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APPENDIX 1

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Year	Old Site Name	EIS Site Name	Updated Monitoring Locations 2024	Assessment Goal L10 Pre-Q3 2024	Assessment Goal LeAQ 15min Post-Q3 2024	Estimated contribution Q1 (L10 Pre-Q3 2024) (LeAQ 15min Post-Q3 2024)	Estimated contribution Q2 (L10 Pre-Q3 2024) (LeAQ 15min Post-Q3 2024)	Estimated contribution Q3 (L10 Pre-Q3 2024) (LeAQ 15min Post-Q3 2024)	Estimated contribution Q4 (L10 Pre-Q3 2024) (LeAQ 15min Post-Q3 2024)	Description	Residential Property
2014	M2	C1	P1		53	46/7	47	<60	47	Remembrance Driveway (School Entrance Road)	No
2015						<53	<54	<47	55/6		
2016						<50	<50	<50	<46		
2017						53/4	55/7	56/7	53/3		
2018						48/9	50/1	<45	<46		
2019						<53	<56	<56	<48		
2020						<48	<46	<48	<45		
2021						<49	<56	<48	<60***		
2022						<52***	<53***	<50***	<50***		
2023						<50***	<52***	<57***	52/3***		
2024						53/4***	52/3***	51**	53**		
2025						35	35		<35		
2014	M3	C2	P2	45	47	<44	<47	<45	<42	Olive Lane (End of Cul-de-sac)	Yes
2015						<48**	<47	<42	44/5		
2016						44/5	<40	<45	<45*		
2017						<45**	<47**	<47	<45*		
2018						<47***	<47**	<44	<47***		
2019						<46***	<47***	<42**	<44		
2020						<46***	<44**	<46**	<45**		
2021						<45**	<45**	<45**	<51***		
2022						<47***	<50***	<45***	<44***		
2023						<44**	<44**	<52**	43/4**		
2024						46/7***	50/1***	49**	45*		
2025						35	35		<35		
2014	M5	C4	P3	45	43	<40	<40	<47	<40	Remembrance Driveway (Service Station)	Yes
2015						<40	<46	<42	<42		
2016						<40	<40	<45	<45*		
2017						<45**	<45**	<45	<40		
2018						<35	<35	<45	<40		
2019						<43**	<45**	<40**	<40		
2020						<44**	<45**	<35	<40		
2021						<45**	<45**	<42**	<48***		
2022						<45**	<45**	<44**	<40**		
2023						<42**	<44**	<50**(35)	46/7**(<37)		
2024						46/7**(<35)	46/7** (<35)	47*	43*		
2025						38	36		<35		
2014	M6	C5	P4	45 (37)	38	<35 (<35)	<43 (<35)	<38 (<35)	<30	Stratford Road	Yes
2015						<30	40/1 (-)	40/1 (-)	39/40 (-)		
2016						<35 (<35)	<50	<55	<45		
2017						<40** (<35)	<40** (<35)	<40 (<35)	<40 (<35)		
2018						<35	<37	<40	<40**		
2019						<35**	<37**	<39**	<39		
2020						<35	<39	<35	<40		
2021						<44**(<35)	<42(<35)	<40 (<35)	<42** (<35)		
2022						<40**(<35)	<43**(<35)	<44***	<40 (<35)		
2023						<44***(<35)	<44(<35)	<44***(<35)	44/5** (<37)		
2024						34/5 (<35)	42/3* (<35)	34	34*		
2025						38	35		<35		
2014	M8	C7	P5	45 (37)	N/A^	<35	<35	<35	<32	Rockford Road	Yes
2015						<33	32/3(-)	<34	<35 (-)		
2016						<33 (-)	<30 (-)	<30 (-)	<40* (<35)		
2017						<35**(<35)	<35**(<35)	<37**(<35)	<37**(<35)		
2018						<35	<35	<35	<40		
2019						<35	<35	<35	<35		
2020						<35	<35	<35	<37**		
2021						<37 (<35)	<35 (<35)	<35 (<35)	<42 (<35)		
2022						<40**(<35)	<40**(<35)	<40**	<42** (<35)		
2023						<38**(<35)	<42** (<35)	<36**(<35)	<38**(<35)		
2024						<37/8** (<35)	<44/8* (<35)	N/A	35*		
2025						35	35		35*		
2023	M11		P6		35	<35	<35	<40 (<35)	<35 (<35)	Charlies Point Rd Driveway Entrance	Yes
2024						<35 (<35)	<35 (<35)	35	34		
2025						30	30		<30		
2023	M12		P7		41	<44***	<40	<50***	<35	Remembrance Driveway (Garden Centre)	Yes
2024						<34/5	<45/6*	32	40*		
2025						35	35		<35		

NOTES: # Ambient noise controlled by insects (2-5kHz)
* Includes DECC INP +2dB(A) allowance (INP Section 11.1.3)
** Includes +2dB correction for low frequency noise (NPfl Table C.1)
*** Includes +5dB correction for low frequency noise (NPfl Table C.1)
() Noise Assessment Goal for REA
^Noise Agreement in place

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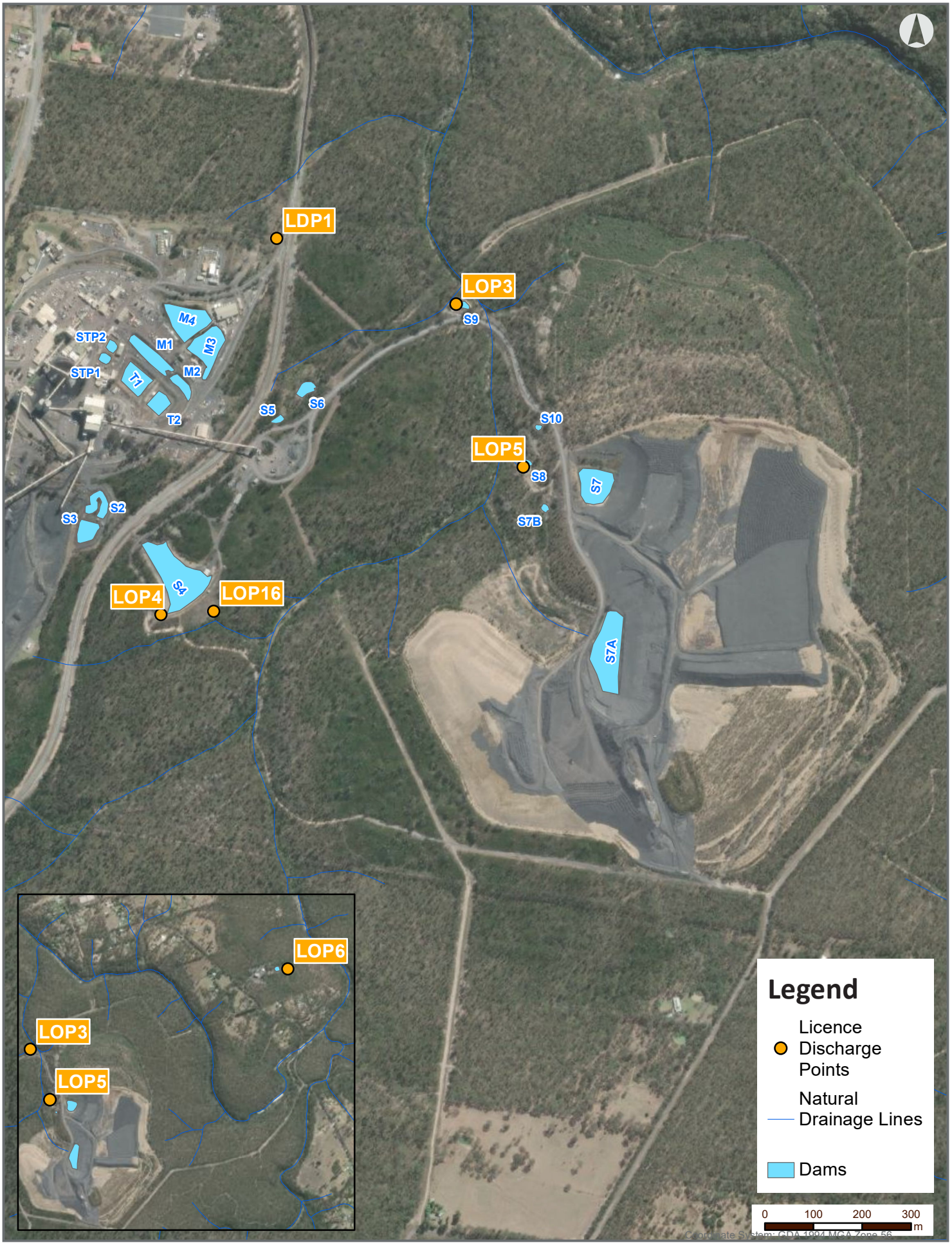

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Tahmoor Coal
EPL Discharge and Overflow Points

Date: 17/01/2025

Data Sources:
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Estimated Water Volume				
Water Storage Name	**Beginning 2025**	**End 2025**	**Capacity**	**Comments**
M1	1.8ML	1.8ML	1.8ML	M series Dams act together to treat mine water pumped from Underground and stormwater, discharged via LDP1
M2	0.5ML	0.5ML	0.5ML	
M3	9.0ML	9.0ML	9.0ML	
M4	8.0ML	3.7ML	8.0ML	
M5	2.0ML	1.5ML	3.0ML	First settling Dam for No.2 Shaft Site area (stormwater)
M6	4.5ML	3.0ML	4.5ML	Second settling Dam for No.2 Shaft Site area (stormwater)
S2/S3	8.3ML	8.0ML	8.3ML	
S4	23ML	31ML	36.9ML	The Dam is designed to act as a retention basin with a controlled outlet. Discharges via overflow Point 4.
S5	0.5ML	0.3ML	0.5ML	Silt Trap only. Discharges to S6
S6	1.5ML	1.0ML	1.5ML	This Dam is designed to act as a retention basin with a controlled outlet.
S7	20ML	29ML	41.5ML	This is the main catchment for runoff from the REA. The dam is a retention basin during peak rainfall events. All water is pumped into Dam S4 via S9.
S7A	12ML	10ML	12.0ML	These Dams are designed to act as retention basins with a controlled outlet to S7 Dam.
S7B	1.0ML	0.5ML	1.0ML	
S8	1.5ML	2.5ML	4.5ML	Dam retains overflow from S7B. Pumps to Dam S9. Discharges via LOP5.
S9	0.15ML	0.25ML	0.4ML	Silt trap only for sealed Haul road. Wet well pumps to Dam S4. Discharges via LOP3.
STP1	590KL	590KL	590KL	Treated effluent overflows to M1 Dam.
STP2	590KL	590KL	590KL	
Tank No.1	250KL	250KL	250KL	Underground potable water supply
Tank No.2	250KL	250KL	250KL	Underground potable water supply

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APPENDIX 4

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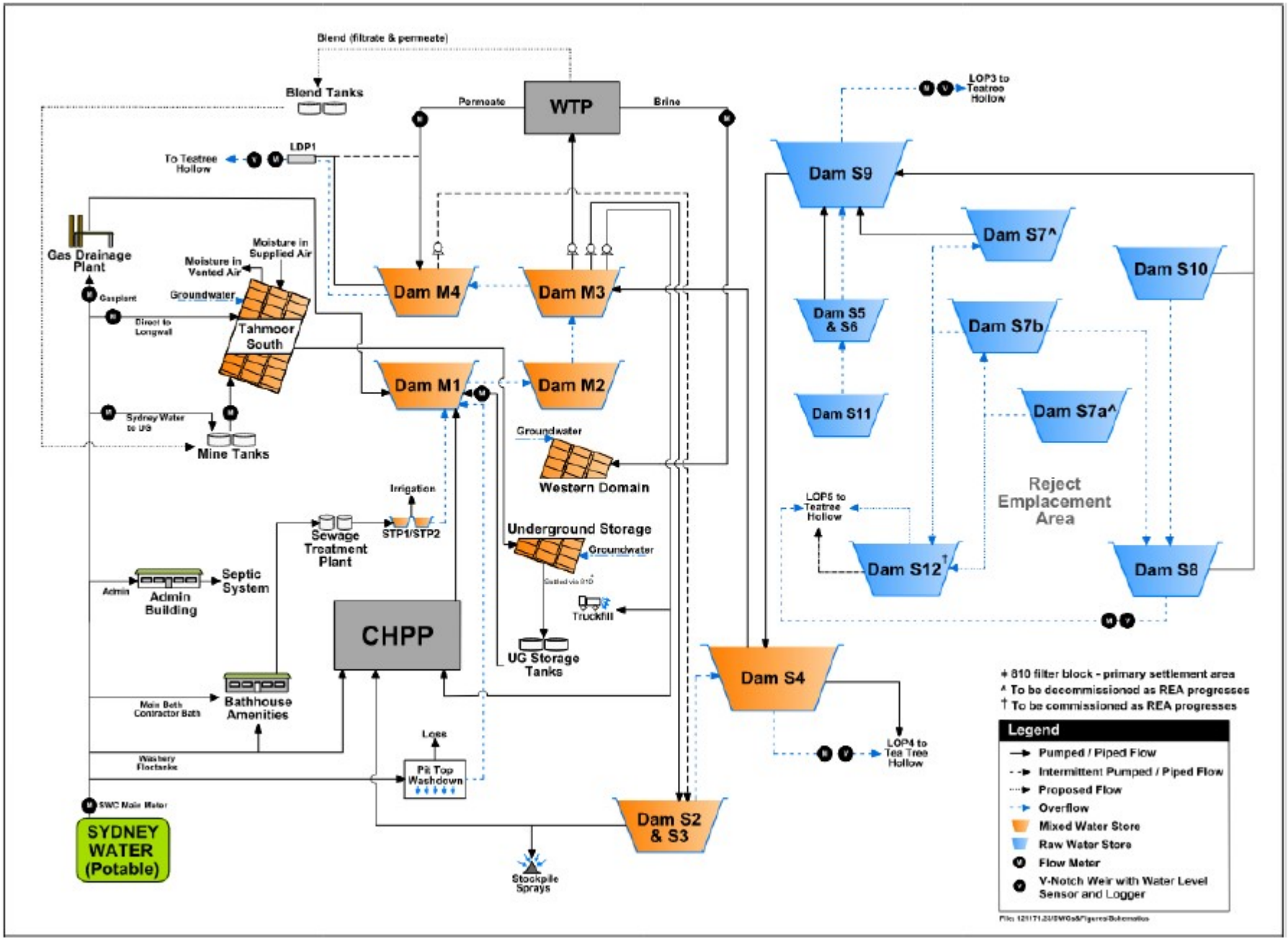
Blend (filtrate & permeate)
Blend Tanks
Permeate
WTP
Brine
LOP3 to Teatree Hollow
To Teatree Hollow
LDP1
Dam S9
Dam S7^
Dam S10
Gas Drainage Plant
Moisture in Vented Air
Moisture in Supplied Air
Gasplant
Groundwater
Dam M4
Dam M3
Dam S5 & S6
Dam S7b
Direct to Longwall
Tahmoor South
Dam M1
Dam M2
Dam S11
Dam S7a^
Sydney Water to UG
Mine Tanks
Groundwater
Western Domain
Reject Emplacement Area
LOP5 to Teatree Hollow
Irrigation
Sewage Treatment Plant
STP1/STP2
Underground Storage
Groundwater
Dam S12†
Dam S8
Admin
Admin Building
Septic System
CHPP
Truckfill
UG Storage Tanks
Dam S4
Main Bath Contractor Bath
Bathhouse Amenities
Loss
Washery Flocbarke
Pit Top Washdown
LOP4 to Tea Tree Hollow
SWC Main Meter
SYDNEY WATER (Potable)
Dam S2 & S3
Stockpile Sprays
+ 810 filter block - primary settlement area
^ To be decommissioned as REA progresses
† To be commissioned as REA progresses
Legend
Pumped / Piped Flow
Intermittent Pumped / Piped Flow
Proposed Flow
Overflow
Mixed Water Store
Raw Water Store
Flow Meter
V-Notch Weir with Water Level Sensor and Logger

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APPENDIX 5

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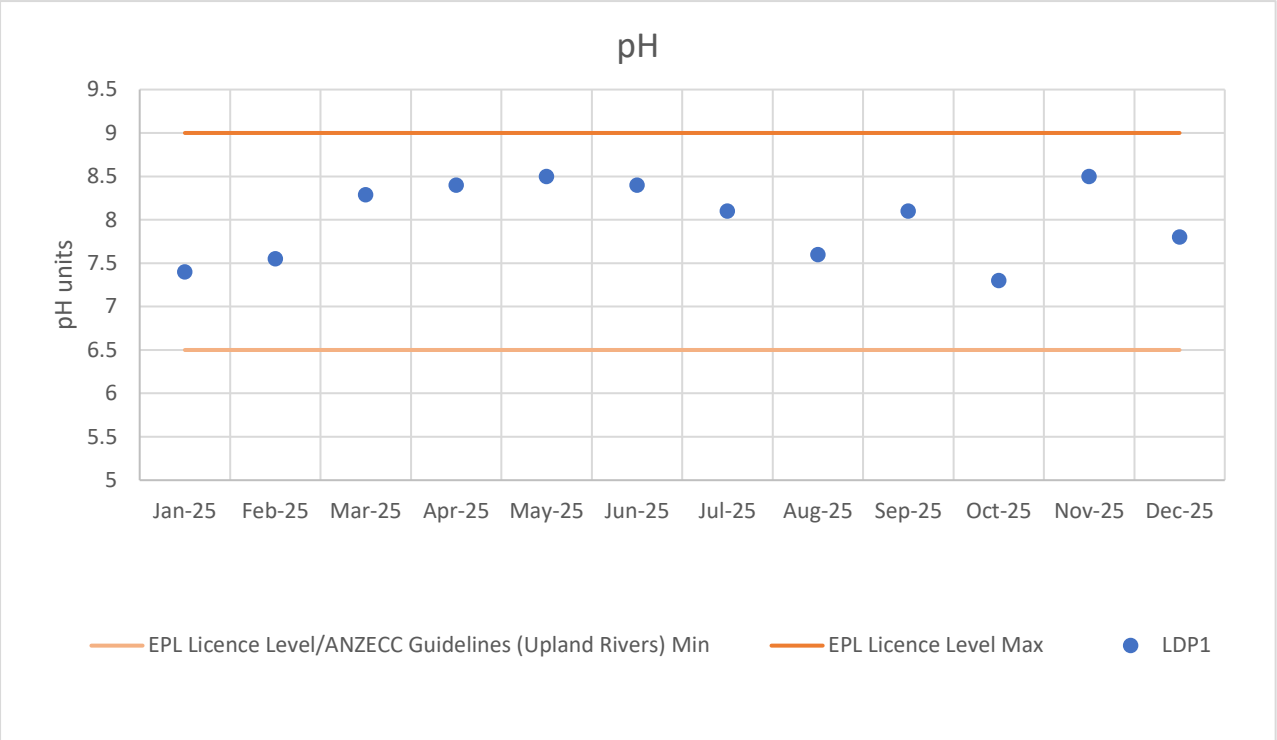

Figure 1 Monthly Compliance Monitoring of pH at LDP1 for the reporting period.

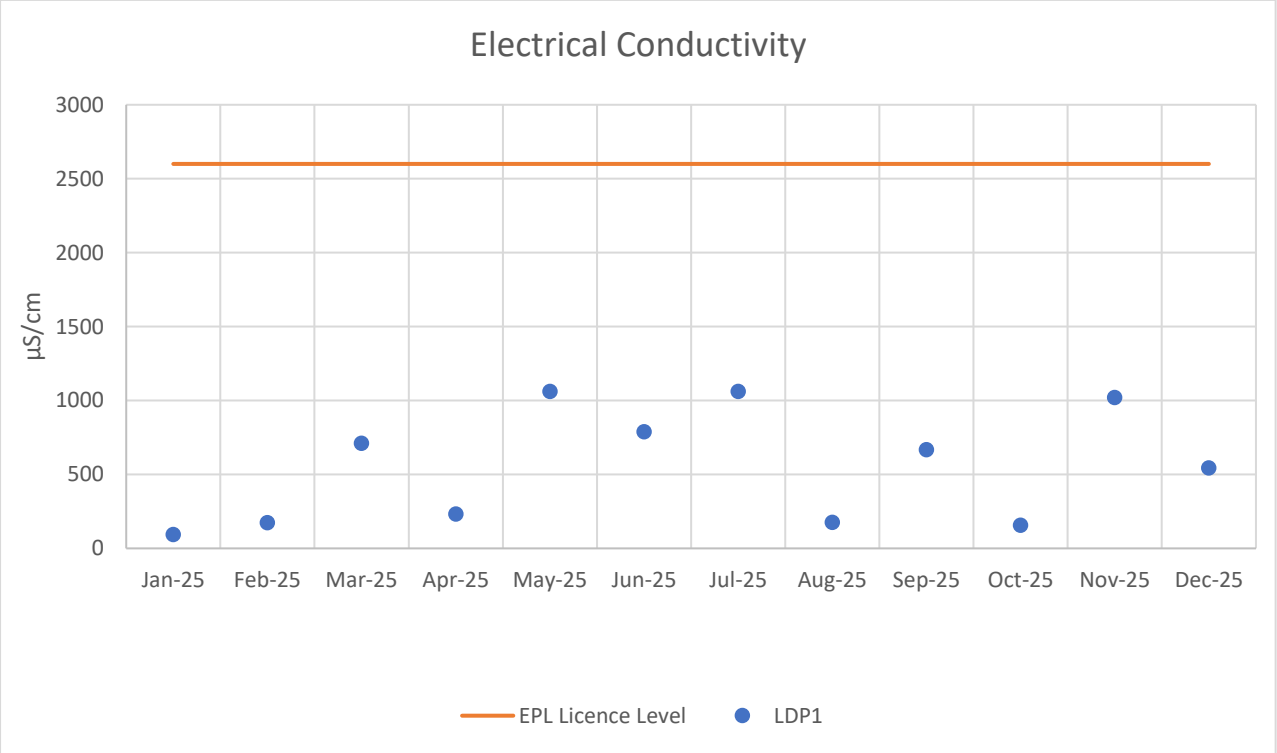

Figure 2 Monthly Compliance Monitoring of EC at LDP1 for the reporting period.

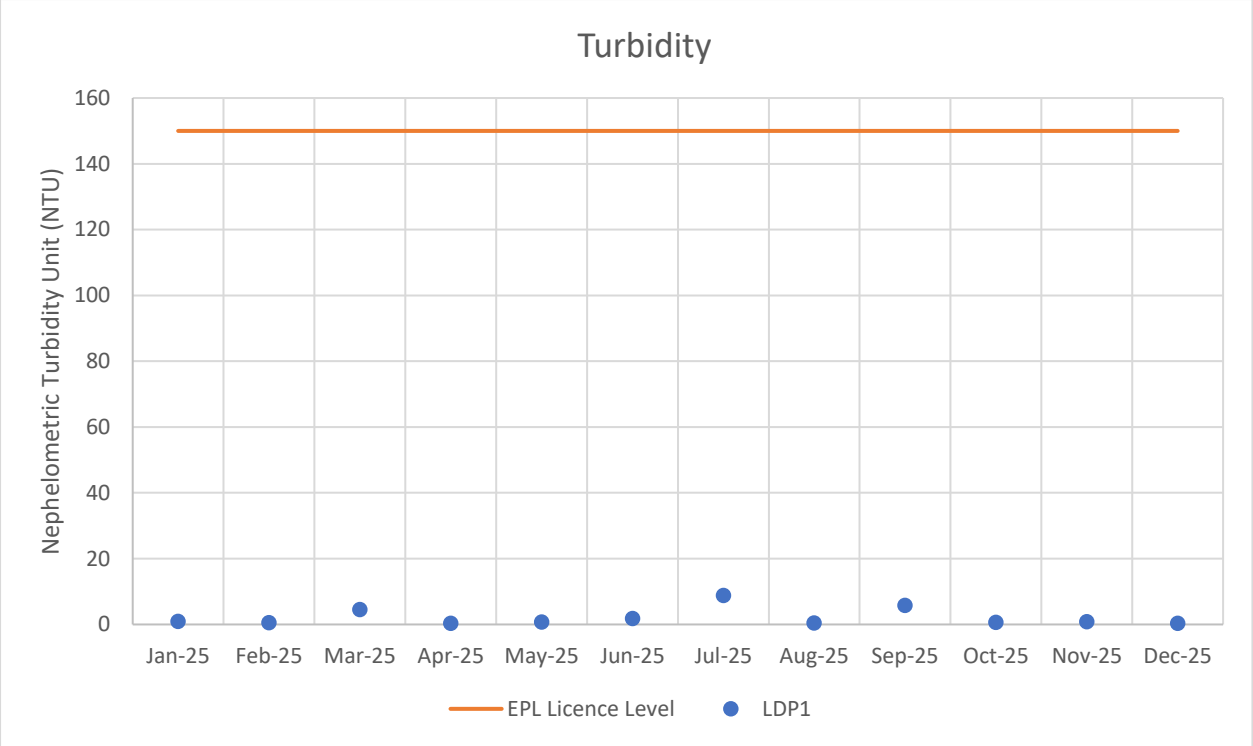

Figure 3 Monthly Compliance Monitoring of Turbidity at LDP1 for the reporting period.

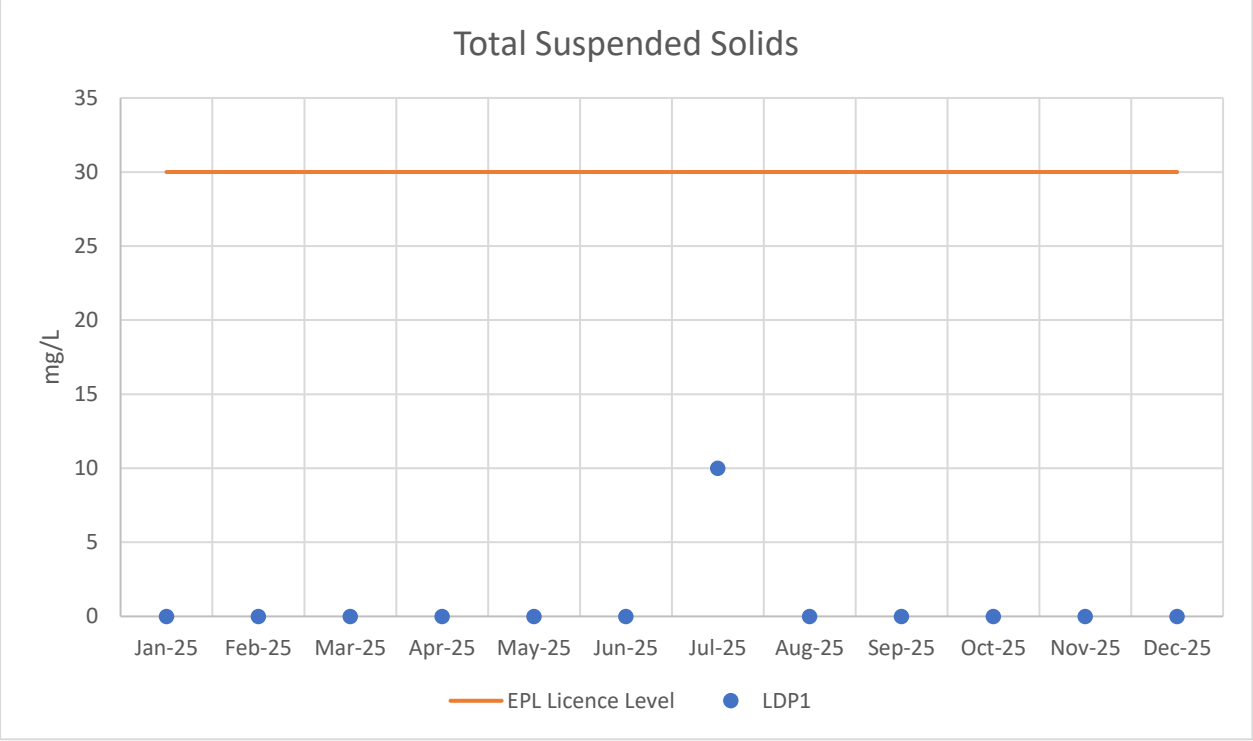

Figure 4 Monthly Compliance Monitoring of Total Suspended Solids at LDP1 for the reporting period.

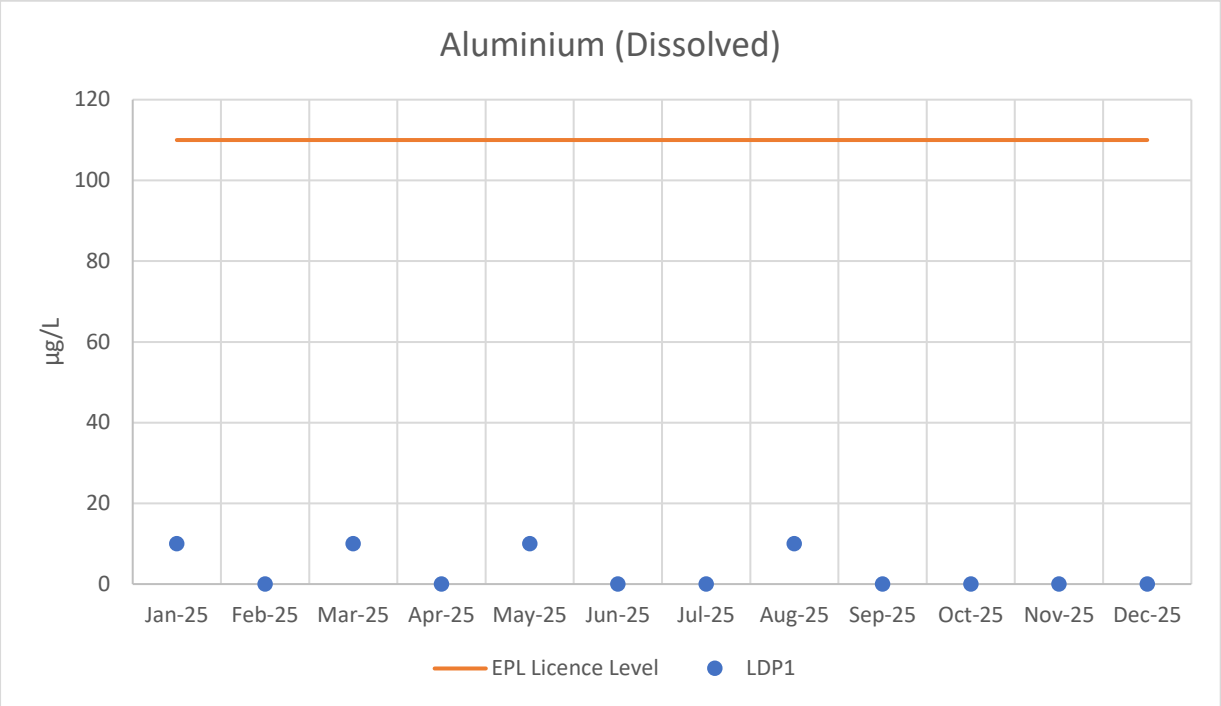

Figure 5 Monthly Compliance Monitoring of Dissolved Aluminium at LDP1 for the reporting period.

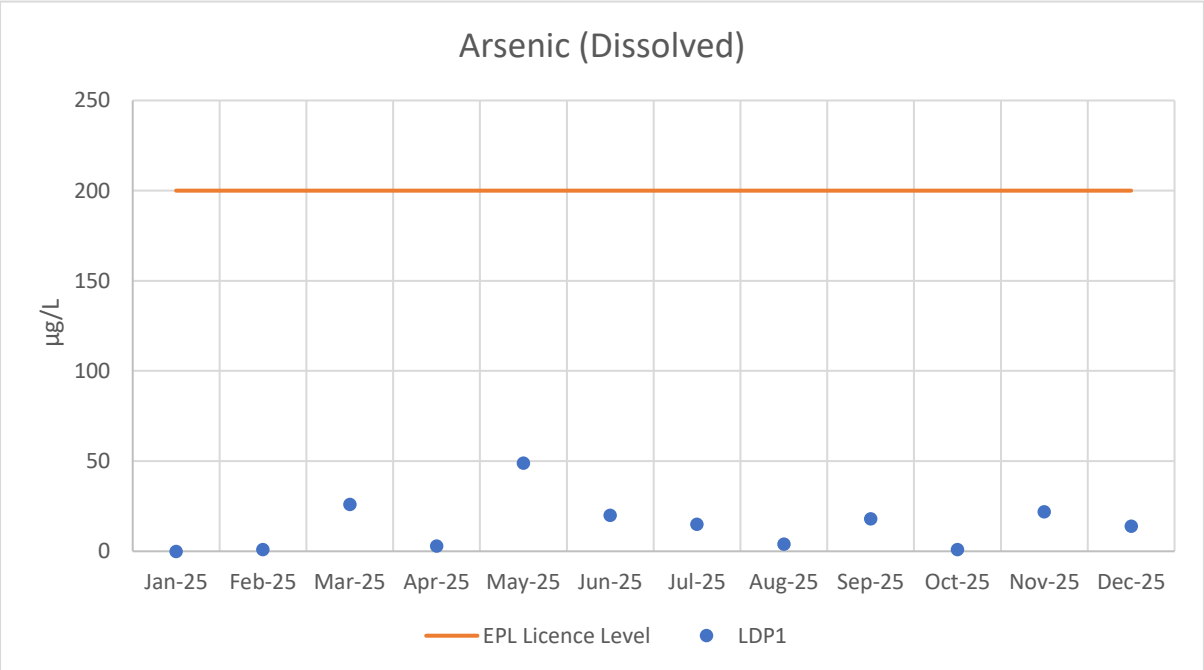

Figure 6 Monthly Compliance Monitoring of Arsenic at LDP1 for the reporting period.

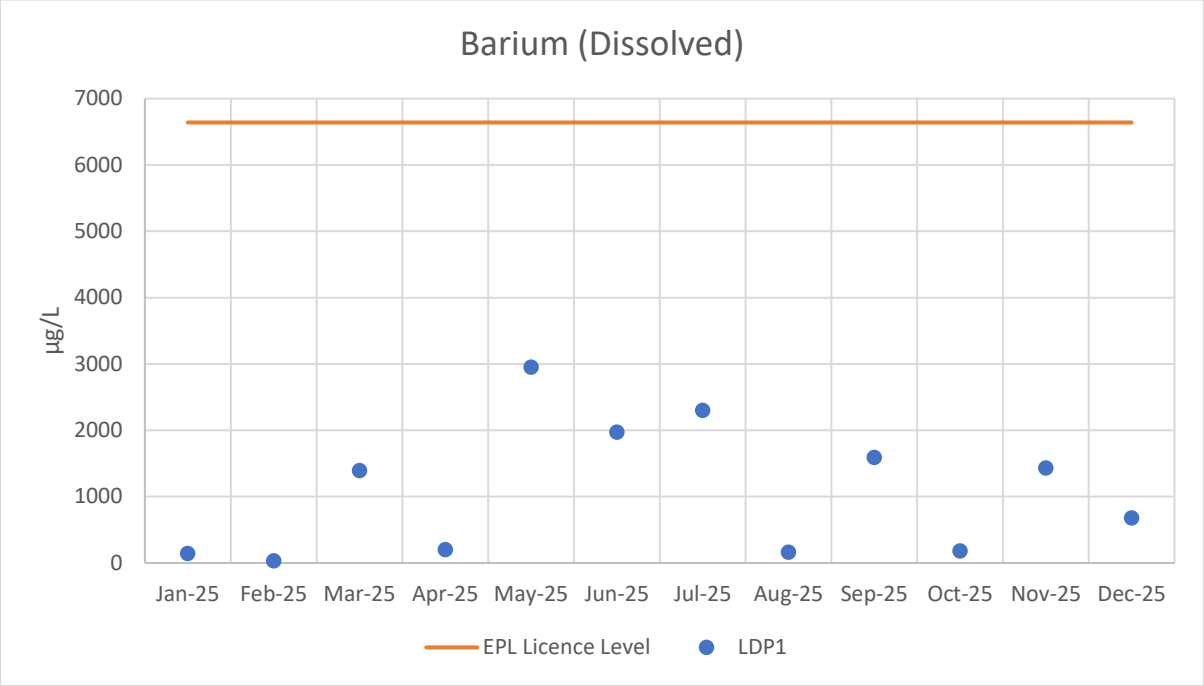

Figure 7 Monthly Compliance Monitoring of Dissolved Barium at LDP1 for the reporting period.

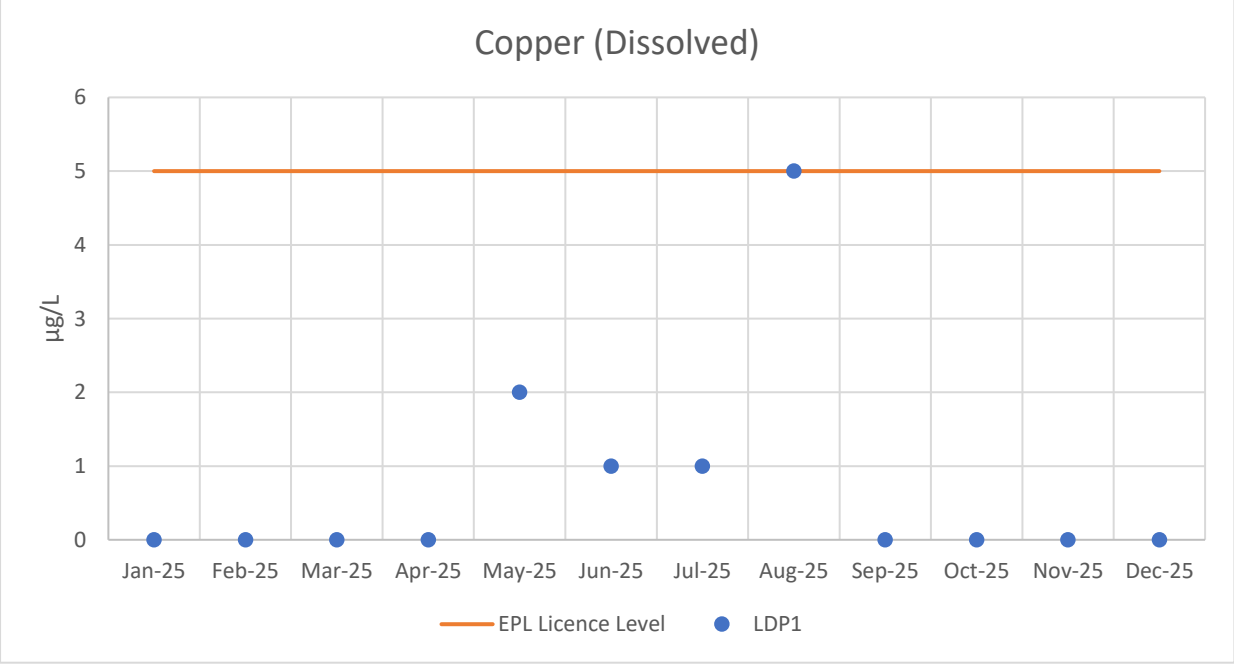

Figure 8 Monthly Compliance Monitoring of Dissolved Copper at LDP1 for the reporting period.

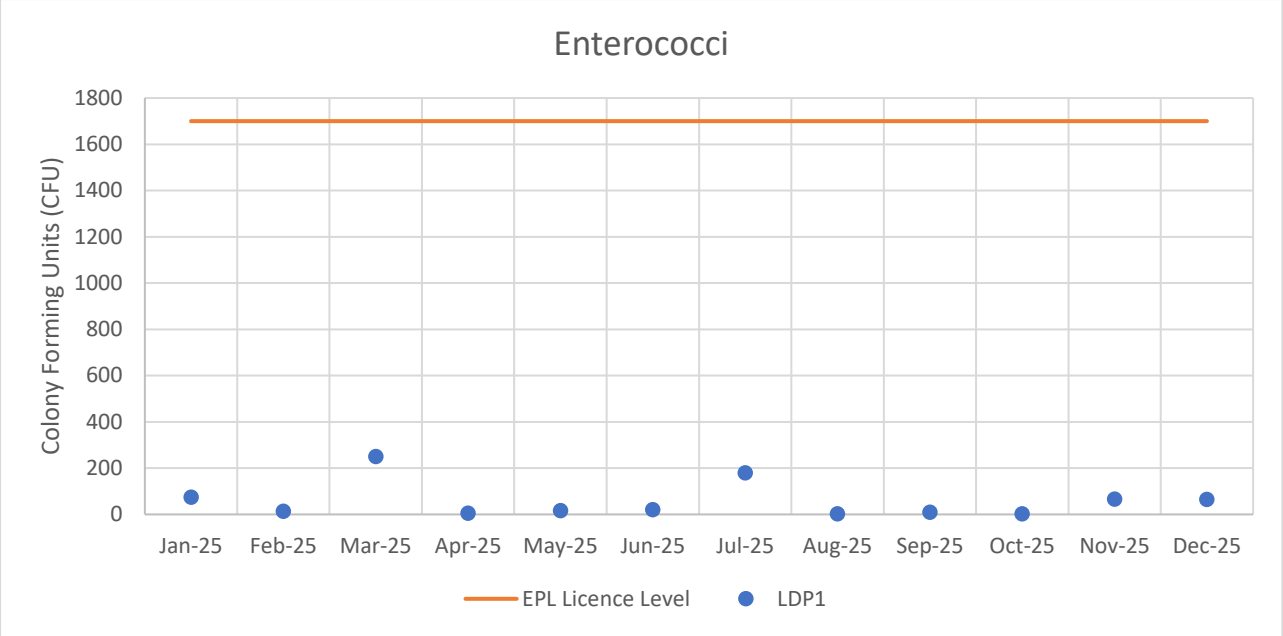

Figure 9 Monthly Compliance Monitoring of Enterococci at LDP1 for the reporting period.

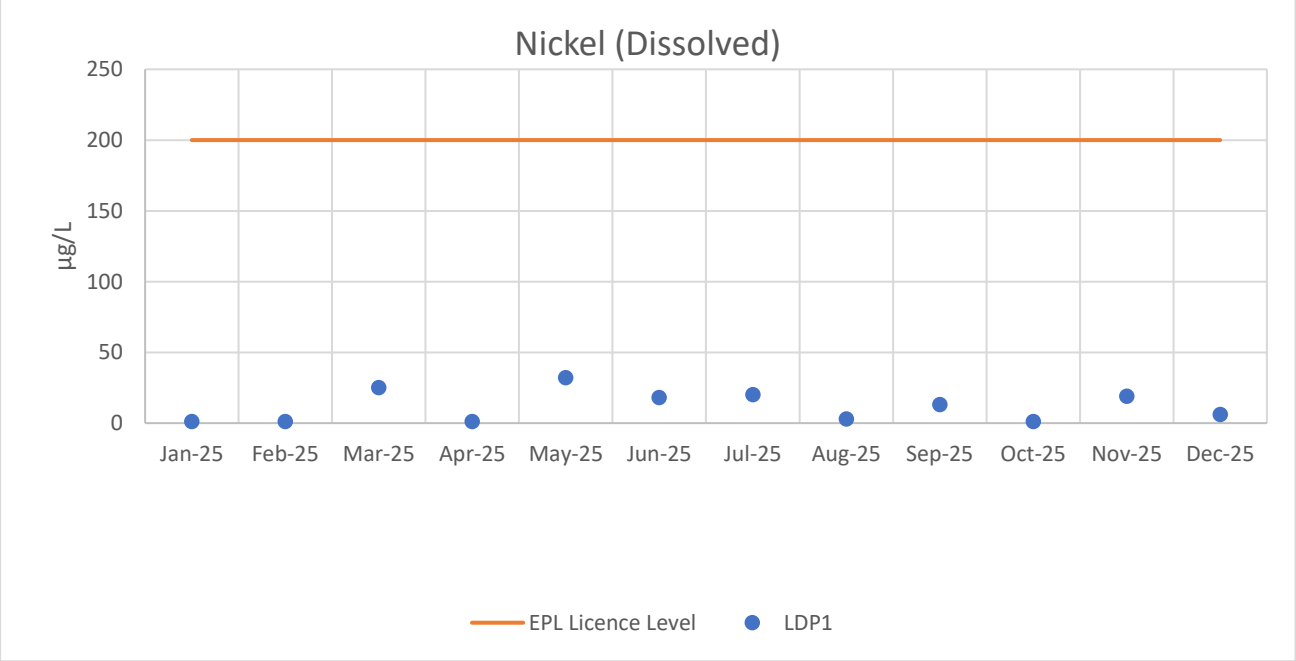

Figure 10 Monthly Compliance Monitoring of Nickel at LDP1 for the reporting period.

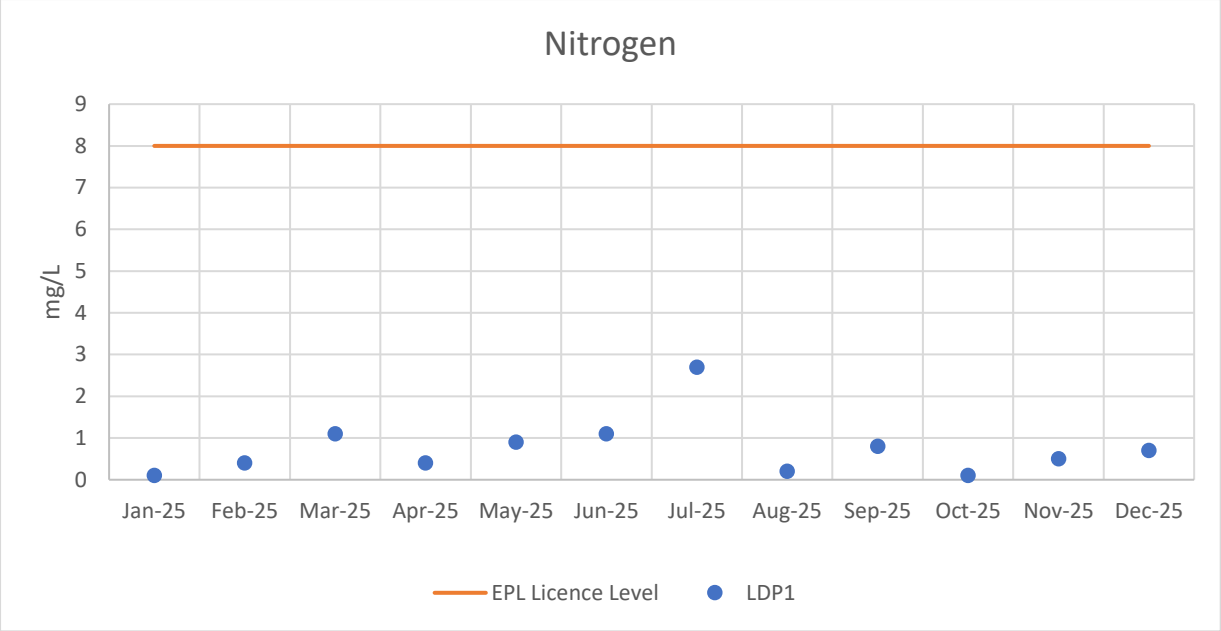

Figure 11 Monthly Compliance Monitoring of Nitrogen at LDP1 for the reporting period.

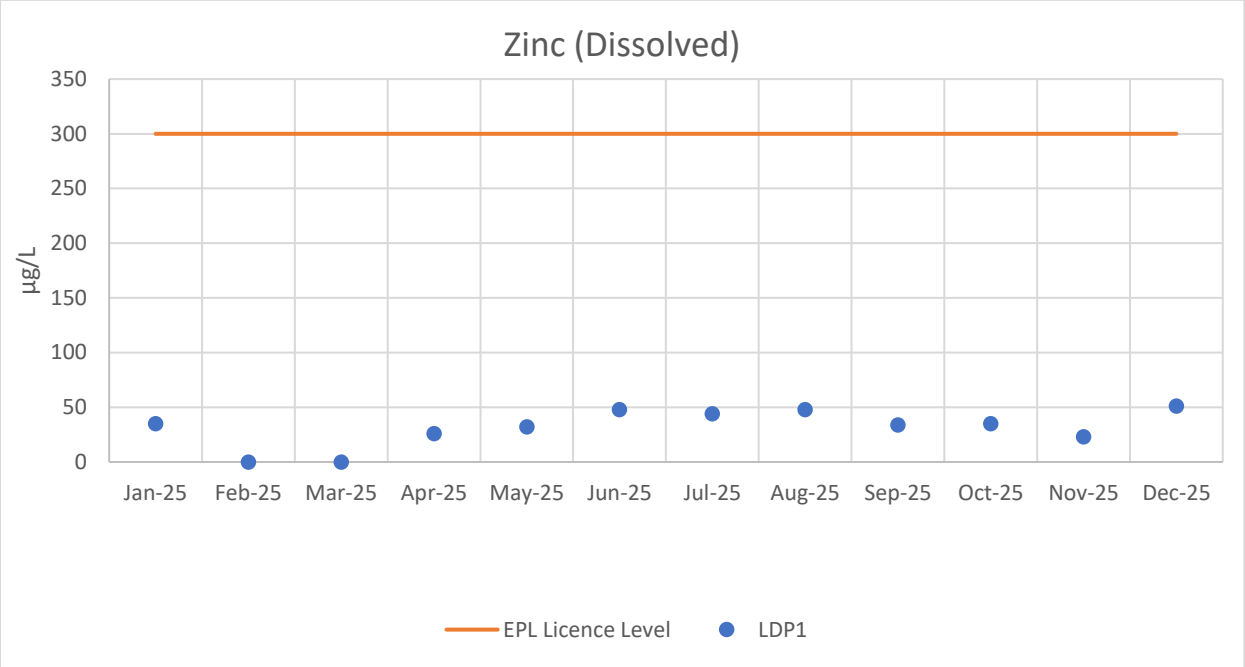

Figure 12 Monthly Compliance Monitoring of Dissolved Zinc at LDP1 for the reporting period.

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			Pit Top						REA													
		Well Name	Pit Top 1		Pit Top 2		Pit Top 4		REA1		REA2		REA3		REA4				REA5		REA6		REA7	
		Sample Name	PT1		PT2		PT4		REA1		REA2		REA3		REA4				REA5		REA6		REA7	
Date			27/3/25	19/06/2025	27/3/25	19/06/2025	27/3/25	19/06/2025	27/3/25	19/06/2025	27/3/25	19/06/2025	27/3/25	19/06/2025	27/3/25	19/06/2025	27/08/2025	26/11/2025	27/3/25	19/06/2025	27/3/25	19/06/2025	27/3/25	19/06/2025
Parameters	Units	PQL																				
Initial Standing Water Level	mBTOC	0.01	Buried	Buried	Buried	Buried	28.34	27.75	41.05	40.97	32.15	31.88	34.29	1.74	34.43	33.13	32.96	35.94	1.92	33.8	38.06	37.88	23.64	22.51
Final Standing Water Level	mBTOC	0.01					-		-		-		-		-				-		-		-	
Total Well Depth	mBTOC	0.01					32.85	32.82	55.92	55.82	54.92	55.15	39.73	7.35	53.62	39.69	54.35	53.37	7.32	54.15	40.45	40.38	38.22	38.30
Flow estimation	L/s	5.00													-									
Volume of Water Purged	L	1													1									
Total Dissolved Solids (field)	mg/L	0.10					251	257	397	337	226	200	988	344	565.5	937	170.3	96	165	443	903	838	221	225
Dissolved Oxygen (field)	mg/L	0.01					1.23	0.28	0.83	0.86	2.30	1.47	1.14	0.62	2.05	1.25	6.31	1.86	1.36	933	0.94	0.32	0.59	0.77
Electrical Conductivity (field)	µS/cm	1					386	442	533	519	349	308	1520	530	874	1440	237	146	254.00	682	1394	1288	391	346
pH (field)	pH units	0.10					6.79	6.62	6.01	6.08	6.49	6.67	5.62	5.77	5.73	5.68	7.2	6.13	6	5.76	5.74	5.79	6.83	695
Redox (field)	mV	1.00					-112	-65	-77	-120	-105	-4	-24	17	-31	6	-68	24.0	67	18	-25	-18	-20	-24
Temperature (field)	°C	0.1					19.1	14.9	18.9	15.4	18.8	15.7	18.7	16.2	17.90	16.40	16.20	18.4	18.00	16.70	18.90	16.30	19.3	16.4
Calcium - Dissolved	mg/L	0.5					19	25	2	2	34	45	17	9.8	6.4	12	15	20	2	2	13	14	8.7	10
Potassium - Dissolved	mg/L	0.5					8.9	7.8	1	2	3	4	4	3	3	7.6	3	4	3	3	3	4	27	30
Sodium - Dissolved	mg/L	0.5					16	38	82	92	11	8.6	100	180	89	77	12	6.5	24	37	200	230	36	34
Magnesium - Dissolved	mg/L	0.5					5.3	16	5.6	6.5	3	3	22	38	13	12	1	0.6	4	6.8	17	19	2	2
Hardness	mgCaCO3/L	3					68	130	29	33	96	120	130	180	72	78	44	53	21	34	100	120	28	32
Hydroxide Alkalinity (OH-) as CaCO3	mg/L	5					<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as CaCO3	mg/L	5					120	110	130	120	140	120	59	52	29	60	54	52	16	31	130	110	130	130
Carbonate Alkalinity as CaCO3	mg/L	5					<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Alkalinity as CaCO3	mg/L	5					120	110	130	120	140	120	59	52	29	60	54	52	16	31	130	110	130	130
Sulphate, SO4	mg/L	1					8	72	10	10	5	6	14	24	17	20	4	8	9	11	39	40	27	28
Chloride, Cl	mg/L	1					6	22	68	67	9	8	260	340	150	110	21	14	41	77	270	270	6	6
Ionic Balance	%						-9	3	-5	3	-13	2	-10	2	1	4	-7	-5	-3	-12	-1	7	-8	-7
Total Nitrogen in water	mg/L	0.1					1.4	1.3	0.2	0.1	0.6	0.6	0.3	<0.1	0.1	<0.1	0.3	3.3	0.8	0.3	0.1	<0.1	0.6	0.4
Fluoride, F	mg/L	0.1					0.1	<0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	<0.1	<0.1	0.2	0.1	0.4	0.3	0.2	0.2
Dissolved Organic Carbon	mg/L	1					19	13	1	1	9	9	2	<1	1	<1	5	5	3	2	1	<1	2	2
Phosphorus - Total	mg/L	0.05					0.57	0.3	<0.05	<0.05	0.1	0.08	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Aluminium-Total	µg/L	10					3500	1700	110	140	2900	4200	580	280	<10	40	970	760	760	820	280	230	410	240
Arsenic-Total	µg/L	1					5	7	<1	<1	2	2	2	1	<1	<1	4	4	<1	1	<1	<1	2	2
Barium-Total	µg/L	1					120	93	78	79	45	46	230	300	140	140	22	17	54	93	77	81	35	32
Cobalt-Total	µg/L	1					6	13	2	2	3	2	34	41	15	16	2	1	5	37	30	32	1	<1
Copper-Total	µg/L	1					16	7	<1	4	7	9	4	2	<1	<1	3	4	4	5	<1	4	4	3
Iron-Total	µg/L	10					4800	2800	11000	13000	3000	3600	32000	39000	22000	24000	2400	1800	3600	22000	25000	25000	1200	620
Lithium-Total	µg/L	1					6	2	130	150	3	4	22	29	14	15	3	3	3	8	27	30	73	84
Manganese-Total	µg/L	5					460	480	650	790	470	370	2300	3100	1800	1800	160	71	240	1600	1600	2000	39	40
Nickel-Total	µg/L	1					10	5	42	48	3	2	26	36	15	17	2	3	9	20	21	21	3	3
Lead-Total	µg/L	1					11	5	1	1	6	6	2	<1	<1	<1	2	2	8	9	<1	<1	2	<1
Selenium-Total	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Strontium-Total	µg/L	1					160	160	14	19	170	180	98	74	62	48	90	100	12	17	270	280	79	93
Zinc-Total	µg/L	1					450	860	15	26	41	38	110	210	7	26	27	70	460	310	11	10	50	36
Aluminium-Dissolved	µg/L	10					20	110	<10	<10	230	350	60	10	<10	<10	1300	30	50	30	20	10	80	60
Arsenic-Dissolved	µg/L	1					2	4	<1	<1	2	<1	<1	<1	<1	<1	3	<1	<1	<1	<1	<1	1	1
Barium-Dissolved	µg/L	1					41	63	69	73	28	24	120	250	140	120	20	11	42	67	71	75	29	29
Cobalt-Dissolved	µg/L	1					1	9	1	2	1	<1	22	37	17	12	1	<1	<1	42	29	28	<1	<1
Copper-Dissolved	µg/L	1					2	2	<1	<1	<1	2	<1	<1	<1	<1	2	2	2	<1	<1	<1	2	2
Lithium-Dissolved	µg/L	1					2	2	130	140	<1	2	13	25	13	15	3	1	3	5	25	29	57	65
Manganese-Dissolved	µg/L	5					180	300	620	730	410	8	1700	2800	1800	1500	130	6	36	1900	1900	1900	<5	22
Nickel-Dissolved	µg/L	1					3	2	41	45	<1	<1	17	33	16	13	2	1	8	16	21	19	2	2
Lead-Dissolved	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Selenium-Dissolved	µg/L	1					<1	<1	2	<1	3	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Strontium-Dissolved	µg/L	1					160	150	19	18	160	160	110	74	72	74	91	100	13	15	270	280	86	88
Zinc-Dissolved	µg/L	1					30	460	10	7	3	11	16	110	8	29	14	35	470	330	10	5	12	13
Iron-Dissolved	µg/L	10					190	270	12000	14000	1600	190	30000	42000	1300	21000	450	60	30	8000	26000	26000	60	40

Note:
NT: Not tested
N/A: not applicable
*REA5 pH noted - await Q1 2025 results - will continued to be monitored.

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APPENDIX 7

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2025 Annual Rehabilitation Walkover

Refuse Emplacement Area









Document tracking

Project Name	Tahmoor Coal Pty Ltd Rehabilitation Monitoring 2025
Prepared by	Natalie Brumby
Version Number	1.0
Status	Final

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Abbreviations

Abbreviation	Description
REA	Refuse Emplacement Area

1.0 Introduction

Tahmoor Coal has undertaken the Annual Rehabilitation Walkover for 2025 of the 9 rehabilitated areas located within the Refuse Emplacement Area (REA) of Tahmoor Coking Coal Operations in Tahmoor.

The permanent monitoring plots were not monitored during 2025 due to contractual issues, hence there will be no report supplied for 2025.

The rehabilitation monitoring was undertaken in accordance with the Tahmoor Coal Rehabilitation Management Plan (TAH-HSEC-00402), Rehabilitation Strategy (TAH-HSEC-00401) and Rehabilitation Monitoring procedure (TAH-HSEC-00012). This report and its Appendices document the results for 2025. This is completed by the following:

- An annual walkover inspection of all areas within the Refuse Emplacement Area (REA) where rehabilitation activities have been completed including newly established revegetation (**Appendix A**); and
- Monitoring of Grass Trials established with in older sections of revegetation to consider the efficacy of planting and/or seeding with native grasses to increase native vegetation cover and increase organic matter in the soil profile, in patches with limited vegetation (**Appendix A**).

These guidelines state:

“The objective of this monitoring is to evaluate progress of rehabilitation towards fulfilling long term land use objectives, such as the development towards a self-sustaining ecosystem.”

1.1 Background

Rehabilitation of vegetation within the REA has been carried out since 1993, as each stage of the refuse emplacement was constructed. The permanent monitoring sites program began in 2010 with the establishment of two permanent plots within each existing section of the REA and two reference site plots within relatively undisturbed native vegetation nearby of the same Plant Community Type. As each stage of the REA was completed permanent plots have been established following revegetation. In addition, further plots were established in areas greater than four hectares to address the recommendations for native vegetation monitoring provided in the Rehabilitation Strategy. In future, in accordance with monitoring guidelines, additional permanent plots will be installed as each area of revegetation within the REA reaches an age of 5 years from planting.

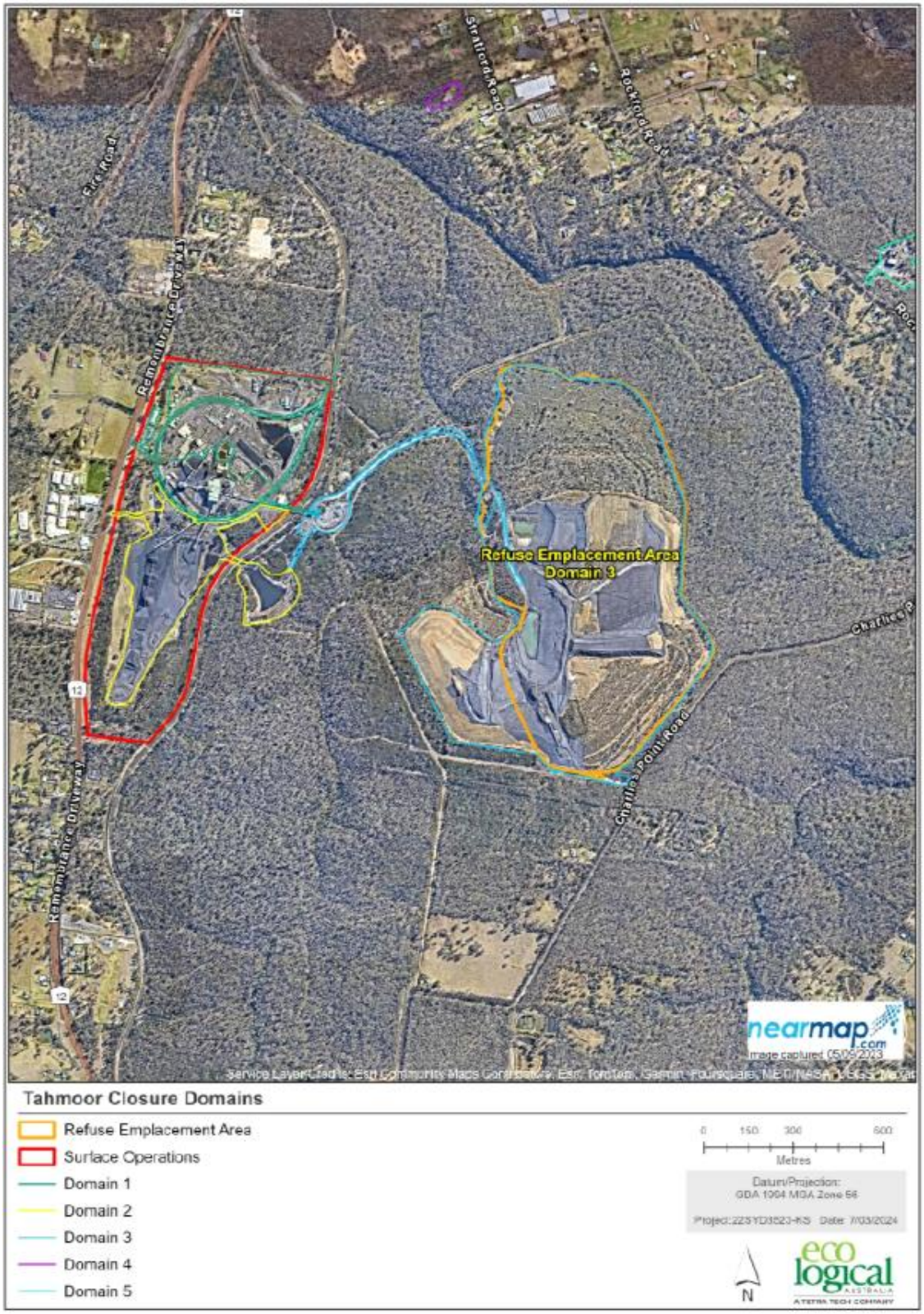

Figure 1 – Tahmoor Coal surface operations and refuse emplacement area.

2.0 Methodology

The walkover inspection records details across each stage and includes information on the following factors:

- evidence of soil profile development and visual assessment of surface materials;
- evidence of erosion and stability, and function of erosion and sediment control structures
- growth rates and evidence of plant mortality or dieback
- species diversity including identification of target species
- presence of over-storey, midstorey and understorey species
- evidence of reproductive potential
- evidence of biological nutrient cycling
- occurrence of potholing or slumping and evidence of spontaneous combustion
- evidence of contamination or other limitations to vegetative establishment.

Native grass species have been trialed via direct seeding, in areas where the existing vegetation within established revegetation areas was sparse. These grass planting trials were monitored to review the survival and growth of planted species.

More detailed presentation of the monitoring results is included in the appendices:

- Appendix A - Monitoring 2025 - Annual Walkover – Refuse Emplacement Area and No. 2 Shaft Power Corridor.

These appendices include collated details of the recorded monitoring results, the collected field data sheets, and monitoring photographs.

3.0 Results

3.1 Previous Monitoring Results

Revegetation across the REA was highly variable with some sections approximately 31 years old and others newly established with seeding carried out 36 months prior to monitoring. The native species included in the revegetation mix also varies, in both diversity and structural representation, between those areas revegetated prior to 2006 and those revegetated more recently.

Characteristics of sections revegetated prior to 2006 include (Stages 1-5, 6 & 9):

- Canopy species including Eucalyptus species, Angophora species and Allocasuarina littoralis (Black She-oak) providing canopy cover ranging from good to limited, heights up to 10 m and exhibiting good growth. Second generation A. littoralis were common near mature plants, with other canopy species second generation plants beginning to appear.
- Smaller tree species including Acacia decurrens (Black Wattle) and Acacia binervia (Coast Myall) were also regenerating with second generation individuals present.
- A midstorey that varied from dense stands of Kunzea ambigua (Tick Bush) or the non-local species Leptospermum laevigatum (Coast Teatree) to scattered Acacia species interspersed with other less abundant native species.
- Highly effective weed control actions reduced weed cover where extensive stands of the weed Andropogon virginicus (Whiskey Grass) and smaller populations of Eragrostis curvula (African Lovegrass) were present and excluded all other species. Weed cover was generally low with weed control providing good on-going results.
- Increasing colonisation by native grasses with cover increasing annually in most areas, including where exotic grasses have been controlled.
- Vegetation was dominated by Acacia species, many of which are senescent or in some sections mixed native vegetation that is not representative of the local native plant communities. Senescent Acacias becoming less common.
- Good species diversity including target species of nearby remnant vegetation; however, many species had a low abundance.
- All species exhibited signs of good reproduction potential including the threatened species, Persoonia bargoensis and Grevillea parviflora subsp. parviflora (Small-flower Grevillea).

Characteristics of sections revegetated in 2007 (Stage 8):

- originally planted with pasture species as a stabiliser, and was still dominated by exotic grasses in 2016;
- trial of reseeding using the soil amelioration product OGM proved not suitable for the REA;
- very limited cover by native species, both target and non-target;
- scattered patches of native grasses with good cover prior to 2017;
- revegetation and rehabilitation measures were ceased in 2023 with area stripped and re-emplaced;
- Stage was re-capped with topsoil and seeded in September 2023; and
- Rehabilitation continues to contain limited germination of native seed.

Characteristics of sections revegetated post 2010 (Stages 12a, 14 & 16 and No.2 Shaft 11KV Power corridor) are:

- generally good germination rates on level areas with species from all strata represented;
- germination more variable on slopes but still adequate;
- growth rates moderate to very good; and
- limited weed populations.

3.2 Monitoring Results in 2025

Erosion Controls

Erosion control structures, which were implemented in 2019, remain in good condition and no major erosion was recorded along the slopes of the REA. An area in Stage 1, where seepage affected vegetation growth, was rehabilitated with the ripping of the soil surface and mulching in 2018. This area continues to be in a good condition with strong growth from the Callistemon sp. and with no seepage evident in 2025. Nearby the seepage area, minor erosion has also been recorded, this is shown on the boundary of Stage 1 and Stage 5 in **Figure 2** below. Erosion has remained in Stage 9 on an access road from the Haul Road and in two (2) areas in Stage 17 with slight increase in erosion over the past 12 months (see **Figure 2**).

This should continue to be monitored and minor works required to rectify the erosional areas identified.

Grass Trials

Monitoring of grass trials was undertaken as part of the 2025 works. The fencing around most of the grass trials has been damaged by wildlife and will need to be remediated.

During 2025, weed coverage has remained low in Trial H and still remains the highest in grass cover when compared with all the other Trials across the REA. Trial E and F had the least grass coverage however good diversity in emerging seedling species. Trials B and C had good grass coverage with less species diversity. Low weed presence was noted for all trails during 2025 inspections. Trial A had sparse grass coverage with casuarina sp. development progressing from seedlings to saplings with strong growth indicators. There was an overall pattern of reduced cover and abundance of exotic species.

Reference and Permanent Plot Monitoring

The reference plots and permanent monitoring plots were not monitored for 2025.

Table 1 provides further details of the monitoring results from the 2025 Walkover assessment in comparison with results from earlier years and recommendations.

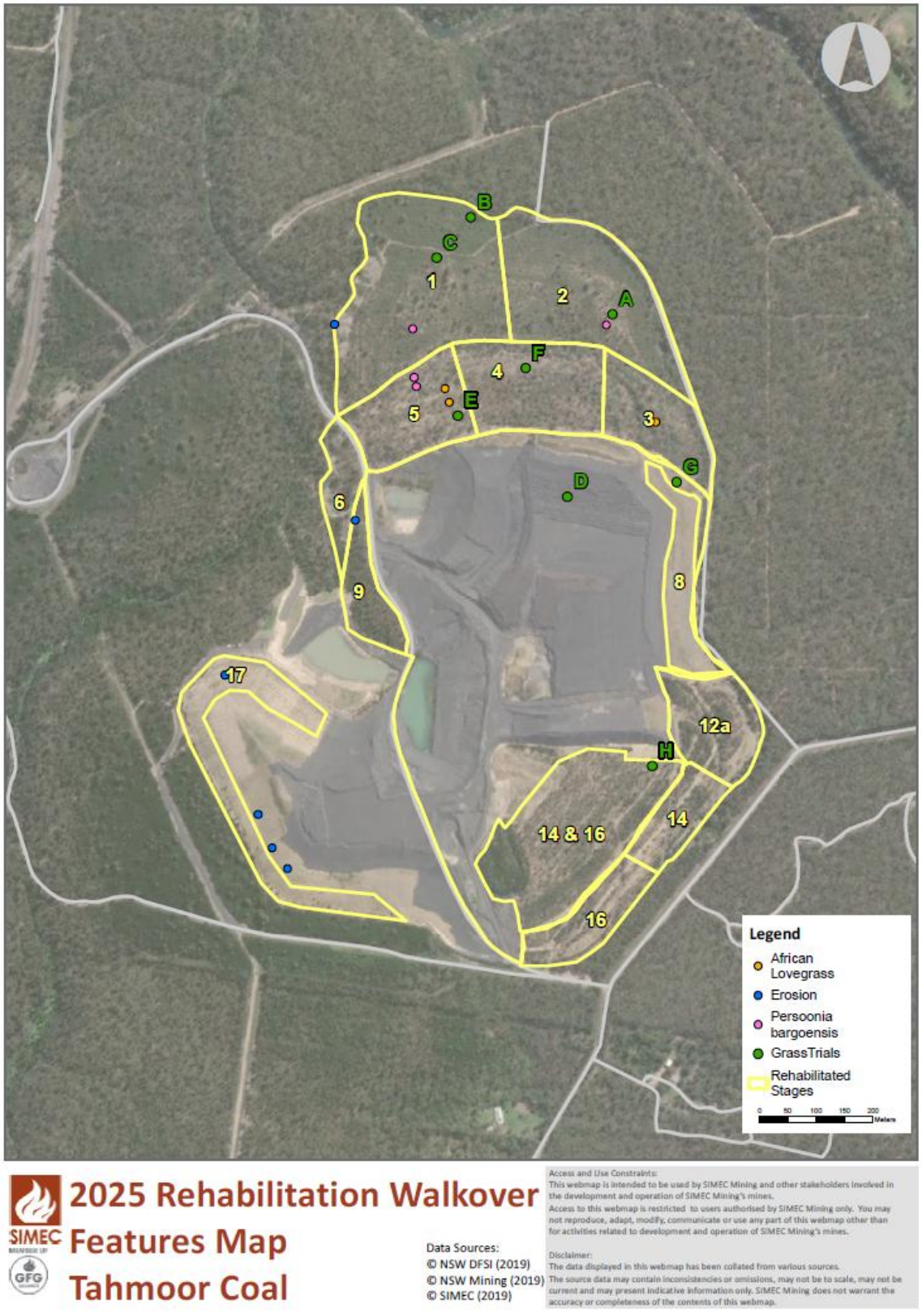

Figure 2 Rehabilitation Walkover Features Identified

Table 1: Key Monitoring Results

Key Characteristics	2024 Results – Walkover Assessment Survey	2025 Results –	Recommendations
Soil Profile development	Soil profile continues to develop across the REA. Biological nutrient cycling was recorded across the REA, including the presence of decomposing vegetation, lichens, termites, ants, cicadas, spiders, macropod scats and an Pseudonaja Textilis (Eastern Brown Snake).	Soil profile continues to develop well across the REA with many areas accumulating an abundant thickness of fallen vegetative leaf litter developing a good layer of mulch (especially around Casaurina/Allocasaurina sp.). Biological nutrient cycling was recorded across the REA in all stages, including the presence of decomposing vegetation, lichens, termites, ants, spiders and many macropod scats.	Continue to monitor soil profile.
Evidence of Erosion	Minor erosion noted in drainage way in lower stages of 12a and 14. Has been infilled with ballast and branches.	Minor erosion noted previously in stages 12a and 14 has remained stable with no further increase. Erosion previously noted in two (2) sections in Stage 17 has slightly increased and will need remediation.	Continue to monitor for minor gully erosion and repair with minor works such as infilling with logs and branches as required. Erosion noted in Stage 17 will need remediation. See Figure 1 for locations.
Native plant species diversity	Structural complexity of the monitoring plots is continuing to develop, though does yet not meet closure criteria with many areas still	Many stages still require more diversity including more Eucalyptus sp. And grass coverage.	Maintain weed control program with attention to avoiding off-target damage to native species.

	lacking adequate canopy and ground cover		Consider additional planting accross stages to increase mentioned species diversity to meet closure criteria.
Native plant cover (overstorey, midstorey, groundcover)	Native species richness has increased across the REA and within the reference plots since 2023.	Native species richness has been maintained over the past 12 months. However, some stages would benefit from additional grass/ground coverage.	Consider undertaking more native grass trials within the upper stages of 14 and 16.
Native plant growth rates and regeneration	Overall good health recorded in canopy species, especially Allocasuarina littoralis (Black She-oak) which had many healthy juveniles. Second generation Eucalyptus spp. and Acacia spp. seedlings were observed in in most areas, although often in low abundance.	The past 12 months have shown a noted improvement in health and plant growth across all stages, with notable green new growth occurring on understorey, saplings and established canopy trees. Many seedling species recorded in the 2024 walkover have increased in size to saplings, and many 2nd generation seedlings have been recorded incl. Acacia sp., Eucalyptus sp. and many Alocasaurina/Casaurina sp.	Nil
Threatened Flora	Threatened flora species Persoonia bargoensis (Bargo geebung) was noted in Stages 1 & 5 of the REA and Grevillea parviflora subsp. parviflora		Continue to monitor threatened species populations.

	(Small-flower Grevillea) was noted in Stage 6.		Weed control in the vicinity of these species to be carried out by hand.
Weed occurrences and cover	Weed cover is low overall but has increased slightly or remained at closure criteria threshold levels in some areas of the REA; primarily due to Eragrostis curvula (African lovegrass) cover in Stage 12a and Stages 14 and 16.	Weed cover remains low across all stages, however there remains pockets of African love grass in Stage 5 and Stages 12a, 14 and 16 which need increased weed control.	Increase weed monitoring and weed control program overall, targeting key areas of new weed infestations. Take care to avoid off-target species during weed control works.
Non-local native species	Exotic grasses, herbaceous weeds and woody weed, Acacia saligna (Golden wattle), still require ongoing monitoring and treatment in some areas.	Exotic grasses, herbaceous weeds and woody weeds and Acacia saligna (Golden wattle) still require ongoing monitoring and treatment in some areas.	Continue to control the spread of Leptospermum laevigatum by controlling seedlings outside stages 1 and 2. Maintain monitoring for Acacia saligna and control opportunistically during weed control activities.
Feral fauna	Rabbit herbivory impact low, but evident in some areas; herbivory by native macropods was also present particularly in Stages 3, 4 and 5.	Rabbit herbivory impact low, but evident in some areas; herbivory by native macropods was also present particularly in Stages 3, 4 and 5. Deer tracks noted at the top of Stage 12a in the desiccated mud.	Rabbit monitoring to continue and conduct a control programme in conjunction with neighbouring properties if required. Consultation by Tahmoor Coal with Local Land Services advisable. Further consultation with contractor regarding deer control/management.

2025 Appendix A – Annual Walkover

Refuse Emplacement Area









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Abbreviations

Abbreviation	Description
REA	Refuse Emplacement Area
TARP	Trigger Action Response Plan

1.0 Introduction

Tahmoor Coal has undertaken the Annual Rehabilitation Walkover for 2025 of the 12 stages rehabilitated to date located within the Refuse Emplacement Area (REA) of Tahmoor Coking Coal Operations in Tahmoor. The REA is located in Mining closure Domain 3 shown in **Figure 1**.

The Walkover included the following areas for assessment:

- Six (6) rehabilitated and revegetated areas established over historic refuse emplacement areas. These areas include Stages 1-2, Stages 3, 4 and 5, Stage 8, Stages 6 & 9, Stage 12a, 14 & 16 (Higher & Lower benches) and 17; and
- No. 2 Shaft 11KV Power Line Corridor

The above stages assessed during the rehabilitation walkover are shown in **Figure 2.**

The rehabilitation monitoring was undertaken in accordance with the Tahmoor Coal Rehabilitation Management Plan (TAH-HSEC-00402) and Rehabilitation Monitoring procedure (TAH-HSEC-00012) which states:

> *The purpose of the annual inspection is to provide a "rapid" style assessment (via a walkover or flyover) of all existing (including recently completed rehabilitation areas) across the operation.*
>
> *The primary focus is to identify rehabilitation failures or maintenance issues that if left unchecked could hinder succession of rehabilitation or result in expensive remediation. The inspection includes but is not limited to identification of:*
>
> *a) erosion (rill, gully and tunnel);*
>
> *b) stability and functioning of erosion and sediment control and water management structures;*
>
> *c) visual assessment of vegetation cover, species diversity, vegetation health and growth rates; and*
>
> *d) presence of weeds and pests.*

Trials have been established within the older sections of revegetation to consider the efficacy of planting and/or seeding with native grasses to increase native vegetation cover and increase organic matter in the soil profile, in patches with limited vegetation. Photo monitoring was carried out at these trial sites and a visual assessment recorded.

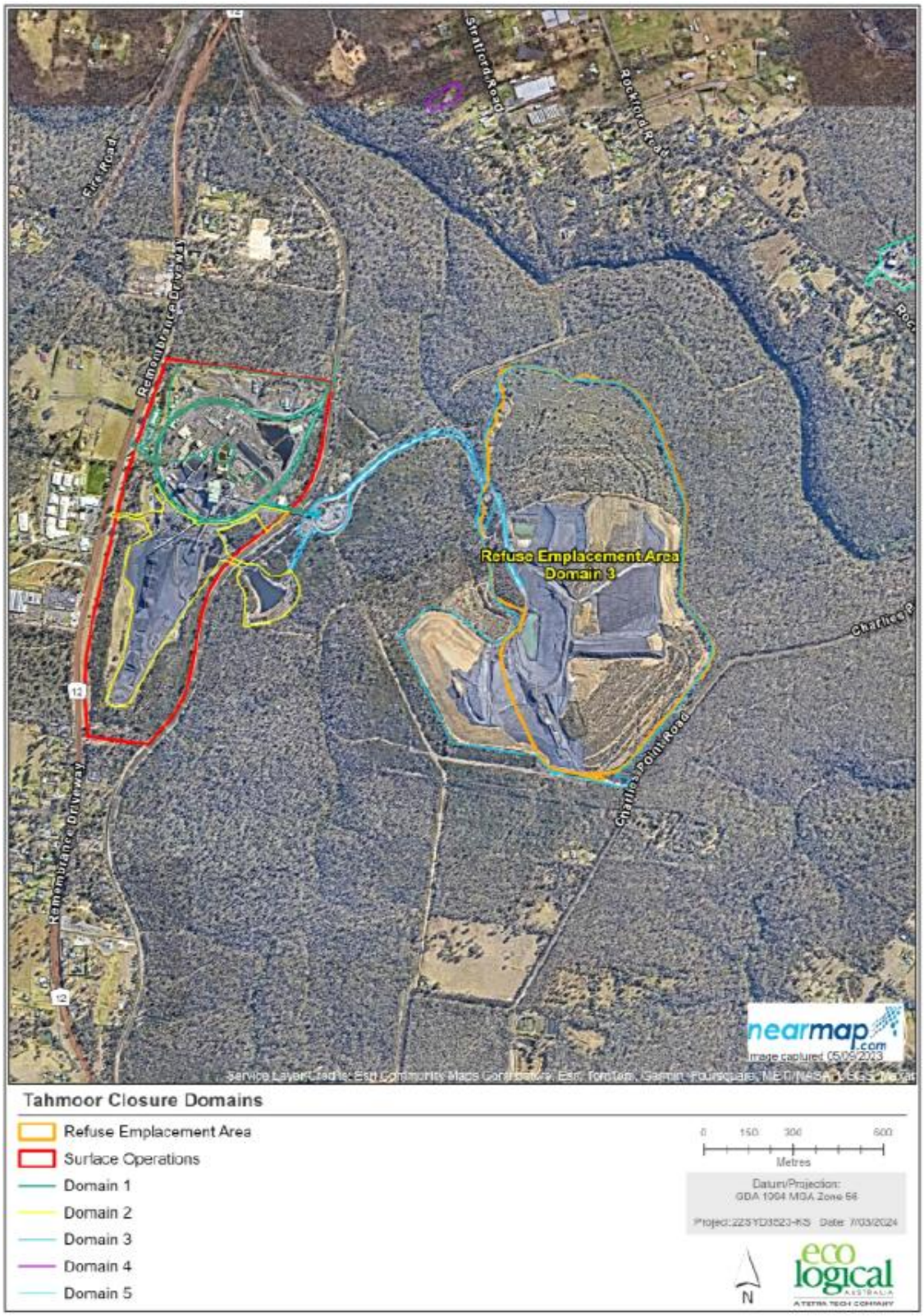

Figure 1 – Tahmoor Coal surface operations and refuse emplacement area.

2.0 Methodology

The REA and No. 2 Shaft 11kV power corridor were traversed by foot on the 14 January 2026 by Tahmoor Coal Environmental Specialists Natalie Brumby and Thomas O'Brien.

The rehabilitation monitoring was recorded on Tahmoor Coal Annual Rehabilitation Inspection (Walkover Form) to collect the following information:

- visual assessment of surface materials
- evidence of erosion
- occurrence of potholing or slumping
- evidence of spontaneous combustion
- evidence of contamination or other limitations to vegetative establishment
- stability and function of erosion and sediment control structures
- integrity of water management structures
- evidence of soil profile development
- evidence of poor growth rates
- evidence of plant mortality or dieback
- native species diversity including evidence of target species in each stratum
- exotic species and density
- evidence of regeneration and seeding
- evidence of biological nutrient cycling
- additional factors which will impact on revegetation.

Sites and features were recorded and photographed and are presented within this report. Additional photos were captured at permanent monitoring sites during monitoring (**Appendix A**).

3.0 Trigger Action Response Plan

A Trigger Action Response Plan has been developed to classify the status of rehabilitation progress and to provide a response to this progress and adequacy. These classifications are given in **Table 1** and the Stages classified in **Table 2** below.

Table 1 Rehabilitation Status Trigger Action Response Plan

Annual Rehabilitation Status	Description	Action
VC	Generally, exceeds the good practice standards and regulatory requirements by a significant margin.	No further action. Continue to maintenance activities as scheduled.
C	Generally good practice standards and regulatory requirements subject to normal variance	No further action. Continue to maintenance activities as scheduled.
NC1	Not complying with some regulatory requirements and improvement needed to meet required good practice standards. Required works minor in nature and generally within budgeted site program	Undertake minor works to improve rehabilitation to minimum standard prior to next annual inspection
NC2	Not complying with significant risk to this inspection item, urgent corrective action needed. Requirements generally substantial in nature and beyond a budgeted site program	Undertake major works required to improve rehabilitation to minimum standard prior to the next annual inspection.

3.1 Trigger Action Response Plan Classification

Table 2 Rehabilitation Stages Classification Status for 2025

Area	Status Rating	Comments
1-2	C	Minor gully erosion to be improved, continued weed control
3, 4 &5	C	Continued weed control
6 & 9	C	Continued weed control
8	No Status	Rehabilitation still establishing
12a	C	Opportunity for additional plantings in bare patches
14 & 16	C	Continued weed control
17	No Status	Rehabilitation still establishing, some erosion noted

18	No Status	Rehabilitation still establishing

4.0 Results

Trigger Action Response Plan classifications for each stage are provided in **Appendix A**.

The field survey record sheets (using Tahmoor Coal Annual Rehabilitation Inspection (Walkover Form)) for the rehabilitation monitoring are provided in **Appendix B**.

Overall, native vegetation cover has remained stable over the past 12 months, with an increase noted in seedling varieties in native understorey and canopy cover such as Acacia sp. and Casaurina sp and diversity observed across majority of the REA during the walkover. However, continued improvement is recommended for additional grass species and canopy vegetation in some stages and on vegetating bare patches noted during the walkover and previously.

Over the past year (1st January 2024 to 31 December 2025) there has been approximately 794.8 mm of precipitation (Camden (Brownlow Hill) weather station). This is above the average annual rainfall for the area (~751.0mm) and below the rainfall received in the previous year, which was 810.0mm of rainfall (BOM 2025).

The moderate rainfall received has supported the growth of seedlings and saplings of second-generation Eucalyptus species, Acacia sp and Allocasuarina littoralis across the REA. During the walkover, an abundance of diversity among understorey seedling species including shrubs, grasses, sedges and forbs was noted with a healthy amount of organic litter accumulations across all stages. However, some bare areas remain with sparse vegetation in pockets across the REA.

As of December 2025, El Niño Southern Oscillation (ENSO) remains in La Nina, with sea surface temperatures (SSTs) in the central equatorial Pacific Ocean at ENSO-below average levels (BOM 2025). The Bureau's model suggests ENSO-neutral will emerge during January to March 2026. It is unlikely that the vegetation within the REA will be negatively affected by any shift in La Niña or El Niño conditions as forecasts predict neutral conditions. Therefore, the impacts of La Niña and El Niño events are considered unlikely to affect the stability of species diversity and cover across the REA over the next 12 months.

There was little change observed in erosion points throughout the REA with drainage lines continuing to be in good condition. It is recommended that areas previously identified with minor erosion are monitored throughout the year. Some remediation had been undertaken during 2024 on erosion points in Stages 12a and developing Stage 8 with the addition of

coir logs and log debris to impede further erosion. Wood debris and logs were also used in Stage 17 to prevent further erosion on the northern side during 2024.

Stages 6 and 9 within the REA show good coverage of native grass cover and continued growth of Allocasuarina and Eucalyptus seedlings. The mature rehabilitated vegetation in Stages 1 and 2 remain stable with a high abundance of native Kunzea ambigua being present. Generally, the groundcover contains a diversity of native grasses with moderate cover through-out the rehabilitated stages with some bare areas for improvement noted. Continued monitoring, and actions to control weed populations within the REA is recommended throughout the next year. Main focus areas for weed management have been identified in Figure 2. Trigger Action Response Plan classifications for each stage are provided in **Appendix A**.

The field survey record sheets (using Tahmoor Coal Annual Rehabilitation Inspection (Walkover Form)) for the rehabilitation monitoring are provided in **Appendix B**.

Continued weed suppression and eradication of Acacia saligna was undertaken during 2025 with no species noted during the walkover. Continued monitoring will be undertaken during 2026.

The following sections provide a general summary on each of the rehabilitated stages within the REA. Additional features recorded during the walkover survey are mapped in **Figure 2**. This map does not provide all occurrences of the noted features, however, it provides an indication of features which may impact on the on-going progression towards self-sustaining native vegetation.

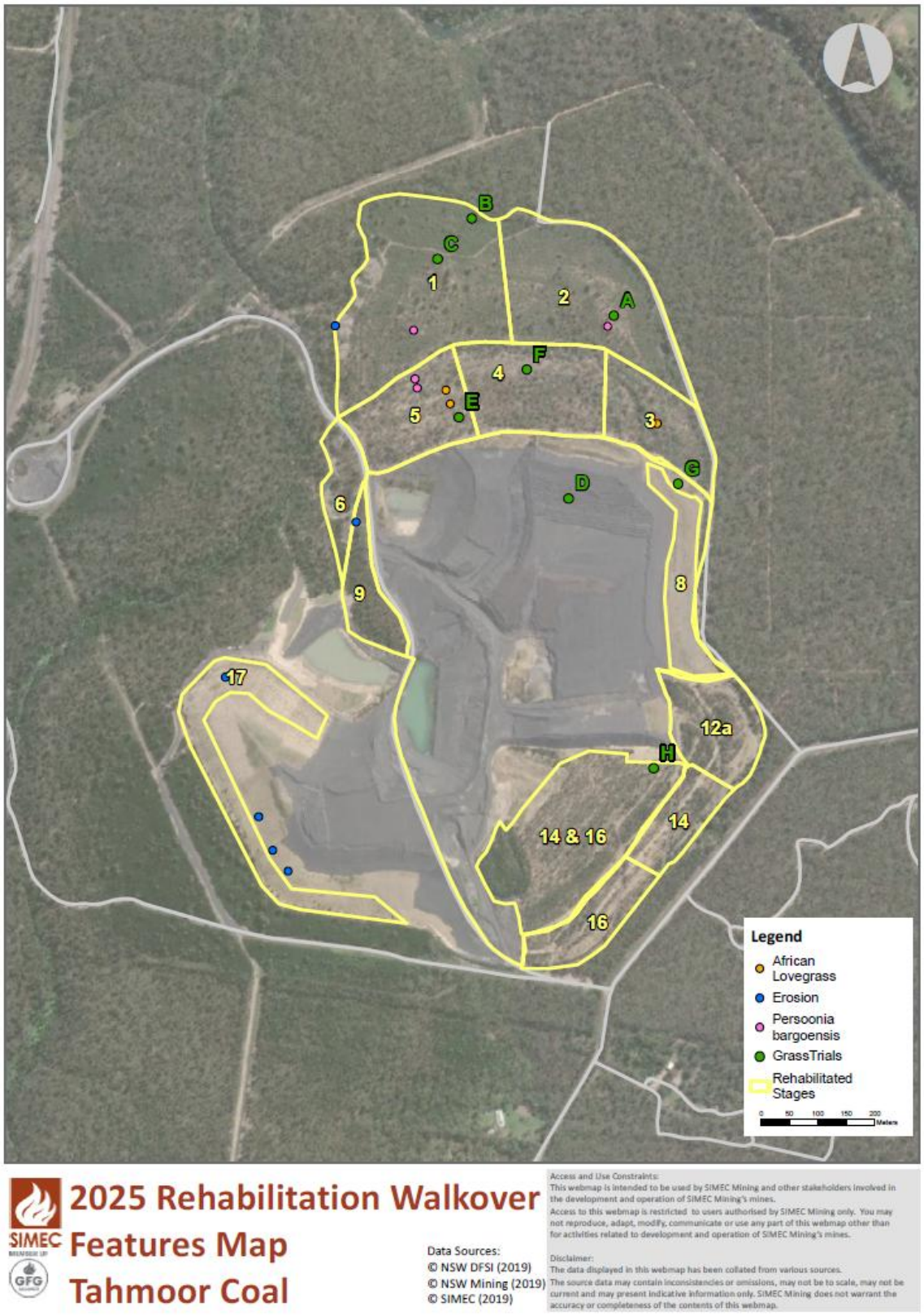

Figure 2 Rehabilitation Walkover Features Identified

4.1 REA Stages 1 & 2:

Planted: Spring 1993 by direct seeding and 1996 by tubestock planting.

The vegetation is progressing towards self-sustaining native vegetation. Continued weed suppression was undertaken during 2025 for weeds and Acacia saligna, however some annual weed species were present during the walkover including African Lovegrass in pockets identified in the South-west side of Stage 1 progressing into Stage 5 in the south. It seems contained to within a length of drain section less than 20m. It is recommended to continue regular ongoing maintenance to manage weed incursion especially the above mentioned African lovegrass. Maintenance activities, primarily targeted weed control during peak growth periods, are still required within these stages. Strategies should be implemented to extend grass cover and additional canopy species to those areas with limited vegetation establishment.

Soil stability and development:

- Stable with good sound erosion controls (contour banks)
- Soil development continues to progress with nutrient cycling of fallen woody debris and increased leaf litter cover. Ants and termite mounds noted throughout section.
- Rock lined drains to the north-west in good condition with no erosion issues evident.

Native vegetation cover and diversity

- Native grass cover has remained mostly unchanged across stages 1 and 2 since 2023.
- Increase in native seedling diversity emergence across Stage 1 & 2 since 2023. There are patches of monoculture evident with Casaurina sp and Kunzia sp.
- Canopy approximately 10 – 15 m tall, including; Eucalyptus punctata, Allocasuarina littoralis and lower canopy species, Banksia spinulosa, Hakea sp, Acacia decurrens and Acacia binervia.
- Non-endemic species midstorey species, Leptospermum laevigatum is still present with high cover in stage 2, however Kunzea ambigua is abundant elsewhere especially in Stage 1.
- Native seedlings and saplings such as Eucalyptus sp., and Allocasuarina littoralis have continued to grow from the previous year.
- Groundcover diversity across the stages includes native grasses, forbs and shrubs, including, Themeda triandra, Aristida ramosa and Styphelia humifusa among others.

- Many Bare areas noted during inspection. Additional Eucalyptus sp and grass species recommended to be planted.

Weed cover

• Weed cover has decreased significantly across stages 1 and 2 over the past few years. Eragrostis curvula (African Lovegrass) noted in Stage 1 from Stage 5.

4.2 REA Stages 3, 4 &5:

Planted: Autumn 1998 by direct seeding and tubestock planting. Additional tube stock planting in Stage 5 in 2024.

The vegetation within these rehabilitation areas is progressing towards self-sustaining native vegetation. Continued maintenance weed control and management of patches with limited vegetation are still required to satisfy this requirement.

Soil stability and development:

- Soil development continues to progress with nutrient cycling of woody debris and increased leaf litter cover especially in areas surrounding allocasaurina sp.;
- Some soil crusting noted on the western area of Stage 5;
- Minor gully erosion still present within Stage 5 boundary where the midslope begins; and
- All contour banks and water management structures are stable and in good condition.

Native vegetation cover and diversity:

- Native species cover seems to have increased with additional seedlings noted throughout the stages, especially canopy trees (ie. Eucalypt sp. and Allocasaurina littoralis). Many Allocasuarina sp seedlings have advanced to sapling development;
- Native species diversity seems to have remained similar since 2023. With improvement in Stage 5 due to additional canopy and groundcover plantings in 2024;
- Second generation Eucalyptus spp., seedlings and Allocasuarina littoralis seedlings are
- still present across stages;
- Canopy species Allocasuarina littoralis and Acacia binervia seedlings continue to develop;
- Moderate understorey diversity through-out these stages, with many Hakea sp and Leptospermum sp.
- Moderate native grass cover and diversity in these stages, however many bare areas;
- Tree species noted to be in good health overall.

Weed cover

- Low weed presence noted with Sisymbrium officinale (Hedge Mustard) identified only along the roadside and minor encroachment into stages 3, 4 and 5, and Hypochaeris radicata noted throughout stages.
- On-going control is required for E. curvula. Hand removal is to be used where weed populations are limited to protect native species. Large patches of these species require spraying of herbicide.

4.3 REA Stages 6 and 9

Planted: Autumn 2000 by direct seeding and tubestock planting.

Prior to 2020, the vegetation within these two stages was slowly progressing towards self-sustaining native vegetation with the presence of limited 2nd generation plants and colonisation from neighbouring bushland. During 2020, these stages were affected by an uncontrolled bushfire in summer 2019/2020. The canopy layer was also consumed by fire, however many canopy species have survived and recovered via epicormic growth. In general, both the cover and diversity of the groundcover layer improved in post fire conditions.

Several threatened species including Grevillea parviflora subsp. parviflora and Persoonia bargoensis have been recorded across these stages.

During the 2022 rehabilitation assessment, Stages 6 and 9 was recorded to have recovered well in post fire conditions and this recovery has continued. Eucalypt sp. and Allocasuarina sp regeneration has continued whilst continuing to have a high density of Acacia growth. The groundcover has also returned with living groundcover species, ranging from approximately 40 – 70% native cover. The groundcover is made up of graminoids, as well as regenerating shrubs such as Hakea sp., Daviesia ulicifolia and Kunzea ambigua.

Litter cover continues to increase and develop a moderate mulch of fallen leaves and branch debris in these stages, with low weed cover overall. Acacia sp. continue to have a dominant presence across the mid-storey. Native grass cover was noted as variable, but stable overall.

2025:

Soil stability and development

• Slopes are generally stable;

• Minor gully erosion recorded on an access road closest to haul road has worsened during 2025 during rain events and is scheduled for remediation during 2026;

• Minor gully erosion to the Dam S7B in the north of stage 6 and adjacent to road is present;

• Vegetation litter cover is moderate and has increased since 2024.

Native vegetation cover and diversity

• Native species diversity has remained similar to 2024;

• Acacia spp. continue to have a high cover across the midstorey;

• Shrub and canopy species regeneration is evident with emerging Acacia spp. and Allocasuarina littoralis;

• A. littoralis and Eucalyptus seedlings continue to be present in the midstorey / low canopy;

• Tree health was variable with a small number of A. littoralis and Eucalyptus in poor condition, especially in Stage 6.

• Native grass cover was variable, but stable overall.

Weed cover

• Weed cover continues to be very low across these stages;

• Hypochaeris radicata (Flatweed) continues to dominate these stages, however in very low, sporadic occurrences.

4.4 REA Stages 7, 10 and 12B

These areas were modified by earthworks and mining operations during 2022. Stages 7, 10 and 12b are currently undergoing refuse emplacement activities.

4.5 REA Stage 8

Stage 8 was planted by direct seeding during September 2022

Soil stability and development

- Erosion control rock-lined channels remain stable.

- Some erosion has been remediated in the north section of this area with coir logs installed along contours. Branches and rocks have been emplaced within eroded sections to prevent further degradation. No further erosion was noted for 2025.
- Ground is predominately bare with areas of leaf/vegetative matter, scat and bark deposits strewn across the contours.

Native vegetation cover and diversity

- Species establishing include Acacia sp., Hardenbergia sp., lomandra sp., and other grass species.

Weed cover

- This area still requires weed management to maintain control over weed species however has improved since last walkover.
- Weeds identified include Modiola caroliniana (Creeping mallow), Sisymbrium officinale (hedge mustard), Verbena sp, and Nova scotia (Scotch thistle).

4.6 REA Stage 12A

Planted: Lower benches (section A) planted by direct seeding in November 2011

Soil stability and development

- Erosion control rock-lined channels remain stable.
- Soil development progressing with nutrient cycling and increased litter cover
- Rip lines present, however becoming less evident as branch, leaf and grass litter continue to accumulate over topsoil.

Native vegetation cover and diversity

- Native species diversity has remained stable for 2025.
- Highly diverse groundcover layer with native grasses, forbs and sedges including Astroloma humifusum, Glycine clandestinum, Entolasia stricta and Mirbelia rubifolia present.
- Juvenile E. punctata, E. fibrosa, Angophora floribunda and A. littoralis still present in understory vegetation.
- Upper benches have established more effectively than the lower benches for overall vegetation coverage.

- Midstorey composition remains similar to 2024, with many species including Kunzea ambigua, Hakea sericea, Melaleuca thymifolia, Dodonaea viscosa subsp. cuneata and Dianella revoluta var. revoluta.

Weed cover

- Eragrostis curvula confined to certain areas (ie. Drainage ways) however still present and Hypochaeris radicata was noted scattered across the stage however sparse coverage. On-going control is required for these species. Nova scotia (Scotch thistle) was identified in a pocket of drainage way where sediment had accumulated adjacent to Stage 8 where it has also been identified. Hand removal is to be used where weed populations are limited to protect native species. Large patches of these species require spraying of herbicide.

4.7 REA Stages 14 and 16

Planted: Lower benches planted with native species and sterile pasture species, Japanese Millet and Perennial Rye grass, by direct seeding in December 2012.

Upper benches planted in October 2015 by direct seeding.

Soil stability and development

- Rock lined drains stable and in good condition.
- Native shrubs and groundcovers have good coverage, which continues to stabilise the soil.
- Continued accumulation of grass, leaf litter and mulch/branches throughout this stage.

Native vegetation cover and diversity

- Good coverage and native species diversity.
- Native grass cover is low overall, with many bare areas.
- In 2023 a reduction in canopy species Eucalyptus punctata and Angophora floribunda recorded in the north of stage 14 and 16, however tree growth otherwise stable for 2024 and 2025.
- Midstorey composition includes Kunzea ambigua, Dodonaea viscosa subsp. Cuneata, Persoonia linearis, Hakea sp. and several Acacia spp.

Weed cover

- Eragonis curvula presence has been reduced however further remediation is required for these stages. Pocket identified in lower drainage line to the south.
- Still presence of Eragrostis curvula, Conyza bonariensis and Cynodon dactylon. Further remediation is required for these stages.

4.8 No. 2 Shaft 11kV Underground Power Line Corridor

Rehabilitation carried out in November 2017 by the respreading of topsoil and original cleared vegetation and woody debris (Figure 2).

Soil stability and development

- The corridor is stable with good stability along banks of Tea Tree Hollow Creek with no erosion evident during the assessment.
- Incorporation of organic matter into topsoil has been completed. Ample leaf litter noted.
- Evidence of ants, ant mounds and termite mounds within area.

Native vegetation cover and diversity

- Canopy species present and continue to grow in DBH. Many Eucalyptus sp. noted.
- High cover of midstory shrubs regenerating including Kunzea sp, Grevillea sp and Leptospermum sp.
- High cover and abundance of grasses, sedges, forbs, and climbers noted along the corridor continues to be noted.
- Leaf litter, grass litter and plenty of fallen branches are present and contributing to decomposition rates as noted in 2024.

Weed cover

- Generally, very low weed cover. No weed species were identified during the 2025 inspection.

