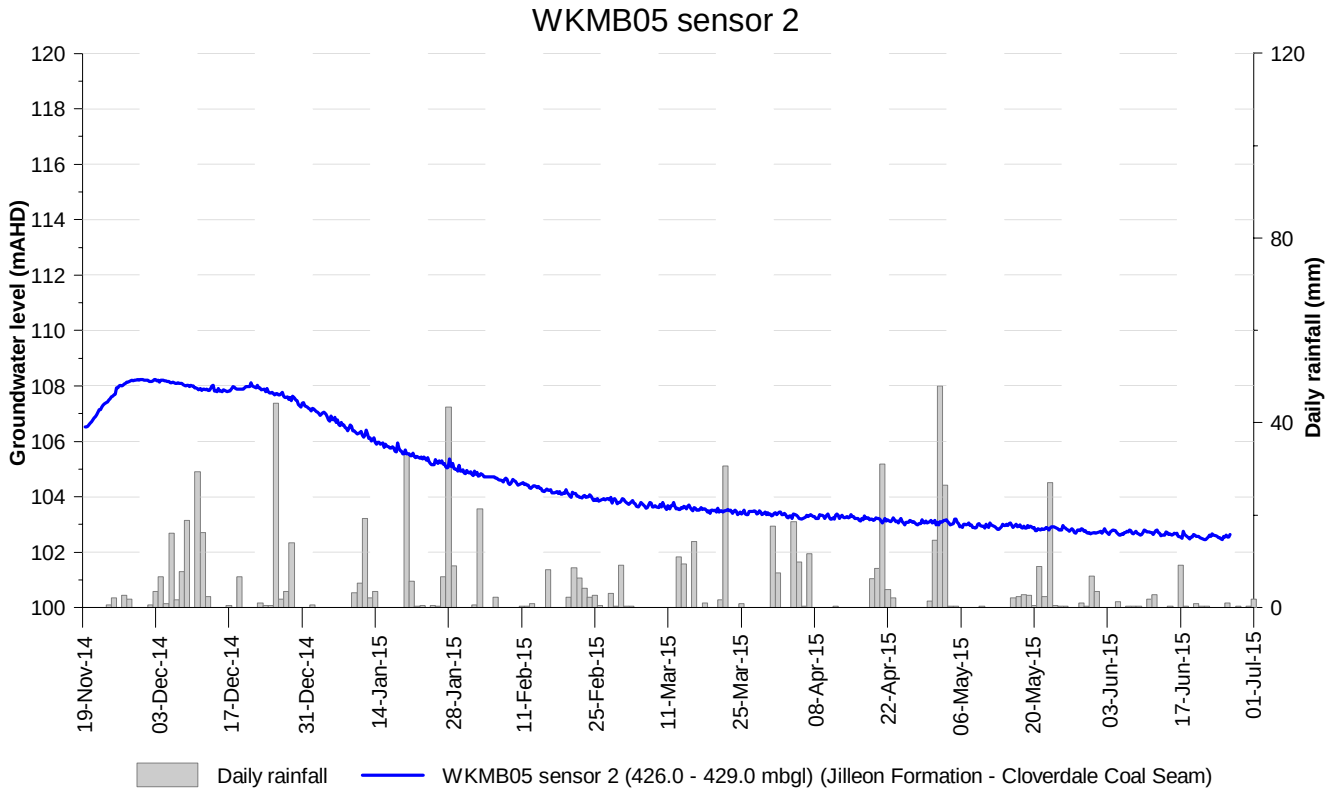
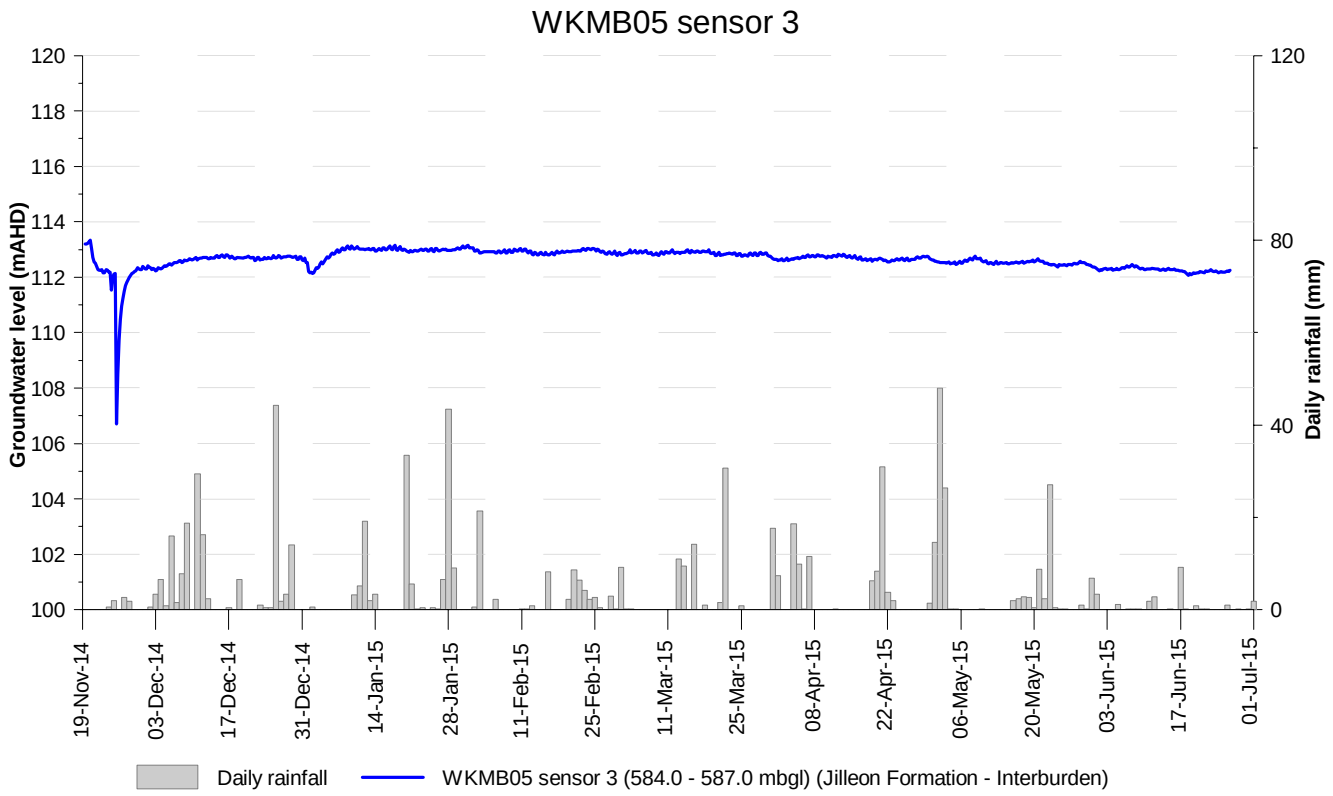


Figure A.32: WKMB05 sensors 1 and 2



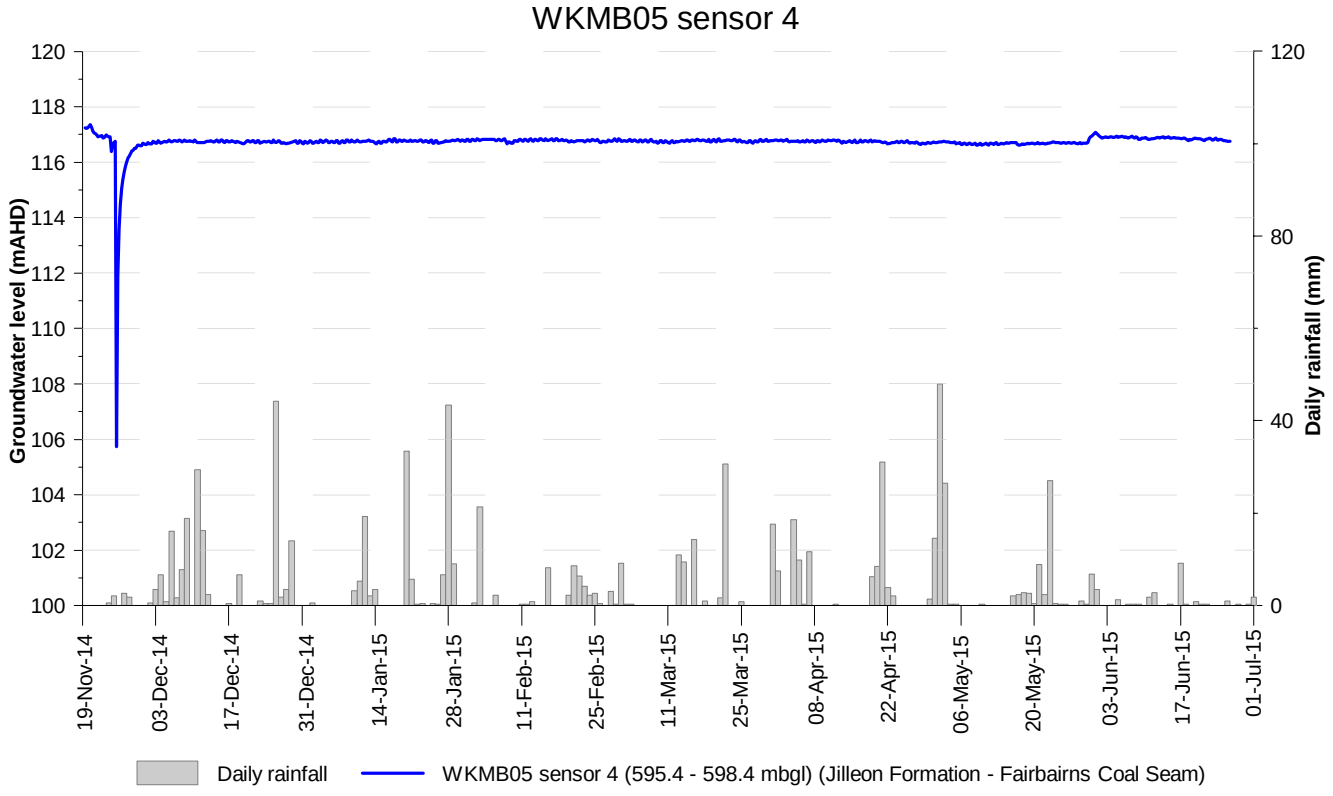
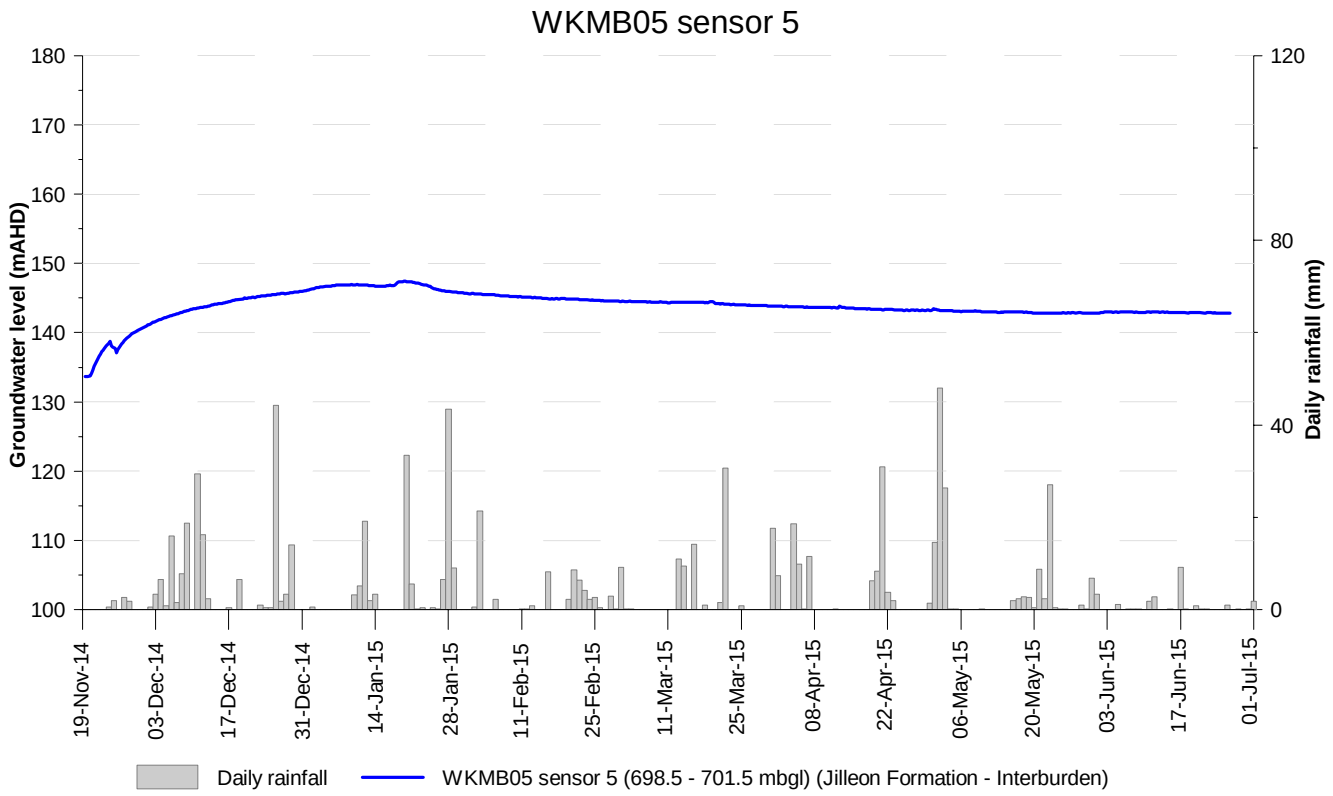


Figure A.33: WKMB05 sensors 3 and 4



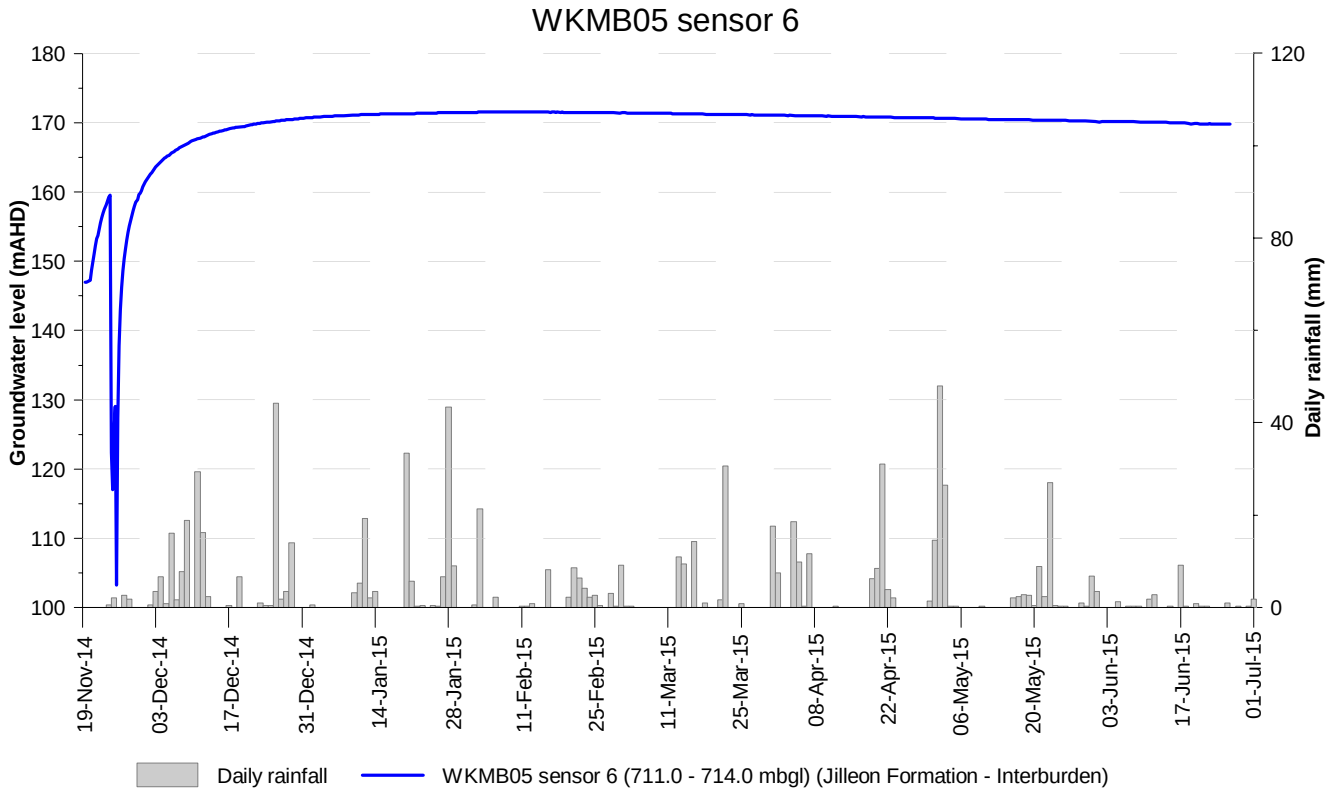


Figure A.34: WKMB05 sensors 5 and 6

				Field_ID	AMB01	AMB02	BMB01	BMB02	BWMB01A	BWMB01B	BWMB01C	BWMB01D	FKMB01A	FKMB01B
				Sampled Date	25/06/2015	25/06/2015	19/06/2015	19/06/2015	25/06/2015	25/06/2015	25/06/2015	25/06/2015	18/06/2015	18/06/2015
Chem_Group	Analyte	Units	EQL											
Field	Conductivity (Field)	uS/cm			2199	403	5215	4467	4410	4636	3156	3197	5424	3287
	pH (Field)	-			5.5	6.88	7.06	7.97	6.24	6.81	6.81	9.71	7.26	9.64
	TDS (Field)	mg/L			1.43	0.262	3390	2907	2.866	3.014	2.052	2.078	3526	2136
	DO % (Field)	%			16	23.5	21.5	31.3	23.4	18.8	35.8	38.3	24.3	24.5
	DO mg/L (Field)	mg/L			1.5	2.25	1.97	3.05	2.15	1.73	3.41	3.79	2.32	2.28
	Redox (Field)	mV			56.2	-17.5	-118.3	-156.8	2.8	-103.1	-115.4	-253.8	-110.4	-142.5
	Temperature (Field)	℃			18.2	17.42	18.67	16.09	18.63	18.72	16.67	15.02	16.89	18.44
	Chlorine Free (Field)	mg/L			0.06	-	0	0.12	0	0.04	0.03	0	0.17	0.06
	Total Chlorine (Field)	mg/L			-	-	0	0.08	-	0	0.05	0	0.05	0.1
Key analytes	Ethanolamine	µg/L	1		<1	<1	2	1	2	<1	<1	1	<1	1
	Diethanolamine	µg/L	1		<1	<1	<1	3	<1	<1	2	66	<1	20
	Boron (Filtered)	mg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.09	0.1
	Chloride	mg/L	1		566	47	1190	1000	1030	1090	747	726	1020	285
	Chlorine - Free	mg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Chlorine - Total Residual	mg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Nitrogen (Total)	mg/L	0.1		0.2	<0.1	0.4	1.5	0.3	0.4	3.1	3	1	1.4
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/L	1		32	18	17	11	11	2	2	2	171	<1
	Phosphorus	mg/L	0.01		<0.01	0.02	0.04	0.43	0.03	0.01	<0.01	<0.01	0.05	0.04
Lab physical parameters	Conductivity @ 25 C	µS/cm	1		2300	402	5320	4780	4540	4720	2970	3180	5290	3260
	pH (Lab)	pH_Units	0.01		6.42	6.63	7.68	8.11	7.13	7.3	8.98	9.95	7.49	9.64
	TDS	mg/L	10		1260	208	2730	2380	2450	2400	1450	1480	2880	1820
	TSS	mg/L	5		9	<5	<5	80	77	41	<5	34	45	71
Major/minor ions	Bicarbonate Alkalinity-mg CaCO3/L	mg/L	1		70	89	402	574	283	292	25	43	818	699
	Carbonate Alkalinity-mg CaCO3/L	mg/L	1		<1	<1	<1	<1	<1	<1	18	158	<1	744
	Alkalinity (Hydroxide) as CaCO3	mg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Alkalinity (total) as CaCO3	mg/L	1		70	89	402	574	283	292	43	202	818	1440
	Calcium (Filtered)	mg/L	1		85	14	114	20	147	141	68	8	92	4
	Magnesium (Filtered)	mg/L	1		52	5	60	7	85	92	36	9	14	<1
	Potassium (Filtered)	mg/L	1		2	<1	5	4	2	2	50	5	7	5
	Sodium (Filtered)	mg/L	1		245	59	839	913	592	675	408	553	1120	761
	Fluoride	mg/L	0.1		0.1	0.2	0.4	0.8	0.2	0.2	<0.1	0.4	0.3	1.5
	Reactive Silica	mg/L	0.05		51.6	43.5	18.2	17.4	33	33.1	7.48	0.96	21.6	5.11
	Bromine (Filtered)	mg/L	0.1		1	0.2	4.9	3.7	3.3	3.9	2.1	2	4.5	1
	Ionic Balance	%	0.01		3.22	2.74	5.92	1.79	6.92	9.16	7.2	1.51	-	-
Nutrients	Ammonia as N	mg/L	0.01		0.19	0.06	0.35	0.79	0.13	0.27	3.13	2.14	0.72	1.08
	Ammonium as N	mg/L	0.01		0.19	0.06	0.35	0.77	0.13	0.27	3.12	0.89	0.72	0.42
	Nitrate (as N)	mg/L	0.01		<0.01	0.01	<0.01	0.01	0.01	0.02	0.01	0.07	0.03	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
	Nitrite + Nitrate as N	mg/L	0.01		<0.01	0.01	<0.01	0.01	0.01	0.02	0.01	0.07	0.03	0.01
	Kjeldahl Nitrogen Total	mg/L	0.1		0.2	<0.1	0.4	1.5	0.3	0.4	3.1	2.9	1	1.4
	Reactive Phosphorus as P	mg/L	0.01		<0.01	0.02	<0.01	0.1	<0.01	<0.01	0.04	<0.01	0.02	<0.01
	Total Organic Carbon	mg/L	1		2	<1	2	22	<1	<1	2	8	2	34
Dissolved gas	Methane	mg/L	0.01		<0.01	<0.01	0.025	41.8	0.029	1.91	4.87	4.38	1.89	25
Dissolved metals	Aluminium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
	Antimony (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Arsenic (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	0.001	0.015	<0.001	<0.001	<0.001	0.002	<0.001
	Barium (Filtered)	mg/L	0.001		0.531	0.059	0.712	0.981	1.25	1.46	2.97	0.845	0.369	0.12
	Berryllium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cadmium (Filtered)	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 (Filtered)	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 (Filtered)	mg/L	0.001		0.035	0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Iron (Filtered)	mg/L	0.05		7.04	0.74	0.7	<0.05	1.53	17.5	0.06	<0.05	0.76	<0.05
	Lead (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
	Vanadium (Filtered)	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 (Filtered)	mg/L	0.005		0.034	0.012	0.006	0.018	0.015	0.007	<0.005	0.152	<0.005	0.104
	Manganese (Filtered)	mg/L	0.001		3.19	0.152	-	-	0.363	0.304	0.006	<0.001	0.121	<0.001
	Mercury (Filtered)	mg/L	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Molybdenum (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	0.002	0.001	<0.001	0.006	0.002	0.002	0.002
	Nickel (Filtered)	mg/L	0.001		0.009	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
	Selenium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Strontium (Filtered)	mg/L	0.001		1.8	0.238	4.86	2.03	2.36	2.36	2.62	0.632	9.98	0.756