5.0 Recommendations:

- Continue regular weed control maintenance across all stages of the REA through 2026. Continue regular monitoring and control in Stage 3 for Acacia saligna populations, Stage 1 and 14/16 for Eragrostis curvula (African Lovegrass) and in Stage 8 and 12a for Nova scotia.
- Bare patches in all stages for future improvements have been identified, especially Stage 12a lower slopes.
- Increase canopy and groundcover/grass species in Stages 1-2.
- Erosion noted on the western edge of Stage 1. Continue to regularly monitor and remediate where required.
- Historic waste disposed of on slope at 11KW Powerline easement. Remove if possible.

6.0 Grass Trials

Tahmoor Coal Pty Ltd established grass trials in 2014 to investigate the effectiveness of introducing native grasses into areas with limited vegetation. These were established using several different methods and a mixed of native grass species indigenous to the local area. Based on photos within the establishment report (Peter Harper, Bettersafe, 2014). Trial D and G has been discontinued as the area has been stripped and re-utilised for additional emplacement.

- Trial E was established by planting Hiko cells, and the other trials were established by raking Organic Growing Medium (OGM) over the soil surface and spreading native grass seed.
- Trial area F was added within Stage 4 and another fenced area was added to the upper slope of stage 14 in 2019.
- Trial H within Stage 14 and 16 upper slopes; and

A brief visual assessment of native grass and exotic cover was carried out within each trial area during the rehabilitation monitoring in January 2026. Photos of trials A, B, C, E, F and H are provided below.

The locations of the trials are indicated in **Figure 2**.



Figure 4: Trial A in Stage 2



Figure 5: Trial B in Stage 1



Figure 6: Trial C within Stage 1



Figure 7: Trial E in Stage 5



Figure 8: Trial F in Stage 4



Figure 9: Trial H (a) in Stage 14 &16



Figure 10: Trial H(b) in Stage 14 & 16



Figure 11: Trial H (c) in Stage 14&16

6.1 Results

A summary of the results recorded from these trials is provided in **Table 3 below**.
The establishment of native grasses was highest in grass Trial H, whereby establishment method was by raking OGM and planting Hiko cells. During 2025, weed coverage has decreased in Trial H and still remains the highest in grass cover when compared with all the other Trials however some weed species were noted in Trial H (b). Trial E had the least grass coverage however good diversity in emerging canopy seedling species incl Casaurina sp. and Eucalyptus species. Trials A, B and C had good grass coverage with less species diversity. Low weed presence was noted for all trails during 2025 inspections, however Eragrostis curvula (African lovegrass) noted in Trial E.
There was an overall pattern of reduced cover and abundance of exotic species.
Trial areas with successful native grass establishment have shown improved native species cover and diversity over the years since establishment of the trial. Areas with poor grass establishment have shown no significant increase in native ground cover.

Table 3: Grass Trial Results 2024

Trial	Location	Native Grass sp Coverage	Weeds	Comments
A	Stage 2	<15%	None Observed	- Small patches of grass sp. - Many Allocasaurina sp. seedlings establishing - Approx 50% bare ground with minimal amount of branch and leaf litter -Fencing needs some remediation.
B	Stage 1	<5%	None Observed	- Small patches of grass sp. - Trial dominated by Kunzea ambigua with other understorey species incl Acacia longifloia.
C	Stage 1	30-40%	1x Hypochaeris radicata (Catsear)	- Main patch of Aristida ramosa sourrounded by individual plants. - <30% Bare ground - Leaf litter present
E	Stage 5	-	-	Could not locate Grass trial – no fencing or peg found in area
F	Stage 4	<15%	Some Hypochaeris radicata (Catsear) identified as seedlings	-Large diversity of many understorey and canopy species establishing within this plot incl. Allocasaurina littoralis, Acacia sp. And Eucalyptus sp. -Approx 50% bare ground littered with fallen branches and some leaf litter. -Fencing need remediation.
H	Stage 14 & 16	50-60%	Various weeds identified in Plot B.	-Great ground coverage. However, there are some weed species observed in plot B. -Plot A has great grass sp. establishment with plot completely full. -Acacia dentata and Acacia longifolia establishing in Plot B.

				Plot C contains most bare ground and <15% grass coverage. This plot has one Acacia longifolia establishing with fallen branches and leaf litter present.

7.0 Walkover Form – Native Vegetation/Ecosystem

Tahmoor Coal	
REA Stage	Stages 1 & 2
Date of Inspection	14/01/2026
Inspected by	Natalie Brumby and Thomas O'Brien
Signature	

Inspection Item	Comment	Location of Rehabilitation Area	Co-ordinates	Photo No.	Action(s) Recommened
Visual assessment of surface materials (eg. Large rocks, bare areas>0.1ha)	Fallen Debris and branches adding to Organic Matter (OM). Lots of leaf litter (Acacia and Casuarina leaf litter) Minimal reject identified on the surface from Ant mounds.	REA Stage 1&2		See Folder: W:\E&C\7 Environment\19 Rehab & Closure\2025_Rehab Monitoring (in house)\Photos	
Evidence of erosion (eg. Sheet, rilling, gullying and severity)	None				

Occurrence of potholing or slumping	None				
Evidence of spontaneous combustion	None				
Evidence of contamination or other limitations to vegetative establishment (eg. surface crusting, staining of soil surface etc.)	Some crusting occurring to the east on the contoured bank.				
Stability and function of erosion and sediment control structures	Working and in order.				
Integrity of Water Management Structures (e.g. dams, drains, contour banks)	No issues with dams, drains or contour banks.				
Evidence of soil profile development (e.g. leaf litter, decomposition, pedality etc.)	Yes, plenty of leaf litter and decomposition, ie. Fallen branches etc				

Evidence of poor Growth rates e.g. growth stunting	Some Casaurinas are showing stunted growth, however, still seeding. Understory cover abundant. Allocasaurina seedlings establishing.				
Evidence of plant mortality or dieback	Some canopy and understory species dead. Many branches have fallen and litter the ground in these Sections.				
Native Species diversity- evidence of target/framework native species present in each stratum i.e. upper, mid and lower	There is a good diversity throughout. There are many patches of monoculture areas occurring (i.e. Casaurina sp, Kunzea sp. And Lomandra sp.				
Evidence of regeneration/seeding	Yes, many species flowering and seeding (ie. Hakea sp., Allocasaurina sp.) 2nd generation canopy species including Eucalyptus sp and Allocasaurina littoralis. 2nd generation Acacia species and grasses. Many seedlings establishing				

Evidence of biological nutrient cycling in Native woodland/forest areas e.g. puff balls	Surface lichen and mosses Ant and termite activity				
List Other(s)					Continue control of Acacia saligna

Tahmoor Coal	
REA Stage	Stages 3, 4 &5
Date of Inspection	14/01/2026
Inspected by	Natalie Brumby
Signature	

Inspection Item	Comment	Location of Rehabilitation Area	Co-ordinates	Photo No.	Action(s) Recommened
Visual assessment of surface materials (eg. Large rocks, bare areas>0.1ha)	Lots of leaf litter adding to OM. Thick leaf litter mulch in Stage 3 upperbenches. (Acacia and Allocasaurina sp.) Bare patches noted throughout sections.	REA Stage 3, 4 &5		See Folder: W:\E&C\7 Environment\19 Rehab & Closure\2025_Rehab Monitoring (in house)\Photos	
Evidence of erosion (eg. Sheet, rilling, gullying and severity)	None				
Occurrence of potholing or slumping	None				

Evidence of spontaneous combustion	None				
Evidence of contamination or other limitations to vegetative establishment (eg. surface crusting, staining of soil surface etc.)	None				
Stability and function of erosion and sediment control structures	Working and in order.				
Integrity of Water Management Structures (e.g. dams, drains, contour banks)	No issues with dams, drains or contour banks.				
Evidence of soil profile development (e.g. leaf litter, decomposition, pedality etc.)	Yes, plenty of leaf litter and decomposition, ie. Fallen branches, bark etc				
Evidence of poor Growth rates e.g. growth stunting	None noted during inspection.				

Evidence of plant mortality or dieback	Acacia species dying back with falling branches across stages.				
Native Species diversity- evidence of target/framework native species present in each stratum i.e. upper, mid and lower	Good diversity throughout stages. More established Canopy trees than compared with Stages 1 & 2.				More groundcover/grass species recommended to cover bare patches in these stages
Evidence of regeneration/seeding	Yes, many species flowering and seeding incl Hakeas and Acacia sp. Many seedlings emerging of understory and canopy species.				
Evidence of biological nutrient cycling in Native woodland/forest areas e.g. puff balls	Ant activity noted				
List Other(s)					

Tahmoor Coal	
REA Stage	Stages 6 & 9
Date of Inspection	14/01/2026
Inspected by	Natalie Brumby
Signature	

Inspection Item	Comment	Location of Rehabilitation Area	Co-ordinates	Photo No.	Action(s) Recommended
Visual assessment of surface materials (eg. Large rocks, bare areas>0.1ha)	Lots of leaf litter adding to OM. Fallen branches and dead Acacia trees adding material for decomposition. Bare patches noted in Stage 9 Reject material on the surface also noted in this stage.	REA Stage 6 & 9		See Folder: W:\E&C\7 Environment\19 Rehab & Closure\2025_Rehab Monitoring (in house)\Photos	
Evidence of erosion (eg. Sheet, rilling, gullying and severity)	Some erosion noted in Stage 9 around roadway				Erosion to be remediated to prevent impact on rehabilitated section.

Occurrence of potholing or slumping	None				
Evidence of spontaneous combustion	None				
Evidence of contamination or other limitations to vegetative establishment (eg. surface crusting, staining of soil surface etc.)	None				
Stability and function of erosion and sediment control structures	Working and in order.				
Integrity of Water Management Structures (e.g. dams, drains, contour banks)	No issues with dams or contour banks. Some erosion noted around drainage ways into dam S7B to be remediated				
Evidence of soil profile development (e.g. leaf litter, decomposition, pedality	Leaf litter and decomposition present, ie. Fallen branches, leaves etc				

etc.)					
Evidence of poor Growth rates e.g. growth stunting	None noted during inspection.				
Evidence of plant mortality or dieback	Acacia species dying back with falling branches across stages.				
Native Species diversity- evidence of target/framework native species present in each stratum i.e. upper, mid and lower	Good diversity throughout stages. Canopy sp: Eucalyptus and Allocasaurina sp, Understory sp: Hakea sericea and Persoonia linearis. Grouncovers: Grasses incl Dianella and Lomandra. Near roadway many grasses established with Allocasaurina sp. seedlings establishing Top section in Stage 9 next to				

	road with mono-culture of Allocasaurina sp. Developing.				
Evidence of regeneration/seeding	Yes, many species flowering and seeding incl Hakeas and Acacia sp. Many seedlings emerging of understory and canopy species especially Allocasaurina sp.				
Evidence of biological nutrient cycling in Native woodland/forest areas e.g. puff balls	Ant activity noted				
List Other(s)	Many broadleaf weeds throughout this stage.				

Tahmoor Coal	
REA Stage	Stage 12a
Date of Inspection	14/01/2026
Inspected by	Natalie Brumby
Signature	

Inspection Item	Comment	Location of Rehabilitation Area	Co-ordinates	Photo No.	Action(s) Recommended
Visual assessment of surface materials (eg. Large rocks, bare areas>0.1ha)	Dried grasses cover the surface. Fallen branches and vegetative material are adding to OM on the surface. Some rocks on surface. Bare areas with no canopy species just grass sp. apparent.	REA Stage 12a		See Folder: W:\E&C\7 Environment\19 Rehab & Closure\2025_Rehab Monitoring (in house)\Photos	
Evidence of erosion (eg. Sheet, rilling, gullying and severity)	None				

Occurrence of potholing or slumping	None				
Evidence of spontaneous combustion	None				
Evidence of contamination or other limitations to vegetative establishment (eg. surface crusting, staining of soil surface etc.)	None				
Stability and function of erosion and sediment control structures	Working and in order.				
Integrity of Water Management Structures (e.g. dams, drains, contour banks)	No issues with drainage or contour banks. No dams in this stage.				
Evidence of soil profile development (e.g. leaf litter, decomposition, pedality etc.)	Leaf litter and decomposition present, ie. Fallen branches, leaves etc				

Evidence of poor Growth rates e.g. growth stunting	None noted during inspection.				
Evidence of plant mortality or dieback	None noted.				
Native Species diversity- evidence of target/framework native species present in each stratum i.e. upper, mid and lower	Good diversity throughout stage, especially upper benches. Canopy sp: Eucalyptus, Callistemons and Allocasaurina sp, Understory sp: Acacia sp and Kunzea ambigua. Grouncovers: Grass sp.				More groundcover/grass species recommended to cover bare patches in these stages
Evidence of regeneration/seeding	Yes, many species flowering and seeding incl Acacia sp.(seeding) Many seedlings emerging of understory and canopy species				

Evidence of biological nutrient cycling in Native woodland/forest areas e.g. puff balls	Ant activity noted				
List Other(s)	Many broadleaf weeds throughout this stage.				

Tahmoor Coal	
REA Stage	Stage 14 & 16 (upper and lower benches)
Date of Inspection	14/01/2026
Inspected by	Natalie Brumby
Signature	

Inspection Item	Comment	Location of Rehabilitation Area	Co-ordinates	Photo No.	Action(s) Recommended
Visual assessment of surface materials (eg. Large rocks, bare areas>0.1ha)	Fallen branches and vegetative material are adding to OM on the surface. Good amount of	REA Stages 14 & 16 (upper and lower benches)		See Folder: W:\E&C\7 Environment\19 Rehab & Closure\2025_Rehab	Bare areas to be additionally rehabilitated.

	leaf litter accumulating in areas. Some rocks on surface. Bare areas noted. Across all stages.			Monitoring (in house)\Photos	
Evidence of erosion (eg. Sheet, rilling, gullying and severity)	None				
Occurrence of potholing or slumping	None				
Evidence of spontaneous combustion	None				
Evidence of contamination or other limitations to vegetative establishment (eg. surface crusting, staining of soil surface etc.)	None noted.				
Stability and function of erosion and sediment control structures	Working and in order. In good condition.				
Integrity of Water Management	No issues with drainage or				

Structures (e.g. dams, drains, contour banks)	contour banks. No dams in these stages.				
Evidence of soil profile development (e.g. leaf litter, decomposition, pedality etc.)	Leaf litter and decomposition present, ie. Fallen branches, leaves etc				
Evidence of poor Growth rates e.g. growth stunting	None noted during inspection.				
Evidence of plant mortality or dieback	None noted.				
Native Species diversity- evidence of target/framework native species present in each stratum i.e. upper, mid and lower	Good diversity throughout stage, especially upper benches. Canopy sp: Eucalyptus, Callistemons and Allocasaurina sp, Understory sp: Acacia sp and Kunzea ambigua. Grouncovers: Grass sp.				

Evidence of regeneration/seeding	Yes, many species flowering and seeding incl Hakea sp. Many seedlings emerging of understory and canopy species				
Evidence of biological nutrient cycling in Native woodland/forest areas e.g. puff balls	Ant activity noted				
List Other(s)	Many broadleaf weeds throughout this stage.				

Tahmoor Coal	
REA Stage	Stage 17
Date of Inspection	14/01/2026
Inspected by	Natalie Brumby
Signature	

Inspection Item	Comment	Location of Rehabilitation Area	Co-ordinates	Photo No.	Action(s) Recommended
Visual assessment of surface materials (eg. Large rocks, bare areas>0.1ha)	Section approx. 3 yrs old. Some rocks on surface. Bare areas noted mainly across upper bench. Lower bench more vegetated.	REA Stage 17 (newly establishing)		See Folder: W:\E&C\7 Environment\19 Rehab & Closure\2025_Rehab Monitoring (in house)\Photos	Bare areas to be additionally rehabilitated.
Evidence of erosion (eg. Sheet, rilling, gullying and severity)	Yes there is some erosion noted on the northern-batters and one area on the middle of the western side up into Stage 18				Additional drains would help to reduce future issues. Remediation needed via coir logs.
Occurrence of potholing or slumping	None				
Evidence of spontaneous combustion	None				
Evidence of contamination or other limitations to	None noted.				

vegetative establishment (eg. surface crusting, staining of soil surface etc.)					
Stability and function of erosion and sediment control structures	Some erosion occurring on northern and one area on the west bank.				Coir logs to be installed to prevent further erosion
Integrity of Water Management Structures (e.g. dams, drains, contour banks)	Lower drain in good condition, however small amount of erosion noted in a section in the north-west. No dams in this stage.				
Evidence of soil profile development (e.g. leaf litter, decomposition, pedality etc.)	Branches placed across batter to reduce erosion and act as microhabitats, working well to capture sediment and vegetative material, however erosion still occurring.				Coir logs to be installed to prevent further erosion

Evidence of poor Growth rates e.g. growth stunting	None noted during inspection.				
Evidence of plant mortality or dieback	None noted.				
Native Species diversity- evidence of target/framework native species present in each stratum i.e. upper, mid and lower	Many Acacia sp currently dominating this stage. Canopy sp: Eucalyptus and Acacia sp (Acacia very abundant), Understory sp: Acacia sp. Grouncovers: Kennedia rubicundra, Hardenbergia, Lomandras p. and asst. grasses.				
Evidence of regeneration/seeding	Kenedia rubicundra flowering.				
Evidence of biological nutrient cycling	None noted.				

in Native woodland/forest areas e.g. puff balls					
List Other(s)	Many broadleaf weeds throughout this stage.				

Tahmoor Coal	
REA Stage	Stage 8
Date of Inspection	14/01/2026
Inspected by	Natalie Brumby
Signature	

Inspection Item	Comment	Location of Rehabilitation Area	Co-ordinates	Photo No.	Action(s) Recommended
Visual assessment of surface materials (eg. Large rocks, bare areas>0.1ha)	Good amount of leaf litter accumulating in areas. Some rocks on surface. Bare areas noted.	REA Stage 8 (2 yr old rehab)		See Folder: W:\E&C\7 Environment\19 Rehab & Closure\2025_Rehab Monitoring (in house)\Photos	

Evidence of erosion (eg. Sheet, rilling, gullying and severity)	None				
Occurrence of potholing or slumping	None				
Evidence of spontaneous combustion	None				
Evidence of contamination or other limitations to vegetative establishment (eg. surface crusting, staining of soil surface etc.)	None noted.				
Stability and function of erosion and sediment control structures	Working and in order. In good condition. Additional Coir logs placed in drains at north of stage have been successful at preventing further erosion.				
Integrity of Water Management	No issues with drainage or contour banks.				

Structures (e.g. dams, drains, contour banks)	No dam in this stage.				
Evidence of soil profile development (e.g. leaf litter, decomposition, pedality etc.)	Leaf litter and decomposition present. Logs placed across contours, helping to accumulate material and soil and creating micro ecosystem with newly emerging seedlings present. Native scat identified.				
Evidence of poor Growth rates e.g. growth stunting	None noted during inspection.				
Evidence of plant mortality or dieback	None noted.				
Native Species diversity- evidence of target/framework native species present in each stratum i.e. upper, mid	Canopy sp: Acacia sp Understory sp: Acacia and Hakea sp. Grouncovers: Kennedia				

and lower	rubicundra, Hardenbergia and Grass sp.				
Evidence of regeneration/seeding	N/A				
Evidence of biological nutrient cycling in Native woodland/forest areas e.g. puff balls	Ant activity noted				
List Other(s)	Many broadleaf and nightshade weeds throughout this stage.				

Tahmoor Coal	
REA Stage	No.2 Shaft 11KV Underground Powerline Corridor
Date of Inspection	14/01/2026
Inspected by	Natalie Brumby
Signature	

Inspection Item	Comment	Location of Rehabilitation Area	Co-ordinates	Photo No.	Action(s) Recommended

Visual assessment of surface materials (eg. Large rocks, bare areas>0.1ha)	Good amount of leaf litter accumulating in areas. Shrubs and forbes well established. No significant bare areas. Logs, and scat noted.	No.2 Shaft 11KV Underground Powerline Corridor	34.24841*, 150.58797* 271m elevation	See Folder: W:\E&C\7 Environment\19 Rehab & Closure\2025_Rehab Monitoring (in house)\Photos	
Evidence of erosion (eg. Sheet, rilling, gullying and severity)	None				
Occurrence of potholing or slumping	None				
Evidence of spontaneous combustion	None				
Evidence of contamination or other limitations to vegetative establishment (eg. surface crusting, staining of soil surface etc.)	None noted.				
Stability and function of erosion and	Good establishment of vegetation. Logs,				

sediment control structures	low gradient and rocks helping process.				
Integrity of Water Management Structures (e.g. dams, drains, contour banks)	No issues with drainage or contour banks. No dam in this stage. Slopes and banks stable.				
Evidence of soil profile development (e.g. leaf litter, decomposition, pedality etc.)	Leaf litter and scat helping with accumulation of organic matter.				
Evidence of poor Growth rates e.g. growth stunting	None noted during inspection.				
Evidence of plant mortality or dieback	None noted.				
Native Species diversity- evidence of target/framework native species present in each stratum i.e. upper, mid and lower	Canopy sp: Eucalyptus sp and Acacia sp Understory sp: Acacia, Kunzea ambigua and Hakea sp. Grouncovers: Kennedia				

	rubicundra, Hardenbergia and Grass sp.				
Evidence of regeneration/seeding	Fruiting and seeding occurring on some shrubs and grasses				
Evidence of biological nutrient cycling in Native woodland/forest areas e.g. puff balls	Ant mounds and activity, and termite mounds noted				
List Other(s)	Some litter noted on slope				To be remediated

Tahmoor Coal	
REA Stage	Stage 18
Date of Inspection	14/01/2026
Inspected by	Natalie Brumby
Signature	

Inspection Item	Comment	Location of Rehabilitation Area	Co-ordinates	Photo No.	Action(s) Recommended

Visual assessment of surface materials (eg. Large rocks, bare areas>0.1ha)	No significant bare areas. Leaf litter accumulating. Logs spread along batters.	Stage 18 (2 years old)	34.256553*, 150.587602*	See Folder: W:\E&C\7 Environment\19 Rehab & Closure\2025_Rehab Monitoring (in house)\Photos	
Evidence of erosion (eg. Sheet, rilling, gullying and severity)	None				
Occurrence of potholing or slumping	None				
Evidence of spontaneous combustion	None				
Evidence of contamination or other limitations to vegetative establishment (eg. surface crusting, staining of soil surface etc.)	None noted.				
Stability and function of erosion and sediment control structures	Good establishment of vegetation. Logs, low gradient and rocks helping process. Grass blanketing				

	helping with soil stability.				
Integrity of Water Management Structures (e.g. dams, drains, contour banks)	No issues with drainage or contour banks. No dam in this stage. Slopes and banks stable.				
Evidence of soil profile development (e.g. leaf litter, decomposition, pedality etc.)	Leaf litter and scat helping with accumulation of organic matter.				
Evidence of poor Growth rates e.g. growth stunting	None noted during inspection.				
Evidence of plant mortality or dieback	None noted.				
Native Species diversity- evidence of target/framework native species present in each stratum i.e. upper, mid and lower	Canopy sp: Eucalyptus sp, Allocasaurina sp. and Acacia sp. Understory sp: Acacia, Kunzea ambigua and Hakea sp.				

	Grouncovers: Hardenbergia and Grass sp.				
Evidence of regeneration/seeding	N/A				
Evidence of biological nutrient cycling in Native woodland/forest areas e.g. puff balls	No				
List Other(s)	Some Coreopsis lanceolata (Lanceleaf tickseed) identified across this section				Weed control to be implemented.

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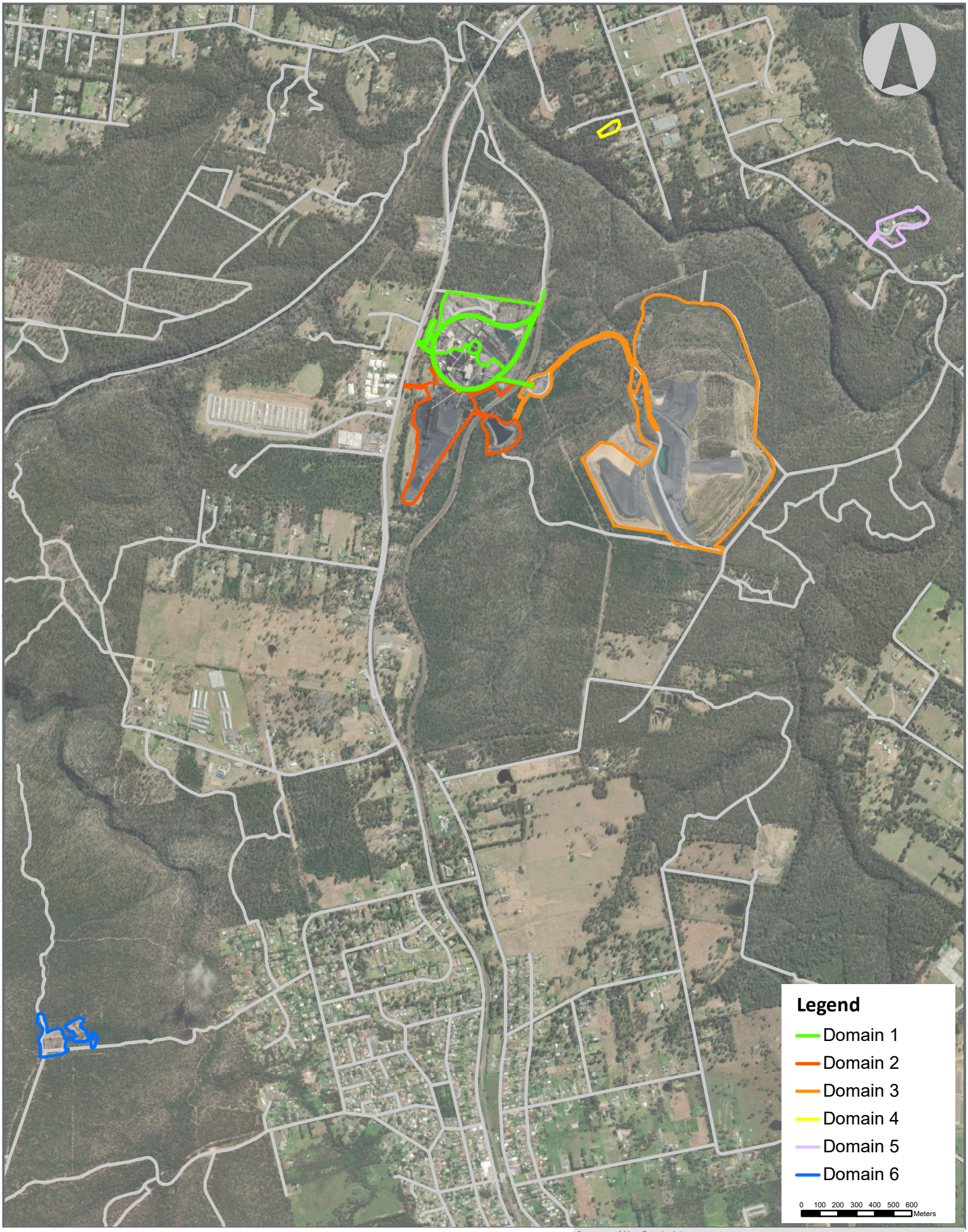

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REPORT

TAHMOOR COAL PTY LTD
ABN: 97076663968

Tahmoor South Domain

Surface Water Review
1 January to 31 December 2025

261399R002-rev0
OCTOBER 2026



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1 INTRODUCTION

1.1 Background

Tahmoor Coal Pty Ltd (Tahmoor Coal) engaged ATC Williams Pty Ltd (ATCW) to undertake a review and analysis of surface water monitoring data recorded at sites within and adjacent to Tahmoor South for the period of 1 January to 31 December 2025. Groundwater and subsidence reviews were also undertaken by independent specialists, with relevant details summarised in this report.

Tahmoor Coal owns and operates Tahmoor Mine, an underground coking coal mine. The mine surface operations are located south of Tahmoor NSW (within the Greater Sydney Basin) approximately 80 km southwest of Sydney. Tahmoor Mine is located within the Wollondilly Shire Council (WSC) Local Government Area (LGA). Underground workings extend north under the town of Tahmoor and Picton, with two ventilation shafts being located on the outskirts of Tahmoor.

The Tahmoor South Domain (Tahmoor South) is located south of the Bargo River and east of Remembrance Driveway and the township of Bargo. Mining of the six Longwalls (LW) S1A-S6A within Tahmoor South was approved on 23 April 2021 by the NSW Independent Planning Commission in accordance with Approval SSD 8445. Modification 3 to Development Consent SSD 8445, which sought approval for mining of LW S7A, was approved in May 2025. The location of LW S1A-S7A and the associated Study Area are illustrated on **MAP 1**, with mining commencement and completion dates as follows:

- LW S1A commenced on 18 October 2022 and was completed on 4 July 2023.
- LW S2A commenced on 2 August 2023 and was completed on 6 April 2024.
- LW S3A commenced on 8 May 2024 and was completed on 17 December 2024.
- Mining of LW S4A had not commenced at the time of this report.

Tahmoor Coal is required to implement a monitoring program that includes groundwater, surface water and subsidence in accordance with the *Tahmoor Water Management Plan - Tahmoor South Domain – Longwalls South S1A-S7A* (WMP).

As a component of the monitoring program, Tahmoor Coal has developed a comprehensive rainfall, surface water and groundwater monitoring network within and adjacent to Tahmoor South. The surface water monitoring network comprises water level, streamflow and water quality monitoring sites in addition to visual inspection sites. The locations of the relevant monitoring sites are shown in **Section 4**.

1.2 Scope and Report Purpose

In accordance with the WMP, implementation of a Trigger Action Response Plan (TARP) is required, including an assessment of surface water monitoring data. The purpose of this report is to present:

- Review and interpretation of monitoring data for the period of 1 January to 31 December 2025 (review period).
- Assessment against the performance measures and performance indicators for surface water.
- Recommendations in relation to ongoing monitoring and/or corrective actions.

This report predominantly presents and interprets surface water monitoring data recorded in the vicinity of LW S1A-S7A.

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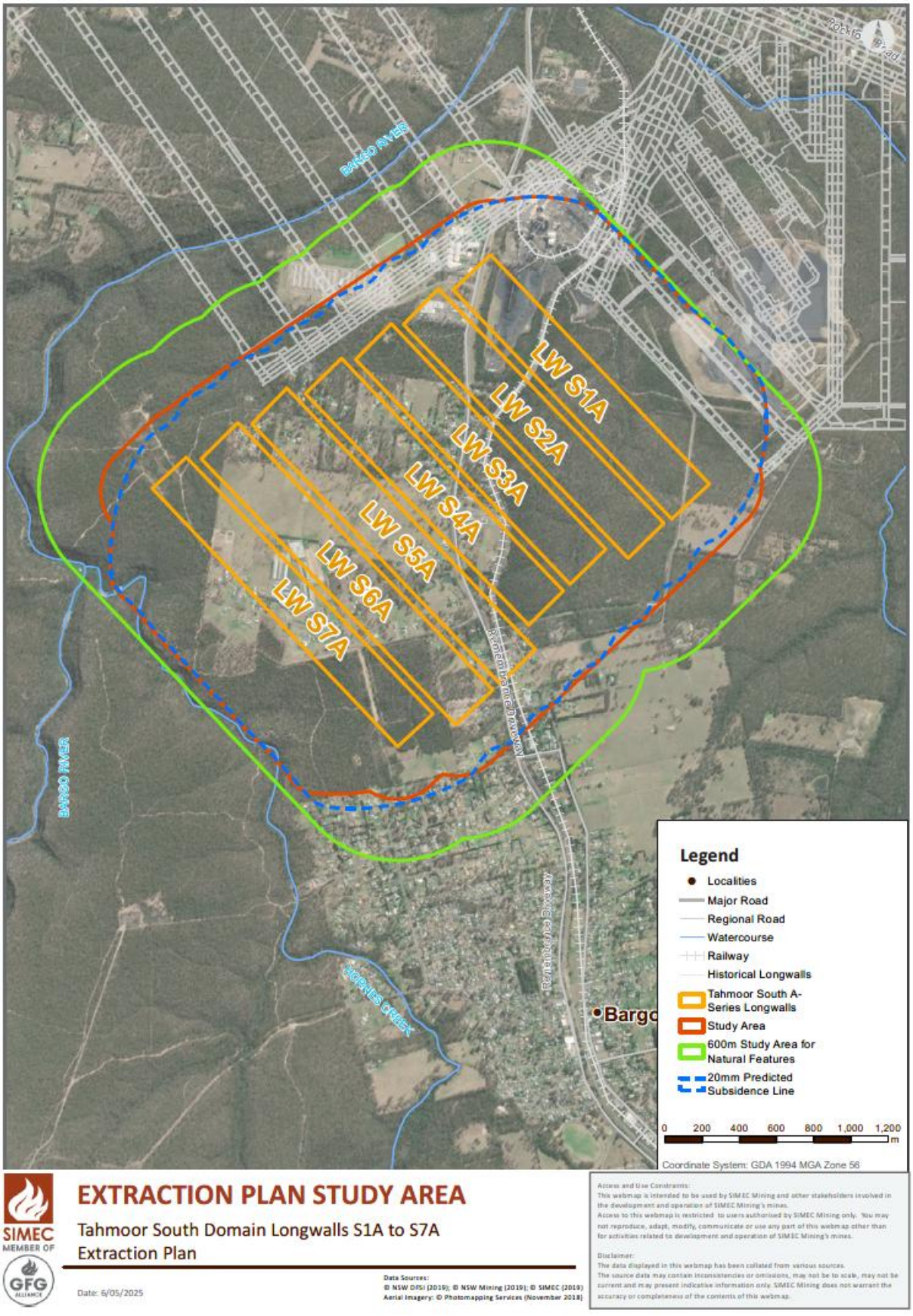
MAP 1: TAHMOOR SOUTH MINING AREA



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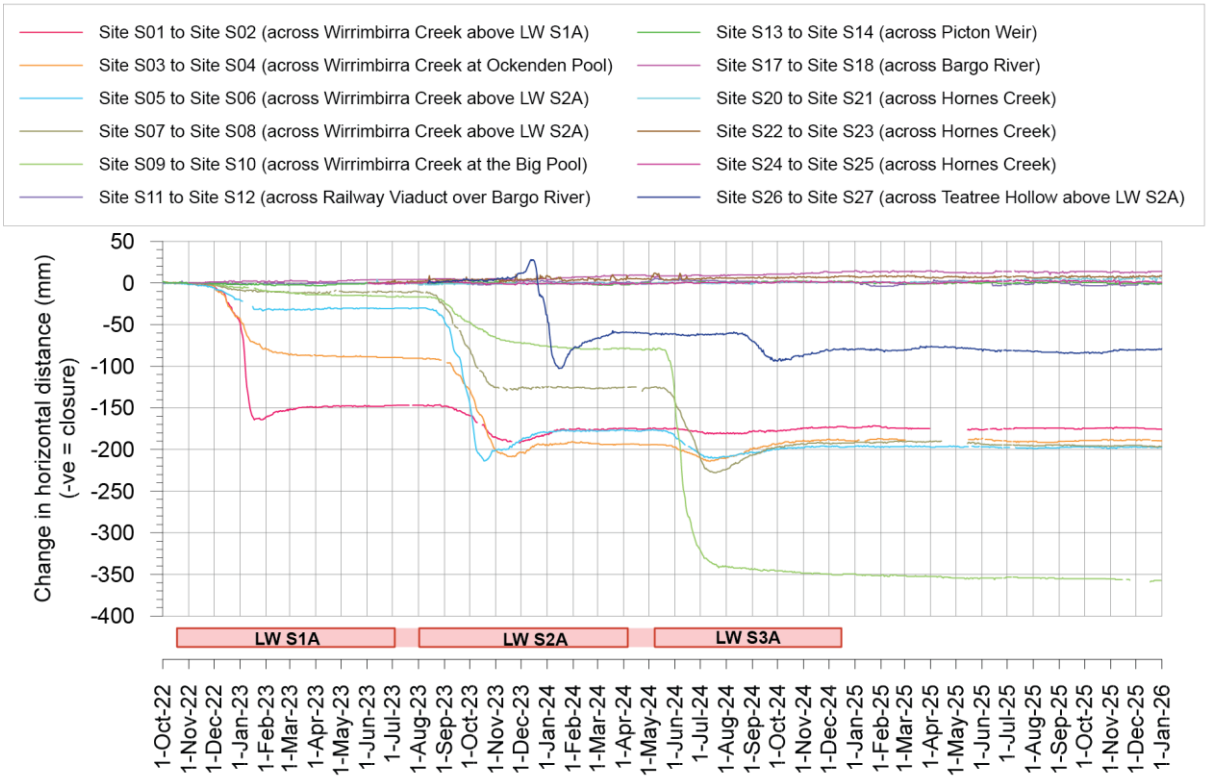
2 SUMMARY OF MONITORED SUBSIDENCE MOVEMENTS

Tahmoor Coal has installed ground survey marks above and adjacent to LW S1A-S7A, with monitoring of subsidence movements undertaken at key locations within and adjacent to Tahmoor South (refer **MAP 2**). The subsidence monitoring is detailed in the six-monthly subsidence monitoring reports prepared by Mine Subsidence Engineering Consultants (MSEC) and summarised below. Changes in horizontal distances calculated between GNSS[1] units located at key locations associated with Tahmoor South are presented on **GRAPH 1** extracted from MSEC (2026).

GRAPH 1: OBSERVED CHANGES IN HORIZONTAL DISTANCES BETWEEN GNSS UNITS



Subsidence monitoring of surface water features indicates that there has been a negligible change to closure during the review period.

[1] Global Navigation Satellite System (GNSS) units are fixed survey stations that continuously measure absolute horizontal and vertical positions at a location in real time.

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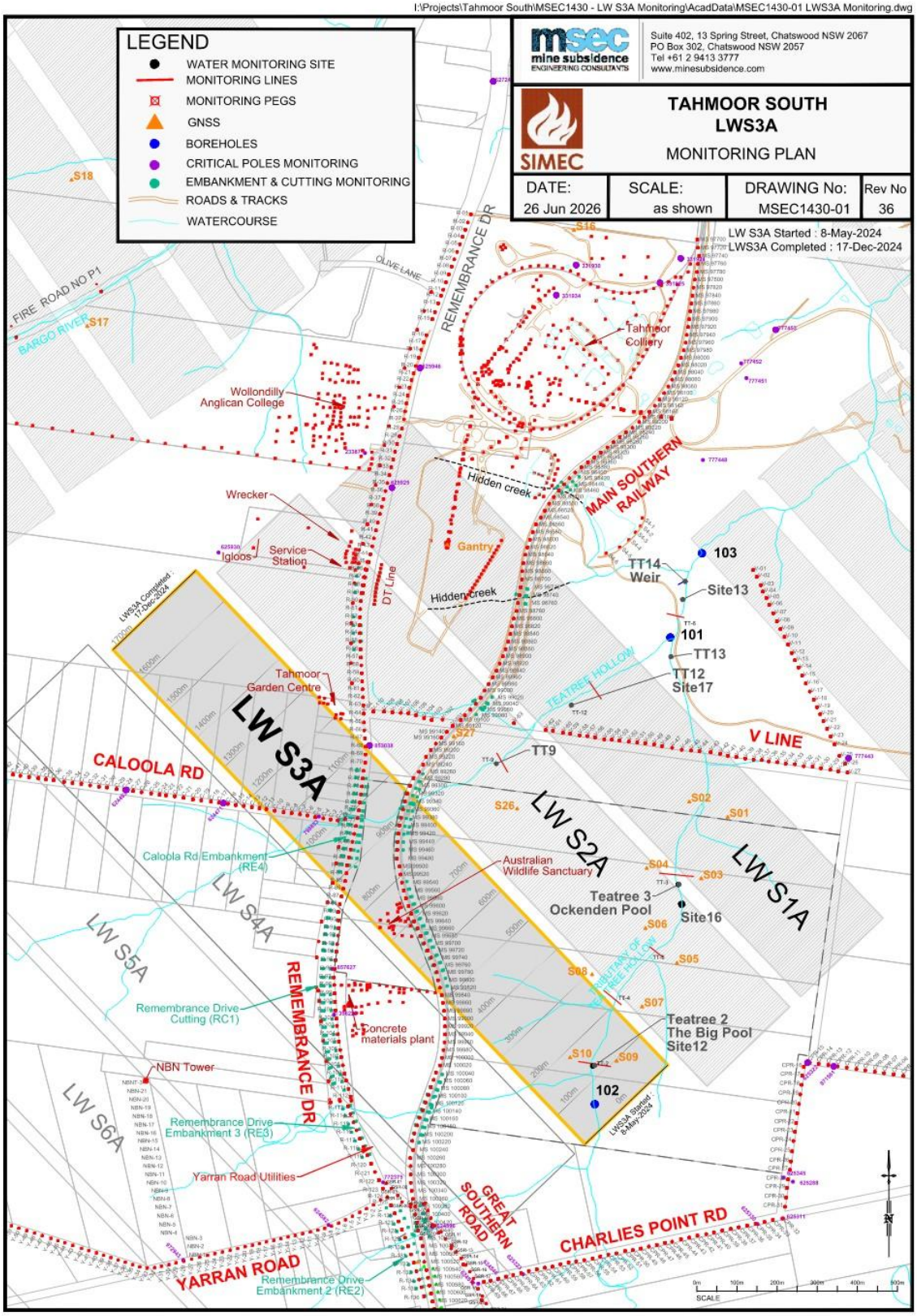
MAP 2: GNSS MONITORING LOCATIONS – TAHMOOR SOUTH (MSEC 2026)



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3 SUMMARY OF GROUNDWATER LEVEL TRENDS

Groundwater levels were reviewed to assess potential baseflow contribution, being groundwater discharge to the surface water system, and surface water-groundwater interaction within the Study Area. A summary of groundwater level trends is provided below. Available groundwater records extend from 1 January to 25 or 26 November 2025, depending on the monitoring bore. No data were available for December 2025, and no 2025 data were available for P54A or P54B. The monitoring bores considered for this review are situated near the surface water monitoring sites as illustrated on **MAP 3**.

The monitoring bores referenced are shallow open standpipe bores where 'C' denotes the lowest elevation sensor and 'A' denotes the highest elevation sensor in the open standpipe. Detailed discussion of groundwater monitoring data recorded within and adjacent to the Study Area is presented in SLR (2026).

It is noted that SLR identified abrupt changes in the supplied groundwater level records at P52, P53A-C and P55C on 30 October 2025, as well as smaller unexplained upward changes at P55A and P55B on 28 October 2025. SLR considered the 30 October changes to represent offsets applied to the supplied datasets rather than groundwater responses. These changes remain in the supplied records pending receipt and review of subsequent monitoring data. Accordingly, the reported groundwater levels and trends should be interpreted with this limitation in mind.

- **Monitoring Bore P55A-C**: located approximately 100 m to the east of monitoring site TT1-QLa in Teatree Hollow tributary.
  - Throughout the available 2025 monitoring record, the maximum groundwater level recorded at P55A was approximately 271 m AHD, around 20 m below the bed elevation of Teatree Hollow tributary at TT1-QLa.
  - At P55A, a TARP Level 1 exceedance for groundwater level was reported throughout the available 2025 monitoring record, except for one month, where a Level 2 TARP exceedance for groundwater level occurred.
  - At P55B, a Level 3 TARP exceedance for groundwater level was reported throughout the available 2025 monitoring record, due to a recorded reduction in groundwater level greater than the maximum modelled drawdown for a period of greater than six months.
  - At P55C, a Level 1 TARP exceedance was recorded for seven months, a Level 2 exceedance for one month and a Level 3 TARP for three months.
  - Based on the groundwater levels recorded at P55A during the review period, baseflow contribution to Teatree Hollow tributary in the vicinity of TT1-QLa was likely to be negligible.
- **Monitoring Bore P54A-B**: located approximately 400 m to the south-east of monitoring site TT3-QLa in Teatree Hollow tributary. P54A and P54B have been reported as dry since February 2023, and no groundwater level data were available for either bore during 2025. Consequently, groundwater conditions and potential baseflow contribution in the vicinity of TT3-QLa could not be assessed using 2025 groundwater data.
- **Monitoring Bore P53A-C**: located approximately 250 m to the south-east of monitoring site TT13-QLa in Teatree Hollow tributary.
  - Throughout the available 2025 monitoring record, the maximum groundwater level recorded at P53A was approximately 258 m AHD, around 13 m below the bed elevation of Teatree Hollow tributary at TT13-QLa.
  - At P53A and P53B, a Level 1 TARP exceedance for groundwater level was reported for five and six months of the available 2025 monitoring record, respectively.
  - At P53C, a Level 2 TARP exceedance for groundwater level was reported for the first five months of the review period, due to a decline in groundwater level lasting more than six months. A Level 1 TARP exceedance for groundwater level was reported for three months.
  - Based on the groundwater levels recorded at P53A during the review period, baseflow contribution to Teatree Hollow tributary in the vicinity of TT13-QLa was likely to be negligible.

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- **Monitoring Bore P52:** located approximately 230 m and 190 m to the east of monitoring sites TT7-QLa and TT14-QLa in Teatree Hollow, respectively.
  - No TARP trigger exceedances were reported for P52 throughout the available 2025 monitoring record.
  - Throughout the available 2025 monitoring record, a generally increasing trend in groundwater levels was recorded at P52. The maximum groundwater level recorded during the review period was approximately 250 m AHD.
  - The maximum groundwater level was approximately 12 m below the bed elevation of Teatree Hollow at TT7-QLa.
  - The baseflow contribution was likely to be negligible in the vicinity of TT7-QLa, based on the groundwater levels recorded throughout the available 2025 monitoring record.

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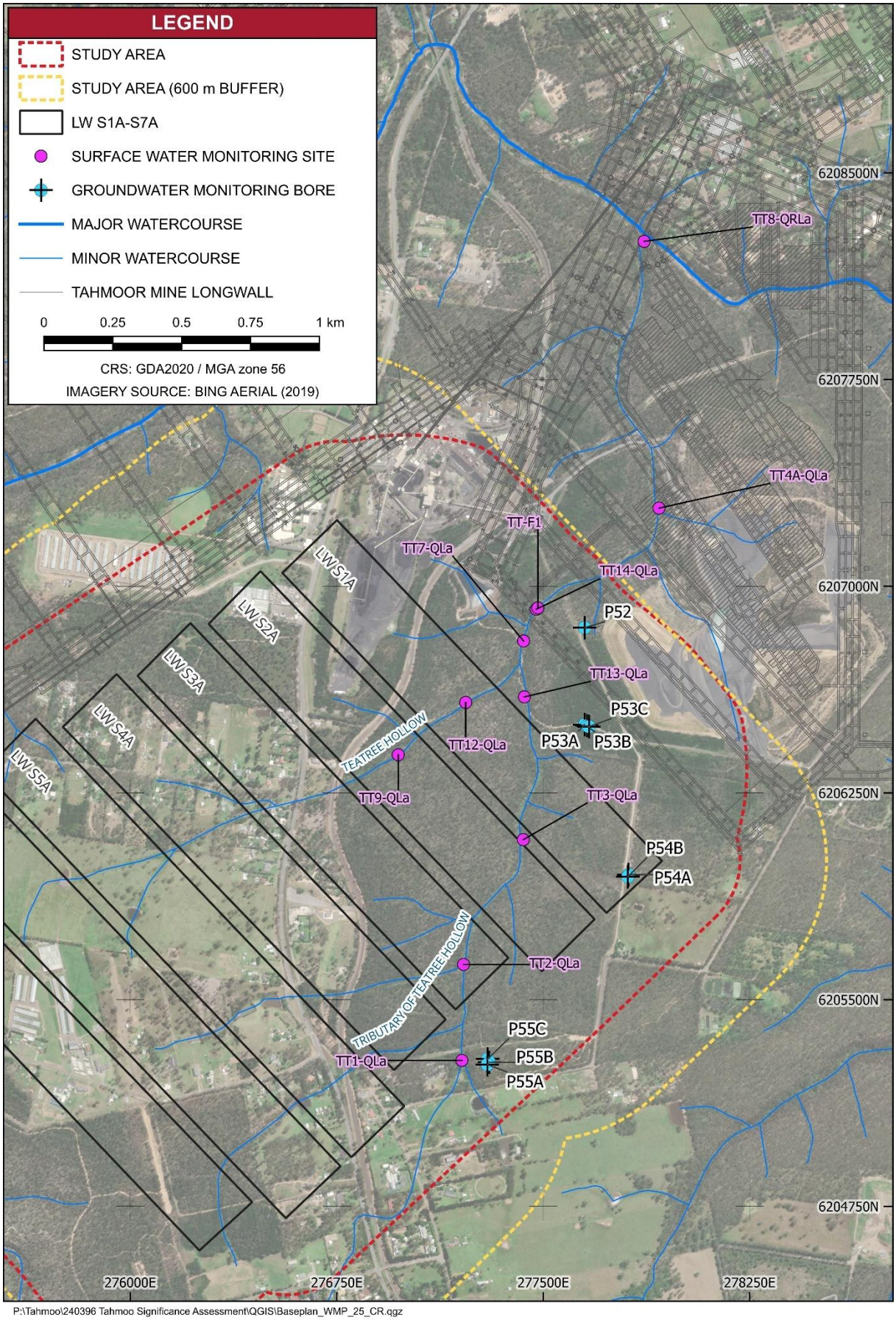
MAP 3: GROUNDWATER MONITORING BORES RELEVANT TO TEATREE HOLLOW



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4 SURFACE WATER MONITORING PROGRAM

Tahmoor Coal has implemented an extensive surface water monitoring program in the vicinity of LW S1A-S7A, as detailed in the WMP. The LW S1A-S7A surface water monitoring program includes the following:

- water level.
- streamflow.
- water quality.
- visual inspection.

The surface water monitoring program seeks to ensure compliance with regulatory requirements and to enable identification of potential mining related impacts to:

- pool and watercourse physical features and natural behaviour.
- surface water level and streamflow.
- surface water quality.

The monitoring program developed a baseline dataset for a range of surface water features, which is now used to assess operational and post-mining impacts through the monitoring of reference (control) sites and potential impact sites.

The monitoring sites are characterised as follows:

Baseline Site:	Surface water monitoring site that has been monitored for water level and quality prior to the commencement of mining in the South Domain. Baseline surface water monitoring data was used to derive water quality Site Specific Guideline Values (SSGVs) and water level trigger values.
Reference Site:	Surface water monitoring site located upstream of the subsidence impact zone and considered unlikely to be affected by mining activity. These sites are utilised as benchmarks for observations from potential impact sites.
Potential Impact Site:	Surface water monitoring site located within the potential subsidence impact zone (as defined based on mining induced subsidence predictions), from which a potential effect on surface water level or quality from the site activity may be detected.

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4.1 Monitoring Program Summary

Surface water monitoring sites are located on key watercourses within and adjacent to LW S1A-S7A, and include Teatree Hollow, Teatree Hollow tributary, Bargo River, Bargo River tributary and Hornes Creek. The locations of the monitoring sites relevant to the Study Area are shown on **MAP 4** to **MAP 6**, with the relevant rainfall stations also shown on **MAP 4**. The surface water monitoring program for LWS1A-S7A is summarised in **Appendix A**.

The monitoring site nomenclature is associated with the watercourse, pool number and the type of monitoring undertaken as follows (e.g., TT9-QLa is pool 9 on Teatree Hollow, with monitoring of water quality and water level):

- automated (continuous) water level monitoring: La
- streamflow: F
- water quality: Q
- channel morphology: CM
- knickpoint: K
- headwater reaches: HW

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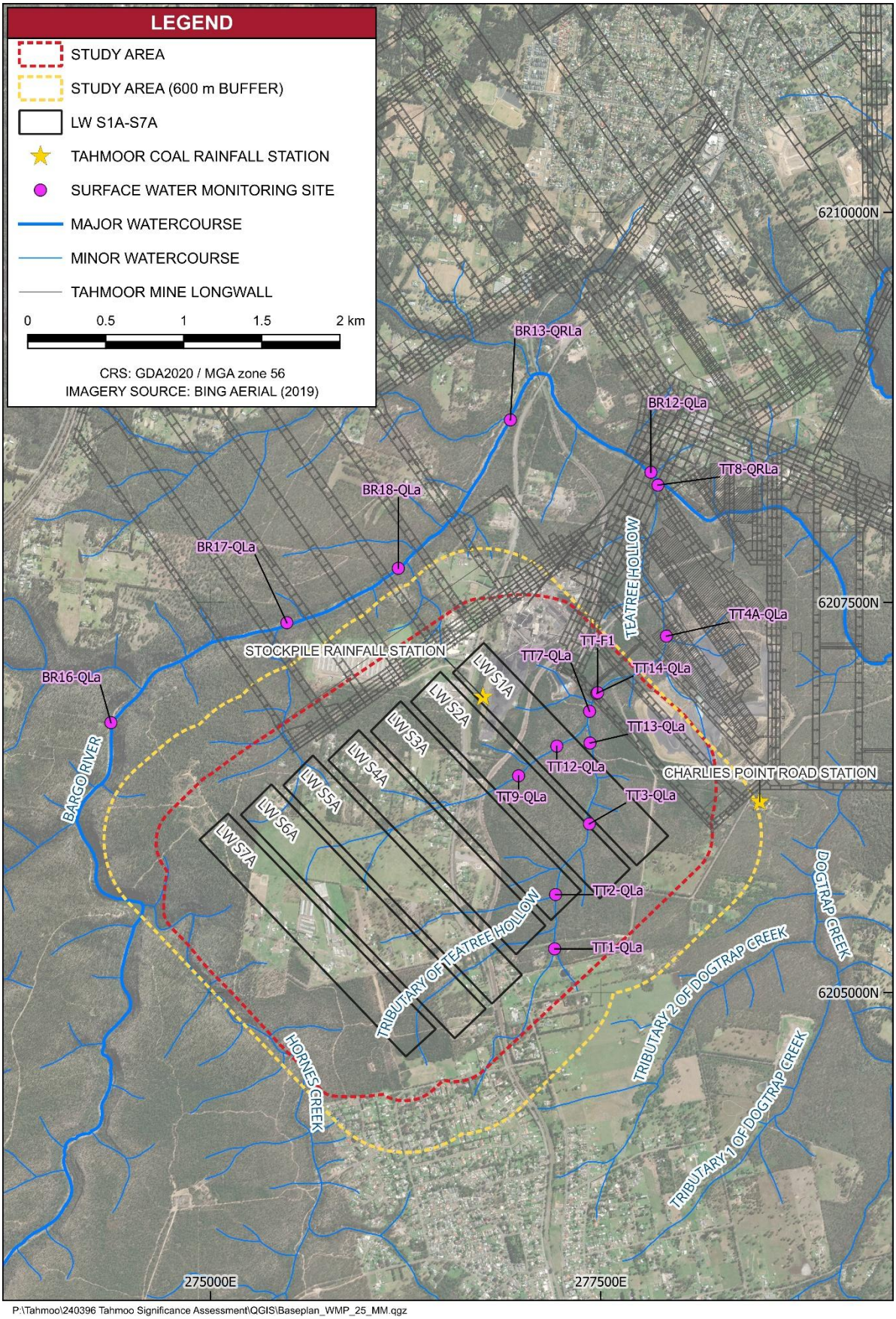
MAP 4: RELEVANT RAINFALL STATIONS AND SURFACE WATER MONITORING SITES SPECIFIC TO LWS1A-S7A



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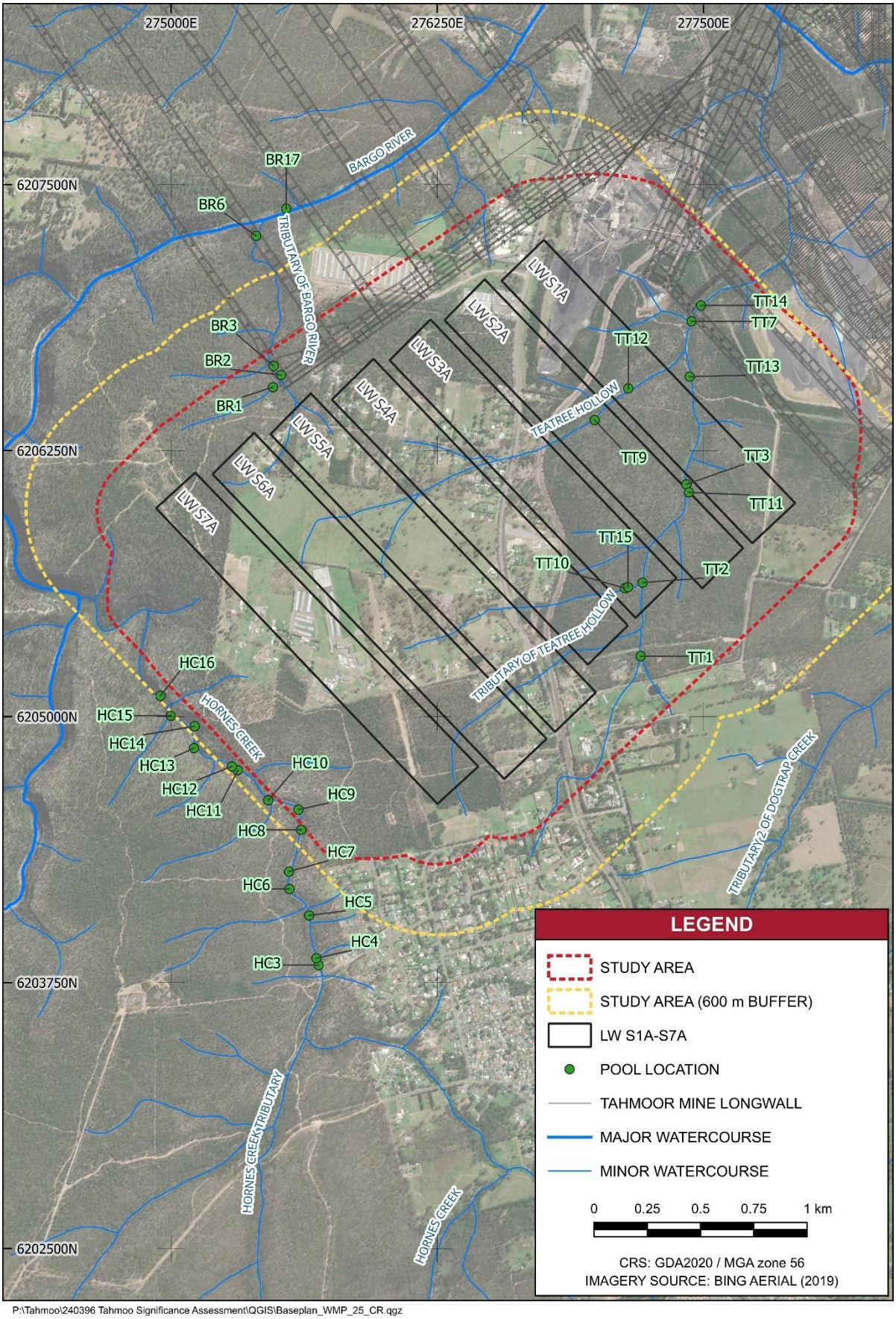
MAP 5: POOL VISUAL INSPECTION SITES SPECIFIC TO LWS1A-S7A



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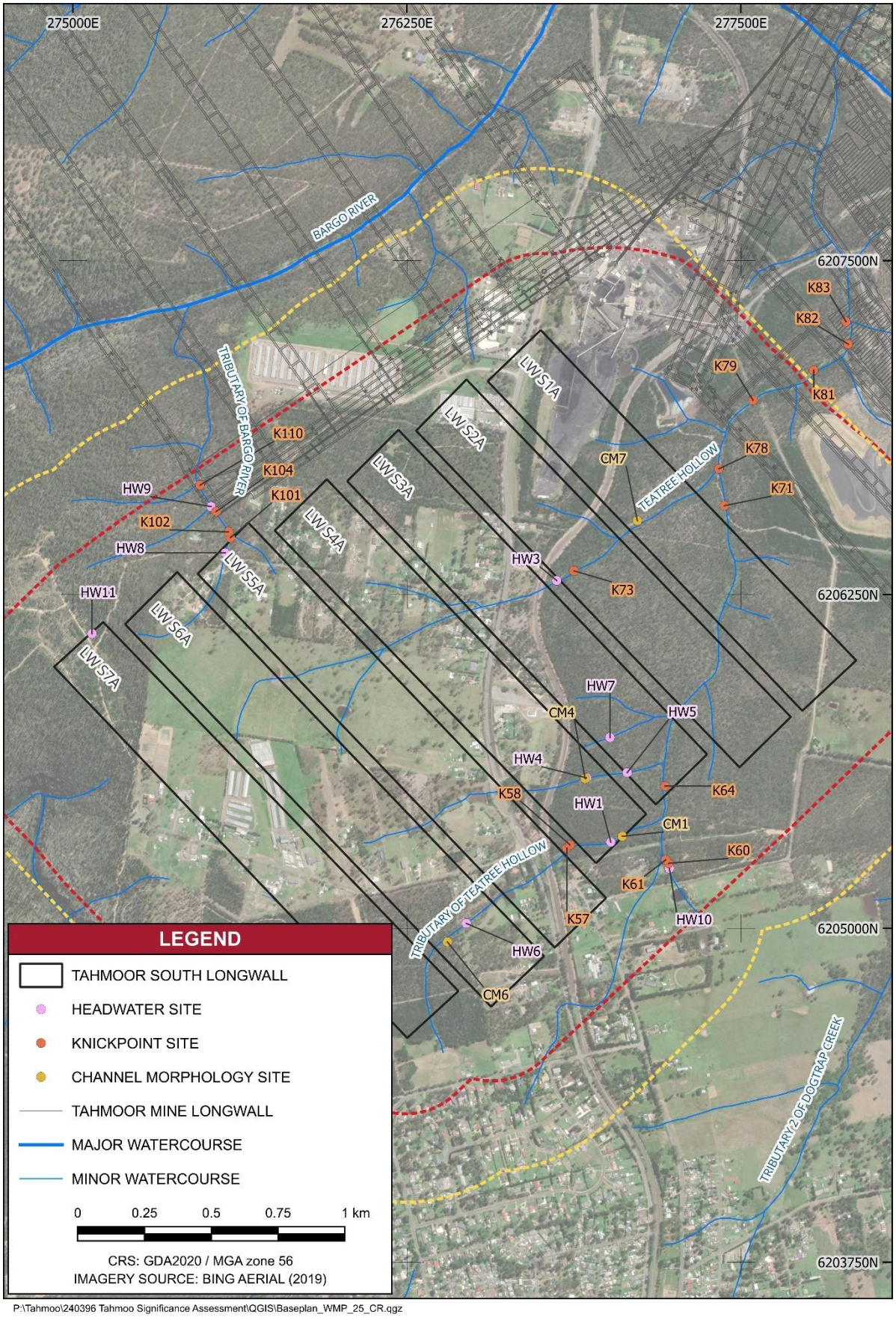
MAP 6: MORPHOLOGY AND CHANNEL STABILITY MONITORING SITES SPECIFIC TO LWS1A-S7A



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4.2 Monitoring Constraints

Some monitoring data were unavailable for the review period:

- Visual inspections of pool behaviour and physical features were completed in all months except February 2025.
- Water quality sampling was undertaken in all months except February and December 2025.
- Field water quality monitoring results were unavailable in November 2025. For this month, laboratory analytical results were used to assess pH and Electrical Conductivity (EC).
- The completeness and accuracy of the LOP4 overflow and LDP16 discharge records were insufficient to reliably distinguish all mine-water contributions from natural streamflow recorded at TT-F1. This limits quantitative assessment of streamflow reduction and associated water take, as discussed in Sections **5.3** and **6.2**.

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5 SURFACE WATER MONITORING DATA REVIEW

A summary of the monitoring data recorded for the review period (1 January to 31 December 2025) is presented in the following sections. Monitoring sites on Hornes Creek and the Bargo River tributary (refer **MAP 4**), are located outside the subsidence zone associated with mining of LW S1A, LW S2A and LW S3A. As these sites are not expected to be influenced by mining-related subsidence, they have been excluded from the assessment presented in this report.

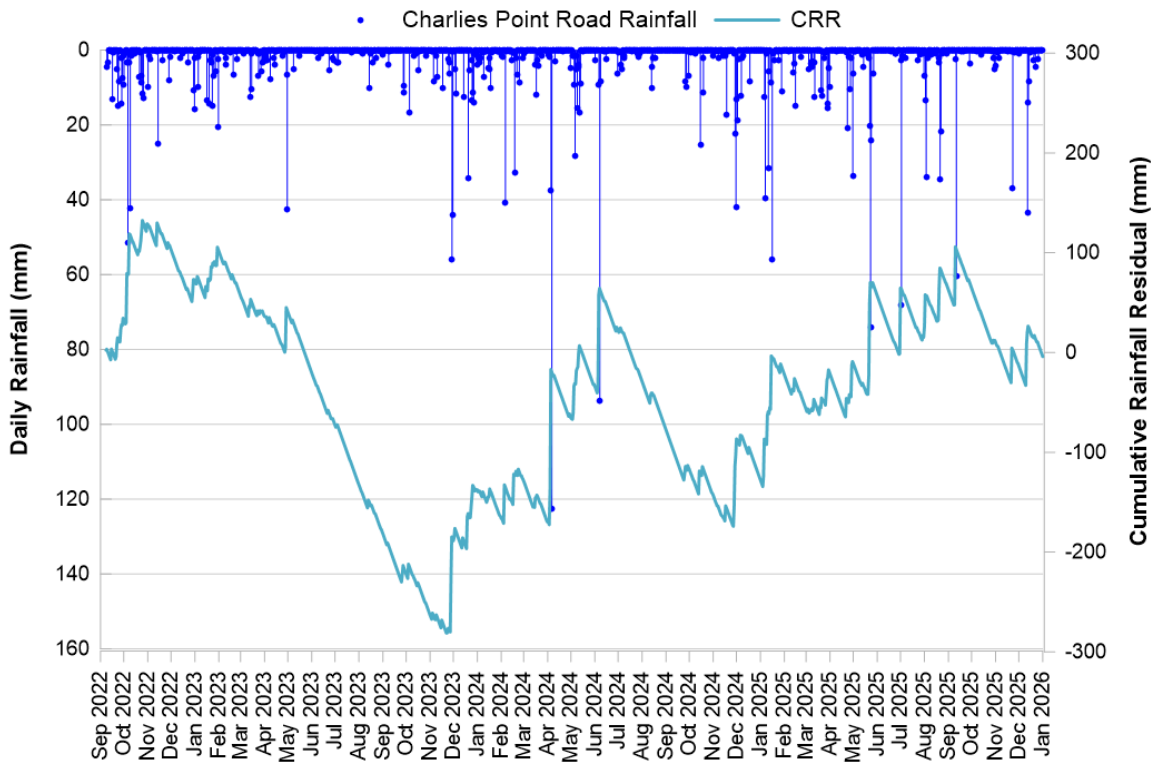
Assessment of the monitoring data against the TARP trigger levels defined in the WMP is provided in **Section 6**.

5.1 Rainfall Trends

GRAPH 2 presents daily rainfall data recorded at the Tahmoor Coal rainfall station known as Charlies Point Road (refer **MAP 4**). The Charlies Point Road rainfall station was not operational between 30 June 2025 and 31 December 2025. During this period, rainfall data from the Stockpile rainfall station, located approximately 2 km east of Charlies Point Road (refer **MAP 4**), were used to infill the missing record. Rainfall data from 8 September 2022 to 31 December 2025 (the available period of record) are presented together with the cumulative rainfall residual (CRR)[2], to illustrate long-term climatic trends.

The CRR shown in **GRAPH 2** increased from January to August 2025, indicating generally above-average rainfall conditions during this period. The CRR then declined from September to December 2025, indicating generally below-average rainfall conditions during the latter part of the review period.

GRAPH 2: DAILY RAINFALL AND CUMULATIVE RAINFALL RESIDUAL



[2] The cumulative rainfall residual is calculated as the cumulative deviation from the average daily rainfall, where positive (upward) slope in the plot indicates periods of above average rainfall and negative (downward) slope indicates periods of below average rainfall.

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5.2 Surface Water Level Data

Automated water level data for the full period of record are presented in **Appendix B**. The cease-to-flow (CTF) level shown on the water level graphs represents the point at which surface water ceases to flow over the pool control (i.e., the lowest point on a rockbar, boulder field or other feature that contains water within the pool / controls surface flow from the pool). Where flow over the pool control ceases, some leakage may still occur around, through or beneath the control and continue to report downstream.

TABLE 1 summarises water level trends during the review period. Water level data recorded at the monitoring site TT14-QLa are not included in **TABLE 1**, as these data are converted to streamflow using the rating relationship developed for the low-flow gauging weir at TT-F1 (refer **MAP 4** for location). The resulting streamflow record is presented in **Section 5.3**.

TABLE 1: SUMMARY OF WATER LEVEL TRENDS - 1 JANUARY TO 31 DECEMBER 2025

Monitoring Site	Classification	Summary of Water Level Trends	Appendix B Graph Reference
Teatree Hollow Catchment			
TT1-QLa	Reference Site	The water level remained above the baseline minimum during the review period, and trends were consistent with rainfall conditions.	B1.1
TT2-QLa	Potential Impact Site	Pool TT2 was dry or below the sensor level for the majority of the monitoring period. The water level was recorded above the baseline minimum for brief periods in January, May, July and September (during and following rainfall events).	B1.2
TT3-QLa	Potential Impact Site	Pool TT3 was dry or below the sensor level for the majority of the review period. The water level was recorded above the CTF level for brief periods in January, February, April, June and September (during and following rainfall events).	B1.3
TT7-QLa	Potential Impact Site	The water level remained above the baseline minimum for the majority of the review period, with brief declines below the baseline minimum in January and December.	B1.4
TT9-QLa	Potential Impact Site	The water level remained above the baseline minimum for the majority of the review period, with periods below the baseline minimum occurring in March, April, and from October to December.	B1.5
TT12-QLa	Potential Impact Site	Pool TT12 was dry or below the sensor level for the majority of the review period. The water level was recorded above the baseline minimum for brief periods following rainfall events.	B1.6
TT13-QLa	Potential Impact Site	The water level was below the baseline minimum for the majority of the review period, except for brief periods in January, February and between May to September.	B1.7

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Monitoring Site	Classification	Summary of Water Level Trends	Appendix B Graph Reference
Bargo River			
BR16-QLa	Reference Site	The water level remained above the baseline minimum throughout the review period, with trends consistent with rainfall conditions.	B2.1
BR12-QLa	Potential Impact Site	The water level remained above the baseline minimum throughout the review period, with trends consistent with rainfall conditions.	B2.2
BR13-QRLa	Potential Impact Site	The water level remained above the baseline minimum throughout the review period, with trends consistent with rainfall conditions.	B2.3
BR17-QLa	Potential Impact Site	The water level remained at or above the baseline minimum for the majority of the review period. Between February and May 2025, water levels were slightly below the baseline minimum but remained above the trigger level.	B2.4
BR18-QLa	Potential Impact Site	The water level remained at or above the baseline minimum for the majority of the review period. During November and December 2025, water levels periodically declined below the baseline minimum but remained above the trigger level.	B2.5

5.3 Streamflow Data

Streamflow recorded at TT-F1 for the period of record is presented in **GRAPH 3**, together with daily rainfall data derived from Scientific Information for Land Owners (SILO) Point Data[3] and recorded at Charlies Point Road rainfall station. The cumulative rainfall (CRR) and cumulative streamflow residual (CSR) are presented in **GRAPH 4**.

TT-F1 is located downstream of Dam S4, which incorporates Licensed Overflow Point LOP4 and Licensed Discharge Point LDP16. Flow recorded at TT-F1 may therefore comprise a combination of natural catchment flow, overflow from LOP4 and licensed discharge from LDP16.

An adjusted TT-F1 streamflow record was prepared by subtracting the available LOP4 overflow and LDP16 discharge volumes from the flow recorded at TT-F1. However, review of the source records identified uncertainty in these adjustments. In particular, some recorded LOP4 overflow volumes appear anomalous and may have been affected by sensor performance, while the available information indicates that the LDP16 record may not capture all discharge events or volumes. Consequently, some contributions from LOP4 and LDP16 may remain within the adjusted TT-F1 record.

Subject to these limitations, the adjusted record presented in **GRAPH 3** indicates that streamflow at TT-F1 is intermittent, with extended periods of no recorded flow occurring prior to the commencement of mining of LW S1A. During the review period, recorded flow events generally occurred in association with rainfall events. Based on **GRAPH 4**, the timing and broad recession behaviour of recorded flows also appear generally comparable with historical observations, including periods prior to commencement of mining of LW S1A.

These observations are qualitative only. Uncertainty associated with the LOP4 and LDP16 records prevents reliable quantification of natural streamflow, mining-related streamflow reduction or associated water take from the TT-F1 record for the review period (refer Section 6.2).

[3] The SILO Point Data is a system which provides synthetic daily climate data sets for a specified point by interpolation between surrounding point records held by the Bureau of Meteorology (BoM) – LongPaddock (2025). Selected point co-ordinates: 32.2°S, 149.65°E.

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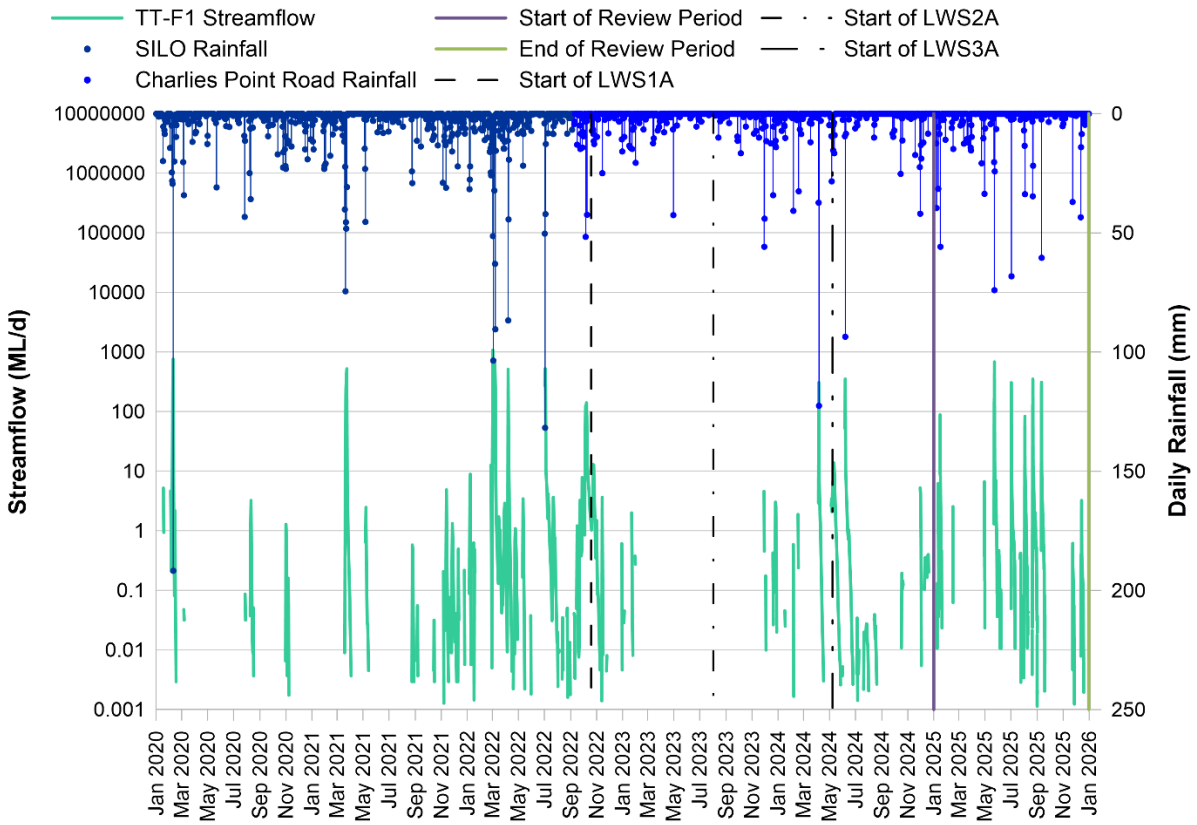
GRAPH 3: TEATREE HOLLOW (TT-F1) STREAMFLOW AND RAINFALL[4]



[4] Note the streamflow series presented is an adjusted record derived by subtracting the available LOP4 overflow and LDP16 discharge volumes from flow recorded at TT-F1. The adjusted record is subject to uncertainty associated with the completeness and accuracy of the LOP4 and LDP16 source records.

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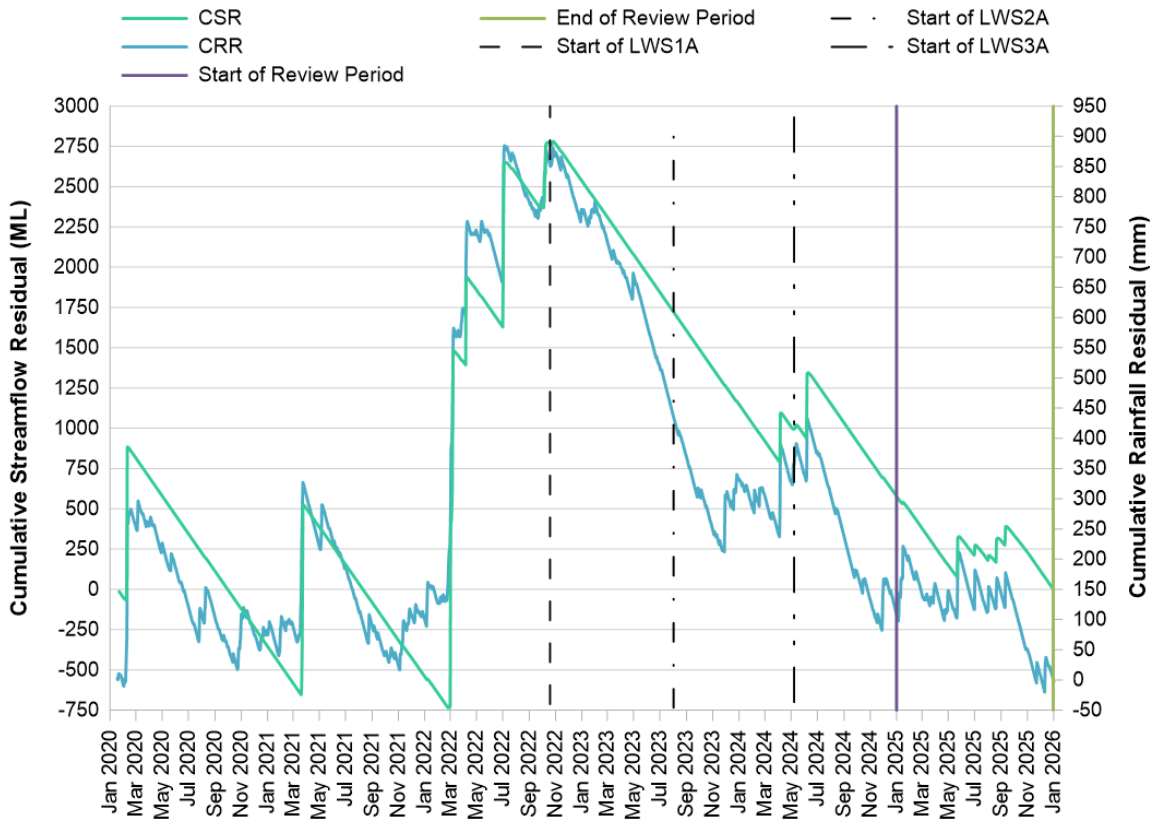
GRAPH 4: TEATREE HOLLOW (TT-F1) CUMULATIVE STREAMFLOW AND RAINFALL RESIDUAL[5]



5.4 Surface Water Quality

Water quality data recorded during the review period are summarised in **TABLE 2**, and graphically presented in **Appendix C.**

The following constituents have been adopted for assessment as primary indicators of potential mining-related impacts (refer WMP):

- pH
- electrical conductivity (EC)
- specific dissolved metals: aluminium, copper, iron, manganese, nickel and zinc

[5] Note the cumulative streamflow residual is derived from the adjusted TT-F1 record and incorporates the data limitations described. It is presented for qualitative comparison only and should not be used to derive a quantitative estimate of natural streamflow, streamflow reduction or water take.

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TABLE 2: SUMMARY OF KEY WATER QUALITY CONSTITUENTS – 1 JANUARY TO 31 DECEMBER 2025

Constituent	Summary of Water Quality	
	Teatree Hollow Catchment TT1-QLa (reference site) TT2-QLa, TT3-QLa, TT7-QLa, TT9-QLa, TT12-QLa, TT13-QLa, TT14-QLa (potential impact sites)	**Bargo River** BR16-QLa (reference site) BR12-QLa, BR13-QRLa, BR17-QLa, BR18-QLa (potential impact sites)
Field pH	• Slightly acidic to alkaline pH recorded at all monitoring sites. • pH generally increased across most Teatree Hollow sites during dry periods and generally decreased following rainfall events between May and August. • At TT7-QLa, a historic maximum pH value was recorded in May at 8.82. • At TT14-QLa, a historic maximum pH value of 9.31 was recorded in August.	• Slightly acidic to slightly alkaline pH was recorded at all monitoring sites. • pH recorded during the review period was within the range of historical values for all sites.
Electrical Conductivity (EC)	• EC values were within the historical range at all sites except TT7-QLa and TT14-QLa. • At TT7-QLa and TT14-QLa, EC values exceeded baseline values for much of the review period, with a historical maximum of 1,518 µS/cm recorded at TT14-QLa, in April.	• EC values were within the range of baseline values for the duration of the review period.
Dissolved Aluminium	• Dissolved aluminium concentrations were within the range of baseline values for the duration of the review period.	• Dissolved aluminium concentrations were within the baseline range at all sites except BR12-QLa and BR13-QLa, where site-specific maximum concentrations were recorded during the review period.
Dissolved Copper	• Dissolved copper concentrations were equal to or less than the limit of reporting at all sites during the review period except for TT2-QLa, TT9-QLa and TT13-QLa. • Dissolved copper concentrations for TT2-QLa, TT9-QLa and TT13-QLa were within the range of historical values.	• Dissolved copper concentrations were equal to or less than the limit of reporting for the duration of the review period.
Dissolved Iron	• Dissolved iron concentrations were within the range of baseline concentrations at all sites except TT1-QLa. • A historical maximum concentration of 1.99 mg/L was recorded at TT1-QLa in July 2025.	• The dissolved iron concentrations were within the range of baseline or historical concentrations for the duration of the review period.

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Constituent	Summary of Water Quality	
	Teatree Hollow Catchment TT1-QLa (reference site) TT2-QLa, TT3-QLa, TT7-QLa, TT9-QLa, TT12-QLa, TT13-QLa, TT14-QLa (potential impact sites)	**Bargo River** BR16-QLa (reference site) BR12-QLa, BR13-QRLa, BR17-QLa, BR18-QLa (potential impact sites)
Dissolved Manganese	• Dissolved manganese concentrations recorded during the review period were within the range of baseline concentrations at all sites.	• Dissolved manganese concentrations recorded at all sites were within the range of baseline or historical values.
Dissolved Nickel	• Dissolved nickel concentrations recorded during the review period were within the range of baseline or historical concentrations at all sites except for TT14-QLa. • A historical maximum dissolved nickel concentration was recorded at TT14-QLa, in January 2025.	• Dissolved nickel concentrations were within the range of baseline or historical concentrations for the duration of the review period at all sites.
Dissolved Zinc	• Dissolved zinc concentrations were within the range of baseline or historical concentrations at all sites.	• Dissolved zinc concentrations were within the range of baseline or historical concentrations for the duration of the review period.

5.5 Pool Physical Features and Natural Behaviour

Inspections of the natural behaviour and physical features of pools are undertaken as follows:

- **Fortnightly**: for sites within the active subsidence zone.
- **Monthly**: for sites outside of the active subsidence period.

The inspections are undertaken to record visual observations of:

- **Natural behaviour**: pool water level and surface flow in the downstream watercourse reach.
- **Physical features**: iron staining, gas release, turbidity and fracturing.

Visual inspection observations recorded during active mining were compared with baseline inspections undertaken between July and October 2022, prior to the commencement of mining of LW S1A. No inspection was undertaken in February 2025.

A summary of key visual observations recorded during the review period is presented in **TABLE 3**.

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TABLE 3: SUMMARY OF POOL VISUAL INSPECTION RECORDS – 1 JANUARY TO 31 DECEMBER 2025

Pool	Classification	Inspection Date	Summary of Visual Inspection Records
TT1	Reference Site	January and March to December 2025	• The water level was consistent with baseline conditions during the review period. • Flow over the pool hydraulic control was observed during visual inspections, although reduced flow conditions were noted in late 2025, consistent with climatic conditions. • The observed pool physical features were consistent with baseline conditions during the review period, with no new fractures, iron staining or gas release observed. • Moderate turbidity was noted during the review period.
TT2	Potential Impact Site	January and March to December 2025	• Water levels were generally below baseline conditions throughout 2025 with the pool frequently dry and no connective flow over the hydraulic control observed during most inspections. • Connective surface flow was observed in January, May, August and September 2025. The pool was reported as dry in March, April, November and December 2025. • A new fracture immediately upstream of TT2 was first identified in April 2025. Existing fractures remained present with little observable change during the review period. • No iron staining or gas release was observed during the review period. • High turbidity was observed throughout 2025.
TT3	Potential Impact Site	January and March to December 2025	• Water levels were generally below baseline conditions throughout 2025 with the pool frequently dry and no connective flow over the hydraulic control observed during most inspections. • No fractures, iron staining or gas release was observed during the review period.

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Pool	Classification	Inspection Date	Summary of Visual Inspection Records
TT7	Potential Impact Site	January to December 2025	• Water levels were below baseline conditions from January to April 2025 but increased in May 2025, resulting in the site returning to normal range. Water levels remained generally consistent with baseline conditions from May to November 2025 before declining below baseline conditions in December 2025. • Following lower flow conditions in early 2025, flow over the hydraulic control and connective surface flow was observed from May to November 2025. No flow over hydraulic control was observed in December 2025. • No new fractures or gas release was observed during the review period. • Iron staining was consistently observed along the upstream reach of the pool and remained comparable to baseline conditions throughout the review period. • Turbidity remained elevated throughout 2025, being reported as high during most inspections and moderate in December 2025.
TT9	Potential Impact Site	January to December 2025	• Water levels were below baseline conditions in March 2025, then were generally consistent with baseline or only slightly below baseline from May to September 2025. Water levels declined during late 2025, with the pool reported as dry in November and reduced to a small, isolated pool in December 2025. • Flow over the hydraulic control and connective surface flow was present during most inspections from May to September 2025 before becoming absent during November and December 2025. • A new fracture was identified approximately 20 m downstream of the pool in November 2025. • No iron staining or gas release was observed during the review period. • Turbidity remained elevated during periods when water was present and was reported as high during multiple inspections.
TT10	Potential Impact Site	January to December 2025	• Water levels remained below baseline conditions from January to December 2025, with little or no hydraulic control flow observed during most inspections. • A new fracture immediately upstream of TT10 was identified in April 2025. • No iron staining or gas release was observed during the review period. • Moderate turbidity was observed when water was present.

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Pool	Classification	Inspection Date	Summary of Visual Inspection Records
TT11	Potential Impact Site	January to December 2025	• The pool was observed to be dry during most inspections, with water levels below baseline conditions when water was present. • No flow over the hydraulic control or connective surface flow was observed during the majority of the inspections. • No new fractures or development of existing fractures were observed during the review period. • No iron staining or gas release was observed during the review period.
TT12	Potential Impact Site	January to December 2025	• Water levels were below baseline conditions during January to mid-2025 before the pool was observed to be dry during subsequent inspections. • No flow over the hydraulic control or connective surface flow was observed for the majority of the review period. • No new fractures or fracture development were observed during the review period. • Iron staining downstream of the pool remained consistent with previous observations throughout the review period. • No gas release was observed during the review period.
TT13	Potential Impact Site	January to December 2025	• Water levels were below baseline conditions during January to mid-2025 before the pool was observed to be dry during subsequent inspections. • Neither flow over the hydraulic control nor connective surface flow was observed for the majority of the review period. • No changes to fractures, inferred to be natural, were noted. • No iron staining or gas release was observed during the review period. • Moderate turbidity was observed when water was present.
TT15	Potential Impact Site	January to December 2025	• Water levels were generally consistent with baseline conditions during the first half of 2025 before declining below baseline conditions later in the year. • No flow over the hydraulic control or connective surface flow was observed during March, April, June and October to December 2025. • A fracture approximately 22 m downstream of the pool remained present with no notable development observed during the review period. • No iron staining or gas release was observed during the review period. • Moderate turbidity was observed during the review period.

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5.6 Channel Morphology and Knickpoint and Headwater Sites

Inspections of the physical features and natural behaviour of channel morphology and knickpoint sites are undertaken on a minimum monthly basis to record visual observations of the following:

- ponded / flowing water (where relevant)
- iron staining, gas release and turbidity (where relevant)
- fracturing or shearing (where relevant)
- knickpoint development
- erosion and sedimentation.

The visual inspection observations recorded during active mining have been compared to the baseline visual inspection recorded in September 2022 (headwater sites) and October 2022 (channel morphology sites and knickpoints), prior to the commencement of mining of LW S1A.

A summary of observations recorded at channel morphology and knickpoint monitoring sites during the review period is presented in **TABLE 4**.

The annual headwater inspection was conducted on 17 September 2025 and included monitoring sites HW1, HW3, HW4, HW5, HW6, HW7, HW8, HW9, HW10, and HW11. No increase in erosion or sedimentation was observed at any of the inspected headwater sites.

No knickpoint assessments were undertaken at K57, K58, K71, K73 or K78 during the review period. In 2024, K57 and K64 were the only knickpoint sites where erosion was identified resulting in Level 1 and Level 2 trigger exceedances, respectively. Due to funding constraints, monitoring was prioritised at K64 and no monitoring was undertaken at K57 during the review period.

TABLE 4: SUMMARY OF VISUAL INSPECTION RECORDS FOR CHANNEL MORPHOLOGY, KNICKPOINT AND HEADWATER SITES – 1 JANUARY TO 31 DECEMBER 2025

Pool	Classification	Inspection Date	Summary of Visual Inspection Records
CM1	Potential Impact Site	January and April 2025	• No visual evidence of increased erosion in comparison to baseline conditions.
CM4	Potential Impact Site	April 2025	• No visual evidence of increased erosion in comparison to baseline conditions.
CM7	Potential Impact Site	March and May 2025	• No visual evidence of increased erosion in comparison to baseline conditions.
K64	Potential Impact Site	June, September, and December 2025	• Moderate erosion and bank slumping remained evident relative to baseline conditions. These features were first identified on 12 June 2024.

Apart from the ongoing erosion and bank slumping observed at K64, no material changes in channel morphology, knickpoint development, erosion or sedimentation were identified during the review period.

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6 SURFACE WATER TRIGGER EXCEEDANCE ASSESSMENT

Surface water trigger exceedances above 'Normal Condition' during the review period 1 January to 31 December 2025 are summarised in **TABLE 5**.

In summary, trigger exceedances were recorded at the following sites:

- **Surface water level**: TT2-QLa, TT3-QLa, TT7-QLa, TT9-QLa, TT12-QLa and TT13-QLa.
- **Physical features and natural pool behaviour**: TT2, TT3, TT7, TT9, TT10, TT11, TT12, TT13, TT15 and K64.
- **Surface water quality**: TT2-QLa, TT7-QLa, TT12-QLa, TT13-QLa, and TT14-QLa.

For the assessment of surface water quality triggers, monitoring data were unavailable in February and December 2025. Where exceedances were recorded immediately before and after February, or immediately prior to December, it was conservatively assumed that trigger exceedance conditions persisted during the period of missing data.

A visual summary of surface water conditions and observed physical effects within Teatree Hollow and the Teatree Hollow tributary is presented in **MAP 7**. The information presented in **MAP 7** was primarily derived from visual inspection records (ENRS, 2025a-i; SIMEC, 2025a-b) and represents conditions observed in December 2025.

The trigger exceedances summarised in **TABLE 5** predominantly relate to water level decline and altered pool behaviour within Teatree Hollow and the Teatree Hollow tributary. Subsequent assessment indicates these exceedances are generally attributable to a combination of mining-related impacts and prevailing climatic conditions.

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TABLE 5: SURFACE WATER TARP SIGNIFICANCE LEVELS AND ACTIONS – 1 JANUARY TO 31 DECEMBER 2025

Date	Location(s)	Comment	TARP Significance	Actions
Surface Water Level (TARP WMP3)				
8 December 2024 to 10 January 2025, 13, 15 and 20 to 27 January, 28 January to 14 February, 2 to 21 May, 8 June to 1 July, 15 to 30 July, 1 August, 6 to 10 September 2025	TT2-QLa	The recorded water level has declined below the baseline minimum level under conditions that are atypical relative to the historical record for less than one month (as a consecutive period) and the same has not occurred at the reference site(s).	Level 2	• Water level trends for all sites in Teatree Hollow and Teatree Hollow tributary were reviewed with consideration to climatic conditions (refer **Section 6.1**). • Streamflow data recorded at TT-F1 were reviewed. A qualitative assessment of streamflow behaviour was undertaken; however, uncertainty in the LOP4 overflow and LDP16 discharge records prevented reliable quantitative assessment of streamflow reduction and associated water take (refer **Section 5.3** and **Section 6.2**). • Relevant information was obtained from key specialists necessary to inform assessment (refer **Section 6.1**). • An investigation was undertaken to identify the potential cause of atypical water level decline (refer **Section 6.1**).
14 and 22 to 27 January, 30 January to 14 February, 4 to 22 May, 10 June to 1 July, 18 July to 2 August, 7 to 10 September 2025	TT3-QLa			
27 December 2024 to 6 January 2025, 5 to 11 December, 24 to 31 December 2025	TT7-QLa			
18 December 2024 to 6 January 2025, 7 to 10 February, 24 February to 11 March, 16 to 21 March, 25 to 28 March, 11 to 22 April, 29 November to 11 December, 20 to 31 December 2025	TT9-QLa			
12 to 13 January, 15 and 23 to 27 January, 29 January to 14 February, 1 to 29 April, 3 to 21 May, 16 June to 1 July, 29 to 30 July, 27 to 28 September 2025	TT12-QLa			
13 December 2024 to 11 January 2025, 1 to 14 February, 13 to 22 May, 25 June to 1 July, 27 July to 2 August 2025	TT13-QLa			
8 December 2024 to 10 January 2025, 16 February to 29 April, 20 September to 31 December 2025	TT2-QLa	The recorded water level has declined below the baseline minimum level for a consecutive period exceeding one month, and the same behaviour has not occurred at the reference site(s).	Level 3	• Actions as per Level 2. • An investigation was undertaken to identify the potential cause of atypical water level decline (refer **Section 6.1**).
9 December 2024 to 11 January 2025, 17 February to 29 April, 25 September to 31 December 2025	TT3-QLa			
14 October to 22 November 2025	TT9-QLa			
9 December 2024 to 10 January 2025, 16 February to 28 March, 30 September to 31 December 2025	TT12-QLa			
23 February to 29 April, 6 October to 31 December 2025	TT13-QLa			

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Date	Location(s)	Comment	TARP Significance	Actions
Physical Features and Natural Pool Behaviour (TARP WMP5)				
June 2025	TT13	Visually observed anomalous change in water level, overland connected flow, iron staining, gas release or turbidity - as compared with baseline conditions - occurs in one month and the same has not occurred at the reference site(s) AND/OR visual observation of fracturing	Level 1	• Visual changes along watercourse were reviewed with consideration to climatic conditions (refer **Section 6.1**). • Relevant information was obtained from key specialists necessary to inform assessment (refer **Section 6.1**).
October 2025	TT10, TT13 and TT15			
November 2025	TT15			
December 2025	TT7			
January 2025	TT15	Visually observed anomalous change in water level, overland connected flow, iron staining, gas release or turbidity - as compared with baseline conditions - occurs for two consecutive months and the same has not occurred at the reference site(s).	Level 2	• Actions as per Level 1. • An investigation was undertaken to assess if the change in behaviour is related to mining effects (refer **Section 6.1**).
July 2025	TT13			
November 2025	TT10 and TT13			
December 2025	TT10 and TT15			
January 2025	TT2, TT3, TT7, TT10, TT11, TT12	Visually observed anomalous change in water level, overland connected flow, iron staining, gas release or turbidity - as compared with baseline conditions - occurs for three consecutive months and the same has not occurred at the reference site(s) AND the change in behaviour has been investigated and confirmed to be related to mining effects.	Level 3	• Actions as per Level 2.
March 2025	TT2, TT3, TT7, TT9, TT10, TT11, TT12, TT15			
April 2025	TT2, TT3, TT10, TT11, TT12			
May to September 2025	TT2, TT3, TT9, TT10, TT11, TT12, TT15			
Physical Features and Natural Pool Behaviour (TARP WMP5)				
October and November 2025	TT2, TT3, TT9, TT11, TT12	Visually observed anomalous change in water level, overland connected flow, iron staining, gas release or turbidity - as	Level 3	• Actions as per Level 2.

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Date	Location(s)	Comment	TARP Significance	Actions
December 2025	TT2, TT3, TT9, TT11, TT12, TT13	compared with baseline conditions - occurs for three consecutive months and the same has not occurred at the reference site(s) AND the change in behaviour has been investigated and confirmed to be related to mining effects.		
Surface Water Quality (TARP WMP1)				
March and September 2025	TT7-QLa (Dissolved Aluminium)	Exceedance of an SSGV occurs at a given potential impact site in three consecutive months and the same has not occurred at the reference site(s).	Level 1	• Exceedance of the trigger level during the baseline period was reviewed (refer **Section 6.4**). • Water quality trends were reviewed for the watercourse reach (refer **Section 5.4**). • Relevant information was obtained from key specialists necessary to inform assessment (refer **Section 6.1**). • Reasonable and feasible options for remediation were considered where relevant (refer **Section 7.3**).
August 2025	TT2-QLa (pH)			
September 2025	TT12-QLa (pH)			
May 2025	TT14-QLa (Dissolved Nickel)	Exceedance of an SSGV occurs at a given potential impact site in four or five consecutive months and the same has not occurred at the reference site(s).	Level 2	• Actions as stated in Level 1. • Increasing monitoring and review of data frequency was considered.
August 2025	TT13-QLa (pH)			

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Date	Location(s)	Comment	TARP Significance	Actions
June 2025	TT7-QLa (EC)	The Level 3 investigation concluded that mining-related impacts have contributed to exceedance of an SSGV at the potential impact site for six or more consecutive months.	Level 3	• Actions as per Level 2.
December 2025	TT14-QLa (EC and pH)			
Channel Stability, Sedimentation and Erosion (TARP WMP7)				
June, September and December 2025	K64	Visually observed moderate increase in knickpoint development and/or moderate or greater increase in erosion and sedimentation of headwater streams.	Level 2	• Actions as stated in Level 1. • An investigation was undertaken to assess if the change in behaviour is related to mining effects (refer **Section 6.3**). • Advice was obtained by specialists as detailed in **Section 6.3.**

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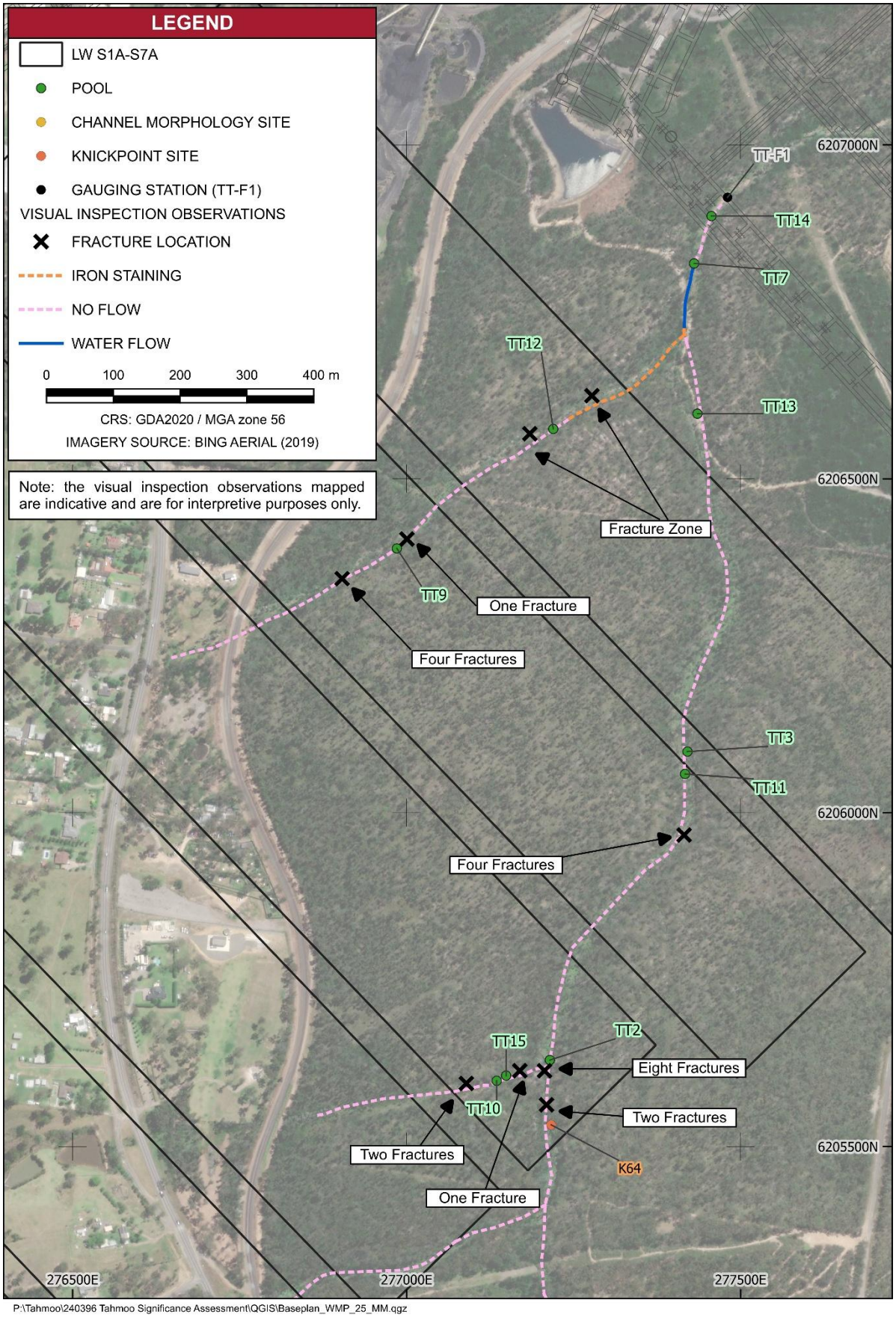
MAP 7: VISUAL DEPICTION OF SURFACE WATER CHARACTERISTICS AND PHYSICAL EFFECTS (DECEMBER 2025)



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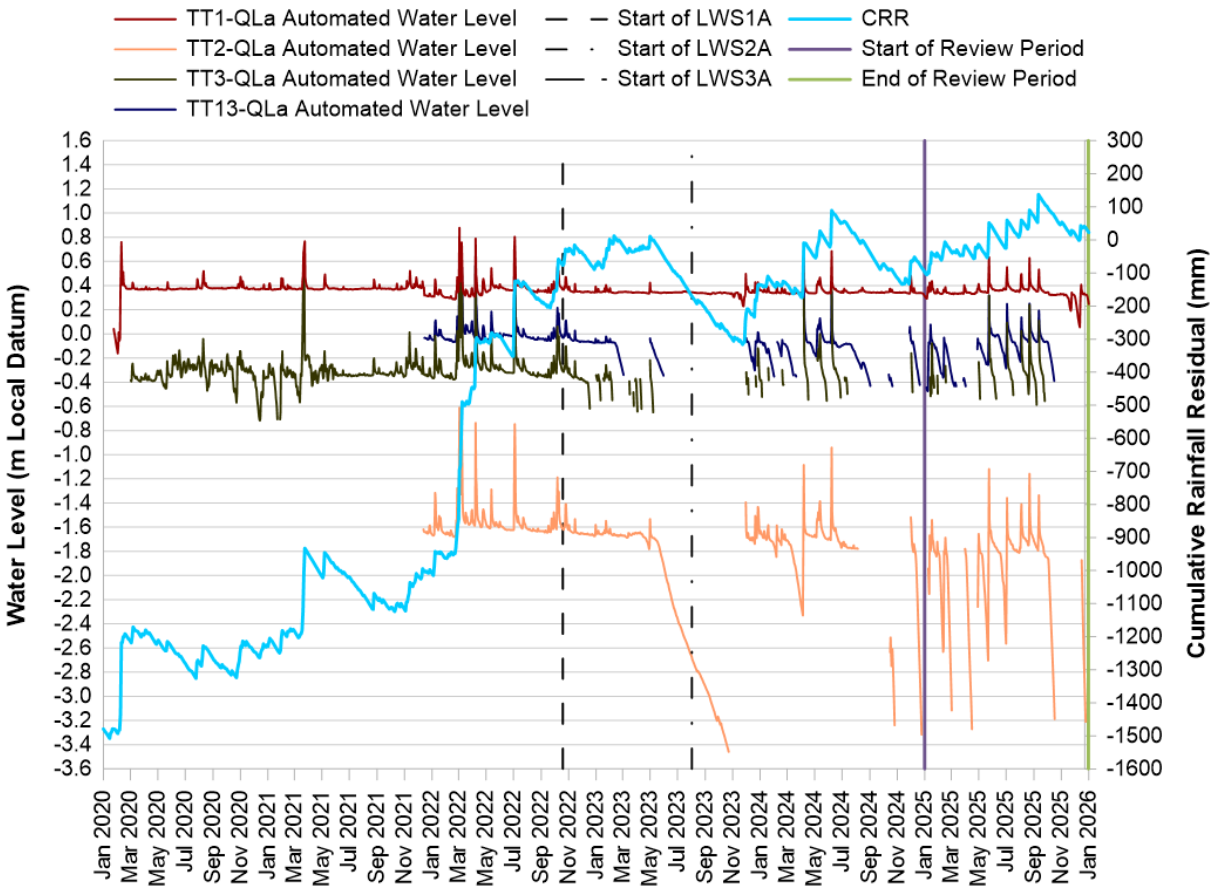
6.1 Water Level Assessment

6.1.1 Teatree Hollow Tributary

GRAPH 5 presents a comparison of the water level data recorded at monitoring sites on Teatree Hollow tributary for the full period of record. The cumulative rainfall residual (CRR), calculated for the period 1 January 2000 to 31 December 2025 to illustrate long-term trends in rainfall, is also presented.

Note that the water levels have been converted to metres local datum to facilitate the comparative assessment.

GRAPH 5: TEATREE HOLLOW TRIBUTARY WATER LEVEL COMPARISON



Reference Site TT1-QLa – Pool TT1

As illustrated in **GRAPH 5**, the water level trends recorded at pool TT1 (reference site TT1-QLa) were consistent with climatic conditions during the review period.

It is noted that pool TT1 is located upstream of the zone of active subsidence. The groundwater levels recorded at P55A-C for the period of record indicated that baseflow contribution is likely to be negligible in the vicinity of TT1-QLa (refer **Section 3**).

Monitoring Site TT2-QLa – Pools TT2, TT10 and TT15

A Level 3 trigger was initially reported at pool TT2 (monitoring site TT2-QLa) in August 2023. During the review period, water levels at pool TT2 responded to rainfall events but remained below the baseline minimum level for the majority of the period, resulting in a Level 3 trigger exceedance.

It is noted that a new fracture immediately upstream of TT2 was observed in April 2025 by ENRS (2025c) (refer **MAP 7**). Fracturing was also observed in April 2025 at pool TT10, which is located on a minor tributary that discharges to Teatree Hollow tributary immediately upstream of pool TT2. During the review period, the water level at pools TT2, TT10 and TT15 was lower than baseline conditions, with no connective flow observed (refer **TABLE 3** and ENRS (2025a-i) and SIMEC (2025a,b).

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There is insufficient groundwater monitoring data to assess surface water-groundwater connectivity in the vicinity of pool TT2 (refer **Section 3**). As such, a decline in baseflow contribution to pool TT2 during the review period can be neither confirmed nor discounted.

The decline in water level at pool TT2 is considered atypical relative to historical conditions. In addition, fracturing has been recorded at and upstream of pool TT2, indicating that mining-related effects have occurred in the direct vicinity of pool TT2.

As such, it is considered that the water level decline recorded at pool TT2 during the review period is related to mining effects in combination with the prevailing climatic conditions during September to December 2025.

Monitoring Site TT3-QLa – Pools TT3 and TT11

Pools TT3 and TT11 were reported as dry during the majority of inspections undertaken during 2025, with no connective surface flow observed between TT2, TT3 and TT11.

The water level at pool TT3 has been recorded below the sensor level since mid-December 2022, except for brief intervals during or following rainfall (refer **GRAPH 5**). As illustrated in **MAP 7**, fracturing has occurred upstream of pool TT3 and pool TT11.

No new fracturing or development of historical fractures were recorded at pools TT3 and TT11 during the review period.

As previously reported by SLR (2025), groundwater-surface water connectivity in the vicinity of pool TT11 and pool TT3 was considered unlikely. No groundwater level data were available from P54A-B during 2025 to confirm whether this assessment remained applicable during the review period. Accordingly, a change in baseflow contribution during 2025 can be neither confirmed nor discounted (refer **Section 3**).

The water level decline recorded at pool TT3 is considered atypical and inconsistent with historical conditions. It is considered that the atypical decline in water level recorded at pool TT3 is related to the diversion of surface flow via upstream mining-related fractures and prevailing climatic conditions during September to December 2025.

Monitoring Site TT13-QLa – Pool TT13

The water level at pool TT13 declined below the baseline minimum in December 2024 and was below the sensor level for the majority of the review period. The water level rose above the baseline minimum in response to rainfall events. From mid-September, the water level declined and remained below the sensor level for the remainder of the review period, during which below-average rainfall was recorded (refer **Section 5.1**).

As indicated by SLR (2026), the likelihood of groundwater-surface water connectivity in the vicinity of pool TT13 is considered low (refer **Section 3**). As such, the decline in water level recorded at pool TT13 is unlikely related to a decline in baseflow contribution.

The decline in water level recorded during the review period is considered related to the cessation of surface water flow in Teatree Hollow tributary due to mining-induced fracturing upstream of pool TT11 in combination with the prevailing climatic conditions during September to December 2025.

6.1.2 Teatree Hollow

GRAPH 6 presents a comparison of the water level recorded at monitoring sites on Teatree Hollow for the period of record. The CRR is also presented (calculated for the period 1 January 2000 to 31 December 2025).

Note that the water levels have been converted to metres local datum to facilitate the comparative assessment.

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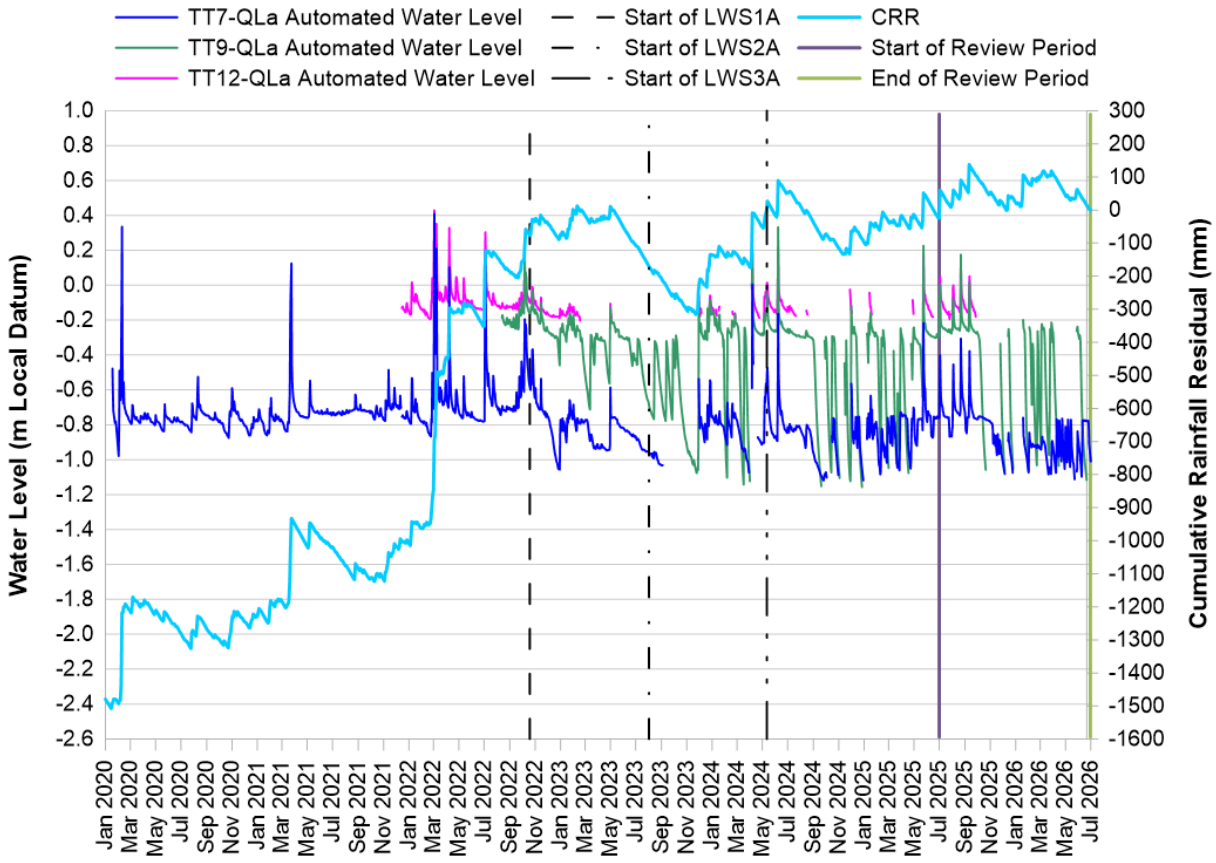
GRAPH 6: TEATREE HOLLOW WATER LEVEL COMPARISON



Monitoring Site TT7-QLa – Pool TT7

As illustrated in **GRAPH 6**, the water level recorded at pool TT7 was generally consistent with rainfall conditions during the review period. The water level was above the baseline minimum for most of the review period but declined below the baseline minimum in early January and December 2025. ENRS (2025d-i) and SIMEC (2025a,b) state that the water level was lower than baseline conditions in November, with no flow over the hydraulic control in December 2025.

Water level trends at TT7 largely corresponded with rainfall conditions, indicating that below-average rainfall during late 2025 was a primary driver of the observed decline. However, mining-induced fracturing has occurred upstream of TT7 and may have altered surface flow reporting to the pool. Accordingly, both climatic and mining-related influences are considered likely contributors to the observed behaviour.

It is noted that the groundwater levels recorded at monitoring bore P52 indicate that baseflow contribution was likely negligible in the vicinity of TT7-QLa during the review period (refer **Section 3**).

Monitoring Site TT9-QLa – Pool TT9

The water level at pool TT9 (monitoring site TT9-QLa) fluctuated in response to rainfall conditions during the review period. The water level was periodically recorded below the trigger level from February to April 2025 (maximum Level 2 trigger exceedance) and from October to December (maximum Level 3 trigger exceedance). ENRS (2025a-i) and SIMEC (2025a,b) reported water levels were visually lower than baseline conditions, with some inspections recording no flow over the hydraulic control during the review period. One new fracture was observed in November 2025, approximately 250 m downstream of pool TT9 (refer **MAP 7**).

It is noted that only two months of baseline data are available for this site prior to the commencement of mining of LW S1A (refer **GRAPH 6**). As such, there is potential that the water level at monitoring site TT9-QLa declined to similar levels historically. Notwithstanding the limited baseline record, the water level decline observed during the review period appears atypical, with an increased rate of recession relative to historical conditions.

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It is noted that there is insufficient groundwater monitoring data to assess surface water-groundwater connectivity in the vicinity of pool TT9. As such, a decline in baseflow contribution to pool TT9 during the review period can be neither confirmed nor discounted.

The water level data recorded at pool TT9 during the review period indicate a change in water level behaviour and an increase in the rate of water level recession in comparison to historical conditions. Accordingly, the water level decline recorded at TT9 is considered to reflect a combination of mining-related impacts and below-average rainfall conditions during September to December 2025.

Monitoring Site TT12-QLa – Pool TT12

For most of the review period, water level was recorded below the sensor level or the pool was dry, except for brief periods during and following rainfall events. During this period, a maximum Level 3 trigger was recorded.

Mining-related fracturing has previously occurred upstream and downstream of pool TT12. During the review period, no new fractures or further development of existing fractures was reported; however, a new fracture was reported upstream near TT9 in November 2025. The water level decline recorded during the review period is considered atypical relative to historical conditions and is considered to reflect the influence of previously identified mining-induced fracturing in combination with below-average rainfall conditions during late 2025.

6.2 Streamflow Assessment

The adjusted TT-F1 streamflow record was reviewed to assess streamflow behaviour during the review period. Subject to the limitations described in **Section 5.3**, recorded flow events generally corresponded with rainfall events, and the broad recession behaviour observed during the review period appeared comparable with historical recession behaviour, including periods prior to the commencement of mining of LW S1A.

In accordance with SSD 8445, estimated surface water reduction volumes are to be reported in the Annual Review and compared with the Water Access Licence (WAL) volumes held by Tahmoor Coal for the Maldon Weir Management Zone of the Upper Nepean and Upstream Warragamba Water Source (regulated by the *Water Sharing Plan for Greater Metropolitan Region Unregulated River Water Sources)*.

However, TT-F1 is located downstream of LOP4 and LDP16, and the available records do not provide a sufficiently complete and reliable basis to distinguish natural catchment flow from all overflow and licensed discharge contributions. Consequently, a reliable quantitative estimate of natural streamflow, mining-related streamflow reduction and associated water take could not be derived for the review period.

This limitation does not, of itself, demonstrate that additional surface water take occurred. Rather, it means that the magnitude of any reduction and the corresponding comparison with the Water Access Licence volumes held by Tahmoor Coal could not be reliably determined from the available TT-F1, LOP4 and LDP16 records.

ATCW has recommended improvements to the monitoring and recording arrangements for LOP4 and LDP16, including calibration and verification of water-level sensors and installation of an appropriate flow meter. These measures are intended to improve the reliability of future flow-volume estimates and support the streamflow reduction and water-take assessment required under SSD 8445.

6.3 Channel Morphology and Knickpoint Assessment

For all channel morphology sites inspected, no visual evidence of increased erosion relative to baseline conditions was observed. Similarly, no increase in erosion or sedimentation was observed at any headwater monitoring site.

Erosion development and moderate bank slumping were first identified at knickpoint K64 in June 2024. High rainfall and flow events occurred during May and June 2024, coinciding with direct undermining of K64. In addition, MSEC (2024) reported 533 mm of incremental subsidence at the downstream monitoring location TT2 during this period.

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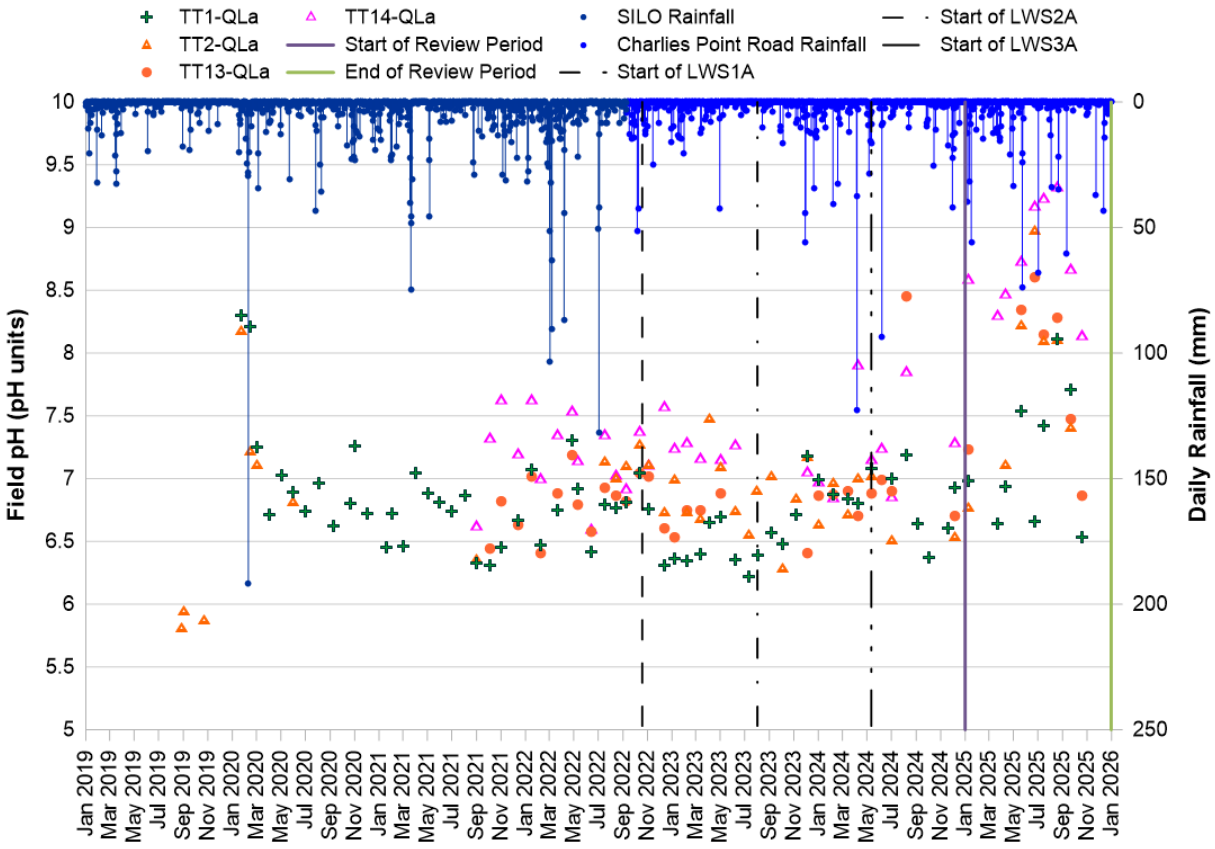
Accordingly, the erosion development and bank slumping observed at K64 are considered to be the result of high-flow conditions acting in combination with mining-induced subsidence.

6.4 Water Quality Assessment

6.4.1 pH

As summarised in **TABLE 5**, pH SSGV exceedances were recorded at TT2-QLa, TT13-QLa and TT14-QLa during the review period. pH values recorded at reference site TT1-QLa and potential impact sites TT2-QLa, TT13-QLa, and TT14-QLa are shown on **GRAPH 8**.

GRAPH 8: FIELD PH RECORDS



The data presented in **GRAPH 8** indicates that:

- The TT2-QLa upper pH SSGV (pH 8.0) was exceeded in June, July, and August, resulting in a Level 1 trigger in August 2025.
- The TT13-QLa upper pH SSGV (pH 8.0) was exceeded in May, June, July, and August, resulting in a Level 2 trigger in August 2025.
- The TT14-QLa upper pH SSGV (pH 8.0) was exceeded in all months sampled resulting in a Level 3 trigger from June 2025.
- Comparable pH elevations were not recorded at the upstream reference site (TT1-QLa) during the corresponding period, although an increasing trend was evident between May and September 2025.
- Elevated pH values exceeding the SSGV have been recorded historically at TT2-QLa, TT7-QLa, TT13-QLa, and TT14-QLa.
- A Level 1 trigger for the lower bound pH SSGV (i.e. an exceedance of the SSGV for three consecutive months or greater) was recorded at TT2-QLa during the baseline monitoring period prior to commencement of mining in October 2022.

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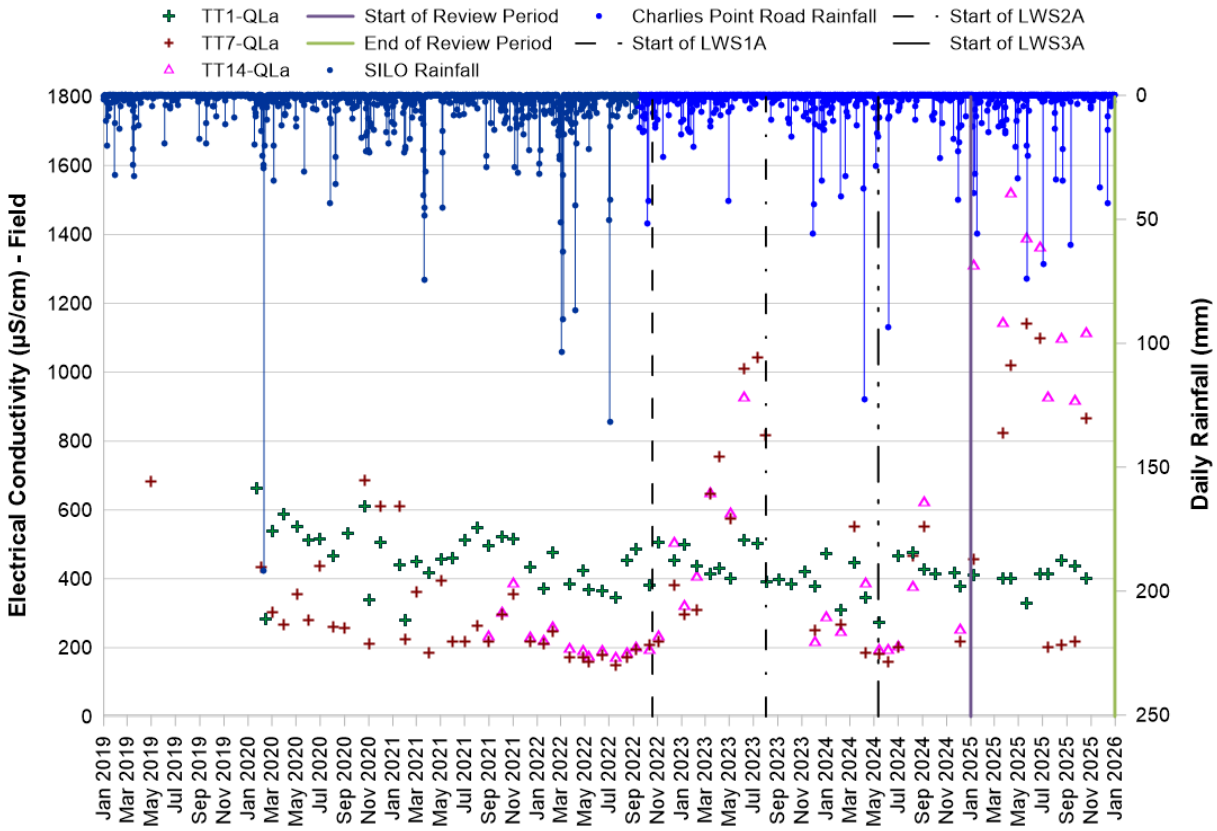
- No Level 1 or greater pH exceedances were recorded at TT13-QLa or TT14-QLa during the baseline monitoring period.

The elevated pH values recorded at TT2, TT13 and TT14 are considered likely to be associated with low-flow conditions and progressive drying of the pools, particularly during the period of below-average rainfall between September and December 2025.

6.4.2 Electrical Conductivity

As summarised in **TABLE 5**, EC SSGV exceedances were recorded at TT7-QLa and TT14-QLa during the review period. EC values recorded at reference site TT1-QLa and potential impact sites TT7-QLa and TT14-QLa are presented in **GRAPH 7**.

GRAPH 7: FIELD ELECTRICAL CONDUCTIVITY RECORDS



The data presented in **GRAPH 7** indicates that:

- The TT7-QLa EC SSGV (359 µS/cm) was exceeded in January, March, April, May and June 2025.
- The TT14-QLa EC SSGV (350 µS/cm) was exceeded in all sampled months.
- Similar elevated EC values were not recorded at the upstream reference site (TT1-QLa) during the corresponding period. EC values at all other potential impact sites remained below those recorded at the upstream reference site (TT1-QLa).
- Elevated EC values above the SSGV have been recorded historically at TT7-QLa and TT14-QLa.
- A Level 1 trigger or above for EC (i.e. an exceedance of the SSGV for three consecutive months or greater) was not recorded at TT7-QLa or TT14-QLa during the baseline monitoring period prior to commencement of mining.

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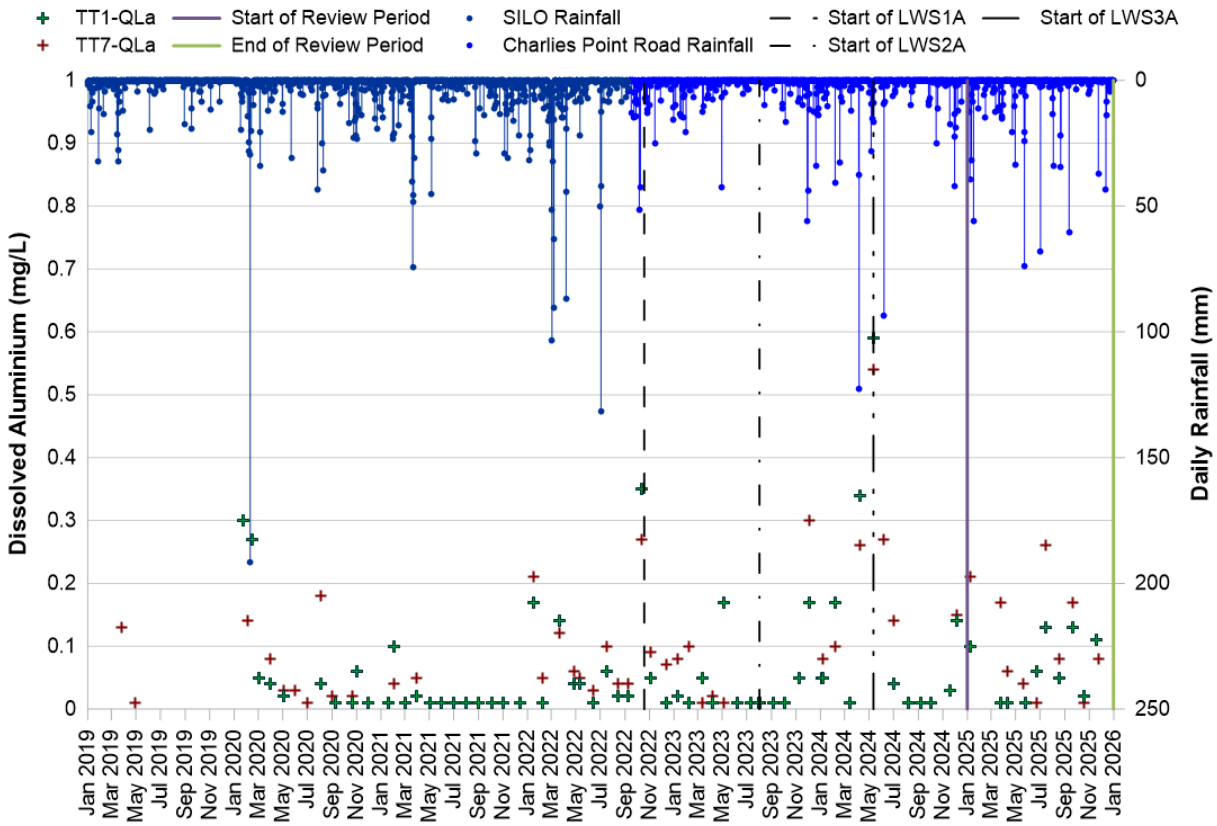
It is noted that pool TT7 and TT14 are located downstream of Dam S4 which has a Licensed Discharge Point (LDP16) and a Licensed Overflow Point (LOP4) (refer **Section 5.3**). Elevated EC values recorded at pools TT7 and TT14 are considered likely to be influenced by discharge from LDP16.

6.4.3 Dissolved Aluminium

As summarised in **TABLE 5**, dissolved aluminium SSGV exceedances were recorded at TT7-QLa from January to March 2025 and from July to September 2025. Dissolved aluminium concentrations recorded at reference site TT1-QLa and potential impact site TT7-QLa are presented in **GRAPH 9**.

GRAPH 9: DISSOLVED ALUMINIUM RECORDS



The data presented in **GRAPH 9** indicates that:

- The TT7-QLa dissolved aluminium SSGV (0.06 mg/L) was exceeded for three consecutive months between January to March 2025 and again between July to September 2025.
- Elevated dissolved aluminium concentrations were also recorded at the upstream reference site (TT1-QLa) in January, July, September, and November 2025.
- Elevated dissolved aluminium concentrations exceeding the SSGV have been recorded historically at TT7-QLa.
- No Level 1 or greater trigger exceedance for dissolved aluminium was recorded at TT7-QLa during the baseline monitoring period prior to commencement of mining.

The elevated dissolved aluminium concentrations recorded at TT7 are considered likely to reflect interaction between subsurface flow pathways and local geology, resulting in the re-emergence of aluminium-enriched water as surface flow in the vicinity of the pool.

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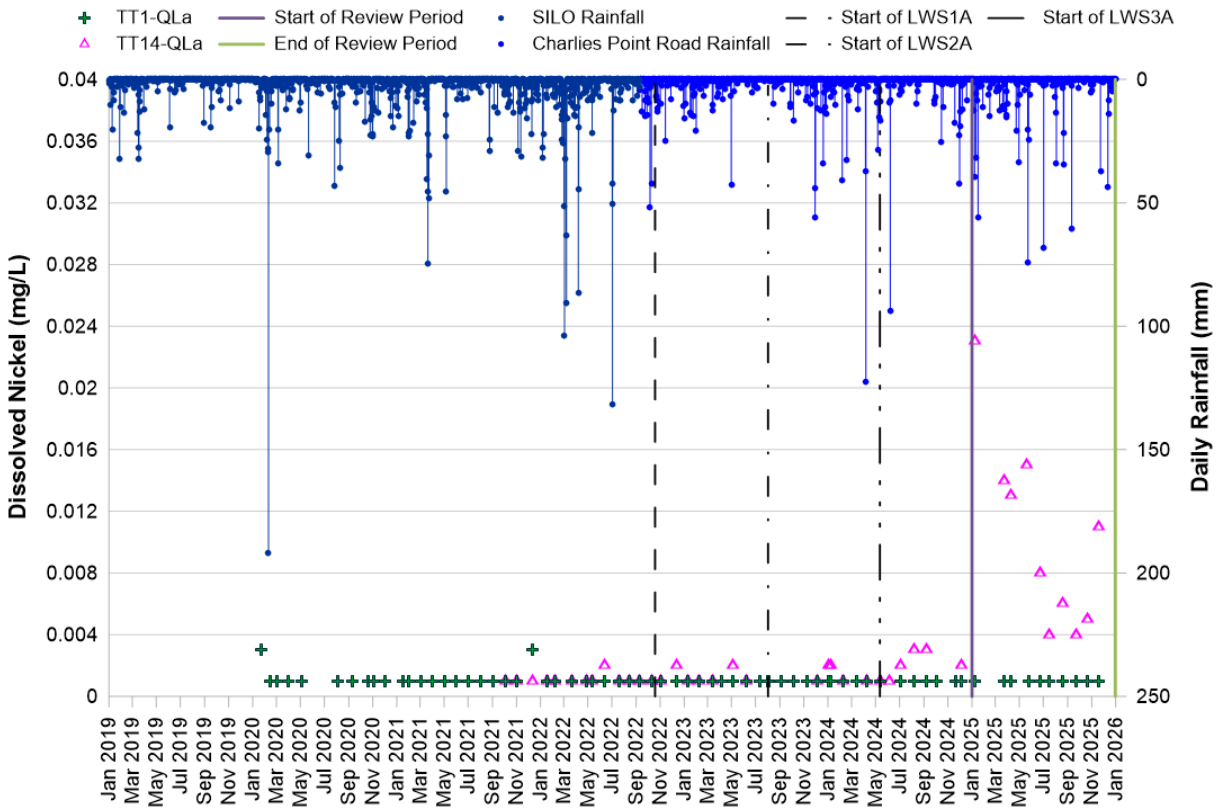
6.4.4 Dissolved Nickel

As summarised in **TABLE 5**, dissolved nickel SSGV exceedances were recorded at TT14-QLa from January to May 2025. Dissolved nickel concentrations recorded at reference site TT1-QLa and potential impact site TT14-QLa are presented in **GRAPH 10**.

GRAPH 10: DISSOLVED NICKEL RECORDS



The data presented in **GRAPH 10** indicates that:

- The TT14-QLa dissolved nickel SSGV (0.011 mg/L) was exceeded from January to May 2025.
- Comparable dissolved nickel concentrations were not recorded at the upstream reference site (TT1-QLa), where concentrations remained below the laboratory detection limit throughout the review period.
- Elevated dissolved nickel values exceeding the SSGV have been recorded historically at TT14-QLa.
- No Level 1 or greater trigger exceedance for dissolved nickel was recorded at TT14-QLa during the baseline monitoring period prior to commencement of mining.

The elevated dissolved nickel concentrations recorded at TT14 are considered likely to be associated with the interaction of subsurface flow pathways with local geology, resulting in the discharge of nickel-enriched water to the surface water system in the vicinity of the pool.

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7 REVIEW OF SURFACE WATER PERFORMANCE

7.1 Subsidence Impact Performance Measures

The monitoring results, together with the outcomes of the TARP assessment, have been used to assess the impacts of mining within Tahmoor South against the subsidence impact performance measures defined in the WMP and reproduced in **TABLE 6**.

TABLE 6: SUBSIDENCE PERFORMANCE MEASURES AND PERFORMANCE INDICATORS FOR SURFACE WATER

Feature	Subsidence Performance Measures	Subsidence Performance Indicators
All watercourses within the Subsidence Area	No greater subsidence impact or environmental consequences to water quality, water flows (including baseflow) or stream health (including riparian vegetation), than predicted in the EIS.	Exceedance of the impact assessment criteria, as defined in the relevant Level 1 to Level 3 trigger, where a Level 3 trigger denotes progression towards a potential exceedance of the performance measure.
Other watercourses	Negligible environmental consequences beyond those predicted in the EIS, including: • negligible diversion of flows or changes in the natural drainage behaviour of pools; • negligible decline in baseline channel stability; • negligible gas releases and iron staining; and • negligible increase in water turbidity.	The performance measure will be considered to be exceeded if a Level 3 TARP is triggered in relation to water level decline and/or water quality changes and the investigation outcomes indicate a mining related impact based on monitoring data for sites in Hornes Creek and the Bargo River.

7.2 Assessment of Performance

TABLE 7 summarises the watercourse features considered to have been directly or indirectly impacted by mining of LW S1A to LW S3A.

TABLE 7: SUMMARY OF MINING RELATED IMPACTS

Watercourse Feature	Impact Feature	Impact Type
TT2	• Pool water level • Physical (fractures) • Water quality	Direct
TT3	• Pool water level	Indirect
TT7	• Pool water level • Water quality	Indirect
TT9	• Pool water level • Physical (fractures)	Direct
TT10	• Pool water level • Physical (fractures)	Indirect
TT11	• Pool water level	Indirect
TT12	• Pool water level • Physical (fractures)	Direct

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Watercourse Feature	Impact Feature	Impact Type
	• Iron staining • Water quality	
TT13	• Pool water level	Indirect
TT14	• Water quality	Indirect
TT15	• Pool water level • Physical (fractures)	Indirect
K64 (upstream of TT2)	• Physical (erosion)	Direct

Where Teatree Hollow and Teatree Hollow tributary are directly mined beneath, subsidence effects are expected to be of sufficient magnitude to result in the buckling of underlying strata and associated surface fracturing at some locations, as detailed in the *Tahmoor South Project Environmental Impact Statement* (SIMEC, 2019).

At these locations, surface water may be diverted into underlying dilated strata and subsequently re-emerge further downstream within the watercourse. As a result, localised reductions in pool water levels and surface flow may occur in association with mining-induced fracturing. However, the overall reduction in streamflow conveyed from Teatree Hollow to the Bargo River is expected to be negligible.

In addition, isolated and episodic increases in salinity and dissolved metal concentrations may occur as a result of subsidence-induced changes to surface water runoff, underflow and baseflow pathways.

Accordingly, based on the available monitoring data, it is considered that:

- The identified mining-related impacts associated with LW S1A to LW S3A and summarised in **TABLE 7** are generally consistent with the types of impacts predicted in the EIS.
- No greater impacts than those predicted in the EIS have been identified within the subsidence area.
- No mining-related impacts have been identified in the monitored watercourses outside the subsidence area.
- No exceedance of the applicable surface water performance measures has been identified.

7.3 Impact Response

With respect to the water quality trigger exceedances recorded at TT2-QLa, TT7-QLa, TT12-QLa, TT13-QLa, and TT14-QLa during the review period, there are limited feasible corrective management actions (CMAs) that could be implemented prior to the cessation of subsidence movements associated with mining of LW S1A-S7A. As stated in the EIS, liberation of contaminants can occur from subsidence induced fracturing in watercourses, causing localised and transient increases in certain constituents. Presently, there is negligible indication of a material impact on the water quality of downstream reaches of Teatree Hollow, given the limited surface flow reporting downstream since February 2023 and the consequently limited potential for transport of elevated pH, EC, dissolved aluminium and dissolved nickel.

Direct and indirect mining impacts, in the form of surface fracturing and associated flow diversion, have occurred at several locations in Teatree Hollow and the Teatree Hollow tributary, upstream of monitoring site TT-F1. Subject to the limitations described in **Section 5.3** and **6.2**, the timing and broad recession behaviour of recorded flows at TT-F1 during the review period appeared generally consistent with rainfall variability and historical observations. However, uncertainty in the LOP4 overflow and LDP16 discharge records prevented reliable quantification of natural streamflow or the magnitude of any mining-related streamflow reduction during the review period. No mining-related impact was identified from the available monitoring data for the monitored reach of the Bargo River (outside the Study Area). Surface water monitoring and data review will continue in accordance with the WMP.

In accordance with C12 of SSD 8445 and as detailed in the WMP, a Watercourse Corrective Action Management Plan (WCAMP) will be prepared for watercourses damaged by subsidence impacts. The WCAMP will be prepared in consultation with relevant government agencies, as defined in the WMP.

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The WCAMP will be prepared and implemented at the cessation of subsidence movements associated with Tahmoor South mining.

Impacts observed at K64 are considered to be associated with high rainfall and flow events acting in combination with mining-induced subsidence (i.e. a direct mining impact has been confirmed). In accordance with the WMP, an increase in monitoring frequency is not required. Tahmoor Coal will continue visual inspections of K64 in accordance with the monitoring program to assess the extent and longevity of the observed impacts, with the need for remediation measures to be assessed at a later stage if required.

A summary of the Tahmoor Coal responses to the action and responses specified in the WMP TARPs (Tahmoor Coal, 2025) is provided in **Appendix D**.

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8 SUMMARY AND RECOMMENDATIONS

8.1 Trigger Level Summary

Review and assessment of surface water monitoring data recorded prior to and during the review period of 1 January to 31 December 2025 indicates the following.

Surface Water Level:

- A maximum Level 2 trigger exceedance was recorded at monitoring sites TT7-QLa and TT9-QLa as a result of upstream mining-related fracturing in combination with below-average rainfall conditions during late 2025.
- A maximum Level 3 trigger exceedance was recorded at monitoring sites TT2-QLa, TT3-QLa, TT12-QLa, and TT13-QLa due to mining-related effects in combination with below-average rainfall conditions during late 2025.
- The monitoring sites on the Bargo River remained in 'Normal Condition' for the duration of the review period.

Physical Features and Natural Behaviour of Pools:

- A maximum Level 3 trigger exceedance was recorded at pools TT2, TT3, TT7, TT9, TT10, TT11, TT12, TT13, and TT15 due to visually anomalous changes in water level. New mining-related fractures were observed at TT2, TT9, and TT10.

Channel Morphology and Knickpoint Assessment

- A maximum Level 2 trigger exceedance was recorded at knickpoint K64 due to moderate erosion development in June, September and December 2025, related to high rainfall and mining-induced subsidence.

Water Quality

- A maximum Level 1 trigger exceedance was recorded at pools TT2 and TT12 related to elevated pH values.
- A maximum Level 2 trigger exceedance was recorded at pool TT13 related to elevated pH values.
- A maximum Level 3 trigger exceedance was recorded at pool TT7 for EC and at TT14 for pH and EC.
- A maximum Level 2 trigger exceedance was recorded at pool TT14 related to elevated dissolved nickel concentrations.
- A maximum Level 1 trigger exceedance was recorded at pool TT7 related to elevated dissolved aluminium concentrations.

Based on the monitoring data recorded during the review period, the identified mining-related impacts to watercourse features are considered consistent with those predicted in the EIS.

8.2 Monitoring Recommendations

It is recommended that surface water monitoring and data review continue in accordance with the WMP. No changes to the broader WMP surface water monitoring program are proposed at this time. However, the monitoring and recording arrangements for LOP4 and LDP16 should be reviewed and improved to provide more complete and reliable flow-volume records for future adjustment of the TT-F1 streamflow data. Recommended measures include calibration and verification of the relevant water-level sensors and installation of an appropriate flow-measurement device.

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APPENDICES

APPENDIX A – SUMMARY OF SURFACE WATER MONITORING PROGRAM

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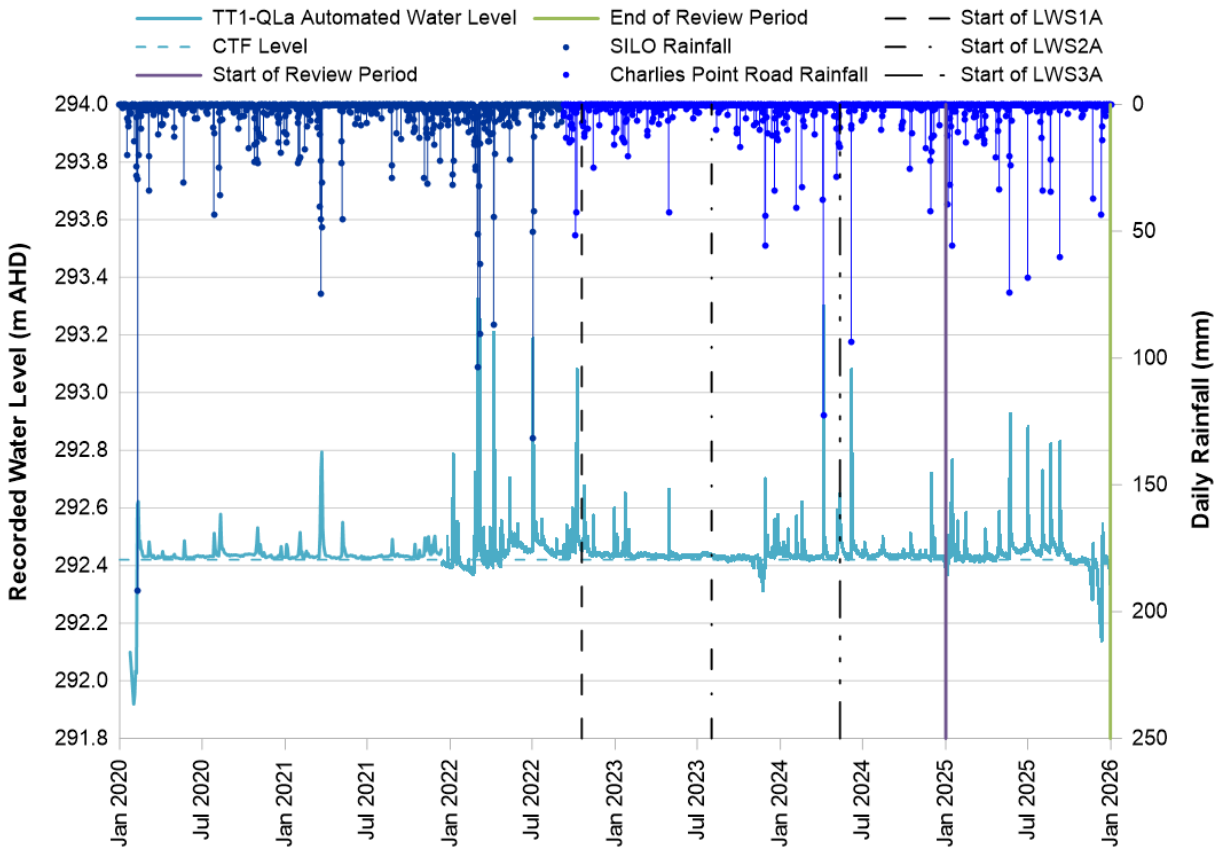
Feature	Locations	Monitoring		
		Prior to Mining	During Mining	Post Mining
Streamflow	Streamflow gauging stations: • TT-F1 • DT-F1	Continuous record. Data downloaded prior to the commencement of secondary extraction in relevant catchment.	Continuous record. Data downloaded and reviewed monthly.	Continuous record, data downloaded and reviewed quarterly for 12 months following the completion of relevant mining activities. This period may be extended as per decision by the Environmental Response Group*.
Surface Water Quality	TT1-QLa, TT2-QLa, TT3-QLa, TT7-QLa, TT9-QLa, TT12-QLa, TT13-QLa, TT14-QLa, HC1-QLa, HC2-QLa, HC3-QLa, HC9-QLa, HC4-QRLa, HC13-QLa, HC15-QLa, HC17-QLa, BR6-QLa, BR13-QRLa, BR12-QLa, BR16-QLa, BR17-QLa, BR18-QLa, DT4-QLa, DT3-QLa	Monthly sampling prior to secondary extraction or other relevant mining activity.	Monthly sampling and analysis or as required by a specified action relevant to a trigger level.	Monthly sampling and analysis for a minimum of 12 months following the completion of LW S7A or as required in accordance with a Watercourse Corrective Action Management Plan.
		Parameters: Field analysis: pH, EC and DO, temperature and ORP. Laboratory analysis for: pH, EC, total dissolved solids, total suspended solids, turbidity, major cations†, sulphate, alkalinity, chloride, dissolved metals‡, total metals≠, total kjeldahl nitrogen, total nitrogen, total phosphorus, total cations and total anions.		

Feature	Locations	Monitoring		
		Prior to Mining	During Mining	Post Mining
Automated pool water level	Existing sites: TT1-QLa, TT2-QLa, TT3-QLa, TT7-QLa, TT9-QLa, TT12-QLa, TT13-QLa, TT14-QLa, HC1-QLa, HC2-QLa, HC3-QLa, HC9-QLa, HC4-QRLa, HC13-QLa, HC15-QLa, HC17-QLa, BR6-QLa, BR13-QRLa, BR12-QLa, BR16-QLa, BR17-QLa, BR18-QLa, DT4-QLa, DT3-QLa	Continuous record and monthly manual measurements. Data downloaded prior to the commencement of secondary extraction of the relevant longwall.	Continuous record and monthly manual measurements. Data downloaded and reviewed monthly.	Continuous record and monthly manual measurements for a minimum of 12 months following the completion of LW S7A or as required in accordance with a Watercourse Corrective Action Management Plan.
Physical features and natural behaviour of pools and reaches	Teatree Hollow, Teatree Hollow tributary and the Bargo River tributary pools and reaches	One observation prior to mining using fixed location photo points.	Observations every month during the active subsidence period (after 200 m of secondary extraction of relevant longwall) for sites within the active subsidence zone using fixed location photo points.	Quarterly observations over 12 months for pools that are no longer within the active subsidence zone or as required in accordance with a Watercourse Corrective Action Management Plan.
Morphology and channel stability	Headwater and knickpoint sites in Teatree Hollow, Teatree Hollow tributary and the Bargo River tributary	One observation prior to mining using fixed location photo points. One catchment survey of 10 headwater sites	Observations of knickpoint formation every month during the active subsidence period for sites within the active subsidence zone using fixed location photo points. Annual catchment survey of 10 headwater sites.	One observation of knickpoint formation at sites that are no longer within the active subsidence zone using fixed location photo points. One catchment survey of 10 headwater sites. Post-mining geomorphology survey following completion of mining LW S7A.

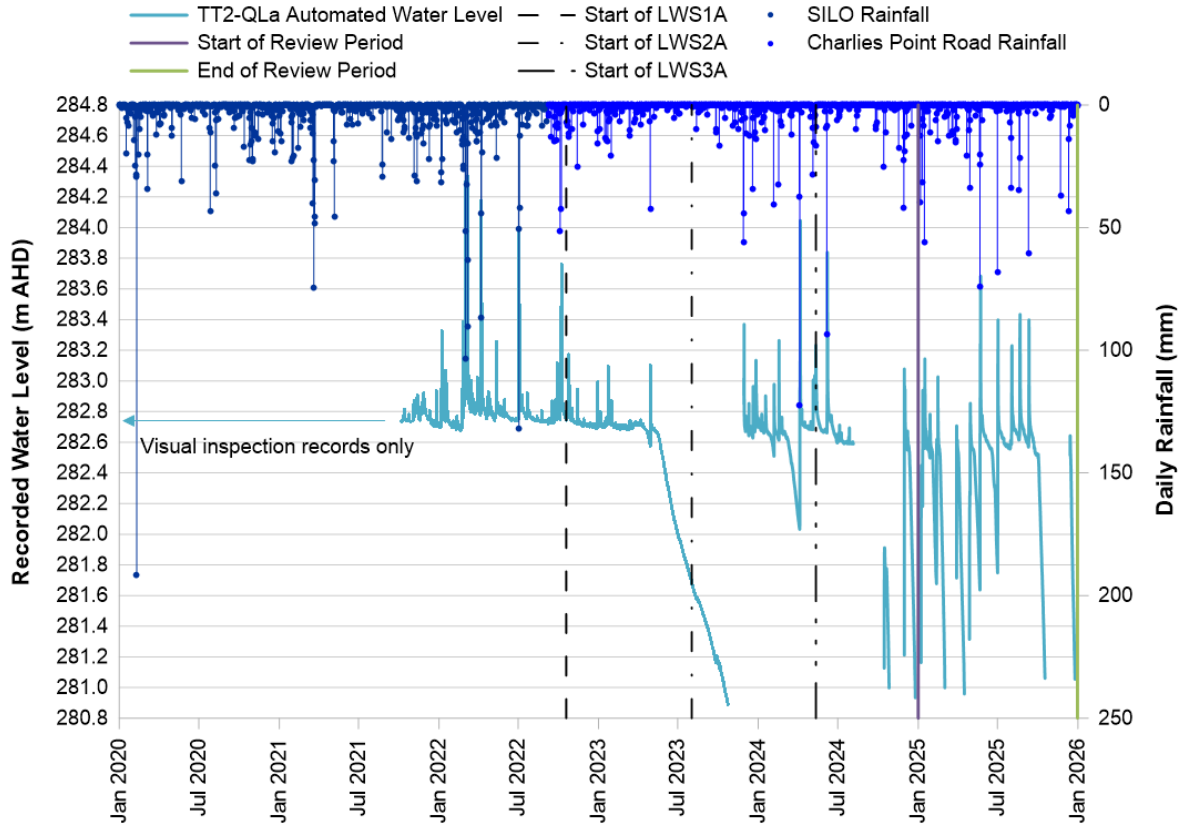
APPENDIX B – WATER LEVEL GRAPHS

APPENDIX B1 – TEATREE HOLLOW WATER LEVEL GRAPHS

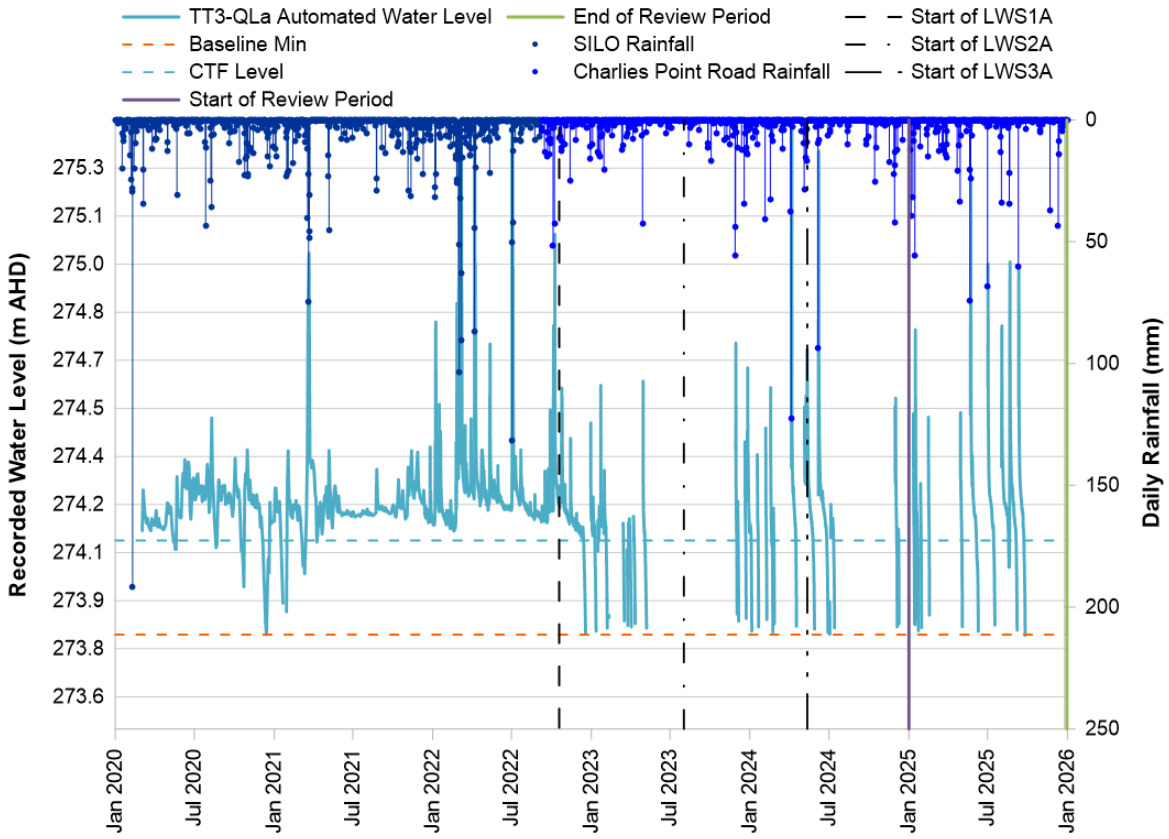
GRAPH B1.1: MONITORING SITE TT1-QLA WATER LEVEL RECORDS



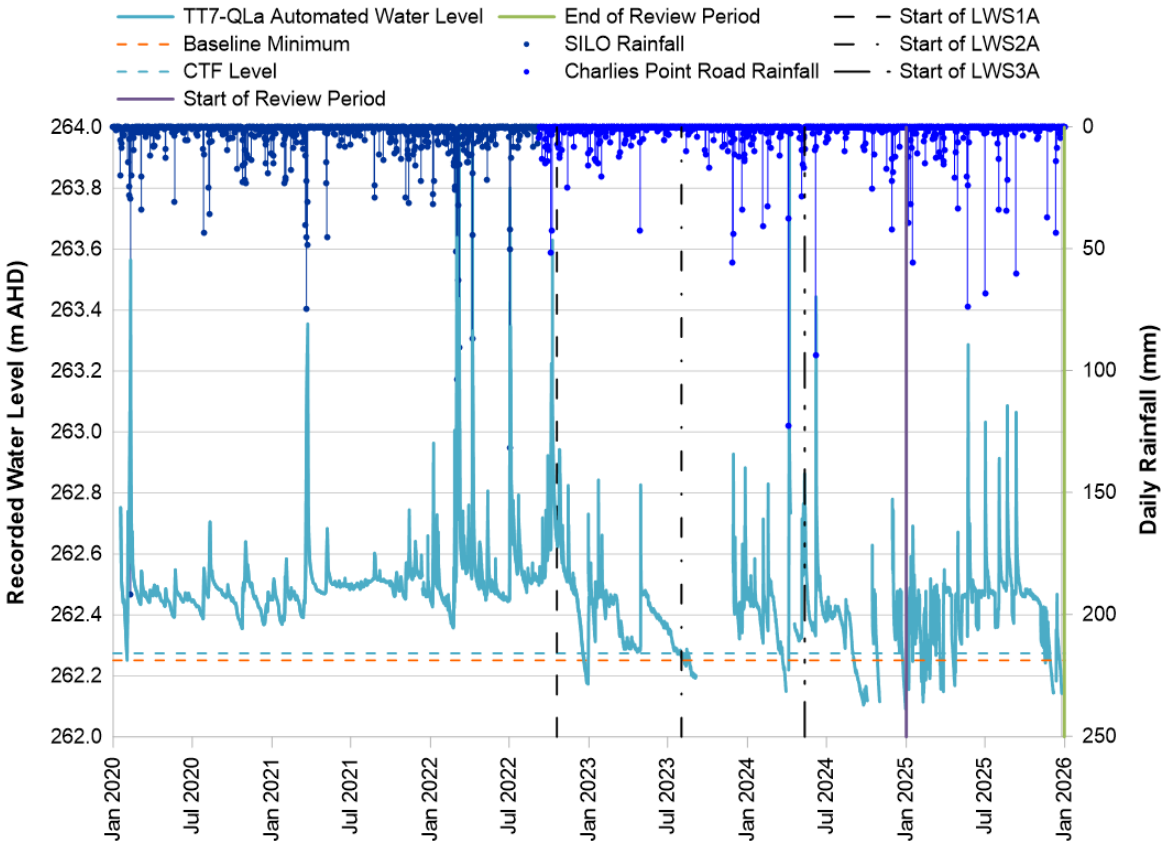
GRAPH B1.2: MONITORING SITE TT2-QLA WATER LEVEL RECORDS



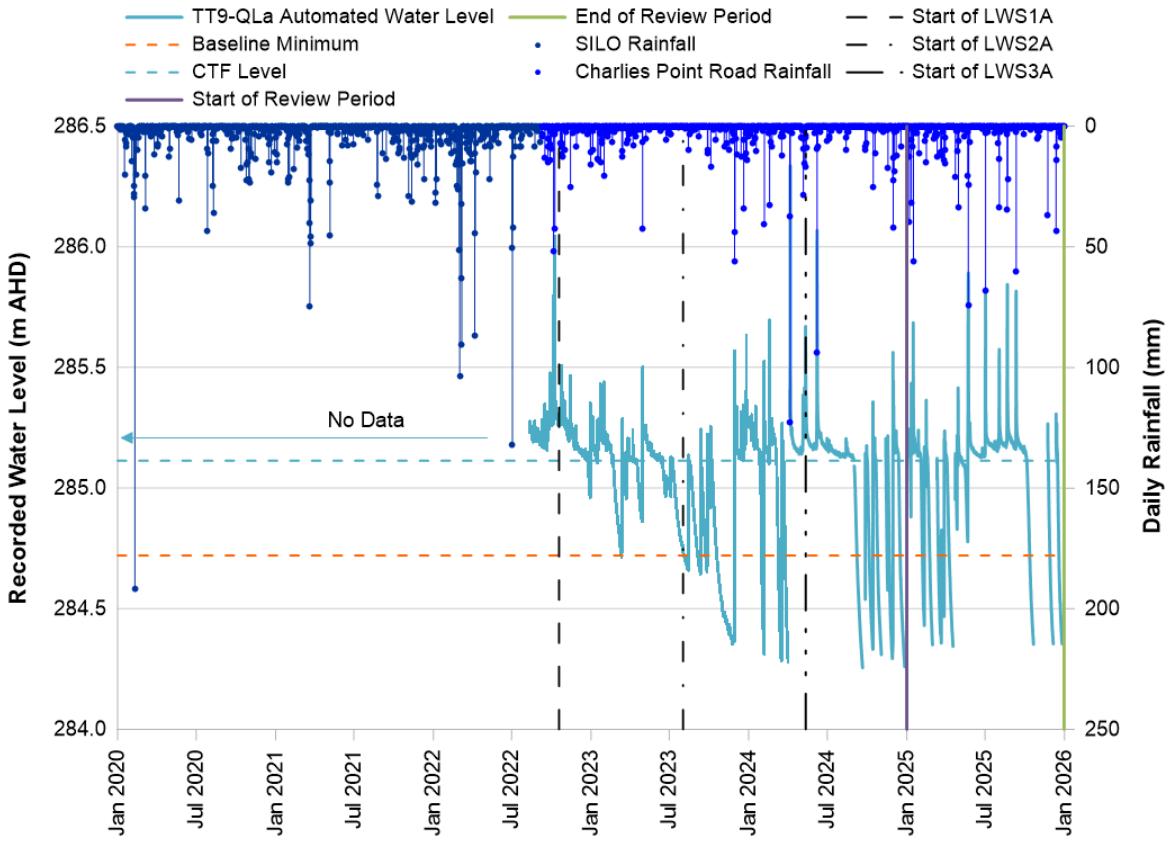
GRAPH B1.3: MONITORING SITE TT3-QLA WATER LEVEL RECORDS



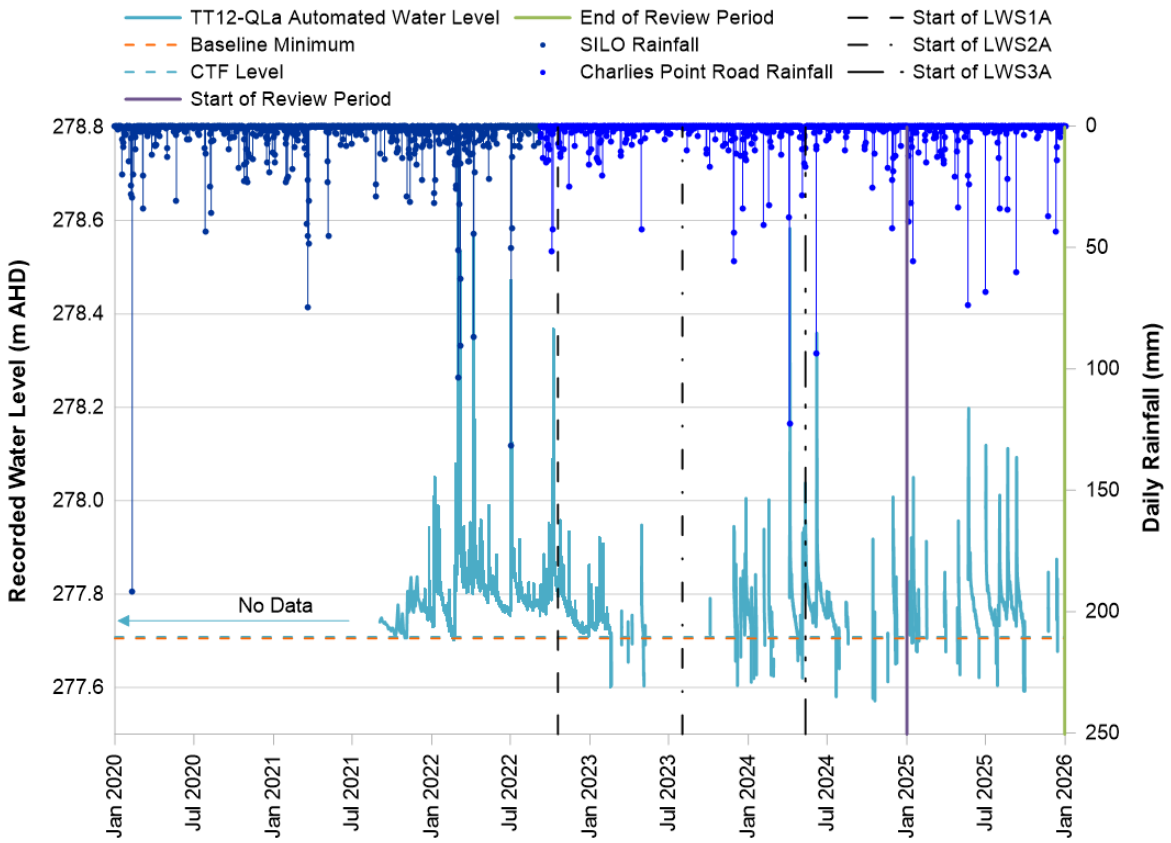
GRAPH B1.4: MONITORING SITE TT7-QLA WATER LEVEL RECORDS



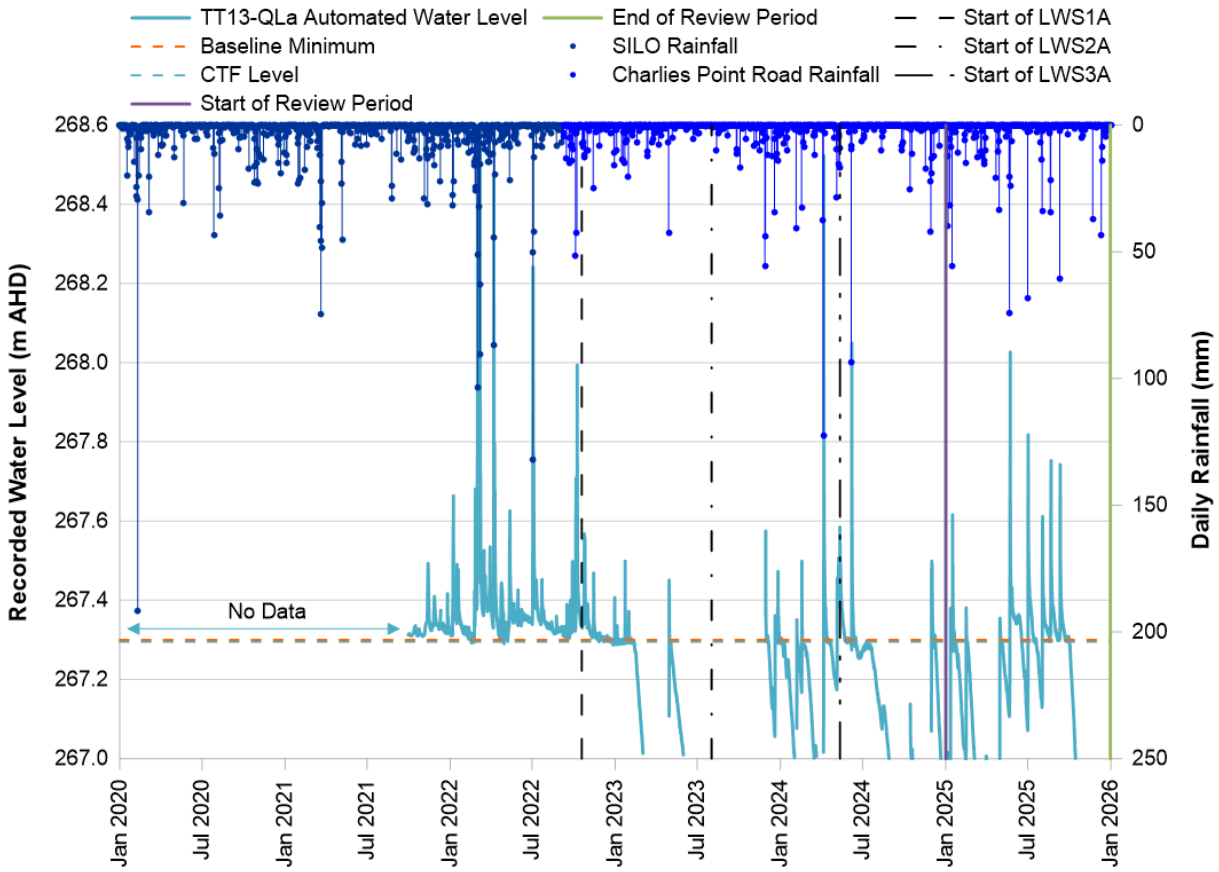
GRAPH B1.5: MONITORING SITE TT9-QLA WATER LEVEL RECORDS



GRAPH B1.6: MONITORING SITE TT12-QLA WATER LEVEL RECORDS

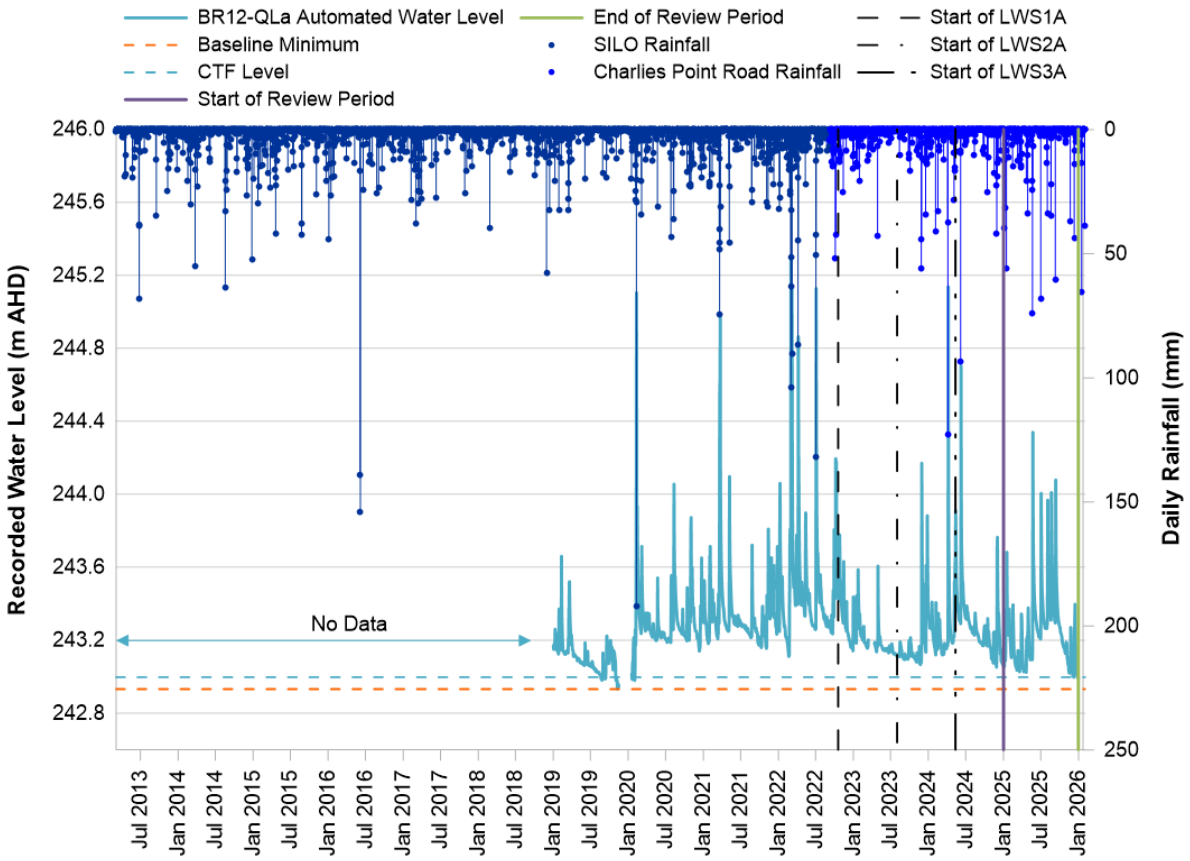


GRAPH B1.7: MONITORING SITE TT13-QLA WATER LEVEL RECORDS

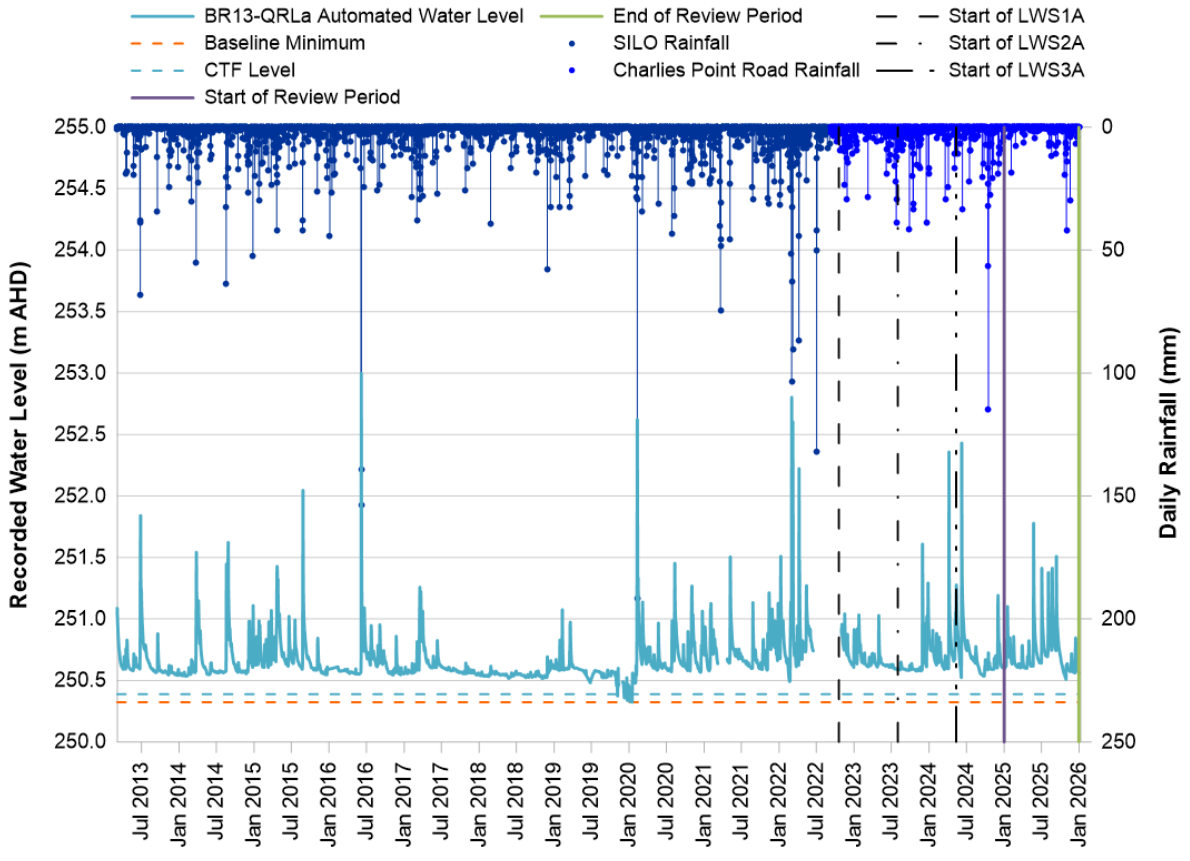


APPENDIX B2 – BARGO RIVER WATER LEVEL GRAPHS

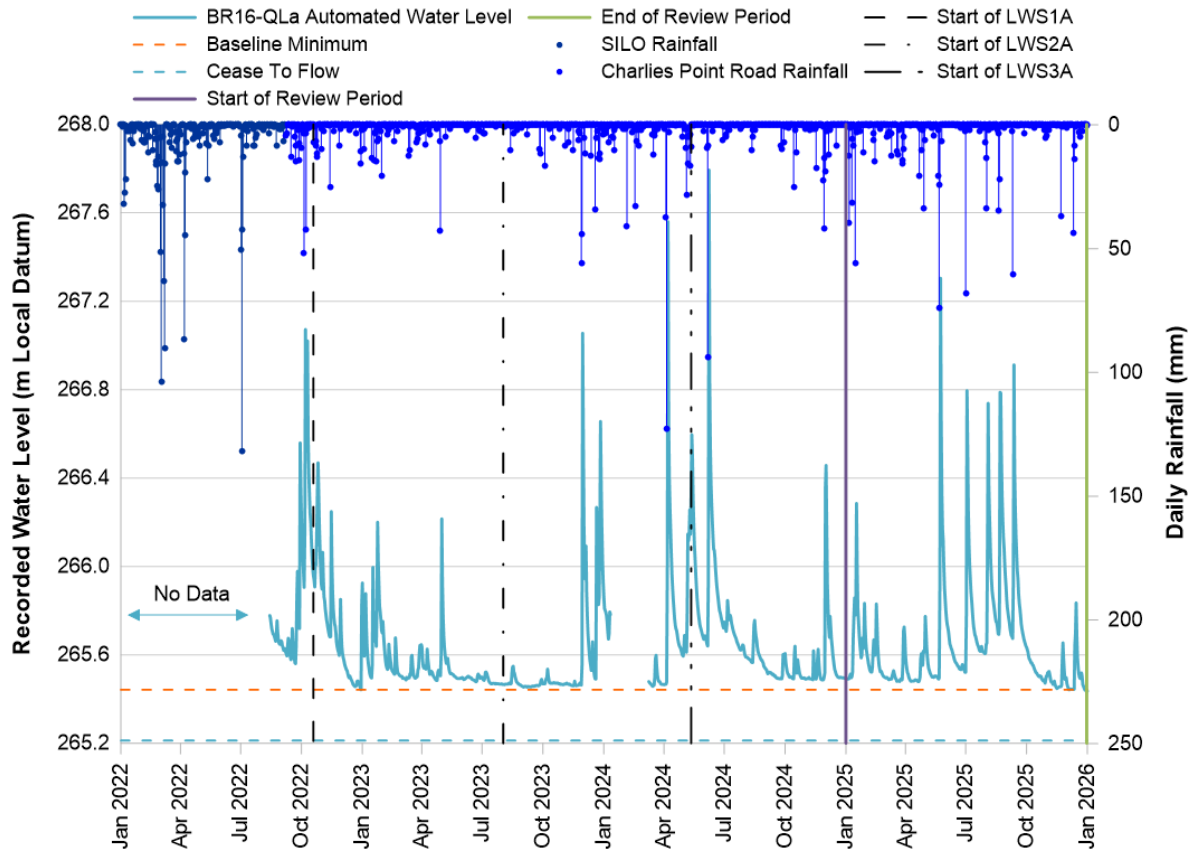
GRAPH B2.1: MONITORING SITE BR12-QLA WATER LEVEL RECORDS



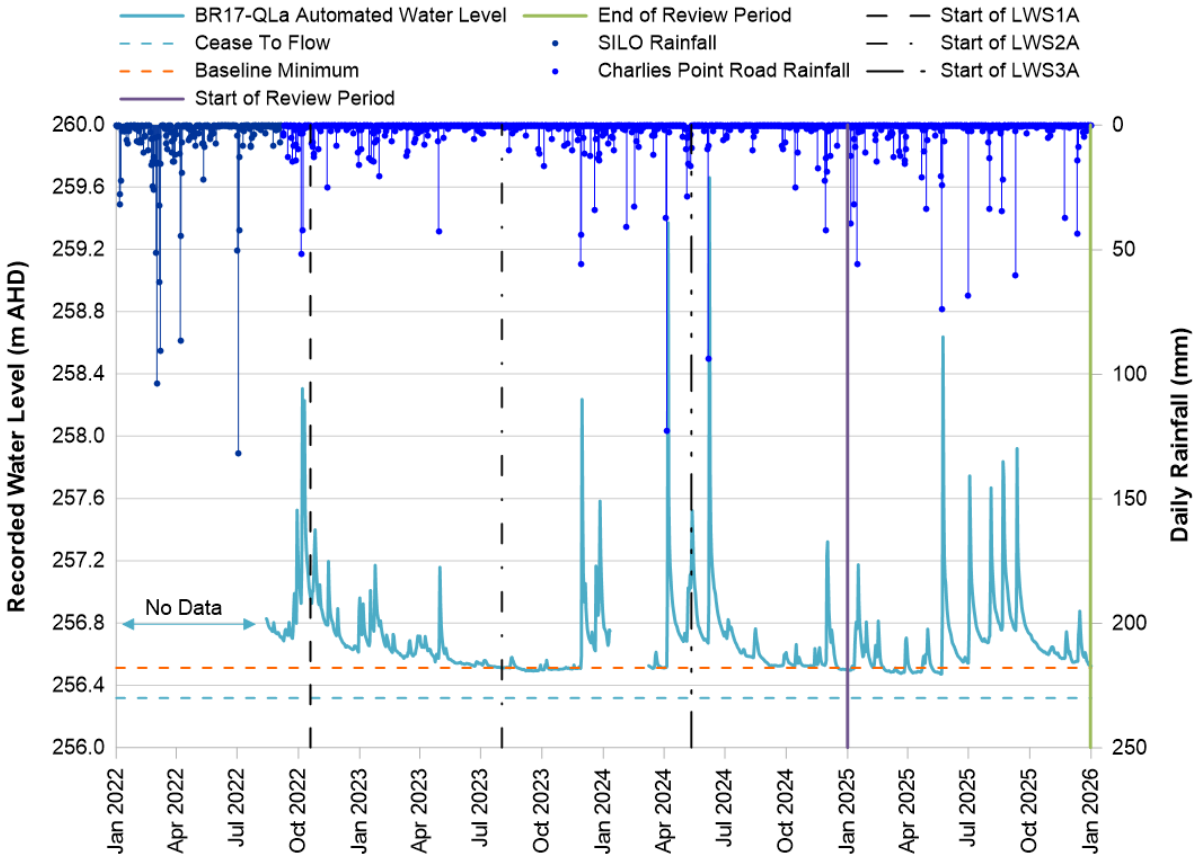
GRAPH B2.2: MONITORING SITE BR13-QLA WATER LEVEL RECORDS



GRAPH B2.3: MONITORING SITE BR16-QLA WATER LEVEL RECORDS



GRAPH B2.4: MONITORING SITE BR17-QLA WATER LEVEL RECORDS



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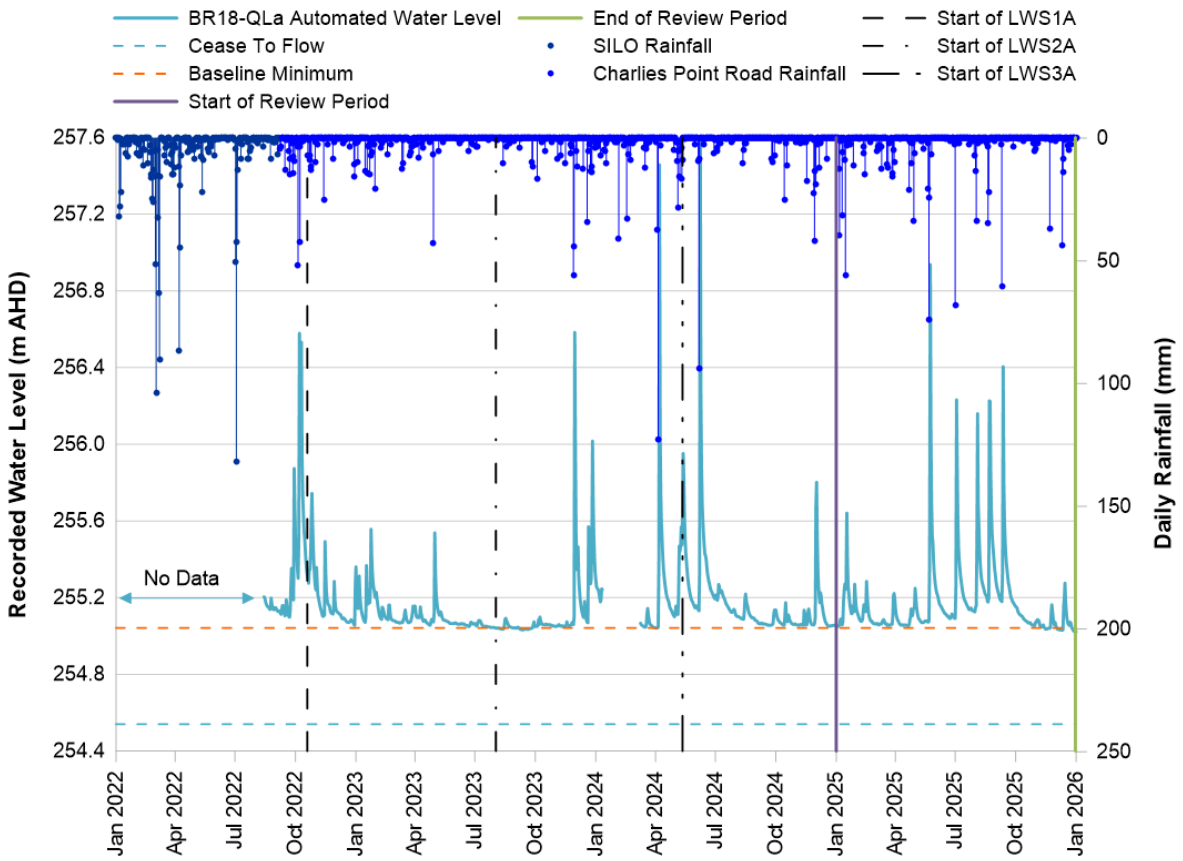
GRAPH B2.5: MONITORING SITE BR18-QLA WATER LEVEL RECORDS

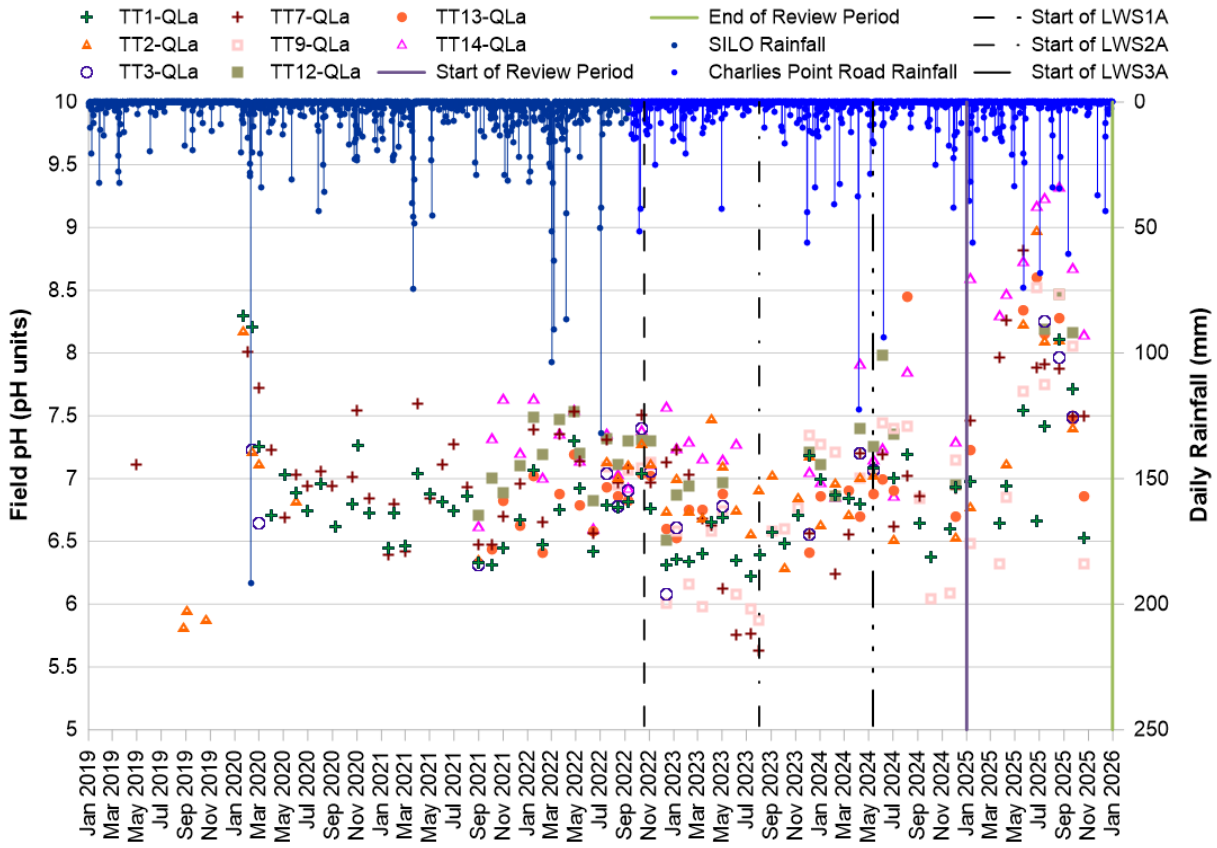


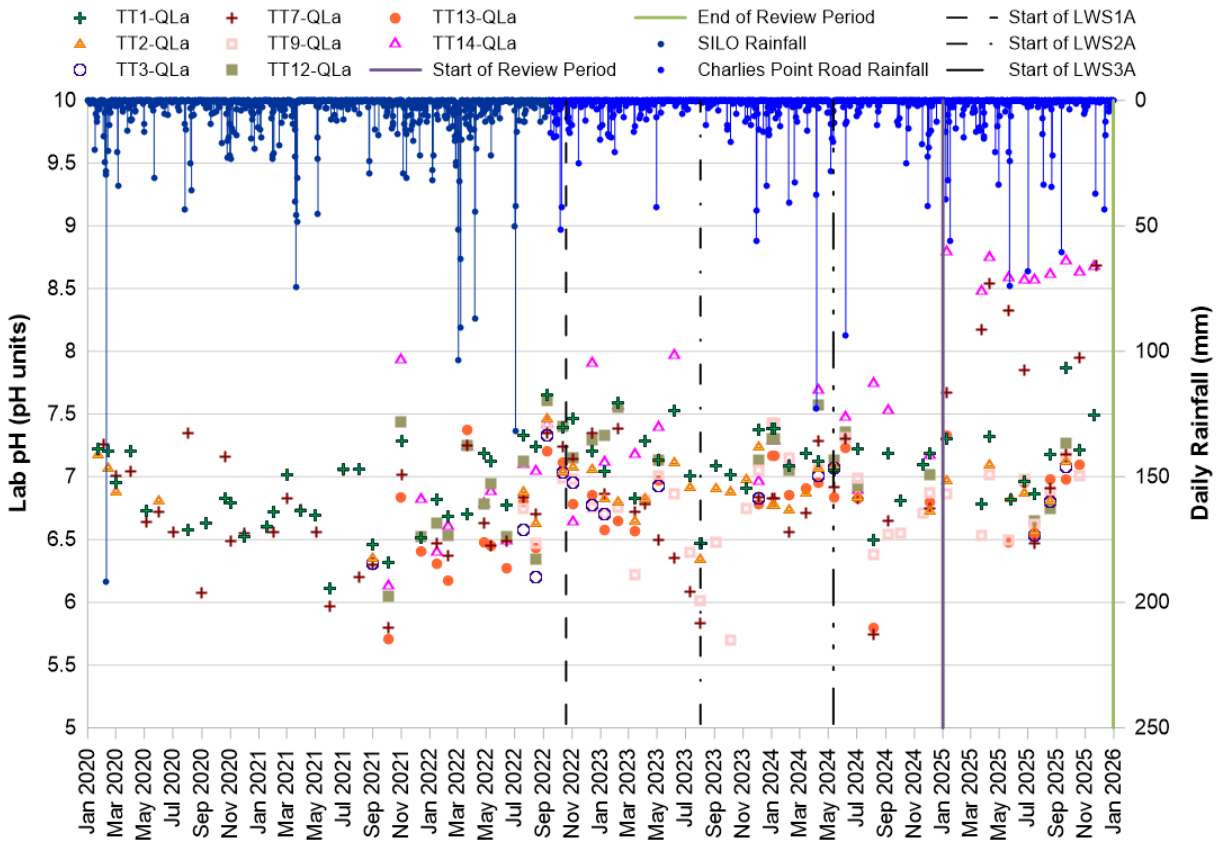
APPENDIX C – WATER QUALITY GRAPHS [6]

[6] When the recorded value was below the limit of reporting, the value has been graphed at the limit of reporting in the following graphs.