	Uranium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Phenols	2,4,5-trichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2.4.6-Trichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dimethylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,6-dichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-chlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-methylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-nitrophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	3-&4-methylphenol	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	4-chloro-3-methylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Pentachlorophenol	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Phenol	µg/L	1		<1	<1	<1	<1	<1	<1	3.2	1.6	<1	2.1
PAH	Acenaphthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Acenaphthylene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benz(a)anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a) pyrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b&j)fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(g,h,i)perylene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(k)fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a)pyrene TEQ (zero)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibenz(a,h)anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluorene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Indeno(1,2,3-c,d)pyrene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Phenanthrene	µg/L	1		<1	<1	1.5	<1	<1	<1	<1	<1	<1	<1
	Pyrene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Polycylic aromatic hydrocarbons EPA448	ug/L	0.5		<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRH	TPH C6-C10	µg/L	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	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	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C34 - C40 Fraction	µg/L	100		<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	<100
	TRH >C10-C16 less Naphthalene (F2)	µg/L	100		<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
TPH	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	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29-C36 Fraction	µg/L	50		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	+C10 - C36 (Sum of total)	µg/L	50		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
BTEX	Benzene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (m & p)	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene Total	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total BTEX	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

				Field_ID	S4MB01	S4MB02	S4MB03	S5MB01	S5MB02	S5MB03	TCMB01	TCMB02	TCMB04
				Sampled Date	22/06/2015	17/06/2015	17/06/2015	18/06/2015	17/06/2015	17/06/2015	22/06/2015	17/06/2015	17/06/2015
Chem_Group	Analyte	Units	EQL										
Field	Conductivity (Field)	uS/cm			4749	2298	2898	3584	4326	5208	2991	2726	6055
	pH (Field)	-			7.15	7.83	8.02	7.76	7.15	6.88	7.06	10.39	12.17
	TDS (Field)	mg/L			3.087	1494	1882	2329	2812	3385	1.943	1772	3936
	DO % (Field)	%			8	23.3	30.6	31.1	33.8	38.1	8.6	19.7	36.4
	DO mg/L (Field)	mg/L			0.74	2.24	2.83	2.69	3.16	3.55	0.78	1.84	3.36
	Redox (Field)	mV			-181	-105.4	-108.9	-181.3	-131.8	-115.9	-151.8	-210.2	-175.6
	Temperature (Field)	°C			18.5	16.81	18.83	21.62	17.82	17.96	19.15	18.11	18.13
	Chlorine Free (Field)	mg/L			0	0.07	0.1	0.03	0.05	0.23	0.02	0.03	0.13
	Total Chlorine (Field)	mg/L			0.03	0	0.04	0	0.05	0.18	0	0	0
Key analytes	Ethanolamine	µg/L	1		<1	3	5	<1	<1	2	<1	<1	10
	Diethanolamine	µg/L	1		<1	<1	3	<1	3	<1	<1	8	29
	Boron (Filtered)	mg/L	0.05		0.14	<0.05	<0.05	0.17	0.08	0.06	<0.05	<0.05	0.07
	Chloride	mg/L	1		1090	654	872	740	1090	1060	776	732	647
	Chlorine - Free	mg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Chlorine - Total Residual	mg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Nitrogen (Total)	mg/L	0.1		1.9	1.4	0.9	2.7	1.7	1	1.3	3	12
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/L	1		<1	<1	<1	74	75	146	<1	3	27
	Phosphorus	mg/L	0.01		0.07	0.04	<0.01	0.08	0.07	0.02	<0.01	<0.01	0.08
Lab physical parameters	Conductivity @ 25 C	µS/cm	1		4820	2240	3200	4000	4980	5200	3020	2770	5700
	pH (Lab)	pH_Units	0.01		7.56	7.86	8.19	7.7	7.24	7.09	7.46	10.4	11.9
	TDS	mg/L	10		2850	1210	1680	2280	2500	2610	1860	1480	2540
	TSS	mg/L	5		6	6	9	24	24	33	<5	36	25
Major/minor ions	Bicarbonate Alkalinity-mg CaCO3/L	mg/L	1		598	154	334	789	1080	1240	314	<1	<1
	Carbonate Alkalinity-mg CaCO3/L	mg/L	1		<1	<1	<1	<1	<1	<1	<1	298	422
	Alkalinity (Hydroxide) as CaCO3	mg/L	1		<1	<1	<1	<1	<1	<1	<1	18	784
	Alkalinity (total) as CaCO3	mg/L	1		598	154	334	789	1080	1240	314	316	1200
	Calcium (Filtered)	mg/L	1		442	104	22	81	122	129	285	17	19
	Magnesium (Filtered)	mg/L	1		50	24	4	30	83	126	58	16	<1
	Potassium (Filtered)	mg/L	1		5	3	3	24	7	8	4	7	45
	Sodium (Filtered)	mg/L	1		529	319	615	684	836	852	237	525	861
	Fluoride	mg/L	0.1		0.5	0.1	<0.1	0.3	0.2	0.2	<0.1	0.4	0.8
	Reactive Silica	mg/L	0.05		28.9	14.7	13.6	22.2	18.6	17.9	20.7	30.6	55.2
	Bromine (Filtered)	mg/L	0.1		2.4	0.8	1.4	2.2	2.4	2.5	1.1	0.9	1.4
	Ionic Balance	%	0.01		7.21	0.95	5.1	-	4.31	3.28	2.19	3.56	3.98
Nutrients	Ammonia as N	mg/L	0.01		1.92	1.21	0.95	1.96	1.72	1.13	1.33	3	14.1
	Ammonium as N	mg/L	0.01		1.91	1.18	0.92	1.91	1.71	1.13	1.32	0.2	0.02
	Nitrate (as N)	mg/L	0.01		<0.01	0.02	0.02	0.03	0.02	0.04	<0.01	0.02	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
	Nitrite + Nitrate as N	mg/L	0.01		<0.01	0.02	0.02	0.04	0.02	0.04	<0.01	0.02	0.02
	Kjeldahl Nitrogen Total	mg/L	0.1		1.9	1.4	0.9	2.7	1.7	1	1.3	3	12
	Reactive Phosphorus as P	mg/L	0.01		0.09	<0.01	0.01	0.07	<0.01	<0.01	0.07	<0.01	<0.01
	Total Organic Carbon	mg/L	1		47	2	2	94	4	<1	2	40	58
Dissolved gas	Methane	mg/L	0.01		8.88	4.58	13	3	2.86	0.165	0.415	4.48	13.7
Dissolved metals	Aluminium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.35