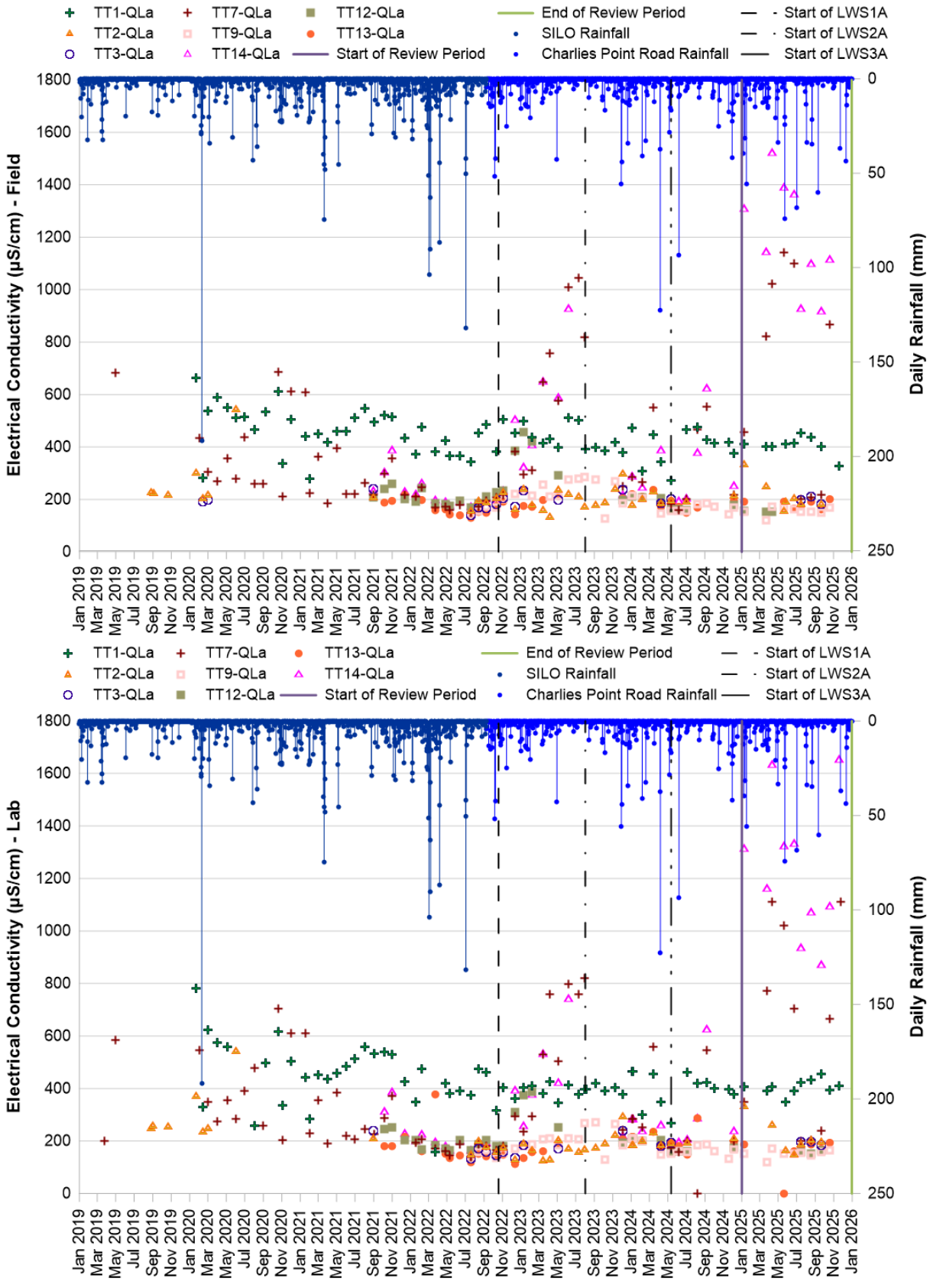
APPENDIX C1 – TEATREE HOLLOW WATER QUALITY GRAPHS

GRAPH C1.1: FIELD AND LABORATORY PH RECORDS





GRAPH C1.2: FIELD AND LABORATORY ELECTRICAL CONDUCTIVITY RECORDS



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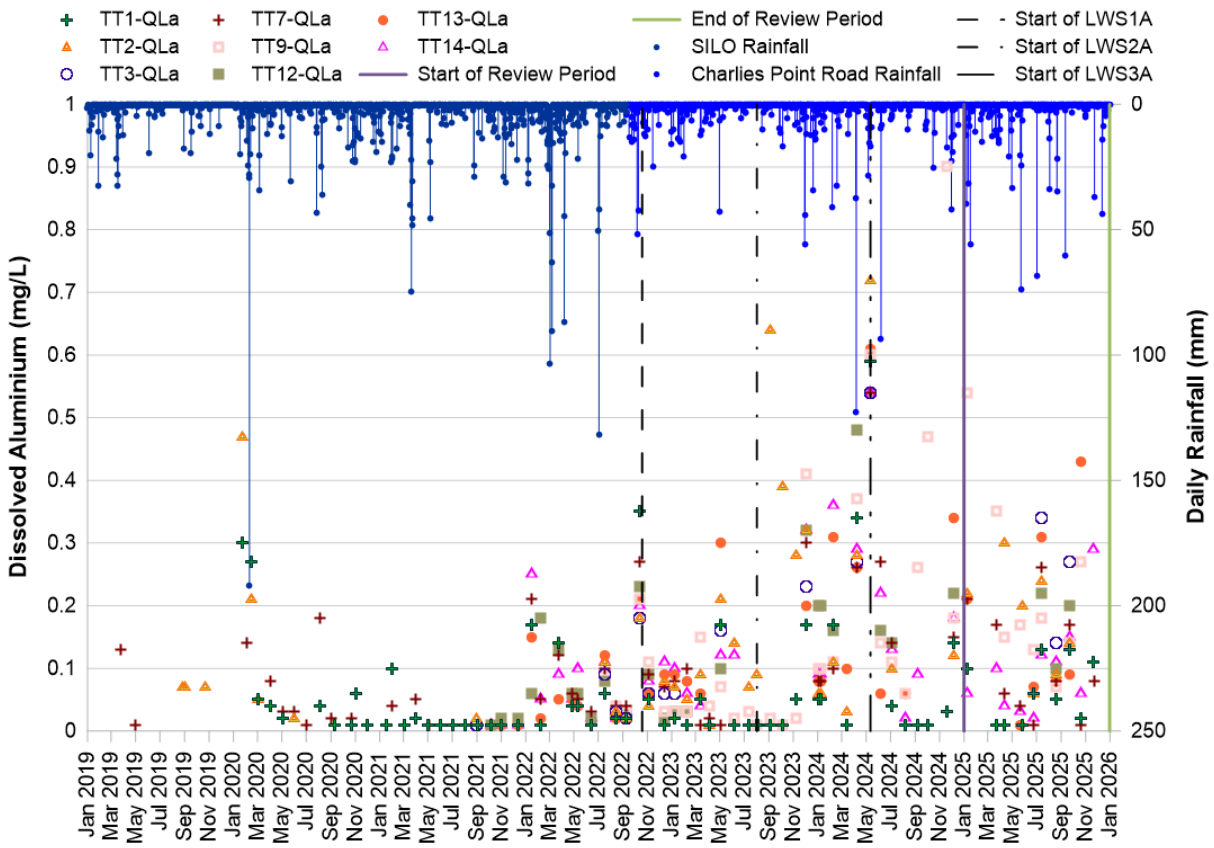
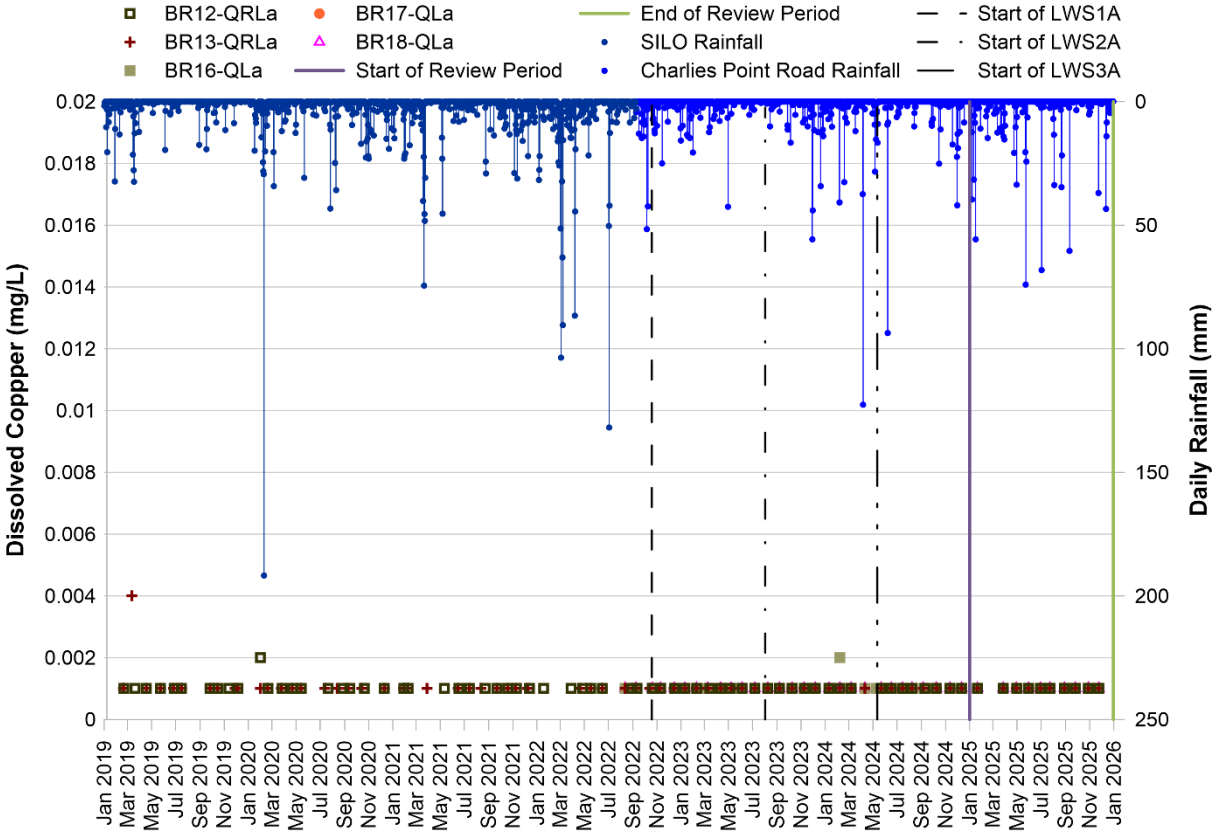
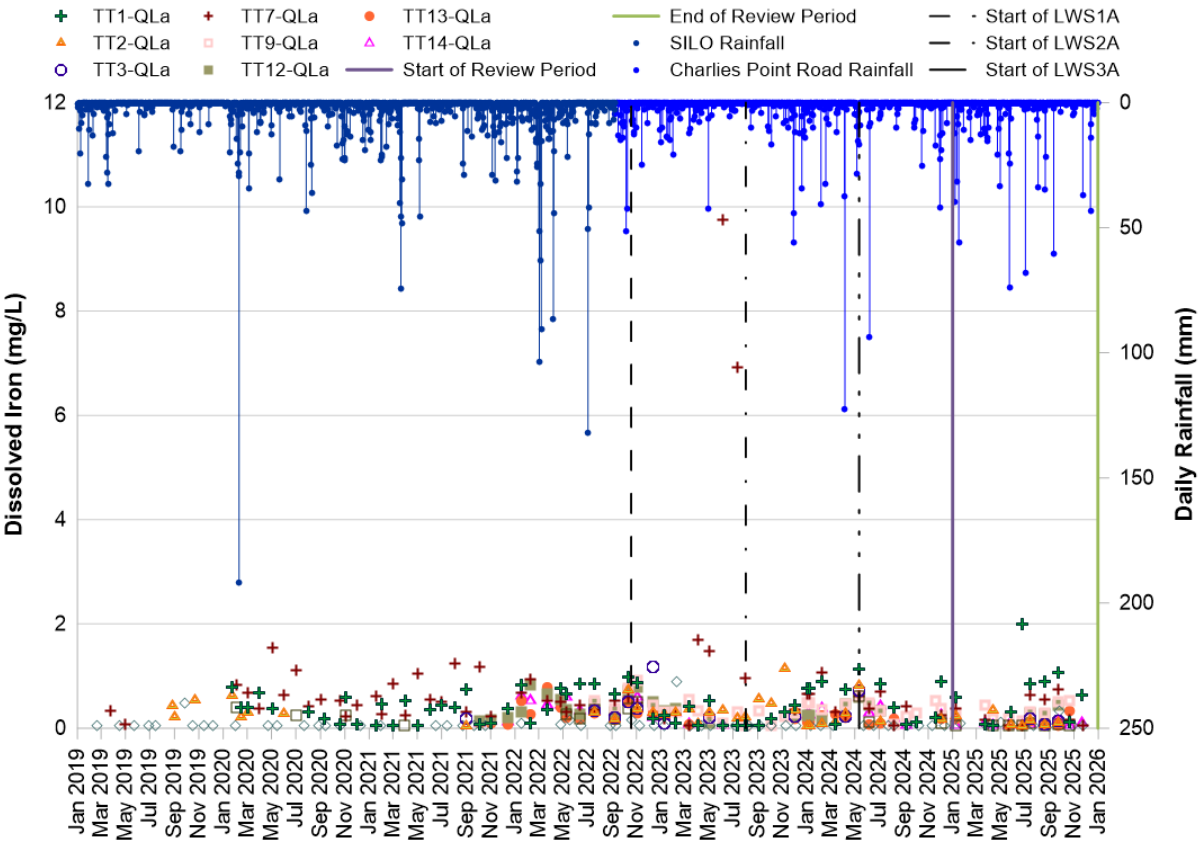
GRAPH C1.3: DISSOLVED ALUMINIUM RECORDS



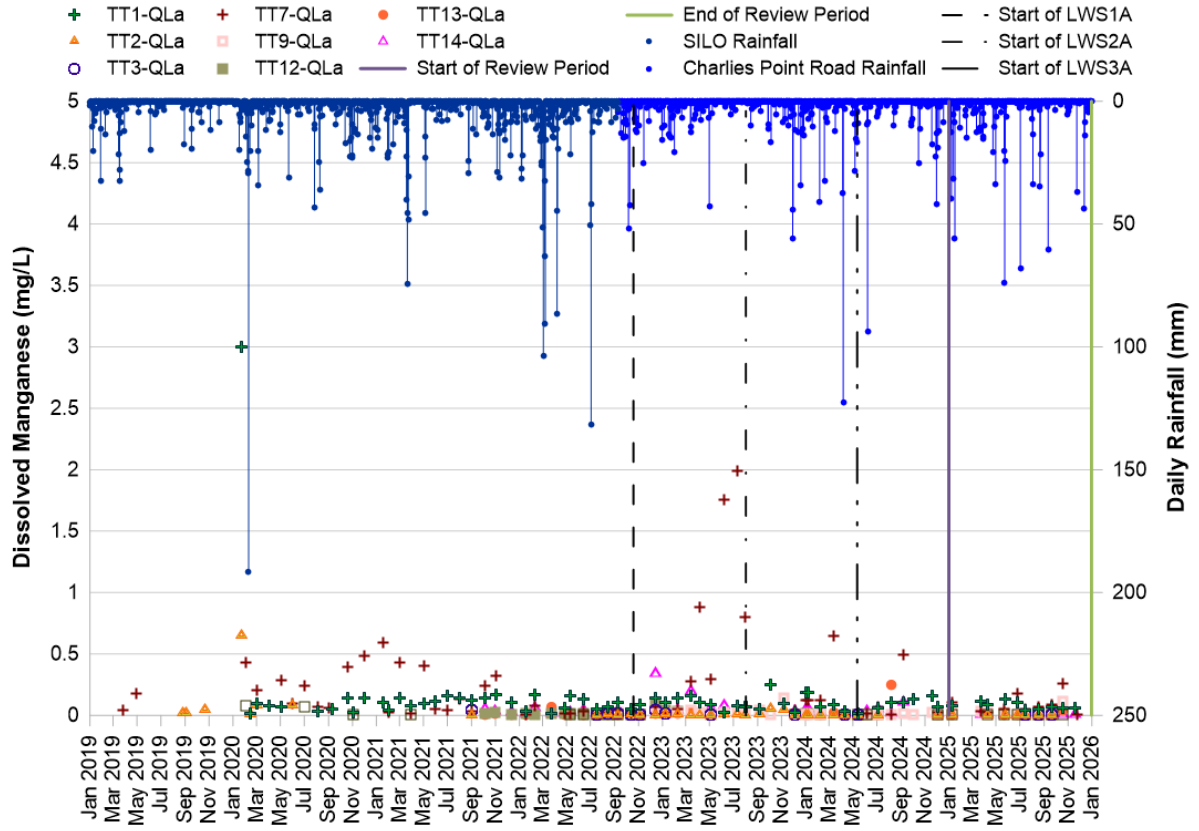
GRAPH C1.4: DISSOLVED COPPER RECORDS



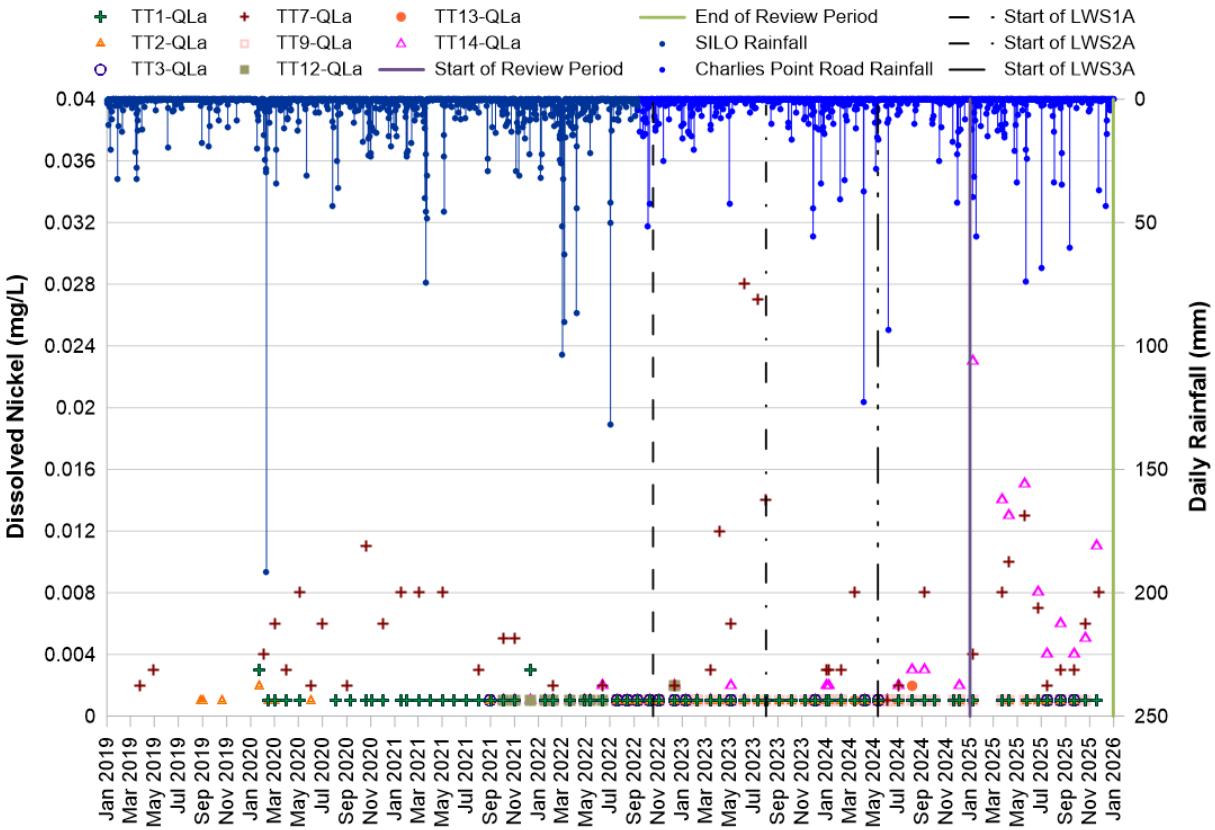
GRAPH C1.5: DISSOLVED IRON RECORDS



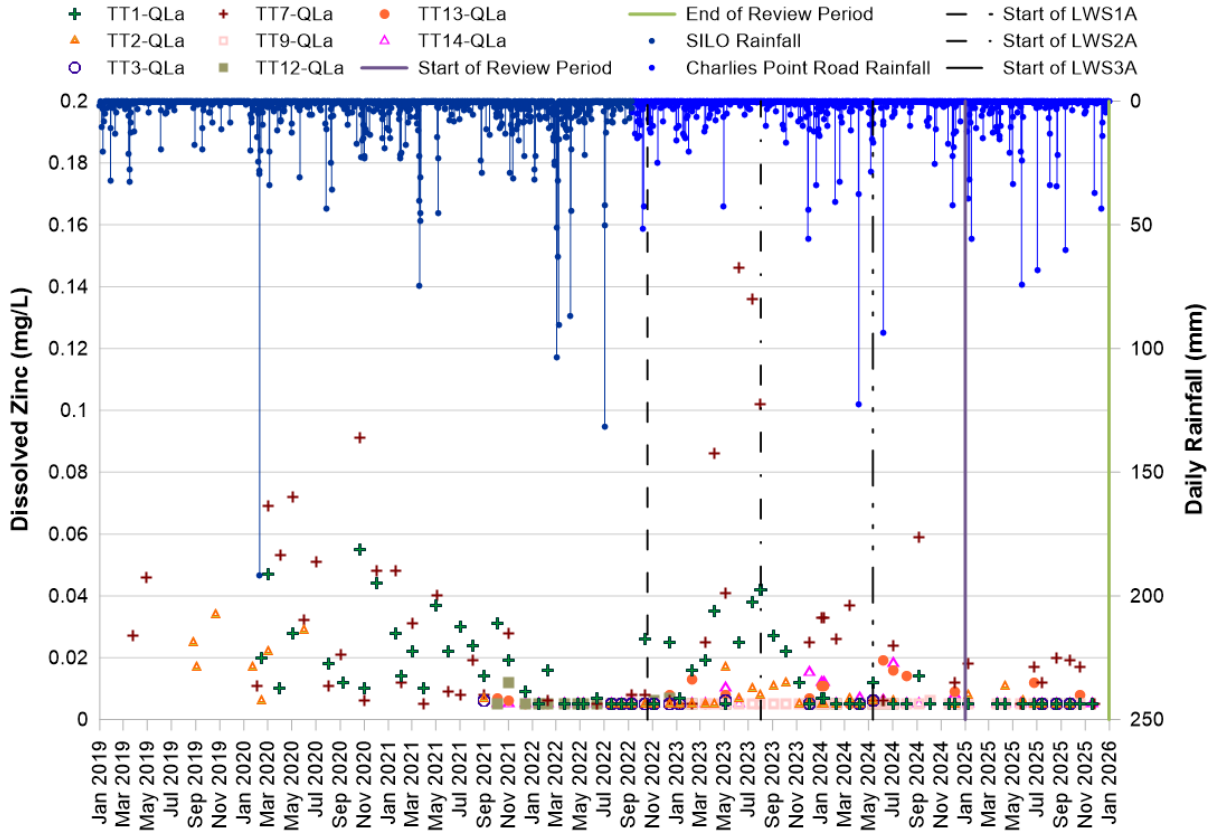
GRAPH C1.6: DISSOLVED MANGANESE RECORDS



GRAPH C1.7: DISSOLVED NICKEL RECORDS

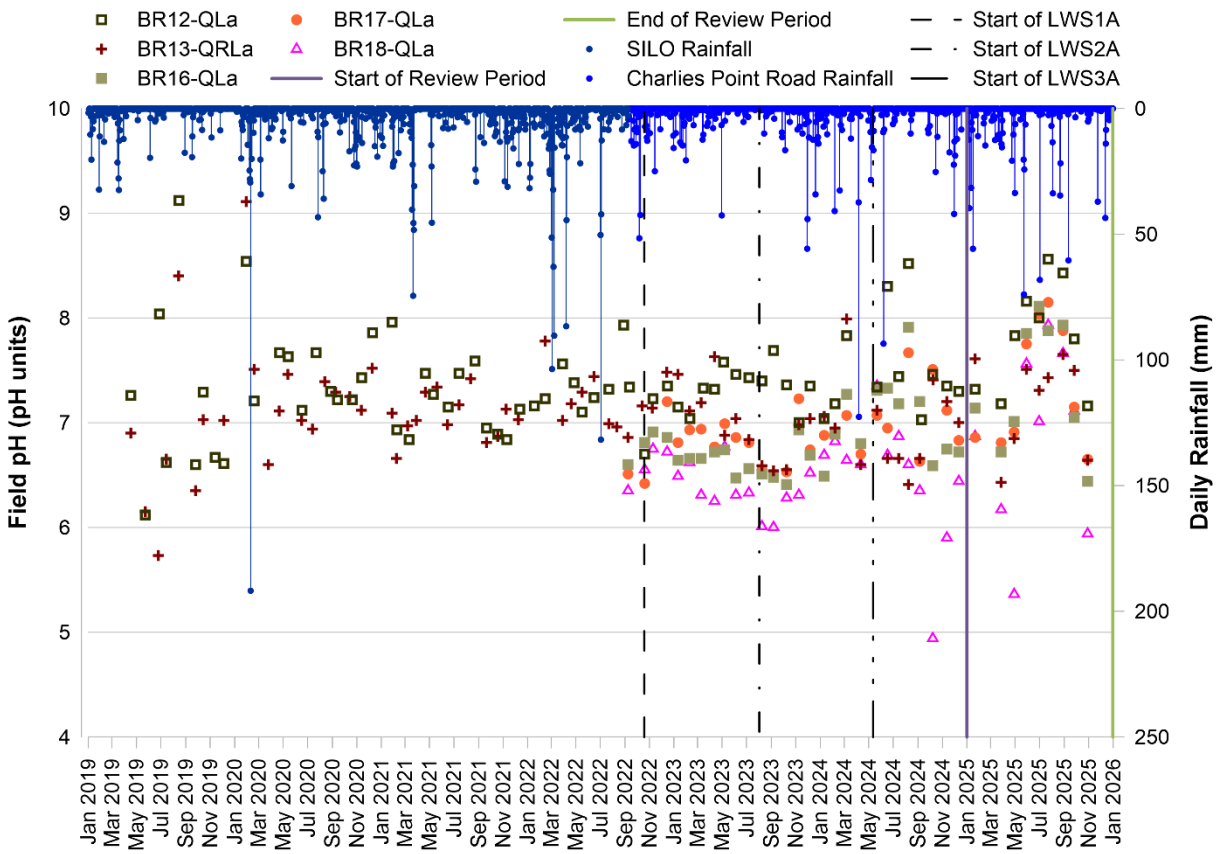


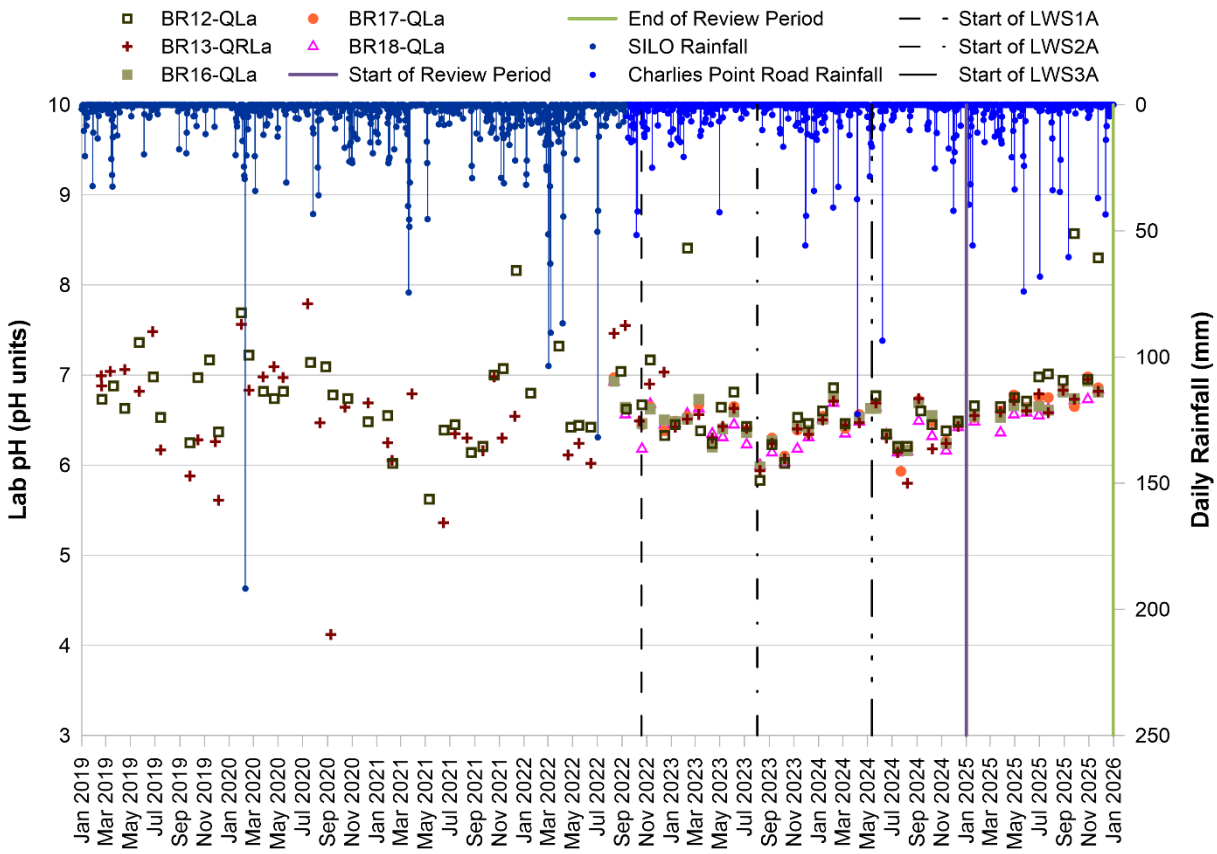
GRAPH C1.8: DISSOLVED ZINC RECORDS



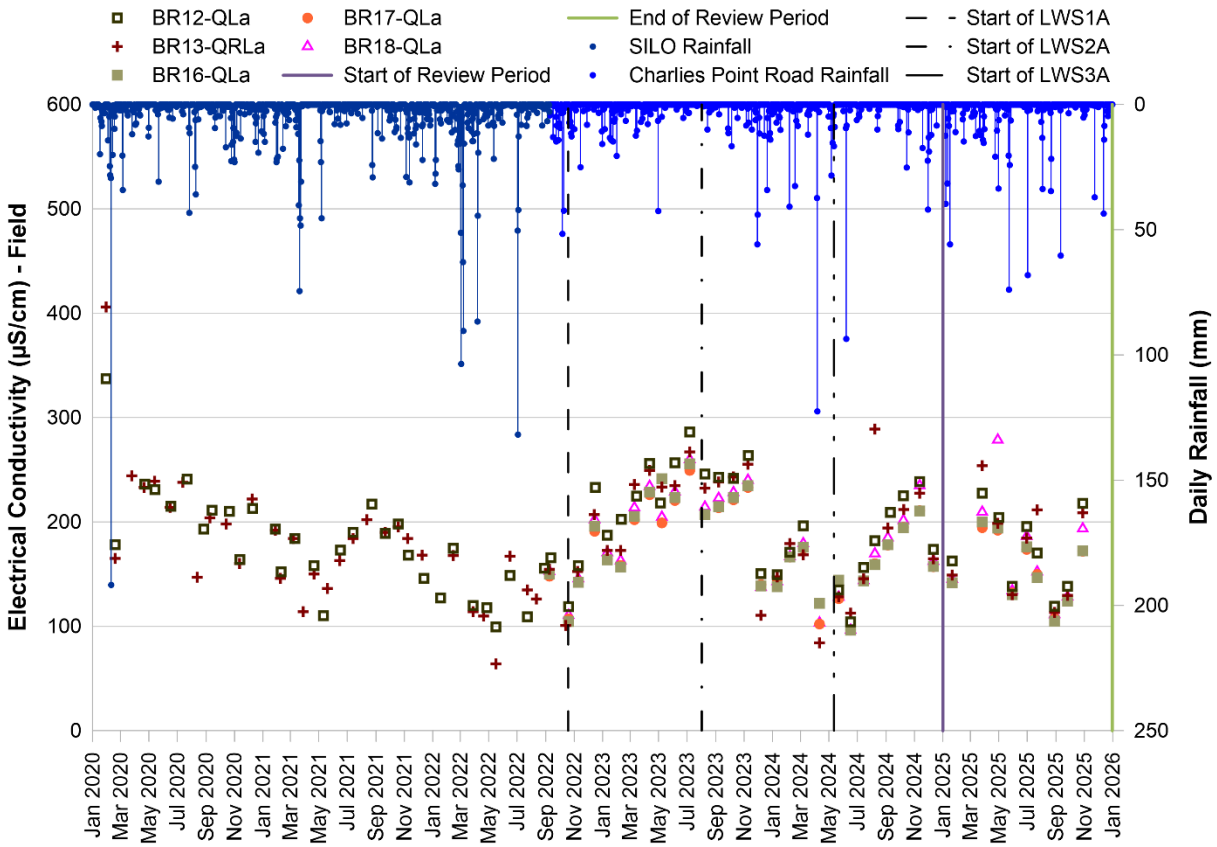
APPENDIX C2 – BARGO RIVER WATER QUALITY GRAPHS

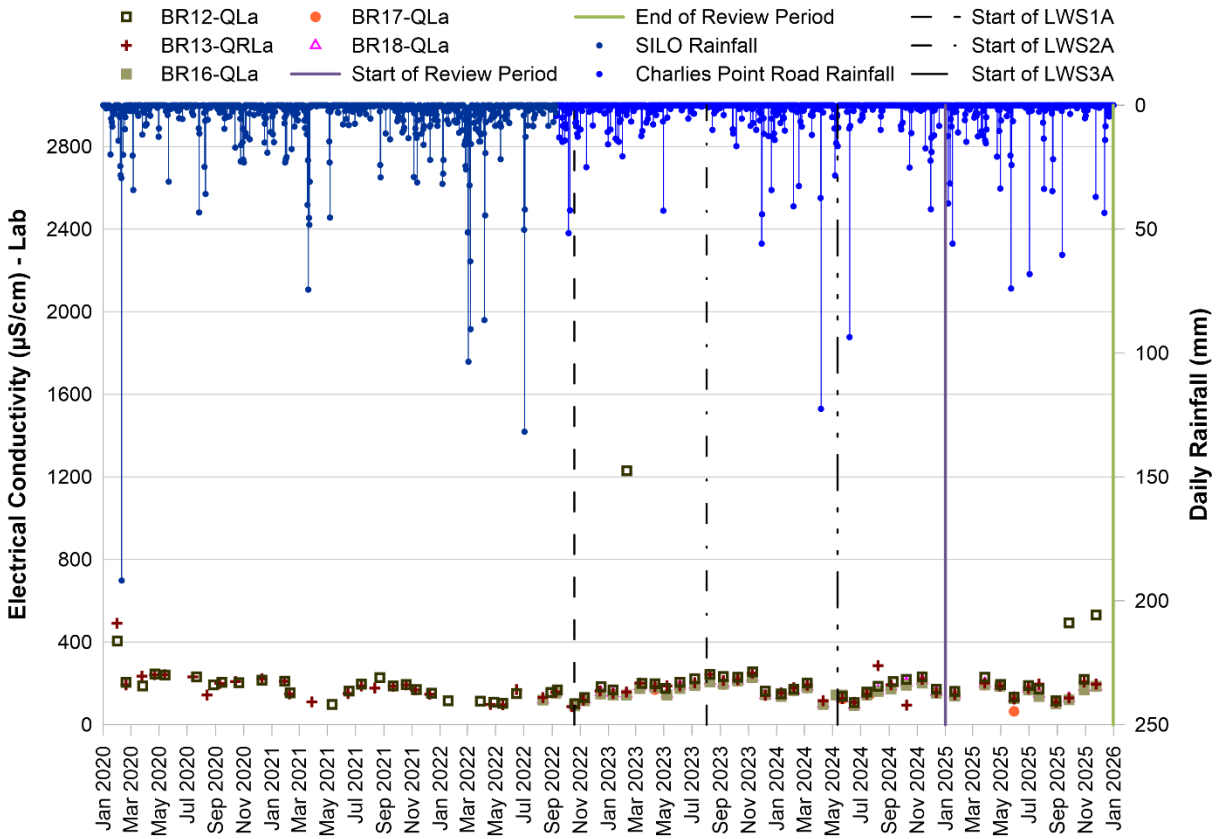
GRAPH C2.1: FIELD AND LABORATORY PH RECORDS



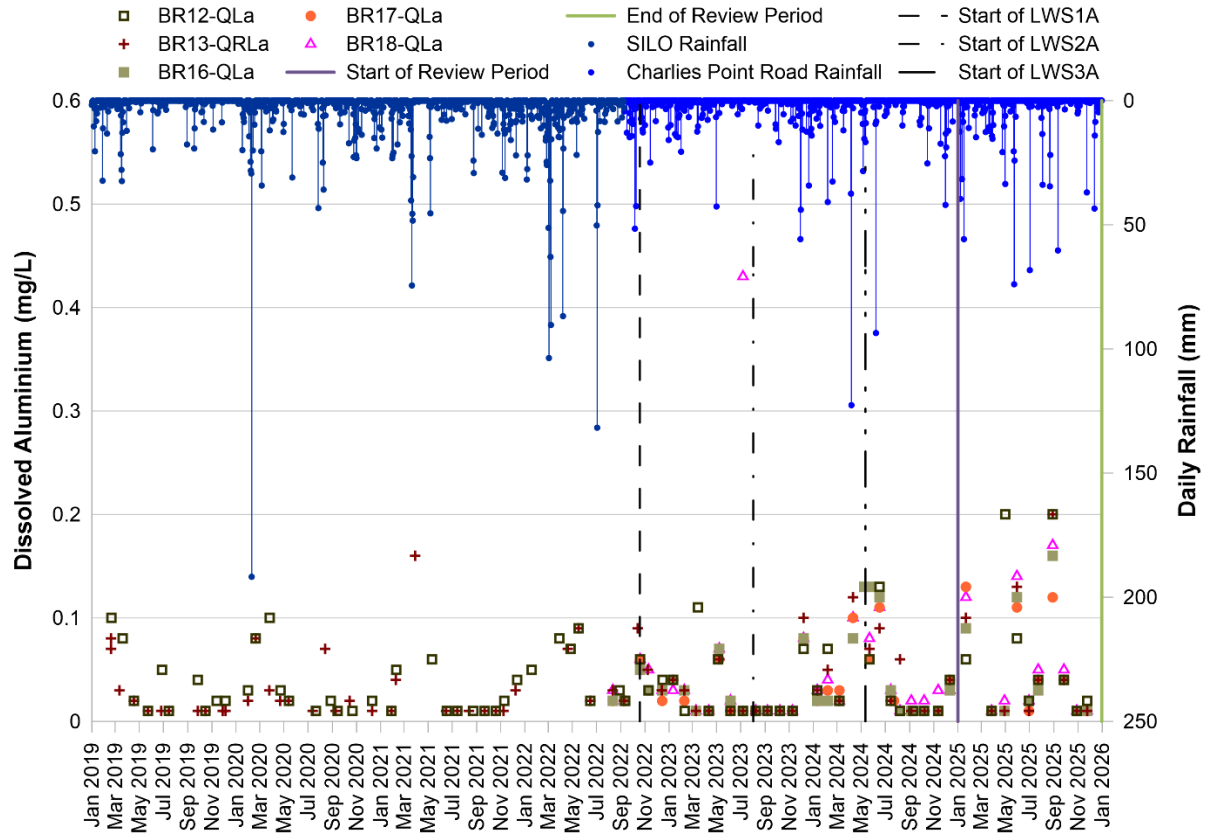


GRAPH C2.2: FIELD AND LABORATORY ELECTRICAL CONDUCTIVITY RECORDS

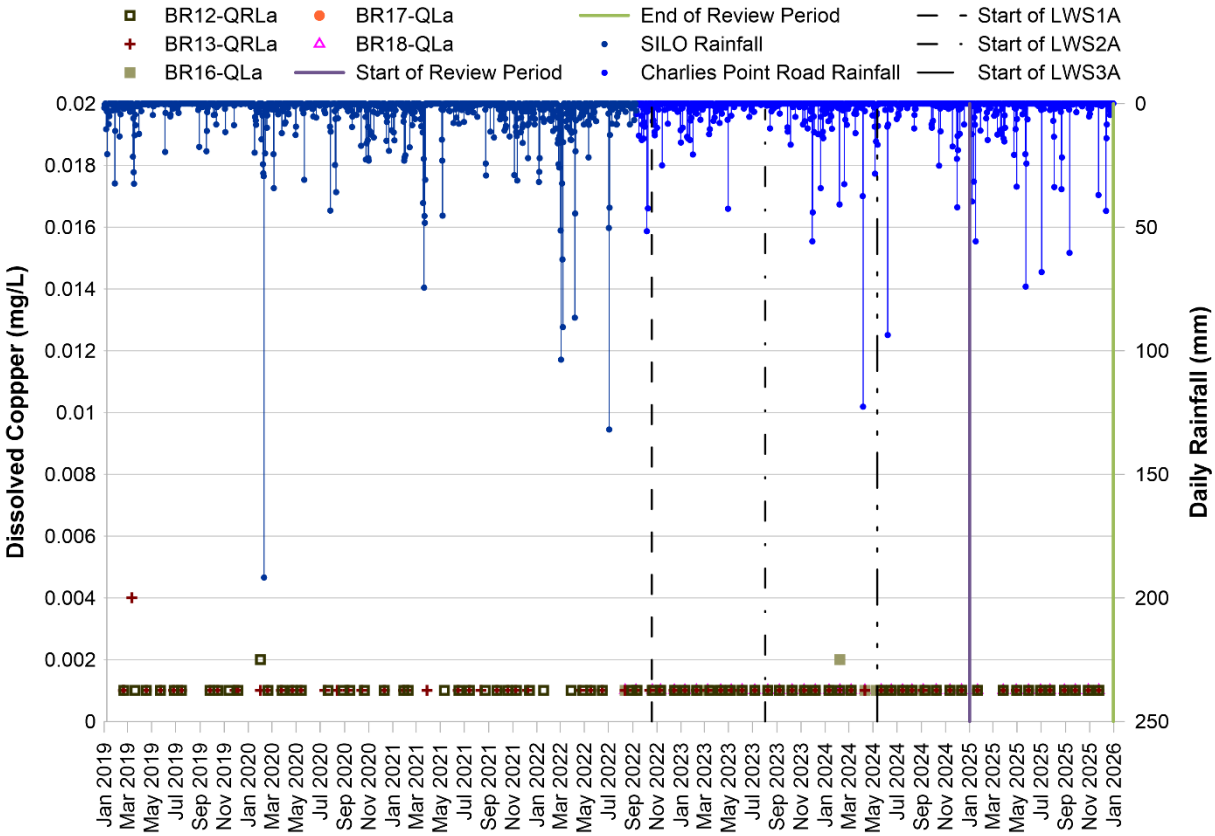




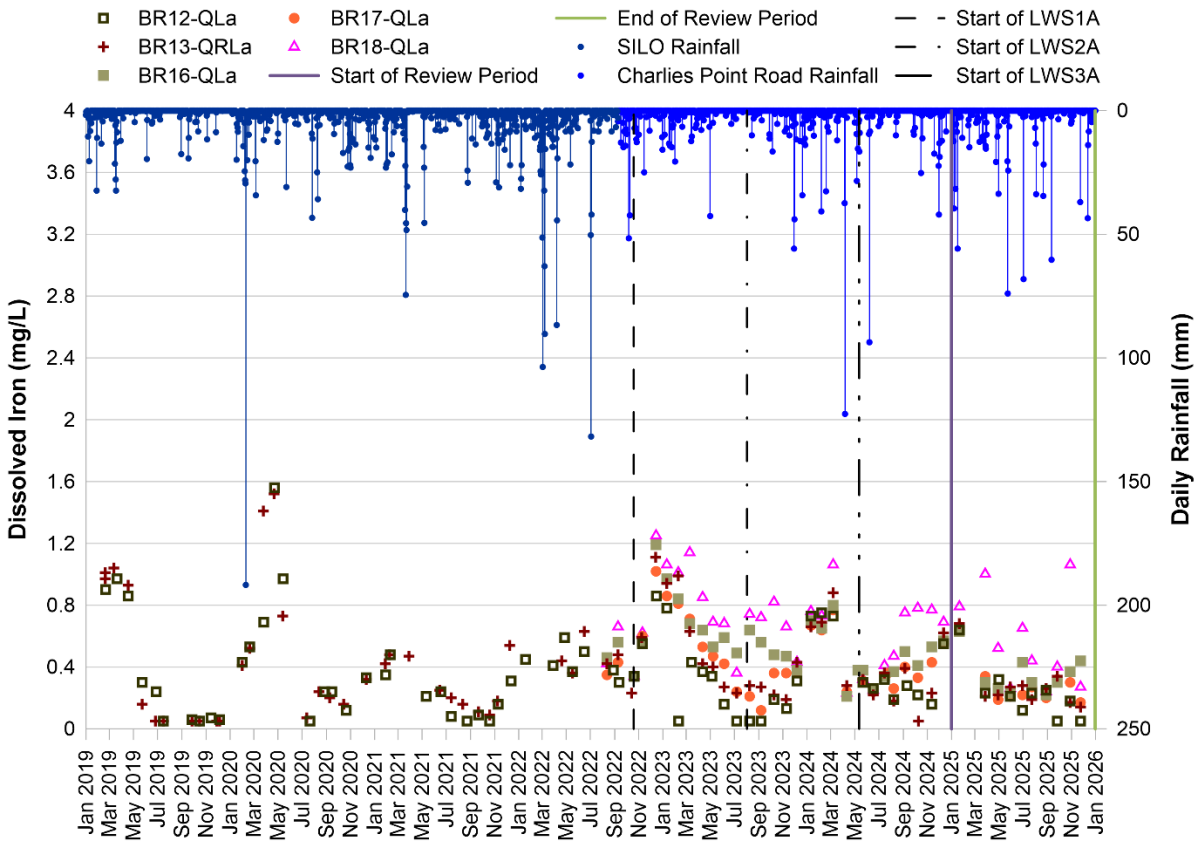
GRAPH C2.3: DISSOLVED ALUMINIUM RECORDS



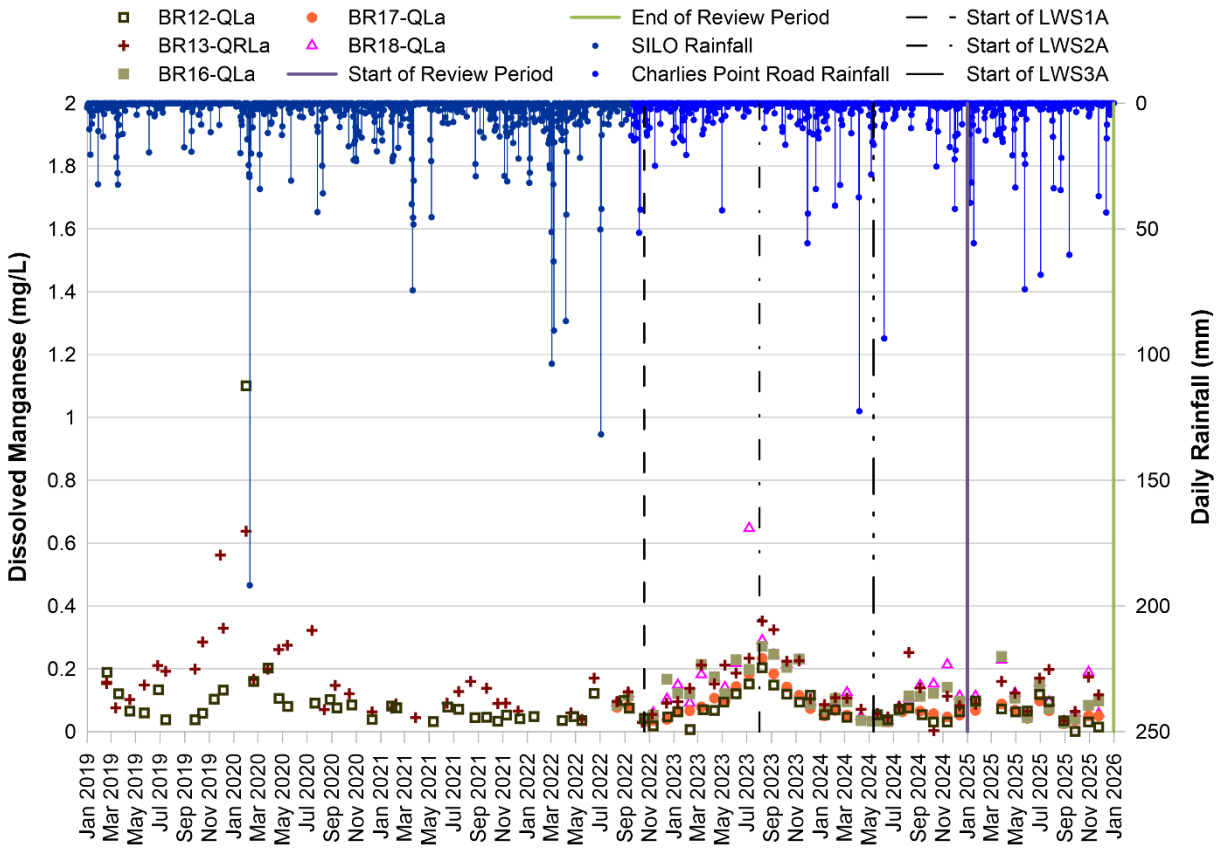
GRAPH C2.4: DISSOLVED COPPER RECORDS



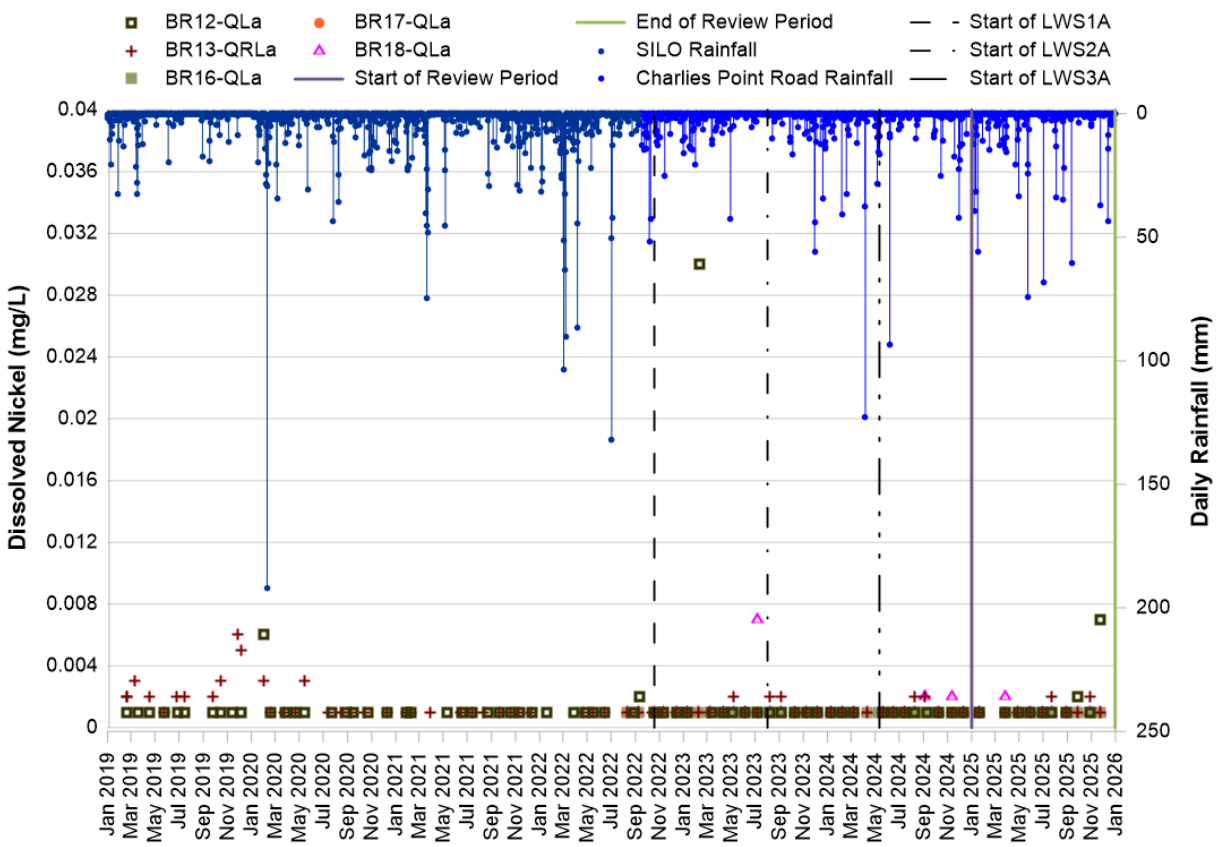
GRAPH C2.5: DISSOLVED IRON RECORDS



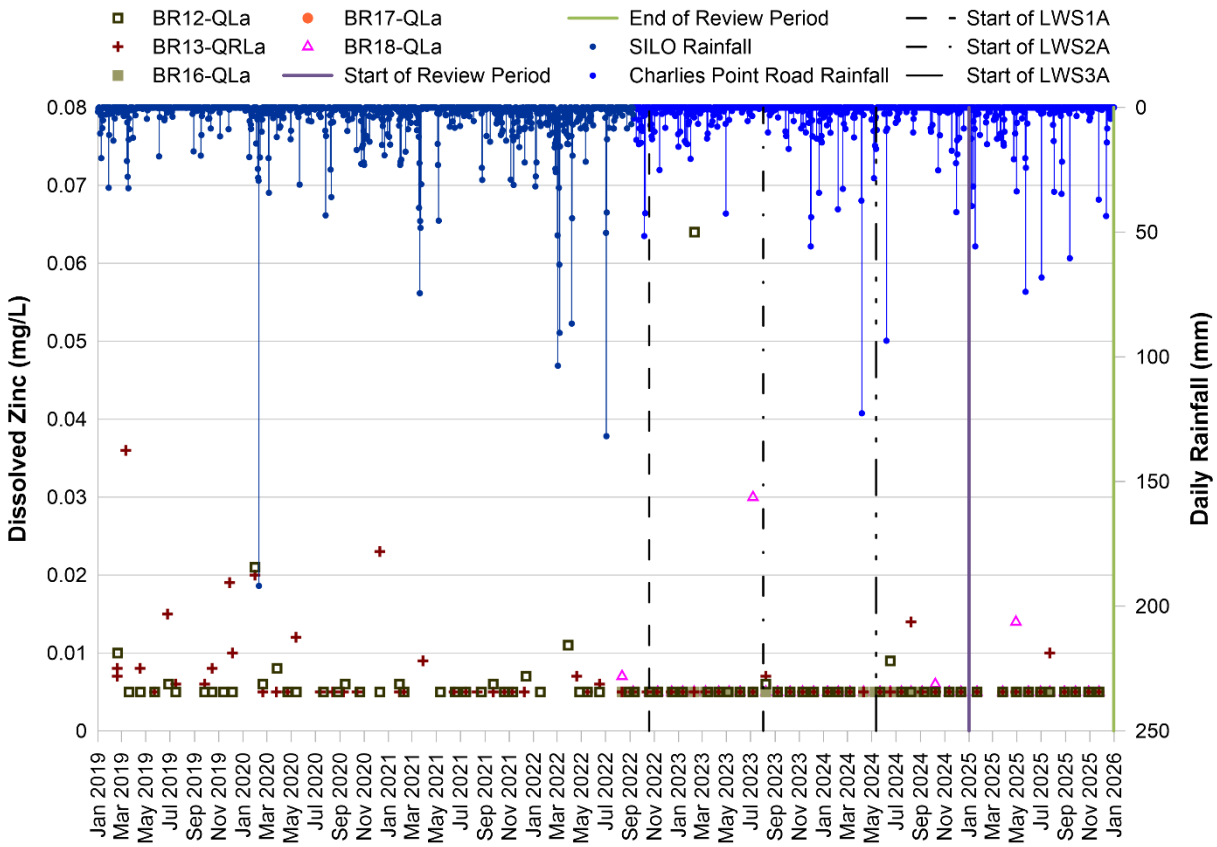
GRAPH C2.6: DISSOLVED MANGANESE RECORDS



GRAPH C2.7: DISSOLVED NICKEL RECORDS



GRAPH C2.8: DISSOLVED ZINC RECORDS



APPENDIX D – TAHMOOR COAL RESPONSES TO TARP ACTION AND RESPONSE REQUIREMENTS

TAILINGS.WATER.WASTE.

APPENDIX D1.1 – STREAM WATER QUALITY FOR ALL WATERCOURSES WITHIN THE SUBSIDENCE AREA: WMP1 ACTIONS

Response from TARP WMP1	Tahmoor Coal Response
Level 1, 2 and 3 trigger Continue monitoring and review of data as per monitoring program.	Monthly monitoring is ongoing.
Level 1, 2 and 3 trigger Assess if the trigger was exceeded during the baseline period prior to commencement of mining activities.	Exceedance of the trigger level during the baseline period was reviewed (refer **Section 6.4**). With respect to pH exceedances at pools TT2, TT13 and TT14: • A Level 1 trigger for the lower bound pH SSGV was recorded at TT2-QLa during the baseline period. • A Level 1 trigger or above for pH was not recorded at TT13-QLa or TT14-QLa during the baseline period. With respect to EC exceedances at pool TT7 and TT14: • A Level 1 or higher trigger was not recorded at TT7-QLa or TT14-QLa during the baseline period.
Level 1, 2 and 3 trigger Review water quality trends along watercourse (upstream to downstream) to identify spatial changes with consideration to climatic conditions.	Water quality trends were reviewed for the watercourse reach (refer **Section 5.4**).
Level 1, 2 and 3 trigger Discuss findings with and obtain other relevant information from key specialists (e.g. subsidence monitoring results, groundwater quality monitoring results) necessary to inform assessment.	Relevant information was obtained from key specialists necessary to inform assessment (refer **Section** Error! Reference source not found.**, 3** and **5**).
Level 1, 2 and 3 trigger Consider and decide on reasonable and feasible options for remediation as relevant (e.g. limestone cobbles for increasing pH level).	Reasonable and feasible options for remediation were considered (refer **Section 7.3**). With respect to the water quality trigger exceedance recorded at TT2-QLa, TT7-QLa, TT12-QLa, TT13-QLa, and TT14-QLa during the review period, there are limited feasible corrective management actions (CMAs) that could be implemented prior to the cessation of subsidence movements associated with mining of LW S1A-S7A.
Level 2 and 3 trigger Consider increasing monitoring and review of data frequency at sites where Level 2 has been reached or at other relevant sites, subject to land access, as follows:	The monitoring frequency was not increased given that causation was identified and there is negligible indication of a material impact to the water quality of Teatree Hollow (as there has been negligible surface flow reporting to the

Response from TARP WMP1	Tahmoor Coal Response
• Fortnightly, for sites within the active subsidence zone; and • Monthly, outside of the active subsidence period. Reasons for not increasing monitoring frequency could include confident identification of causation (e.g. singular, anthropogenic, non-mining related change or confirmed as a mining-related impact that resulted in a water quality change).	downstream reach of Teatree Hollow since February 2023).
Level 2 and 3 trigger If increased monitoring is undertaken, conduct further analysis of water quality trends along creek (upstream to downstream) to identify spatial changes with consideration to climatic conditions.	
Level 2 and 3 trigger Review CMAs in light of findings from further investigations and consider additional remediation options.	
Level 2 and 3 trigger Review Water Management Plan and modify if necessary.	
Level 3 trigger If mining related impact unconfirmed, increase monitoring and review of data frequency at sites where Level 3 has been reached or at other relevant sites, subject to land access, as follows: • Fortnightly, for sites within the active subsidence zone. • Monthly, outside of the active subsidence period.	The monitoring frequency was not increased given that causation was identified.
Level 3 trigger Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing), other catchment changes, effects unrelated to mining or the prevailing climate.	

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APPENDIX D1.2 – STREAM WATER QUALITY FOR ALL WATERCOURSES WITHIN THE SUBSIDENCE AREA: WMP1 RESPONSES

Response from TARP WMP1	Tahmoor Coal Response
Level 1, 2 and 3 trigger Report trigger exceedance to DPE and key stakeholders.	Notification of exceedances as identified in this report will be reported in the Annual Environmental Management Report (AEMR) which is sent to Department of Planning, Housing and Infrastructure (DPHI) and relevant stakeholders.
Level 1, 2 and 3 trigger Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review	Completed as part of the Annual Review and reported in the AEMR.
Level 1, 2 and 3 trigger Provide DPE and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g. limestone cobbles for increasing pH level).	CMAs are not considered reasonable or feasible.
Level 1, 2 and 3 trigger Implement CMAs, subject to land access.	CMAs are not considered reasonable or feasible.
Level 1, 2 and 3 trigger Monitor and report on success of CMAs in Six Monthly Subsidence Impact Report and Annual Review.	CMAs are not considered reasonable or feasible.
Level 2 and 3 trigger Advise DPE and key stakeholders of any required amendments to Water Management Plan	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0) approved by DPHI on 10/02/2025. No amendments were required during the reporting period.
Level 2 and 3 trigger Provide findings of CMA review to DPE and key stakeholders for consultation.	CMAs are not considered reasonable or feasible.
Level 2 and 3 trigger Implement additional CMAs, subject to land access.	CMAs are not considered reasonable or feasible.
Level 3 trigger If it is concluded from the detailed investigation that watercourses have been damaged by subsidence impacts: • Offer site visit with DPE and other key stakeholders. • Develop Watercourse Corrective Action Management Plan (WCAMP) in consultation with the Resources Regulator, DPE and other key stakeholders (in accordance with C12 of SSD 8445). The stream remediation measures in the WCAMP could	A letter will be sent to DPHI and key stakeholders offering a site visit to impacted sites. Development and implementation of a WCAMP will be considered following cessation of active subsidence on the water course.

Response from TARP WMP1	Tahmoor Coal Response
include grout curtain and grout pattern injection. • Implement approved WCAMP, subject to land access.	

APPENDIX D2.1 – WATER LEVEL FOR ALL WATERCOURSES WITHIN THE SUBSIDENCE AREA: WMP3 ACTIONS

Action from TARP WMP3	Tahmoor Coal Response
Level 1, 2 and 3 trigger Continue monitoring and review of data as per monitoring program.	Monthly monitoring is ongoing according to the monitoring program.
Level 1, 2 and 3 trigger Review water level trends along watercourse (upstream to downstream) to identify spatial changes with consideration to climatic conditions.	Water level trends for all sites in Teatree Hollow and Teatree Hollow tributary were reviewed with consideration to climatic conditions (refer **Section 6.1**).
Level 1, 2 and 3 trigger Review streamflow data recorded at TT-F1 and conduct streamflow reduction assessment.	Streamflow data recorded at TT-F1 were reviewed, including qualitative comparison of recorded flow responses and recession behaviour with rainfall and historical observations. However, uncertainty in the completeness and accuracy of the LOP4 overflow and LDP16 discharge records prevented reliable adjustment of the TT-F1 record and quantitative assessment of streamflow reduction and associated water take for the review period. Refer to **Section 5.3** and **Section 6.2**. Improvements to overflow and discharge monitoring and recording have been recommended to support future assessments.
Level 1, 2 and 3 trigger Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, groundwater level monitoring results) necessary to inform assessment.	Relevant information was obtained from key specialists necessary to inform assessment (contained herein).
Level 2 and 3 trigger Consider increasing monitoring and review of data frequency at sites where Level 2 has been reached or at other relevant sites, subject to land access, as follows: • Fortnightly, for sites within the active subsidence zone. • Monthly, out of the active subsidence period. Reasons for not increasing monitoring frequency could include confident identification of causation (e.g. singular, anthropogenic, non-mining related change or confirmed as a mining-related impact that resulted in a water level change).	Causation was identified for the Level 2 and 3 triggers (refer **Section 6.1**).
Level 2 and 3 trigger If increased monitoring is undertaken, conduct further analysis of water level trends along creek (upstream to downstream) to identify spatial changes with consideration to climatic conditions.	Water level trends for all sites in Teatree Hollow and Teatree Hollow tributary were reviewed with consideration to climatic conditions (refer **Section 6.1**).

Action from TARP WMP3	Tahmoor Coal Response
Level 2 and 3 trigger Review Water Management Plan and modify if necessary.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0) approved by DPHI on 10/02/2025. No amendments were required during the reporting period.
Level 3 trigger If mining related impact unconfirmed, increase monitoring and review of data frequency at sites where Level 3 has been reached or at other relevant sites, subject to land access, as follows: • Fortnightly, for sites within the active subsidence zone. • Monthly, outside of the active subsidence period.	Causation was identified for the Level 3 triggers (related to subsidence induced fracturing and the prevailing climate, refer **Section 6.1**). As such, the monitoring frequency was not increased.
Level 3 trigger Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing), other catchment changes, effect unrelated to mining or the prevailing climate.	A detailed investigation was undertaken to assess if the change in behaviour was related to mining effects (refer **Section 6**). Direct and indirect impacts from mining have been confirmed at the related pools, as summarised in **Section 7.1.**

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APPENDIX D2.2 – WATER LEVEL FOR ALL WATERCOURSES WITHIN THE SUBSIDENCE AREA: WMP3 RESPONSES

Response from TARP WMP3	Tahmoor Coal Response
Level 1, 2 and 3 trigger Report trigger exceedance to DPHI and key stakeholders	Notification of exceedances as identified in this report will be reported in the AEMR which is sent to DPHI and relevant stakeholders.
Level 1, 2 and 3 trigger Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review	Completed as part of the Annual Review.
Level 2 and 3 trigger Advise DPHI and key stakeholders of any required amendments to Water Management Plan	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0) approved by DPHI on 10/02/2025. No amendments were required during the reporting period.
Level 3 trigger If it is concluded from the detailed investigation that watercourses have been damaged by subsidence impacts: • Offer site visit with DPHI and other key stakeholders. • Develop Watercourse Corrective Action Management Plan (WCAMP) in consultation with the Resources Regulator, DPHI and other key stakeholders (in accordance with C12 of SSD 8445). The stream remediation measures in the WCAMP could include grout curtain and grout pattern injection. • Implement approved WCAMP, subject to land access.	A letter will be sent to DPHI and key stakeholders offering a site visit to impacted sites. Development and implementation of a WCAMP will be considered following cessation of active subsidence on the water course.

APPENDIX D3.1 – PHYSICAL FEATURES AND NATURAL BEHAVIOUR OF WATERCOURSES WITHIN THE SUBSIDENCE AREA: WMP5 ACTIONS

Action from TARP WMP5	Tahmoor Coal Response
Level 1, 2 and 3 trigger Continue monitoring and review of data as per monitoring program.	Monthly monitoring is ongoing according to the monitoring program.
Level 1, 2 and 3 trigger Assess visual change along watercourse (upstream to downstream) to observe any spatial changes with consideration to climatic conditions.	Visual changes along watercourse were reviewed with consideration to climatic conditions (refer **Section 6.3**).
Level 1, 2 and 3 trigger Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, surface water monitoring results, groundwater monitoring results) necessary to inform assessment.	Relevant information was obtained from key specialists necessary to inform assessment (contained herein).
Level 2 and 3 trigger Consider increasing monitoring and review of data frequency to fortnightly at sites where Level 1 has been reached and at other relevant sites, subject to land access, as follows: • Fortnightly, for sites within the active subsidence zone. • Monthly, outside of the active subsidence period. Reasons for not increasing monitoring frequency could include confident identification of causation (e.g., surface fracturing of weathered bedrock that does not affect water holding capacity of rockbar control or pool base or confirmed as a mining-related impact)	Monitoring and review of data frequency was not increased as mining impacts were confirmed.
Level 2 and 3 trigger Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing, other catchment changes, effect unrelated to mining or the prevailing climate).	A detailed investigation was undertaken to assess whether the change in behaviour is related to mining effects (refer **Section 6**). Direct and indirect impacts from mining have been confirmed at the pools in question, as detailed in **Section 7.1.**
Level 2 and 3 trigger Review Water management Plan and modify if necessary.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0) approved by DPHI on 10/02/2025. No amendments were required during the reporting period.
Level 2 and 3 trigger If mining related impact unconfirmed, increase monitoring and review of data frequency at	Monitoring and review of data frequency was not increased as mining impacts were confirmed.

Action from TARP WMP5	Tahmoor Coal Response
sites where Level 2 has been reached or at other relevant sites, subject to land access, as follows: • Fortnightly, for sites within the active subsidence zone. • Monthly, outside of the active subsidence period.	

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APPENDIX D3.2 – PHYSICAL FEATURES AND NATURAL BEHAVIOUR OF WATERCOURSES WITHIN THE SUBSIDENCE AREA: WMP5 RESPONSES

Response from TARP WMP5	Tahmoor Coal Response
Level 1, 2 and 3 trigger Report trigger exceedance to DPHI and key stakeholders	Notification of exceedances as identified in this report will be reported in the AEMR which is sent to DPHI and relevant stakeholders.
Level 1, 2 and 3 trigger Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review	Completed as part of the Annual Review.
Level 2 and 3 trigger Advise DPHI and key stakeholders of any required amendments to Water Management Plan	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0) approved by DPHI on 10/02/2025. No amendments were required during the reporting period.
Level 3 trigger Offer site visit with DPHI and other key stakeholders.	A letter will be sent to DPHI and key stakeholders offering a site visit to impacted sites. Development and implementation of a WCAMP will be considered following cessation of active subsidence on the water course.
Level 3 trigger Develop Watercourse Corrective Action Management Plan (WCAMP) in consultation with the Resources Regulator, DPHI and other key stakeholders (in accordance with C12 of SSD 8445). The stream remediation measures in the WCAMP could include grout curtain and grout pattern injection.	In accordance with C12 of SSD 8445 and as detailed in the WMP, a Watercourse Corrective Action Management Plan (WCAMP) will be prepared for watercourses damaged by subsidence impacts. The WCAMP will be prepared in consultation with relevant government agencies, as defined in the WMP. The WCAMP will be prepared and implemented at the cessation of subsidence movements associated with Tahmoor South mining.
Level 3 trigger Implement approved WCAMP, subject to land access.	Refer to response above.

APPENDIX D4.1 – CHANNEL STABILITY, SEDIMENTATION AND EROSION: WMP7 ACTIONS

Action from TARP WMP7	Tahmoor Coal Response
Level 1 and 2 trigger Continue monitoring and review of data as per monitoring program.	Monthly monitoring is ongoing according to the monitoring program.
Level 1 and 2 trigger Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, biodiversity monitoring results) necessary to inform assessment.	Relevant information was obtained from key specialists necessary to inform assessment (refer to **Appendix B**).
Level 1 and 2 trigger Consider increasing monitoring and review of data frequency at sites where Level 1 has been reached or at other relevant sites, subject to land access, as follows: • Fortnightly, for sites within the active subsidence zone. • Monthly, outside of the active subsidence period. Reasons for not increasing monitoring frequency could include confident identification of causation (e.g. singular, anthropogenic, non-mining related change or confirmed as a mining-related impact that resulted in increased erosion).	Frequency of monitoring and data review has not been increased as the causation of the erosion at knickpoint site K64 is considered to be understood.
Level 1 and 2 trigger Consider and decide on reasonable and feasible options for remediation as relevant (e.g. enhanced vegetation establishment, rock armouring).	CMAs are not considered reasonable or feasible until the extent and longevity of the impacts are confirmed. Monitoring will continue to assess if remediation actions are required.
Level 2 trigger If mining related impact unconfirmed, increase monitoring and review of data frequency at sites where Level 2 has been reached or at other relevant sites, subject to land access, as follows: • Fortnightly, for sites within the active subsidence zone. • Monthly, outside of the active subsidence period.	Frequency of monitoring and data review has not been increased as the causation of the erosion at the knickpoint site K64 is understood to be partially due to mining. Monitoring as per the monitoring program and after large rainfall events will continue at K64 to assess if remediation actions are required.
Level 2 trigger Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. subsidence induced, other catchment changes, effects unrelated to mining or the prevailing climate).	Direct impacts from mining were confirmed for K64 in 2024 (ATCW (2025)).

Action from TARP WMP7	Tahmoor Coal Response
Level 2 trigger Obtain specialist advice on further CMAs.	Advice was obtained by specialists as detailed in **Section 6.3** and **Section 8**.
Level 2 trigger Review CMAs in light of findings from further investigations and consider additional remediation options.	CMAs are not considered reasonable or feasible until the extent and longevity of the impacts are confirmed. Monitoring will continue at K64 to assess if remediation actions are required.
Level 2 trigger Review Water Management Plan and modify if necessary.	There are no proposed changes to the Water Management Plan in light of the Level 2 TARP trigger at K64.

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APPENDIX D4.2 – CHANNEL STABILITY, SEDIMENTATION AND EROSION: WMP7 RESPONSES

Response from TARP WMP7	Tahmoor Coal Response
Level 1 and 2 trigger Report trigger exceedance to DPHI and key stakeholders	Trigger exceedances as identified in this report will be reported in the AEMR which is sent to DPHI and relevant stakeholders.
Level 1 and 2 trigger Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review.	Completed as part of this report and reported in the AEMR.
Level 1 and 2 trigger Provide DPHI and key stakeholders with proposed corrective management actions (CMAs) for approval (e.g. enhanced vegetation establishment, rock armouring).	CMAs are not considered reasonable or feasible until the extent and longevity of the impacts are confirmed. Monitoring will continue at K64 to assess if remediation actions are required.
Level 1 and 2 trigger Implement CMAs, subject to land access.	
Level 1 and 2 trigger Monitor and report on success of CMAs in Six Monthly Subsidence Impact Report and Annual Review.	
Level 2 trigger Advise DPHI and key stakeholders of any required amendments to Water Management Plan.	There are no proposed changes to the Water Management Plan in light of the Level 2 TARP trigger at K64.
Level 2 trigger If it is concluded from the detailed investigation that watercourses have been damaged by subsidence impacts: • Offer site visit with DPHI and other key stakeholders.	A site visit was offered to Department of Planning, Industry and Environment (DPIE) and Natural Resources Access Regulator (NRAR) in relation to Level 2 TARP trigger of TARP WMP7 for site K64. This offer was extended via letter dated 4 October 2024.
Level 2 trigger If it is concluded from the detailed investigation that watercourses have been damaged by subsidence impacts: • Provide findings of CMA review to DPHI and key stakeholders for consultation.	CMAs are not considered reasonable or feasible until the extent and longevity of the impacts are confirmed. Monitoring will continue at K64 to assess if remediation actions are required.

Response from TARP WMP7	Tahmoor Coal Response
Level 2 trigger If it is concluded from the detailed investigation that watercourses have been damaged by subsidence impacts: • Implement additional CMAs, subject to land access.	CMAs are not considered reasonable or feasible until the extent and longevity of the impacts are confirmed. Monitoring will continue at K64 to assess if remediation actions are required.

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APPENDIX 10

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Annual Groundwater Report: January – December 2025

Tahmoor South Domain

Tahmoor Coal Pty Ltd

2975 Remembrance Driveway, Bargo NSW 2574

Prepared by:

SLR Consulting Australia

SLR Project No.: 640.30614.00001

29 October 2026

Revision: 1.0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1.0	29 October 2026	R Minnaar	R Minnaar	S Hulbert

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Tahmoor Coal Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

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Appendices

Appendix A Tahmoor South TARPS

Appendix B Tahmoor South TARP Trigger Levels

Appendix C Trigger Level Breach and Exceedance Discussion

C.1 Trigger Breach Discussion

C.1.1 Water Levels (TARP WMP8, WMP9, WMP10, WMP12)

C.1.2 Water Quality

C.1.3 TARP WMP11 and WMP13

C.1.4 Trigger Level Breach and Exceedance Summary

Appendix D Hydrographs – Groundwater Levels

Appendix E Temporal Groundwater Quality Plots

Acronyms and Abbreviations

Al	Aluminium
As	Arsenic
BHCS	Bald Hill Claystone
Ba	Barium
BGSS	Bulgo Sandstone
BUCO	Bulli Coal Seam
CCL	Consolidated Coal Lease
Cu	Copper
EC	Electrical Conductivity
Filt	Filtered
HBSS	Hawkesbury Sandstone
Fe	Iron
Pb	Lead
Li	Lithium
LW	Longwall
Mn	Manganese
ML	megalitres
Ni	Nickel
pH	Potential of Hydrogen
Se	Selenium
SSD	State Significant Development
Sr	Strontium
TDS	Total Dissolved Solids
TARP	Trigger Action Response Plan
VWP	Vibrating Wire Piezometer
WWCO	Wongawilli Coal Seam
WBCS	Wombarra Claystone
WMP	Water Management Plan
WWFM	Wianamatta Form
Zn	Zinc

1.0 Introduction

1.1 Background

SLR Consulting Australia Pty Ltd (SLR) was engaged by Tahmoor Coal Pty Ltd (Tahmoor Coal) to undertake a review of groundwater data, which has been collected by Consulting Earth Scientists Pty Ltd (CES), for the Tahmoor South Domain (Tahmoor South) of the Tahmoor Coal Mine (Tahmoor Mine) between 1 January 2025 and 31 December 2025.

Tahmoor Mine, located approximately 80 kilometres (km) south-west of Sydney in the Southern Coalfields of New South Wales (NSW), is an underground mine extracting from the Bulli Coal Seam via longwall mining.

Mining at Tahmoor South commenced on 18 October 2022. The Tahmoor South mining area is within Consolidated Coal Lease (CCL) 716 and CCL 747. Tahmoor South comprises 13 longwalls, which includes the 'A series' panel of seven longwalls and the 'B series' panel of six longwalls. Extraction of LW S1A, S2A and S3A is complete, LW S3A having concluded on 17 December 2024. Tahmoor Coal has advised that no mining activities commenced during 2025 and that no operational activities were undertaken during the reporting period, the mine having been in care-and-maintenance throughout.

1.2 Trigger Action Response Plan

In accordance with Condition E5 (f) of the Development Consent (SDD 8445) (the Consent), in the event that performance measures (in the form of pre-defined triggers) are considered to have been exceeded or are likely to be exceeded, a response will be undertaken in accordance with the Trigger Action Response Plans (TARPs).

TARPs for Tahmoor South were established in the Tahmoor South Water Management Plan (WMP) (Tahmoor Coal, 2022) to manage and protect surface water and groundwater within the vicinity of Tahmoor South.

Six TARPs (WMP8 – WMP13) address various components of the groundwater system, and these are presented in **Appendix A**. Tahmoor South groundwater monitoring sites are captured in the following TARPs:

- WMP8: Shallow Groundwater Level (Open Standpipes and Private Bores);
- WMP9: Shallow Groundwater Pressure (Vibrating Wire Piezometer (VWP) Sensors <200 m Depth);
- WMP10: Groundwater Pressure Deep (VWP Sensor >200 m Depth, excluding monitoring the Bulli Coal Seam);
- WMP11: Groundwater Quality (Open Standpipes and Private Bores);
- WMP12: Groundwater-Surface Water Interaction; and
- WMP13: Groundwater Monitoring Bores for Thirlmere Lakes.

Each TARP has up to four levels of triggers which range from "Normal Conditions", where the environment is behaving or performing within normal or expected levels, to "Level 1" (L1), "Level 2" (L2) and "Level 3" (L3), where with an increase in level there is an escalating risk to the environment via deviation from baseline or expected conditions.

Groundwater level triggers and groundwater quality triggers are provided in **Appendix A** and discussed in **Appendix B**.

1.3 Trigger Action Response Plan Amendments

The Water Management Plan (WMP), in accordance with Condition E7 (b-e) of the Consent, will be reviewed within three months of the submission of an Annual Review under Condition E13. The plan in force throughout this reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0), and the TARP trigger levels applied in this assessment are those of WMP V6.0 Appendix A.

WMP Rev 7.0 was subsequently approved by the Department of Planning, Housing and Infrastructure (DPHI) on 6 August 2026 and the Groundwater Management Plan Rev 7.0 on 14 August 2026. Both post-date this reporting period and have not been applied here.

1.4 Report Objective

This report assesses the Tahmoor South groundwater monitoring data against the triggers of TARP WMP8 – WMP13 for the reporting period from 1 January 2025 through 31 December 2025 (inclusive).

This report includes:

- A summary of TARP triggers during the reporting period;
- A full summary of trigger level exceedances over time including the identification of breaches of triggers that remain within normal condition in this reporting period (**Appendix C**);
- An outline of potential factors influencing TARP triggers during the reporting period; and
- Recommendations of relevant actions and responses to be undertaken, in alignment with the TARPs.

2.0 Monitoring Period Summary

2.1 Mine Operation

Tahmoor South was in a care-and-maintenance throughout the January to December 2025 reporting period, with no longwall extraction undertaken. Extraction to date has progressed as follows;

- LW S1A – commenced 18 October 2022, concluded 4 July 2023;
- LW S2A – commenced 2 August 2023, concluded 6 April 2024; and
- LW S3A – commenced 8 May 2024, concluded 17 December 2024.

No extraction has occurred since 17 December 2024. Tahmoor Coal has confirmed that no mining activities commenced during 2025 and that no operational activities were undertaken during the reporting period. Passive inflows from the underground workings were removed during this period.

Figure 1 presents the extraction void progress and the Tahmoor South groundwater monitoring network.

2.2 Monitoring Network Status

The Tahmoor South groundwater monitoring network is shown on **Figure 1**. During the reporting period:

- A total of 12 monitoring locations could not be assessed against TARP criteria during the period, for two different reasons. No data were received from six of them: P54A and P54B (no readings since January 2023), P56B (none since September 2024), P56C (none since December 2024), and private bores GW062068 (none since February 2023) and GW105395 (none since February 2024). The remaining six, P50A, P50B, P50C, P57A, P57B and P57C, do not yet have TARP trigger levels, which will be defined once suitable baseline data are available. Data were received from P50A, P50B, P50C and P57B throughout the period; P57A returned data only until January 2025, and no water level data were received from P57C..
- Groundwater quality samples were collected during the reporting period from five private bores (GW104008, GW104323, GW104659, GW109257, GW112473) and 47 other monitoring locations (P14A, P14B, P14C, P14D, P16A, P16B, P16C, P50A, P50B, P50C, P51A, P51B, P52, P53A, P53B, P53C, P55A, P55B, P55C, P56A, P57B, P58A, P58B, P59A, P59B, P59C, P60A, P60B, P60C, P61A, P61B, P62A, P62B, P62C, P63A, P63B, P63C, P64A, P64B, PITTOP4, REA1, REA2, REA3, REA4, REA5, REA6, REA7).
- Four open standpipe locations (P54A, P54B, P56B, P56C) hold WMP8 criteria but no data were recorded during the reporting period. P54A and P54B have been dry throughout, and P56B and P56C did not have data for part of the reporting period. A total of 15 shallow VWP intakes across seven sites hold WMP9 criteria and returned no data, and 19 deep intakes across four sites hold WMP10 criteria and returned none. GW105395 was removed from the program following damage in March 2024 and, following resurvey, holds no trigger criterion for the reporting period. One further intake, TBC034 (BHCS-176m), returned data that were excluded from assessment as the data was deemed erroneous. These points are listed with recommended actions in **Table 10**.

- Monitoring frequency was not increased during the reporting period and were consistent with the previous reporting period, and as per the WMP schedule.

The groundwater monitoring network is shown alongside the subsidence monitoring network on **Figure 2**. Global Navigation Satellite System (GNSS) units are fixed survey stations that continuously measure their absolute horizontal and vertical positions in real time. There are 28 GNSS units located directly above and adjacent to LW S1A to S7A.

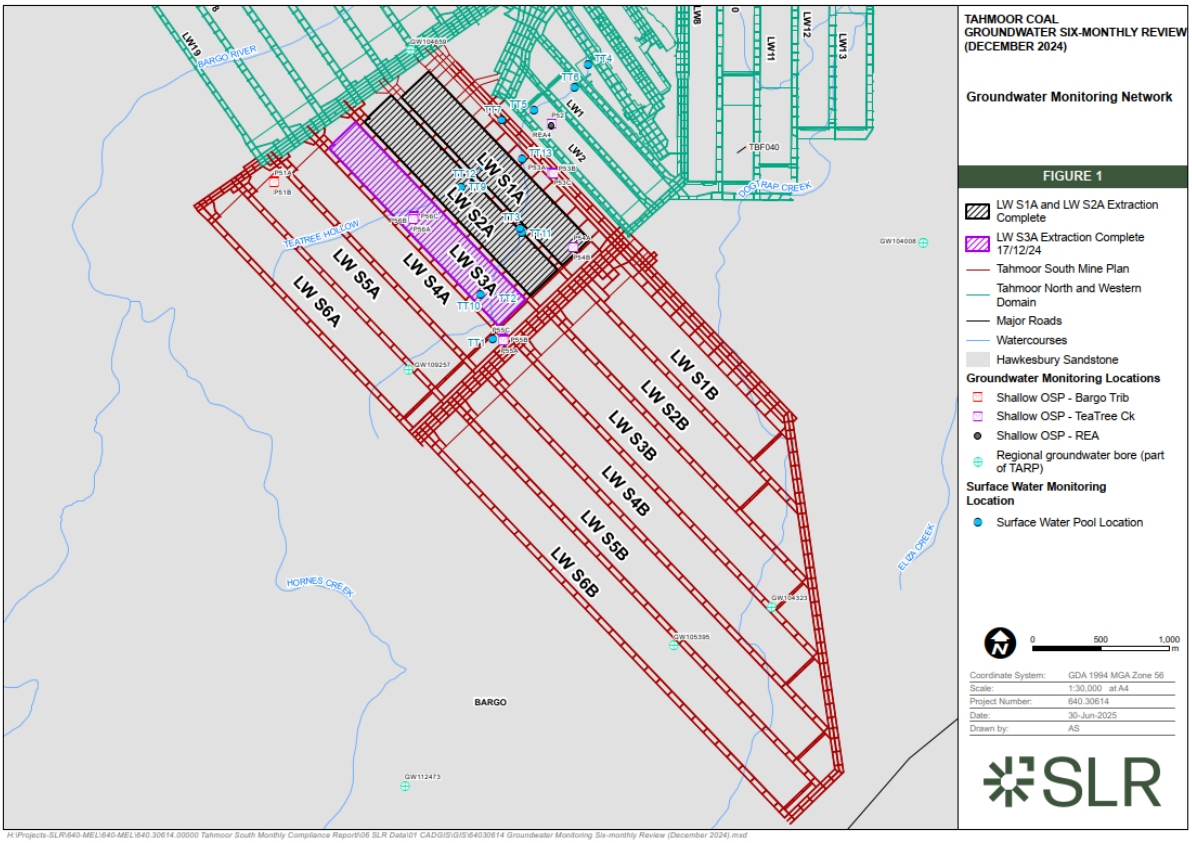


Figure 1 Tahmoor Mine Groundwater Monitoring Network and Mining Progression

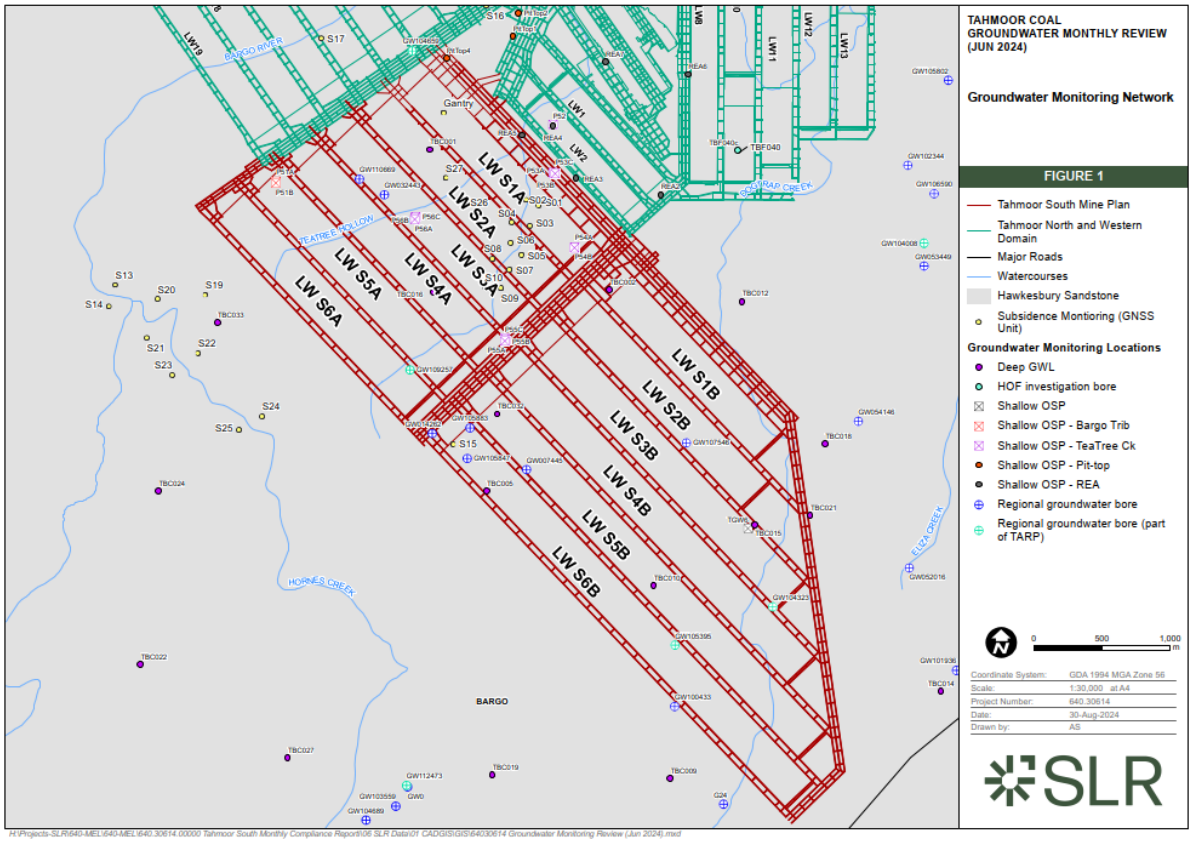


Figure 2 Tahmoor South Groundwater Monitoring Network and Subsidence Monitoring (GNSS units) Network

2.3 Climatic Conditions

Rainfall over the reporting period, in comparison to the long-term average (January 1900 – present) is shown in **Table 1**. The SILO climate record for the location 0.05° x 0.05° tile centred on a location within proximity of Tahmoor Mine (latitude: -34.25, longitude: 150.60) has been used for this assessment to understand long-term rainfall trends (Queensland Government, 2025).

The January to December 2025 period recorded 958.2 mm of rainfall against a long-term average of 821.8 mm for the same months. A total of 8 months received above-average rainfall and 4 received below-average rainfall (**Table 1**).

Table 1 Monthly Rainfall vs Long-Term Average Rainfall

SILO (-34.25, 150.60)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Long-term average (mm)	85.0	95.1	84.7	72.4	63.7	70.8	54.7	47.4	43.8	60.9	71.8	71.5
Jan 2025 – Dec 2025 (mm)	120.4	76.7	87.4	72.6	123.5	4.5	111.5	131.0	97.0	17.1	42.5	74.0

Long-term monthly average rainfall, potential evaporation are presented in **Figure 3**. On the long-term average, evaporation exceed rainfall for majority of months throughout the year.

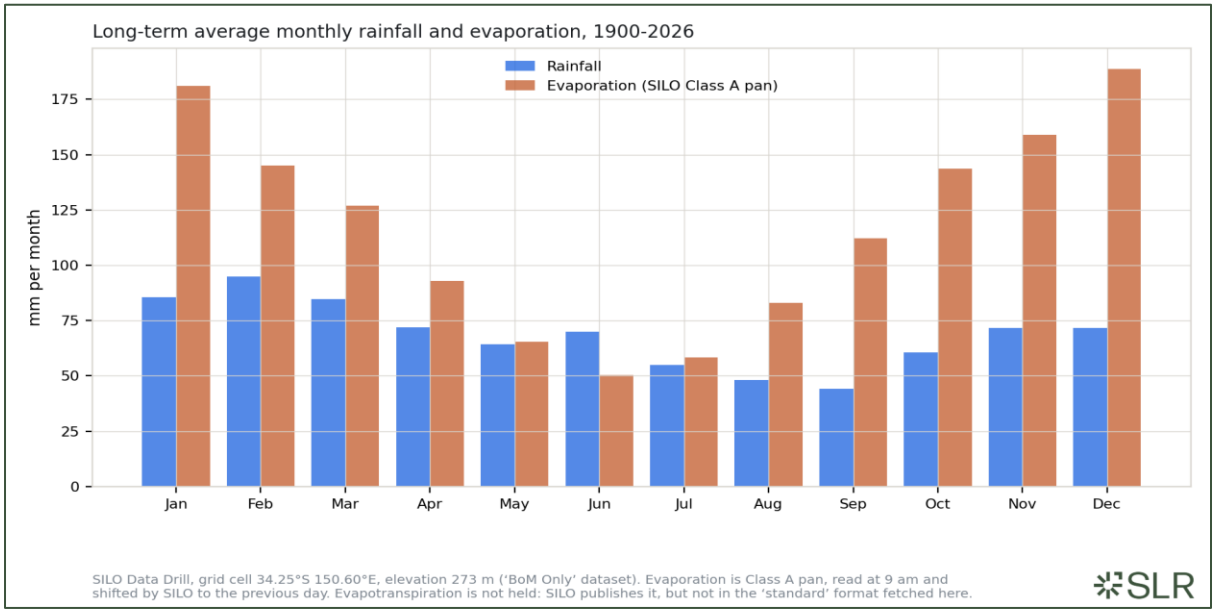


Figure 3 Long-term Average Monthly Rainfall and Evaporation

The historical record of monthly rainfall and the calculated trend in rainfall, using the cumulative residual departure (CRD), is presented in **Figure 4**, where a positive gradient

indicates above-average rainfall and a declining trend represents below-average rainfall. Over the reporting period the CRD rose, consistent with the above-average totals recorded in 8 of the 12 months.

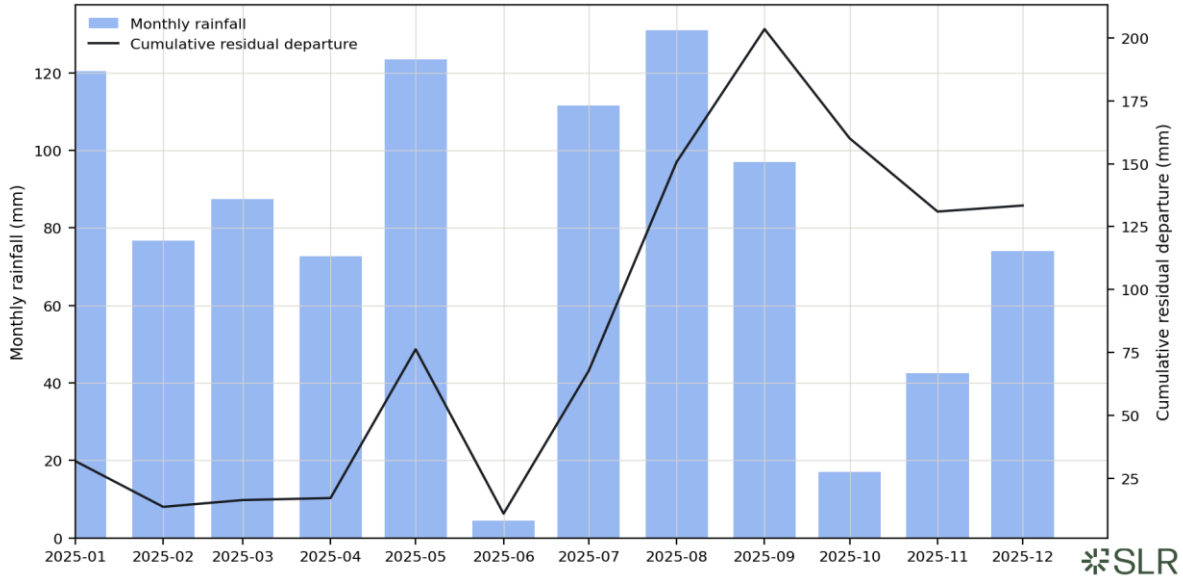


Figure 4 Cumulative Residual Departure and Total Monthly Rainfall

2.4 Subsidence Monitoring

Subsidence monitoring results for the reporting period are reported by MSEC (2026) in Subsidence Monitoring Report MSEC1430 Revision 36, covering 1 January to 31 December 2025. A total of 28 GNSS units is installed above and adjacent to LW S1A to S6A and record position continuously. MSEC reports that only residual subsidence developed during the period and that rates of change have reduced to low levels at all sites. Site S10, which recorded the maximum incremental subsidence of 724 mm during the extraction of LW S3A, recorded a further 13 mm over the whole of 2025, and the largest additional movement anywhere in the network was 28 mm at Site S27 above previously extracted LW S2A.

Four GNSS pairs sit adjacent to monitored groundwater bores: S01 and S02 across Wirrimbirra Creek near the P53 nest, S09 and S10 across Wirrimbirra Creek at the Big Pool near the P55 nest, S26 and S27 across Teatree Hollow near P56, and S15 near TBC032. At those locations ground movement during the reporting period was of the order of tens of millimetres, while groundwater levels in the same area rose (P55B by 7.21 m and P55C from Level 3 to Level 1 (**Section 4.0**)). No correlation between residual ground movement and groundwater level change is evident within this period.

2.5 General Site Notes

The following site observations and notes were noted during the reporting period:

- Fracturing upstream of pool TT9. The routine waterway inspections undertaken by ENRS during the reporting period identify four fractures upstream of TT9. No new fracturing was observed at TT9 over the course of the period, the inspections recording no new fractures observed at each visit. This is a change from the previous reporting period, which described a new fracture at this location.
- No groundwater level data were received for December 2025 for open standpipe bores. The monthly monitoring record for the reporting period therefore ends in

November. The status of the groundwater level TARPs at the close of the period could not be assessed, and Appendix C records December as not assessed rather than as compliant. Data for VWPs were received for December 2025 and are evaluated for the full year with observations noted where observed.

- Tahmoor Coal has advised that no additional monitoring and no TARP investigations were undertaken during the reporting period, beyond the continuation of the programmed monitoring described in **Section 2.2**.

3.0 TARP Assessment

A review of the groundwater data against pre-defined trigger levels has been completed for the reporting period (January – December 2025). The full summary, showing all trigger level breaches and exceedances, is provided in **Appendix C**. Groundwater level/potentiometric surface hydrographs are provided in **Appendix D**, with temporal groundwater quality plots provided in **Appendix E**.

The TARPs enacted during the reporting period are summarised in **Table 2** (WMP8), **Table 3** (WMP9), **Table 4** (WMP11), and **Table 5** (WMP12).

The shallow groundwater level monitoring program (WMP8) identified TARP exceedances at ten monitoring locations during the reporting period, affecting both open standpipes and private bores: five at Level 1 (GW104659, GW109257, P51B, P53A, P53B), three at Level 2 (P53C, P55A, P56A), and two at Level 3 (P55B, P55C). Counts are stated as the worst level reached at each location as a location below the Level 2 threshold is necessarily also below Level 1 and per-level counts overlap and must not be added. **Table 2** provides the complete summary of WMP8 triggers.

Analysis of the 37 shallow VWP intakes (<200 m depth) holding criteria under WMP9 identified TARP exceedances at five intakes during the reporting period: one at Level 1 (TBC032 (BGSS-200m)), one at Level 2 (TBC032 (BHCS-181m)), three at Level 3 (TBC024 (BGSS-185m), TBC024 (HBSS-139m), TBC032 (HBSS-131m)). Of these, only the TBC032 (HBSS-131m) and TBC032 (BGSS-200m) results are assessed as groundwater responses, while the TBC024 intakes and TBC032 (BHCS-181m) carry unresolved datums and are reported with that qualification, as set out in **Section 4.0**. **Table 3** summarises the WMP9 TARP status.

No WMP10 exceedance was recorded during the reporting period. The 30 m threshold was breached at TBC032 (BGSS-294m) in two months and TBC032 (BGSS-237m) in one month. A breach is a single month outside the threshold and an exceedance requires the breach to persist for three consecutive months or more, which did not occur within the period. Assessment covered the 37 deep intakes holding WMP10 criteria. Note also that the modelled prediction against which WMP10 is assessed generally under-predicts the observed drawdown at these intakes, which is reported as a finding in **Section 4.0**.

Groundwater quality monitoring (WMP11) identified exceedances of 11 analytes during the reporting period. Three reached Level 3: barium at four bores, manganese at two bores and field electrical conductivity at two bores. The remaining eight reached Level 2 at most (nickel, aluminium, iron, lead, strontium, zinc, lithium, field pH). Analyte counts are the worst level each analyte reached at any bore, so the two groups do not overlap. **Table 4** provides the complete summary.

The groundwater-surface water interaction monitoring program (WMP12) recorded exceedances at seven bores during the reporting period, corresponding to WMP8 exceedances at bores aligned with surface water monitoring sites: three at Level 1 (P51B, P53A, P53B), two at Level 2 (P53C, P55A) and two at Level 3 (P55B, P55C). **Table 5** summarises the WMP12 triggers, which mirror the groundwater level reductions identified in the WMP8 analysis.

WMP13 was assessed in part during the reporting period. The WMP13 criteria held at GW104659 were assessed in 261 monthly records and were not exceeded. Tahmoor Coal has advised, however, that no monitoring of the Thirlmere Lakes groundwater bores was undertaken during 2025, so the lake-adjacent component of WMP13 could not be assessed.

Table 2 WMP8 TARP Triggers

TARP Significance	Sites	Months Active	Comment
Level 1	GW104659	Jan, Feb, Mar, May, Jun, Aug, Oct, Nov	First triggered Jun 2023, most recently Nov 2025
Level 1	GW109257	Jan, Feb, Mar, May, Jun, Aug	First triggered Jul 2024, most recently Aug 2025
Level 1	P51B	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov	First triggered Dec 2023, most recently Nov 2025
Level 1	P53A	Jan, Feb, Mar, Apr, May	First triggered Dec 2023, most recently May 2025
Level 1	P53B	Jan, Feb, Mar, Apr, May, Jun	First triggered Nov 2023, most recently Jun 2025
Level 1	P53C	Jun, Jul, Aug	First triggered Jul 2023, most recently Aug 2025
Level 1	P55A	Jan, Feb, Mar, Apr, May, Jun, Jul, Sep, Oct, Nov	First triggered Jul 2024, most recently Nov 2025
Level 1	P55C	May, Jun, Jul, Aug, Sep, Oct, Nov	First triggered Jun 2023, most recently Nov 2025
Level 1	P56A	Apr, May, Jun, Jul, Aug	First triggered Apr 2025, most recently Aug 2025
Level 2	P53C	Jan, Feb, Mar, Apr, May	First triggered Jan 2024, most recently May 2025
Level 2	P55A	Aug	First triggered Aug 2025
Level 2	P55C	Apr	First triggered Oct 2023, most recently Apr 2025
Level 2	P56A	Sep, Oct	First triggered Sep 2025, most recently Oct 2025
Level 3	P55B	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov	First triggered May 2024, most recently Nov 2025
Level 3	P55C	Jan, Feb, Mar	First triggered Nov 2024, most recently Mar 2025

Table 3 WMP9 TARP Triggers

TARP Significance	Sites	Months Active	Comment
Level 1	TBC032 (BGSS-200m)	Jan, Feb, Mar, Apr, Dec	First triggered Jan 2025, most recently Dec 2025
Level 3	TBC032 (HBSS-131m)	Jan, Feb, Mar, Apr, Dec	First triggered Jan 2025, most recently Dec 2025

Table 4 WMP11 TARP Triggers

TARP Significance	Sites	Parameter	Months Active	Comment
Level 2	GW104659	Aluminium-Dissolved	Feb, May	First triggered Feb 2025, most recently May 2025

TARP Significance	Sites	Parameter	Months Active	Comment
Level 2	GW109257	Manganese-Dissolved	Jan, Feb, Mar, May	First triggered Jan 2023, most recently May 2025
Level 2	GW112473	Manganese-Dissolved	Feb	First triggered Dec 2022, most recently Feb 2025
Level 2	P51A	pH (field)	Aug	First triggered Feb 2024, most recently Aug 2025
Level 2	P52	Nickel-Dissolved	Jan	First triggered Nov 2024, most recently Jan 2025
Level 2	P53B	Strontium-Dissolved	Aug, Oct, Nov	First triggered Aug 2025, most recently Nov 2025
Level 2	P55B	Electrical Conductivity (field)	Jan, Nov	First triggered Oct 2024, most recently Nov 2025
Level 2	P55C	Manganese-Dissolved	Mar, May, Jun, Aug	First triggered Feb 2023, most recently Aug 2025
Level 2	P56A	Aluminium-Dissolved	Feb	First triggered Oct 2022, most recently Feb 2025
Level 2	P56A	Barium-Dissolved	Jan, Feb, Mar, Jun	First triggered Jan 2025, most recently Jun 2025
Level 2	P56A	Electrical Conductivity (field)	Jan, Feb, Mar	First triggered Jan 2025, most recently Mar 2025
Level 2	P56A	Iron-Dissolved	Jan, Feb	First triggered Jan 2025, most recently Feb 2025
Level 2	P56A	Lead-Dissolved	Feb, Mar, Jun, Aug	First triggered Feb 2025, most recently Aug 2025
Level 2	P56A	Manganese-Dissolved	Mar, Jun, Aug	First triggered Jan 2023, most recently Aug 2025
Level 2	P56A	Nickel-Dissolved	Feb, Mar, Jun, Aug	First triggered Feb 2025, most recently Aug 2025
Level 2	P56A	Zinc-Dissolved	Feb, Mar, Jun, Aug	First triggered Feb 2025, most recently Aug 2025
Level 2	REA4	Iron-Dissolved	Mar, Jun	First triggered Jun 2024, most recently Jun 2025
Level 2	REA4	Lithium-Dissolved	Jan, Feb	First triggered Jan 2025, most recently Feb 2025

TARP Significance	Sites	Parameter	Months Active	Comment
Level 2	REA4	Manganese-Dissolved	Mar, Jun, Aug	First triggered Sep 2023, most recently Aug 2025
Level 2	REA4	Nickel-Dissolved	Feb, Mar	First triggered Jun 2024, most recently Mar 2025
Level 3	GW109257	Manganese-Dissolved	Jun, Aug, Oct, Nov	First triggered Aug 2024, most recently Nov 2025
Level 3	P53B	Barium-Dissolved	Jan, Feb, Mar, May, Jun, Aug, Oct, Nov	First triggered Dec 2024, most recently Nov 2025
Level 3	P53C	Barium-Dissolved	Jan, Feb, Mar, May, Jun, Aug, Oct, Nov	First triggered Feb 2024, most recently Nov 2025
Level 3	P55A	Electrical Conductivity (field)	Jan, Feb, Mar, May, Jun, Aug, Oct, Nov	First triggered Jan 2025, most recently Nov 2025
Level 3	P55B	Electrical Conductivity (field)	Feb, Mar, May	First triggered Feb 2025, most recently May 2025
Level 3	P55C	Manganese-Dissolved	Oct, Nov	First triggered Dec 2023, most recently Nov 2025
Level 3	P56A	Barium-Dissolved	Aug	First triggered Aug 2025
Level 3	REA4	Barium-Dissolved	Jan, Feb, Mar, May, Jun	First triggered Jan 2024, most recently Jun 2025

Table 5 WMP12 TARP Triggers

TARP Significance	Sites	Months Active	Comment
Level 1	P51B	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov	First triggered Dec 2023, most recently Nov 2025
Level 1	P53A	Jan, Feb, Mar, Apr, May	First triggered Dec 2023, most recently May 2025
Level 1	P53B	Jan, Feb, Mar, Apr, May, Jun	First triggered Nov 2023, most recently Jun 2025
Level 1	P53C	Jun, Jul, Aug	First triggered Jul 2023, most recently Aug 2025
Level 1	P55A	Jan, Feb, Mar, Apr, May, Jun, Jul, Sep, Oct, Nov	First triggered Jul 2024, most recently Nov 2025
Level 1	P55C	May, Jun, Jul, Aug, Sep, Oct, Nov	First triggered Jun 2023, most recently Nov 2025
Level 2	P53C	Jan, Feb, Mar, Apr, May	First triggered Jan 2024, most recently May 2025
Level 2	P55A	Aug	First triggered Aug 2025

TARP Significance	Sites	Months Active	Comment
Level 2	P55C	Apr	First triggered Oct 2023, most recently Apr 2025
Level 3	P55B	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov	First triggered May 2024, most recently Nov 2025
Level 3	P55C	Jan, Feb, Mar	First triggered Nov 2024, most recently Mar 2025

4.0 Potential Influence Discussion

This section provides an integrated assessment of the factors influencing observed groundwater responses during January – December 2025. Each influence, whether mining progression, climatic variability, or other potential hydrogeological factors, is assessed.

4.1 TARP WMP8

TARP WMP8 pertains to shallow groundwater levels in open standpipes and private bores. Exceedances were recorded at ten locations during the reporting period. Level 3 was reached at P55B (eleven months), P55C (three months), Level 2 at P53C (five months), P56A (two months), P55A (one month), and Level 1 at P51B (eleven months), GW104659 (eight months), GW109257 (six months), P53B (six months), P53A (five months). Month counts are months spent at the worst level each location reached. The pattern is one of continuation and partial recovery rather than escalation from previous reporting period (Jul – Dec 2024): only P56A recorded a first exceedance during the period, and both Level 3 bores rose over the period.

4.1.1 Level 3 Triggers

- P55B: the Level 3 exceedance remained active in each of the 11 months for which data were received, continuing from May 2024 (Figure 6). Recorded groundwater levels rose from 253.20 mAHD in January to 260.41 mAHD in November 2025, a recorded increase of 7.21 m, remaining below the 262.90 mAHD Level 3 threshold throughout. Of that increase, 0.97 m was a field offset/ recalibration step applied on 30 October 2025, so the underlying rise over the period is approximately 6.24 m. The exceedance was sustained by level while the bore recovers, which is a change in direction from the previous reporting period. P55B lies mid-panel above LW S3A. Extraction there concluded in December 2024 and the mine was in care-and-maintenance throughout this period.

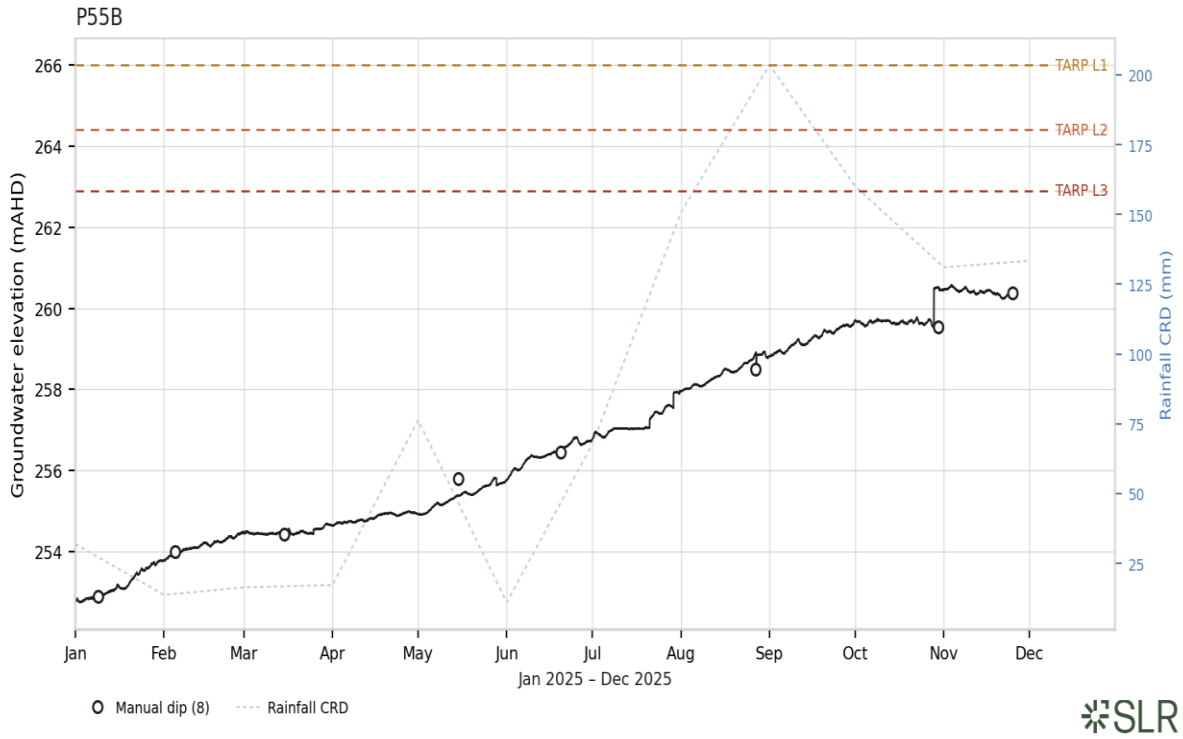


Figure 5 Hydrograph showing groundwater level trend at P55B

- Under WMP8 and WMP12, P55B returned a Level 3 exceedance in each of the eleven months for which data were received, remaining below the 262.90 mAHD Level 3 threshold continuously and at no point recovering to Level 2. P55C returned a Level 3 exceedance in three months, from January to March, below the 256.60 mAHD threshold. Thereafter P55C recovered progressively, returning to Level 2 in April and to Level 1 from May through November. The record for P55C is shown at Figure 7. The two bores diverged during the period despite sitting in the same nest above the extracted LW S1A to LW S3A panels, and the recovery at P55C against the sustained response at P55B is the trend noticed during the reporting period (**Figure 6**).

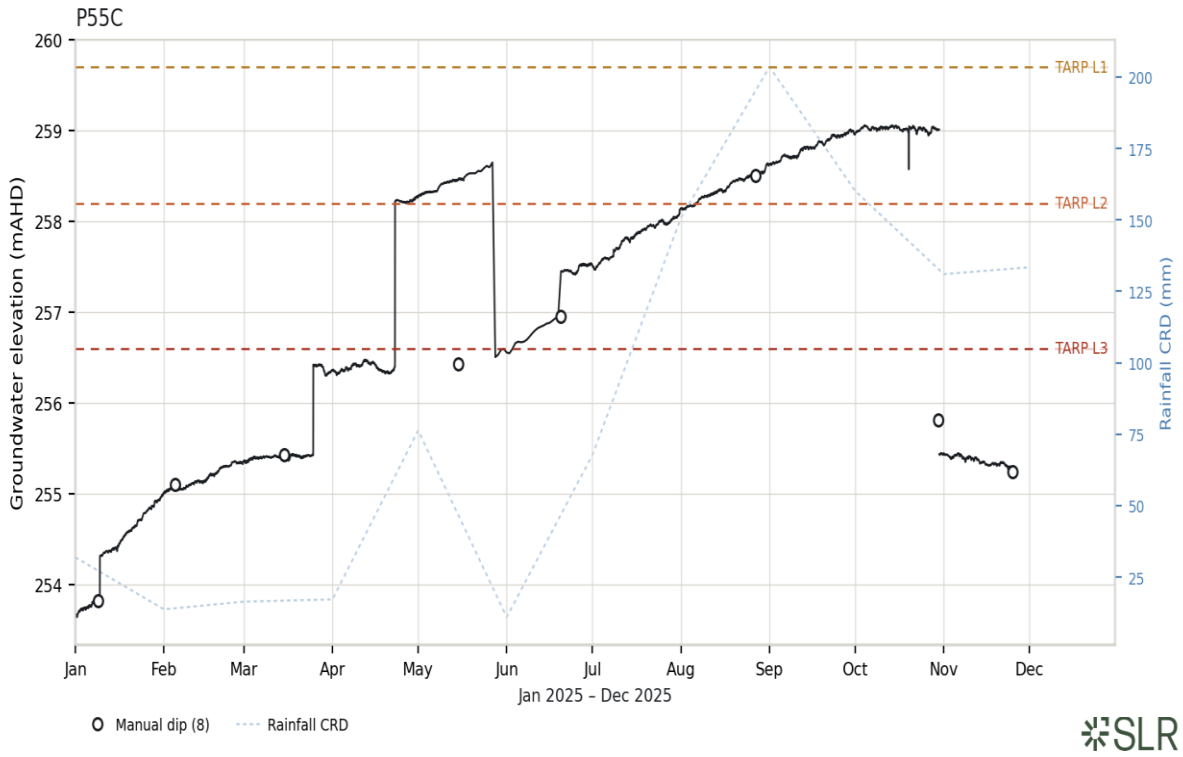


Figure 6 Hydrograph showing groundwater level trend at P55C

- It should be noted that P55C is one of five standpipes whose supplied record carries an applied datum offset at 30 October 2025. The Level 3 exceedance at P55C is established on the January to March record and predates the offset by seven months, so it is unaffected. P55B carries no offset and its Level 3 exceedance is likewise unaffected.

4.1.2 Level 2 Triggers

- P53C continued its Level 3 exceedance up to May 2025, subsequently recovering to Level 2. After August 2025 it recovered above its Level 1 threshold, holding no exceedance from September onward. A breach of the Level 1 trigger was recorded in November (**Figure 7**).

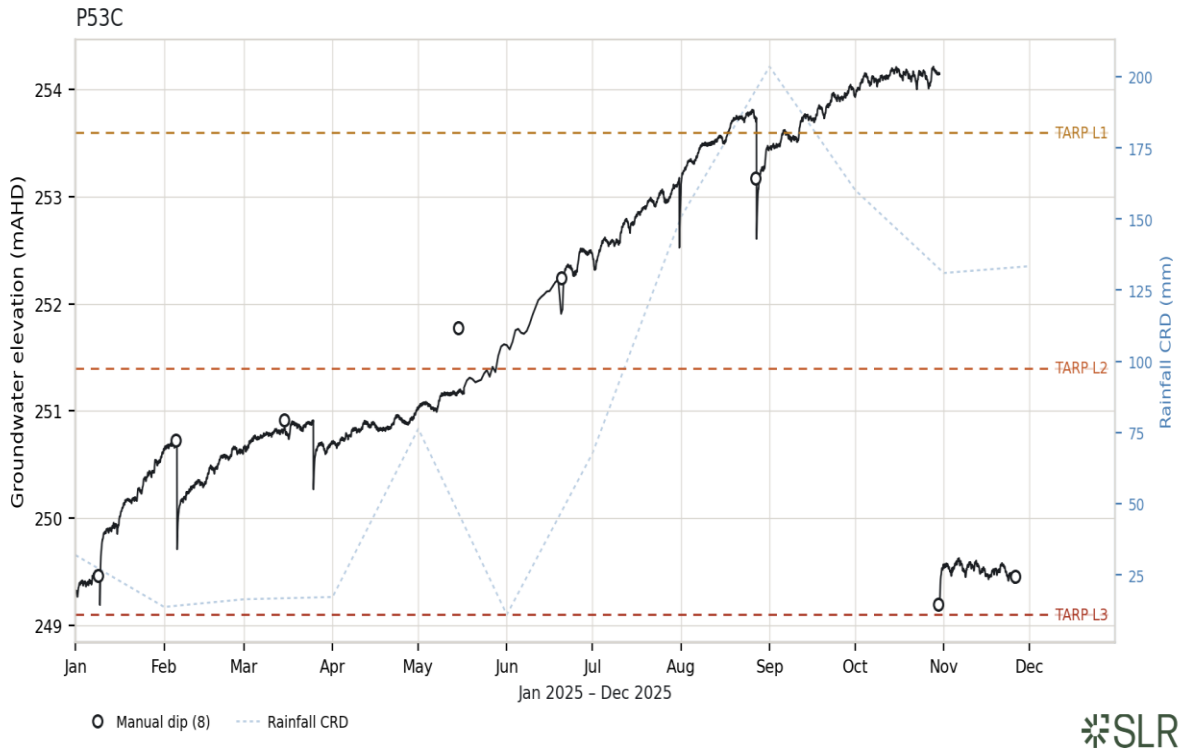


Figure 7 Hydrograph showing groundwater level trend at P53C

- P56A returned a Level 2 exceedance in two months, September and October, below the 284.80 mAHD threshold, having been at Level 1 from April to August and at no exceedance level from January to March. P56A is new to WMP8 in this reporting period: no exceedance of any level had previously been recorded at this bore since monitoring against the WMP8 triggers began. Its trend through the period was one of progressive decline, and no data were received after October 2025. P56A also returned the widest set of groundwater quality exceedances of any monitoring point in the network. The emergence of a new water level exceedance and a broad quality response at the same previously unaffected bore requires further investigation (**Figure 8**).

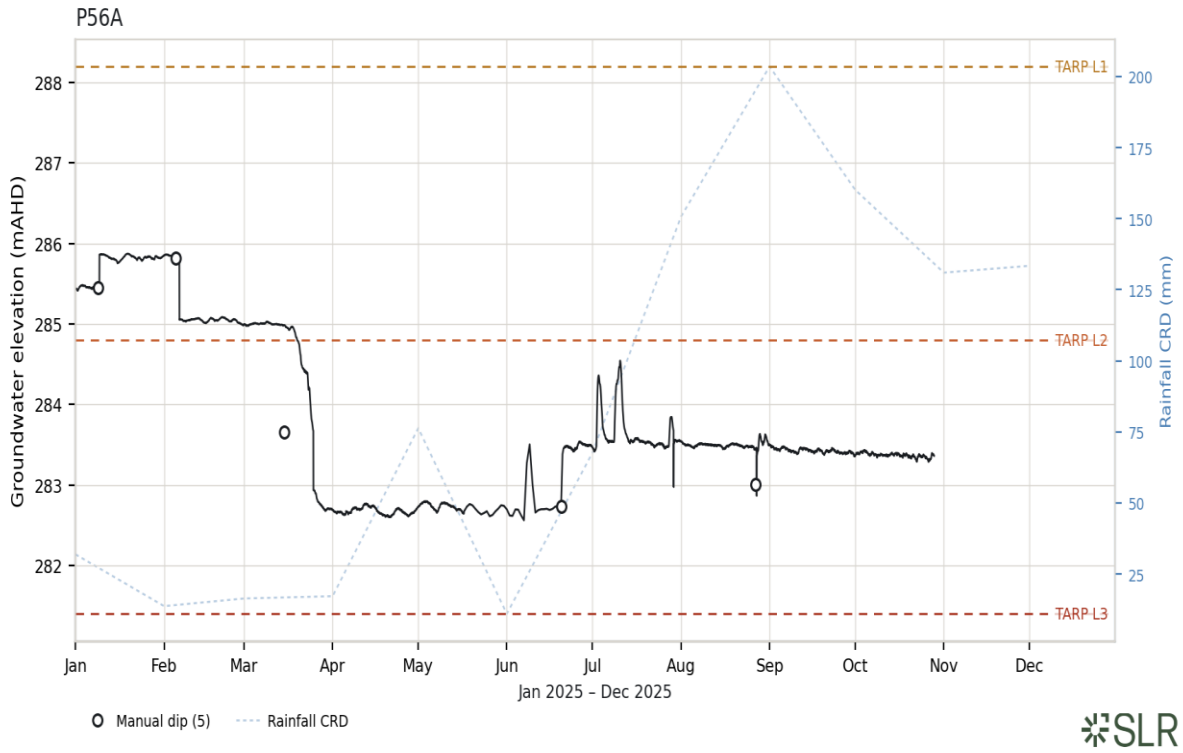


Figure 8 Hydrograph showing groundwater level trend at P56A

- P56C: No data were received from P56C during the reporting period, so no assessment could be made and no trigger status is reported. The bore last returned data in September 2024, when it was in Level 2 exceedance.

4.1.3 Level 1 Triggers

Level 1 TARP exceedances were recorded at three shallow open standpipes and two private bores. P51B returned a Level 1 exceedance in eleven months against a threshold of 297.50 mAHD, P53B in six months and P53A in five months, both against a threshold of 255.80 mAHD (**Figure 9**).

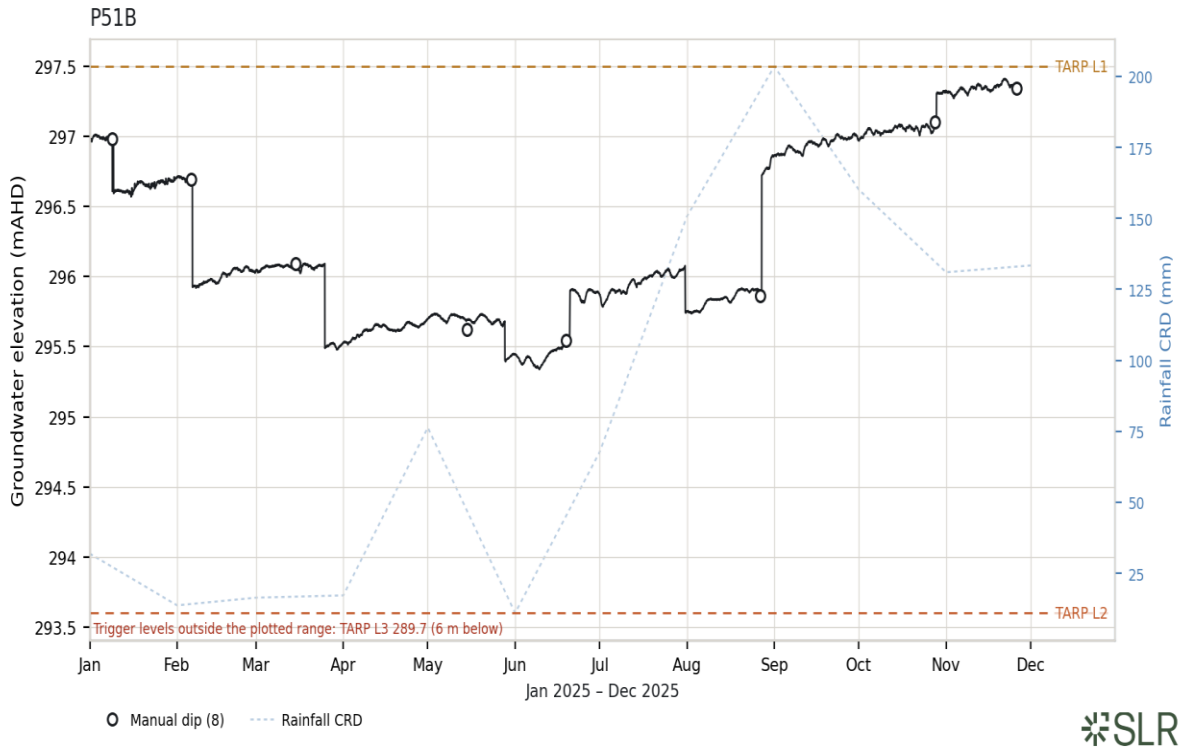


Figure 9 Hydrograph showing groundwater level trend at P51B

At the private bores, GW104659 returned a Level 1 exceedance in eight months against a threshold of 248.36 mAHD, and GW109257 in six months against a threshold of 276.26 mAHD. Neither bore reached Level 2 or Level 3 under WMP8 during the reporting period (**Figure 10**).

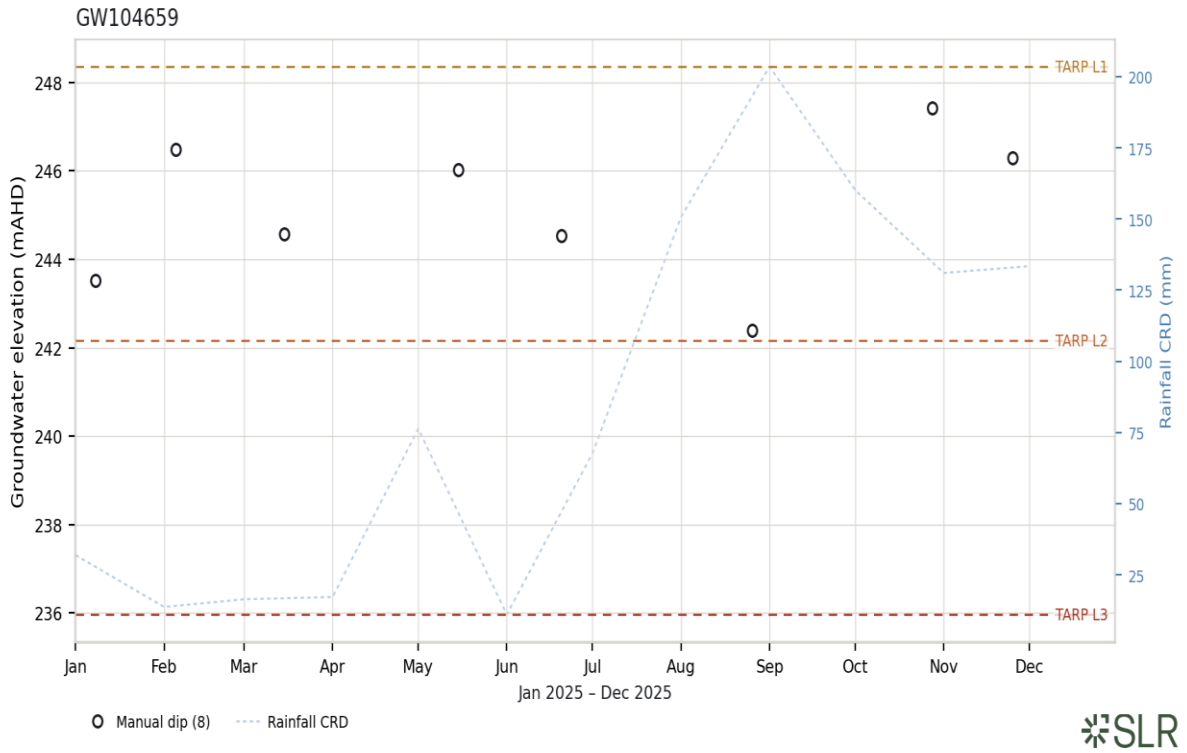


Figure 10 Hydrograph showing groundwater level trend at GW104659

P53A and P53B are among the five standpipes carrying an applied datum offset at 30 October 2025. The minimum water levels recorded at these bores fall in November 2025, after the offset was applied, and the November values should not be read as the continuation of a declining trend until the raw transducer record has been obtained. The Level 1 exceedances themselves are established on pre-offset data and are not affected.

4.2 TARP WMP9

TARP WMP9 pertains to shallow groundwater pressures at vibrating wire piezometer intakes completed at less than 200 metres depth. Exceedances were recorded at five intakes across two sites, TBC024 and TBC032.

The accepted results are TBC032 (HBSS-131m) at Level 3 in five months and TBC032 (BGSS-200m) at Level 1 in five months.

The remaining results, TBC024 (HBSS-139m) at Level 3 in twelve months, TBC024 (BGSS-185m) at Level 3 in four months and TBC032 (BHCS-181m) at Level 2 in five months, are not accepted as groundwater responses because the instruments that produced them are faulty. At TBC024 the four upper intakes reported water levels spread across 144 m of elevation within the same borehole over the reporting period: 303.0 to 303.4 mAHD at 117 m, 238.7 to 239.1 mAHD at 139 m, 187.5 to 188.4 mAHD at 168 m, and 271.3 to 331.3 mAHD at 185 m. Groundwater in a single borehole does not behave in this way. The 168 m intake reported a level below the elevation of its own sensor, 188.50 mAHD, in every reading of the period, which a vibrating wire piezometer cannot measure because there is no water column above the instrument to exert the pressure. The 185 m intake moved through 60 m over the year while the intakes either side of it varied by less than half a metre. TBC024 is

therefore not evaluated for this reporting period. TBC032 (BHCS-181m) carries the same unresolved datum issue and its result is reported with that qualification.

A physical inspection and datum verification of each affected intake is recommended.

4.2.1 Level 3 Triggers

- TBC032: exceedances were recorded at three intakes during the reporting period - TBC032 (BGSS-200m) at Level 1, TBC032 (BHCS-181m) at Level 2 and TBC032 (HBSS-131m) at Level 3, the Level 3 result at TBC032 (HBSS-131m) persisting for five months. The TBC032 (HBSS-95m) intake returned no data in any month of the period and is not assessed, so the previous reporting period's Level 3 result for that intake is neither continued nor resolved here. Restoration of the intake is recommended in Section 8.0. The response across the remaining TBC032 intakes is graded coherently with depth, which supports it being a genuine pressure response rather than an instrument artefact. No extraction occurred anywhere on the domain during the reporting period, so the response is interpreted as continued depressurisation following the completion of LW S3A in December 2024 rather than as a response to active mining (**Figure 11**).

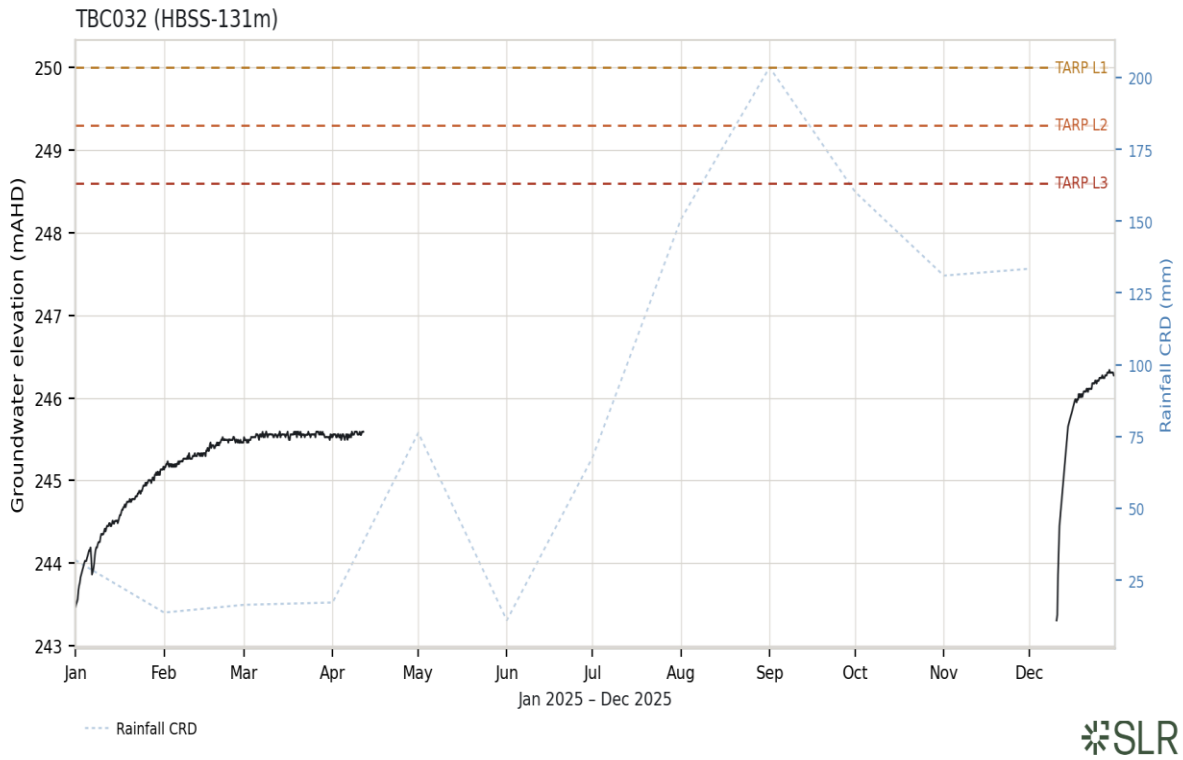


Figure 11 Hydrograph showing groundwater level trend at TBC032 (HBSS-131m)

4.2.2 Level 2 and Level 1 Triggers

Under WMP9, TBC032 (BHCS-181m) reached Level 2 in five months and TBC032 (BGSS-200m) reached Level 1 in five months (**Figure 12**). Both results are at TBC032 and are discussed with the Level 3 results above.

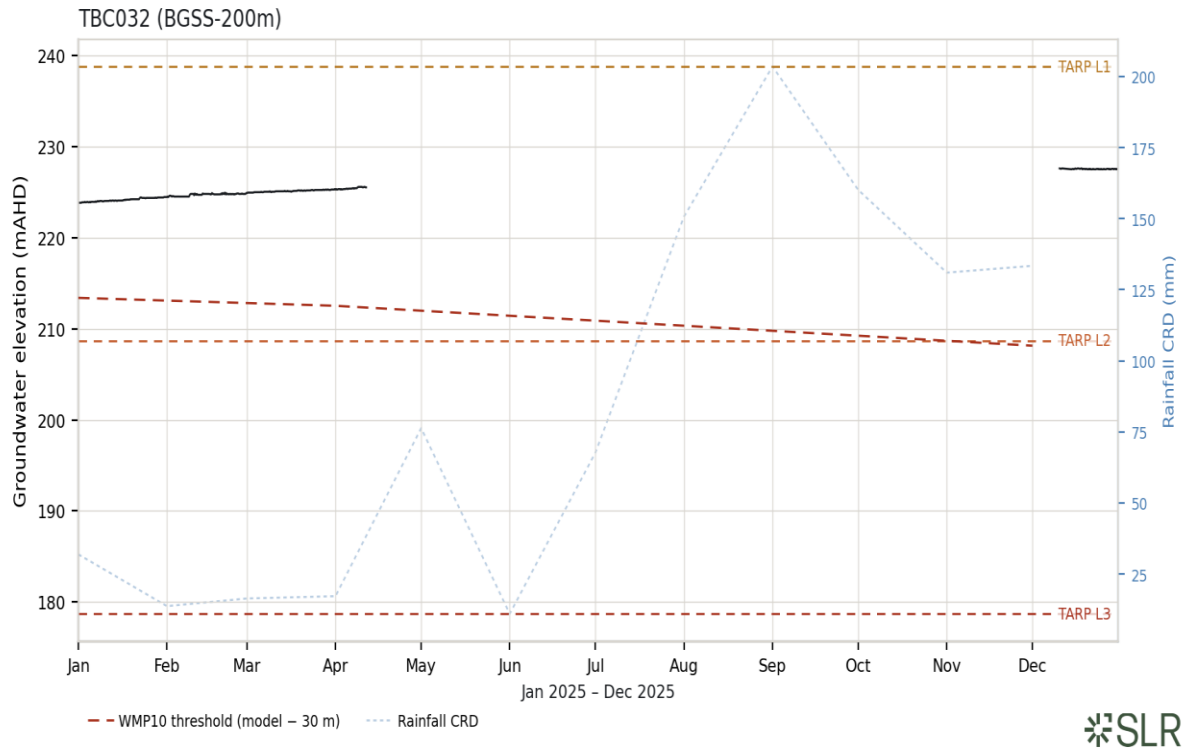


Figure 12 Hydrograph showing groundwater level trend at TBC032 (BGSS-200m)

4.3 TARP WMP11

TARP WMP11 covers groundwater quality monitoring at standpipe piezometers and private bores, focusing on changes in key water quality parameters including salinity, pH, and dissolved metals. It defines thresholds based on pre-mining baseline conditions and guides responses to sustained changes in groundwater quality beyond natural variability.

Exceedances of the WMP11 trigger levels were recorded for 11 analytes during the reporting period. Three reached Level 3: manganese at 5 bores, barium at 4 bores, electrical conductivity (EC) at 3 bores. The remaining nickel, aluminium, iron, zinc, pH, strontium, lithium, lead reached Level 2. Three further analytes (copper, arsenic, selenium) were breached in individual months but did not persist for the duration the TARP requires and are reported as breaches only (i.e. three consecutive breaches result in an exceedance). Exceedances were recorded at 12 monitoring locations during the reporting period.

Dissolved barium remains the most widely exceeded analyte at Level 3, as it was in the previous reporting period, but its distribution has extended, P56A having joined P53B, P53C and REA4. Two further analyte groups reached Level 3 during this period. Field electrical conductivity reached Level 3 at P55A and P55B, the same nest holding the most severe water level response in the network, and dissolved manganese reached Level 3 at P55C and at the private bore GW109257. A quality discussion confined to barium, as carried in the previous report, no longer describes the network.

P56A is the most widely affected bore in the network, returning exceedances across eight analytes: barium at Level 3, and aluminium, field electrical conductivity, iron, manganese, nickel, lead and zinc at Level 2.

Dissolved barium exceedances were recorded at P53B (**Figure 13**), P53C (**Figure 14**), P56A and REA4, all reaching Level 3. The remaining affected bores are plotted in **Appendix E**.

The following patterns are noted and for ongoing consideration through continued monitoring and review:

- P55 cluster: field EC reached Level 3 at P55A and P55B during the reporting period (**Figure 15**), and dissolved manganese reached Level 3 at P55C. Groundwater levels at the same cluster rose over the period, so the salinity response does not coincide with declining levels as reported previously, and the two are not explained by a single process.
- REA4: sporadic multi-parameter exceedances, however no apparent trends.
- Private Bores (GW104008, GW109257): sporadic multi-parameter exceedances, however no apparent trends.

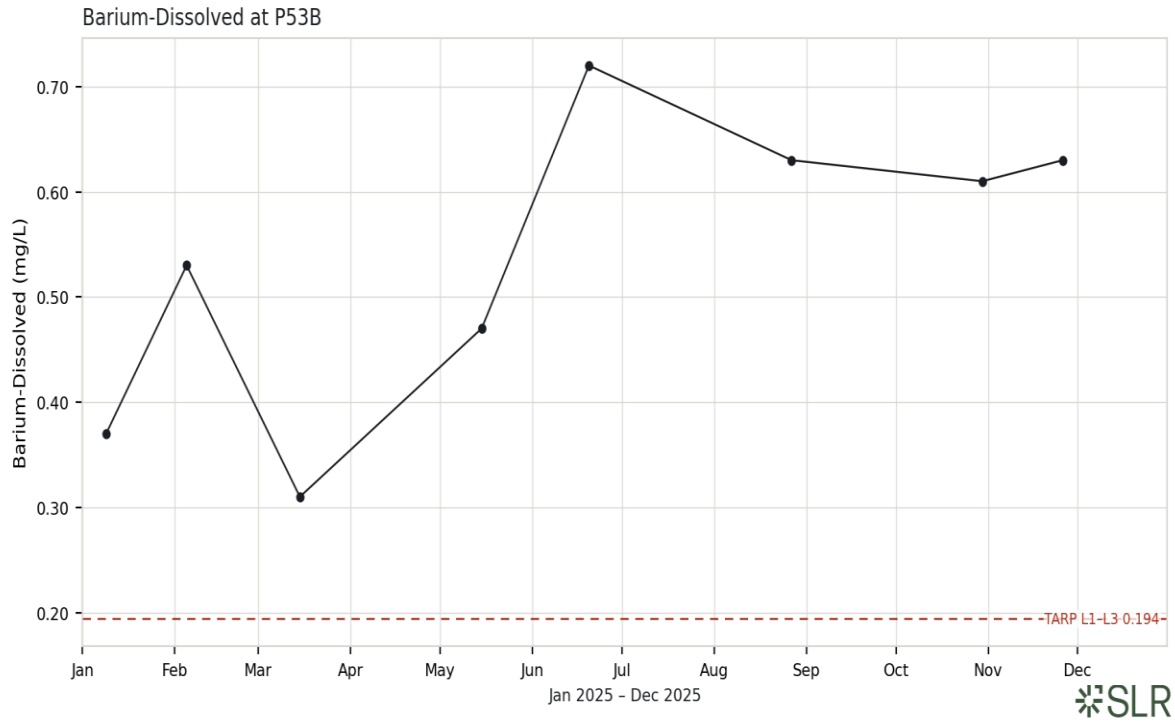


Figure 13 Temporal plot of Ba at P53B

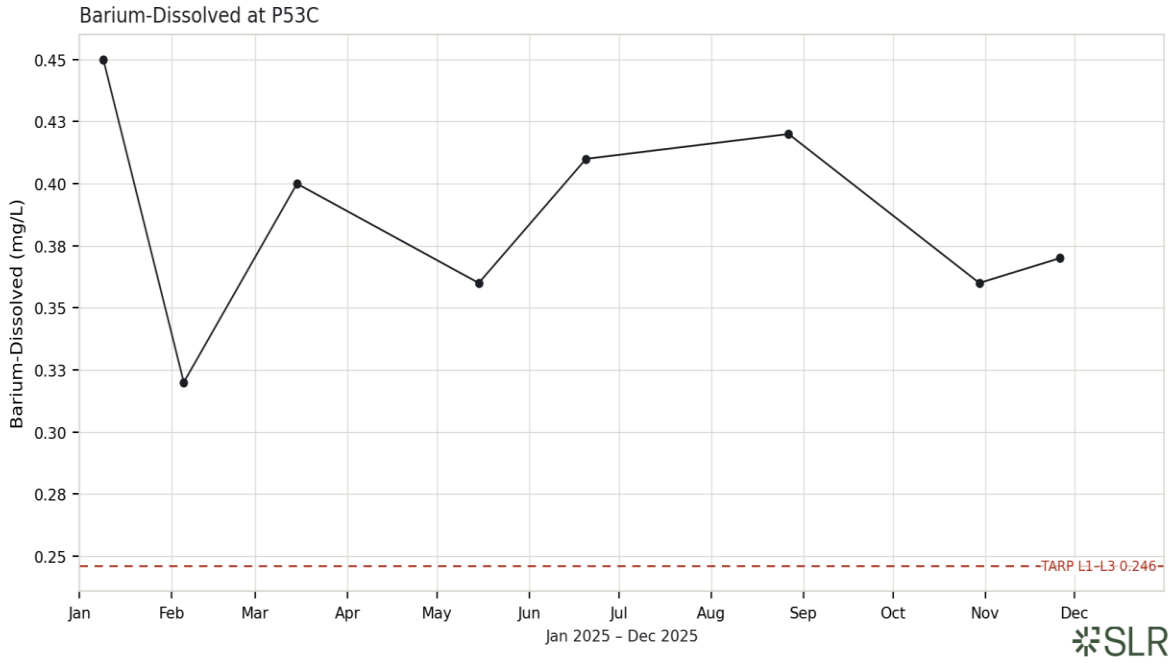


Figure 14 Temporal plot of Ba at P53C

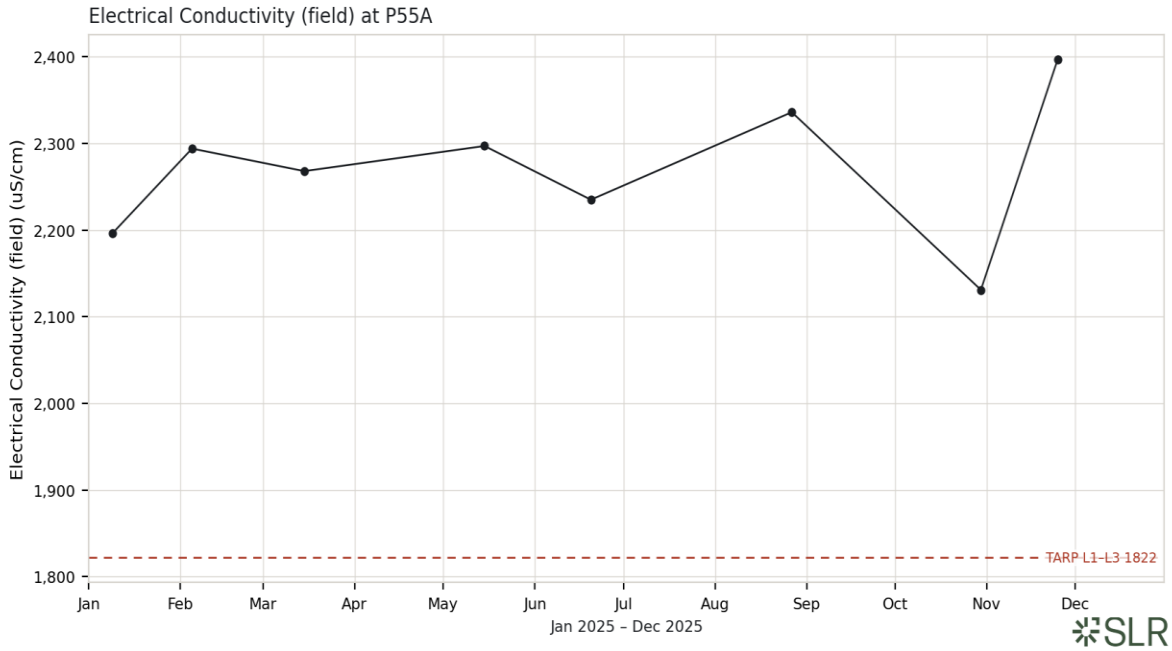


Figure 15 Temporal plot of EC at P55A

The P53 nest remains vertically stratified for barium. P53B ranged 0.310 to 0.720 mg/L and P53C 0.320 to 0.450 mg/L over the period, both above the 0.194 mg/L trigger for the duration the TARP requires and both in Level 3 exceedance. P53A ranged 0.082 to 0.110 mg/L and remained below the trigger throughout. The contrast between the shallow bore and

the two deeper bores of the same nest is consistent with a source at depth rather than a surface influence.

REA4 is nested with P52 which shows no trends in barium.

4.4 TARP WMP12

TARP WMP12 addresses the potential interaction between groundwater and surface water systems, particularly in areas with aligned monitoring sites. It focuses on assessing changes in groundwater levels that could influence connected surface water bodies, including potential impacts to groundwater-dependent ecosystems.

WMP12 triggers remained active at the P53 and P55 clusters during the reporting period, and surface water exceedances were recorded concurrently. ENRS inspections assign Level 3 to seven Teatree Hollow pools - TT2, TT3, TT9, TT10, TT11, TT12 and TT15 - in every inspection of the period, with TT13 fluctuating between Normal and Level 3.

5.0 Mine Inflows

This section summarises groundwater inflows relative to licenced entitlements and observed groundwater level responses during the January – December 2025 reporting period. Groundwater inflows are compared against Water Access Licence (WAL) limits and relevant approvals.

5.1 Observed Inflows and Entitlement

Since 2009, observed inflows to Tahmoor Mine have ranged from approximately 2 to 7 ML/d. In October 2022 the Western Domain blocks were sealed. Inflows during 2025 averaged 2.84 ML/d, against 3.34 ML/d in 2024. Passive removal of water from the underground continued throughout the reporting period notwithstanding that the mine was in care-and-maintenance and no extraction took place, so the groundwater make reported here reflects continued pumping from the existing workings rather than any mining activity.

Monthly groundwater inflows, as calculated from the mine water balance and pump-out records, are presented in **Figure 16**.

Groundwater take under WAL 36442 is accounted over the water year, which the WaterNSW groundwater take return defines as 1 July to 30 June, and not over the calendar year of this reporting period. The reporting period spans the second half of the 2024-25 water year and the first half of the 2025-26 water year, and the cumulative line in **Figure 16** restarts at 1 July 2025 for that reason. The 2024-25 water year closed at 1,090.5 ML against an entitlement of 1,642 ML, which is 66% of entitlement and leaves 551.5 ML unused. The 2025-26 water year stood at 533.8 ML at 31 December 2025, which is 33% of entitlement at the halfway point of the year, with 1,108.2 ML remaining.

Take was below entitlement in the completed water year and remains below it in the water year in progress. The entitlement is held as 1,642 unit shares rather than as a volume. The available water determination (AWD) for aquifer access licences was 1 ML per unit share, being 100% of the share component, in both water years, as determined by the Available Water Determination Order for Groundwater Sources 2024 and 2025, each made under section 59(1)(a) of the Water Management Act 2000. Both orders apply to the Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2023, which governs the Sydney Basin - Nepean Groundwater Source, and neither carries an exception for that source.

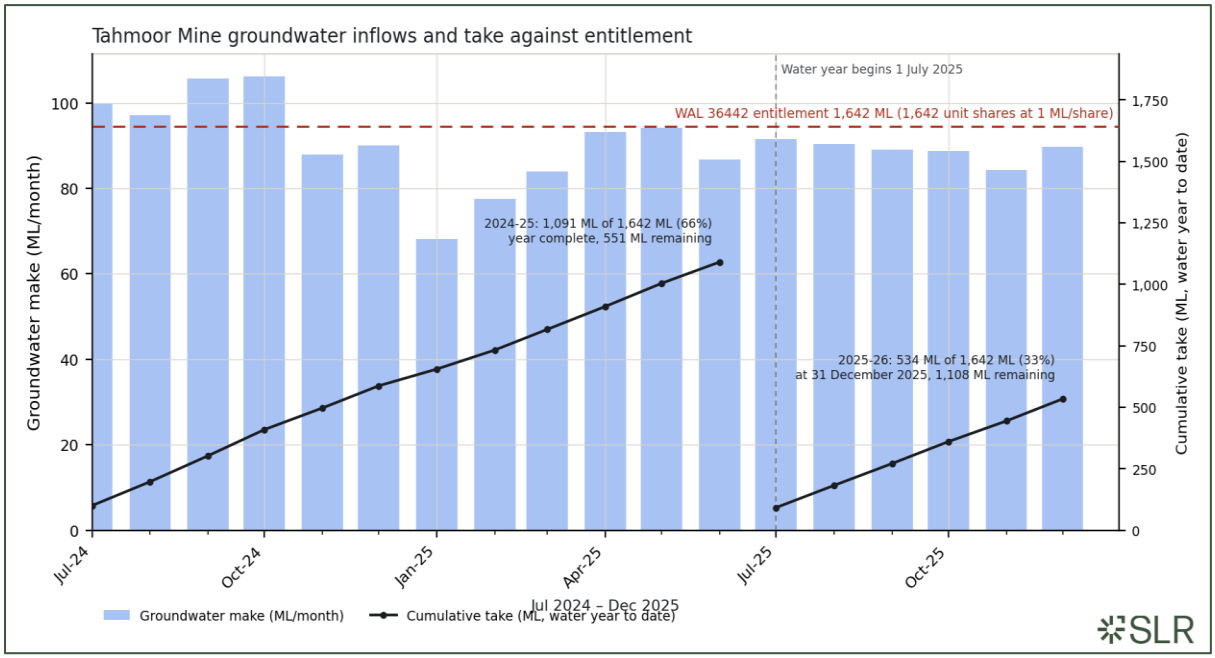


Figure 16 Tahmoor Mine Groundwater Inflows and Cumulative Take Against WAL 36442 Entitlement by Water Year

6.0 Summary of Groundwater Conditions

6.1 Shallow Groundwater Level Response

6.1.1 Shallow Open Standpipe (OSP) Bores

WMP8 exceedances were recorded at ten shallow standpipe and private bore locations during the reporting period (**Table 2**). Level 3 was reached at P55B (eleven months) and P55C (three months). Level 2 was reached at P53C (five months), P56A (two months) and P55A (one month). Level 1 was reached at P51B (eleven months), GW104659 (eight months), GW109257 (six months), P53B (six months) and P53A (five months). Months are counted at the worst level each location reached, so they do not overlap and are not added across levels.

Only P56A recorded a first exceedance during the period. Every other result continues from an earlier period, and the direction of movement was upward: both Level 3 bores rose, and P55C eased from Level 3 to Level 1 from May. The network is therefore depressurised but recovering. The causes considered are discussed in **Section 4.1**.

6.1.2 Shallow VWPs (<200 metres) Exceedances

WMP9 exceedances were recorded at five shallow vibrating wire piezometer intakes across two sites (**Table 3**).

Accepted: TBC032 (HBSS-131m) at Level 3 in five months and TBC032 (BGSS-200m) at Level 1 in five months. Both are at TBC032, where the response is graded coherently with depth.

Not accepted: TBC024 (HBSS-139m) at Level 3 in twelve months, TBC024 (BGSS-185m) at Level 3 in four months and TBC032 (BHCS-181m) at Level 2 in five months. TBC024 is not evaluated for this period because every intake at the site carries an unresolved datum. A further TBC024 intake and one other were withheld entirely on instrument grounds. All affected intakes are referred for inspection in **Section 8.0**. The tests applied and the reasoning are set out in **Section 4.2**.

6.1.3 Overall Shallow Groundwater Levels Summary

Shallow groundwater levels remained below their trigger thresholds at the affected bores throughout the period, but the direction of movement was upward at every bore holding a Level 3 exceedance. No extraction occurred during the period and the mine was in care and maintenance, so the levels recorded are a response to extraction completed before the period began. Rainfall was above the long-term average, so reduced recharge is not an available explanation for the levels that remain below trigger.

6.2 Deep Groundwater Levels

No WMP10 exceedance was recorded during the reporting period. The 30 m threshold was breached at TBC032 (BGSS-294m) in two months and TBC032 (BGSS-237m) in one month. No breach persisted for the three consecutive months an exceedance requires.

Two qualifications attach to that result. The first WMP10 exceedance in the history of the programme registered at TBC032 (BGSS-294m) in February 2026, two months after period close. And the modelled prediction against which WMP10 is assessed materially under-predicts the observed drawdown at these intakes, which raises the level at which the trigger is reached. Both are discussed in **Section 4.2** and carried into **Section 8.0**.

6.3 Groundwater Quality

6.3.1 Salinity (as electrical conductivity) and pH

During the period field electrical conductivity reached Level 3 at two bores (P55A, P55B) and Level 2 at one bore (P56A). Field pH reached Level 2 at one bore (P51A) (**Table 4**).

6.3.2 Metals

Dissolved metal exceedances were recorded during the period (**Table 4**). Level 3 was reached for barium at four bores (P53B, P53C, P56A, REA4) and manganese at two bores (GW109257, P55C). Level 2 for manganese at three bores, nickel at three bores, iron at two bores, aluminium at two bores, zinc at one bore, lithium at one bore, lead at one bore and strontium at one bore. Copper, arsenic and selenium were breached in individual months only and did not persist for the duration the TARP requires.

6.3.3 Summary of Groundwater Quality Response

Groundwater quality exceedances were recorded for eleven analytes across twelve monitoring locations during the period, of which three analytes reached Level 3 (barium, field electrical conductivity, manganese). This is an escalation from the previous reporting period, in which barium at Level 2 was the only formal quality exceedance.

Causation has not been established. The bores holding quality exceedances are not the same set as those holding level exceedances, and the level responses were upward over the period while the quality exceedances persisted, so the two are not explained by a single process. Investigation is recommended in **Section 8.0**.

6.4 Groundwater – Surface Water Connectivity

WMP12 exceedances were recorded at seven bores during the period (**Table 5**), at the P51, P53 and P55 clusters. Level 3 was reached at P55B (eleven months) and P55C (three months). Level 2 was reached at P53C (five months) and P55A (one month). Level 1 was reached at P51B (eleven months), P53B (six months) and P53A (five months).

The surface water record for the period is the series of eleven routine waterway inspections undertaken by ENRS, which record Level 3 conditions at seven Teatree Hollow pools throughout. No surface water level dataset was available to this assessment, so the groundwater and surface water conditions are reported as co-occurring and no causal link between them is established either way. **Section 4.4** sets out the position and **Section 8.0** requests the dataset.

6.5 Private Bores

Exceedances were recorded at three private bores during the period: GW104659 (WMP11 Level 2, WMP8 Level 1), GW109257 (WMP11 Level 3, WMP8 Level 1) and GW112473 (WMP11 Level 2).

No private bore reached Level 2 or Level 3 under WMP8. The occurrence of these exceedances is established by the monitoring record. Their attribution is not. No decline or quality change at a private bore has been attributed to mining, and no landholder reported an adverse impact to water supply use during the period.

7.0 Action and Response

The following tables (**Table 6**, **Table 7**, and **Table 8** and **Table 9**) summarise the Actions and Responses in line with each relevant TARP that has been triggered (refer **Appendix A** for full TARPs).

Table 6 Actions and Responses for TARP Triggers for WMP8

Action / Response from TARP WMP8	Tahmoor Coal response
Actions	
Level 1, 2 and, 3 TARP Continue monitoring and review of data as per monitoring program.	Quarterly monitoring and review of data is ongoing according to the monitoring program. Four open standpipes (P54A, P54B, P56B and P56C) hold WMP8 criteria in force but returned no data during 2025. P54A and P54B have been dry throughout; P56B and P56C ceased returning data during the period. These are listed with recommended actions in Table 10.
Level 1, 2 and, 3 TARP Undertake an investigation to assess cause and determine if mining related.	An investigation to assess cause of the water level decline is provided in Section 4.0. P55B held Level 3 for eleven months of the period. P55C was at Level 3 from January to March, eased to Level 2 in April and remained at Level 1 from May to November, and is therefore recovering rather than sustained. Level 2 was reached at P53C (five months), P56A (two months) and P55A (one month, August). The spatial distribution of the declines is consistent with mining-related depressurisation, although no single bore decline has been definitively attributed to mining and the investigation required to establish causation is ongoing. Rainfall over the period was above the long-term average (958.2 mm against 821.8 mm, with eight of twelve months above average), so below-average recharge is not available as a contributing explanation for this period.
Level 1, 2 and, 3 TARP Undertake investigation to determine if the decline will impact the long-term viability of the affected water supply works.	Current drawdown associated with the exceedances remains localised to the P53, P55 and P56 nests above the extracted longwalls. There is no indication of extensive regional aquifer drawdown, and no decline has been identified that would affect the long-term viability of a registered water supply work.
Level 1, 2 and, 3 TARP Discuss findings and obtain other relevant information from key specialists (e.g., subsidence monitoring results, surface water level results).	Relevant information was obtained from key specialists. Subsidence monitoring results for the period are reported in MSEC Subsidence Monitoring Report MSEC1430 Revision 36 (1 January to 31 December 2025), and surface water observations in the eleven ENRS routine waterway inspections undertaken during the period. Tahmoor Coal has advised that no operational activities were undertaken during the period, the mine having been in care-and-maintenance throughout.
Level 1, 2 and, 3 TARP If the changes have been confirmed to be related to mining effects: For Open Standpipe Monitoring Bores: For monitoring sites relevant to Thirlmere Lakes or associated with surface water monitoring sites, initiate groundwater – surface water interaction TARP. For Private Bores:	For Open Standpipe Monitoring Bores: WMP12 remains initiated for the P53 and P55 nested bores and has been extended by the P51B and P56A results of this period. WMP13 (Thirlmere Lakes) has not been initiated.

Action / Response from TARP WMP8	Tahmoor Coal response
Initiate negotiations with impacts landowners as soon as practicable. Consider all reasonable and feasible options for remediation as relevant (e.g. extending the depth of the bore, establishment of additional bores, etc – as per Section 6.2.1.4 of the Water Management Plan).	
Level 2 and 3 TARP Consider increasing monitoring and review of data at sites where Level 2 has been reached, subject to land access. Reasons for not increasing monitoring frequency could include confident identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water level change, or confirmed as a mining-related impact). Increased monitoring could be beneficial where commensurate responses in paired surface water monitoring locations have been observed.	Monitoring frequency was not increased during the reporting period. Continuous logging continued at an essentially unchanged and manual dip rounds continued monthly. Loggers are installed in all P53 and P55 bores and the data are reviewed in accordance with the WMP.
Level 2 and 3 TARP Compare against base case and deterministic model scenarios.	TARP trigger levels accommodate the base case and deterministic model scenarios. With each model update, these levels will continue to be reviewed and revised as necessary.
Level 2 and 3 TARP Review Water Management Plan and modify if necessary.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0). Rev 7.0 was approved by DPHI on 6 August 2026 and the Groundwater Management Plan Rev 7.0 on 14 August 2026; both post-date this period. No modification was made during the reporting period.
Level 2 and 3 TARP For Private Bores: Review CMAs in light of findings from further investigations and consider additional reasonable and feasible options.	Not applicable. No Level 2 or Level 3 WMP8 trigger occurred at a private bore during 2025; exceedances at GW104659 (eight months) and GW109257 (six months) were Level 1.
Level 3 TARP Increase monitoring and review of data frequency for sites where Level 3 has been reached, and cause is unknown, subject to land access.	The Level 3 triggers at P55B and P55C are discussed in Section 4.0. Both bores rose over the period - P55B by 7.21 m while remaining below its Level 3 threshold, and P55C returning to Level 1 from May 2025 - so neither is deteriorating. Continuous logging is already in place at all P53 and P55 bores and the data are reviewed quarterly, which exceeds the monitoring frequency the program requires. On that basis no further increase was implemented. Note that this action is framed around the cause being unknown; causation has not been definitively established and remains under investigation.
Level 3 TARP Undertake a detailed investigation to assess the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing, effect unrelated to mining or the prevailing climate).	Investigation for the period, including comparison against the monitored subsidence data and the climate record, is presented in Section 4.0. It establishes that below-average recharge is not an available explanation, rainfall having been above the long-term average, and that the spatial distribution of the declines is consistent with mining-related depressurisation. It does not definitively attribute any individual decline to mining; that determination requires ongoing subsidence GNSS dataset evaluation.
Responses	

Action / Response from TARP WMP8	Tahmoor Coal response
Level 1, 2 and 3 TARP Report trigger exceedance to DPHI and key stakeholders.	Notification of exceedances to DPHI as identified in this report.
Level 1, 2 and 3 TARP Report trigger exceedance and investigation outcomes in Annual Environmental Management Report (AEMR)	Completed as part of this Annual Review, and to be incorporated into the forthcoming AEMR.
Level 1, 2 and 3 TARP If the changes have been confirmed to be related to mining effects: For Private Bores: Provide DPHI and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g. extending the depth of the bore, establishment of additional bores, compensation to affected landowners as detailed in Section 6.2.1.4 of the Water Management Plan). Implement CMAs, subject to land access (finalise negotiations and implement the agreed “make-good” arrangements). Monitor and report on success of CMAs in Six Monthly Subsidence Impact Report and Annual Review.	No private bore decline has been definitively attributed to mining, and no Level 2 or 3 WMP8 trigger occurred at a private bore during the period. No landholder has reported impacts requiring ameliorative action.
Level 2 and 3 TARP Advise DPHI and key stakeholders of any required amendments to Water Management Plan.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0, effective 7 February 2025). Rev 7.0 was approved by DPHI on 6 August 2026 and the Groundwater Management Plan Rev 7.0 on 14 August 2026; both post-date this period. No amendment arising from this assessment is required at this time. Review can be reconsidered after the 2026 Annual Review.
Level 2 and 3 TARP For Private Bores: Provide findings of CMA review to DPHI and key stakeholders for consultation. Implement additional CMAs, subject to land access.	No CMA required at this point.
Level 3 TARP For Private Bores: Develop a Rehabilitation Management Plan in consultation with DPHI and key stakeholders. Implement Rehabilitation Management Plan, subject to land access.	No Level 3 WMP8 triggers occurred at private bores during the period.

Table 7 Actions and Responses for TARP Triggers for WMP9

Action / Response from TARP WMP9	Tahmoor Coal response
Actions	
Level 1, 2 and 3 TARP Continue monitoring and review of data as per monitoring program.	Monthly monitoring and review of data is ongoing according to the monitoring program.
Level 1, 2 and 3 TARP Undertake an investigation to assess cause and determine if mining related.	An investigation to assess cause is provided in Section 4.0. Level 3 was recorded at TBC024 (BHCS-168m) and TBC024 (HBSS-139m) in all twelve months, at TBC024 (BGSS-185m) in four months (February to May) and at TBC032 (HBSS-131m) in five months. None of the TBC024 results is accepted as a groundwater response, and TBC024 is not

Action / Response from TARP WMP9	Tahmoor Coal response
	evaluated for this reporting period (Section 4.2). Every intake at the site carries an unresolved datum; the two intakes reporting Level 3 in all twelve months show the clearest problems. TBC024 (BHCS-168m) reported a mean head of 188.1 mAHD during 2025 from an intake whose elevation is 188.5 mAHD, placing 100% of its readings for the period below the sensor itself. A vibrating wire piezometer measures the pressure of the water standing above it, so a computed head beneath the intake cannot be a water level and the intake has been recorded as not assessed. TBC024 (HBSS-139m) lies within its physical envelope but reported a mean of 238.9 mAHD between intakes reading 303.2 mAHD at 117 m and 283.5 mAHD at 185 m, an inversion of 45 to 64 m within a single borehole over a single year, which is not a coherent vertical profile. Both are referred for physical inspection and datum verification (Section 8.0). One further shallow intake, TBC034 (BHCS-176m), was excluded from assessment as 47% of its readings for the period are physically impossible. Its months are recorded as not assessed rather than as exceedances, and its replacement is recommended in Table 10.
Level 1, 2 and 3 TARP Discuss findings and obtain other relevant information from key specialists (e.g., subsidence monitoring results, surface water level results).	Relevant information was obtained from key specialists necessary to inform the assessment (refer Section 4.0).
Level 2 and 3 TARP Review deeper VWP data at monitored sites. Determine whether additional review of data is required.	Deeper VWP datasets were reviewed in conjunction with the shallow VWP exceedances. The deep intakes are assessed under WMP10 against the modelled drawdown prediction (Appendix D). The 30 m threshold was breached at TBC032 (BGSS-294m) in two months of 2025, April and December, and at TBC032 (BGSS-237m) in one, December. No breach persisted long enough to constitute an exceedance within the reporting period, but the first WMP10 exceedance in the program history subsequently registered at TBC032 (BGSS-294m) in February 2026, immediately after period close. Continued review of the deep intakes is therefore required.
Level 2 and 3 TARP Compare against base case and deterministic model scenarios.	Observed exceedances were compared against the base case and deterministic model scenarios in Appendix C. Note that the modelled prediction materially under-predicts the observed drawdown at the deep intakes, which is itself reported as a finding in Section 8.0.
Level 2 and 3 TARP Review Water Management Plan and modify if necessary.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0). Rev 7.0 was approved by DPHI on 6 August 2026 and the Groundwater Management Plan Rev 7.0 on 14 August 2026; both post-date this period. No modification was made during the reporting period.
Level 3 TARP Actions as per Level 2: Review deeper VWP data at monitored sites. Determine whether additional review of data is required.	Current drawdown associated with the accepted exceedances is localised to the TBC032 site; TBC024 is not evaluated for this reporting period (Section 4.2). There is no indication of regional aquifer drawdown of a magnitude or extent beyond that predicted.

Action / Response from TARP WMP9	Tahmoor Coal response
Level 3 TARP Actions as per Level 2: Determine if review of additional existing VWP sites is required.	Review of all VWP sites is included in this reporting. WMP9 triggers were recorded at TBC024 and TBC032 during the period, whereas in the previous reporting period TBC032 was the only site reporting WMP9 triggers. The TBC024 results are not accepted as groundwater responses, and TBC024 is not evaluated for this reporting period (Section 4.2). Every intake at the site carries an unresolved datum, two report heads that are physically impossible for their own installation, and the vertical profile through the borehole is not coherent. The results are reported in full in this table and in Appendix C, and are referred for physical inspection and datum verification (Section 8.0). On the accepted results, TBC032 remains the only site with WMP9 exceedances, as it was in the previous period.
Level 3 TARP Actions as per Level 2: Consider increasing frequency of data review at sites where Level 2 has been reached or at other relevant sites. Reasons for not increasing monitoring frequency could include confident identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water level change, or confirmed as a mining-related impact). Increased monitoring could be beneficial where commensurate responses in paired surface water monitoring locations have been observed.	Monitoring frequency was not increased. Continuous logging at the affected intakes already exceeds the frequency the program requires, and the data are reviewed monthly. Causation has not been definitively established and remains under investigation (Section 4.0).
Level 3 TARP Actions as per Level 2: Compare against base case and deterministic model scenarios.	TARP trigger levels accommodate the base case and deterministic model scenarios. With each model update, these levels will continue to be reviewed and revised as necessary.
Level 3 TARP Actions as per Level 2: Review Water Management Plan and modify if necessary.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0). Rev 7.0 was approved by DPHI on 6 August 2026 and the Groundwater Management Plan Rev 7.0 on 14 August 2026; both post-date this period. No modification was made during the reporting period.
Level 3 TARP Increase frequency of data review for sites where Level 3 has been reached and the cause is unknown.	The Level 3 triggers are discussed in Section 4.0. The accepted results are consistent with continued depressurisation following extraction completed before this period; causation has not been definitively established.
Level 3 TARP Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing, other catchment changes, effect unrelated to mining or the prevailing climate). Commence/complete as soon as practicable	Detailed investigation, including comparison against the monitored subsidence data and the climate record, has been completed. See Section 4.0.
Level 3 TARP Undertake investigative to review model results in conjunction with field data	Review of updated model results against field data will be undertaken with the next iteration of the Groundwater Management Plan. The under-prediction of drawdown identified in this period is recommended as a specific input to that review (Section 8.0).
Responses	

Action / Response from TARP WMP9	Tahmoor Coal response
Level 1, 2 and 3 TARP Report trigger exceedance to DPHI and key stakeholders.	Notification of exceedances to DPHI as identified in this report.
Level 1, 2 and 3 TARP Report trigger exceedance and investigation outcomes in Annual Environmental Management Report (AEMR)	Completed as part of this Annual Review, and to be incorporated into the forthcoming Annual Environmental Management Report (AEMR).
Level 2 and 3 TARP Advise DPHI and key stakeholders of any required amendments to Water Management Plan.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0). Rev 7.0 was approved by DPHI on 6 August 2026 and the Groundwater Management Plan Rev 7.0 on 14 August 2026; both post-date this period.

Table 8 TARP WMP11 Groundwater Quality – Actions and Responses.

Action / Response from TARP WMP11	Tahmoor Coal response
Actions	
Level 1 and 2 TARP Continue monitoring and review of data as per monitoring program.	Routine groundwater quality monitoring continued and an internal review of quality trends at the affected sites was undertaken, taking the climate record for the period into account.
Level 1 and 2 TARP Continue monitoring and review of data as per monitoring program.	Routine groundwater quality monitoring continued at all sites. Monitoring and review were undertaken in accordance with the WMP.
Level 1 and 2 TARP Undertake an investigation to assess cause and determine if mining related.	Investigation of the 2025 exceedances is provided in Section 4.0. The most widespread Level 3 analyte was dissolved barium (P53B, P53C, P56A and REA4), followed by dissolved manganese (GW109257 and P55C) and field electrical conductivity (P55A and P55B). Causation remains uncertain; the affected analytes are consistent with a change in redox conditions rather than with an introduced source, but cannot be definitively be attributable to mining from available data.
Level 1 and 2 TARP Undertake investigation to demonstrate if the change in quality will impact the long-term viability of the affected water supply works.	Assessment indicates that the current exceedances do not compromise the long-term viability of the affected water supply works. No impact to a landholder supply has been reported.
Level 1 and 2 TARP Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, surface water level results).	Groundwater quality exceedances were reviewed against the subsidence and surface water information for the period. No direct linkage was identified; further monitoring will continue.
Level 1 and 2 TARP If the changes have been confirmed to be related to mining effects: For Private Bores: Initiate negotiations with impacted landholders as soon as practicable. Consider all reasonable and feasible options for remediation as relevant. This could include potential for implementation of make-good provisions as per Section 6.2.1.4 of the Water Management Plan for affected private bore owners (e.g. provision of access to an alternative source of water). For Open Standpipe Monitoring Bores: For monitoring sites relevant to Thirlmere Lakes or	Exceedances were recorded at private bores during the period: GW109257 reached Level 3 for dissolved manganese, and GW104659 (dissolved aluminium) and GW112473 (dissolved manganese) reached Level 2. The GW109257 result continues a Level 3 first recorded in August 2024 and is not a new condition. None has been confirmed as related to mining effects, and the action above is conditional on that confirmation, so make-good has not been initiated. Attribution is addressed in Section 4.0 and is recommended for further investigation in Section 8.0.

Action / Response from TARP WMP11	Tahmoor Coal response
associated with surface water monitoring sites, initiate groundwater – surface water interaction TARP.	
Level 1 and 2 TARP Consider increasing monitoring and review of data at sites where Level 2 has been reached, subject to land access. Reasons for not increasing monitoring frequency could include solid identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water quality change).	No increase in water quality monitoring frequency was implemented for this reporting period. Given that WMP11 reached Level 3 on three analytes during the period, an increase in per-bore sampling frequency at the affected bores is recommended in Section 8.0 for consideration.
Level 1 and 2 TARP Review Water Management Plan and modify if necessary	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0). Rev 7.0 was approved by DPHI on 6 August 2026 and the Groundwater Management Plan Rev 7.0 on 14 August 2026; both post-date this period. No modification was made during the reporting period.
Level 1 and 2 TARP For Private Bores: Review CMAs in light of findings from further investigations and consider additional reasonable and feasible options	No private bore quality exceedance has been attributed to mining, so a review of CMAs has not been triggered. Given that GW109257 reached Level 3 during the period, confirmation of the attribution is recommended in Section 8.0.
Response	
Level 1, 2 and 3 TARP Report trigger exceedance to DPHI and key stakeholders.	Exceedances reported to DCCEEW/DPHI within the required timeframes.
Level 1, 2 and 3 TARP Report trigger exceedance and investigation outcomes in Annual Environmental Management Report (AEMR) and Annual Review.	Exceedances and investigation outcomes are documented in this Annual Review and will be incorporated into the forthcoming Annual Environmental Management Report (AEMR).
Level 1, 2 and 3 TARP If the changes have been confirmed to be related to mining effects: For Private Bores: Provide DPHI and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g, provision of access to an alternative source of water as detailed in Section 6.2.1.4 of the Water Management Plan). Implement CMAs, subject to land access. Monitor and report on success of CMAs in Six Monthly Subsidence Impact Report and Annual Review.	Not applicable. No exceedance at a private bore has been attributed to mining.
Level 2 TARP Advise DPHI and key stakeholders of any required amendments to Water Management Plan.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0). Rev 7.0 was approved by DPHI on 6 August 2026 and the Groundwater Management Plan Rev 7.0 on 14 August 2026; both post-date this period. No amendment arising from this assessment is required at this time.
Level 2 TARP For Private Bores: Provide findings of CMA review to DPHI and key stakeholders for consultation. Implement additional CMAs, subject to land access.	Not applicable. No CMAs triggered.

Table 9 Actions and Responses for TARP Triggers for WMP12

Action / Response from TARP WMP12	Tahmoor Coal response
Actions	
Level 1,2 and 3 TARP Continue monitoring and review of data as per monitoring program.	Monthly monitoring and review of data is ongoing according to the monitoring program. Surface water observations for the period are provided by the ENRS routine waterway inspections, of which eleven were undertaken during 2025.
Level 1, 2 and 3 TARP Undertake an investigation to assess cause and determine if mining related.	An investigation into whether the WMP8 triggers indicate a change in groundwater - surface water interaction has been completed and is provided in Section 4.0. P55B held Level 3 for eleven months; P55C was at Level 3 from January to March before easing to Level 1 from May. Level 2 was reached at P53C (five months) and P55A (one month).
Level 1, 2 and 3 TARP Discuss findings and obtain other relevant information from key specialists (e.g., subsidence monitoring results, surface water level results).	Relevant information was obtained from key specialists necessary to inform the assessment, and discussed at the Environmental Response Group (ERG).
Level 2 and 3 TARP Increase frequency of data review to fortnightly at sites where Level 2 has been reached, subject to land access. Reasons for not increasing frequency could include solid identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water level change).	Loggers are installed in all P53 and P55 bores and the data are reviewed in accordance with the WMP. Review frequency was not increased to fortnightly during the period; the monitoring record shows logger cadence and manual dip frequency essentially unchanged from 2024. The bores concerned rose over the period rather than declining further, and no extraction was undertaken on the domain during the period.
Level 2 and 3 TARP Compare against base case and deterministic model scenarios.	Completed as part of trigger level review.
Level 2 and 3 TARP Review manual water level measurements for additional monitoring sites to identify potential spatial trends in water level decline.	A review of spatial trends in water level was undertaken as part of this report (Section 4.0 and Appendix D).
Level 2 and 3 TARP Review surface water data to assess for surface water level decline at relevant site.	Surface water data were reviewed in conjunction with the groundwater data. The surface water record for the period is the series of eleven routine waterway inspections undertaken by ENRS. Those inspections assign Level 3 to seven Teatree Hollow pools - TT2, TT3, TT9, TT10, TT11, TT12 and TT15 - in every inspection of 2025. TT13 fluctuated between Normal and Level 3 across the period. On the inspection record the surface water TARP was therefore in Level 3 exceedance at seven pools throughout the reporting period, and that is the position reported here.
Level 2 and 3 TARP Review CMAs in light of findings from further investigations and consider additional reasonable and feasible options.	CMAs have not been triggered at this point. ATC Williams (2025) records that a Watercourse Corrective Action Management Plan will be prepared under Condition C12 of SSD 8445 at the cessation of subsidence movements in the affected reaches.
Level 2 and 3 TARP Review Water Management Plan and modify if necessary.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0). Rev 7.0 was approved by DPHI on 6 August 2026 and the Groundwater Management Plan Rev 7.0

Action / Response from TARP WMP12	Tahmoor Coal response
	on 14 August 2026; both post-date this period. No modification was made during the reporting period.
Level 3 TARP Increase frequency of data review for sites where Level 3 has been reached and cause is unknown, subject to land access.	The review frequency is considered sufficient: continuous logging is in place at all P53 and P55 bores and the data are reviewed in accordance to the WMP. Causation has not been definitively established and remains under investigation (Section 4.0).
Level 3 TARP Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing, other catchment changes, effect unrelated to mining or the prevailing climate). Report to be commenced and completed as soon as practicable.	Investigation was undertaken as part of this reporting and builds on the previous detailed analysis of groundwater - surface water interaction.
Responses	
Level 1, 2 and 3 TARP Report trigger exceedance to DPHI and key stakeholders.	Notification of exceedances to DPHI as identified in this report.
Level 1, 2 and 3 TARP Report trigger exceedance and investigation outcomes in Annual Environmental Management Report (AEMR) and Annual Review	Completed as part of this Annual Review and reported in the Annual Environmental Management Report (AEMR).
Level 1, 2 and 3 TARP If the changes have been confirmed to be related to mining effects: For Private Bores: Provide DPHI and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g., provision of access to an alternative source of water as detailed in Section 6.2.1.4 of the Water Management Plan). Implement CMAs, subject to land access. Monitor and report on success of CMAs in Six Monthly Subsidence Impact Report and Annual Review.	The available information does not establish whether extraction is affecting groundwater – surface water interactions at the P53 and P55 clusters, either way (Section 6.4). Surface water level data were not available for this assessment, so the interaction could not be assessed quantitatively. Landholder notification has not been made, because a basis for it has not been established on the information currently held. This position will be reassessed once the surface water level data are obtained (Section 8.0) and the surface water trigger status is reconciled.
Level 2 and 3 TARP Provide findings of CMA review to DPHI and key stakeholders for consultation.	CMA not required at this point.
Level 2 and 3 TARP Implement additional CMAs, subject to land access.	CMA not required at this point.
Level 2 and 3 TARP Advise DPHI and key stakeholders of any required amendments to Water Management Plan, including reporting on relationship of observations to baseline and deterministic model scenarios, as necessary.	The Water Management Plan in force throughout the reporting period was WMP V6.0 (TAH-HSEC-00361 v6.0). Rev 7.0 was approved by DPHI on 6 August 2026 and the Groundwater Management Plan Rev 7.0 on 14 August 2026; both post-date this period.
Level 3 TARP Develop a Rehabilitation Management Plan in consultation with DPHI and key stakeholders.	Not required at this point.
Level 3 TARP Implement Rehabilitation Management Plan, subject to land access.	Not required at this point.

8.0 Recommendations

Based on the TARP assessment and the discussion of potential influences driving the observed exceedances in the January – December 2025 reporting period, the following recommendations are made:

- Obtain the raw transducer pressure record, the barometric compensation record and the instrument service history for the standpipes affected by the 30 October 2025 step, before those series are used for trigger derivation, trend interpretation or baseline setting. The step is not a groundwater response. It is an applied datum correction, and the evidence is the pattern of it: seven standpipes step within three hours of one another on 30 October, and they step in opposite directions - P53A +3.96 m, P55A +0.56 m, P55B +0.97 m rise while P52 -2.77 m, P53B -4.15 m, P53C -5.00 m, P55C -3.58 m fall - across a range of -5.00 m to +3.96 m. No hydrogeological process raises one bore of a nest while lowering its neighbour within the hour. A datum correction applied bore by bore across a network does exactly that, because each bore carries its own offset. The corrected values also align with the manual dip round of 25 and 26 November to within 0.002 to 0.033 m, while differing from the October dips by 2.733 to 4.949 m, which is the signature of a correction fitted to the later round and back-dated.
- Inspect and verify the datum of the vibrating wire piezometer intakes that fail a physical test on the reporting period's own data, and replace those found defective. Eight intakes fail. Four report a head below their own intake elevation, which a piezometer cannot measure because there is no water column above the sensor to exert the pressure: TBC024 (BHCS-168m) and TBC034 (BHCS-176m) in 100% of their 2025 readings, and TBC039 (HBSS-65m) likewise. Four report a head below the Australian Height Datum at sites lying several hundred metres above it: TNC036 (BGSS-412.5m) and the three WD02 intakes at 330 m, 355 m and 410 m. These four hold no surveyed intake elevation in the sensor register. Recovering their as-built elevations is part of this recommendation. One, TBC024 (BUCO-371m), reports a head approximately 19 m above its own collar at a site with no artesian condition on record. A ninth, TBC024 (HBSS-139m), lies within its physical envelope but returns a vertical profile inverted by 45 to 64 m against the intakes above and below it in the same borehole, and requires the same inspection. Until each is inspected, WMP9 and WMP10 coverage at the affected intakes should be treated as absent rather than as compliant. The inspection should recover, for each intake, the as-built intake elevation, the survey datum applied in the conversion from pressure to head, and the instrument service history, and instrumentation status.
- Recalibrate the groundwater model against the observed drawdown record at the next Groundwater Management Plan revision. The model under-predicts observed drawdown at the deep monitored intakes throughout the reporting period. The largest observed drawdown was 43.59 m at TBC032 (BGSS-237m) against a modelled maximum of 7.22 m, and the widest divergence was at TBC009 (BGSS-343m), where 3.86 m was observed against a modelled 0.09 m. Across the deep intakes the ratio of observed to predicted drawdown ranges from approximately -0 to 43 times.
- Review the WMP10 status at TBC032. Although no WMP10 exceedance was registered within the reporting period, the BGSS-294m intake breached the 30 m threshold in two months of 2025 (April and December) and the BGSS-237m intake in one (December), and the first WMP10 exceedance in the record of the program registered at BGSS-294m in February 2026, immediately after the close of this

period. This is reported here so that the exceedance is not first raised in the next reporting cycle.

- Resolve the survey datum at GW105395 so that a trigger level can be restated for the bore. The trigger level of 322.1 mAHD published in the Groundwater Trigger Review was derived on a superseded datum and sits approximately 3.85 m above the resurveyed reference, with the result that the bore returned a breach in every month it was assessed.
- Investigate the attribution of the dissolved manganese exceedance at GW109257, which has held Level 3 across two reporting periods, and at GW112473, which reached Level 2. The private bore actions directed by the WMP11 TARP are conditional on confirmation that the change is mining related, and that confirmation has not yet been made either way.
- Investigate P56A specifically. The bore returned its first WMP8 exceedance of any level during this period, declining from no exceedance in January to Level 2 by September, and simultaneously returned exceedances across seven water quality analytes, more than any other monitoring point in the network. No data were received from P56A after October 2025, so the trend is unclear at the close of the period.
- Continue the established monitoring program, including routine groundwater level and quality monitoring in accordance with the approved Water Management Plan. Monitoring outcomes should continue to be reported through the Annual Review and other reporting mechanisms required under the applicable approved management plans.
- Consider an increase the frequency of groundwater quality sampling at the bores carrying WMP11 exceedances.
- Reinstate monitoring of the Thirlmere Lakes groundwater bores. No monitoring was undertaken during 2025, so WMP13 could not be assessed. The absence of a WMP13 trigger in this report reflects the absence of monitoring.
- Review the WMP and the TARP framework at the next scheduled revision against the findings of this assessment, in particular the model under-prediction of drawdown, the absence of a trigger level for GW105395, and the multi-location convention for WMP11.

Table 10 provides a summary of the status of the recommendations made in the previous reporting period (July to December 2024, SLR report 640.30614.0001-R19).

Table 10 Update on Recommendations from the Previous Reporting Period

Ref	Recommendation	Basis	Priority	Status
R12-07	Assess Thirlmere Lakes against WMP13 once data is available. Once groundwater level data become available at the Thirlmere Lakes bores, assess groundwater levels against WMP13 to confirm that no groundwater level exceedances occurred following the commencement of LW S1A.	R17 recorded: "Ongoing: data yet to become available." Restated at R17-02 and R19-06, and still open three reports later. See R12-02 for why the data did not become available.	High	Carried forward (R12)
R17-01	Continue the monitoring program. Continue the monitoring program, and the reporting of groundwater	R19 recorded this as "Ongoing: reporting of groundwater level and quality data to be presented at monthly Environmental Response	High	Carried forward (R17)

Ref	Recommendation	Basis	Priority	Status
	level and quality data in monthly groundwater monitoring reporting.	Group (ERG) meetings". Superseded by R19-01, which carries the 2025 assessment: partially met, with six monitoring points holding live criteria returning no data at all during the year.		
R17-02	Assess Thirlmere Lakes against WMP13 once data is available. Once groundwater level data become available at the Thirlmere Lakes bores, assess groundwater levels against WMP13 to confirm that no groundwater level exceedances occurred following the commencement of LW S1A.	R19 recorded this as "Ongoing: data yet to become available", as R17 had recorded it of R12 before that. See R12-02: the bore that would supply the data, GW062068, had already been removed from the monitoring program by agreement. Superseded by R19-06.	High	Carried forward (R17)
R19-01	Continue the established monitoring program. Continue the established monitoring program, including routine groundwater level and quality monitoring in accordance with the approved Water Management Plan. Monitoring outcomes should continue to be reported in annual groundwater reports and at Environmental Response Group meetings.	Progress IN 2025: Partially Met, and the shortfall is material. Six monitoring points holding TARP criteria in force returned no data at all during 2025 - TBC033 (last read Dec 2020), P54A and P54B (Jan 2023), P56B (Sep 2024), TBC020 (Nov 2024) and P56C (Dec 2024). P54A and P54B have produced three and four readings respectively in their entire history, against 39 months of monitoring the approved plan requires at monthly frequency. Four months of 2025 were additionally unmonitored across a quarter or more of the network (April 38%, July 46%, September 44%, December 53% not assessed). See R20-11 and R20-09.	High	Carried forward (R19)
R19-02	Internal review of WMP11 groundwater quality exceedances. Undertake an internal review of WMP11 groundwater quality exceedances, reviewing quality trends at impacted bores (P55 cluster, REA4, private bores), considering groundwater level trends and climate conditions, confirming alignment with the WMP11 response framework, and documenting outcomes within the Annual Review and subsequent six-monthly report.	Progress IN 2025: NO Evidence Either Way in the data held - whether an internal review was undertaken is not something the monitoring record can show, and Tahmoor Coal should confirm. What the data adds: WMP11 remains the dominant TARP, and the bores this recommendation names are still the bores exceeding. P56A (32 events across 8 analytes), REA4 (16) and the P55 cluster account for most of the 2025 record. the batch-bias check separately identifies whole-round analytical bias in earlier periods, which bears on trend interpretation at these same bores.	High	Carried forward (R19)
R19-03	Internal review of sustained Level 3 groundwater level triggers. Initiate an internal review of sustained Level 3 groundwater level triggers under WMP8 and WMP9, reviewing the duration and spatial extent of Level 3 exceedances at P55B, P55C, TBC032, TBC024 and TBC034, considering whether adaptive	Progress IN 2025: Partially Answered, and not in the direction expected. Three of the five bores this recommendation names are now known to carry instrument faults rather than, or as well as, groundwater change. TBC032's shallow intake has read a physically impossible level since its transducer	High	Carried forward (R19)

Ref	Recommendation	Basis	Priority	Status
	management actions are warranted, and assessing the need to review groundwater model predictions and trigger thresholds.	began diverging on 4 September 2023, and certified 25 months of false compliance before exclusion. TBC034 (BHCS-176m) records a Mean Pore Pressure OF -201.01 kPa for 2025, which a submerged piezometer cannot produce, while carrying a Level 3 exceedance running 20 months. TBC024 (BHCS-168m) cannot be reconciled between the Ews export's pressure and level column sets. R19 asked the right question; part of the answer is that the instruments were wrong. See R20-01, R20-02 and R20-03.		
R19-06	Continue to monitor Thirlmere Lakes (WMP13). Continue to monitor Thirlmere Lakes under WMP13 where data becomes available, and review any relevant exceedances in line with the WMP13 TARP structure.	Progress IN 2025: Not Met, and the reason has changed. R18 and R19 both recorded this as "data yet to become available". WMP13 produced no assessment at all in 2025 - its last assessed month is November 2025 with zero assessed records, and the six WMP13 exceedances in the whole record are from Oct-2022 to Jan-2023, assessable only because GTR v5.0 gave GW062068 criteria. GTR v7.0 drops that bore, so WMP13 now has no early-warning bore carrying a criterion. This is no longer a matter of waiting for data: as the criteria stand, WMP13 cannot be assessed. And Now The Reason: R12-02 recommended removing GW062068 from the monitoring program "due to infrastructure issues that render the bore unsuitable for ongoing monitoring", and R17 closed that as Complete - "Bore has been removed from the ongoing monitoring program." GW062068 is WMP13's early-warning bore. Three successive reports have described WMP13 as awaiting data while the bore that would supply it had already been retired by agreement. This is not a delay; it is a gap created deliberately and not carried through into the TARP framework.	High	Carried forward (R19)
R19-04	Maintain readiness for make-good or remedial actions. Maintain readiness to implement WMP-defined make-good or remedial actions, particularly where ongoing Level 1 water quality or Level 3 groundwater level exceedances may impact private bore users.	Progress IN 2025: NO Evidence Either Way - readiness is not a state the monitoring record can observe, and Tahmoor Coal should confirm. The exposure it refers to persists: the private bores GW104659, GW109257, GW104008, GW104323 and GW112473 all carry live triggers, and GW104659, GW109257 and GW112473 record WMP11 exceedances during 2025.	Medium	Carried forward (R19)



Ref	Recommendation	Basis	Priority	Status
R19-05	Monitor for any need to review or update the WMP or TARP framework. Monitor for any need to review or update the WMP or TARP framework, should exceedances escalate or cumulative trends indicate potential for broader aquifer impact.	Progress IN 2025: Addressed. The Water Management Plan Rev 7.0 (8 Oct 2025) was approved by DPHI on 6 August 2026 as SSD-8445-PA-170, and the Groundwater Management Plan Rev 7.0 (9 Oct 2025) on 14 August 2026 as SSD-8445-PA-172. Both are registered in the governing-document register. Note that the GWMP update introduces level triggers at three points the criteria register does not hold - TBC039 (HBSS-65m), TBC009 (HBSS-30m) and TBC018 (WWFM/HBSS-70m) - which have approved standing only from 14 August 2026 and not before.	Medium	Carried forward (R19)
R20-01	TBC032 shallow VWP - failed transducer. Replace or recalibrate the CH 1 transducer at TBC032 (HBSS-95m). Report the intake as having produced no valid data since September 2023 and exclude it from WMP9 assessment until it is repaired and re-baselined.	The datum and the EWS conversion are both correct: 1570.32 kPa gives 217.30 + 1570.32/9.80665 = 377.43 mAHD and Ews reports 377.43, agreeing to 0.01 m. The instrument is the fault - CH 1 (95 m) reads a mean 1568 kPa while CH 3 (131 m, 36 m deeper in the same formation) reads 634 kPa, and a shallower intake cannot carry 2.5x the pressure of a deeper one. Divergence begins 4 Sep 2023. The resulting 377 mAHD sits 65 m above the top of casing and, because a level TARP is breached by Falling, certified 25 months of false compliance against a 257.30 trigger before excluded it.	High	Issued
R20-02	TBC034 BHCS-176m - negative pore pressure. Treat the Level 3 WMP9 exceedance at TBC034 (BHCS-176m), running 20 months to August 2026, as an instrument artefact rather than depressurisation, and recommend the transducer be checked. Report the exceedance as triggered, with this qualification.	Mean pore pressure for 2025 is -201.01 kPa. Negative pressure is not possible for a submerged vibrating wire piezometer. the physical-plausibility check's below-sensor arm is set at -20 m and this sensor sits 2.7 m inside it, so no automatic check flags it.	High	Issued
R20-03	TBC033 - six years without data. Recommend that TBC033 be inspected and either recommissioned or formally decommissioned and removed from the monitoring scope. Report explicitly that it has returned no data since 10 December 2020 and has been unassessable for WMP9 and WMP10 throughout.	Nothing records it as retired: the bore register status active with no decommission date, removal date Null on all ten intakes, nine the TARP scope register rows, plotted as a VWP on GTR v7.0 Figure 5-1 drawn 25 June 2024, and five hydrographs published at Appendix G-27 to G-31. Those same figures show the series ending in late 2020 with the axis stopping at Jan-2022, in a report issued 28 June 2024 - so the record is complete and the bore is silent. It is not in Orion and Orion is the direct source.	High	Issued

Ref	Recommendation	Basis	Priority	Status
R20-04	TBC020 - inactive but still in scope. Recommend TBC020 be resolved either way: it is flagged inactive in the register yet retains seven monitoring-scope rows against WMP10. Report that it has returned no data since 1 November 2024.	The bore register carries status inactive with no decommission date while the TARP scope register still holds seven rows for it. Eleven channels, 31,690 live readings, nothing after 1 Nov 2024, and no Orion export. Its final six months were also its shallow channel reporting a neighbouring intake (616 readings, excluded by.	High	Issued
R20-05	Apparent 2.8 to 5.0 m step at five TARP bores on 30 October 2025 is an applied offset, not a groundwater response. Report the 30 October 2025 step at P52, P53A, P53B, P53C and P55C as a Data Artefact rather than a groundwater observation, and state plainly that all five are TARP bores carrying criteria under WMP8, WMP11 and WMP12. Recommend that Tahmoor Coal provide the raw uncorrected transducer pressure and barometric record for 1 August to 31 December 2025 at these bores, together with the logger service history for the 30 October and 25/26 November site visits, since processed depth-to-water cannot distinguish an offset applied in software from a pressure change at the instrument. Recommend that any datum or offset correction applied to a published series in future be supplied with its effective date, its magnitude and the measurements it was fitted to, rather than arriving inside a reconciled workbook. Until the raw record is available, the period from 30 October 2025 should not be used to derive or revise a trigger level, to interpret a groundwater trend, or to stand as a baseline, and the WMP8 Level 1 exceedances recorded at P53A, P53B and P53C in November 2025 should be reported as unresolved rather than as compliance outcomes - stated in full, with the caveat beside them, not withheld.	The offset was fitted to the November dips and back-dated to 30 October. The post-step series matches the 25/26 November 2025 manual dips to 0.002 m (P52), 0.002 (P53A), 0.004 (P53B), 0.005 (P53C) and 0.033 (P55C), and matches the 30 October dips - the date it takes effect from - only to 2.733, 3.964, 4.147, 4.949 and 3.195 m respectively. An instrument cannot fit a correction to a later month and apply it to an earlier one. The whole 2025 record for these bores comes from a single November workbook. Not Groundwater, on four independent grounds: 13 of 16 shallow standpipes were Rising between early September and late October 2025 and all five of these were among them; rainfall was 111.5, 131.0 and 97.0 mm in July, August and September; P55A and P55B kept rising and did not step while P55C beside them is recorded as falling 3.58 m in an hour; and P52 had recovered smoothly for ten months (35.35 mbtoc monthly mean in January to 33.30 in October) before being returned to its January level in sixty minutes. Not Purge Drawdown: the P bores are sampled with HydraSleeves, which are passive and remove essentially no water - confirmed against the field sheets. Not A Lifted Logger: that signature is a large excursion that returns within hours (P55C 14 Dec 2022 -10.07 then +10.09 m; P56B 5 Jul 2023 +/-11.37 m; P50A 29 Jul 2025 -6.27 then +6.33 m) and there is no return leg here. The Dips the correction rests on are not above Question: on 15 May 2025 dips at these same bores disagreed with their loggers by up to 2.03 m in both directions and were ignored, and on 30 October every one of the eight dips taken read deeper than its logger (0.04 to 4.95 m) while the 28 October round agreed to within 0.03	High	Issued

Ref	Recommendation	Basis	Priority	Status
		m. Consequence: the November 2025 assessed levels at P53A (253.15), P53B (253.52) and P53C (249.52) sit below their Level 1 triggers only because of the offset - without it they are near 256.87, 256.97 and 254.52 - and P53C's 0.42 m margin above the Level 3 trigger of 249.10 becomes 5.4 m above it. What IS Not Settled: two independent visits, on 30 October and 25/26 November, both put the water 2.7 to 5.0 m deeper than the logger at five bores by five different amounts. If the pre-step logger is correct then the same bore-specific error recurred a month apart. Processed depth-to-water cannot resolve this and the raw pressure record can - see an open data query. That reading did not survive comparison with the rest of the network and is withdrawn.		
R20-06	TBC019B - unsurveyed and untelemetered. Recommend TBC019B be surveyed and connected, or formally abandoned. It should not remain a half-instrumented bore of record. Note that it was not assessed in R19 and is not a monitoring point of the plan.	No ground level, no top of casing, no depth, no coordinates; the register still calls it "TBC019b (to be drilled)" with eleven empty channels. Zero rows in the TARP scope register, no TARP criteria, no assessments ever. 954 live readings covering only 13 Aug to 31 Oct 2024, of which 318 were HBSS-80m reporting HBSS-109m. Not in Orion.	Medium	Issued
R20-07	Manual dip outliers at GW104323 and GW104008. Re-check the February and March 2025 manual dips at GW104323 and the March 2025 dip at GW104008 against the field sheets, and confirm the dipper was not stopping short. Recommend that a single monthly dip more than a few metres from the bore's own recent range be re-measured on the day rather than accepted, since one dip is the whole month.	the level-outlier check flags GW104323 at 325.061 mAHD in Feb-2025 and 278.041 in Mar-2025 against a fence of 261.901 from its own history, and GW104008 at 213.737 in Mar-2025. All three have the observation count = 1 - a single manual dip is the entire month, with no averaging to dilute it. GW104323 normally sits near 255 and its top of casing is 325.841, so the February reading is within 0.8 m of the casing top itself: the signature of a dipper stopping on an obstruction, or of the casing elevation being recorded instead of a measurement. the physical-plausibility check correctly passed it, because a water level just below ground is physically possible. Note For The Reader: because a level TARP is breached by Falling, a reading that is too High suppresses an exceedance rather than raising one, so this finding does not appear against any trigger in Tables 2 or C-1 - it is the absence that matters.	Medium	Issued

Ref	Recommendation	Basis	Priority	Status
R20-08	Manual dips that disagree with the logger at the same bore. Check the field sheets for the 27 manual dips that disagree with the logger by more than five metres, prioritising the REA3 and REA5 pair of 19 June 2025 which look transposed. Recommend that a dip more than a metre from the logger reading of the same day be re-measured before leaving site, since the dip is the only independent check the logger has.	Comparing each manual dip against the nearest logger reading at the same sensor: of 544 dips with a logger to compare against, 378 agree within 0.5 m, 166 disagree by more than 0.5 m, and 27 disagree by more than 5 m across 11 bores. The worst are P55C 2023-01-17 (dip 290.735, logger 256.629, 34.1 m apart), REA5 2025-06-19 (-32.0 m), REA3 2025-06-19 (+31.4 m), P55A 2023-03-08 (28.4 m) and P56C 2024-12-04 (25.3 m). A 34 m disagreement is not measurement error - it is a dip recorded against the wrong bore, or converted from metres-below-casing using another bore's datum. REA3 and REA5 on the same day, one 31 m high and the other 32 m low, read as a transposed pair. Neither side is excluded: at P55C the logger sits near its trigger and the dip does not, so assuming the logger is right assumes the answer.	Medium	Issued
R20-09	Channel substitution across nine VWP bores. Report the channel substitution and recommend the conversion step be identified before the next Orion cycle. Note that 2,165 affected readings have been excluded and that seven of the nine bores are already corrected by the current exports.	Nine bores lost their shallowest intake to a neighbouring channel from 2024-05-01 in TSGroundwaterData_20241022 and _20241125 (an open data query). The current Ews export is Clean - for TBC032, zero of 1,583 rows post-May-2024 have HBSS-95m equal to HBSS-131m - so the fault is downstream of the export or has since been corrected upstream. It recurs: earlier clusters in 2022-07 and 2023-01. No raw Orion export is retained, which is why the responsible step cannot be identified from the record.	Low	Issued

9.0 References

SLR, 2023. *Tahmoor South Groundwater Reporting October – December 2022*. SLR Report: 640.30614.00000-R01-v2.0.

SLR, 2022. *Extraction Plan Groundwater Technical Report*. Prepared for Tahmoor Coal, October 2022. SLR Report: 610.30637.00000-R01

SLR, 2025, Six-Monthly Groundwater Monitoring: July – December 2024, Tahmoor South Domain, September 2025, SLR Report: 640.30614.0001-R19

NSW Department of Climate Change, Energy, the Environment and Water, 2024. Available Water Determination Order for Groundwater Sources 2024, PUB24/451, made under section 59(1)(a) of the Water Management Act 2000, dated 19 June 2024, commenced 1 July 2024.

NSW Department of Climate Change, Energy, the Environment and Water, 2025. Available Water Determination Order for Groundwater Sources 2025, PUB25/393, made under section 59(1)(a) of the Water Management Act 2000, dated 19 June 2025, commenced 1 July 2025.

Queensland Government, 2025. SILO Long Paddock. Available at https://www.longpaddock.qld.gov.au/

Tahmoor Coal Pty Ltd, 2022. *Water Management Plan – Tahmoor South Domain – Longwalls South 1A-South 6A*. May 18,2022. Report: TAH-HSEC-00361

Appendix A Tahmoor South TARPS

Annual Groundwater Report: January – December 2025

Tahmoor South Domain

Tahmoor Coal Pty Ltd

SLR Project No.: 640.30614.00001

29 October 2026

Trigger Action Response Plan – WMP8 Shallow Groundwater Levels (Open standpipes and private bores)

Performance Measure and Indicator, TARP Objective and Assessment Criteria	Monitoring Program	Management		
		Trigger	**Action**	**Response**
Performance Measure Feature No performance measure relevant. **TARP Objective** This TARP defines levels of deviation in groundwater level from 'normal' or baseline conditions and the actions to be implemented in response to each level deviation. This TARP supports TARP WMP13, where groundwater levels as they pertain to groundwater dependent ecosystems (GDEs) (Thirlmere Lakes) are covered. **Assessment Criteria** Bore specific trigger values based on baselines data for each reporting level.	**Locations** **Open standpipes** Existing sites: P51a, P51b, P52, REA4, P53a, P53b, P53c, P54a, P54b, P54c, P55a, P55b, P55c, P56a, P56b, P56c P50a, P50b, P50c, P57a, P57b, P57c **Private bores** GW109257, GW104008, GW112473, GW104659, GW104323 All monitoring locations are shown in Figure 23 of the Water Management Plan. **Monitoring Frequency** **Pre-mining** Monthly manual measurements of water level. **During Mining** Monthly manual measurements of water level. **Post-mining** Quarterly manual measurements of water level for 12 months following the completion of LW S6A, or as required in accordance with a Rehabilitation Management Plan.	**Normal Condition**		
		• Groundwater level remains consistent with baseline variability and pre-mining trends with reductions in groundwater level less than two meters.	• Continue monitoring and review of data as per monitoring program.	• No response required.
		Level 1		
		• Greater than 2 m water level reduction[1] for a period of greater than 6 months following the commencement of extraction.	For Private Bores and Open Standpipe Monitoring Bores • *Actions as required for Normal Condition.* • Undertake an investigation to assess cause and determine if mining related. • Undertake investigation to demonstrate if the decline will impact the long-term viability of the affected water supply works. • Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, surface water level results). The investigation will be commenced/completed as efficiently as practicable. If the changes have been confirmed to be related to mining effects: For Private Bores: • Initiate negotiations with impacts landowners as soon as practicable. Consider all reasonable and feasible options for remediation as relevant (e.g. extending the depth of the bore, establishment of additional bores, etc - as per Section 6.2.1.4 of the Water Management Plan. " For Open Standpipe Monitoring Bores • For monitoring sites relevant to Thirlmere Lakes or associated with surface water monitoring sites, initiate groundwater – surface water interaction TARP.	For Private Bores and Open Standpipe Monitoring Bores • Report trigger exceedance to DPHI and key stakeholders. • Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review. If the changes have been confirmed to be related to mining effects: For Private Bores: • Provide DPHI and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g. extending the depth of the bore, establishment of additional bores, compensation to affected landowners as detailed in Section 6.2.1.4 of the Water Management Plan). • Implement CMAs, subject to land access (finalise negotiations and implement the agreed "make-good" arrangements) • Monitor and report on success of CMAs in Six Monthly Subsidence Impact Report and Annual Review.
		Level 2		
		• Water level declines below the average between the 'maximum modelled drawdown' (Level 3 trigger) and the '2 m drawdown' (Level 1 trigger)[1] for a period of greater than 6 months following the commencement of extraction. AND • The reduction in water level is determined not to be controlled by climatic or external anthropogenic factors.	For Private Bores and Open Standpipe Monitoring Bores • *Actions as stated in Level 1.* • Consider increasing frequency of monitoring and review of data at sites where Level 2 has been reached or at other relevant sites, subject to land access. Reasons for not increasing monitoring frequency could include confident identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water level change, or confirmed as a mining-related impact). Increased monitoring could be beneficial where commensurate responses in paired surface water monitoring locations have been observed. • Compare against base case and deterministic model scenarios[2]. • Review Water Management Plan and modify if necessary. For Private Bores: • Review CMAs in light of findings from further investigations and consider additional reasonable and feasible options.	For Private Bores and Open Standpipe Monitoring Bores • *Responses as stated in Level 1.* • Advise DPHI and key stakeholders of any required amendments to Water Management Plan. For Private Bores: • Provide findings of CMA review to DPHI and key stakeholders for consultation. • Implement additional CMAs, subject to land access.
		Level 3		
		• Water level reduction greater than the maximum modelled drawdown[1] for a period of greater than 6 months following the commencement of extraction. AND • The reduction in water level is determined not to be controlled by climatic or external anthropogenic factors.	For Private Bores and Open Standpipe Monitoring Bores • *Actions as stated in Level 2.* • Increase monitoring and review of data frequency for sites where Level 3 has been reached, and cause is unknown, subject to land access. • Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has	For Private Bores and Open Standpipe Monitoring Bores • *Responses as stated in Level 2.* For Private Bores: • Develop a Rehabilitation Management Plan in consultation with DPHI and key stakeholders. • Implement Rehabilitation Management Plan, subject to land access.

			been subsidence induced fracturing, other catchment changes, effect unrelated to mining or the prevailing climate).	
Notes: [1] Level 1, 2 and 3 triggers for water level reduction is provided in Table 6-3 in Appendix E of the Water Management Plan. [2] "Deterministic" model scenario refers to the predictive scenario modelling utilised to determine the trigger level. [3] Trigger levels to be developed for P50 and P57 bores when suitable baseline data available				

Trigger Action Response Plan – WMP9 Shallow Groundwater Pressures (VWP sensors < 200 m)

Performance Measure and Indicator, TARP Objective and Assessment Criteria	Monitoring Program	Management		
		Trigger	**Action**	**Response**
Performance Measure Feature No performance measure relevant. **TARP Objective** This TARP defines levels of deviation in groundwater level from 'normal' or baseline conditions and the actions to be implemented in response to each level deviation. **Assessment Criteria** Bore specific trigger values based on baselines data for each reporting level.	**Locations** TBC032, TBC033, TBC009, TBC018, TBC0039 Monitoring of all VWP < 200 m depth intakes. Reference Sites:TBC027, TBC034, TBC038 All monitoring locations are shown in Figure 23 of the Water Management Plan. **Monitoring Frequency** **Pre-mining** VWPs sensors take pressure readings hourly. The system is now telemetered so data is streamed continuously and can be accessed at any point in time. **During Mining** VWPs sensors take pressure readings hourly. The system is now telemetered so data is streamed continuously and can be accessed at any point in time. **Post-mining** Monitoring of data (streamed continuously) for 12 months following the completion of LW S6A.	**Normal Condition**		
		• No observable mining induced change at VWP intakes. • Greater than 5 m water level reduction in VWP intakes[1] following the commencement of extraction for a period of less than six months	• Continue monitoring and review of data as per monitoring program.	• No response required.
		Level 1		
		• Greater than 5 m water level reduction in VWP intakes[1] following the commencement of extraction for a period of greater than six months	• *Actions as required for Normal Condition.* • Undertake an investigation to assess cause and determine if mining related, commence/complete as soon as practicable. • Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, surface water level results).	• Report trigger exceedance to DPHI and key stakeholders. • Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review.
		Level 2		
		• Water level declines below the calculated Level 2 trigger – being the average of Level 1 (the '5 m drawdown'[1]) and Level 3 (the 'maximum modelled drawdown') – following the commencement of extraction for a period of greater than six months. AND • The reduction in water level is determined not to be controlled by climatic or external anthropogenic factors.	• *Actions as stated in Level 1.* • Review deeper VWP data at monitored sites. Determine whether additional review of data is required. • Determine if review of additional existing VWP sites is required. • Consider increasing frequency of data review at sites where Level 2 has been reached or at other relevant sites. • Reasons for not increasing monitoring frequency could include confident identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water level change, or confirmed as a mining-related impact). Increased monitoring could be beneficial where commensurate responses in paired surface water monitoring locations have been observed.Compare against base case and deterministic model scenarios[2]. • Review Water Management Plan and modify if necessary.	• *Responses as stated in Level 1.* • Advise DPHI and key stakeholders of any required amendments to Water Management Plan.
		Level 3		
		• Water level reduction greater than the maximum modelled drawdown[1] following the commencement of extraction for a period of greater than six months. AND • The reduction in water level is determined not to be controlled by climatic or external anthropogenic factors.	• *Actions as stated in Level 2.* • Increase frequency of data review for sites where Level 3 has been reached and the cause is unknown. • Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing, other catchment changes, effect unrelated to mining or the prevailing climate). Commence/complete as soon as practicable • Undertake investigative to review model results in conjunction with field data.	• *Responses as stated in Level 2.*

Notes:
[1] Level 1, 2 and 3 triggers for water level reduction is provided in Table 6-4 in Appendix E of the Water Management Plan).
[2] "Deterministic" model scenario refers to the predictive scenario modelling utilised to determine the trigger level.

Trigger Action Response Plan – WMP10 Groundwater level/pressure Deep VWPs (> 200 m)

<table>
<tr><th rowspan="2">Performance Measure and Indicator, TARP Objective and Assessment Criteria</th><th rowspan="2">Monitoring Program</th><th colspan="3">Management</th></tr>
<tr><th>Trigger</th><th>Action</th><th>Response</th></tr>
<tr><td rowspan="8"><u>Performance Measure Feature</u>
No performance measure relevant.

<u>TARP Objective</u>
This TARP defines levels of deviation in groundwater level from ‘normal’ or baseline conditions and the actions to be implemented in response to each level deviation.