	Antimony (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.002
	Arsenic (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	0.002	0.002	0.011	<0.001	<0.001	0.002
	Barium (Filtered)	mg/L	0.001		9.45	3.83	1.56	1.68	1.14	0.097	8.62	0.87	0.523
	Berryllium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cadmium (Filtered)	mg/L	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cobalt (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
	Iron (Filtered)	mg/L	0.05		1.15	0.11	<0.05	<0.05	0.46	0.31	1.34	<0.05	<0.05
	Lead (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.015
	Vanadium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Zinc (Filtered)	mg/L	0.005		0.012	0.006	<0.005	<0.005	<0.005	<0.005	0.014	0.006	1.09
	Manganese (Filtered)	mg/L	0.001		0.147	0.015	0.01	0.011	0.074	0.123	0.024	<0.001	0.002
	Mercury (Filtered)	mg/L	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Molybdenum (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.008
	Nickel (Filtered)	mg/L	0.001		0.002	<0.001	<0.001	0.003	<0.001	0.002	<0.001	<0.001	0.007
	Selenium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Strontium (Filtered)	mg/L	0.001		28.6	8.15	1.48	6.03	6.47	5.75	14.1	2.49	1.18
	Uranium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Phenols	2,4,5-trichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2.4.6-Trichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dimethylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,6-dichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-chlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-methylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-nitrophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	3-&4-methylphenol	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	4-chloro-3-methylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Pentachlorophenol	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Phenol	µg/L	1		1.1	<1	<1	<1	<1	<1	<1	3.4	<1
PAH	Acenaphthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Acenaphthylene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benz(a)anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a) pyrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b&j)fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(g,h,i)perylene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(k)fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a)pyrene TEQ (zero)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibenz(a,h)anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluorene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Indeno(1,2,3-c,d)pyrene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Phenanthrene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Pyrene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Polycylic aromatic hydrocarbons EPA448	ug/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRH	TPH C6-C10	µg/L	20		60	<20	<20	<20	<20	<20	90	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20		<20	<20	<20	<20	<20	<20	30	<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	730	<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	730	<100
	TRH >C10-C16 less Naphthalene (F2)	µg/L	100		<100	<100	<100	<100	<100	<100	<100	<100	<100
TPH	C6 - C9 Fraction	µg/L	20		60	<20	<20	<20	<20	<20	90	<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	480	<100
	C29-C36 Fraction	µg/L	50		<50	<50	<50	<50	<50	<50	<50	220	<50
	+C10 - C36 (Sum of total)	µg/L	50		<50	<50	<50	<50	<50	<50	<50	700	<50
BTEX	Benzene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2		42	2	<2	<2	<2	<2	59	6	2
	Ethylbenzene	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (m & p)	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene Total	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total BTEX	µg/L	1		42	2	<1	<1	<1	<1	59	6	2
	Naphthalene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1

			Field_ID	TMB01	TMB02	TMB03	TMB04	TMB05	TTMB01	TTMB02	TTMB03	TTPB
			Sampled Date	16/06/2015	16/06/2015	24/06/2015	16/06/2015	16/06/2015	17/06/2015	23/06/2015	25/06/2015	18/06/2015
Chem_Group	Analyte	Units	EQL									
Field	Conductivity (Field)	uS/cm		7318	3748	5679	7024	7367	1963	2285	3392	2283
	pH (Field)	-		6.48	6.3	6.82	5.82	5.01	6.84	6.61	11.68	7.17
	TDS (Field)	mg/L		4757	2436	3.691	4566	4789	1276	1.485	2.205	1484
	DO % (Field)	%		25.2	23.1	47.6	32.7	48.9	28.4	11.2	13.2	28.8
	DO mg/L (Field)	mg/L		2.31	2.14	4.44	3.1	4.53	2.65	1.05	1.25	2.54
	Redox (Field)	mV		-75.7	-68.8	-74.1	-16.1	21.7	-81.2	-124.9	-324.7	-114
	Temperature (Field)	°C		18.28	18.03	18.56	16.72	17.52	18.38	18.26	17.04	18.68
	Chlorine Free (Field)	mg/L		0.02	0.02	0.05	0	0	0.16	0	0.05	0.04
	Total Chlorine (Field)	mg/L		0	0.08	0.17	-	0	0.18	0.08	0.14	0.08
Key analytes	Ethanolamine	µg/L	1	<1	3	<1	<1	<1	<1	2	2	<1
	Diethanolamine	µg/L	1	<1	<1	<1	<1	<1	<1	<1	31	<1
	Boron (Filtered)	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05
	Chloride	mg/L	1	2310	1110	1460	1950	2420	468	480	444	552
	Chlorine - Free	mg/L	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Chlorine - Total Residual	mg/L	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Nitrogen (Total)	mg/L	0.1	0.2	0.4	<0.1	0.3	0.8	0.7	0.6	10.6	0.7
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/L	1	71	19	188	562	216	<10	45	<10	<1
	Phosphorus	mg/L	0.01	0.06	0.07	<0.01	0.03	0.04	0.3	0.24	<0.01	0.01
Lab physical parameters	Conductivity @ 25 C	µS/cm	1	7360	3760	5730	7020	7270	2150	2300	3420	2240
	pH (Lab)	pH_Units	0.01	6.73	6.66	6.89	5.98	4.99	7.28	6.91	10.9	7.41
	TDS	mg/L	10	4090	2310	3210	4160	4420	1090	1300	1700	1120
	TSS	mg/L	5	18	<5	<5	21	50	108	<5	<5	24
Major/minor ions	Bicarbonate Alkalinity-mg CaCO3/L	mg/L	1	592	197	541	158	9	519	399	<1	194
	Carbonate Alkalinity-mg CaCO3/L	mg/L	1	<1	<1	<1	<1	<1	<1	<1	771	<1
	Alkalinity (Hydroxide) as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	128	<1
	Alkalinity (total) as CaCO3	mg/L	1	592	197	541	158	9	519	399	899	194
	Calcium (Filtered)	mg/L	1	205	152	193	77	49	79	172	2	89
	Magnesium (Filtered)	mg/L	1	202	93	133	208	263	29	51	<1	45
	Potassium (Filtered)	mg/L	1	2	4	2	20	16	4	4	2	4
	Sodium (Filtered)	mg/L	1	1050	438	838	1010	1030	300	244	680	279
	Fluoride	mg/L	0.1	0.2	0.2	0.3	0.8	0.7	0.1	0.1	1.4	<0.1
	Reactive Silica	mg/L	0.05	37.8	34.5	32.9	52.9	68.5	27.4	33.1	69.4	6.69
	Bromine (Filtered)	mg/L	0.1	<0.1	<0.1	3.2	<0.1	<0.1	0.5	0.7	1.1	0.8
	Ionic Balance	%	0.01	3.91	1.78	1.03	3.31	2.57	9.52	2.29	1.31	-
Nutrients	Ammonia as N	mg/L	0.01	0.14	0.3	0.07	0.04	0.23	0.73	0.6	10.7	0.54
	Ammonium as N	mg/L	0.01	0.14	0.3	0.07	0.04	0.23	0.73	0.6	0.07	0.54
	Nitrate (as N)	mg/L	0.01	0.01	0.01	0.01	0.05	0.21	0.02	<0.01	<0.01	0.12
	Nitrite (as N)	mg/L	0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrite + Nitrate as N	mg/L	0.01	0.01	0.01	0.01	0.07	0.21	0.02	<0.01	<0.01	0.12
	Kjeldahl Nitrogen Total	mg/L	0.1	0.2	0.4	<0.1	0.2	0.6	0.7	0.6	10.6	0.6
	Reactive Phosphorus as P	mg/L	0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.04	0.03	0.02	<0.01
	Total Organic Carbon	mg/L	1	<1	2	1	9	9	8	4	8	4
Dissolved gas	Methane	mg/L	0.01	0.021	0.01	0.018	<0.01	<0.01	2.67	0.014	49.9	2.19
Dissolved metals	Aluminium (Filtered)	mg/L	0.01	<0.01	<0.01	<0.01	0.04	1.45	<0.01	<0.01	0.02	<0.01
	Antimony (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.063	<0.001
	Arsenic (Filtered)	mg/L	0.001	<0.001	0.003	0.003	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
	Barium (Filtered)	mg/L	0.001	0.192	0.859	0.204	0.044	0.064	3.56	0.755	0.604	2.42
	Berryllium (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	0.008	<0.001	<0.001	<0.001	<0.001
	Cadmium (Filtered)	mg/L	0.0001	<0.0001	<0.0001	<0.0001	0.0008	0.0027	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cobalt (Filtered)	mg/L	0.001	<0.001	0.001	0.005	0.081	0.339	<0.001	<0.001	<0.001	<0.001
	Copper (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	0.021	0.036	<0.001	<0.001	<0.001	<0.001
	Iron (Filtered)	mg/L	0.05	2.47	6.52	1.48	1.41	5.9	0.88	2.5	<0.05	2.93
	Lead (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001
	Vanadium (Filtered)	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Zinc (Filtered)	mg/L	0.005	0.013	0.022	0.008	0.48	1.3	0.01	0.006	0.01	0.007
	Manganese (Filtered)	mg/L	0.001	0.846	1	1.74	10.1	19.6	0.026	0.097	<0.001	0.08
	Mercury (Filtered)	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Molybdenum (Filtered)	mg/L	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
	Nickel (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	0.039	0.171	<0.001	<0.001	<0.001	<0.001
	Selenium (Filtered)	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Strontium (Filtered)	mg/L	0.001	5.56	3.7	4.73	0.765	0.735	2.87	3.33	0.375	2.96
	Uranium (Filtered)	mg/L	0.001	0.001	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Phenols	2,4,5-trichlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2.4.6-Trichlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dichlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dimethylphenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,6-dichlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-chlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-methylphenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-nitrophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	3-&4-methylphenol	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	4-chloro-3-methylphenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Pentachlorophenol	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Phenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PAH	Acenaphthene	µg/L	1	<1	<1	<1	1.4	1.3	<1	<1	<1	<1
	Acenaphthylene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Anthracene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benz(a)anthracene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a) pyrene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b&j)fluoranthene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(g,h,i)perylene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(k)fluoranthene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a)pyrene TEQ (zero)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibenz(a,h)anthracene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluoranthene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluorene	µg/L	1	<1	<1	<1	1.2	1.1	<1	<1	<1	<1
	Indeno(1,2,3-c,d)pyrene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Phenanthrene	µg/L	1	1.8	1.7	<1	2.2	1.8	<1	<1	<1	<1
	Pyrene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Polycylic aromatic hydrocarbons EPA448	ug/L	0.5	1.8	1.7	<0.5	4.8	4.2	<0.5	<0.5	<0.5	<0.5
TRH	TPH C6-C10	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	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
	TRH >C10-C16 less Naphthalene (F2)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
TPH	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 (Sum of total)	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50