<u>Assessment Criteria</u>
Bore specific trigger values based on modelled data for each reporting level.
Model layers utilised to define predicted drawdown for each VWP logger provided in Table below.</td><td rowspan="8"><u>Locations</u>
TBC009, TBC0018, TBC020, TBC026, TBC032, TBC033, TBC039

Reference sites: TBC027, TBC034, TBC038

Monitoring of all VWP > 200 m depth intakes excluding those monitoring the Bulli Coal Seam.

All monitoring locations are shown in Figure 23 of the Water Management Plan.

<u>Monitoring Frequency</u>
Pre-mining
VWPs sensors take pressure readings hourly. The system is now telemetered so data is streamed continuously and can be accessed at any point in time.

During Mining
VWPs sensors take pressure readings hourly. The system is now telemetered so data is streamed continuously and can be accessed at any point in time.

Post-mining
Monitoring of data (streamed continuously) for 12 months following the completion of LW S6A.</td><td>Normal Condition</td><td></td><td></td></tr>
<tr><td>• Observed data does not exceed modelled impacts predicted drawdown by greater than 30 metres[1].
• Observed drawdown exceeds the modelled predicted drawdown[1], by greater than 30 metres for of less than three consecutive months</td><td>• Continue monitoring and review of data as per monitoring program.</td><td>• No response required.</td></tr>
<tr><td>Level 1</td><td></td><td></td></tr>
<tr><td>• Observed drawdown exceeds the modelled predicted drawdown[1], by greater than 30 metres for greater than three consecutive months.</td><td>• Actions as required for Normal Condition.
• Undertake an investigation to assess cause and determine if mining related, to be commenced/completed as soon as practicable.
• Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, surface water level results).</td><td>• Report trigger exceedance to DPHI and key stakeholders.
• Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review.</td></tr>
<tr><td>Level 2</td><td></td><td></td></tr>
<tr><td>• Observed drawdown is exceeds modelled predicted drawdown[1], by more than 30 metres greater than 6 consecutive months.</td><td>• Actions as stated in Level 1.
• Consider increasing frequency of data review at sites where Level 2 has been reached or at other relevant sites.
• Reasons for not increasing monitoring frequency could include confident identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water level change, or confirmed as a mining-related impact). Increased monitoring could be beneficial where commensurate responses in paired surface water monitoring locations have been observed. Consider reviewing data in conjunction with VWP data from additional existing VWP sites.
• Compare against base case and deterministic model scenarios[2].
• Review Water Management Plan and modify if necessary.</td><td>• Responses as stated in Level 1.
• Inclusion of more regional VWPs into data review to determine likely extent and depth of depressurisation.
• Advise DPHI and key stakeholders of any required amendments to Water Management Plan.</td></tr>
<tr><td>Level 3</td><td></td><td></td></tr>
<tr><td>• Observed drawdown exceeds modelled predicted drawdown[1] by 30 m, for 12 consecutive months or more.</td><td>• Actions as stated in Level 2.
• Increase review of data frequency for sites where Level 3 has been reached if the cause is unknown.
• Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing, other catchment changes, effect unrelated to mining or the prevailing climate). To be commenced/completed as soon as practicable.
• Review base case and deterministic model scenarios[2] in conjunction with water pressure data and report findings.</td><td>• Responses as stated in Level 2.</td></tr>
<tr><td colspan="6">Notes:
[1] Predicted drawdown refers to the drawdown as generated by the groundwater model and varies over time as extraction progresses. Observed drawdown will be plotted on a monthly basis against the predicted drawdown to determine if a trigger has occurred. Therefore, as the predicted drawdown will be constantly changing according to extraction progression, it is not possible to set a specific trigger limit.
[2] “Deterministic” model scenario refers to the predictive scenario modelling utilised to determine the trigger level.</td></tr>
</table>

Sensor	Model Layer	Model Geology		Sensor	Model Layer	Model Geology
TBC09_322	8	BUSS Mid		TBC26_344	8	BUSS Mid
TBC09_343	8	BUSS Mid		TBC26_409	13	WBCS
TBC09_357	12	SBSS Lower		TBC26_432	15	Bulli Seam
TBC09_381	10	SPCS		TBC26_440	16	Eckersley
TBC09_391	15	Bulli Seam		TBC26_460	16	Eckersley
TBC09_397	17	Wongawilli		TBC32_200	8	BUSS Mid

TBC18_282	8	BUSS Mid		TBC32_237	8	BUSS Mid
TBC18_366	8	BUSS Mid		TBC32_257	8	BUSS Mid
TBC18_377	13	WBCS		TBC32_294	8	BUSS Mid
TBC18_404	15	Bulli Seam		TBC32_314	8	BUSS Mid
TBC18_426	17	Wongawilli		TBC33_247	8	BUSS Mid
TBC18_432	17	Wongawilli		TBC33_306	8	BUSS Mid
TBC20_211	8	BUSS Mid		TBC33_363	11	SBSS Upper
TBC20_293	8	BUSS Mid		TBC33_384	16	Eckersley
TBC20_375	8	BUSS Mid		TBC33_408	16	Eckersley
TBC20_397	13	WBCS		TBC39_243	8	BUSS Mid
TBC20_411	7	BUSS Upper		TBC39_299	8	BUSS Mid
TBC20_434	17	Wongawilli		TBC39_354	11	SBSS Upper
TBC20_439	4	HBSS Mid		TBC39_375	16	Eckersley
TBC26_211	8	BUSS Mid		TBC39_402	16	Eckersley
TBC26_278	8	BUSS Mid				

Trigger Action Response Plan – WMP11 Groundwater Quality (open standpipes and private bores)

<table>
<tr><th rowspan="2">Performance Measure and Indicator, TARP Objective and Assessment Criteria</th><th rowspan="2">Monitoring Program</th><th colspan="3">Management</th></tr>
<tr><th>Trigger</th><th>Action</th><th>Response</th></tr>
<tr>
<td rowspan="8"><u>Performance Measure Feature</u>
No performance measure relevant.

<u>TARP Objective</u>
This TARP defines levels of deviation in groundwater level from ‘normal’ or baseline conditions and the actions to be implemented in response to each level deviation.
This TARP supports TARP WMP13, where groundwater quality as it pertains to groundwater dependent ecosystems (GDEs) (Thirlmere Lakes) is covered.

<u>Assessment Criteria</u>
Bore specific trigger values based on baselines data for each reporting level.</td>
<td rowspan="8"><u>Locations</u>
Open standpipes
Existing sites:
P51a, P51b, P52, REA4, P53a, P53b, P53c, P54a, P54b, P55a, P55b, P55c, P56a, P56b, P56c
P50a, P50b, P50c, P57a, P57b. P57c[2]

Private bores
GW109257, GW104008, GW112473, GW104659, GW104323

All monitoring locations are shown in Figure 23 of the Water Management Plan.

<u>Monitoring Frequency</u>
Pre-mining
Monthly water quality sampling.

During Mining
Monthly water quality sampling

Post-mining
Quarterly water quality sampling.

Water Quality sample parameters:
Field Parameters
PH
EC
TDS
DO

Laboratory Analysis
Total alkalinity as CaCO3, HCO3, CO3, DOC
Dissolved Major Cations (Ca, K, Na, Mg, F, Cl, SO4)
Dissolved Metals (Al, As, Ba, Co, Cu, Pb, Li, Mn, Ni, Se, Sr, Zn, Fe)
Total Metals (Al, As, Ba, Co, Cu, Pb, Li, Mn, Ni, Se, Sr, Zn, Fe)
Total Nitrogen
Total Phosphorus
Ionic Balance (Total Anions and Total Cations)</td>
<td>Normal Condition</td><td></td><td></td>
</tr>
<tr>
<td>• No observable changes in salinity, pH or metals outside of the baseline variability.</td>
<td>• Continue monitoring and review of data as per monitoring program.</td>
<td>• No response required.</td>
</tr>
<tr>
<td>Level 1</td><td></td><td></td>
</tr>
<tr>
<td>• Observed salinity and/or metals or pH outside of defined trigger levels[1] for 3 consecutive months or more. The effect does not persist after a significant rainfall recharge event.
AND
• A similar trend or response is noted at other monitored bores or private groundwater bores.</td>
<td>For Private Bores and Open Standpipe Monitoring Bores
• Actions as required for Normal Condition.
• Undertake an investigation to assess cause and determine if mining related.
• Undertake investigation to demonstrate if the change in quality will impact the long-term viability of the affected water supply works.
• Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, surface water level results).
If the changes have been confirmed to be related to mining effects:
For Private Bores:
• Initiate negotiations with impacted landholders as soon as practicable. Consider all reasonable and feasible options for remediation as relevant. This could include potential for implementation of make-good provisions as per Section 6.2.1.4 of the Water Management Plan for affected private bore owners (e.g. provision of access to an alternative source of water).
For Open Standpipe Monitoring Bores
• For monitoring sites relevant to Thirlmere Lakes or associated with surface water monitoring sites, initiate groundwater – surface water interaction TARP.</td>
<td>For Private Bores and Open Standpipe Monitoring Bores
• Report trigger exceedance to DPHI and key stakeholders.
• Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review.
If the changes have been confirmed to be related to mining effects:
For Private Bores:
• Provide DPHI and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g. provision of access to an alternative source of water as detailed in Section 6.2.1.4 of the Water Management Plan).
• Implement CMAs, subject to land access.
• Monitor and report on success of CMAs in Six Monthly Subsidence Impact Report and Annual Review.</td>
</tr>
<tr>
<td>Level 2</td><td></td><td></td>
</tr>
<tr>
<td>• Observed salinity and/or metals or pH outside of defined trigger levels[1], for 3 consecutive months or more. The effect persists after a significant rainfall recharge event.
AND
• The change in water quality is determined not to be controlled by climatic or external anthropogenic factors.</td>
<td>For Private Bores and Open Standpipe Monitoring Bores
• Actions as stated in Level 1.
• Consider increasing frequency of monitoring and review of data at sites where Level 2 has been reached or at other relevant sites, subject to land access and feasibility.
• Reasons for not increasing monitoring frequency could include confident identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water level change, or confirmed as a mining-related impact). Increased monitoring could be beneficial where commensurate responses in paired surface water monitoring locations have been observedReview Water Management Plan and modify if necessary.
For Private Bores:
• Review CMAs in light of findings from further investigations and consider additional reasonable and feasible options.</td>
<td>For Private Bores and Open Standpipe Monitoring Bores
• Responses as stated in Level 1.
• Advise DPHI and key stakeholders of any required amendments to Water Management Plan.
For Private Bores:
• Provide findings of CMA review to DPHI and key stakeholders for consultation.
• Implement additional CMAs, subject to land access.</td>
</tr>
<tr>
<td>Level 3</td><td></td><td></td>
</tr>
<tr>
<td>• Observed salinity and/or metals or pH outside of defined trigger levels[1], for greater than 6 consecutive months.
AND
• The change in water quality is determined not to be controlled by climatic or external anthropogenic factors.</td>
<td>For Private Bores and Open Standpipe Monitoring Bores
• Actions as stated in Level 2.
• Increase monitoring and review of data frequency for sites where Level 3 has been reached, and cause is unknown, subject to land access and feasibility.
• Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing, other catchment changes, effect unrelated to mining or the prevailing climate).
• Undertake investigative report to demonstrate if the water quality change will impact the long-term viability of any affected water supply works.</td>
<td>Private Bores and Open Standpipe Monitoring Bores
• Responses as stated in Level 2.
For Private Bores:
If ascertained impact is due to mining activities and has potential to impact long-term viability of supply for private groundwater bores:
• Develop a Rehabilitation Management Plan in consultation with DPHI and landowner.
• Implement Rehabilitation Management Plan, subject to land access.</td>
</tr>
<tr>
<td colspan="5">Notes:
[1] Defined trigger levels for groundwater quality are listed in Table 6-5 of Appendix E of the Water Management Plan.
[2] Trigger levels to be defined for P50 and P57 bores when adequate baseline data becomes available.</td>
</tr>
</table>

Trigger Action Response Plan – WMP12 Groundwater – surface water Interaction

<table>
<tr><th rowspan="2">Performance Measure and Indicator, TARP Objective and Assessment Criteria</th><th rowspan="2">Monitoring Program</th><th colspan="3">Management</th></tr>
<tr><th>Trigger</th><th>Action</th><th>Response</th></tr>
<tr><td rowspan="8"><u>Performance Measure Feature</u>
No performance measure relevant.

<u>TARP Objective</u>
This TARP defines levels of deviation in surface water - groundwater interactions from ‘normal’ conditions and the actions to be implemented in response to each level deviation.
The instigation of this TARP will be dictated by triggers exceedances in pertinent groundwater or surface water sites requiring further investigation of groundwater – surface water interactions.

Where groundwater – surface water connectivity indicates in a gaining stream, there is potential for groundwater supporting riparian vegetation. Consequently, Riparian vegetation in these situations could be a Groundwater Dependent Ecosystem (GDE), and the pertinent Performance Measure applicable:
Negligible impacts including:
• Negligible change in groundwater levels; and
• Negligible change in groundwater quality.

Riparian GDEs are addressed through the Riparian Vegetation TARP (BMP3). Consultation through the ERG will link this TARP (WMP12) to BMP3 via actions in BMP3 to consider groundwater – surface water relationships when pertinent.

<u>Assessment Criteria</u>
Bore specific trigger values based on baselines data for each reporting level. For this TARP, the aligned groundwater and surface water sites would be considered collectively to interpret potential changes/impacts to groundwater – surface water interaction.</td><td rowspan="8"><u>Locations</u>
Open standpipes
P51a, P51b, P52, REA4, P53a, P53b, P53c
P54a, P54b, P54c, P55a, P55b, P55c

The aligned surface water and groundwater sites are as follows:
• P51a, P51b with surface water site BR2-Qla
• P52, REA4 with surface water site-TT14-QLa
• P53a, P53b, P53c with surface water site-TT14-Qla
• P54a, P54b, P54c with surface water site TT3-QLa
• P55a, P55b, P55c with surface water site TT1-QRLa

All monitoring locations are shown in Figure 23 of the Water Management Plan.

<u>Monitoring Frequency</u>
Pre-mining
Monthly manual measurements of water level and water quality.

During Mining
Monthly manual measurements of water level and water quality.

Post-mining
Quarterly manual measurements of water level for 12 months following the completion of LW S6A, or as required in accordance with a Rehabilitation Management Plan.</td><td>Normal Condition</td><td></td><td></td></tr>
<tr><td>• Observed (or inferred where not immediately neighbouring a surface water site) groundwater and surface water interaction remains consistent with baseline variability and/pre-mining trends, and decrease in groundwater inflow not persisting after significant rainfall recharge events.</td><td>• Continue monitoring and review of data as per monitoring program.</td><td>• No response required.</td></tr>
<tr><td>Level 1</td><td></td><td></td></tr>
<tr><td>• Observed (or inferred where not immediately neighbouring a surface water site) groundwater levels at surface water monitoring site decline below Level 1 (in TARP WMP8) following the commencement of extraction.</td><td>• Actions as required for Normal Condition.
• Undertake an investigation to assess cause and determine if mining related.
• Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, surface water level results).</td><td>• Report trigger exceedance to DPHI and key stakeholders.
• Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review.
If the changes have been confirmed to be related to mining effects:
• Provide DPHI and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g. extending the depth of the bore, establishment of additional bores, compensation to affected landowners as detailed in Section 6.2.1.4 of the Water Management Plan).
• Implement CMAs, subject to land access.
• Monitor and report on success of CMAs in Six Monthly Subsidence Impact Report and Annual Review.</td></tr>
<tr><td>Level 2</td><td></td><td></td></tr>
<tr><td>• Observed (or inferred where not immediately neighbouring a surface water site) groundwater levels at aligned surface water monitoring site decline below Level 2 (in TARP WMP8) following the commencement of extraction.
AND
• The reduction in water level is determined not to be controlled by climatic or external anthropogenic factor.</td><td>• Actions as stated in Level 1.
• Consider increasing frequency of monitoring and review of data at sites where Level 2 has been reached or at other relevant sites, subject to land access and feasibility.
• Reasons for not increasing monitoring frequency could include confident identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water level change, or confirmed as a mining-related impact.
• Compare against base case and deterministic model scenarios[1].
• Review manual water level measurements for additional monitoring sites to identify potential spatial trends in water level decline.
• Review surface water data to assess for surface water level decline at relevant site.
• Review CMAs in light of findings from further investigations and consider additional reasonable and feasible options.
• Review Water Management Plan and modify if necessary.</td><td>• Responses as stated in Level 1.
• Provide findings of CMA review to DPHI and key stakeholders for consultation.
• Implement additional CMAs, subject to land access.
• Advise DPHI and key stakeholders of any required amendments to Water Management Plan, including reporting on relationship of observations to baseline and deterministic model scenarios, as necessary.</td></tr>
<tr><td>Level 3</td><td></td><td></td></tr>
<tr><td>• Inferred groundwater levels at surface water monitoring site decline below Level 3 (in TARP WMP8) following the commencement of extraction.
AND
• The reduction in water level is determined not to be controlled by climatic or external anthropogenic factor.</td><td>• Actions as stated in Level 2.
• Increase frequency of data review for sites where Level 3 has been reached, and cause is unknown, subject to land access.
• Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g. whether there has been subsidence induced fracturing, other catchment changes, effect unrelated to mining or the prevailing climate). Report to be commenced and completed as soon as practicable.</td><td>• Responses as stated in Level 2.
• Develop a Rehabilitation Management Plan in consultation with DPHI and key stakeholders.
• Implement Rehabilitation Management Plan, subject to land access.</td></tr>
<tr><td colspan="5">Notes:
[1] “Deterministic” model scenario refers to the predictive scenario modelling utilised to determine the trigger level.</td></tr>
</table>

Trigger Action Response Plan – WMP13 Groundwater Bore Monitoring for Thirlmere Lakes

<table>
<tr><th rowspan="2">Performance Measure and Indicator, TARP Objective and Assessment Criteria</th><th rowspan="2">Monitoring Program</th><th colspan="3">Management</th></tr>
<tr><th>Trigger</th><th>Action</th><th>Response</th></tr>
<tr><td rowspan="6"><u>Performance Measure Feature</u>
GDEs including Thirlmere Lakes[1].

<u>Performance Measure</u>
Negligible impacts including:
• Negligible change in groundwater levels; and
• Negligible change in groundwater quality.

<u>Performance Indicator</u>
The performance measure will be considered to be exceeded if the groundwater levels or groundwater quality decline below Level 3 (in the relevant groundwater TARP triggers for water level and water quality – TARP WMP8 or WMP11) following the commencement of extraction, and the investigation outcomes indicate a mining related impact based on monitoring data for the Thirlmere Lakes.

<u>TARP Objective</u>
This TARP defines levels of deviation at Thirlmere Lakes from ‘normal’ conditions and the actions to be implemented in response to each level deviation.

<u>Assessment Criteria</u>
Bore specific trigger values based on baselines data for each reporting level.</td><td rowspan="6"><u>Locations</u>
“Early warning” bores
Existing sites:
GW062068, GW104659, TBC039 (sensor at 65 metres in Hawkesbury Sandstone (HBSS))
Proposed sites:
P50a, P50b, P50c

Thirlmere Lakes bores (not trigger bores)
Existing sites:
GW075409–1, GW075409–2, GW075410, GW075411 (paired with gauging station 212066)

All monitoring locations are shown in Figure 23 of the Water Management Plan.

<u>Monitoring Frequency (for “early warning” bores)</u>
Pre-mining
Monthly manual measurements of water level and water quality.

During Mining
Monthly manual measurements of water level and water quality.

Post-mining
Quarterly manual measurements of water level for 12 months following the completion of LW S6A, or as required in accordance with a Rehabilitation Management Plan.

Water Quality sample parameters:
<table><tr><th>Field Parameters</th></tr><tr><td>PH
EC
TDS
DO</td></tr><tr><th>Laboratory Analysis</th></tr><tr><td>Total alkalinity as CaCO3, HCO3, CO3, DOC
Dissolved Major Cations (Ca, K, Na, Mg, F, Cl, SO4)
Dissolved Metals (Al, As, Ba, Co, Cu, Pb, Li, Mn, Ni, Se, Sr, Zn, Fe)
Total Metals (Al, As, Ba, Co, Cu, Pb, Li, Mn, Ni, Se, Sr, Zn, Fe)
Total Nitrogen
Total Phosphorus
Ionic Balance (Total Anions and Total Cations)</td></tr></table></td><td colspan="3">Normal Condition</td></tr>
<tr><td>• Groundwater levels and quality remain consistent with baseline variability and/pre-mining trends, and changes in groundwater levels/quality not persisting after significant rainfall recharge events.</td><td>• Continue monitoring and review of data as per monitoring program.</td><td>• No response required.</td></tr>
<tr><td colspan="3">Level 1</td></tr>
<tr><td>• Level 1 trigger of TARP WMP8 for a minimum of two “early warning” bores.
OR
• Level 1 trigger of TARP WMP11 for a minimum of two “early warning” bores.</td><td>• Actions as required for Normal Condition.
• Undertake an investigation to assess cause and determine if mining related.
• Discuss findings and obtain other relevant information from key specialists (e.g. subsidence monitoring results, surface water level results).
If the changes have been confirmed to be related to mining effects:
• Consider all reasonable and feasible options for remediation as relevant (e.g. extending the depth of the bore, establishment of additional bores). This could include potential for implementation of make-good provisions as per Section 6.2.1.4 of the Water Management Plan for affected private bore owners.
• For monitoring sites relevant to Thirlmere Lakes or associated with surface water monitoring sites, initiate groundwater – surface water interaction TARP.</td><td>• Report trigger exceedance to DPE and key stakeholders.
• Report trigger exceedance and investigation outcomes in Six Monthly Subsidence Impact Report and Annual Review.
If the changes have been confirmed to be related to mining effects:
• Provide DPE and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g. extending the depth of the bore, establishment of additional bores, compensation to affected landowners as detailed in Section 6.2.1.4 of the Water Management Plan).
• Implement CMAs, subject to land access.
• Monitor and report on success of CMAs in Six Monthly Subsidence Impact Report and Annual Review.</td></tr>
<tr><td colspan="3">Level 2</td></tr>
<tr><td>• Level 2 trigger of TARP WMP8 for a minimum of three bores “early warning” bores
OR
• Level 2 trigger of TARP WMP11 for a minimum of three bores (“early warning” bores and Thirlmere Lakes bores).</td><td>• Actions as stated in Level 1.
If the changes have been confirmed to be related to mining effects:
• Consider increasing monitoring and review of data at sites where Level 2 has been reached, subject to land access. Reasons for not increasing monitoring frequency could include solid identification causation that do not require further monitoring (e.g. singular anthropogenic impact resulting in water level change).
Review Thirlmere Lakes monitoring bore data
• Compare against base case and deterministic model scenarios[2].
• Review manual water level measurements for additional monitoring sites to identify potential spatial trends in water level decline.
• Review surface water data to assess for surface water level decline at relevant site.
• Review CMAs in light of findings from further investigations and consider additional reasonable and feasible options.
• Review Water Management Plan and modify if necessary.
• Undertake an investigation to determine if an exceedance of the performance measure is likely. To be commenced/completed as soon as practicable.</td><td>• Responses as stated in Level 1.
• Provide findings of CMA review to DPE and key stakeholders for consultation.
• Implement additional CMAs, subject to land access.
• Advise DPE and key stakeholders of any required amendments to Water Management Plan.
• If relevant, notify DAWE of any predictions of an exceedance of a performance measure within two business days.</td></tr>
<tr><td colspan="3">Exceeds Performance Measure</td></tr>
<tr><td>• Level 3 trigger of TARPs WMP8 for a minimum of four bores “early warning” bores)
OR
• Level 3 trigger of TARPs WMP11 for a minimum of four bores (“early warning” bores and Thirlmere Lakes bores).
AND
• Review of Thirlmere Lakes bores indicated potential impacts resulting from extraction</td><td>• Actions as stated in Level 2.
If the changes have been confirmed to be related to mining effects:
• Increase monitoring and review of data frequency for sites where Level 3 has been reached, subject to land access.
• Investigate reasons for the performance measure exceedance. To be commenced/completed as soon as practicable.
• Review predictions of subsidence impacts and environmental consequences associated with further longwall extraction based on the outcomes of the investigation.
• Consider modifying mine plan.</td><td>• Responses as stated in Level 2.
• Submit a report to DPE (in accordance with Condition E4 of SSD 8445) within 14 days of the exceedance occurring (or other timeframe agreed by DPE) describing remediation options and any preferred remediation measures or other course of action.
• Implement any reasonable remediation measures as directed by DPE, subject to land access.
• Notify DAWE of any detection or predictions of an exceedance of a performance measure within two business days.
• Submit an Impact Response Plan to DAWE (in accordance with Condition 11 of the DAWE Consent for the Tahmoor South Project).</td></tr>
</table>

				• Update numerical groundwater model and re-run predictive scenarios to determine the likely extent and depth of depressurisation in the vicinity of Thirlmere Lakes, and to determine whether any additional management actions are required such as modifying the mine plan
Notes: [1] It is noted that the only Groundwater Dependent Ecosystem (GDE) pertinent to the Tahmoor South Project is that of Thirlmere Lakes[2] "Deterministic" model scenario refers to the predictive scenario modelling utilised to determine the trigger level.				

Appendix B Tahmoor South TARP Trigger Levels

Annual Groundwater Report: January – December 2025

Tahmoor South Domain

Tahmoor Coal Pty Ltd

SLR Project No.: 640.30614.00001

29 October 2026

B.1 WMP8, WMP9, WMP10, WMP13 Groundwater Level

Table B-1 Summary of Groundwater Level Triggers

Bore	Type	TARP Reference Level (mAHD)	TARP Level 1 (mAHD)	TARP Level 2 (mAHD)	TARP Level 3 (mAHD)
Shallow Open Standpipes (WMP8)					
P51A	Shallow Open Standpipe	298.3	296.3	292.4	288.5
P51B	Shallow Open Standpipe	299.5	297.5	293.6	289.7
P52	Shallow Open Standpipe	248.7	246.7	244.6	242.5
P53A	Shallow Open Standpipe	257.8	255.8	253.7	251.6
P53B	Shallow Open Standpipe	257.8	255.8	253.7	251.6
P53C	Shallow Open Standpipe	255.6	253.6	251.4	249.1
P54A	Shallow Open Standpipe	262.7	260.7	259.0	257.4
P54B	Shallow Open Standpipe	261.9	259.9	258.2	256.6
P55A	Shallow Open Standpipe	273.1	271.1	269.7	268.2
P55B	Shallow Open Standpipe	268.0	266.0	264.4	262.9
P55C	Shallow Open Standpipe	261.7	259.7	258.2	256.6
P56A	Shallow Open Standpipe	290.2	288.2	284.8	281.4
P56B	Shallow Open Standpipe	280.9	278.9	275.5	272.1
P56C	Shallow Open Standpipe	259.4	257.4	254.1	250.7
REA4	Shallow Open Standpipe	250.3	248.3	246.2	244.1
Private Bores (WMP8)					
GW104008	Private Bore	237.82	235.82	235.07	234.32
GW104323	Private Bore	257.46	255.46	255.41	255.36
GW104659	Private Bore	250.36	248.36	242.16	235.96
GW109257	Private Bore	278.26	276.26	274.26	272.26
GW112473	Private Bore	317.19	315.19	Modelled drawdown is equal to 1 m	Modelled drawdown is equal to 1 m

Bore	Type	TARP Reference Level (mAHD)	TARP Level 1 (mAHD)	TARP Level 2 (mAHD)	TARP Level 3 (mAHD)
Shallow VWPs <200 m (WMP9)					
TBC009 (HBSS-75m)	Shallow VWP	309.4	304.4	304.2	304.1
TBC009 (BHCS-182m)	Shallow VWP	293.0	288.0	287.4	286.8
TBC009 (BGSS-192m)	Shallow VWP	290.4	285.4	285.2	285.0
TBC018 (WWFM/HBSS-117m)	Shallow VWP	251.9	246.9	246.6	246.2
TBC018 (HBSS-164m)	Shallow VWP	250.7	245.7	245.4	245.1
TBC018 (BHCS-179m)	Shallow VWP	248.5	243.5	243.1	242.8
TBC018 (BGSS-198m)	Shallow VWP	244.7	239.7	237.8	236.0
TBC024 (HBSS-117m)	Shallow VWP	287.6	282.6	-	-
TBC024 (HBSS-139m)	Shallow VWP	287.0	282.0	281.5	281.0
TBC024 (BHCS-168m)	Shallow VWP	289.5	284.5	283.6	282.8
TBC024 (BGSS-185m)	Shallow VWP	289.3	284.3	282.3	280.3
TBC027 (HBSS-95m)	Shallow VWP	320.1	315.1	-	-
TBC027 (HBSS-132m)	Shallow VWP	312.8	307.8	307.6	307.3
TBC027 (HBSS-169m)	Shallow VWP	312.2	307.2	307.0	306.8
TBC027 (BHCS-181m)	Shallow VWP	310.7	305.7	305.5	305.3
TBC027 (BGSS-198m)	Shallow VWP	310.3	305.3	305.1	304.9
TBC032 (HBSS-95m)	Shallow VWP	262.3	257.3	256.7	256.2
TBC032 (HBSS-131m)	Shallow VWP	255.0	250.0	249.3	248.6
TBC032 (HBSS-168m)	Shallow VWP	266.9	261.9	261.1	260.4
TBC032 (BHCS-181m)	Shallow VWP	242.8	237.8	228.7	219.5
TBC032 (BGSS-200m)	Shallow VWP	243.8	238.8	208.7	178.7
TBC033 (HBSS-65m)	Shallow VWP	284.9	279.9	279.2	278.6
TBC033 (WWFM/HBSS-113m)	Shallow VWP	278.3	273.3	272.7	272.0
TBC033 (HBSS-161m)	Shallow VWP	268.6	263.6	262.9	262.2

Bore	Type	TARP Reference Level (mAHD)	TARP Level 1 (mAHD)	TARP Level 2 (mAHD)	TARP Level 3 (mAHD)
TBC033 (BHCS-173m)	Shallow VWP	240.4	235.4	213.8	192.3
TBC033 (BGSS-190m)	Shallow VWP	235.2	230.2	217.7	205.2
TBC034 (HBSS-65m)	Shallow VWP	371.8	366.8	-	-
TBC034 (HBSS-113m)	Shallow VWP	368.0	363.0	362.7	362.3
TBC034 (HBSS-161m)	Shallow VWP	358.4	353.4	353.1	352.8
TBC034 (BHCS-176m)	Shallow VWP	354.9	349.9	349.4	348.9
TBC034 (BGSS-196m)	Shallow VWP	358.3	353.3	352.1	350.9
TBC038	Shallow VWP	-	tbc	tbc	tbc
Deep VWPs (WMP10)					
TBC009 (BGSS-343m)	Deep VWP	-	N/A	N/A	N/A
TBC009 (SBSS/WBCS-357m)	Deep VWP	-	N/A	N/A	N/A
TBC009 (BUSM/BUCO-381m)	Deep VWP	-	N/A	N/A	N/A
TBC009 (WWCO-391m)	Deep VWP	-	N/A	N/A	N/A
TBC009 (WWCO-397m)	Deep VWP	-	N/A	N/A	N/A
TBC018 (BGSS-282m)	Deep VWP	-	N/A	N/A	N/A
TBC018 (BGSS-366m)	Deep VWP	-	N/A	N/A	N/A
TBC018 (WBCS-377m)	Deep VWP	-	N/A	N/A	N/A
TBC018 (BUSM/BUCO-404m)	Deep VWP	-	N/A	N/A	N/A
TBC018 (WWCO-426m)	Deep VWP	-	N/A	N/A	N/A
TBC018 (WWCO-432m)	Deep VWP	-	N/A	N/A	N/A
TBC020 (BGSS-211m)	Deep VWP	-	N/A	N/A	N/A
TBC020 (BGSS-293m)	Deep VWP	-	N/A	N/A	N/A
TBC020 (BGSS-375m)	Deep VWP	-	N/A	N/A	N/A
TBC020 (WBCS-397m)	Deep VWP	-	N/A	N/A	N/A
TBC020 (BGSS/BUSM-411m)	Deep VWP	-	N/A	N/A	N/A
TBC020 (WWCO-434m)	Deep VWP	-	N/A	N/A	N/A
TBC020 (WWCO-439m)	Deep VWP	-	N/A	N/A	N/A

Bore	Type	TARP Reference Level (mAHD)	TARP Level 1 (mAHD)	TARP Level 2 (mAHD)	TARP Level 3 (mAHD)
TBC026 (BGSS-211m)	Deep VWP	-	N/A	N/A	N/A
TBC026 (BGSS-278m)	Deep VWP	-	N/A	N/A	N/A
TBC026 (BGSS-344m)	Deep VWP	-	N/A	N/A	N/A
TBC026 (WBCS-409m)	Deep VWP	-	N/A	N/A	N/A
TBC026 (BUSM-432m)	Deep VWP	-	N/A	N/A	N/A
TBC026 (WWCO-440m)	Deep VWP	-	N/A	N/A	N/A
TBC026 (LDSS-460m)	Deep VWP	-	N/A	N/A	N/A
TBC032 (BGSS-200m)	Deep VWP	-	N/A	N/A	N/A
TBC032 (BGSS-237m)	Deep VWP	-	N/A	N/A	N/A
TBC032 (BGSS-294m)	Deep VWP	-	N/A	N/A	N/A
TBC033 (BGSS-247m)	Deep VWP	-	N/A	N/A	N/A
TBC033 (BGSS-363m)	Deep VWP	-	N/A	N/A	N/A
TBC033 (BUCO-384m)	Deep VWP	-	N/A	N/A	N/A
TBC033 (WWCO-408m)	Deep VWP	-	N/A	N/A	N/A
TBC039 (BGSS-243m)	Deep VWP	-	N/A	N/A	N/A
TBC039 (BGSS-299m)	Deep VWP	-	N/A	N/A	N/A
TBC039 (SBSS-354m)	Deep VWP	-	N/A	N/A	N/A
TBC039 (BUSM-375m)	Deep VWP	-	N/A	N/A	N/A
TBC039 (WWCO-402m)	Deep VWP	-	N/A	N/A	N/A

Source: SLR (2024) Groundwater Technical Report, 610.30637.00000-R01-v7.0, Tables 6-2, 6-3, 6-4 and 6-5, in force for the whole of the January to December 2025 reporting period. Private bore levels incorporate the January 2024 top-of-casing survey. "-" not defined: GTR v7.0 publishes no Level 2 or 3 trigger for sensors assigned to model Layer 1, where no drawdown is simulated (TBC024 HBSS-117m, TBC027 HBSS-95m, TBC034 HBSS-65m). "tbc": TBC038 trigger levels are listed as to be confirmed in GTR v7.0. "N/A" not applicable: WMP10 deep VWPs are assessed against modelled drawdown (30 m difference) rather than a fixed elevation, as predicted drawdown changes with extraction progression. Trigger levels for the P50 and P57 bores are to be defined when suitable baseline data are available. TNC036, TNC040 and TNC043 triggers took effect on 14 August 2026 and did not apply during this reporting period.

B.2 WMP11 Groundwater Quality

Table B-2 Summary of Groundwater Quality Triggers

Bore	pH Lower	pH Upper	EC (µS/cm)	Fe Filt (mg/L)	Mn Filt (mg/L)	Cu Filt (mg/L)	Pb Filt (mg/L)	Zn Filt (mg/L)	Ni Filt (mg/L)	Al Filt (mg/L)	As Filt (mg/L)	Sr Filt (mg/L)	Li Filt (mg/L)	Ba Filt (mg/L)	Se Filt (mg/L)
GW104008	4.500	7.150	1983	38.200	2.210	0.003	0.001	0.017	0.020	0.016	0.001	0.099	0.073	0.186	0.001
GW104323	2.630	6.950	1541	17.000	2.700	2.250	0.175	4.250	0.067	3.800	0.002	0.021	0.014	0.295	0.001
GW104659	4.120	7.080	685	31.200	1.800	0.008	0.001	0.037	0.011	0.020	0.001	0.030	0.017	0.177	0.001
GW109257	4.010	10.180	927	14.650	1.550	0.008	0.001	0.130	0.027	0.465	0.001	0.028	0.009	0.210	0.003
GW112473	3.320	7.080	574	24.750	1.710	0.003	0.005	0.063	0.016	0.621	0.001	0.017	0.007	0.157	0.001
P51A	5.180	12.660	299	0.027	0.139	0.031	0.001	0.053	0.015	0.912	0.001	3.261	0.405	0.502	0.005
P51B	7.820	13.790	3971	13.135	0.255	0.007	0.003	0.039	0.013	4.570	0.017	3.575	0.764	1.418	0.005
P52	4.470	8.820	1450	61.000	4.245	0.004	0.104	0.316	0.049	0.221	0.004	0.064	0.018	0.315	0.003
P53A	5.070	8.940	896	38.200	2.240	0.002	0.003	0.064	0.019	0.298	0.008	0.220	0.040	0.160	0.003
P53B	5.560	12.870	1848	12.640	2.372	0.006	0.001	0.053	0.015	0.080	0.002	0.688	0.654	0.194	0.003
P53C	5.080	11.540	1879	30.600	2.740	0.002	0.001	0.239	0.042	0.172	0.011	1.640	0.049	0.246	0.002
P54A	5.000	9.610	1951	37.700	3.175	0.475	0.475	0.025	0.043	4.750	0.003	0.310	0.070	0.289	0.475
P54B	5.180	8.630	2182	43.400	2.997	0.004	0.001	0.076	0.049	0.029	0.003	0.515	0.082	0.317	0.004
P55A	4.260	12.330	1822	40.400	3.900	0.002	0.002	0.311	0.066	0.138	0.006	0.762	0.026	0.372	0.003
P55B	4.680	9.040	1699	49.800	5.680	0.007	0.049	0.254	0.232	0.136	0.010	0.278	0.087	0.390	0.002
P55C	3.920	11.070	2663	55.000	3.380	0.522	0.023	0.468	0.146	0.668	0.002	0.644	0.256	0.302	0.002
P56A	3.400	10.210	1560	0.040	0.134	0.009	0.010	0.041	0.012	1.770	0.001	0.174	0.023	0.170	0.005
P56B	6.060	13.220	1526	0.295	1.726	0.002	0.001	0.014	0.035	0.276	0.004	1.063	0.858	0.260	0.005
P56C	5.270	13.190	3520	17.200	1.635	0.001	0.001	0.012	0.003	0.237	0.007	1.652	0.497	0.685	0.005
REA4	5.310	10.410	1126	1.040	0.084	0.009	0.002	0.135	0.007	0.290	0.001	0.175	0.010	0.032	0.001

Source: SLR (2024) Groundwater Technical Report, 610.30637.00000-R01-v7.0, Table 6-6, in force for the whole of the January to December 2025 reporting period. Metals are dissolved (filtered) and each trigger is the pre-mining 95th percentile; a single value applies at all three TARP levels, which are distinguished by duration and persistence. EC trigger is the pre-mining maximum plus 10 per cent.

B.3 WMP12 Groundwater-Surface Water Interaction

Refer to Table 1 for the relevant bores, as per Appendix A.

Appendix C Trigger Level Breach and Exceedance Discussion

Annual Groundwater Report: January – December 2025

Tahmoor South Domain

Tahmoor Coal Pty Ltd

SLR Project No.: 640.30614.00001

29 October 2026

C.1 Trigger Breach Discussion

Trigger Breaches & Exceedances As detailed in **Section 3.0 (main body)**, the groundwater level triggers and groundwater quality triggers are discussed in **Appendix A** and presented in **Appendix B**.

Two classes of data assessment are reported:

- **Breach**: a trigger breach is noted when an observed data point is outside of the defined trigger level. Breaches are reported to provide site context and inform where exceedances may occur in the future.

  An example of a breach for groundwater levels as detailed in WMP8, is where a groundwater level is reported with greater than 2 m water level reduction for a particular month for a period less than 6 consecutive months.

  An example for groundwater quality is where the measured concentration exceeds the defined trigger level but for a period of less than 3 consecutive months.

- **Exceedance**: An exceedance occurs when the TARP level has been exceeded.

  Using the same example, an exceedance is recorded when the groundwater level is reported with a reduction greater than 2 m for the number of consecutive months the relevant TARP requires. The required duration differs between TARPs, and the difference matters when comparing results across this report. WMP10 requires three months at Level 1, six months at Level 2 and twelve months at Level 3. WMP11 requires three months at Level 1, three months at Level 2 and six months at Level 3. WMP8, WMP9 and WMP12 each require six consecutive months at every level. A breach is a single month outside a trigger level. An exceedance is a breach sustained for the duration above.

Pertaining to water quality, the criteria for a TARP Level 1 in WMP11 detailed below (Tahmoor Coal, 2022) where both criteria must be met for an exceedance, and a trigger breach occurs where only one criterion is met, or criteria are only partially met:

- **Criteria 1**: Observed salinity and/or metal or pH outside of defined trigger levels for 3 consecutive months or more. The effect does not persist after a significant rainfall recharge event.

  AND

- **Criteria 2:** A similar trend or response is noted at other monitored bores or private bores. Note that this second criterion, and the convention of reporting a parameter only where three or more bores are affected, are recorded here as they appear in the approved plan. They were not applied in deciding the exceedances reported in Table 4, because the multi-location convention does not appear in the TARP text itself. That position is stated in Section 3 and is carried as an open item. The shading and bolding in Table C-2 identify which results would also satisfy this second criterion.

C.1.1 Water Levels (TARP WMP8, WMP9, WMP10, WMP12)

Table C-1 provides a summary of all groundwater level and pressure trigger level breaches and exceedances over the reporting period.

Table C-1: Groundwater Level Trigger Summary (TARP WMP8, WMP9, WMP10, WMP12, WMP13) January to December 2025

Bore	Type	TARP WMP	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
TBC018 (BGSS-282m)	Deep VWP	10												
TBC018 (BGSS-366m)	Deep VWP	10												
TBC018 (BUSM-404m)	Deep VWP	10												
TBC018 (WBCS-377m)	Deep VWP	10												
TBC018 (WWCO-432m)	Deep VWP	10												
TBC020 (BGSS-211m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC020 (BGSS-293m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC020 (BGSS-375m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC020 (BGSS-411m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC020 (WBCS-397m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC020 (WO-434m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

Bore	Type	TARP WMP	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
TBC020 (WO-439m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC026 (BGSS-211m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC026 (BGSS-278m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC026 (BGSS-344m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC026 (BUSM-432m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC026 (ECSL-440m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC026 (ECSL-460m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC026 (WBCS-409m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC032 (BGSS-200m)	Deep VWP	10					#ND	#ND	#ND	#ND	#ND	#ND	#ND	
TBC032 (BGSS-237m)	Deep VWP	10					#ND	#ND	#ND	#ND	#ND	#ND	#ND	B3
TBC032 (BGSS-294m)	Deep VWP	10				B3	#ND	#ND	#ND	#ND	#ND	#ND	#ND	B3
TBC039 (BGSS-243m)	Deep VWP	10												

Bore	Type	TARP WMP	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
TBC039 (BGSS-299m)	Deep VWP	10												
TBC039 (BUSM-375m)	Deep VWP	10												
TBC039 (SBSS-354m)	Deep VWP	10												
TBC039 (WWCO-402m)	Deep VWP	10												
TBC09 (BGSS-332m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC09 (BGSS-343m)	Deep VWP	10												
TBC09 (BUSM-381m)	Deep VWP	10	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC09 (SBSS-357m)	Deep VWP	10												
TBC09 (WWCO-391m)	Deep VWP	10												
TBC09 (WWCO-397m)	Deep VWP	10												
GW104008	Private Bore	8			B3	#ND		B1	#ND		#ND			#ND
GW104323	Private Bore	8	B3			#ND		B3	#ND		#ND			#ND

Bore	Type	TARP WMP	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
GW105395	Private Bore	8	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW109257	Private Bore	8	L1, B2	L1	L1, B2	#ND	L1	L1, B3	#ND	L1	#ND		B1	#ND
GW112473	Private Bore	8		B1		#ND	B1	B1	#ND		#ND			#ND
P50A	SOP	8	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P50B	SOP	8	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P50C	SOP	8	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56A	SOP	8	B1	B1	B2	L1, B2	L1, B2	L1, B2	L1, B2	L1, B2	L2	L2	#ND	#ND
P56B	SOP	8	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	SOP	8	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P57A	SOP	8	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P57B	SOP	8	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P57C	SOP	8	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P51A	SOP	8, 12												#ND
P51B	SOP	8, 12	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	#ND
P52	SOP	8, 12												#ND
P53A	SOP	8, 12	L1, B2	L1	L1	L1	L1						B2	#ND
P53B	SOP	8, 12	L1, B2	L1	L1	L1, B2	L1, B2	L1					B2	#ND

Bore	Type	TARP WMP	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
P53C	SOP	8, 12	L2	L2	L2	L2	L2	L1	L1	L1			B2	#ND
P54A	SOP	8, 12	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	SOP	8, 12	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54C	SOP	8, 12	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55A	SOP	8, 12	L1	L1, B2	L1, B2	L1, B2	L1, B2	L1, B2	L1, B2	L2	L1	L1	L1	#ND
P55B	SOP	8, 12	L3	L3	L3	L3	L3	L3	L3	L3	L3	L3	L3	#ND
P55C	SOP	8, 12	L3	L3	L3	L2	L1	L1, B2	L1, B2	L1	L1	L1	L1, B3	#ND
REA4	SOP	8, 12									#ND	B1	B1	#ND
GW104659	Private Bore	8, 13	L1	L1, B3	L1	#ND	L1, B3	L1, B3	#ND	L1	#ND	L1, B3	L1	#ND
TBC018 (BGSS-198m)	Shallow VWP	9												
TBC018 (BHCS-179m)	Shallow VWP	9												
TBC018 (HBSS lower-164m)	Shallow VWP	9												
TBC018 (WWFM/HBSS-117m)	Shallow VWP	9												

Bore	Type	TARP WMP	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
TBC018 (WWFM/HBSS-70m)	Shallow VWP	9	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC024 (BGSS-185m)	Shallow VWP	9	B3	L3	L3	L3	L3	L1				B1	B3	B3
TBC024 (BHCS-168m)	Shallow VWP	9	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC024 (HBSS-117m)	Shallow VWP	9												
TBC024 (HBSS-139m)	Shallow VWP	9	L3	L3	L3	L3	L3	L3	L3	L3	L3	L3	L3	L3
TBC027 (BGSS-198m)	Shallow VWP	9						#ND	#ND	#ND			#ND	
TBC027 (BHCS-181m)	Shallow VWP	9						#ND	#ND				#ND	
TBC027 (HBSS-132m)	Shallow VWP	9						#ND	#ND	#ND			#ND	
TBC027 (HBSS-169m)	Shallow VWP	9						#ND	#ND				#ND	
TBC027 (HBSS-95m)	Shallow VWP	9	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND			#ND	#ND
TBC032 (BGSS-200m)	Shallow VWP	9	L1	L1	L1	L1	#ND	#ND	#ND	#ND	#ND	#ND	#ND	L1

Bore	Type	TARP WMP	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
TBC032 (BHCS-181m)	Shallow VWP	9	L2	L2	L2	L2	#ND	#ND	#ND	#ND	#ND	#ND	#ND	L2
TBC032 (HBSS-131m)	Shallow VWP	9	L3	L3	L3	L3	#ND	#ND	#ND	#ND	#ND	#ND	#ND	L3
TBC032 (HBSS-168m)	Shallow VWP	9					#ND	#ND	#ND	#ND	#ND	#ND	#ND	
TBC032 (HBSS-95m)	Shallow VWP	9	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC034 (BGSS-196m)	Shallow VWP	9												
TBC034 (BHCS-176m)	Shallow VWP	9	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC034 (HBSS-113m)	Shallow VWP	9	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
TBC034 (HBSS-161m)	Shallow VWP	9												
TBC034 (HBSS-65m)	Shallow VWP	9												
TBC09 (BGSS-192m)	Shallow VWP	9												
TBC09 (BHCS-182m)	Shallow VWP	9												
TBC09 (HBSS-30m)	Shallow VWP	9	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

Bore	Type	TARP WMP	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
TBC09 (HBSS-75m)	Shallow VWP	9												
TBC039 (HBSS-65m)	Shallow VWP	9, 13	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

^ Bore was observed as dry during the reporting period.
* Data appears erroneous therefore not considered to be an exceedance.
~ Not calculated (NC) as the historical groundwater level, upon which the drawdown calculation is based upon, is not available.
# No data (ND) available for the reporting period.
Note: green shading indicates a trigger was breached and/or an exceedance occurred

C.1.2 Water Quality

A summary of groundwater quality trigger breaches and exceedances in this reporting period is presented in the Sections below where the performance of each bore against each trigger is:

- Within normal conditions (indicated by a blank cell);
- Indicated as “B”, meaning that the trigger was breached in the current reporting period but is not yet considered an exceedance; or
- Indicated as “L” and shaded in green, meaning that trigger was breached in the current reporting period for the third time or more and complies with Criteria 1 and 2 of TARP Level 1 in WMP11.

C.1.3 TARP WMP11 and WMP13

Table C-2: Groundwater Quality Trigger Summary (TARP WMP11 and WMP13) – January to December 2025

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
GW062068	11	Jan-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	Feb-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	Mar-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	May-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	Jun-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	Aug-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	Oct-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW062068	11	Nov-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
GW062068	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104008	11	Jan-25					B3										
GW104008	11	Feb-25															
GW104008	11	Mar-25		B3			B3	B3	B3	B3	B3	B3				B3	
GW104008	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104008	11	May-25															
GW104008	11	Jun-25					B3										
GW104008	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104008	11	Aug-25															
GW104008	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104008	11	Oct-25					B3							B3	B3		
GW104008	11	Nov-25					B3							B3	B3		

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
GW104008	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104323	11	Jan-25					B3										B3
GW104323	11	Feb-25															
GW104323	11	Mar-25			B3	B3								B3	B3		
GW104323	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104323	11	May-25															
GW104323	11	Jun-25															
GW104323	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104323	11	Aug-25															
GW104323	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104323	11	Oct-25															
GW104323	11	Nov-25															

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
GW104323	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104659	11, 13	Jan-25															
GW104659	11, 13	Feb-25										L2, B3					
GW104659	11, 13	Mar-25															
GW104659	11, 13	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104659	11, 13	May-25										L2, B3					
GW104659	11, 13	Jun-25					B3										
GW104659	11, 13	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104659	11, 13	Aug-25															
GW104659	11, 13	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW104659	11, 13	Oct-25										B3					
GW104659	11, 13	Nov-25															

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
GW104659	11, 13	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Jan-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Feb-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Mar-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	May-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Jun-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Aug-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Oct-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW105395	11	Nov-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
GW105395	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW109257	11	Jan-25					L2, B3										
GW109257	11	Feb-25					L2, B3										
GW109257	11	Mar-25		B3			L2, B3										
GW109257	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW109257	11	May-25					L2, B3										
GW109257	11	Jun-25					L3										
GW109257	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW109257	11	Aug-25					L3										
GW109257	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW109257	11	Oct-25					L3										
GW109257	11	Nov-25					L3										

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
GW109257	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW112473	11	Jan-25					B3										
GW112473	11	Feb-25					L2, B3										
GW112473	11	Mar-25				B3											
GW112473	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW112473	11	May-25												B3			
GW112473	11	Jun-25															
GW112473	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW112473	11	Aug-25												B3			
GW112473	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
GW112473	11	Oct-25				B3											
GW112473	11	Nov-25				B3	B3										

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
GW112473	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P51A	11	Jan-25		B3													
P51A	11	Feb-25		B3	B3												
P51A	11	Mar-25															
P51A	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P51A	11	May-25		B3													
P51A	11	Jun-25		B3	B3												
P51A	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P51A	11	Aug-25		L2, B3													
P51A	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P51A	11	Oct-25															
P51A	11	Nov-25		B3													

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P51A	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P51B	11	Jan-25															
P51B	11	Feb-25															
P51B	11	Mar-25															
P51B	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P51B	11	May-25															
P51B	11	Jun-25															
P51B	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P51B	11	Aug-25															
P51B	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P51B	11	Oct-25															
P51B	11	Nov-25															

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P51B	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P52	11	Jan-25								B3	L2, B3						
P52	11	Feb-25								B3							
P52	11	Mar-25															
P52	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P52	11	May-25															
P52	11	Jun-25															
P52	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P52	11	Aug-25															
P52	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P52	11	Oct-25													B3		
P52	11	Nov-25															

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P52	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53A	11	Jan-25															
P53A	11	Feb-25															
P53A	11	Mar-25															
P53A	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53A	11	May-25			B3												
P53A	11	Jun-25		B3						B3							
P53A	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53A	11	Aug-25															
P53A	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53A	11	Oct-25								B3							
P53A	11	Nov-25								B3							

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P53A	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53B	11	Jan-25												B3		L3	
P53B	11	Feb-25												B3		L3	
P53B	11	Mar-25														L3	
P53B	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53B	11	May-25												B3		L3	
P53B	11	Jun-25				B3								B3		L3	
P53B	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53B	11	Aug-25				B3								L2, B3		L3	
P53B	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53B	11	Oct-25												L2, B3		L3	
P53B	11	Nov-25												L2, B3		L3	

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P53B	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53C	11	Jan-25														L3	
P53C	11	Feb-25														L3	
P53C	11	Mar-25														L3	
P53C	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53C	11	May-25														L3	
P53C	11	Jun-25														L3	
P53C	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53C	11	Aug-25														L3	
P53C	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P53C	11	Oct-25														L3	
P53C	11	Nov-25														L3	

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P53C	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Jan-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Feb-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Mar-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	May-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Jun-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Aug-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Oct-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54A	11	Nov-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P54A	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Jan-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Feb-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Mar-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	May-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Jun-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Aug-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Oct-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P54B	11	Nov-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P54B	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55A	11	Jan-25			L3												
P55A	11	Feb-25			L3												
P55A	11	Mar-25			L3												
P55A	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55A	11	May-25			L3					B3	B3						
P55A	11	Jun-25			L3												
P55A	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55A	11	Aug-25			L3												
P55A	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55A	11	Oct-25			L3												
P55A	11	Nov-25			L3						B3						

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P55A	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55B	11	Jan-25			L2, B3								B3				
P55B	11	Feb-25			L3												
P55B	11	Mar-25			L3	B3							B3				
P55B	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55B	11	May-25			L3												
P55B	11	Jun-25		B3													
P55B	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55B	11	Aug-25			B3												
P55B	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55B	11	Oct-25			B3												
P55B	11	Nov-25			L2, B3												

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P55B	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55C	11	Jan-25					B3										
P55C	11	Feb-25					B3										
P55C	11	Mar-25					L2, B3										
P55C	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55C	11	May-25					L2, B3										
P55C	11	Jun-25		B3			L2, B3										
P55C	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55C	11	Aug-25					L2, B3										
P55C	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P55C	11	Oct-25					L3										
P55C	11	Nov-25					L3									B3	

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P55C	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56A	11	Jan-25			L2, B3	L2, B3	B3		B3	B3	B3	B3				L2, B3	
P56A	11	Feb-25			L2, B3	L2, B3	B3		L2, B3	L2, B3	L2, B3	L2, B3				L2, B3	
P56A	11	Mar-25			L2, B3		L2, B3	B3	L2, B3	L2, B3	L2, B3					L2, B3	
P56A	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56A	11	May-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56A	11	Jun-25				B3	L2, B3		L2, B3	L2, B3	L2, B3	B3				L2, B3	
P56A	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56A	11	Aug-25			B3		L2, B3		L2, B3	L2, B3	L2, B3				B3	L3	
P56A	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56A	11	Oct-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56A	11	Nov-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P56A	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Jan-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Feb-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Mar-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	May-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Jun-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Aug-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Oct-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56B	11	Nov-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P56B	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Jan-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Feb-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Mar-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	May-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Jun-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Aug-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Oct-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
P56C	11	Nov-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
P56C	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
REA4	11	Jan-25				B3	B3				B3				L2, B3	L3	
REA4	11	Feb-25				B3	B3				L2, B3				L2, B3	L3	
REA4	11	Mar-25				L2, B3	L2, B3				L2, B3					L3	
REA4	11	Apr-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
REA4	11	May-25													B3	L3	
REA4	11	Jun-25			B3	L2, B3	L2, B3								B3	L3	
REA4	11	Jul-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
REA4	11	Aug-25					L2, B3					B3					
REA4	11	Sep-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND
REA4	11	Oct-25															
REA4	11	Nov-25															

Bore	TARP WMP	Month	pH Upper	pH Lower	EC	Fe	Mn	Cu	Pb	Zn	Ni	Al	As	Sr	Li	Ba	Se
REA4	11	Dec-25	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND	#ND

No data (ND) available for the reporting period.
^ Bore was observed as dry during the reporting period.
Green shading indicates that the bore and analyte comply with Criteria 1 of TARP Level 1 in WMP11.
Bolded text indicates that the bore and analyte comply with Criteria 1 and 2 of TARP Level 1 in WMP11.

C.1.4 Trigger Level Breach and Exceedance Summary

The following tables provide a summary of the Trigger Level breaches and Exceedances.

Table C-3: Active December 2025 Trigger Exceedances – WMP8, WMP12

Exceedance Site	Monitoring Type	TARP Level	TARP
No data for December 2025	December 2025 is 100% not assessed (0 of 73 assessments have data). This table cannot show what was active at period end.	-	-

Table C-1: Active December 2025 Trigger Exceedances – WMP9

Exceedance Site	Monitoring Type	TARP Level	TARP
TBC024 (HBSS-139m) †	Shallow VWP	3	WMP9
TBC032 (HBSS-131m)	Shallow VWP	3	WMP9
TBC032 (BHCS-181m) †	Shallow VWP	2	WMP9
TBC032 (BGSS-200m)	Shallow VWP	1	WMP9
† Not accepted as a groundwater response; the intake carries an unresolved datum and is referred for inspection (Section 8.0).			
Coverage caveat	December 2025 is 29% not assessed (59 of 83 assessments have data). This table cannot show what was active at period end.	-	-

Table C-5: Active December 2025 Trigger Exceedances – WMP 11

Exceedance Site	Breach Parameter (Criterion 1 met)	Exceedance Parameter (Criteria 1 and 2 met)	Exceedance Level
No WMP11 assessment could be made for December 2025; no groundwater quality data were received for that month, so the position at period end is unknown rather than clear.	-	-	-

Note: for water quality exceedances those **bolded** are the only parameters that fulfil both criteria 1 and 2 of the TARP.

Appendix D Hydrographs – Groundwater Levels

Annual Groundwater Report: January – December 2025

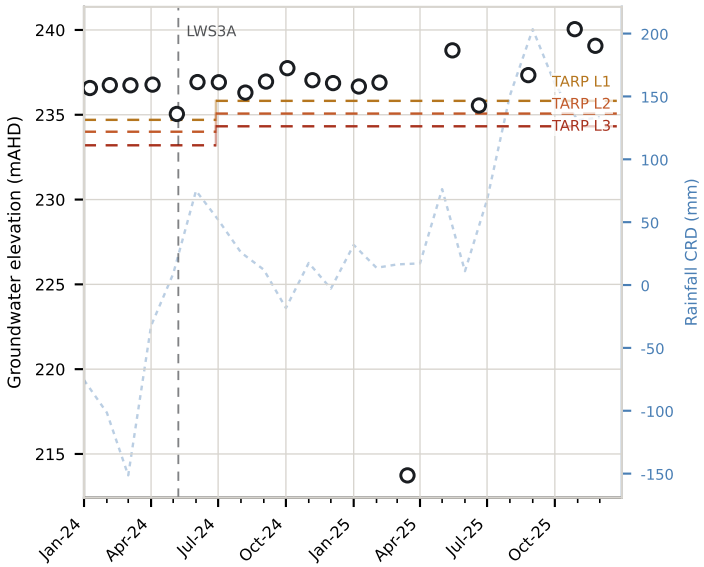
Tahmoor South Domain

Tahmoor Coal Pty Ltd

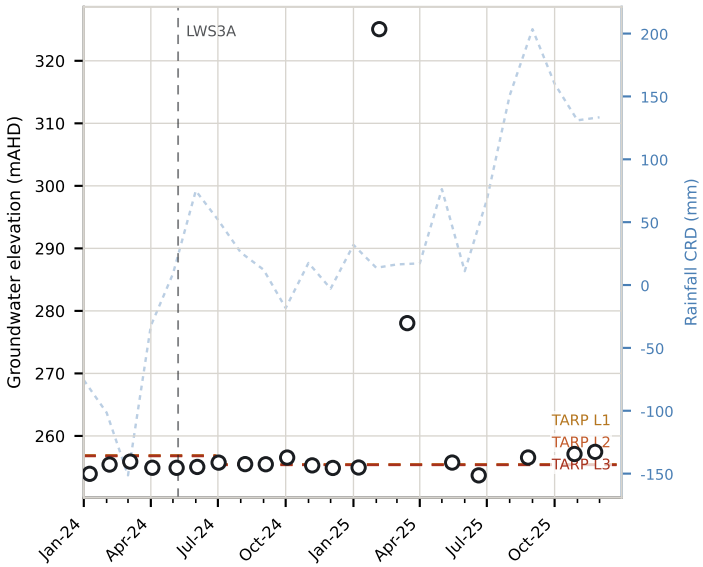
SLR Project No.: 640.30614.00001

29 October 2026

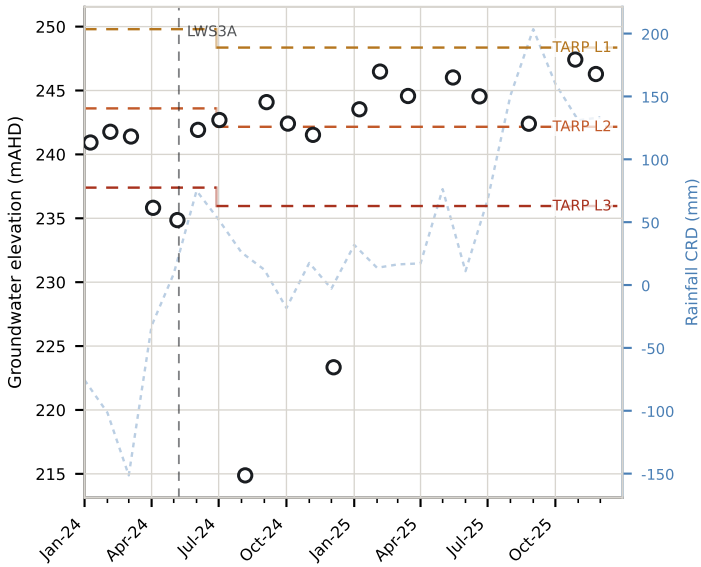
GW104008



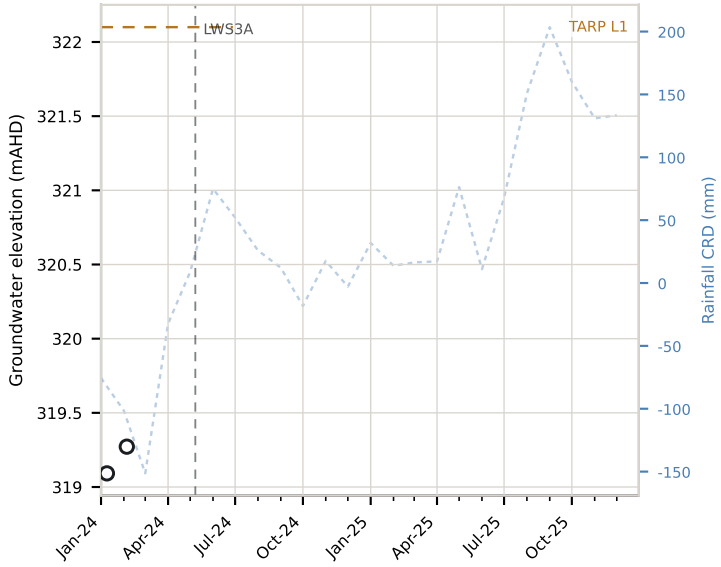
GW104323



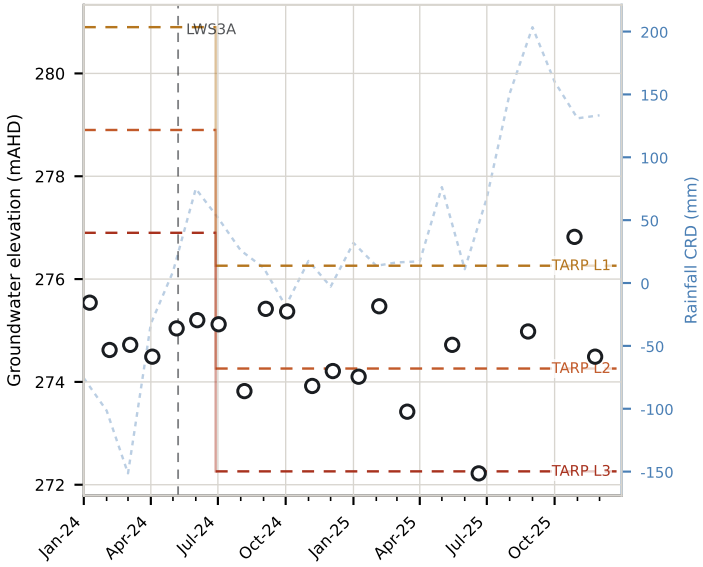
GW104659



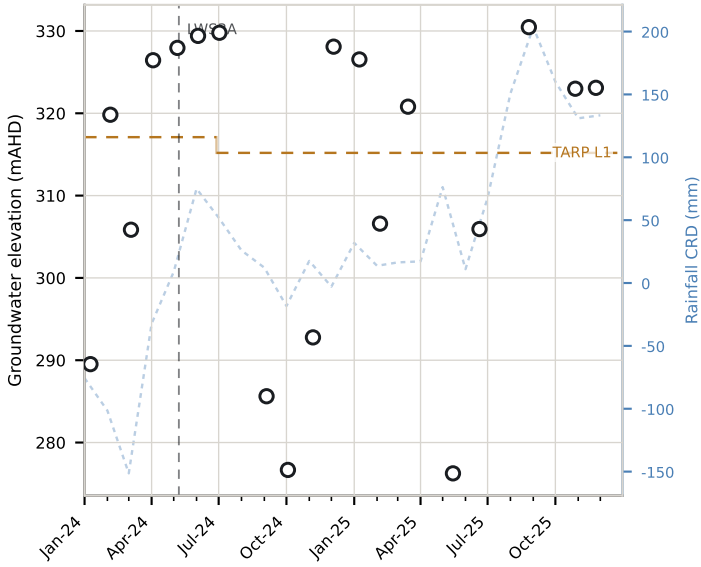
GW105395



GW109257

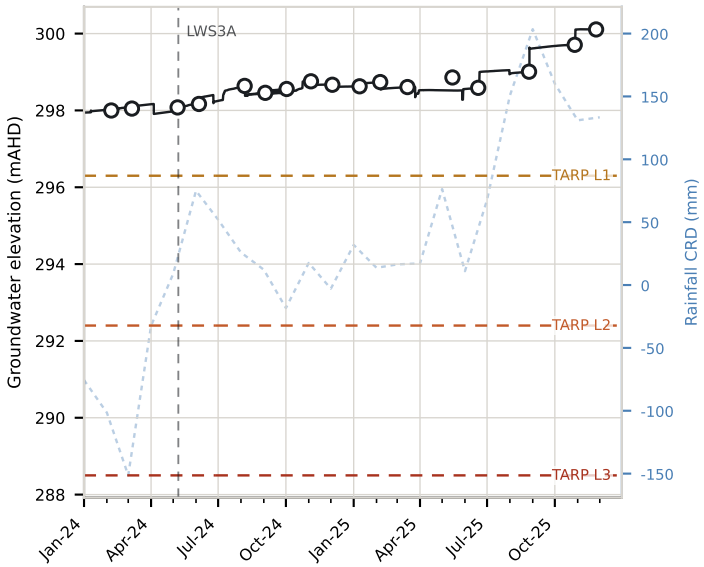


GW112473

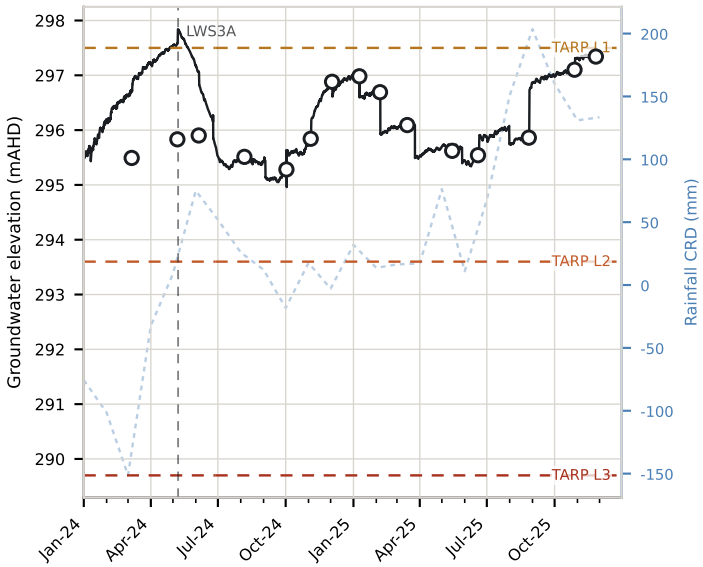


Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Rainfall CRD
Longwall start

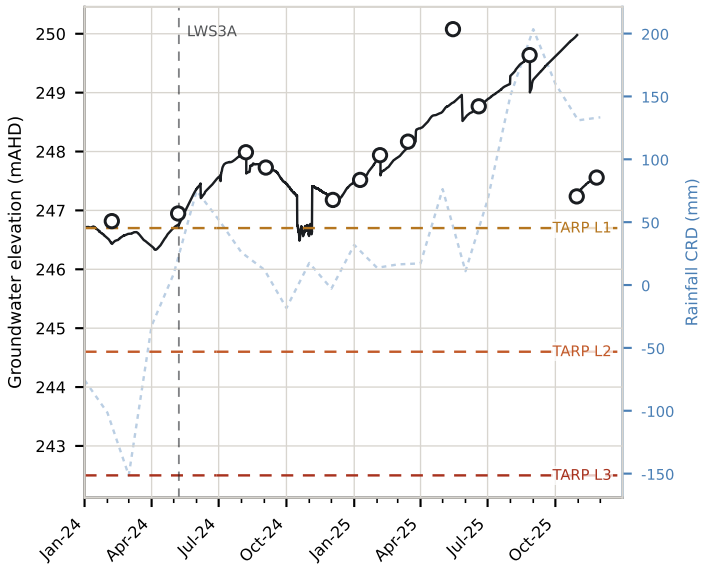
P51A



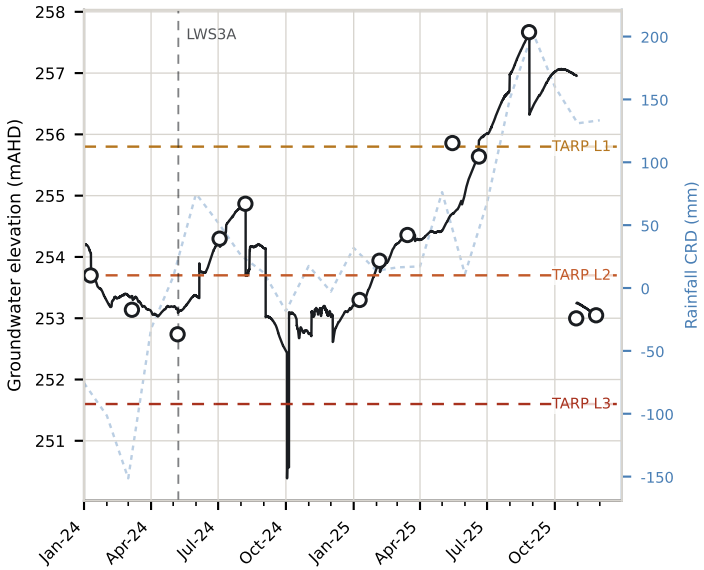
P51B



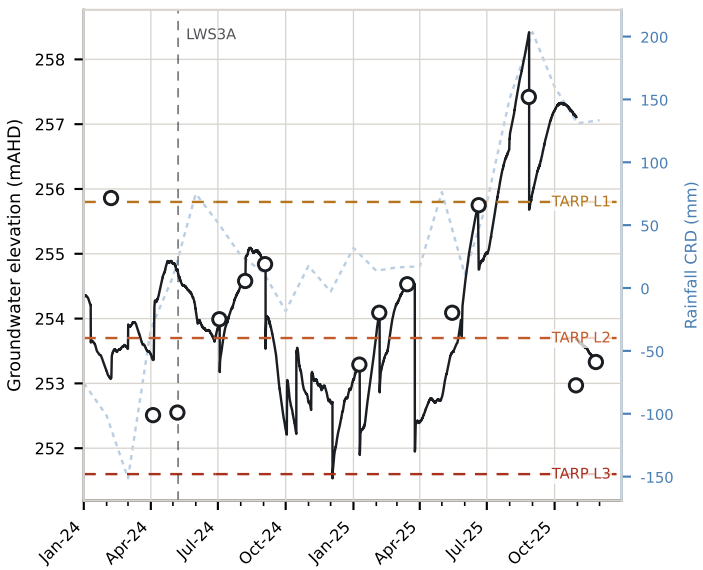
P52



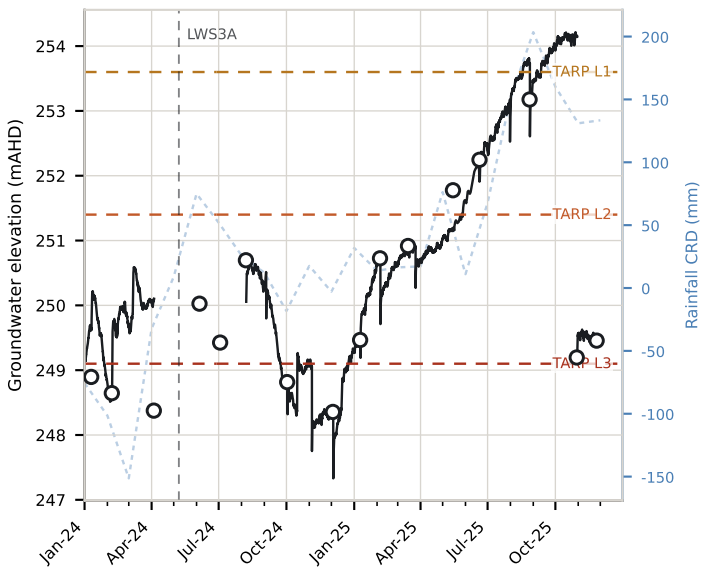
P53A



P53B

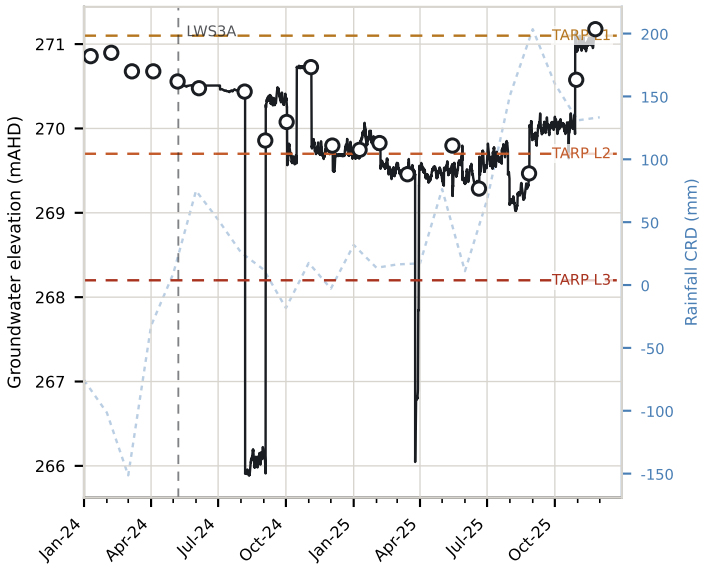


P53C

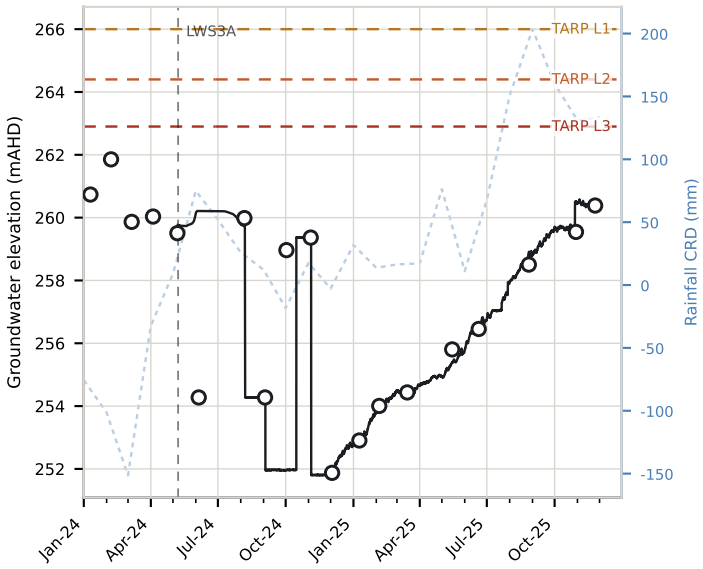


Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Rainfall CRD
Longwall start

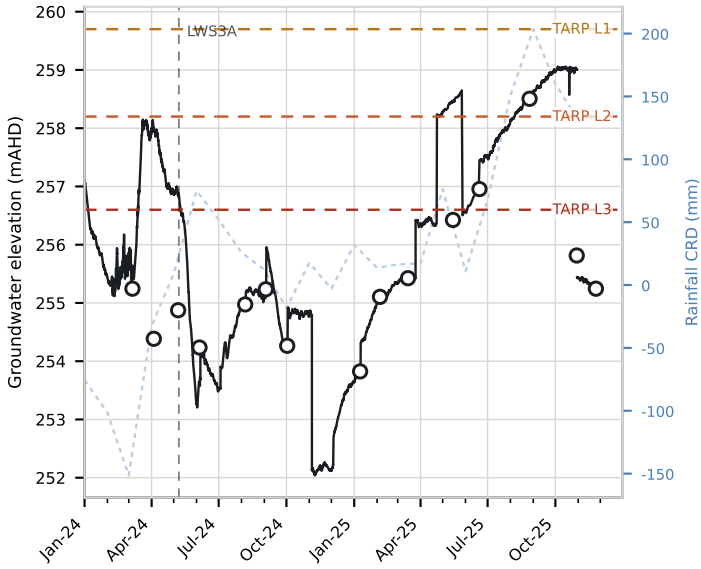
P55A



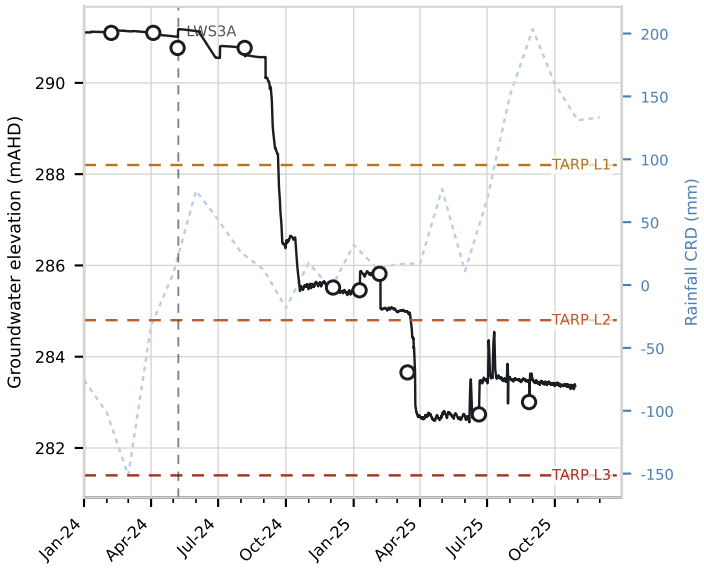
P55B



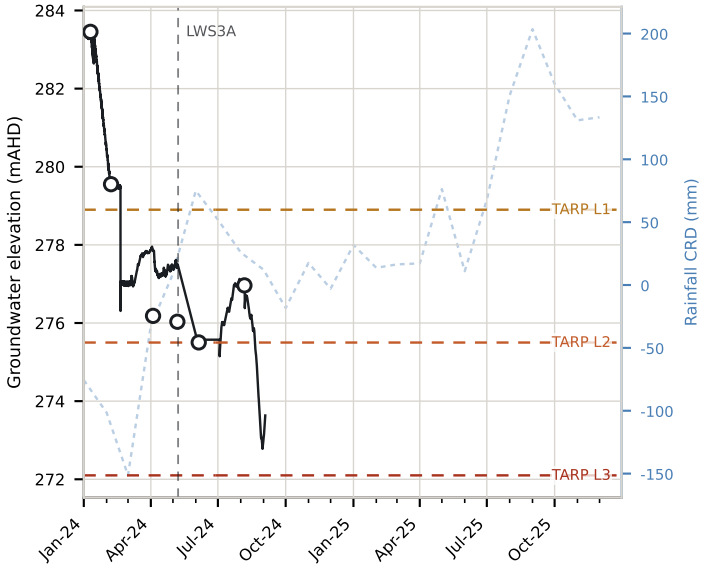
P55C



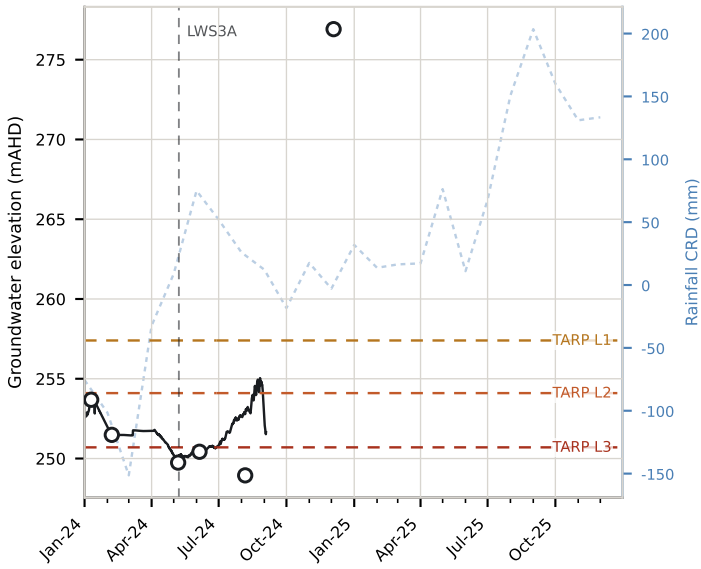
P56A



P56B

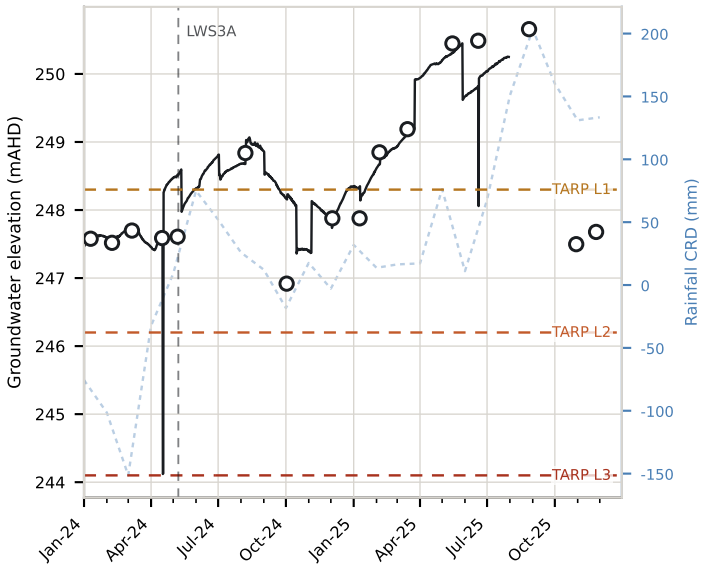


P56C

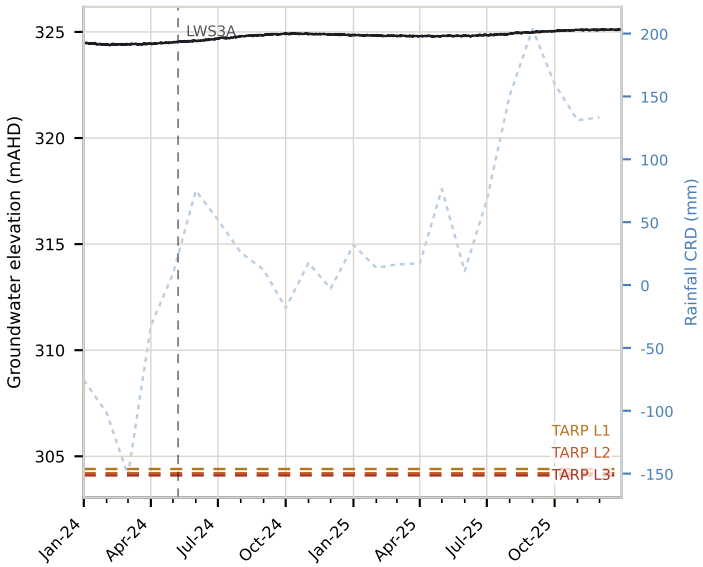


Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Rainfall CRD
Longwall start

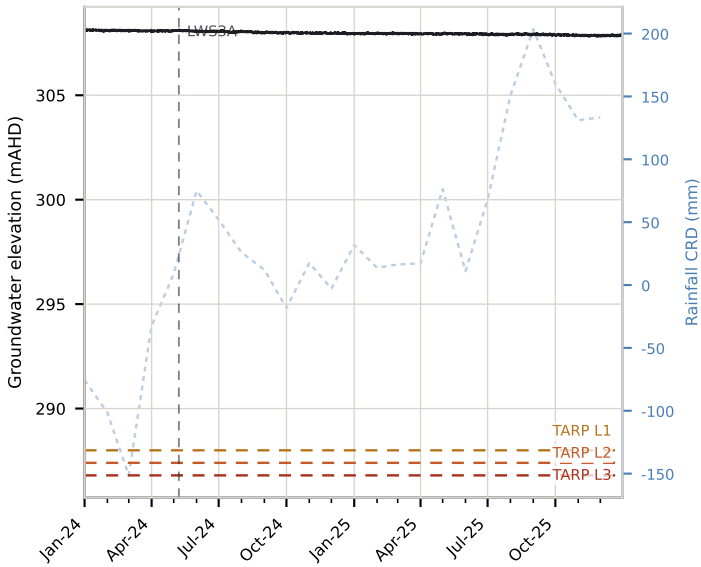
REA4



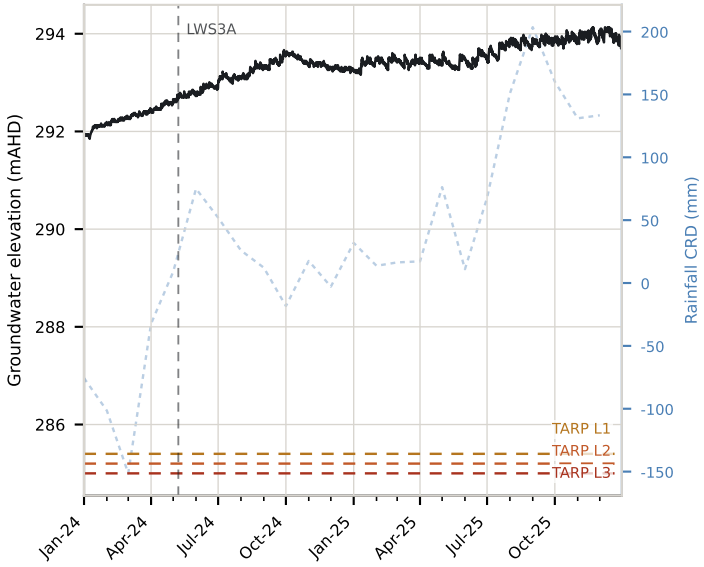
TBC009 (HBSS-75m)



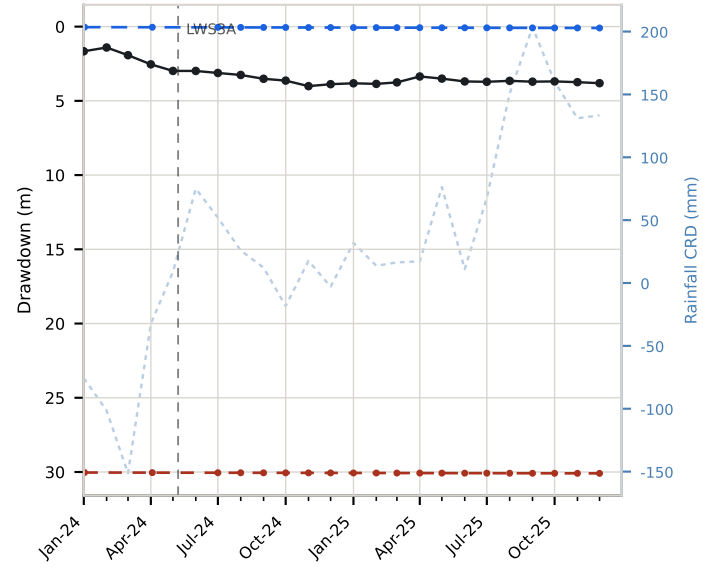
TBC009 (BHCS-182m)



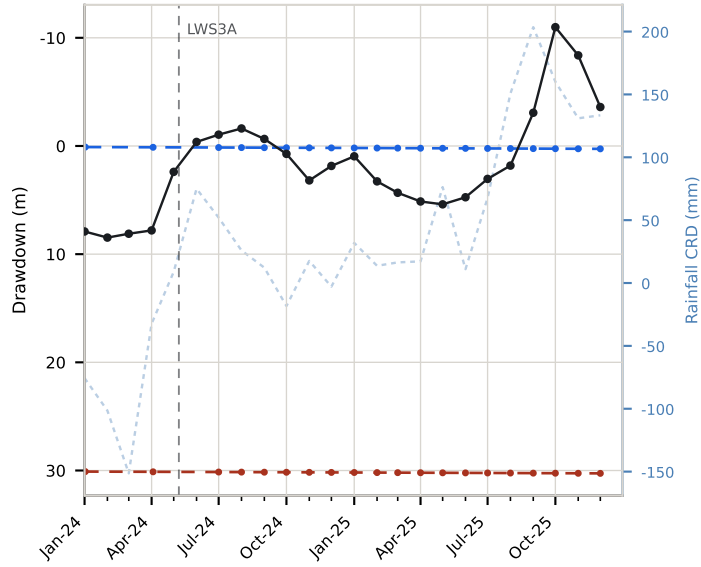
TBC009 (BGSS-192m)



TBC009 (BGSS-343m)



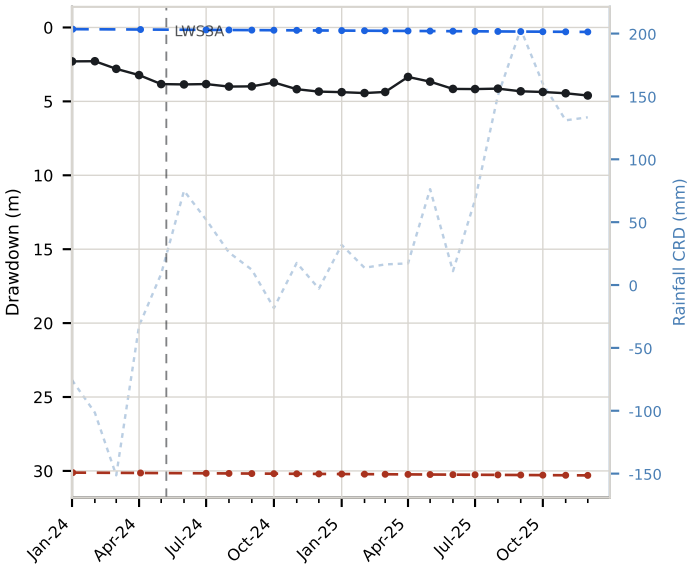
TBC009 (SBSS/WBCS-357m)



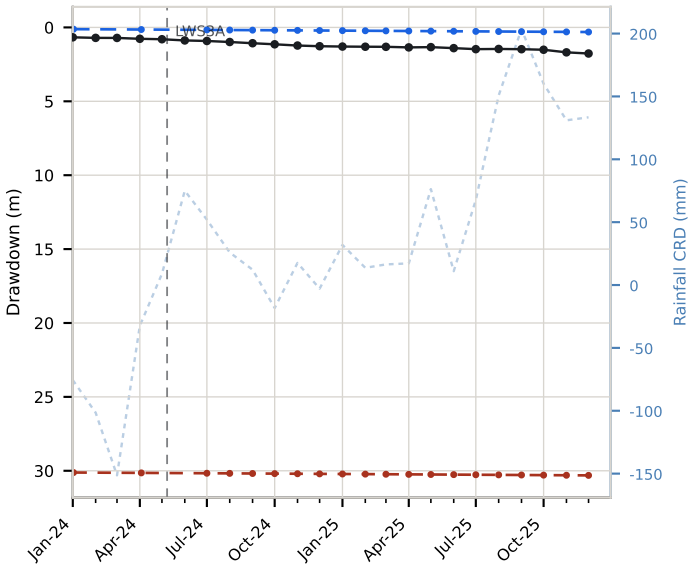
Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Observed drawdown
Model predicted drawdown
WMP10 trigger (model + 30 m, 3/6/12 months = L1/L2/L3)
Rainfall CRD
Longwall start

SLR

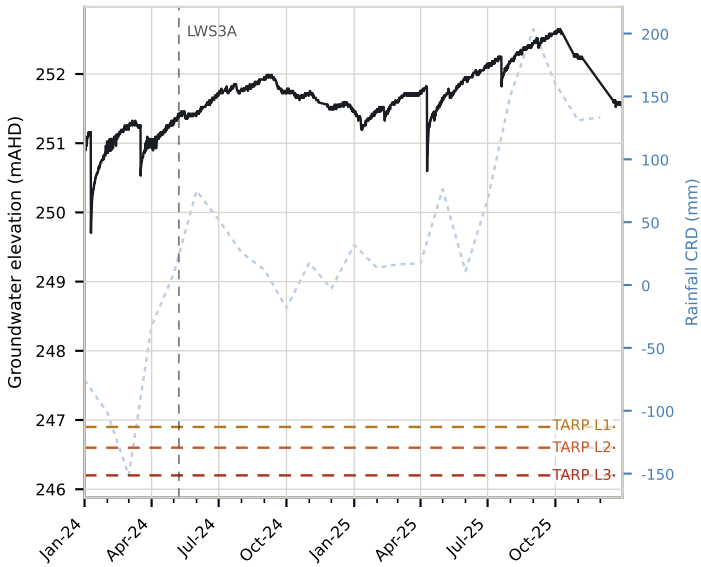
TBC009 (WWCO-391m)



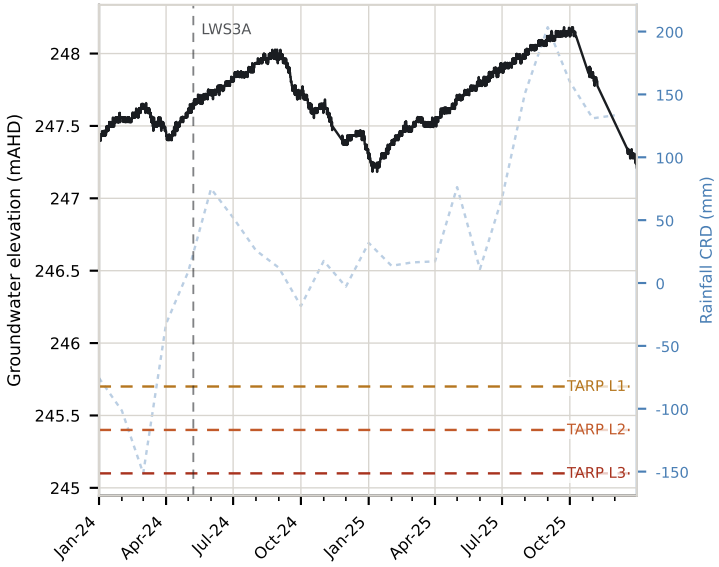
TBC009 (WWCO-397m)



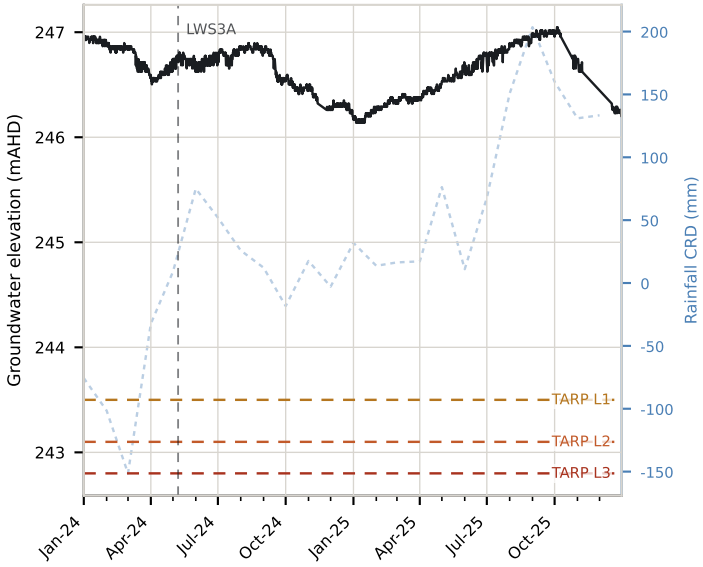
TBC018 (WWFM/HBSS-117m)



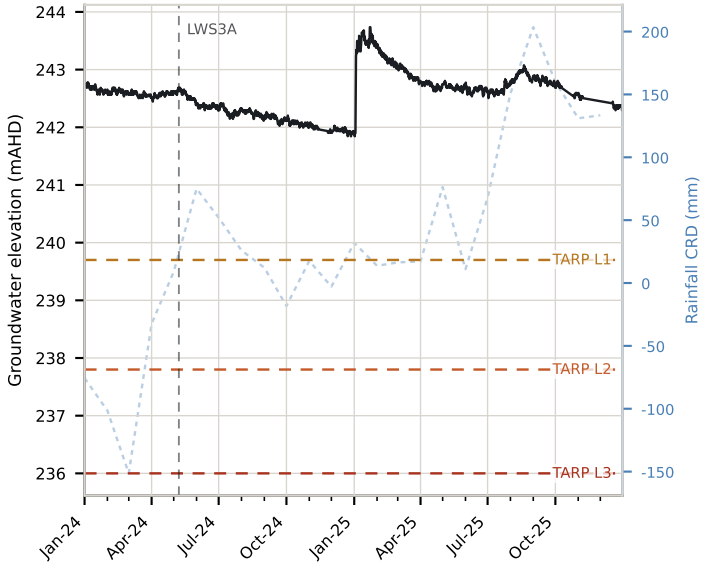
TBC018 (HBSS-164m)



TBC018 (BHCS-179m)



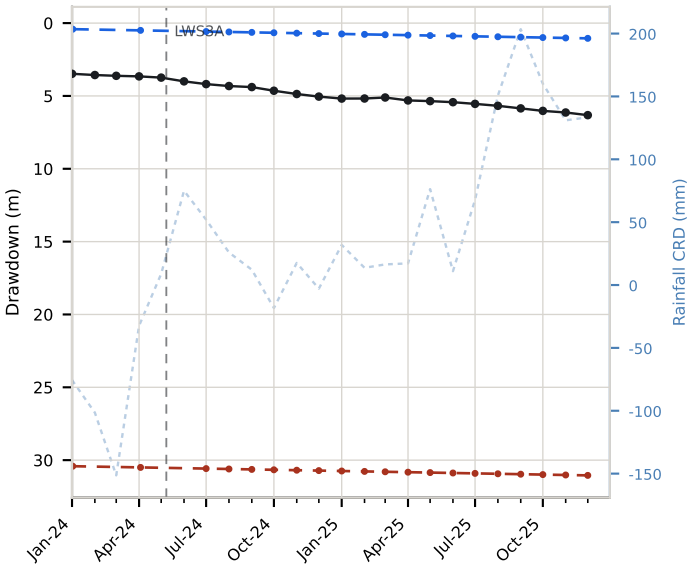
TBC018 (BGSS-198m)



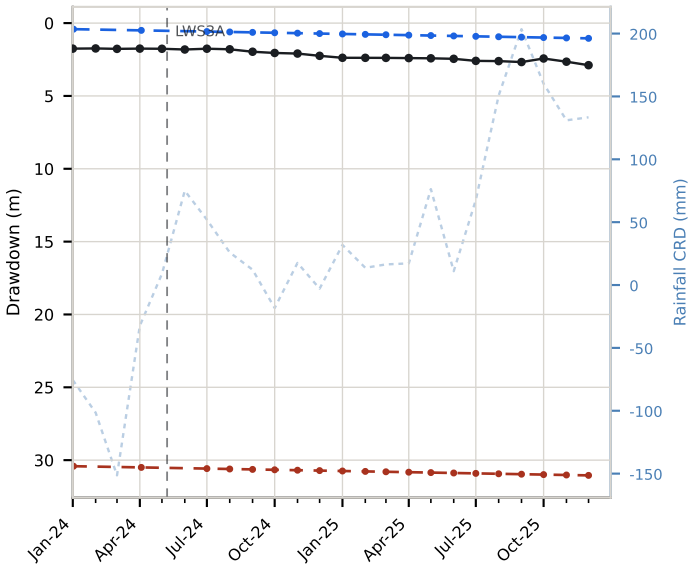
Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Observed drawdown
Model predicted drawdown
WMP10 trigger (model + 30 m, 3/6/12 months = L1/L2/L3)
Rainfall CRD
Longwall start

SLR

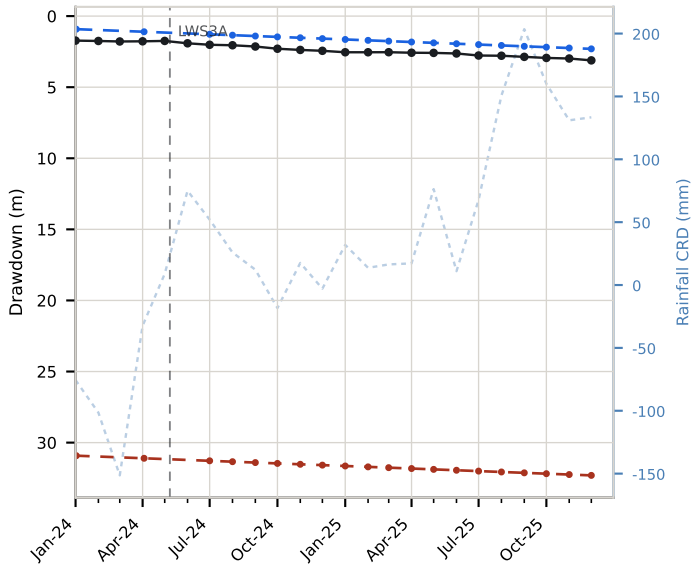
TBC018 (BGSS-282m)