BTEX	Benzene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (m & p)	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene Total	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total BTEX	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1

				Field_ID	NS725R	NS726R	NS735R	NS746R	RMB01	RMB02	WRMB01A	WRMB01B	WRMB01C
				Sample Date	1/07/2015	1/07/2015	1/07/2015	1/07/2015	24/06/2015	24/06/2015	24/06/2015	24/06/2015	24/06/2015
Chem Group	Analyte	Units	EQL										
Field	Conductivity (Field)	uS/cm			4048	4841	1636	4504	10,009	8849	1399	3094	3393
	pH (Field)	-			6.47	6.77	6.5	6.4	6.53	6.92	6.16	7.4	8.04
	TDS (Field)	mg/L			2.633	3.147	1.063	2.928	6.506	5.752	0.91	2.01	2.206
	DO % (Field)	%			15.7	9.6	17.8	8.4	14.9	33.7	35.4	12.6	26
	DO mg/L (Field)	mg/L			1.42	0.86	1.63	0.78	1.34	3.06	3.21	1.22	2.48
	Redox (Field)	mV			-84.8	-88.4	-110.7	-89.5	-70.8	-91.2	-49.6	-152.7	-34.7
	Temperature (Field)	℃			19.8	20.24	19.38	18.27	18.69	18.55	19.91	17.4	16.94
	Chlorine Free (Field)	mg/L			0.01	0.02	0.02	-	0.02	0	0.05	0	0
	Total Chlorine (Field)	mg/L			-	0.03	0.05	-	0.01	0.05	0.03	0.05	0.06
Key analytes	Ethanolamine	µg/L	1		<1	<1	3	3	5	<1	<1	<1	<1
	Diethanolamine	µg/L	1		<1	<1	11	2	<1	<1	<1	<1	3
	Boron (Filtered)	mg/L	0.05		<0.05	0.05	<0.05	<0.05	0.05	<0.05	<0.05	0.06	<0.05
	Chloride	mg/L	1		970	1070	357	1030	3020	2600	337	482	674
	Chlorine - Free	mg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Chlorine - Total Residual	mg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Nitrogen (Total)	mg/L	0.1		0.6	1.6	0.8	0.5	3.2	2.2	0.8	1	1
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/L	1		91	5	26	199	4	<1	8	40	<1
	Phosphorus	mg/L	0.01		0.02	0.02	0.03	0.01	0.01	0.06	0.21	0.13	0.04
Lab physical parameters	Conductivity @ 25 C	µS/cm	1		4170	4980	1650	4600	10,100	9010	1380	3120	3400
	pH (Lab)	pH_Units	0.01		7.09	7.43	7.12	6.87	7.1	7.27	6.52	7.87	8.21
	TDS	mg/L	10		2230	2740	920	2540	5750	4860	778	1740	1830
	TSS	mg/L	5		8	64	84	52	<5	<5	56	5	10
Major/minor ions	Bicarbonate Alkalinity-mg CaCO3/L	mg/L	1		535	639	212	263	885	909	194	973	799
	Carbonate Alkalinity-mg CaCO3/L	mg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Alkalinity (Hydroxide) as CaCO3	mg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Alkalinity (total) as CaCO3	mg/L	1		535	639	212	263	885	909	194	973	799
	Calcium (Filtered)	mg/L	1		188	214	106	227	226	139	76	25	14
	Magnesium (Filtered)	mg/L	1		90	54	20	71	106	82	20	2	<1
	Potassium (Filtered)	mg/L	1		15	9	20	20	10	9	4	3	2
	Sodium (Filtered)	mg/L	1		566	782	190	589	1890	1710	170	748	785
	Fluoride	mg/L	0.1		0.3	0.2	0.1	0.2	<0.1	0.4	<0.1	0.3	0.2
	Reactive Silica	mg/L	0.05		30	18.4	38.4	36	16.4	19.4	34.9	17.7	12.9
	Bromine (Filtered)	mg/L	0.1		2.9	2.8	0.8	2.5	9.2	8	0.9	1.2	1.2
	Ionic Balance	%	0.01		2.25	6.82	2.84	5.94	0.25	1.8	2.31	0.18	0.16
Nutrients	Ammonia as N	mg/L	0.01		0.4	1.56	0.65	0.56	2.44	1.7	0.5	1.12	1.09
	Ammonium as N	mg/L	0.01		0.4	1.56	0.65	0.56	2.44	1.69	0.5	1.11	1.05
	Nitrate (as N)	mg/L	0.01		<0.01	<0.01	0.01	0.04	0.04	0.02	0.06	0.01	0.02
	Nitrite (as N)	mg/L	0.01		<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrite + Nitrate as N	mg/L	0.01		<0.01	0.02	0.01	0.04	0.04	0.02	0.06	0.01	0.02
	Kjeldahl Nitrogen Total	mg/L	0.1		0.6	1.6	0.8	0.5	3.2	2.2	0.7	1	1
	Reactive Phosphorus as P	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	0.02	0.02	<0.01	0.11	0.05
	Total Organic Carbon	mg/L	1		3	3	5	3	4	1	1	29	1
Dissolved gas	Methane	mg/L	0.01		0.306	25	0.016	0.092	24.3	17.6	0.986	12	18.4
Dissolved metals	Aluminium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Antimony (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Arsenic (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	0.002
	Barium (Filtered)	mg/L	0.001		0.204	5.42	0.419	0.182	18.3	7.59	0.715	1.16	0.84
	Berryllium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cadmium (Filtered)	mg/L	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cobalt (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Iron (Filtered)	mg/L	0.05		3.95	0.45	2.22	22.2	0.88	0.68	16.6	0.33	0.07
	Lead (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Vanadium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Zinc (Filtered)	mg/L	0.005		0.014	<0.005	0.014	0.009	0.01	0.005	0.013	<0.005	<0.005
	Manganese (Filtered)	mg/L	0.001		-	-	-	-	0.02	0.126	0.263	0.074	0.036
	Mercury (Filtered)	mg/L	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Molybdenum (Filtered)	mg/L	0.001		0.002	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001
	Nickel (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001
	Selenium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Strontium (Filtered)	mg/L	0.001		1.94	8.73	1.07	3.17	16.1	9.84	1.94	2.79	1.48
	Uranium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Phenols	2,4,5-trichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2.4.6-Trichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dimethylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,6-dichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-chlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-methylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-nitrophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	3-&4-methylphenol	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	4-chloro-3-methylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Pentachlorophenol	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Phenol	µg/L	1		<1	<1	1.2	<1	<1	<1	<1	<1	<1
PAH	Acenaphthene	µg/L	1		1	<1	2.3	<1	<1	<1	<1	<1	<1
	Acenaphthylene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benz(a)anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a) pyrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b&j)fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(g,h,i)perylene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(k)fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a)pyrene TEQ (zero)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibenz(a,h)anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluorene	µg/L	1		<1	<1	2.1	<1	<1	<1	<1	<1	<1
	Indeno(1,2,3-c,d)pyrene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Phenanthrene	µg/L	1		1.9	1.3	4	1.8	<1	<1	<1	<1	<1
	Pyrene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Polycylic aromatic hydrocarbons EPA448	ug/L	0.5		2.9	1.3	9.7	1.8	<0.5	<0.5	<0.5	<0.5	<0.5
TRH	TPH C6-C10	µg/L	20		<20	<20	<20	<20	<20	<20	<20	100	<20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20		<20	<20	<20	<20	<20	<20	<20	50	<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
	TRH >C10-C16 less Naphthalene (F2)	µg/L	100		<100	<100	<100	<100	<100	<100	<100	<100	<100
TPH	C6 - C9 Fraction	µg/L	20		<20	<20	<20	<20	<20	<20	<20	100	<20
	C10 - C14 Fraction	µg/L	50		<50	<50	80	<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 (Sum of total)	µg/L	50		<50	<50	80	<50	<50	<50	<50	<50	<50
BTEX	Benzene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2		<2	<2	<2	<2	<2	<2	<2	52	<2
	Ethylbenzene	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (m & p)	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene Total	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total BTEX	µg/L	1		<1	<1	<1	<1	<1	<1	<1	52	<1
	Naphthalene	µg/L	1		<1	<1	<5 - 1.3	<1	<1	<1	<1	<1	<1

				Field_ID	WKMB01	WKMB02	WKMB03	WKMB06A	WKMB06B	WMB01	WMB02	WMB03	WMB04
				Sampled Date	23/06/2015	23/06/2015	23/06/2015	23/06/2015	23/06/2015	18/06/2015	18/06/2015	19/06/2015	18/06/2015
Chem Group	Analyte	Units	EQL										
Field	Conductivity (Field)	uS/cm			4256	983	3516	2179	1351	2942	5189	4009	3561
	pH (Field)	-			7.86	9.25	11.25	6.06	8.37	6.19	6.4	6.61	6.67
	TDS (Field)	mg/L			2.768	0.639	2.286	1.416	0.878	1913	3373	2606	2314
	DO % (Field)	%			6.3	22.7	3.4	28	5.1	22.4	13.9	27.8	38.8
	DO mg/L (Field)	mg/L			0.61	2.09	0.32	2.58	0.48	2.03	1.25	2.58	3.66
	Redox (Field)	mV			-217.2	-182.3	-234.6	-70.1	-279.7	-47.7	-58.9	-82.8	-61.7
	Temperature (Field)	°C			18.12	18.88	18.76	19.22	18.42	19.38	19.65	18.38	17.67
	Chlorine Free (Field)	mg/L			0	0.02	-	0.01	0.01	0	0	0	0.13
	Total Chlorine (Field)	mg/L			-	0.09	-	0.07	0.03	0	-	0	0.18
Key analytes	Ethanolamine	µg/L	1		<1	<1	1	<1	2	<1	<1	1	<1
	Diethanolamine	µg/L	1		<1	<1	4	<1	<1	<1	<1	<1	<1
	Boron (Filtered)	mg/L	0.05		0.1	<0.05	0.08	<0.05	0.05	<0.05	<0.05	<0.05	<0.05
	Chloride	mg/L	1		769	55	359	513	184	671	926	844	813
	Chlorine - Free	mg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Chlorine - Total Residual	mg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Nitrogen (Total)	mg/L	0.1		1.2	0.4	17.4	0.4	0.4	5.8	0.7	5.4	1.7
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/L	1		62	28	26	37	31	183	696	356	69
	Phosphorus	mg/L	0.01		0.07	0.09	0.04	0.16	0.58	0.09	0.06	0.26	0.07
Lab physical parameters	Conductivity @ 25 C	µS/cm	1		4380	974	3520	2160	1340	2920	5120	4140	3540
	pH (Lab)	pH_Units	0.01		8.02	9.37	11.2	6.53	8.7	6.41	6.67	7.26	6.83
	TDS	mg/L	10		2300	536	2180	1160	722	1620	3140	2850	1920
	TSS	mg/L	5		<5	<5	30	88	<5	181	6	178	113
Major/minor ions	Bicarbonate Alkalinity-mg CaCO3/L	mg/L	1		998	215	<1	230	365	155	472	293	588
	Carbonate Alkalinity-mg CaCO3/L	mg/L	1		<1	200	1130	<1	45	<1	<1	<1	<1
	Alkalinity (Hydroxide) as CaCO3	mg/L	1		<1	<1	197	<1	<1	<1	<1	<1	<1
	Alkalinity (total) as CaCO3	mg/L	1		998	415	1330	230	410	155	472	293	588
	Calcium (Filtered)	mg/L	1		9	2	5	82	3	115	332	309	259
	Magnesium (Filtered)	mg/L	1		1	<1	<1	38	<1	65	85	59	54
	Potassium (Filtered)	mg/L	1		2	14	9	2	1	5	8	8	7
	Sodium (Filtered)	mg/L	1		1010	218	795	295	303	365	679	434	399
	Fluoride	mg/L	0.1		1.7	0.4	2.3	0.1	0.6	<0.1	0.5	0.2	0.1
	Reactive Silica	mg/L	0.05		15.9	20.6	33.5	35.2	13.2	31.4	31.3	33.4	30.4
	Bromine (Filtered)	mg/L	0.1		2.4	0.2	0.9	1.6	0.5	1.6	2.2	1.8	1.5
	Ionic Balance	%	0.01		1.78	2.44	3.07	0.66	2.51	-	-	3	-
Nutrients	Ammonia as N	mg/L	0.01		0.61	0.33	16.6	0.28	0.37	0.01	0.67	2.08	1.2
	Ammonium as N	mg/L	0.01		0.6	0.2	0.28	0.28	0.34	<0.01	0.67	2.08	1.2
	Nitrate (as N)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	0.01	4.91	0.01	0.04	0.26
	Nitrite (as N)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.03
	Nitrite + Nitrate as N	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	0.01	4.93	0.01	0.04	0.29
	Kjeldahl Nitrogen Total	mg/L	0.1		1.2	0.4	17.4	0.4	0.4	0.9	0.7	5.4	1.4
	Reactive Phosphorus as P	mg/L	0.01		0.08	0.08	0.07	<0.05	0.7	0.01	<0.01	<0.01	<0.01
	Total Organic Carbon	mg/L	1		19	5	81	1	3	1	1	8	1
Dissolved gas	Methane	mg/L	0.01		20.8	2.81	20.8	0.021	21	<0.01	0.014	0.044	0.052
Dissolved metals	Aluminium (Filtered)	mg/L	0.01		0.02	0.12	0.08	<0.01	0.04	<0.01	<0.01	<0.01	<0.01
	Antimony (Filtered)	mg/L	0.001		<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Arsenic (Filtered)	mg/L	0.001		0.001	<0.001	0.002	0.008	0.002	<0.001	<0.001	<0.001	0.005
	Barium (Filtered)	mg/L	0.001		0.224	0.08	0.811	0.633	0.09	0.13	0.037	0.087	0.097
	Berryllium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cadmium (Filtered)	mg/L	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cobalt (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001