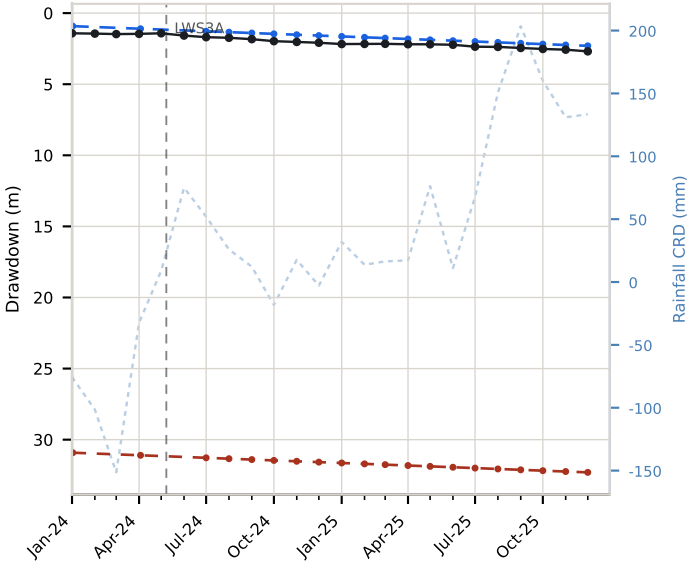
TBC018 (BGSS-366m)



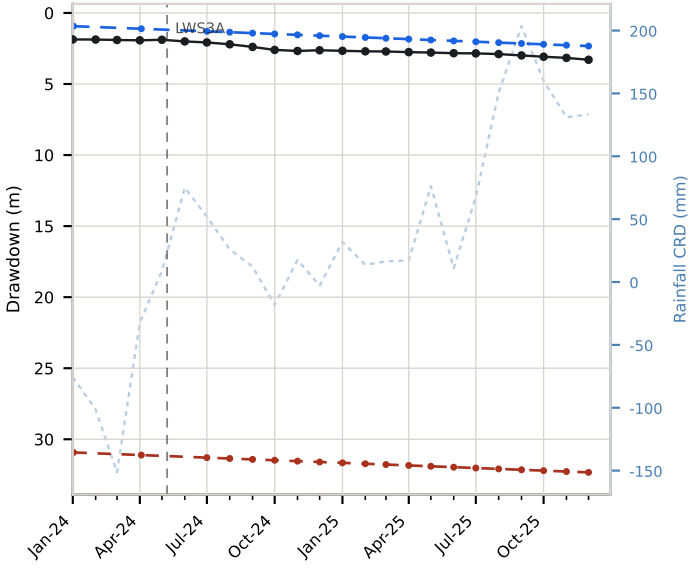
TBC018 (WBCS-377m)



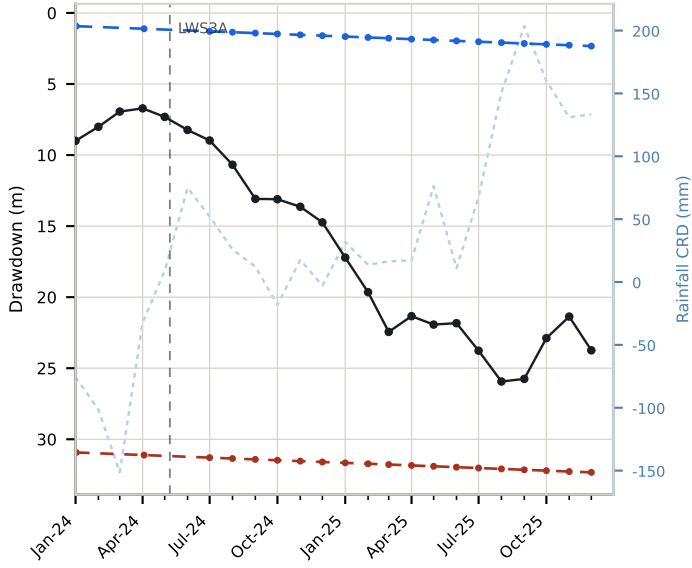
TBC018 (BUSM/BUCO-404m)



TBC018 (WWCO-426m)



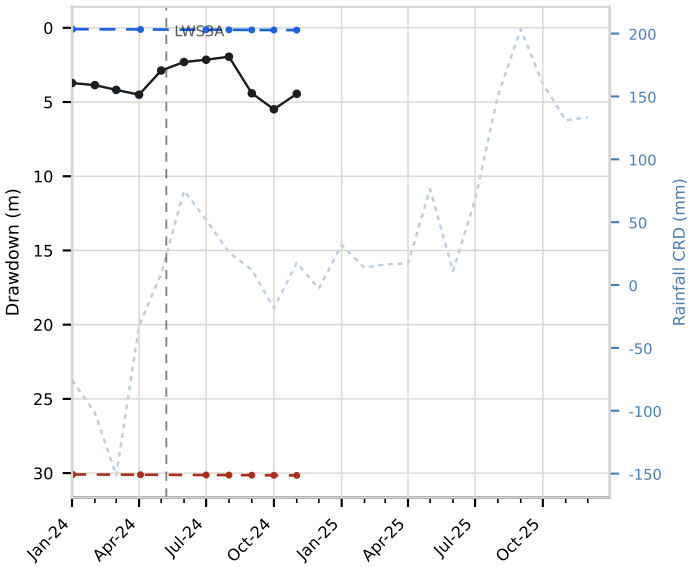
TBC018 (WWCO-432m)



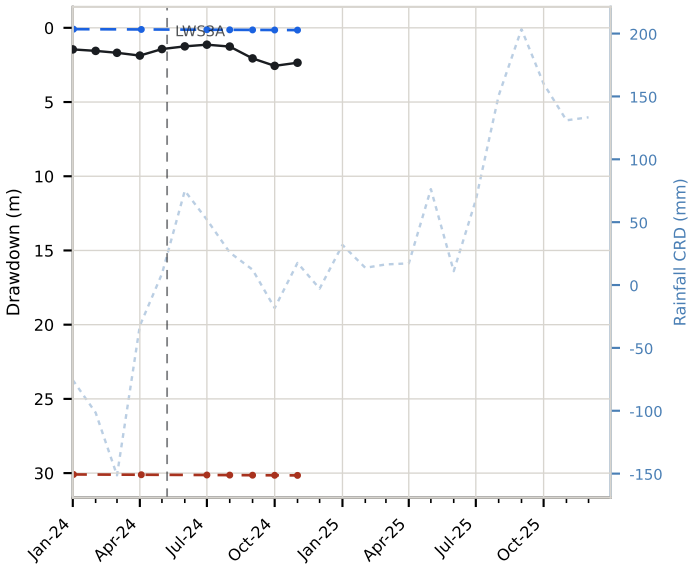
Observed drawdown
Model predicted drawdown
WMP10 trigger (model + 30 m, 3/6/12 months = L1/L2/L3)
Rainfall CRD
Longwall start

SLR

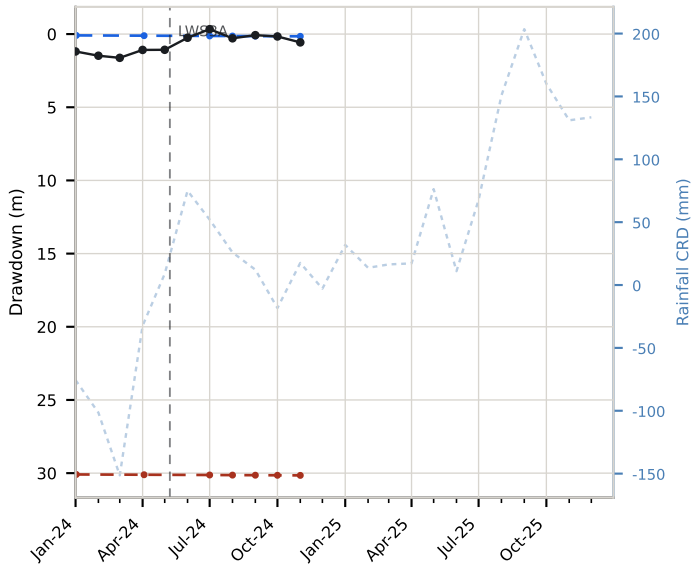
TBC020 (BGSS-211m)



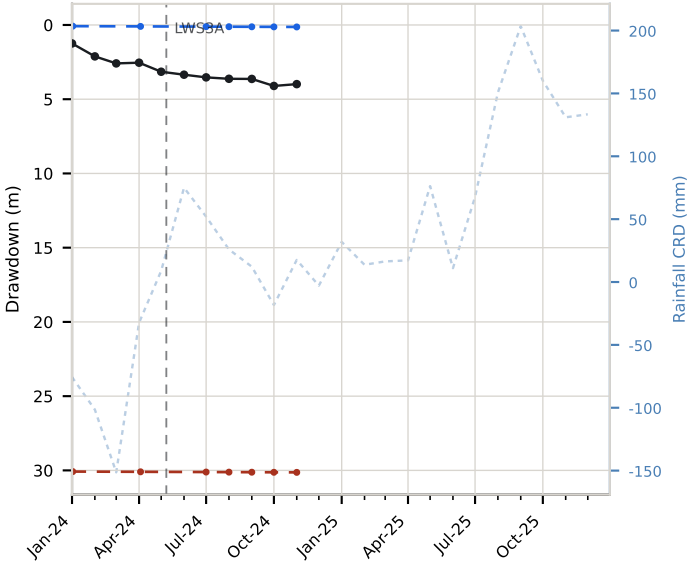
TBC020 (BGSS-293m)



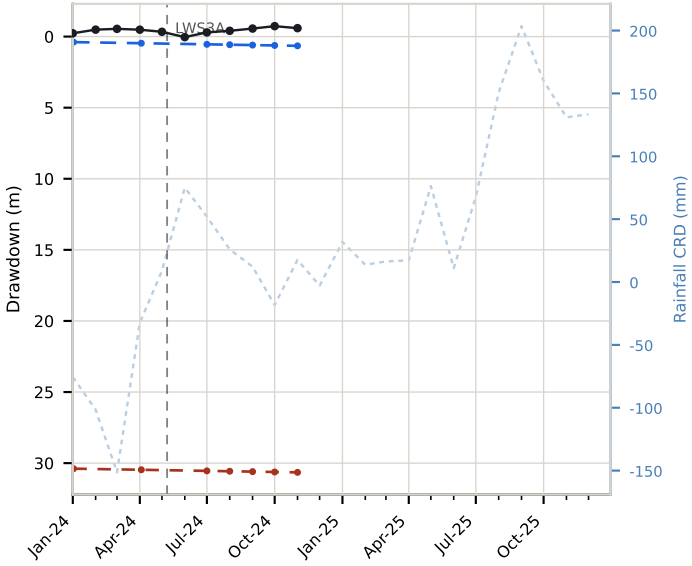
TBC020 (BGSS-375m)



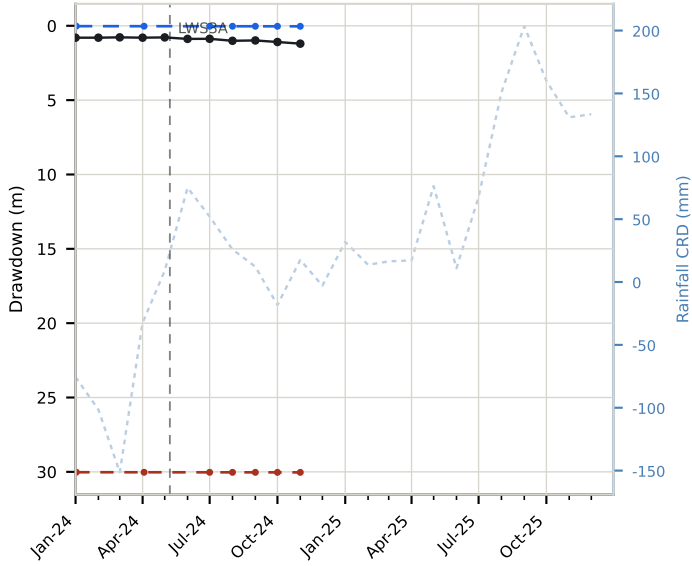
TBC020 (BGSS/BUSM-411m)



TBC020 (WWCO-434m)



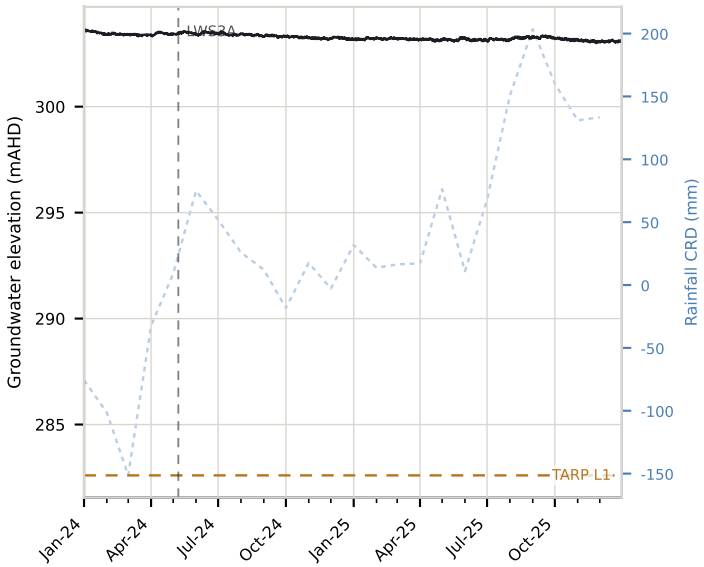
TBC020 (WWCO-439m)



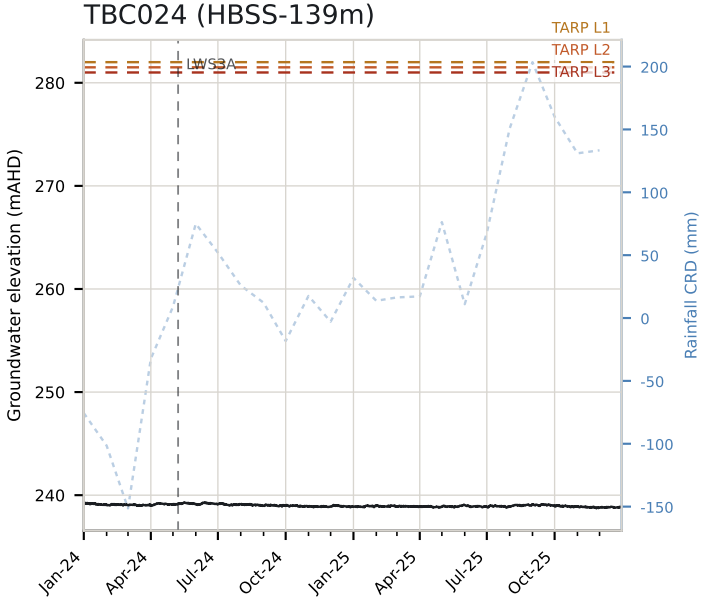
Observed drawdown
Model predicted drawdown
WMP10 trigger (model + 30 m, 3/6/12 months = L1/L2/L3)
Rainfall CRD
Longwall start

SLR

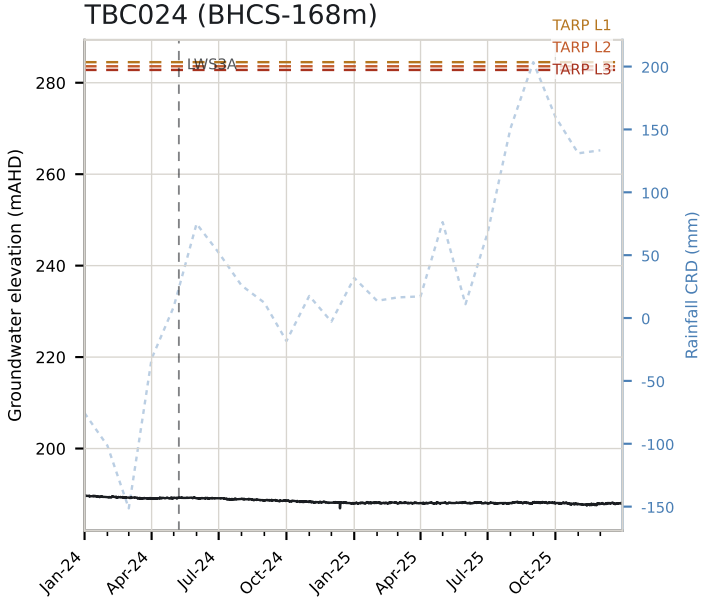
TBC024 (HBSS-117m)



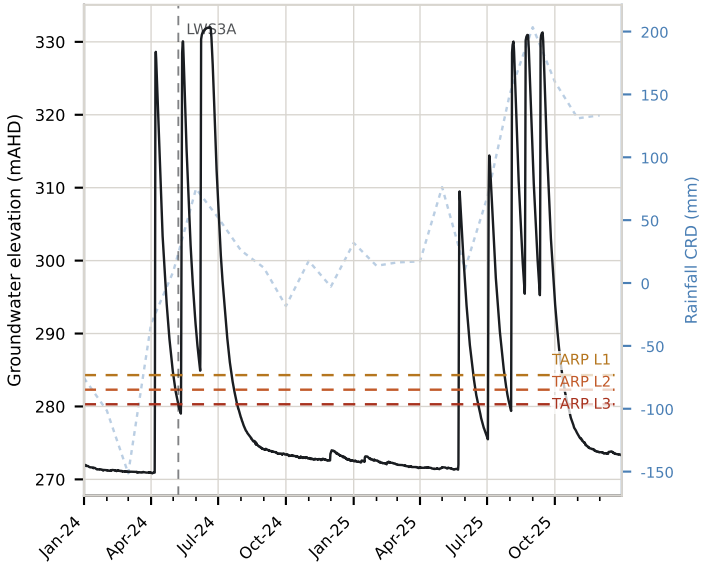
TBC024 (HBSS-139m)



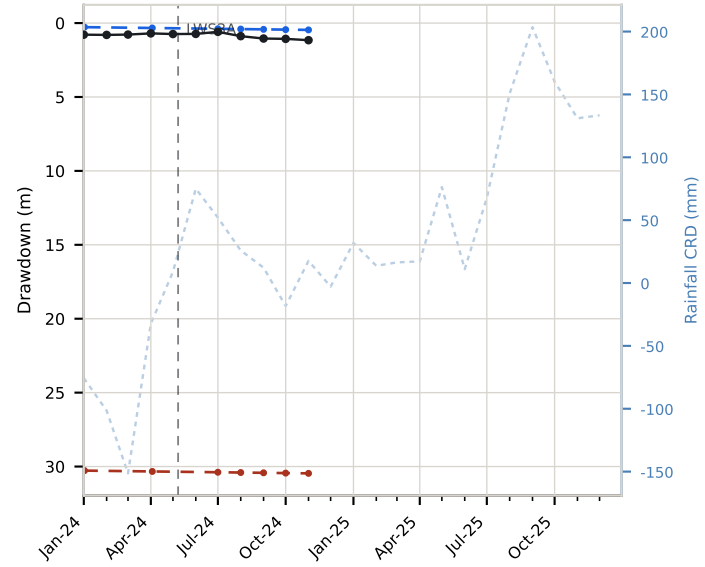
TBC024 (BHCS-168m)



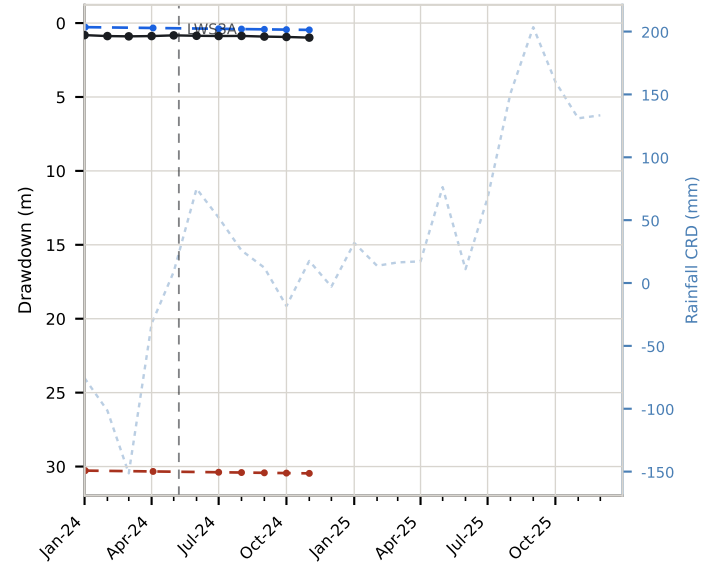
TBC024 (BGSS-185m)



TBC026 (BGSS-211m)



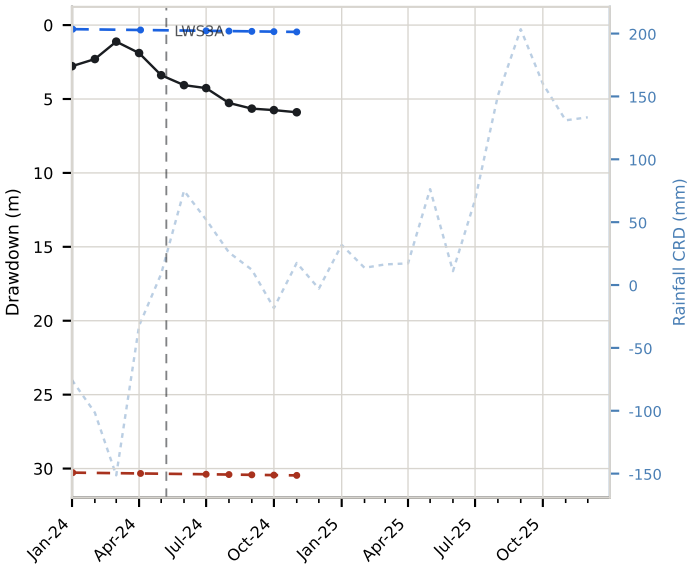
TBC026 (BGSS-278m)



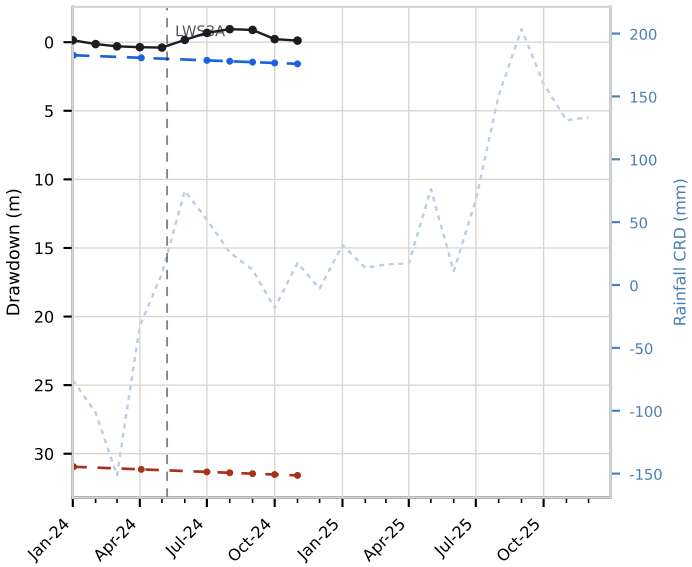
Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Observed drawdown
Model predicted drawdown
WMP10 trigger (model + 30 m, 3/6/12 months = L1/L2/L3)
Rainfall CRD
Longwall start

SLR

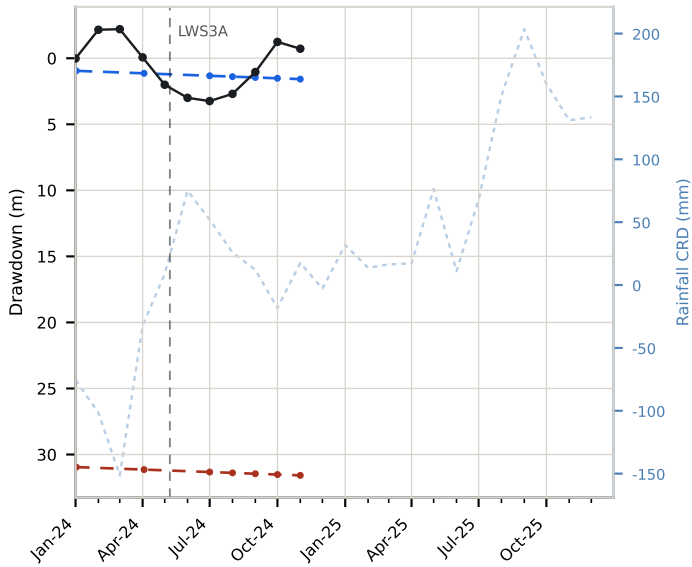
TBC026 (BGSS-344m)



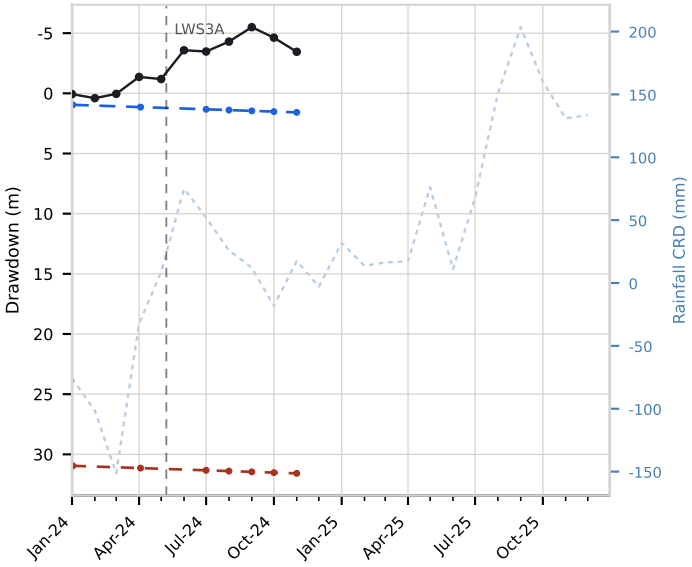
TBC026 (WBCS-409m)



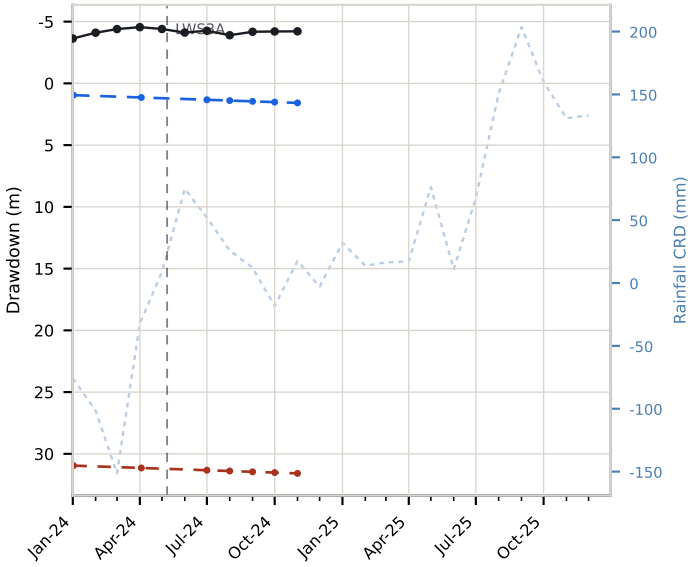
TBC026 (BUSM-432m)



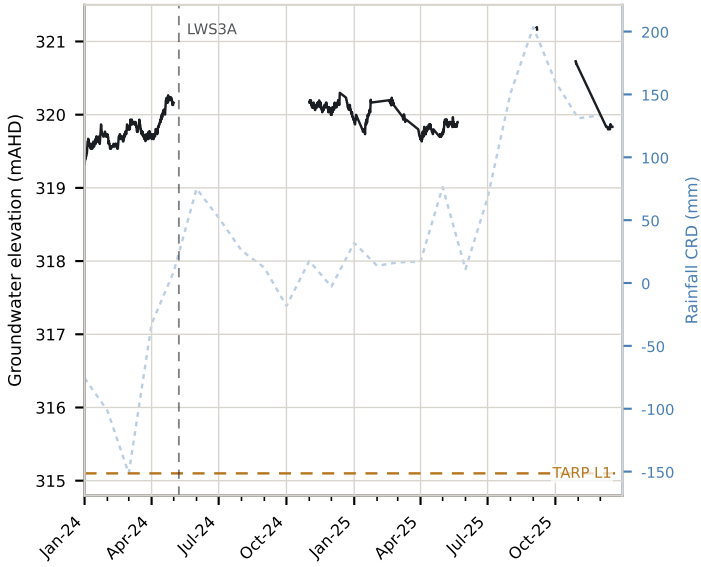
TBC026 (WWCO-440m)



TBC026 (LDSS-460m)



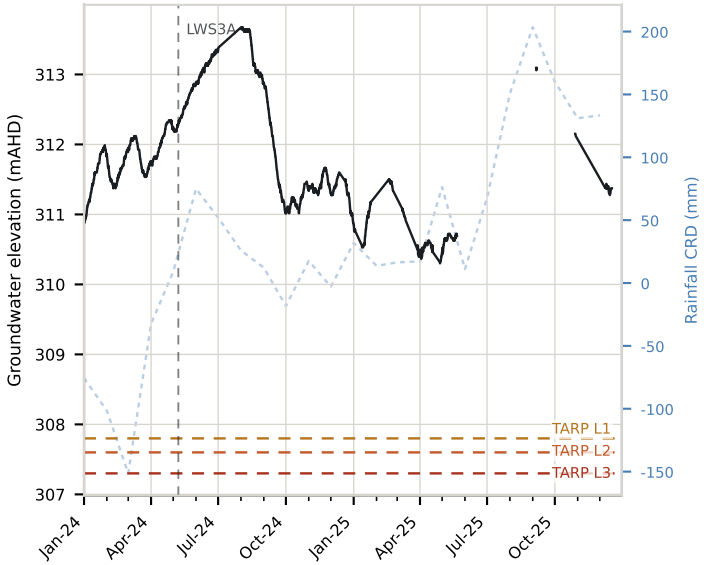
TBC027 (HBSS-95m)



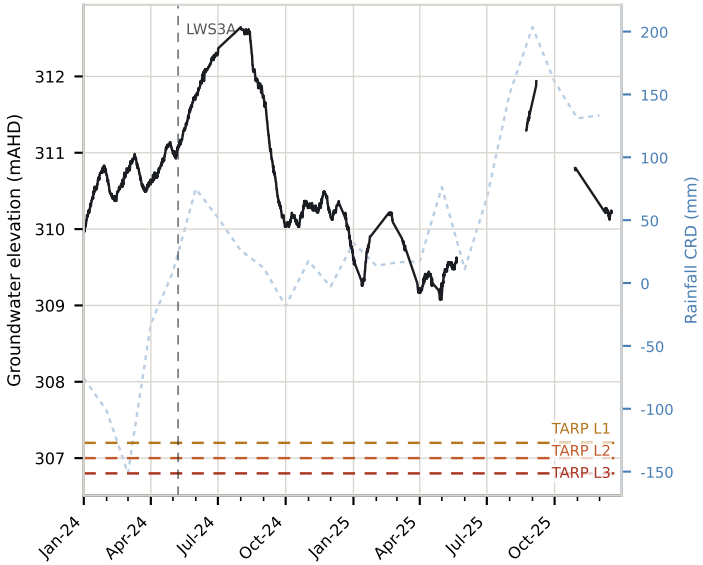
Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Observed drawdown
Model predicted drawdown
WMP10 trigger (model + 30 m, 3/6/12 months = L1/L2/L3)
Rainfall CRD
Longwall start

SLR

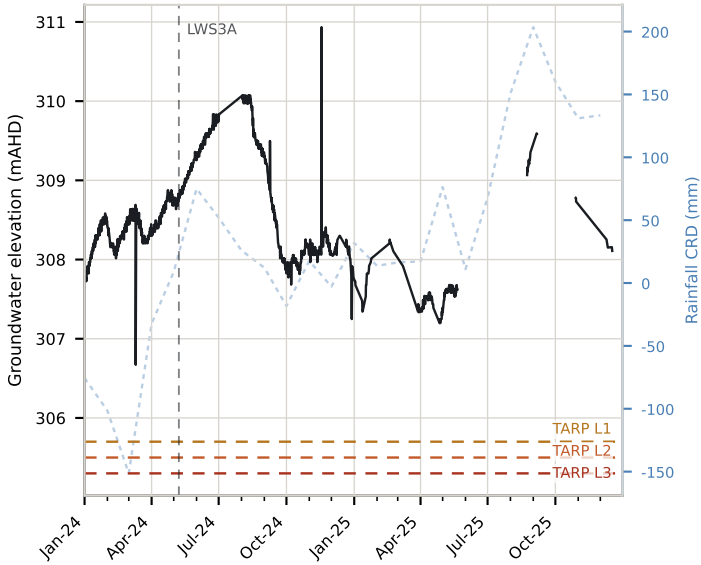
TBC027 (HBSS-132m)



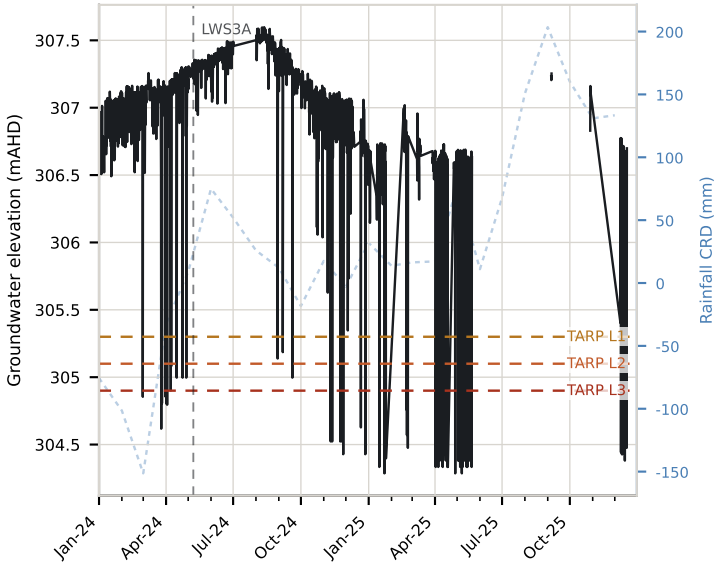
TBC027 (HBSS-169m)



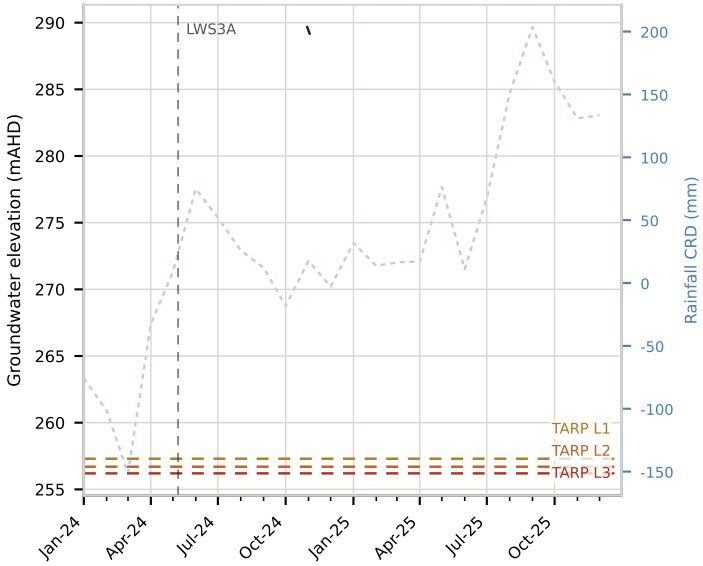
TBC027 (BHCS-181m)



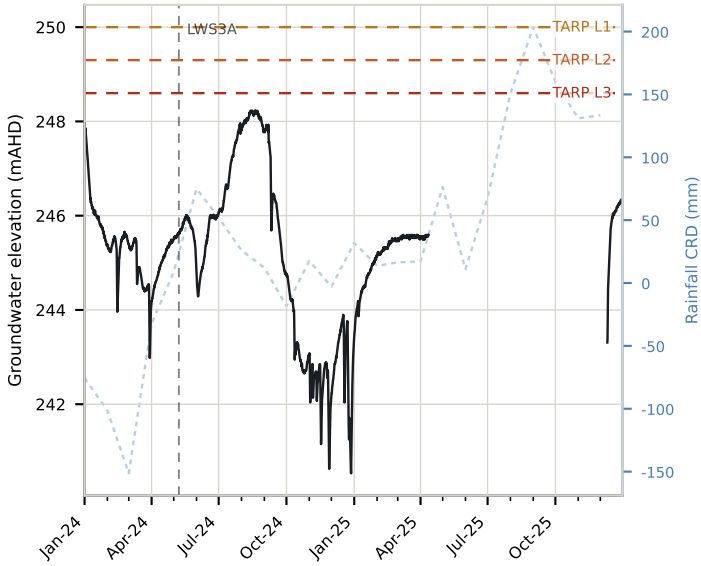
TBC027 (BGSS-198m)



TBC032 (HBSS-95m)



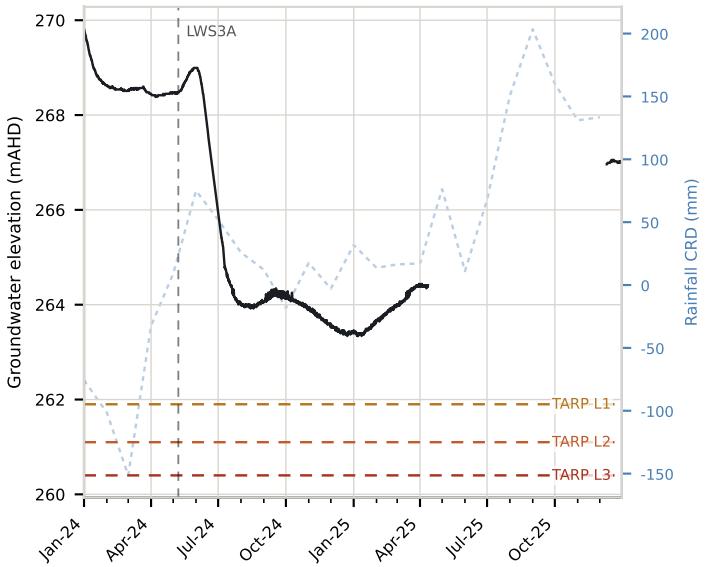
TBC032 (HBSS-131m)



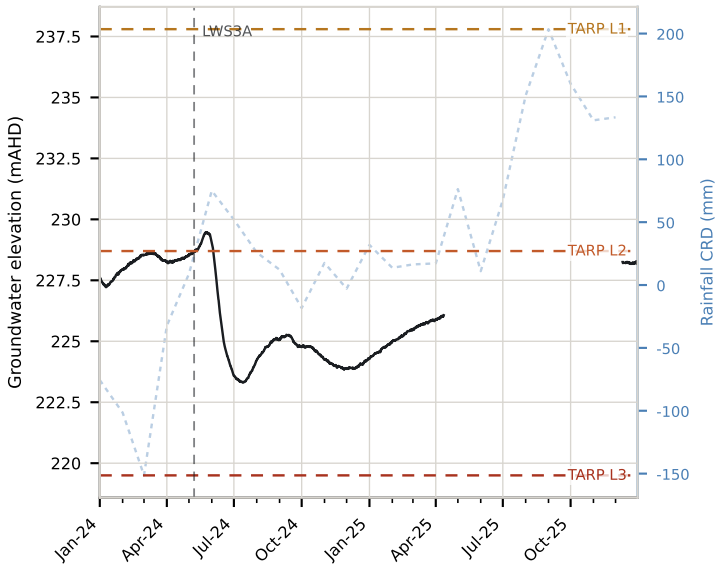
Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Rainfall CRD
Longwall start

SLR

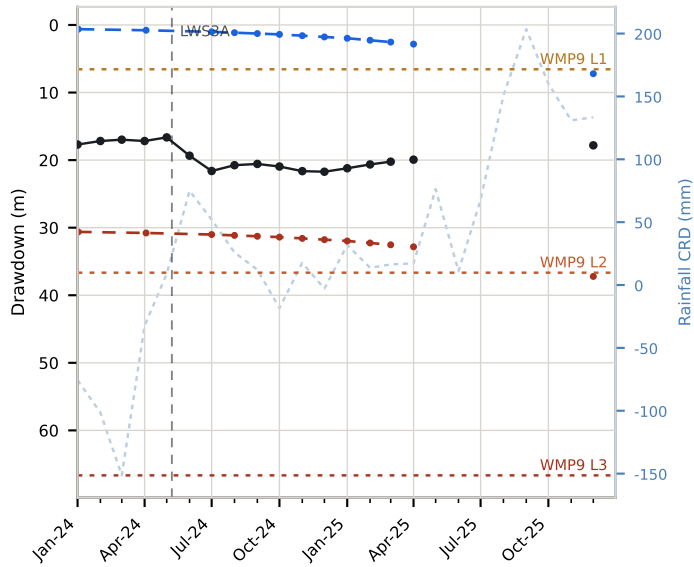
TBC032 (HBSS-168m)



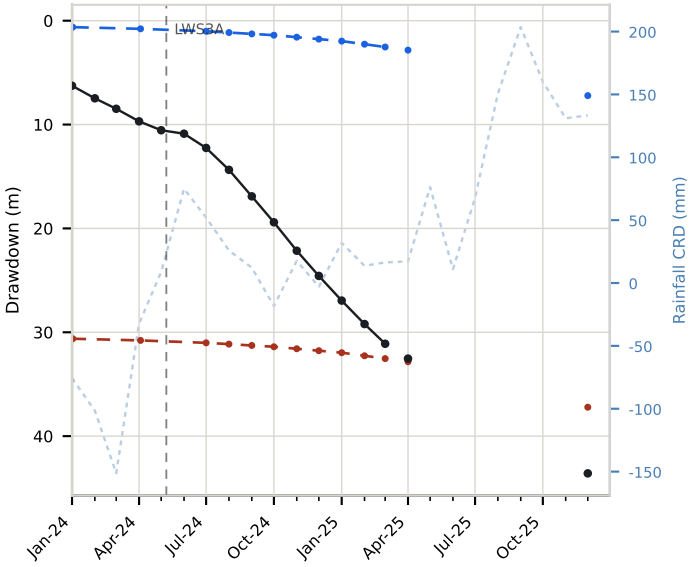
TBC032 (BHCS-181m)



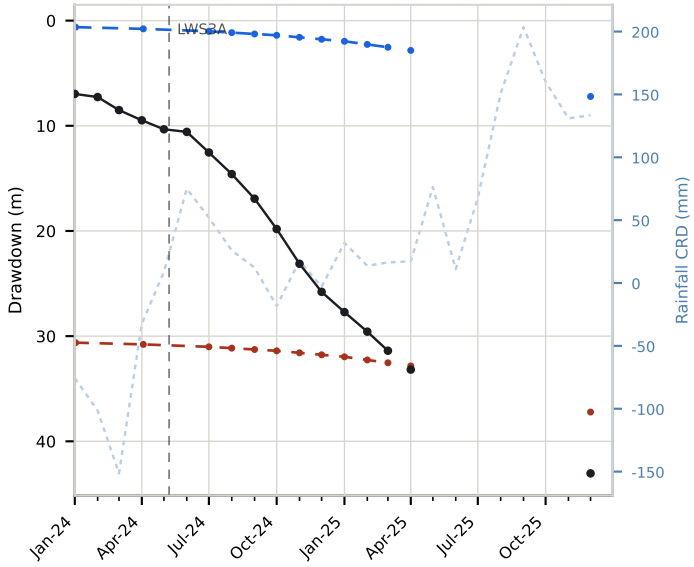
TBC032 (BGSS-200m)



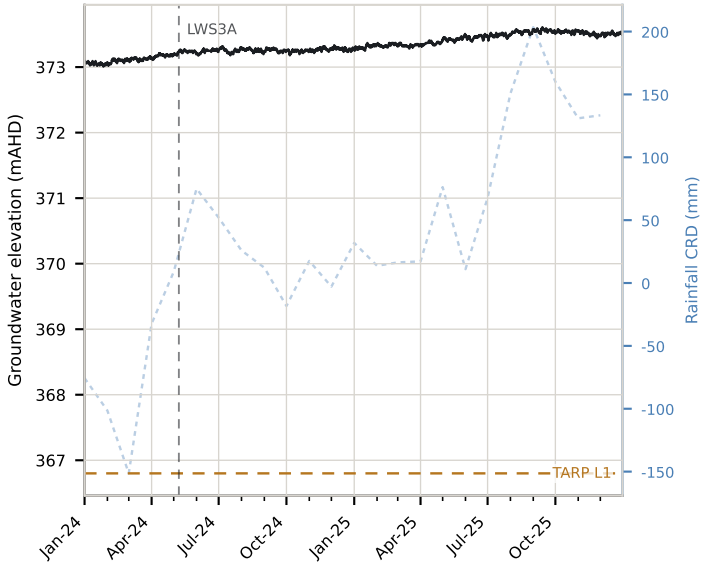
TBC032 (BGSS-237m)



TBC032 (BGSS-294m)

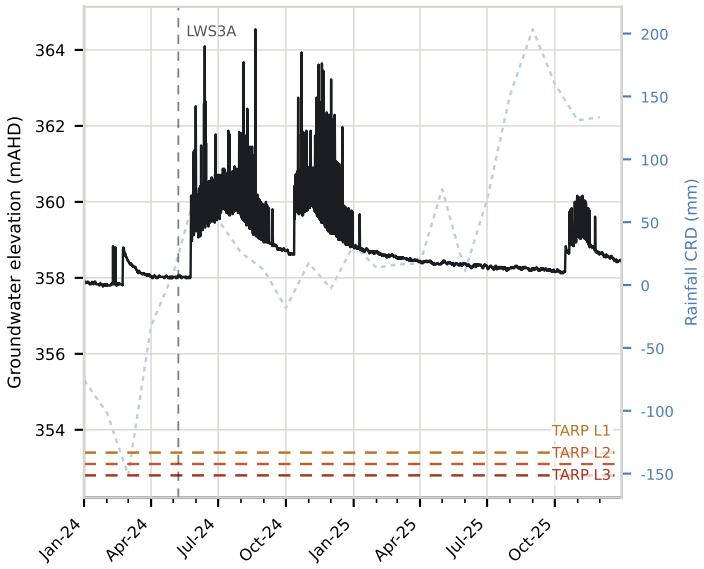


TBC034 (HBSS-65m)

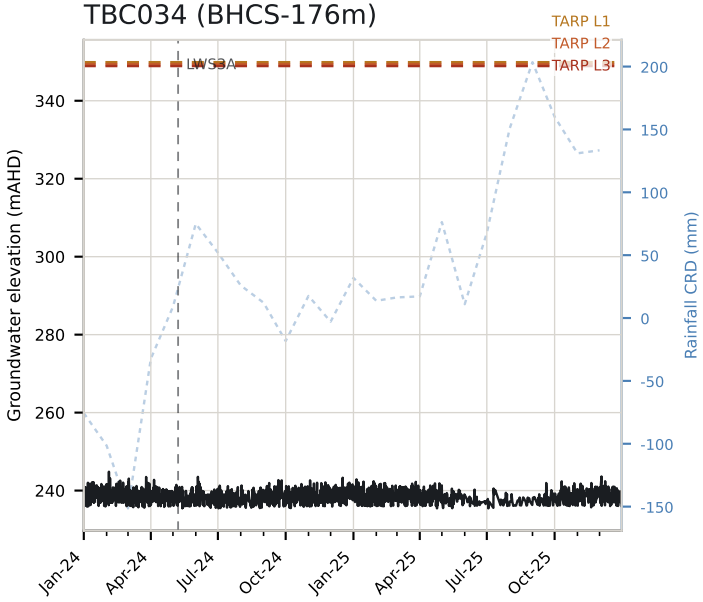


Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Observed drawdown
Model predicted drawdown
WMP10 trigger (model + 30 m, 3/6/12 months = L1/L2/L3)
Rainfall CRD
Longwall start

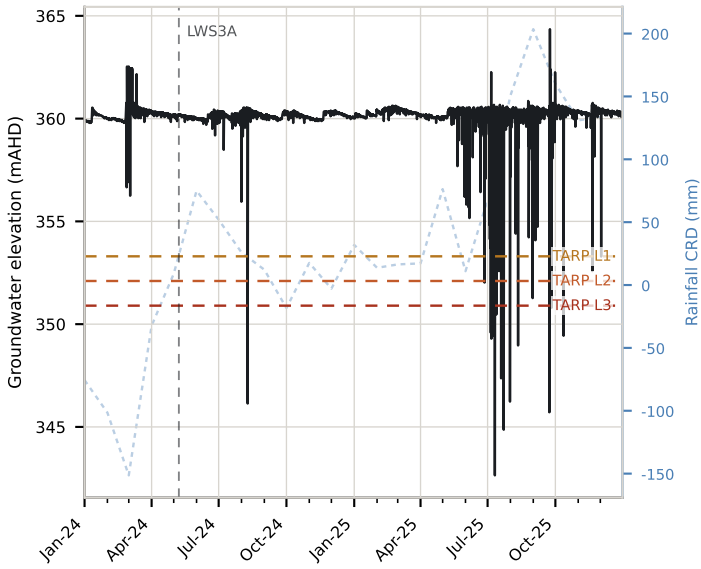
TBC034 (HBSS-161m)



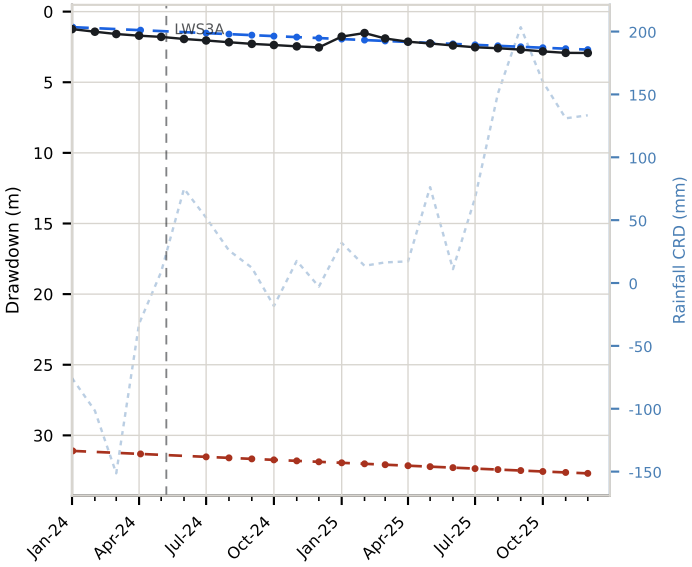
TBC034 (BHCS-176m)



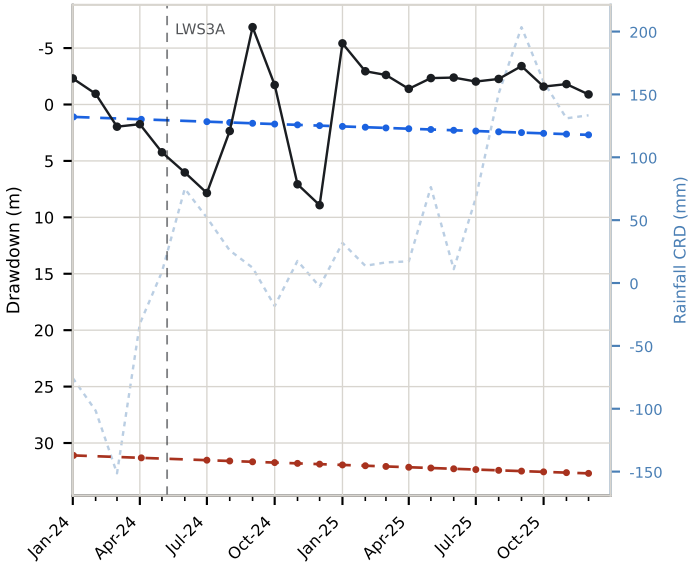
TBC034 (BGSS-196m)



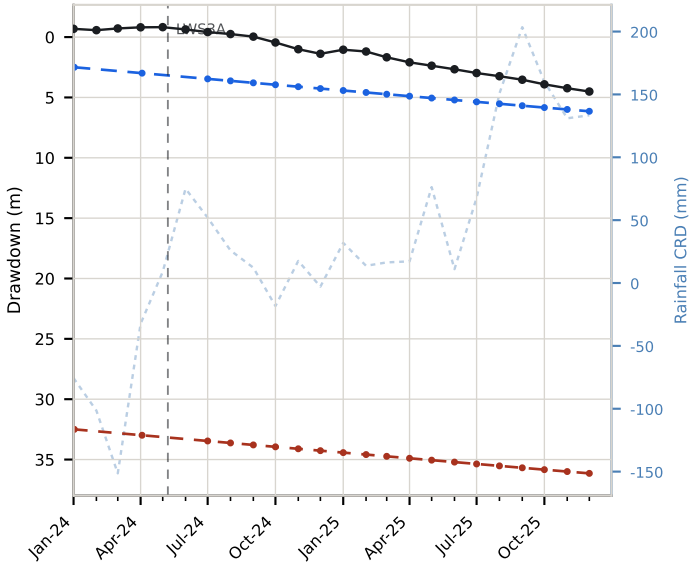
TBC039 (BGSS-243m)



TBC039 (BGSS-299m)



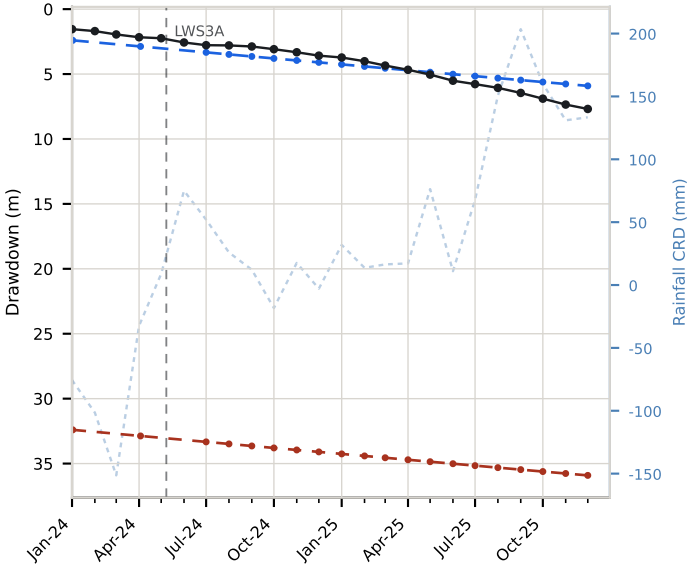
TBC039 (SBSS-354m)



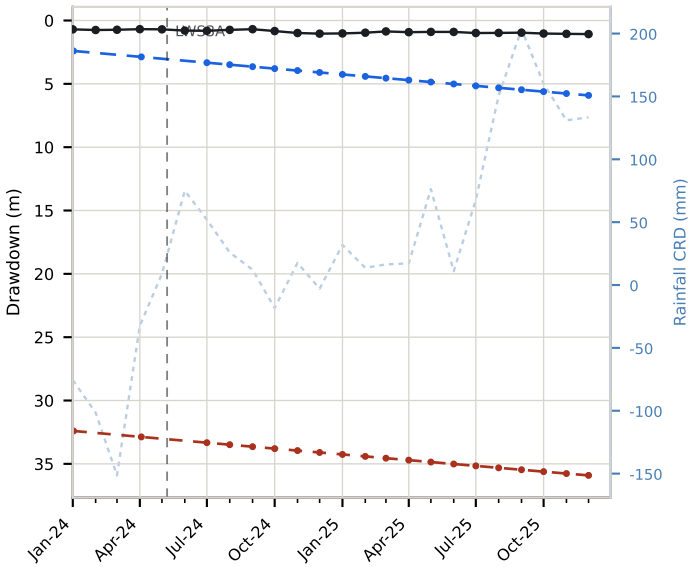
Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Observed drawdown
Model predicted drawdown
WMP10 trigger (model + 30 m, 3/6/12 months = L1/L2/L3)
Rainfall CRD
Longwall start

SLR

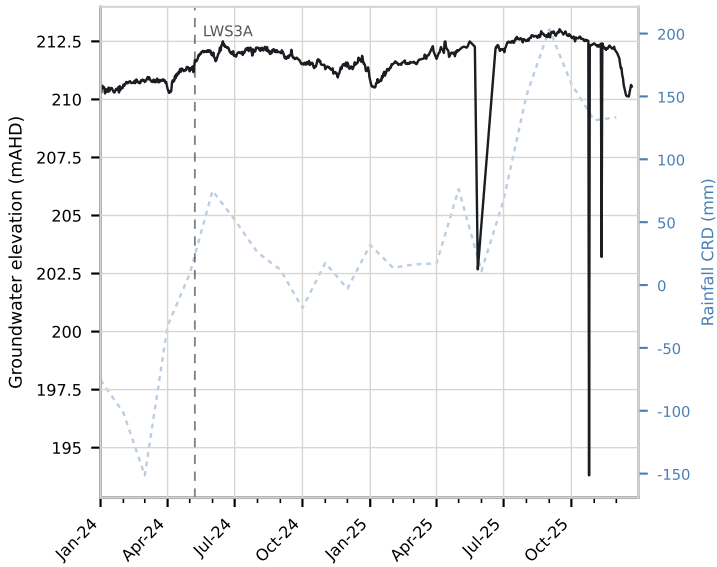
TBC039 (BUSM-375m)



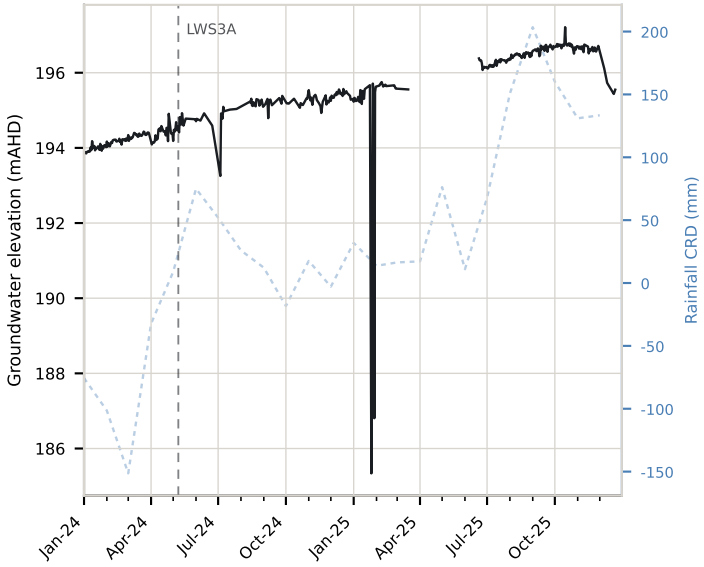
TBC039 (WWCO-402m)



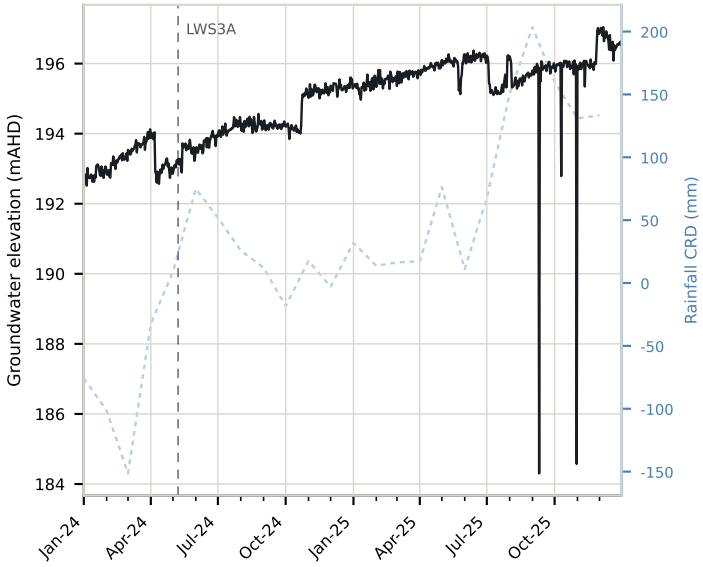
TNC036 (HBSS-65m)



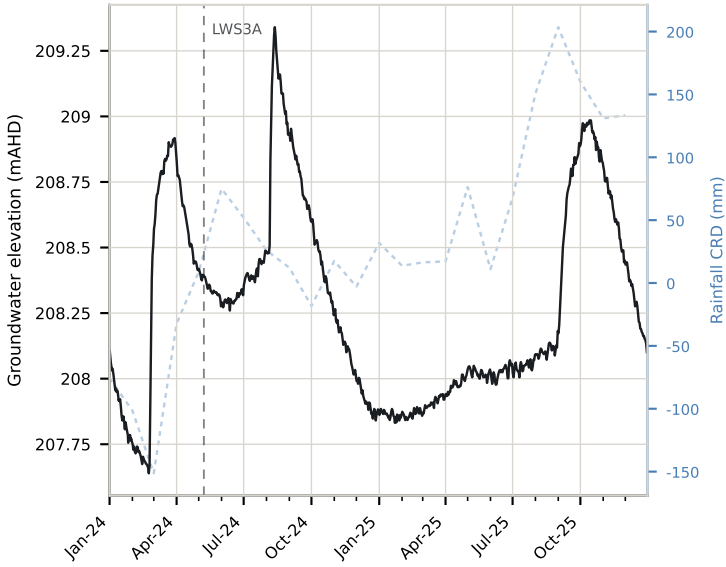
TNC036 (HBSS-97m)



TNC036 (BGSS-169m)



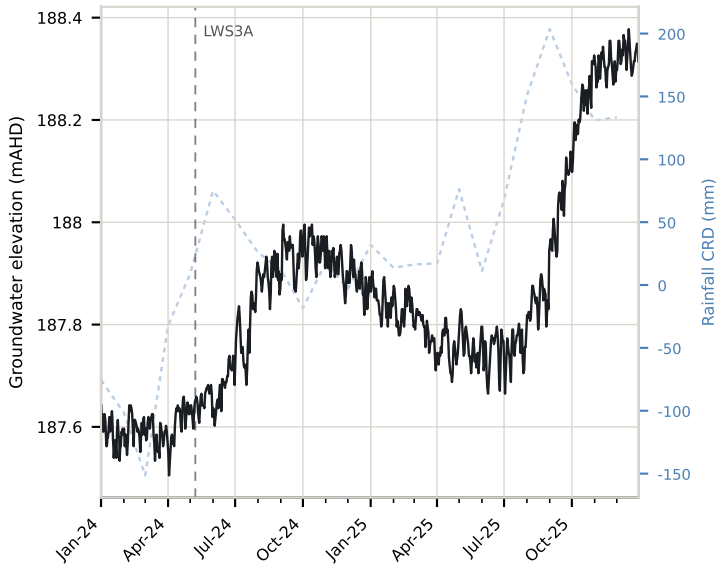
TNC040 (WMFM-27m)



Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Observed drawdown
Model predicted drawdown
WMP10 trigger (model + 30 m, 3/6/12 months = L1/L2/L3)
Rainfall CRD
Longwall start

SLR

TNC040 (HBSS-65m)



Groundwater level (logger)
Manual dip
TARP Level 1
TARP Level 2
TARP Level 3
Rainfall CRD
Longwall start

Appendix E Temporal Groundwater Quality Plots

Annual Groundwater Report: January – December 2025

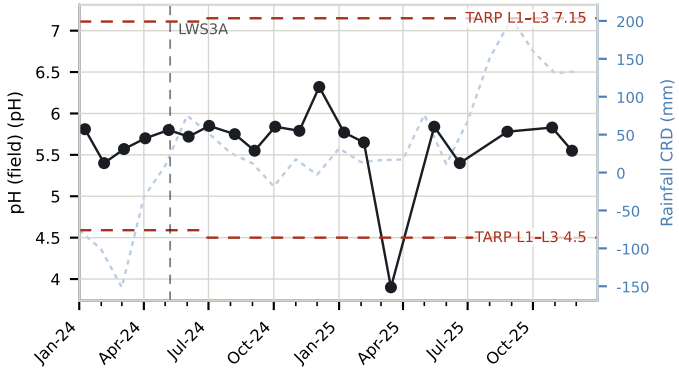
Tahmoor South Domain

Tahmoor Coal Pty Ltd

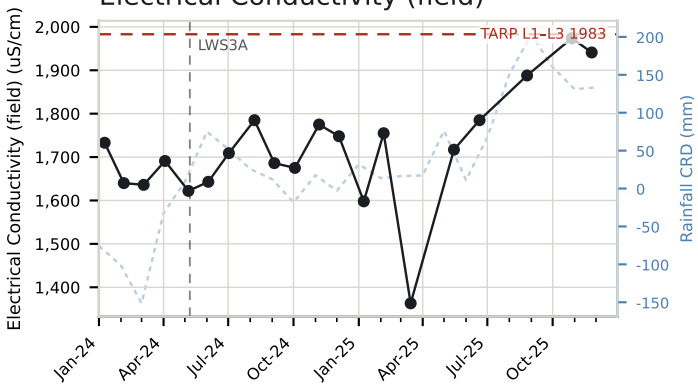
SLR Project No.: 640.30614.00001

29 October 2026

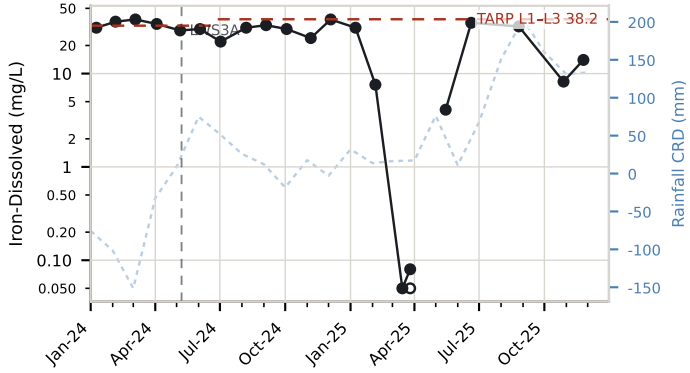
pH (field)



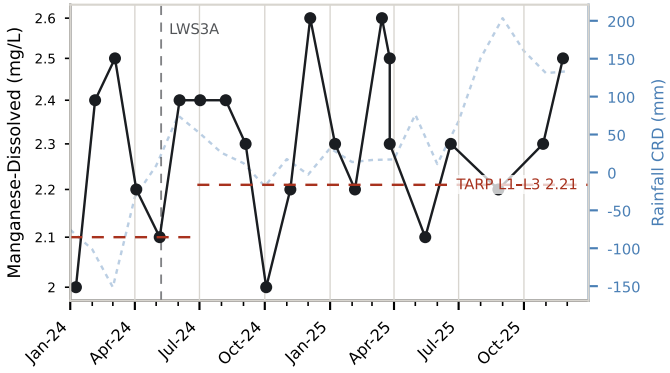
Electrical Conductivity (field)



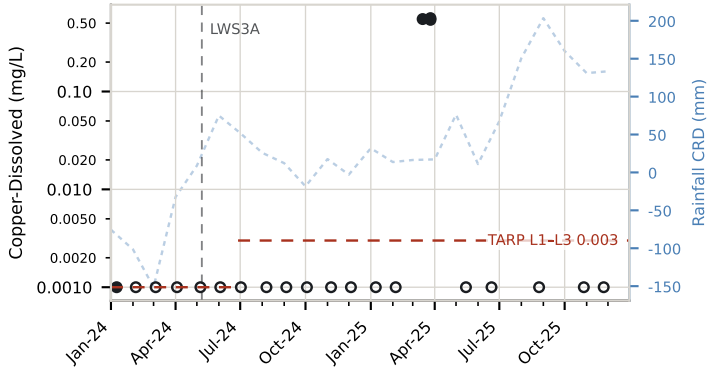
Iron-Dissolved



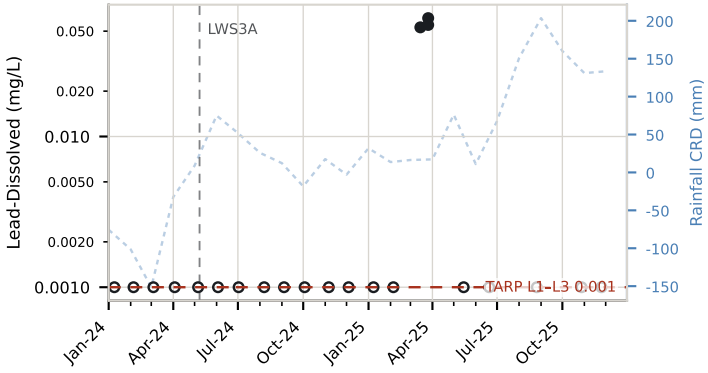
Manganese-Dissolved



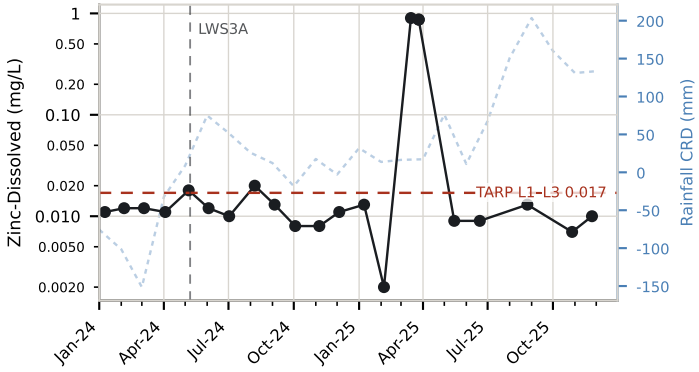
Copper-Dissolved



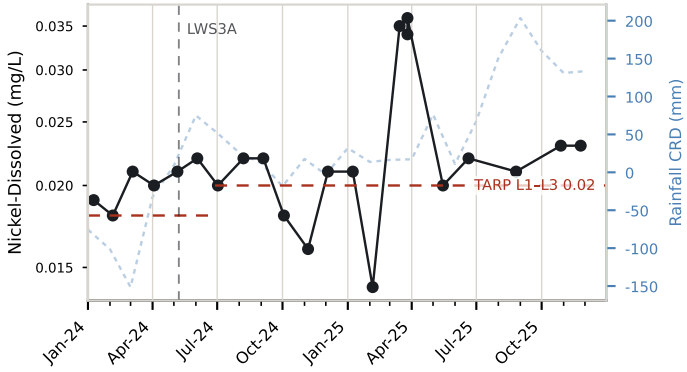
Lead-Dissolved



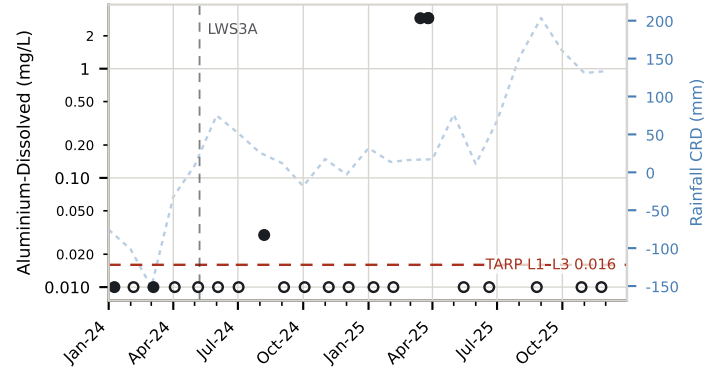
Zinc-Dissolved



Nickel-Dissolved



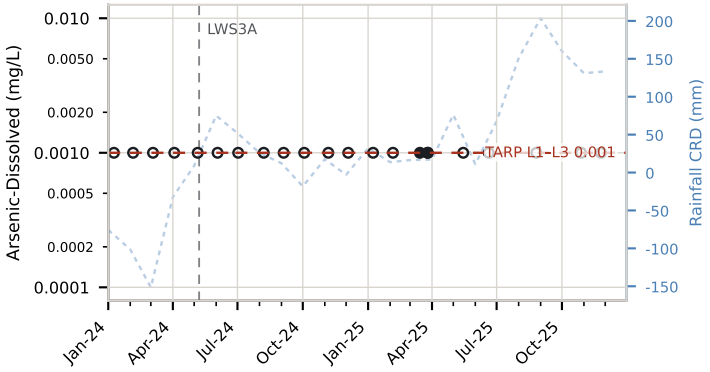
Aluminium-Dissolved



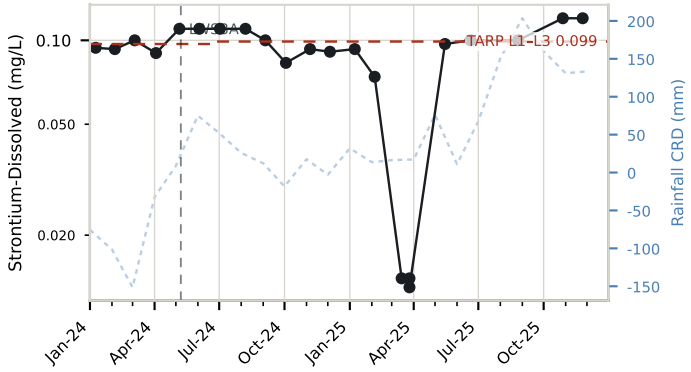
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

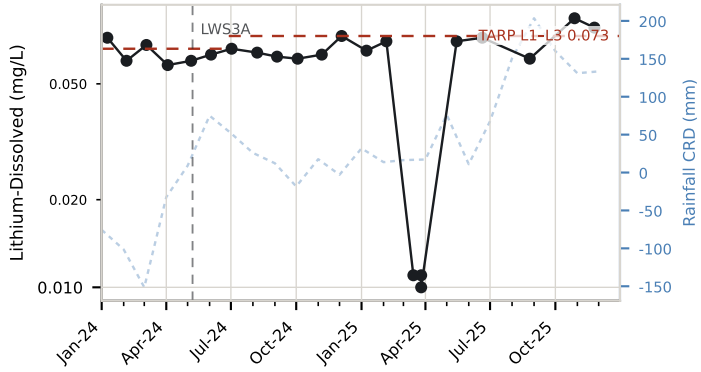
Arsenic-Dissolved



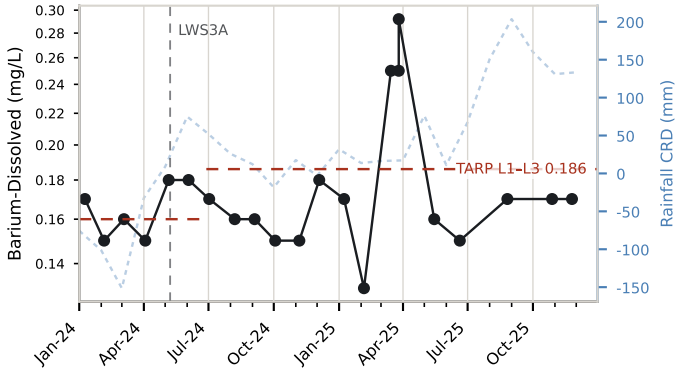
Strontium-Dissolved



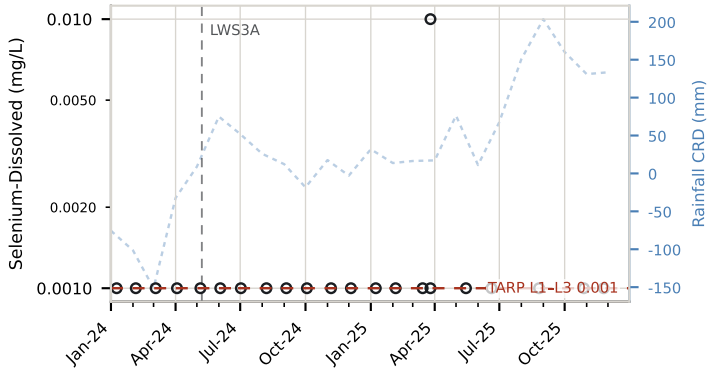
Lithium-Dissolved



Barium-Dissolved



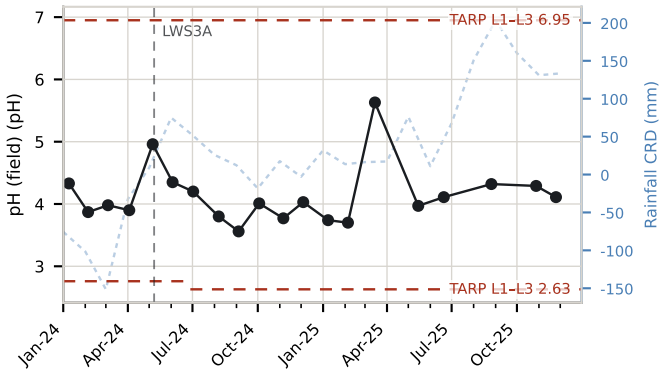
Selenium-Dissolved



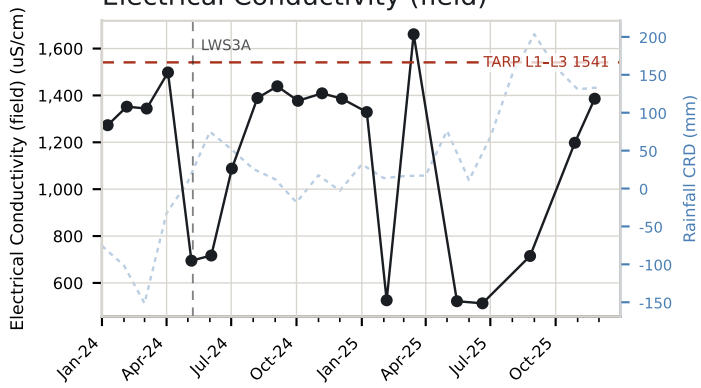
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

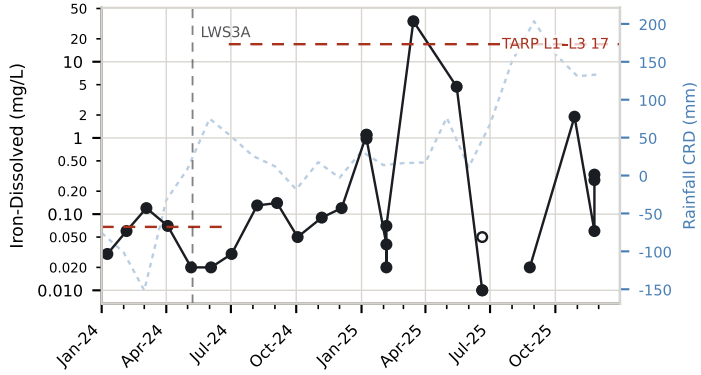
pH (field)



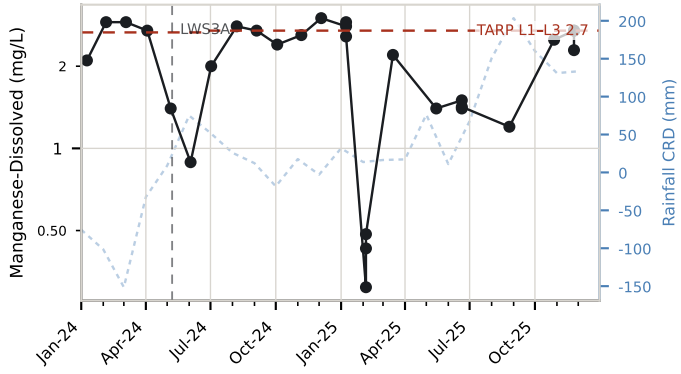
Electrical Conductivity (field)



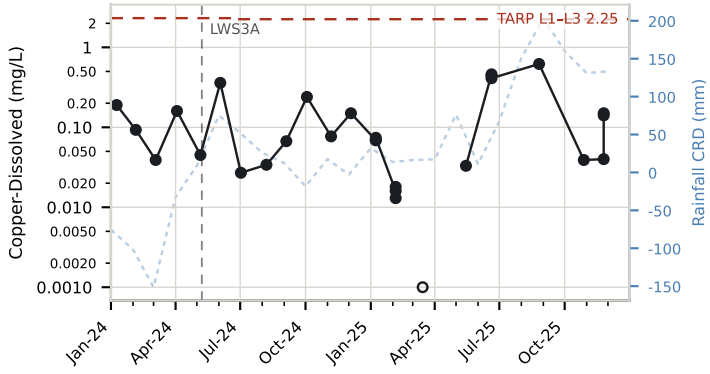
Iron-Dissolved



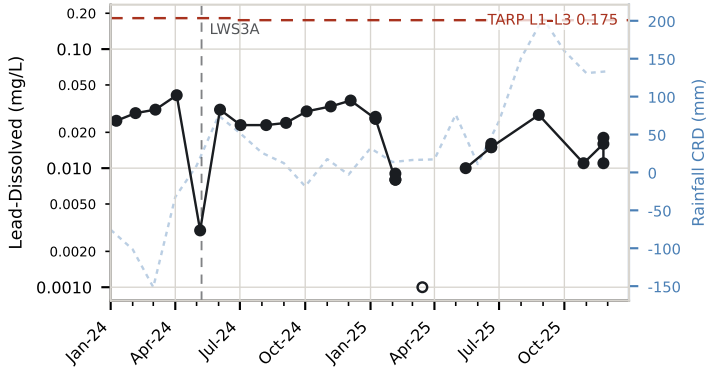
Manganese-Dissolved



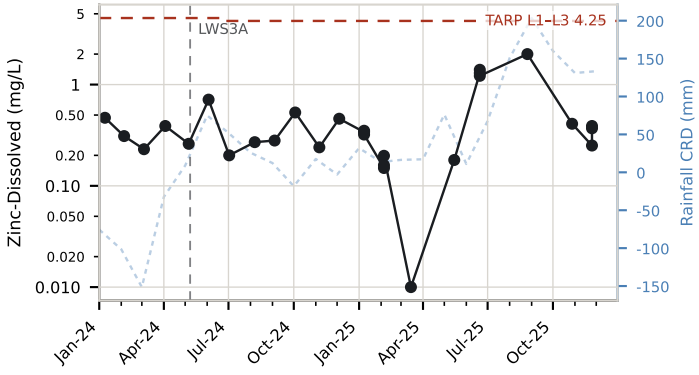
Copper-Dissolved



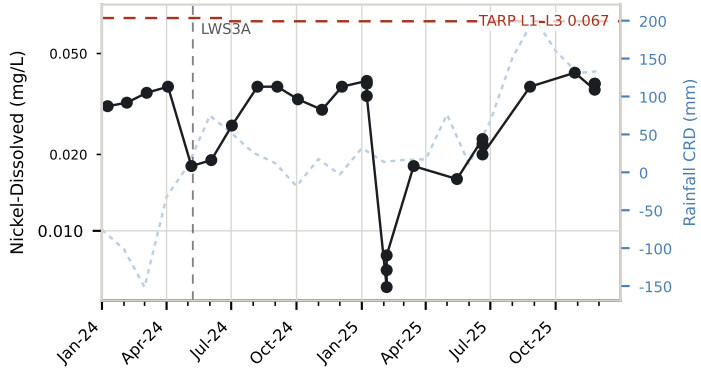
Lead-Dissolved



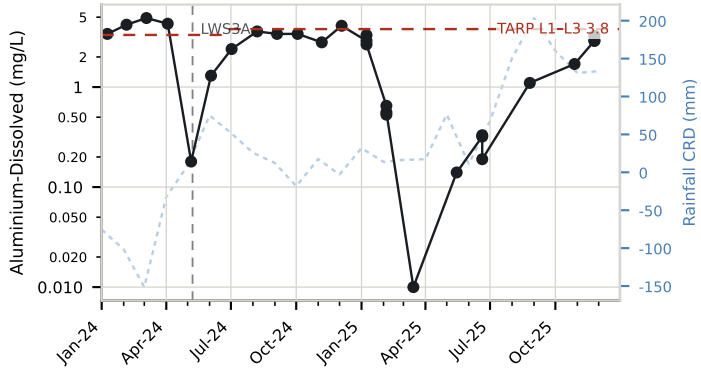
Zinc-Dissolved



Nickel-Dissolved



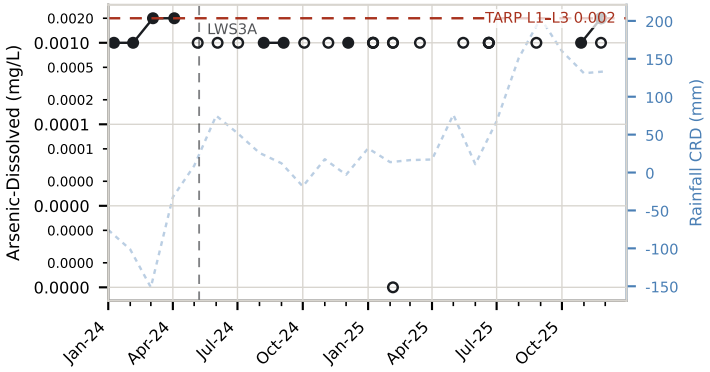
Aluminium-Dissolved



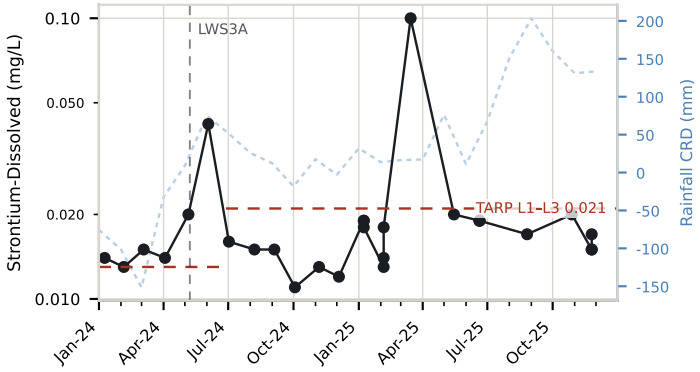
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

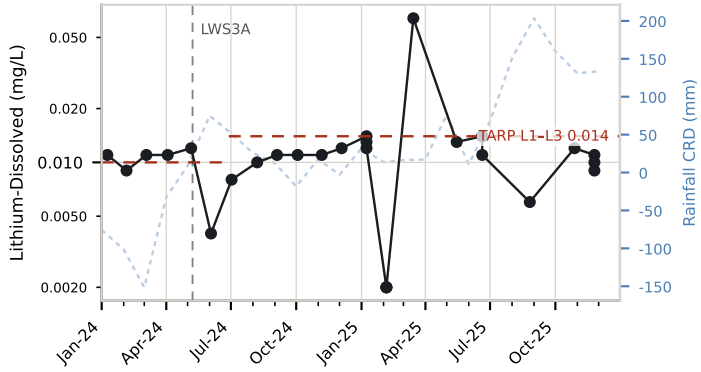
Arsenic-Dissolved



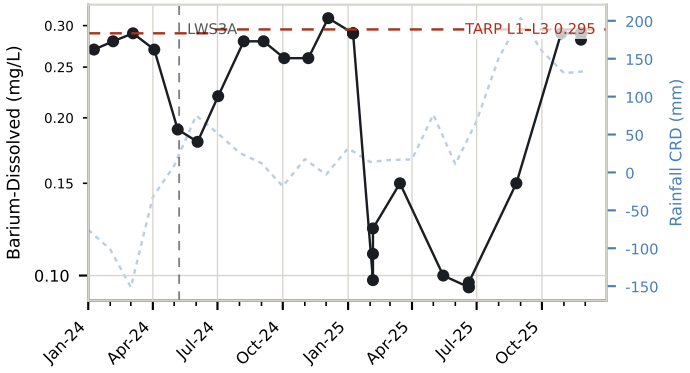
Strontium-Dissolved



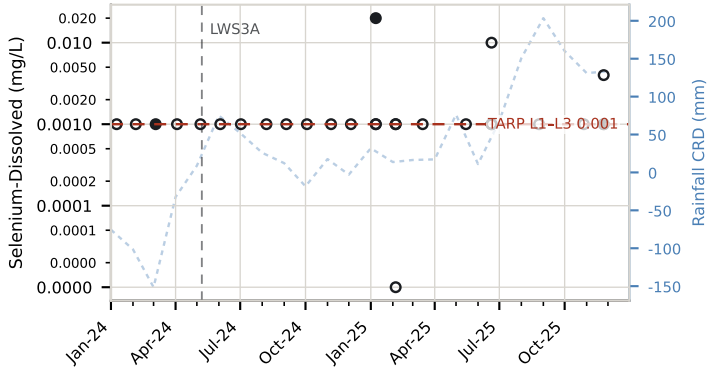
Lithium-Dissolved



Barium-Dissolved



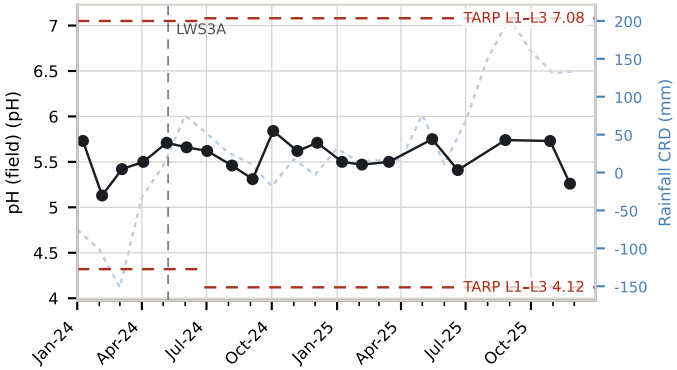
Selenium-Dissolved



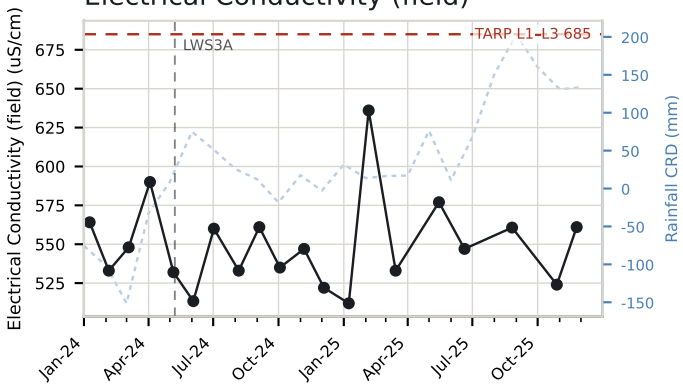
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

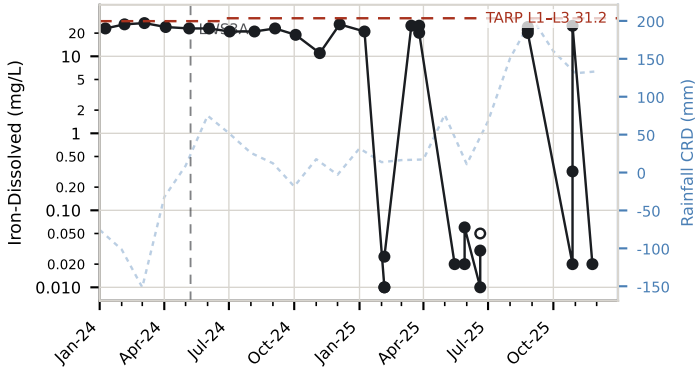
pH (field)



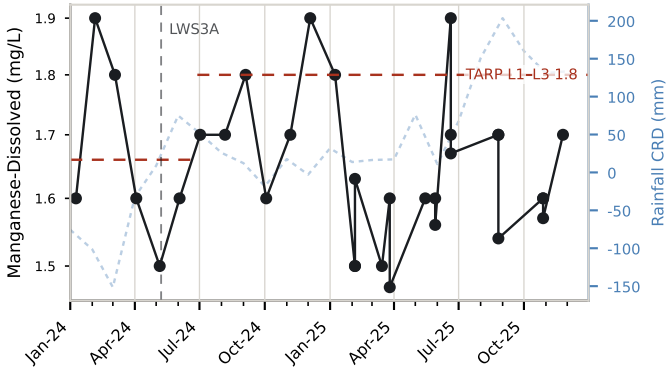
Electrical Conductivity (field)



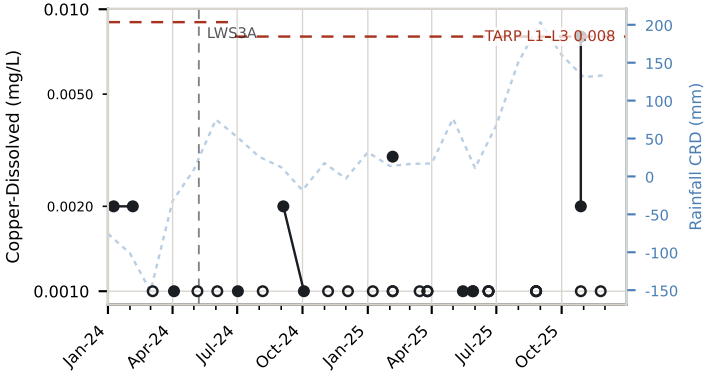
Iron-Dissolved



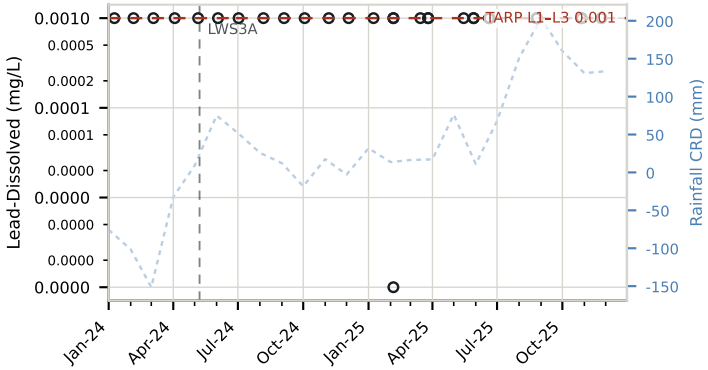
Manganese-Dissolved



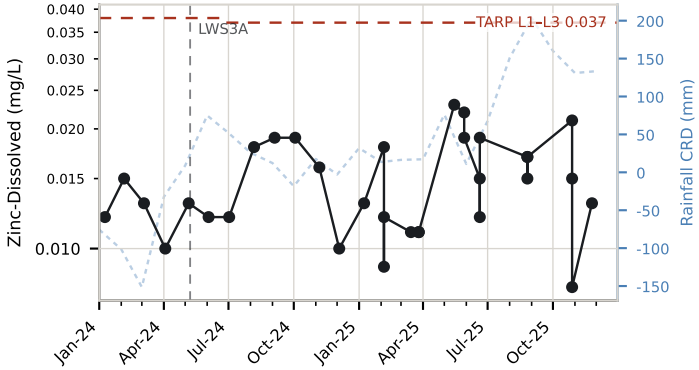
Copper-Dissolved



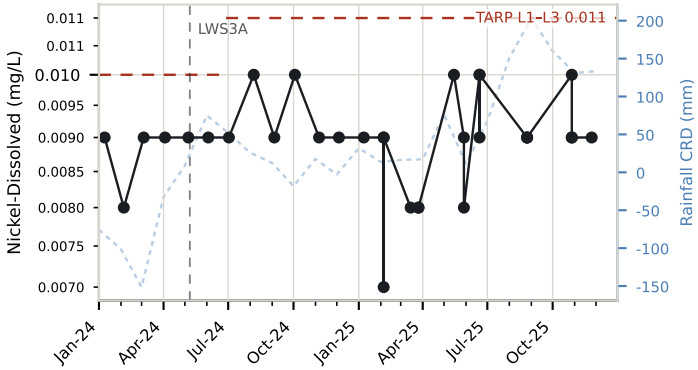
Lead-Dissolved



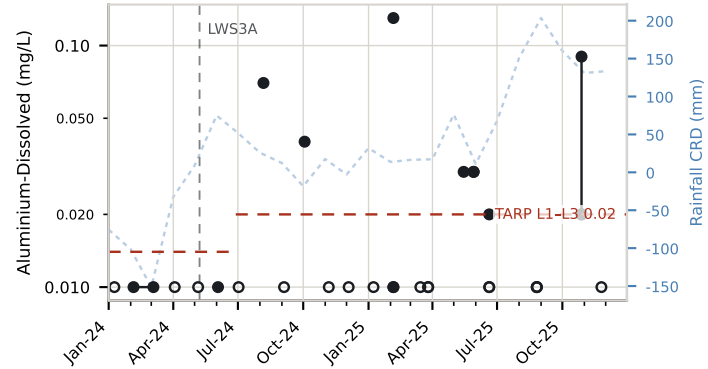
Zinc-Dissolved



Nickel-Dissolved



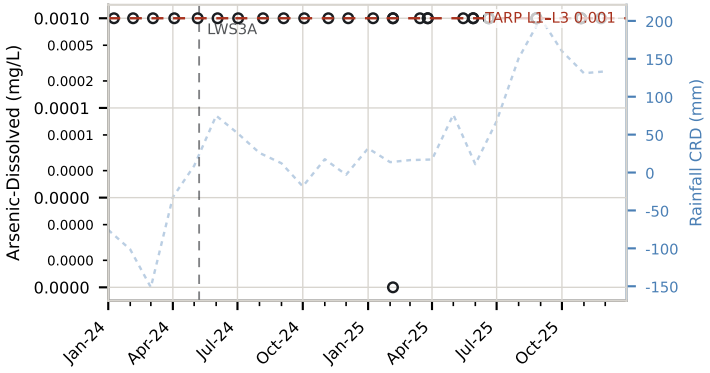
Aluminium-Dissolved



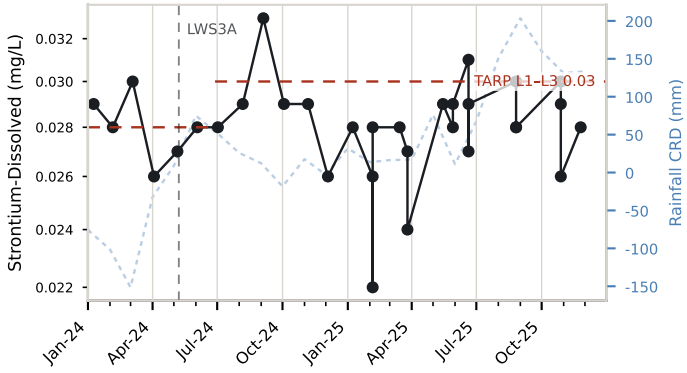
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

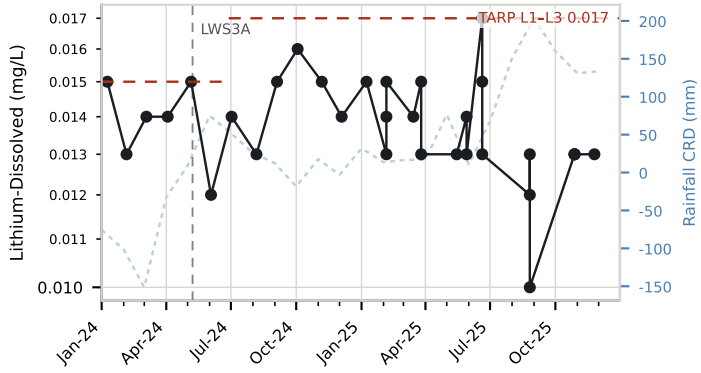
Arsenic-Dissolved



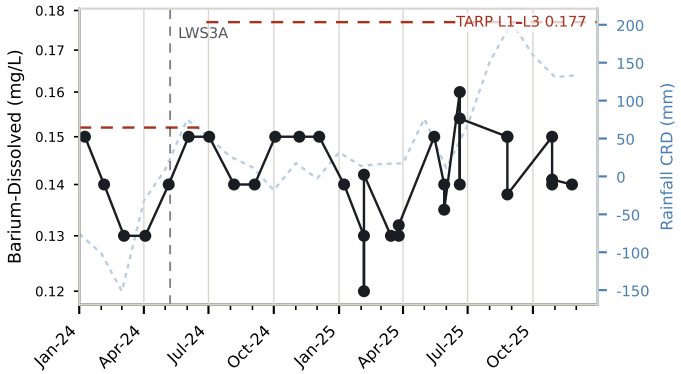
Strontium-Dissolved



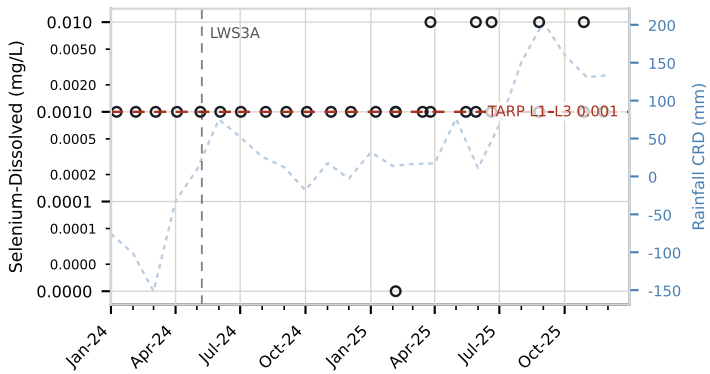
Lithium-Dissolved



Barium-Dissolved

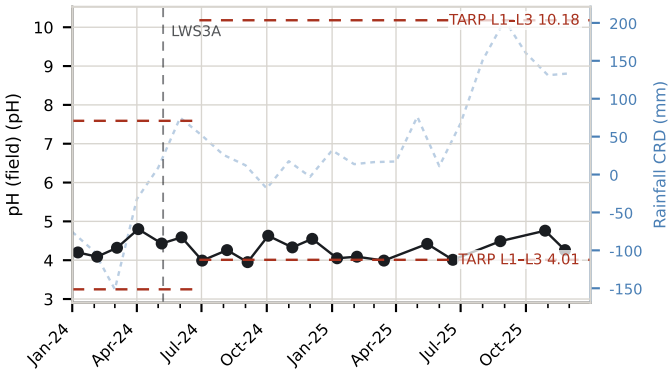


Selenium-Dissolved

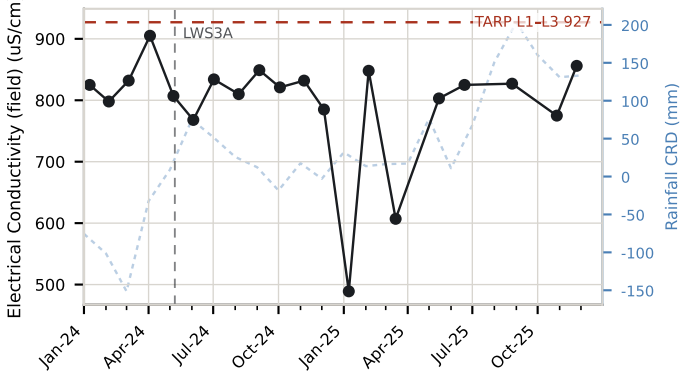


Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

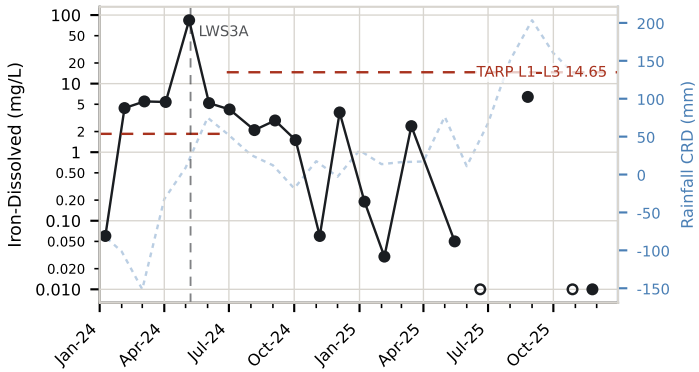
pH (field)