	Iron (Filtered)	mg/L	0.05		0.05	<0.05	<0.05	20.6	<0.05	<0.05	3.57	2.56	2.12
	Lead (Filtered)	mg/L	0.001		<0.001	<0.001	0.009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Vanadium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Zinc (Filtered)	mg/L	0.005		<0.005	<0.005	6.94	0.018	<0.005	0.029	0.012	0.025	0.135
	Manganese (Filtered)	mg/L	0.001		0.007	0.004	<0.001	0.36	0.018	0.305	0.396	-	0.11
	Mercury (Filtered)	mg/L	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Molybdenum (Filtered)	mg/L	0.001		<0.001	0.002	0.004	<0.001	0.003	<0.001	<0.001	<0.001	<0.001
	Nickel (Filtered)	mg/L	0.001		<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.002
	Selenium (Filtered)	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Strontium (Filtered)	mg/L	0.001		1.7	0.244	1.15	2.04	0.243	1.08	4.38	9.4	6.15
	Uranium (Filtered)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Phenols	2,4,5-trichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2.4.6-Trichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dimethylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,6-dichlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-chlorophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-methylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-nitrophenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	3-&4-methylphenol	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	4-chloro-3-methylphenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Pentachlorophenol	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Phenol	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
PAH	Acenaphthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Acenaphthylene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benz(a)anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a) pyrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b&j)fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(g,h,i)perylene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(k)fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a)pyrene TEQ (zero)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibenz(a,h)anthracene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluoranthene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluorene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Indeno(1,2,3-c,d)pyrene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Phenanthrene	µg/L	1		<1	<1	<1	<1	<1	1.4	1.2	<1	<1
	Pyrene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Polycylic aromatic hydrocarbons EPA448	ug/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	1.4	1.2	<0.5	<0.5
TRH	TPH C6-C10	µg/L	20		<20	<20	70	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20		<20	<20	40	<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
	TRH >C10-C16 less Naphthalene (F2)	µg/L	100		<100	<100	<100	<100	<100	<100	<100	<100	<100
TPH	C6 - C9 Fraction	µg/L	20		<20	<20	70	<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 (Sum of total)	µg/L	50		<50	<50	<50	<50	<50	<50	<50	<50	<50
BTEX	Benzene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2		<2	<2	33	<2	<2	<2	<2	<2	<2
	Ethylbenzene	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (m & p)	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene Total	µg/L	2		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total BTEX	µg/L	1		<1	<1	33	<1	<1	<1	<1	<1	<1
	Naphthalene	µg/L	1		<1	<1	<1	<1	<1	<1	<1	<1	<1

			Field_ID	ASW01	ASW02	FSW01	TSW01	TSW02	WKSW01	WKSW02	WKSW03	WRSW01	WRSW02
			Sampled Date	25/06/2015	25/06/2015	16/06/2015	16/06/2015	24/06/2015	24/06/2015	23/06/2015	23/06/2015	24/06/2015	24/06/2015
Chem Group	Analyte	Units	EQL										
Field	Conductivity (Field)	uS/cm		373	352	416	445	589	352	414	390	289	296
	pH (Field)	-		6.36	6.1	6.77	7.34	7.49	7.63	6.86	6.87	6.45	7.85
	TDS (Field)	mg/L		0.242	0.228	271	290	0.383	0.229	0.269	0.254	0.188	0.193
	DO % (Field)	%		61.8	-	65.8	79	88	75.1	61.5	71	-	87.4
	DO mg/L (Field)	mg/L		6.81	-	6.72	8.06	8.76	8.02	6.62	7.81	-	9.43
	Redox (Field)	mV		46.3	55.6	-13.4	-81.1	-69.9	39.5	-17.5	-101.7	7.1	31.5
	Temperature (Field)	°C		11.04	14.27	14.23	14.02	14.37	12.26	11.85	11.03	12.51	11.97
	Chlorine Free (Field)	mg/L		0	-	0.08	0	0.02	0.01	-	0.01	0.01	0.04
	Total Chlorine (Field)	mg/L		0.05	-	0.04	0	0	0.08	-	0	0.06	0.1
Key analytes	Ethanolamine	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Diethanolamine	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Boron (Filtered)	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloride	mg/L	1	58	55	66	68	110	64	59	61	54	55
	Chlorine - Free	mg/L	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Chlorine - Total Residual	mg/L	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Nitrogen (Total)	mg/L	0.1	0.2	0.2	0.5	0.4	0.6	0.5	0.3	0.4	0.2	0.3
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/L	1	10	10	18	19	40	13	13	18	7	8
	Phosphorus	mg/L	0.01	0.01	<0.01	0.05	0.03	0.04	0.02	0.01	0.02	<0.01	<0.01
Lab physical parameters	Conductivity @ 25 C	µS/cm	1	390	370	368	381	550	362	416	408	293	301
	pH (Lab)	pH_Units	0.01	7.62	7.24	7.16	7.27	7.32	7.42	7.32	7.1	7.31	7.37
	TDS	mg/L	10	184	167	221	240	286	202	196	201	172	174
	TSS	mg/L	5	<5	<5	<5	<5	11	<5	<5	<5	<5	<5
Major/minor ions	Bicarbonate Alkalinity-mg CaCO3/L	mg/L	1	60	58	60	59	46	55	88	69	47	52
	Carbonate Alkalinity-mg CaCO3/L	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Alkalinity (Hydroxide) as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Alkalinity (total) as CaCO3	mg/L	1	60	58	60	59	46	55	88	69	47	52
	Calcium (Filtered)	mg/L	1	15	15	13	14	15	14	22	17	13	13
	Magnesium (Filtered)	mg/L	1	9	9	10	10	15	10	12	11	7	7
	Potassium (Filtered)	mg/L	1	2	2	3	2	4	3	3	3	2	2
	Sodium (Filtered)	mg/L	1	44	41	43	43	66	43	43	45	36	36
	Fluoride	mg/L	0.1	<0.1	<0.1	0.1	0.2	<0.1	<0.1	0.1	0.2	0.1	<0.1
	Reactive Silica	mg/L	0.05	17.1	17.7	13	13	2.22	14	9.45	12.2	14.4	14.4
	Bromine (Filtered)	mg/L	0.1	0.2	0.2	<0.1	<0.1	0.3	0.2	0.2	0.2	0.1	0.2
	Ionic Balance	%	0.01	-	-	0.25	0.72	1.02	4.41	4.38	4.31	-	-
Nutrients	Ammonia as N	mg/L	0.01	0.03	0.01	0.02	0.02	0.05	0.02	<0.01	0.01	<0.01	0.08
	Ammonium as N	mg/L	0.01	0.03	<0.01	0.02	0.02	0.05	0.02	<0.01	<0.01	<0.01	0.08
	Nitrate (as N)	mg/L	0.01	0.03	0.02	0.04	0.02	0.01	0.08	0.02	0.02	0.01	0.06
	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
	Nitrite + Nitrate as N	mg/L	0.01	0.03	0.02	0.04	0.02	0.01	0.08	0.02	0.02	0.01	0.06
	Kjeldahl Nitrogen Total	mg/L	0.1	0.2	0.2	0.5	0.4	0.6	0.4	0.3	0.4	0.2	0.2
	Reactive Phosphorus as P	mg/L	0.01	0.01	<0.01	0.01	<0.01	0.01	0.02	0.01	0.02	<0.01	<0.01
	Total Organic Carbon	mg/L	1	6	4	14	11	13	9	6	8	5	5
Dissolved gas	Methane	mg/L	0.01	0.017	0.024	<0.01	0.019	<0.01	0.012	0.043	0.018	0.013	0.017
Dissolved metals	Aluminium (Filtered)	mg/L	0.01	<0.01	<0.01	0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
	Antimony (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Arsenic (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium (Filtered)	mg/L	0.001	0.047	0.046	0.043	0.043	0.053	0.045	0.037	0.043	0.05	0.05
	Berryllium (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Cadmium (Filtered)	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 (Filtered)	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 (Filtered)	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 (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Iron (Filtered)	mg/L	0.05	0.63	0.88	0.4	0.46	0.2	0.44	0.27	0.36	0.3	0.45
	Lead (Filtered)	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 (Filtered)	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 (Filtered)	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Manganese (Filtered)	mg/L	0.001	0.046	0.069	0.058	0.054	0.062	0.051	0.027	0.043	0.03	0.036
	Mercury (Filtered)	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Molybdenum (Filtered)	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 (Filtered)	mg/L	0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Selenium (Filtered)	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Strontium (Filtered)	mg/L	0.001	0.202	0.198	0.178	0.18	0.197	0.172	0.226	0.2	0.172	0.179
	Uranium (Filtered)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Phenols	2,4,5-trichlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2.4.6-Trichlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dichlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dimethylphenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,6-dichlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-chlorophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-methylphenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-nitrophenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	3-&4-methylphenol	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	4-chloro-3-methylphenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Pentachlorophenol	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Phenol	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PAH	Acenaphthene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Acenaphthylene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Anthracene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benz(a)anthracene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a) pyrene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b&j)fluoranthene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(g,h,i)perylene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(k)fluoranthene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Benzo(a)pyrene TEQ (zero)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibenz(a,h)anthracene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluoranthene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Fluorene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Indeno(1,2,3-c,d)pyrene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Phenanthrene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Pyrene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Polycylic aromatic hydrocarbons EPA448	ug/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRH	TPH C6-C10	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	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	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C34 - C40 Fraction	µg/L	100	<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	<100
	TRH >C10-C16 less Naphthalene (F2)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
TPH	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	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29-C36 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	+C10 - C36 (Sum of total)	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
BTEX	Benzene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (m & p)	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene Total	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total BTEX	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1