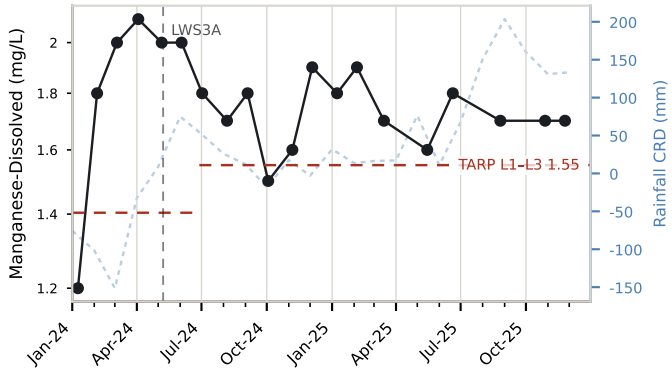
Electrical Conductivity (field)



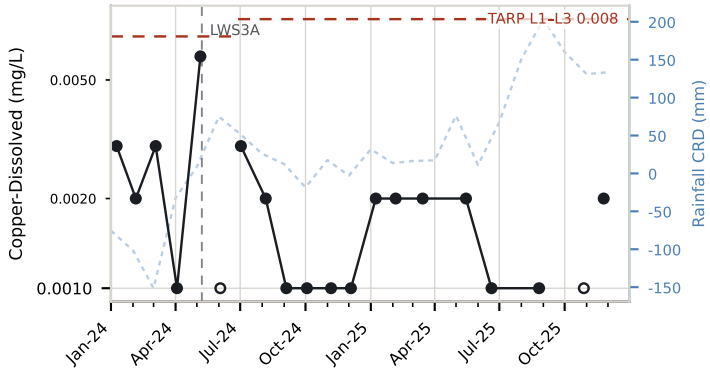
Iron-Dissolved



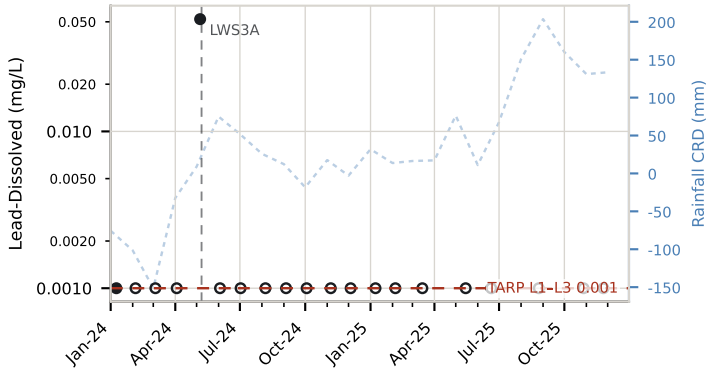
Manganese-Dissolved



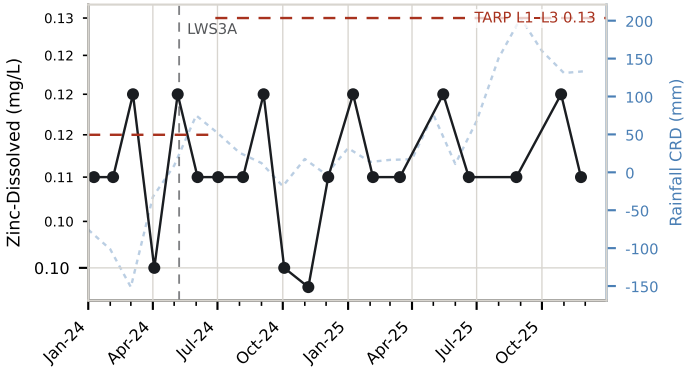
Copper-Dissolved



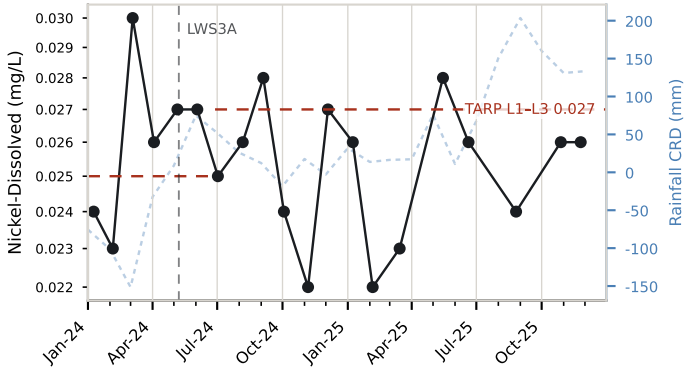
Lead-Dissolved



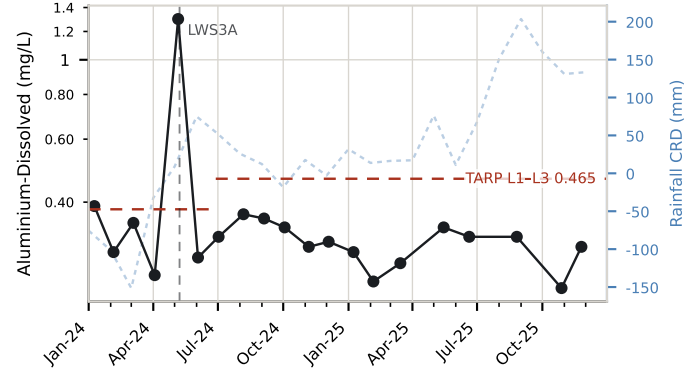
Zinc-Dissolved



Nickel-Dissolved



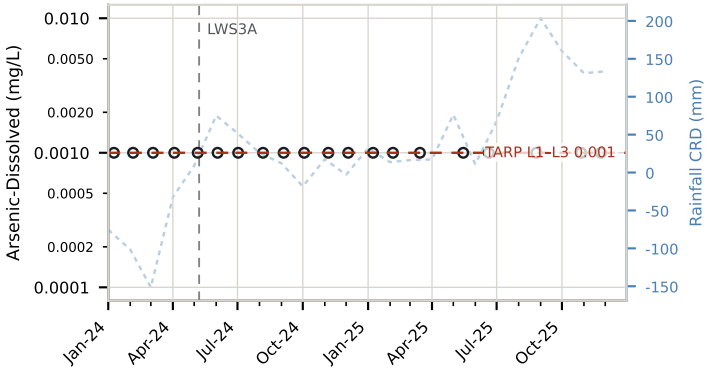
Aluminium-Dissolved



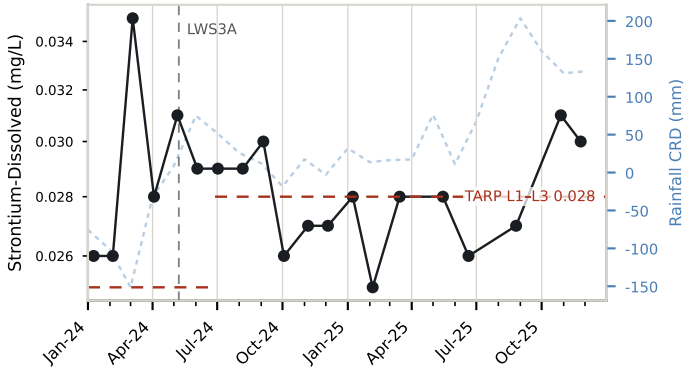
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

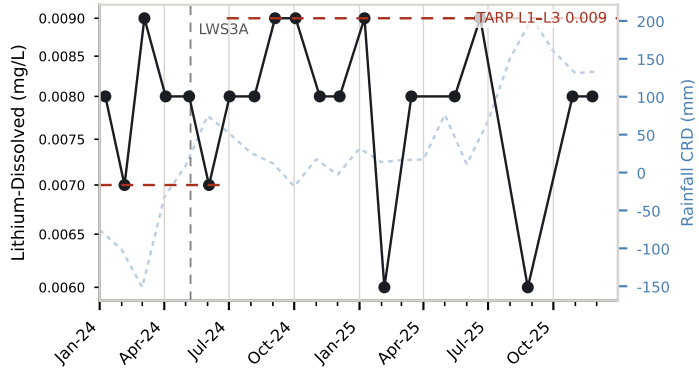
Arsenic-Dissolved



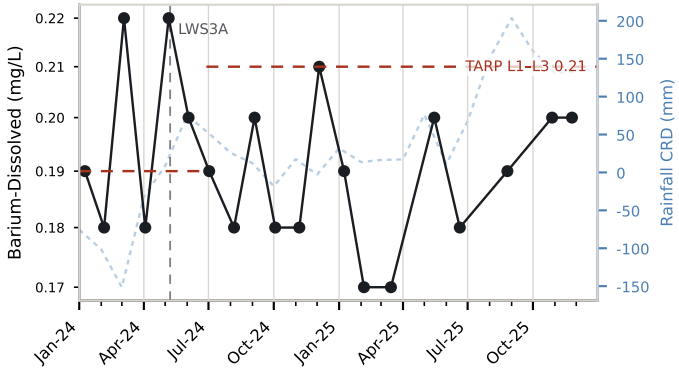
Strontium-Dissolved



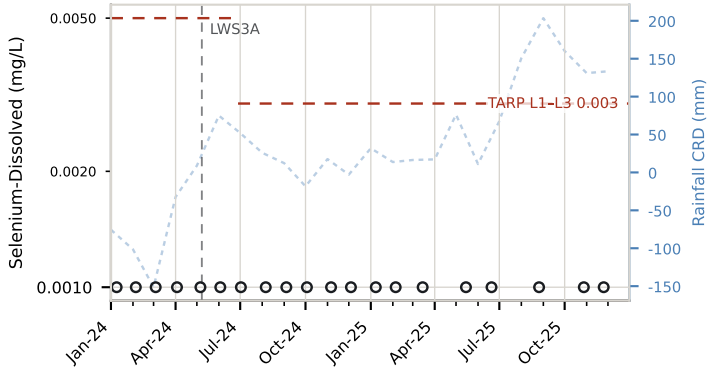
Lithium-Dissolved



Barium-Dissolved



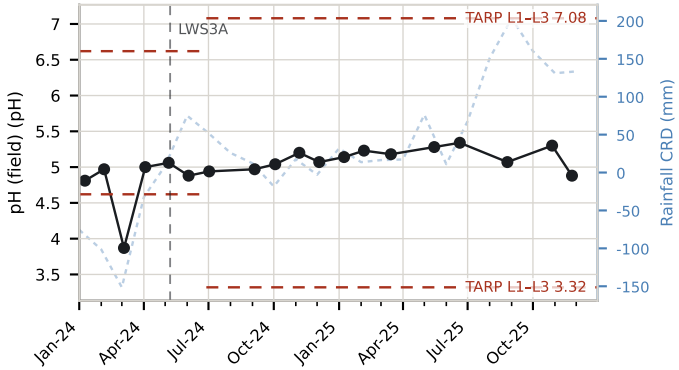
Selenium-Dissolved



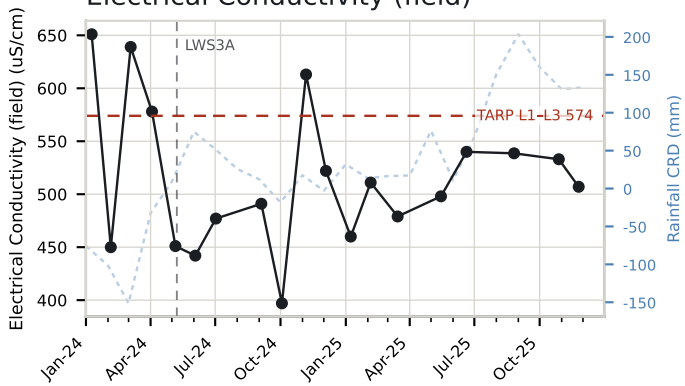
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

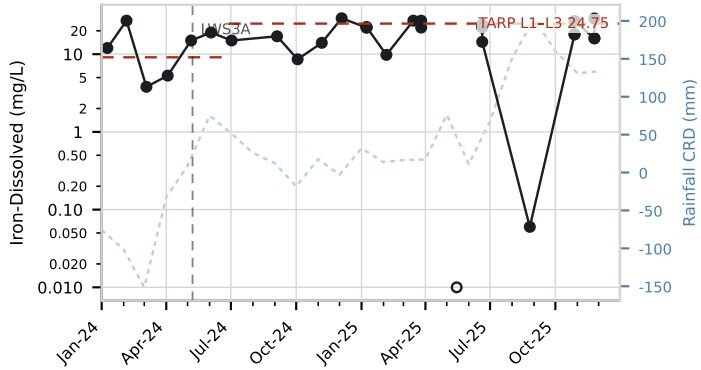
pH (field)



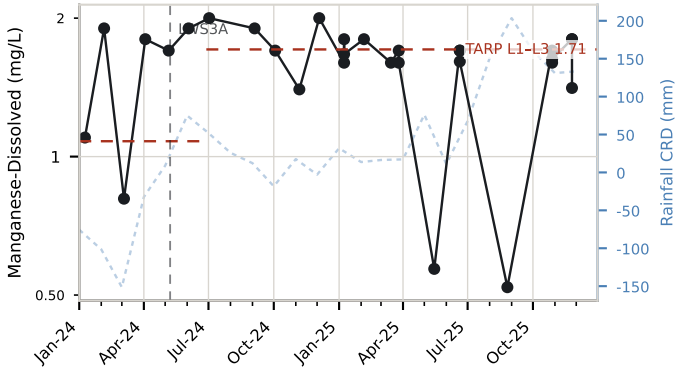
Electrical Conductivity (field)



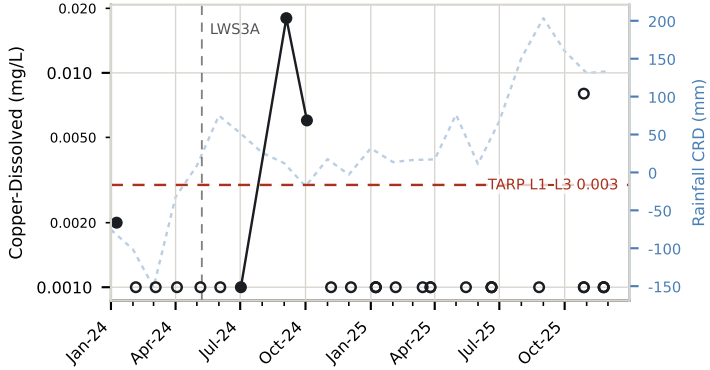
Iron-Dissolved



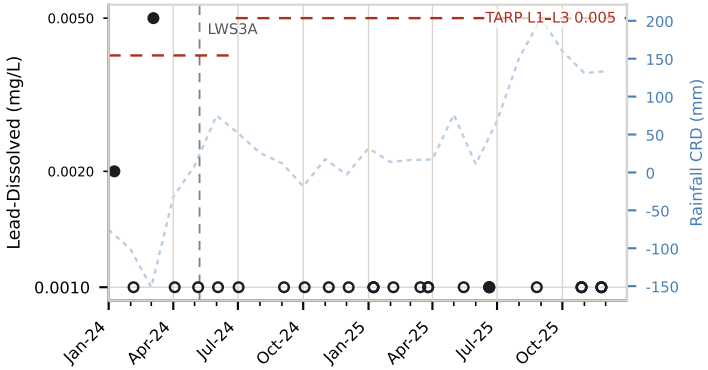
Manganese-Dissolved



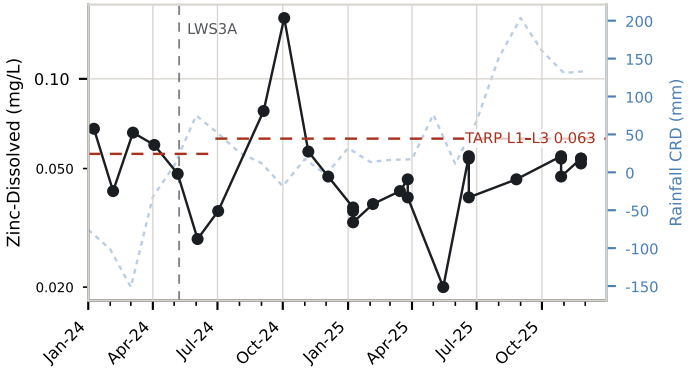
Copper-Dissolved



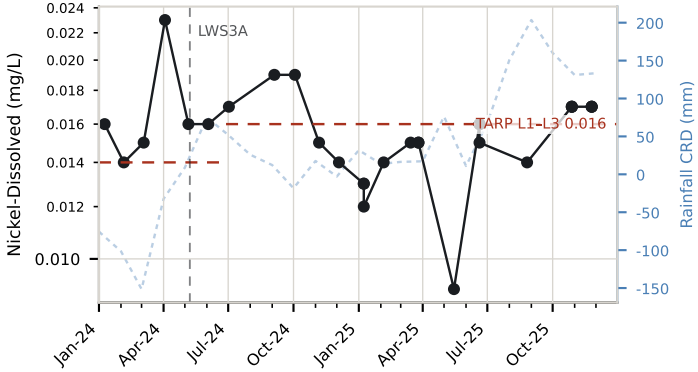
Lead-Dissolved



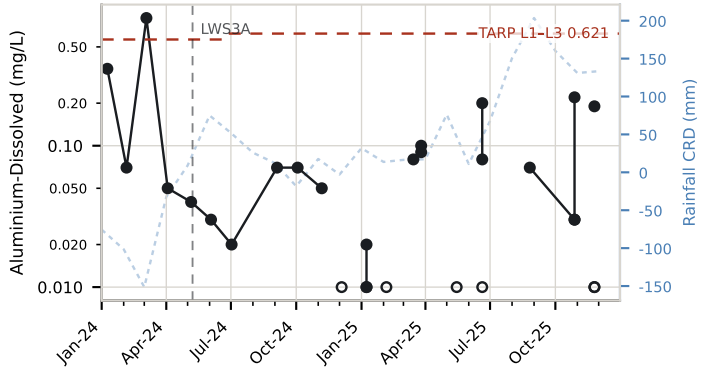
Zinc-Dissolved



Nickel-Dissolved



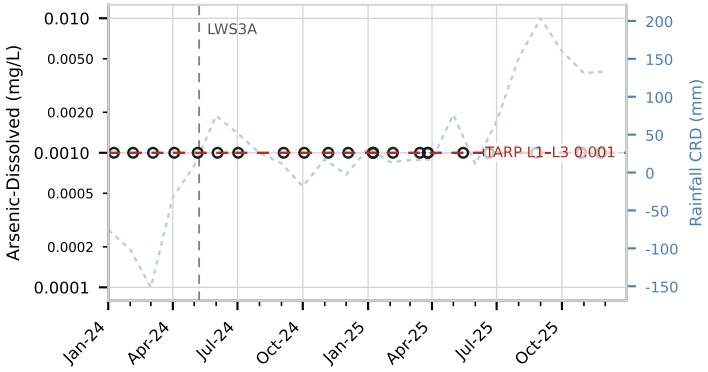
Aluminium-Dissolved



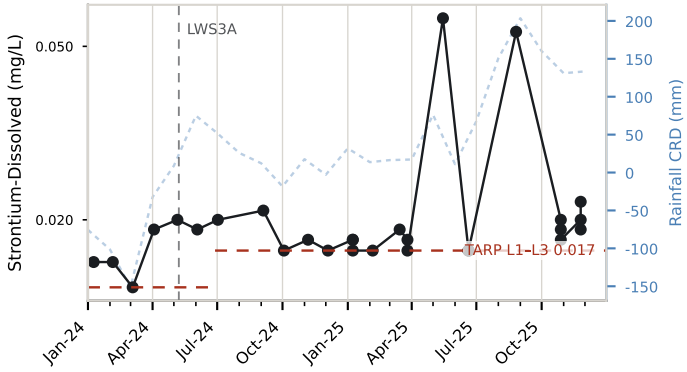
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

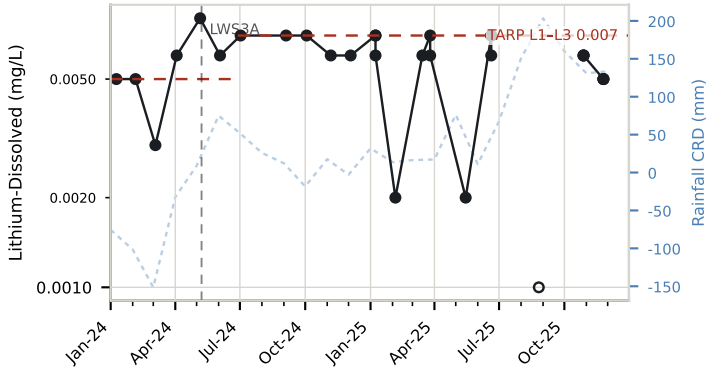
Arsenic-Dissolved



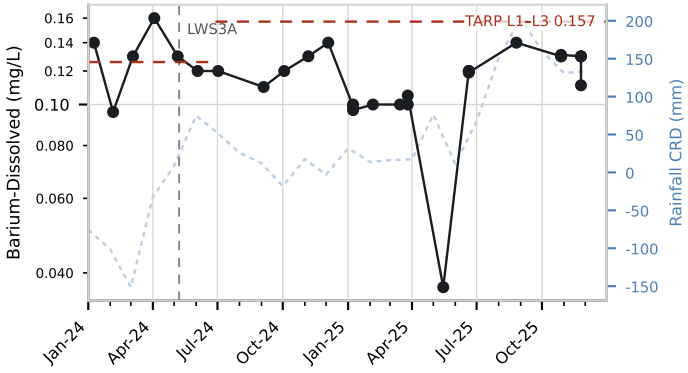
Strontium-Dissolved



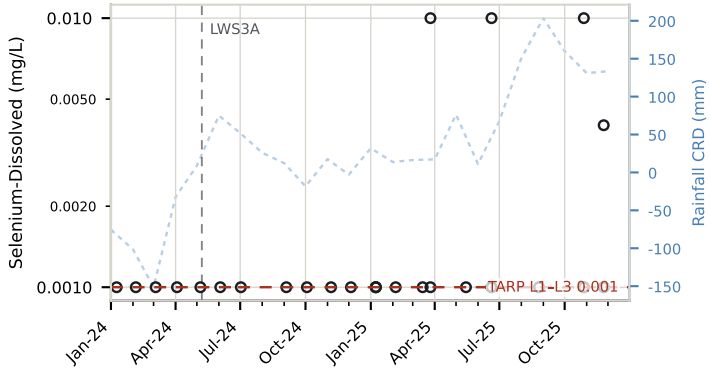
Lithium-Dissolved



Barium-Dissolved



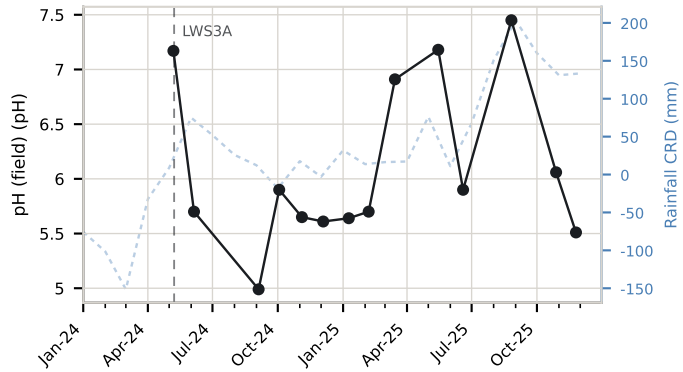
Selenium-Dissolved



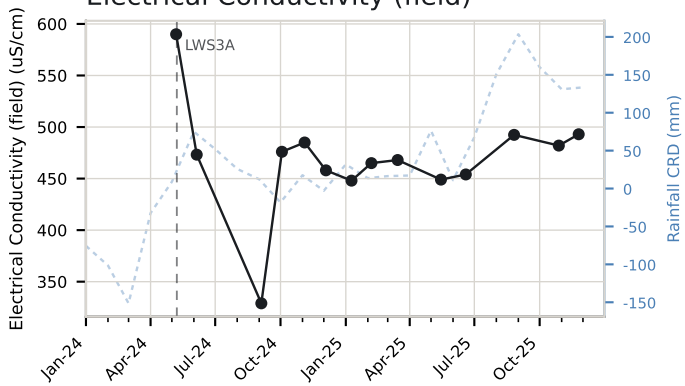
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

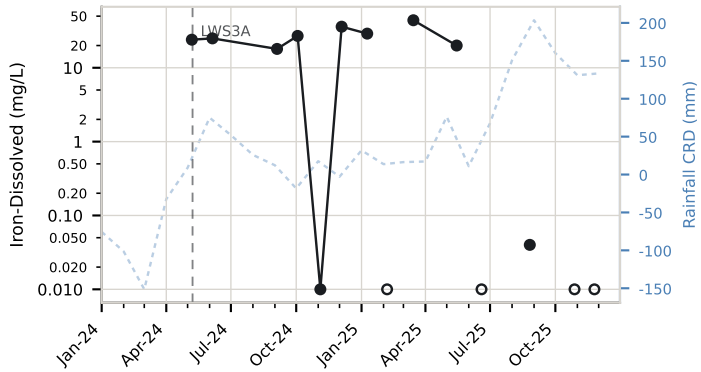
pH (field)



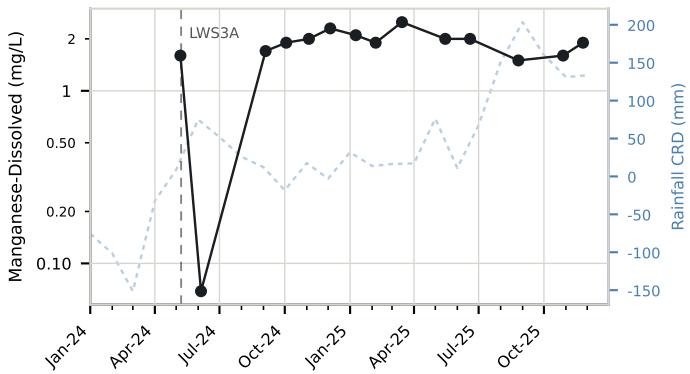
Electrical Conductivity (field)



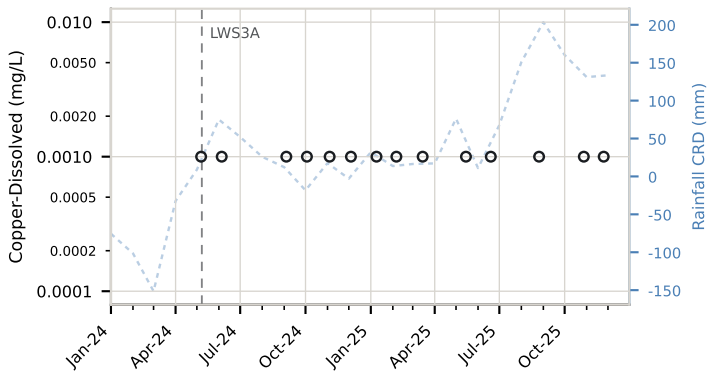
Iron-Dissolved



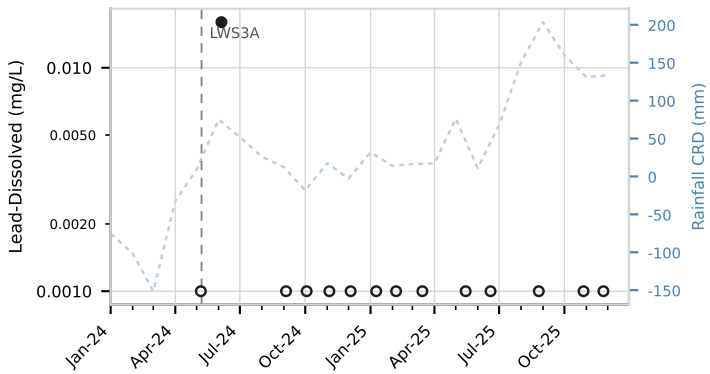
Manganese-Dissolved



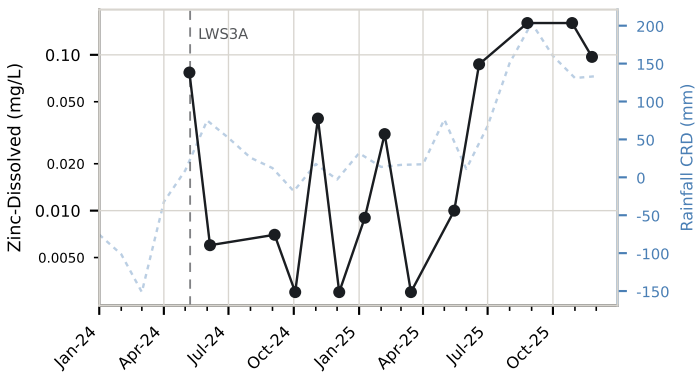
Copper-Dissolved



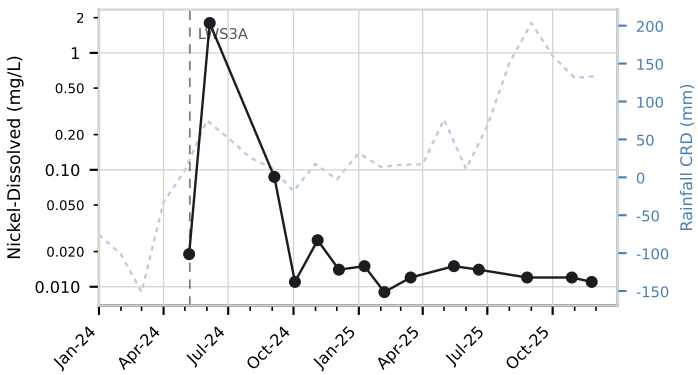
Lead-Dissolved



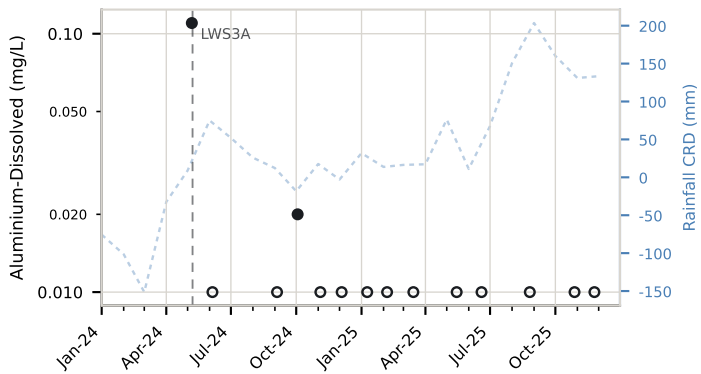
Zinc-Dissolved



Nickel-Dissolved



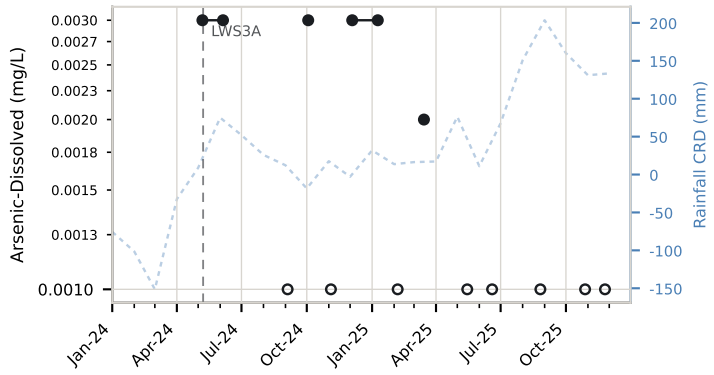
Aluminium-Dissolved



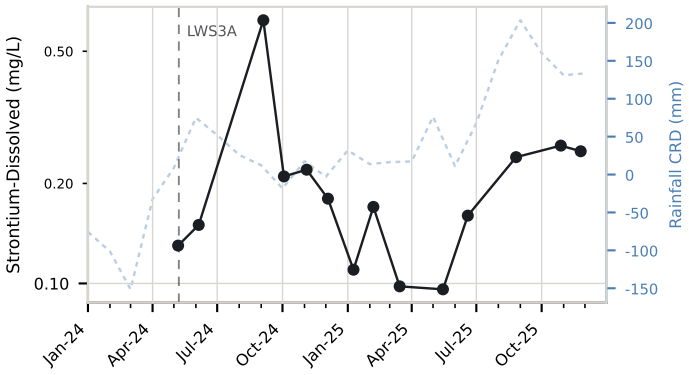
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

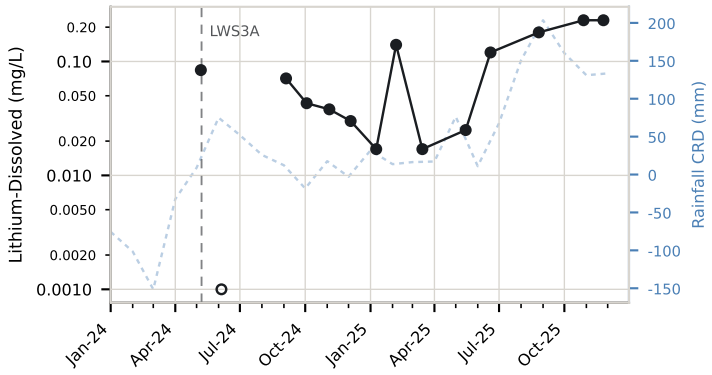
Arsenic-Dissolved



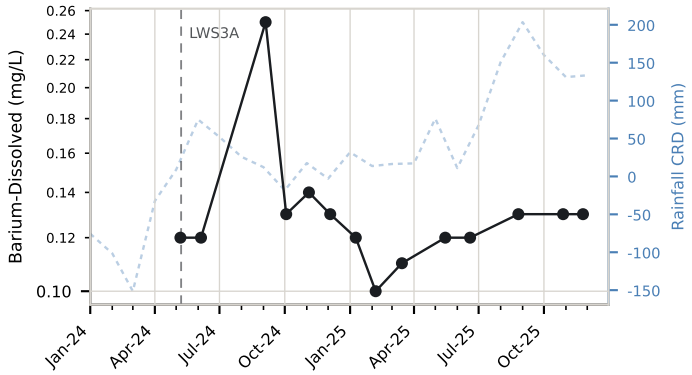
Strontium-Dissolved



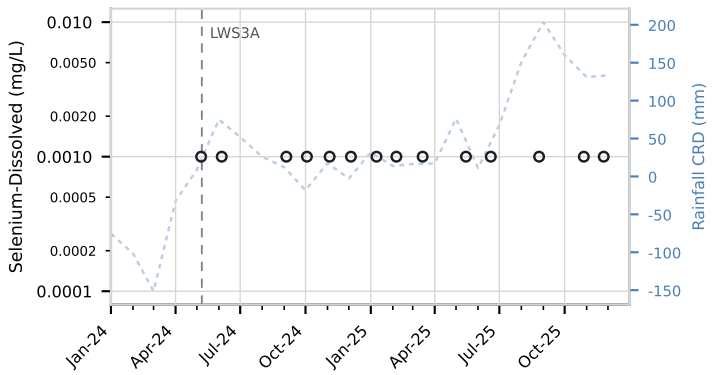
Lithium-Dissolved



Barium-Dissolved



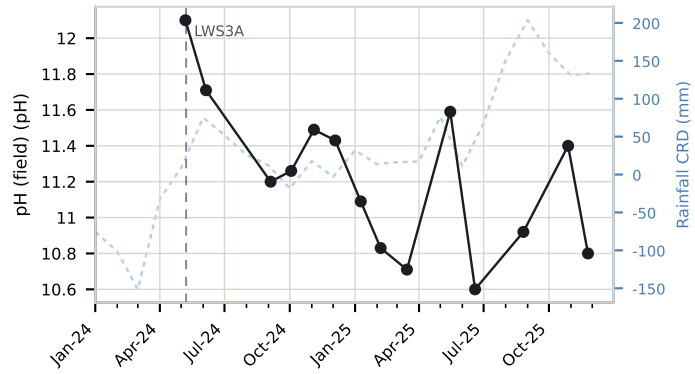
Selenium-Dissolved



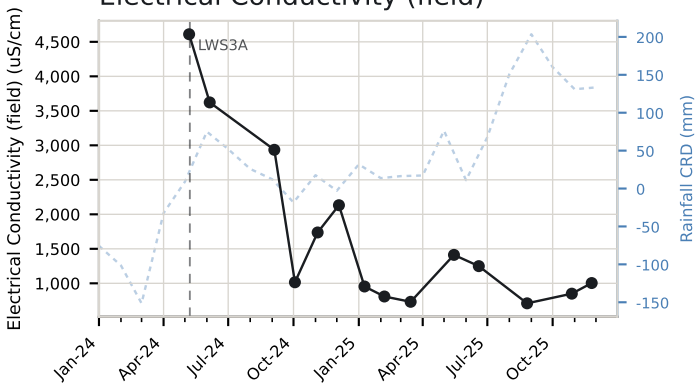
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

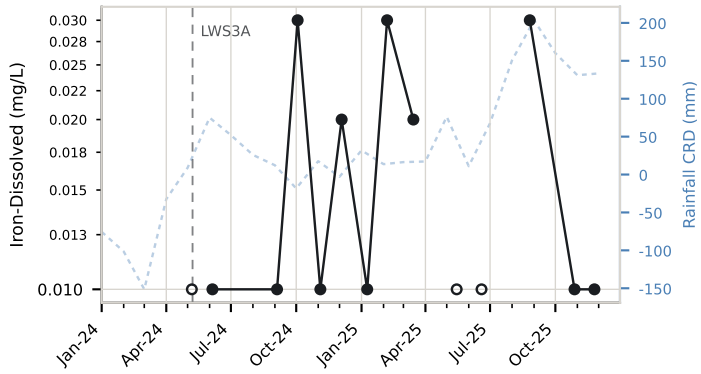
pH (field)



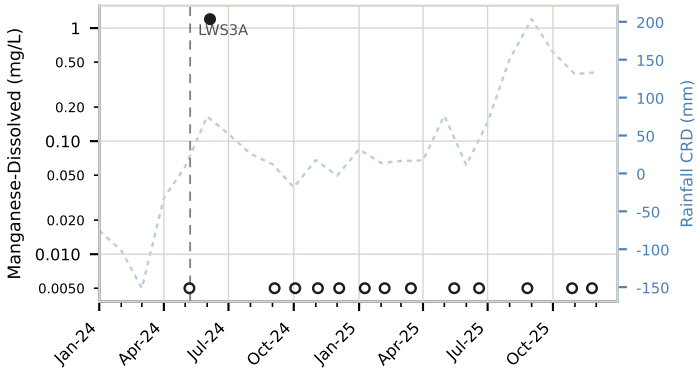
Electrical Conductivity (field)



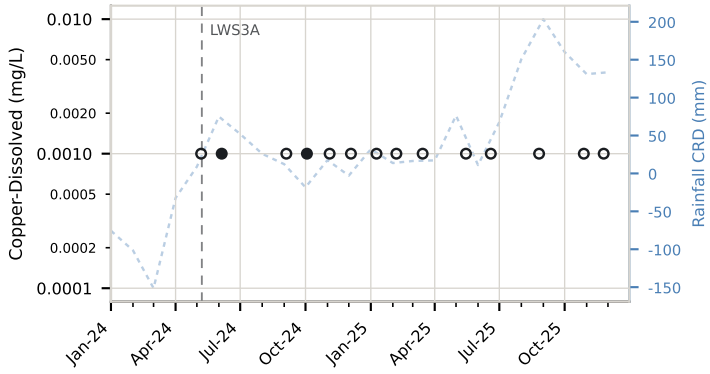
Iron-Dissolved



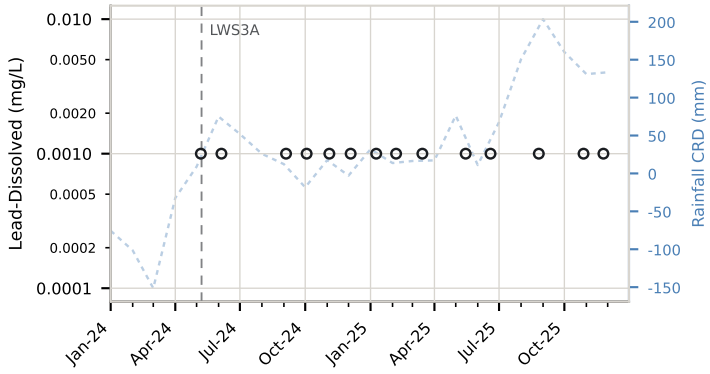
Manganese-Dissolved



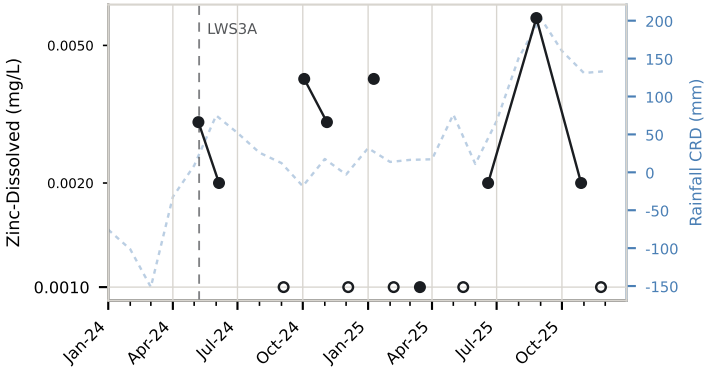
Copper-Dissolved



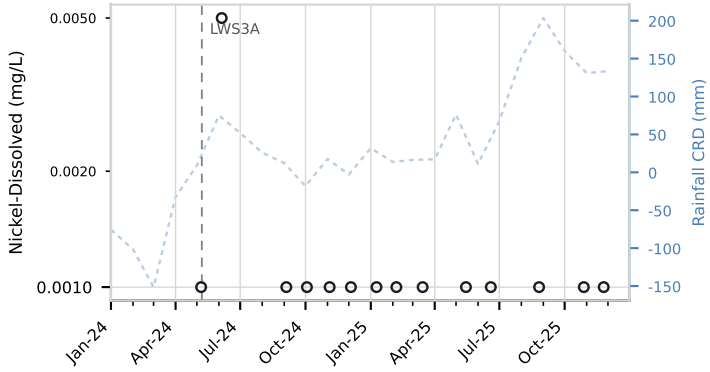
Lead-Dissolved



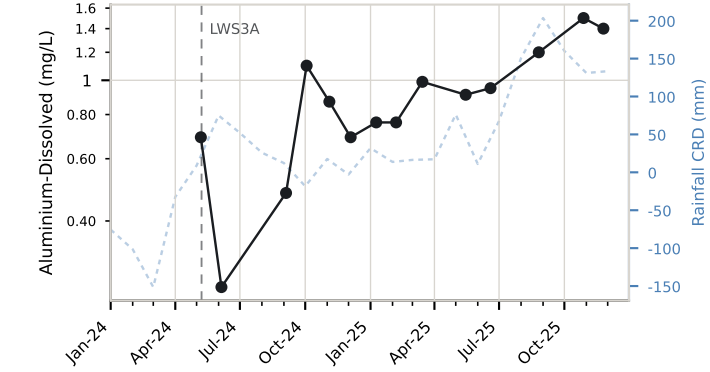
Zinc-Dissolved



Nickel-Dissolved



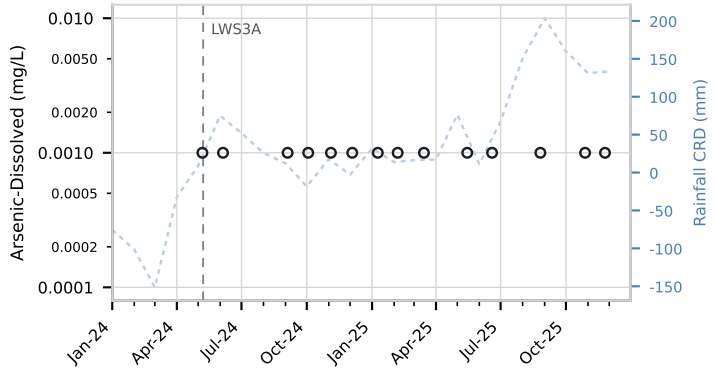
Aluminium-Dissolved



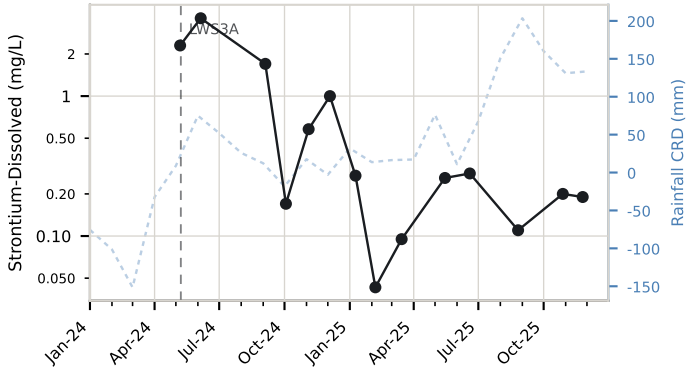
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

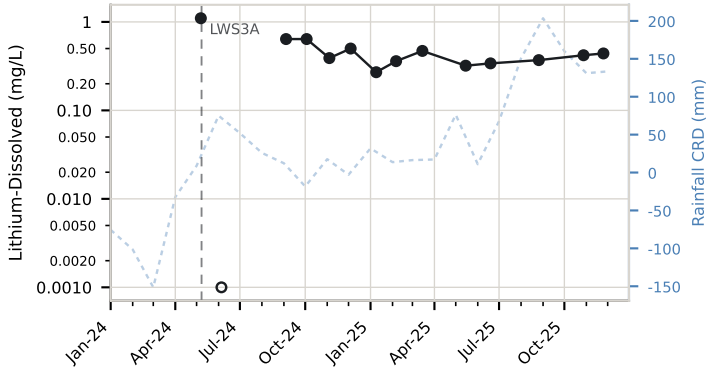
Arsenic-Dissolved



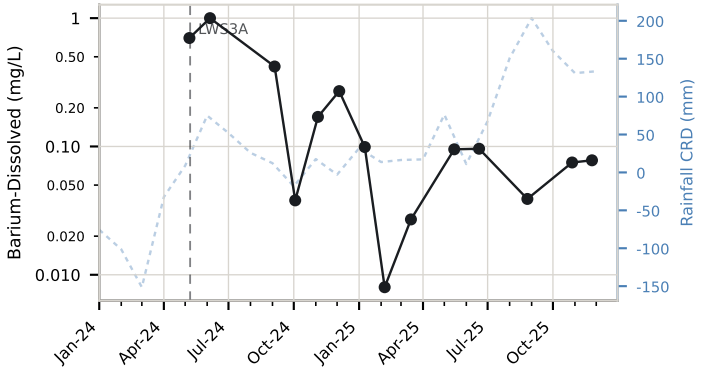
Strontium-Dissolved



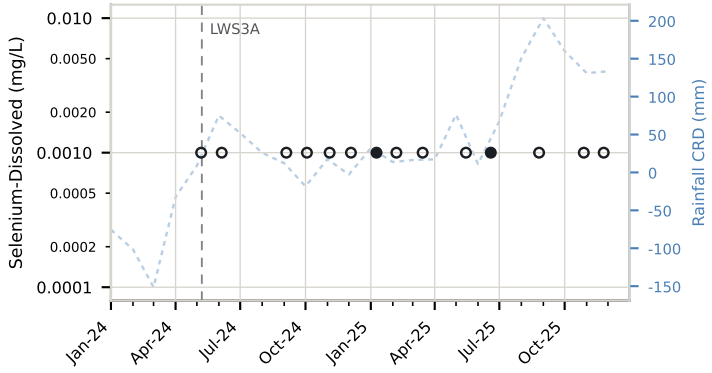
Lithium-Dissolved



Barium-Dissolved



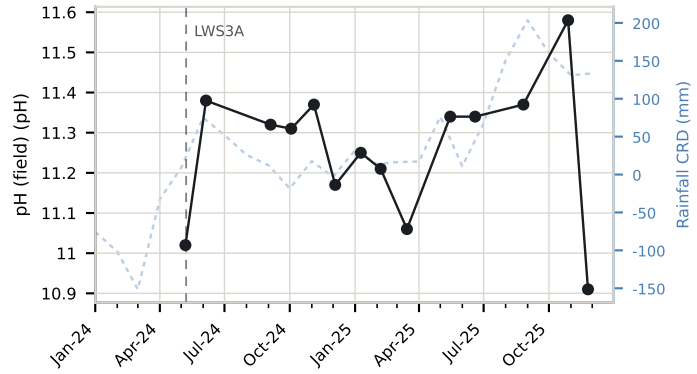
Selenium-Dissolved



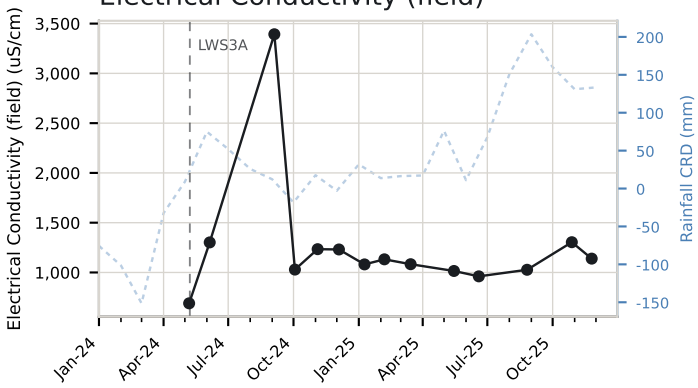
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

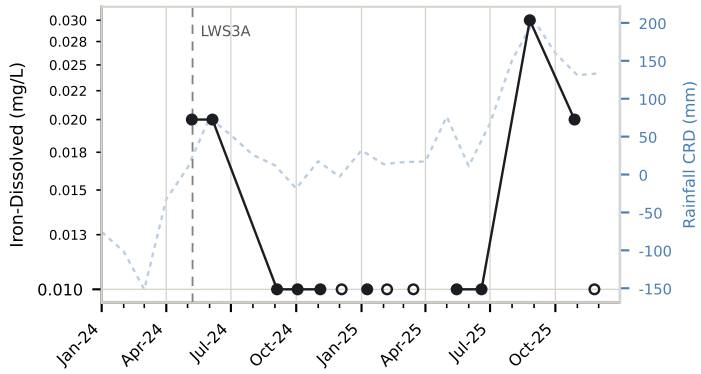
pH (field)



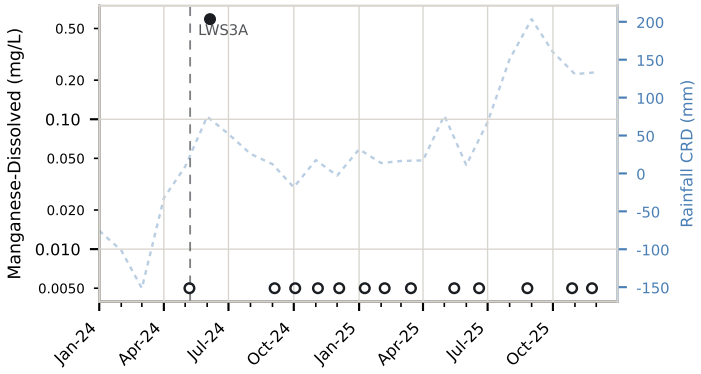
Electrical Conductivity (field)



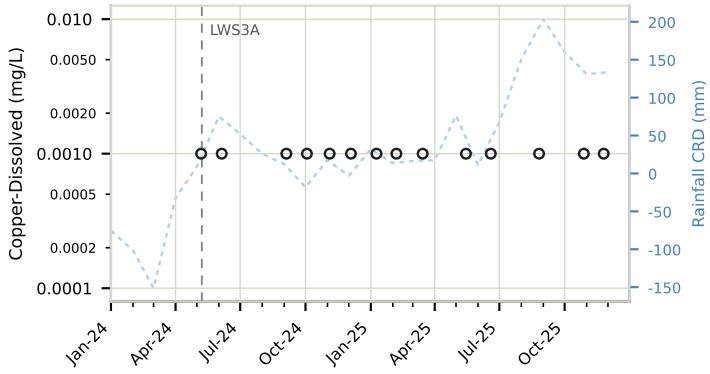
Iron-Dissolved



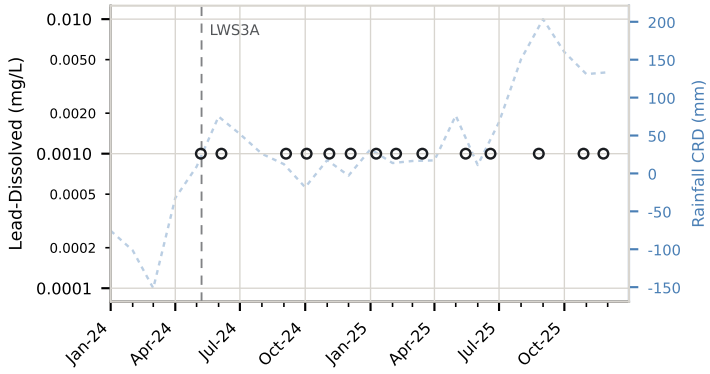
Manganese-Dissolved



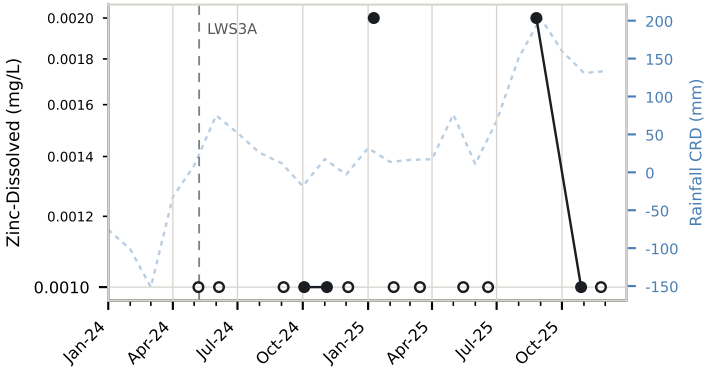
Copper-Dissolved



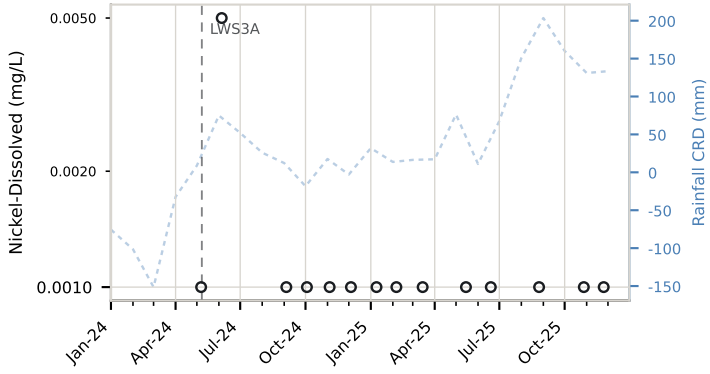
Lead-Dissolved



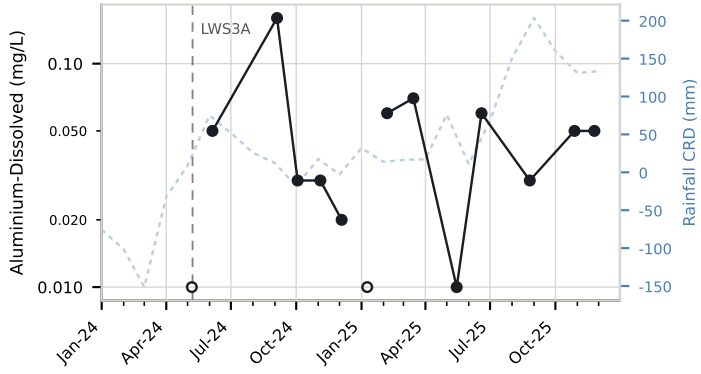
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)

Below limit of reporting — a valid result, plotted at the LOR

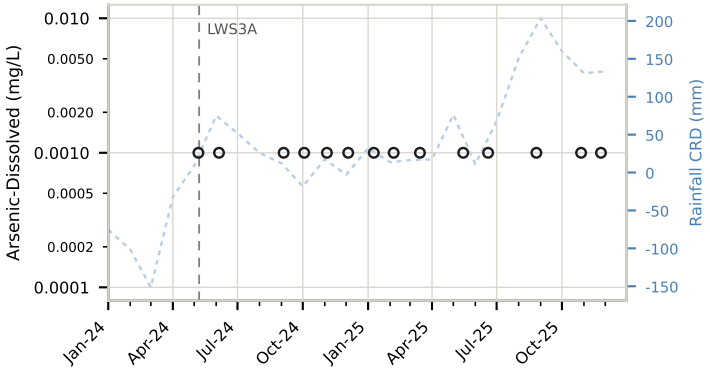
TARP threshold (level and value labelled; steps where the GTR revised it)

Rainfall CRD

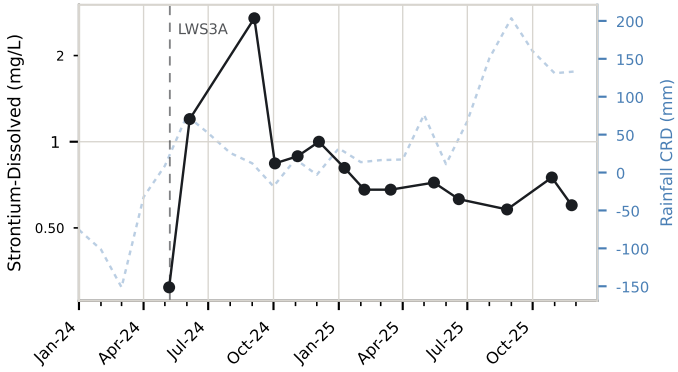
Longwall start

SLR

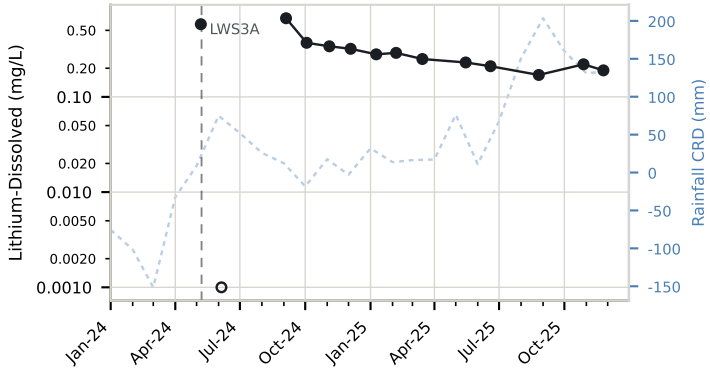
Arsenic-Dissolved



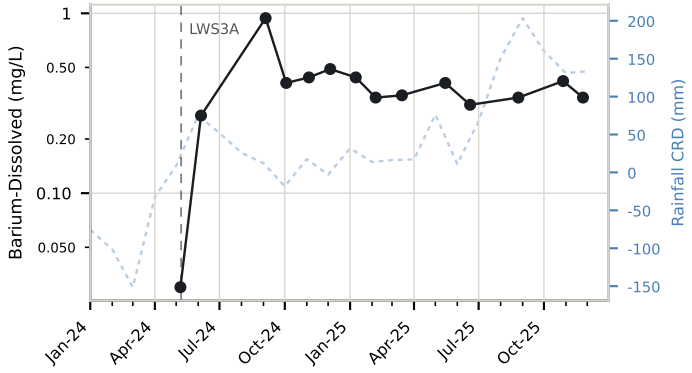
Strontium-Dissolved



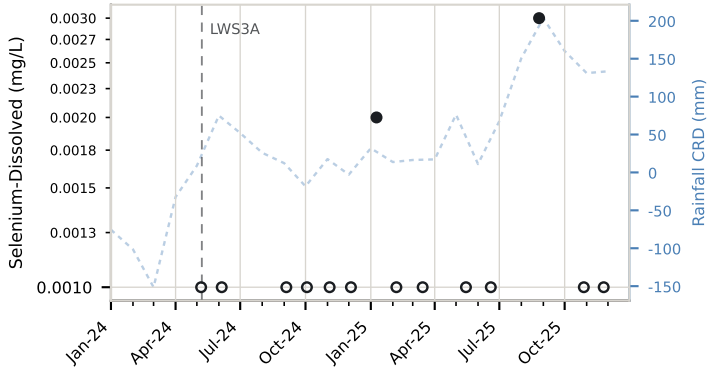
Lithium-Dissolved



Barium-Dissolved



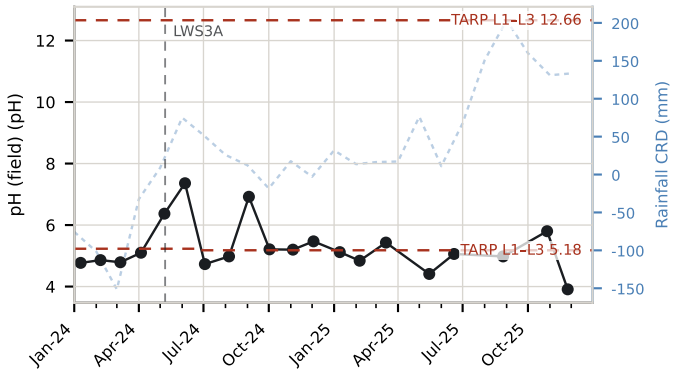
Selenium-Dissolved



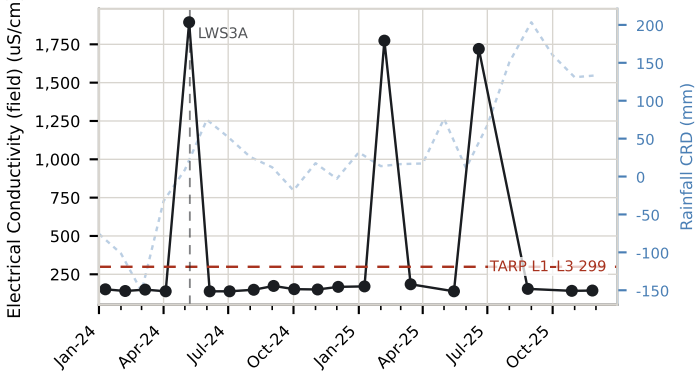
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

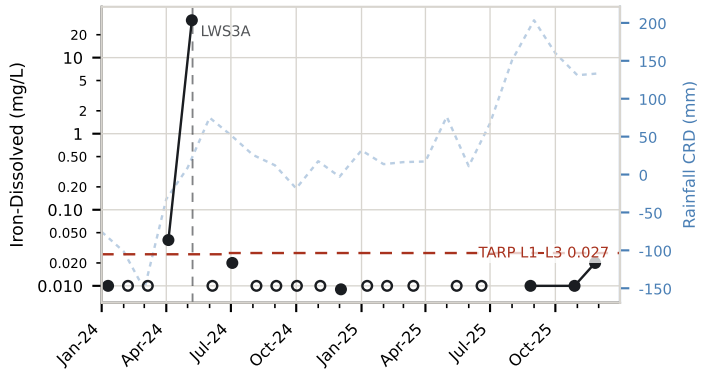
pH (field)



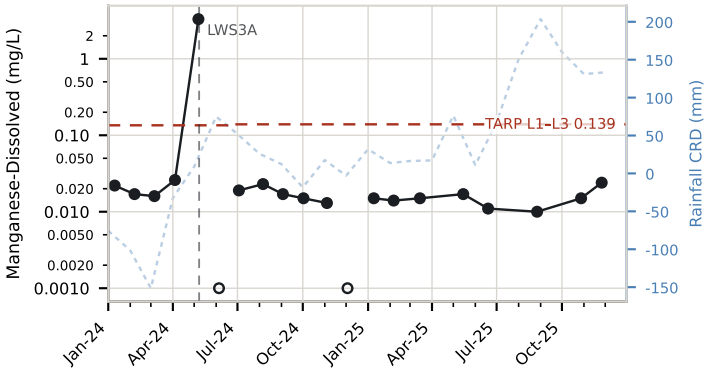
Electrical Conductivity (field)



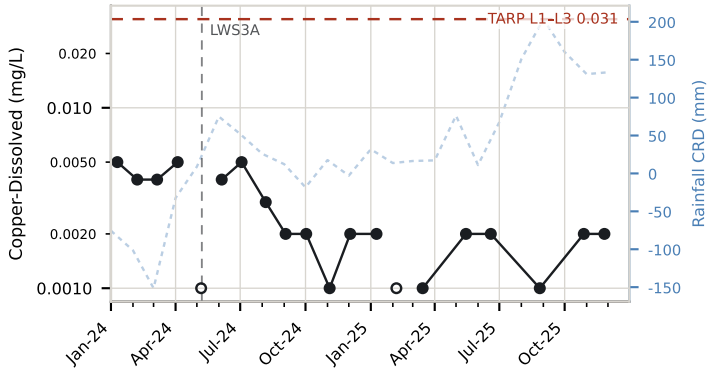
Iron-Dissolved



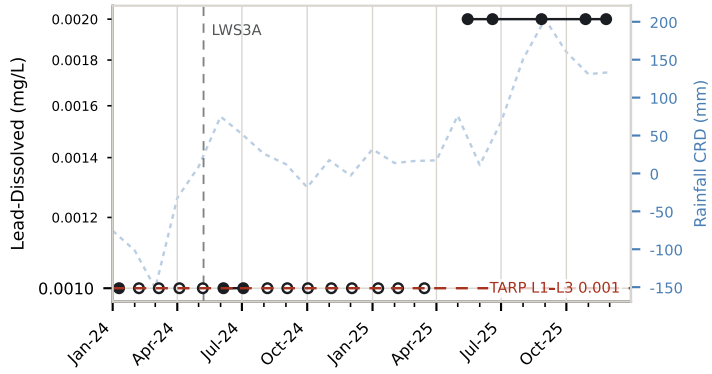
Manganese-Dissolved



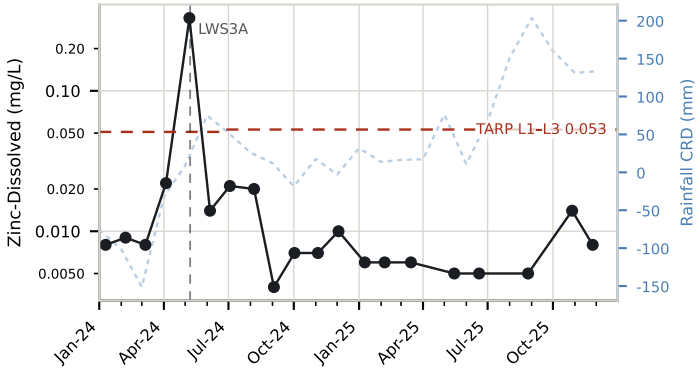
Copper-Dissolved



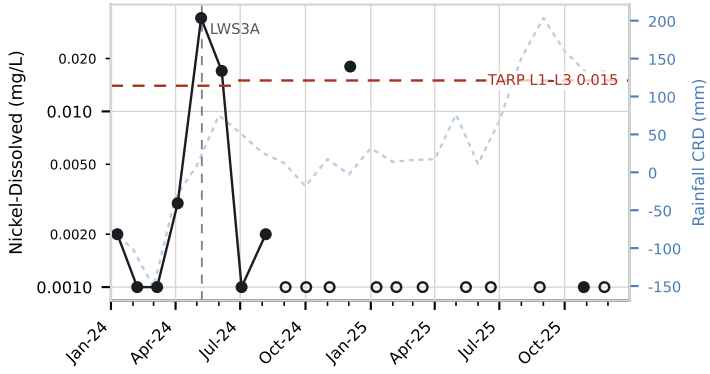
Lead-Dissolved



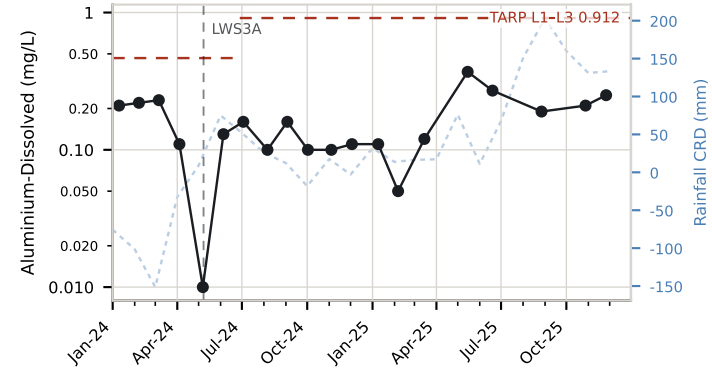
Zinc-Dissolved



Nickel-Dissolved



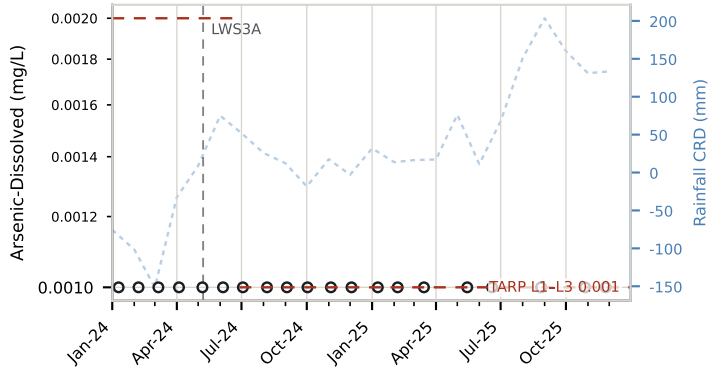
Aluminium-Dissolved



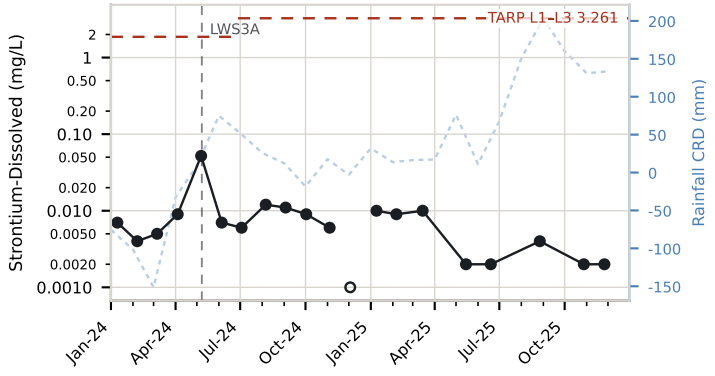
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

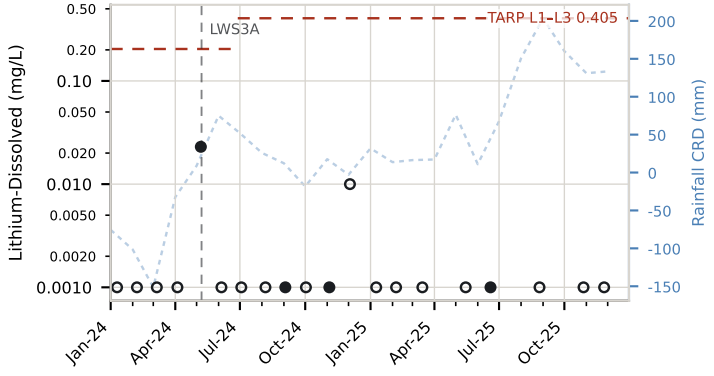
Arsenic-Dissolved



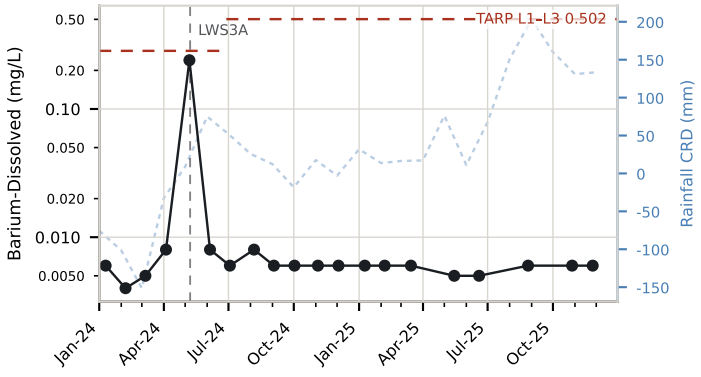
Strontium-Dissolved



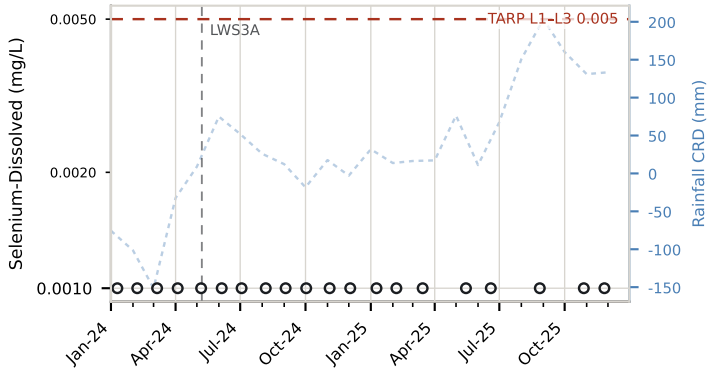
Lithium-Dissolved



Barium-Dissolved



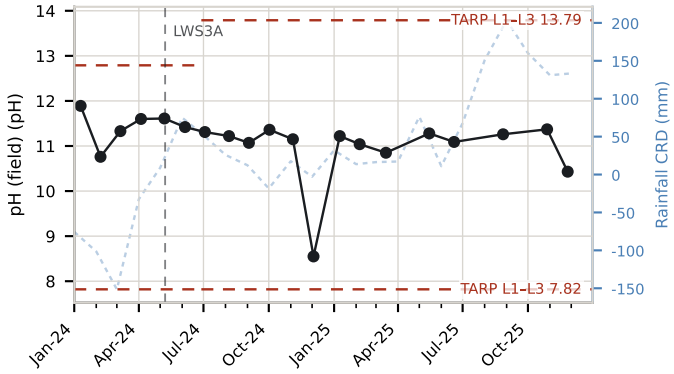
Selenium-Dissolved



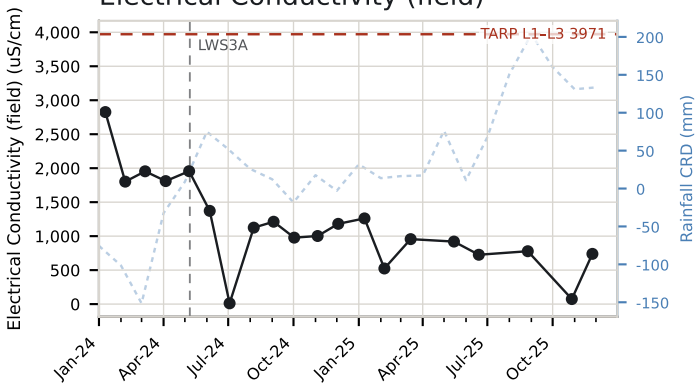
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

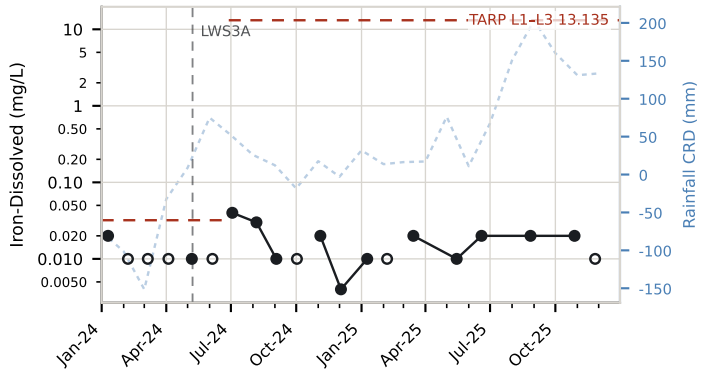
pH (field)



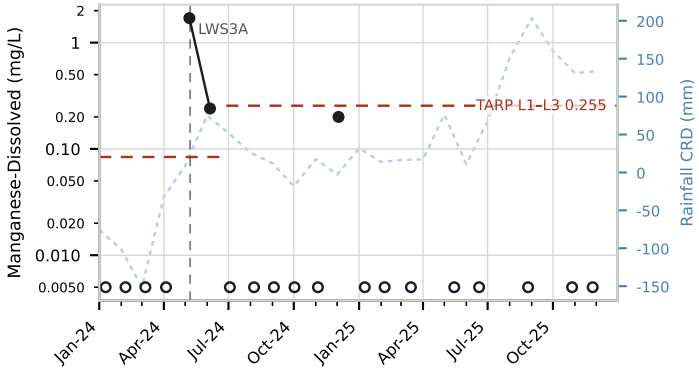
Electrical Conductivity (field)



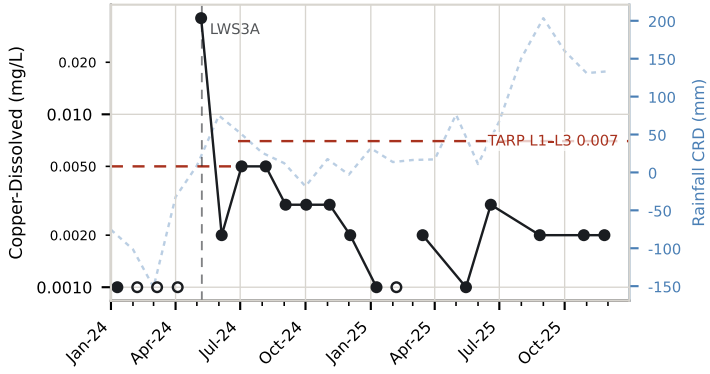
Iron-Dissolved



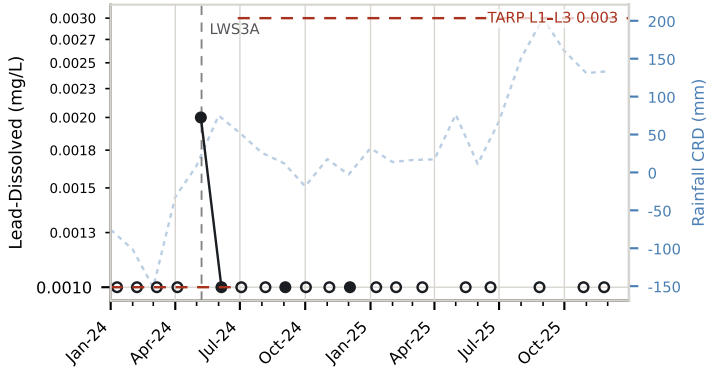
Manganese-Dissolved



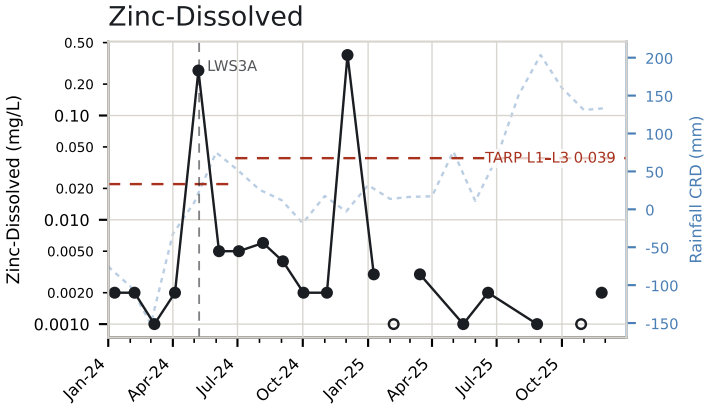
Copper-Dissolved



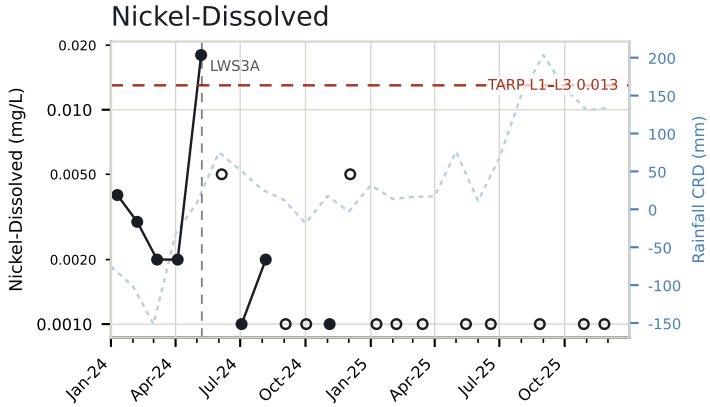
Lead-Dissolved



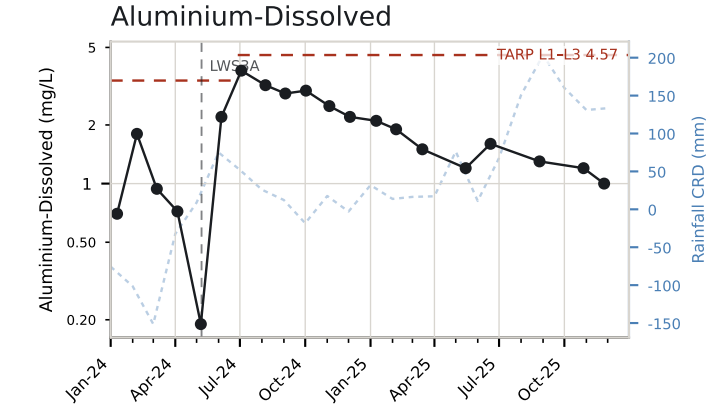
Zinc-Dissolved



Nickel-Dissolved



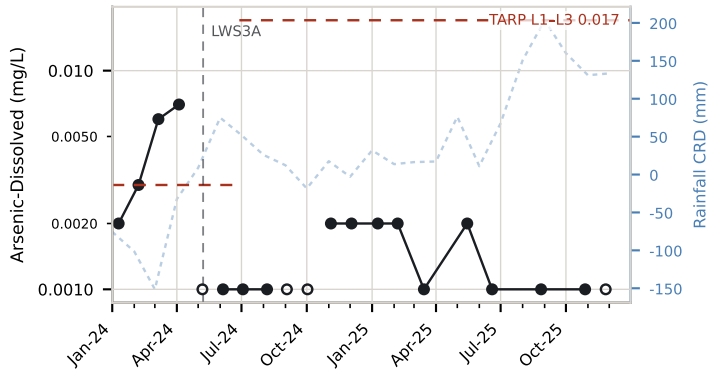
Aluminium-Dissolved



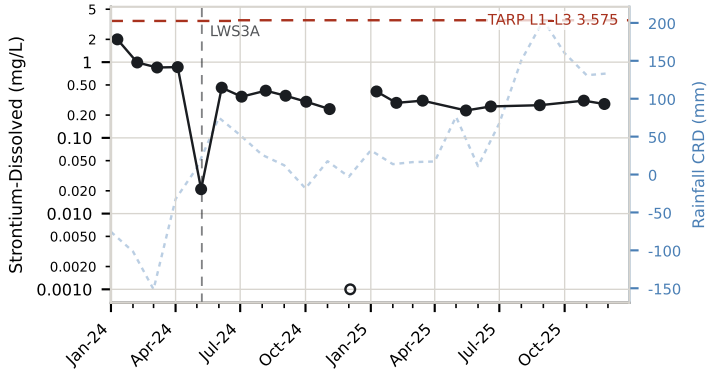
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

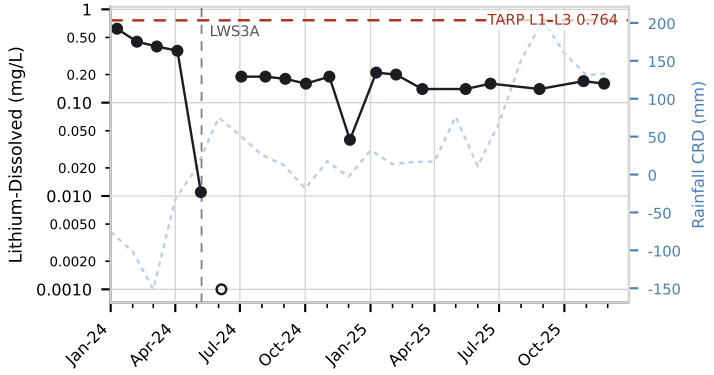
Arsenic-Dissolved



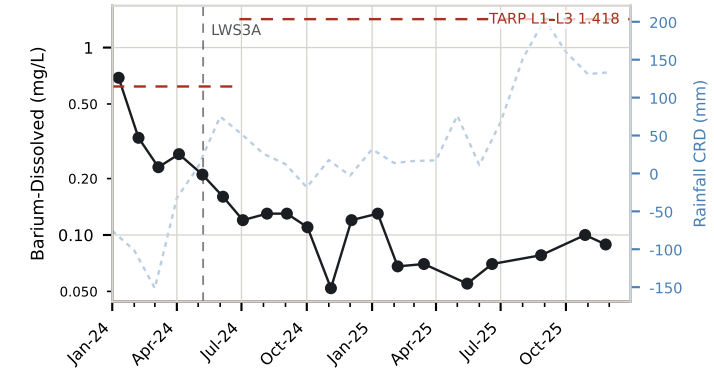
Strontium-Dissolved



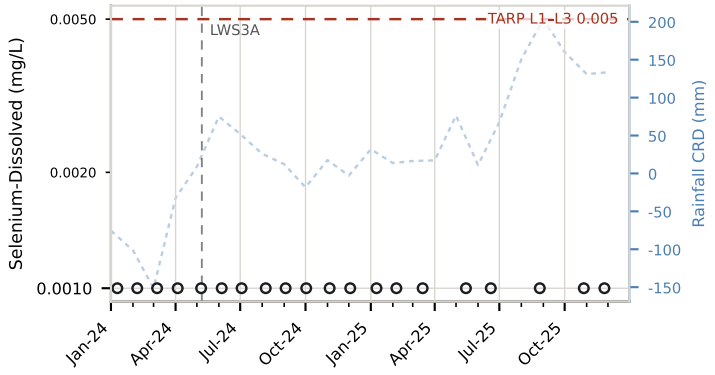
Lithium-Dissolved



Barium-Dissolved



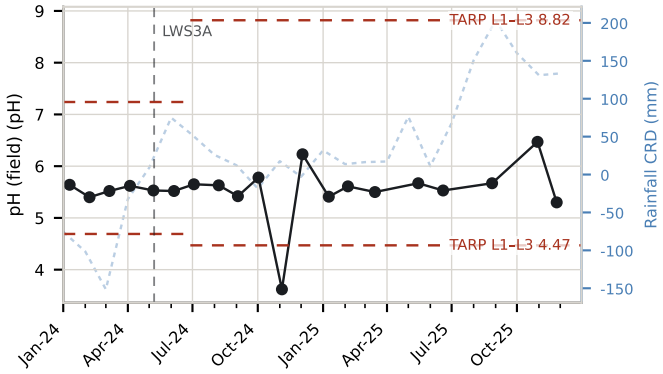
Selenium-Dissolved



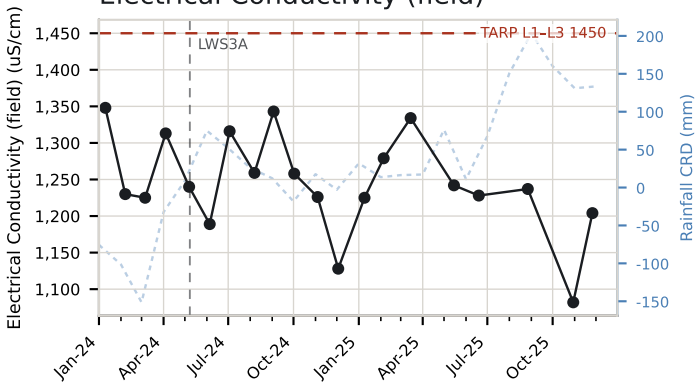
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

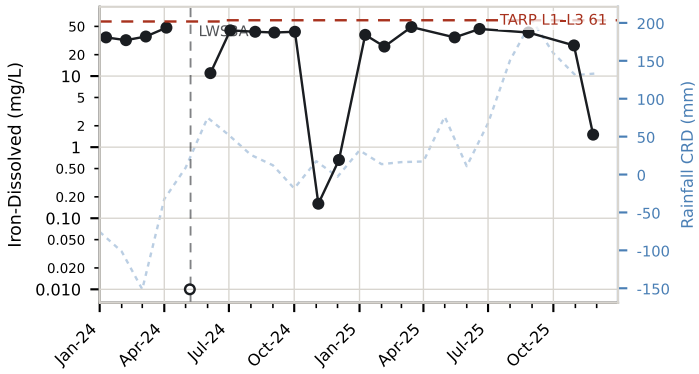
pH (field)



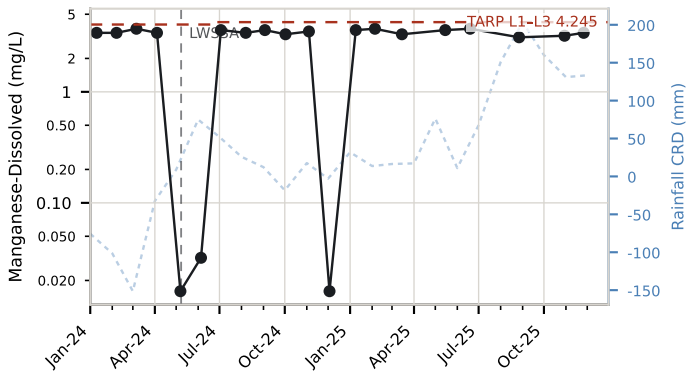
Electrical Conductivity (field)



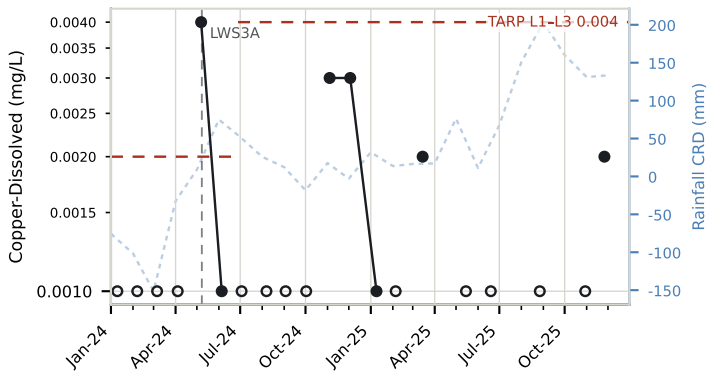
Iron-Dissolved



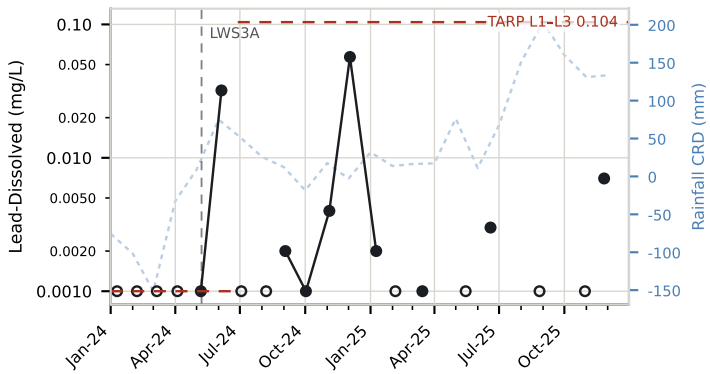
Manganese-Dissolved



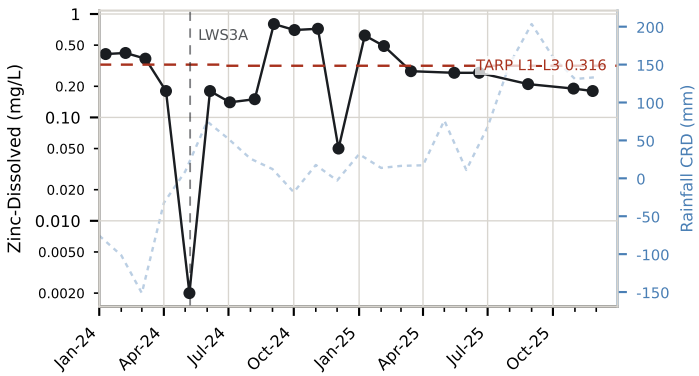
Copper-Dissolved



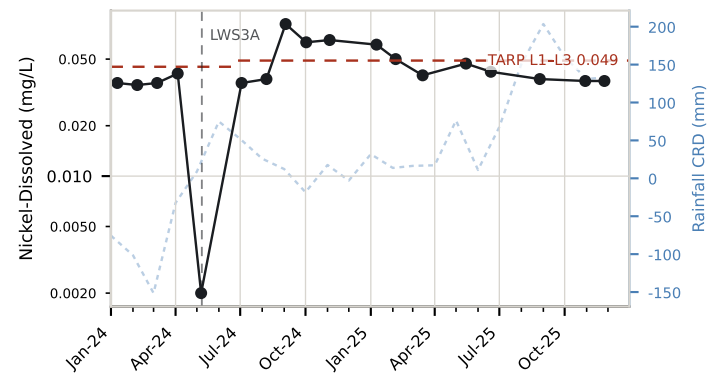
Lead-Dissolved



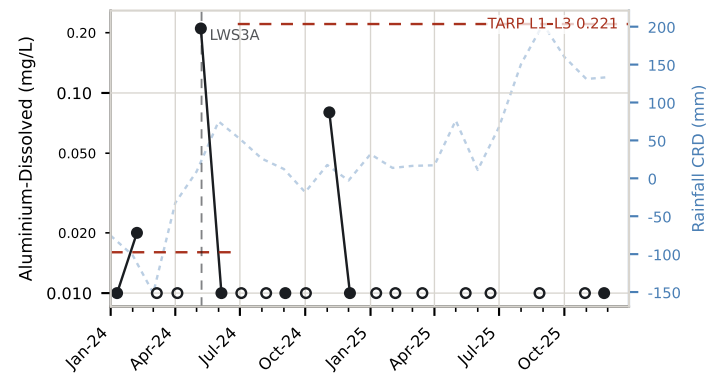
Zinc-Dissolved



Nickel-Dissolved



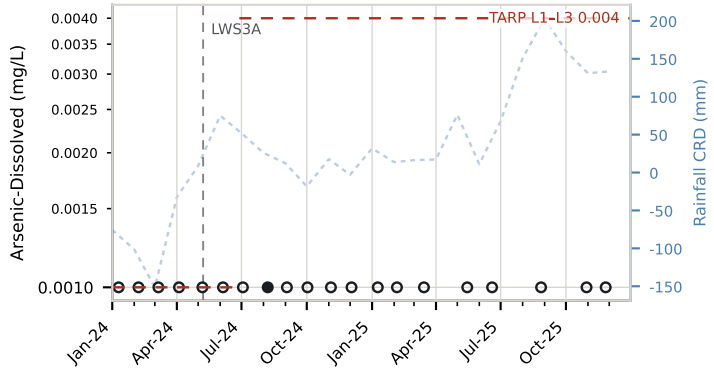
Aluminium-Dissolved



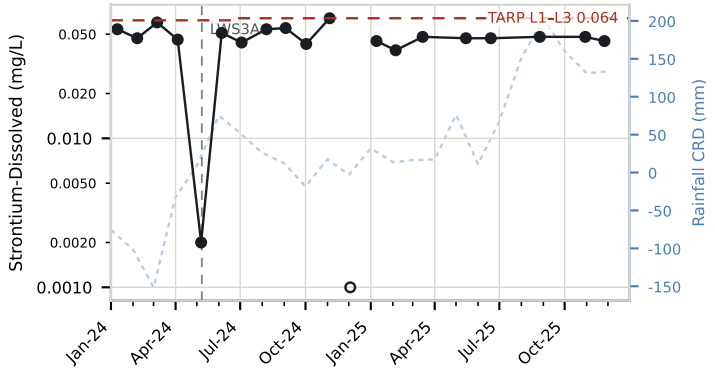
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

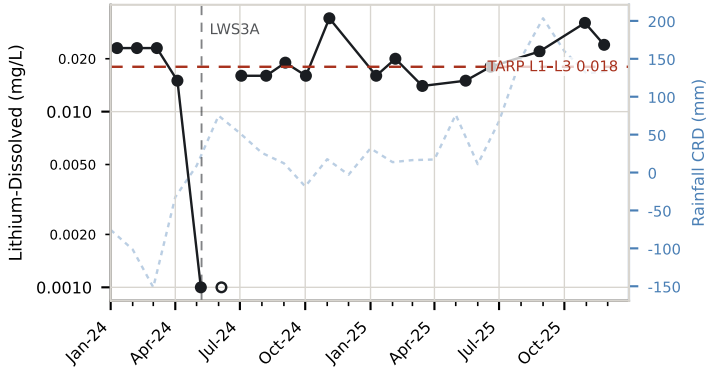
Arsenic-Dissolved



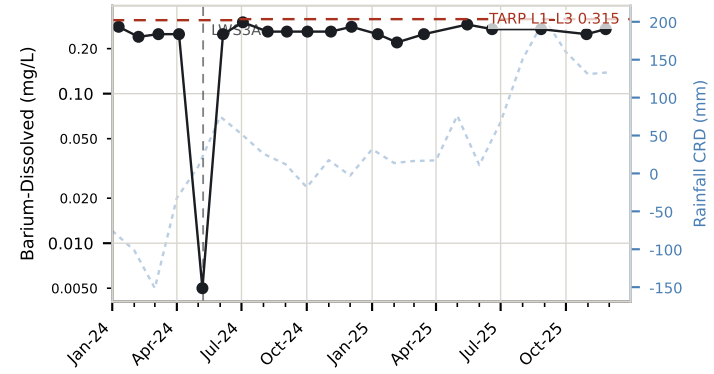
Strontium-Dissolved



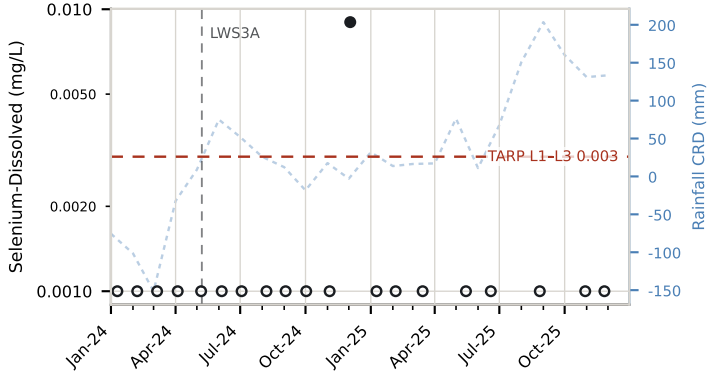
Lithium-Dissolved



Barium-Dissolved



Selenium-Dissolved



Result (detected)
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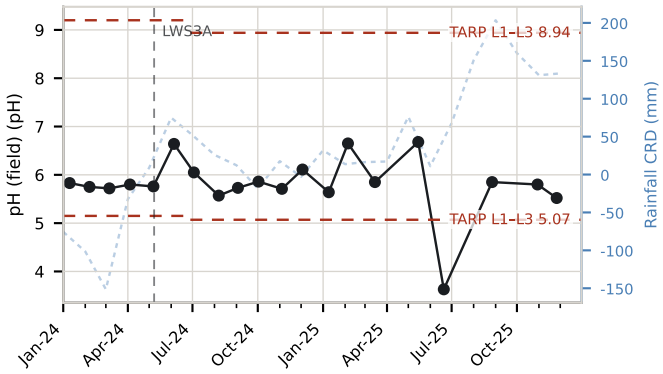
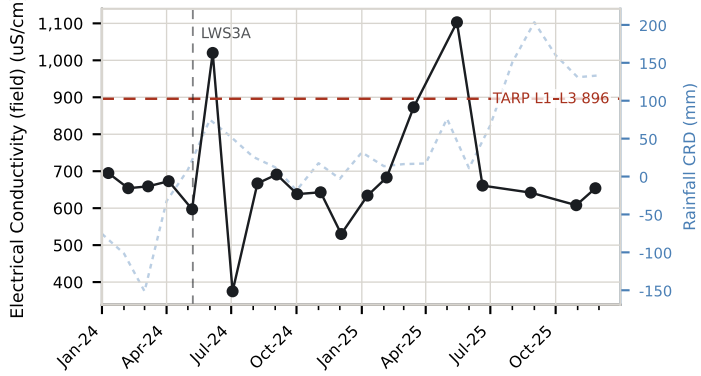
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

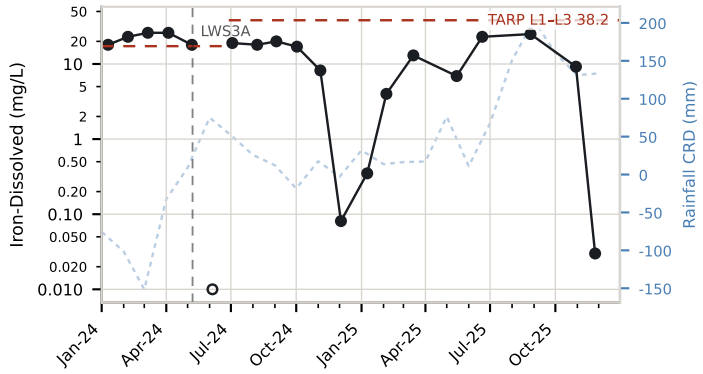
pH (field)



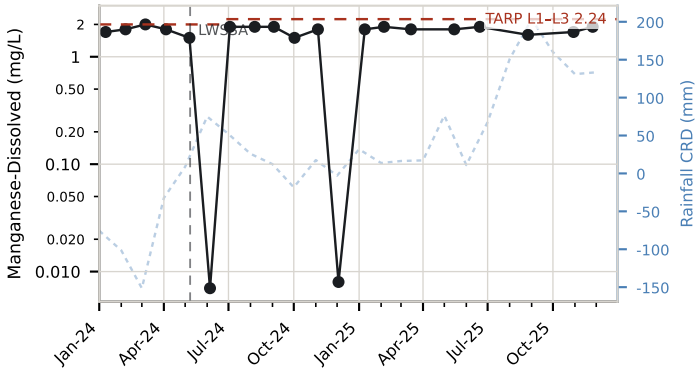
Electrical Conductivity (field)



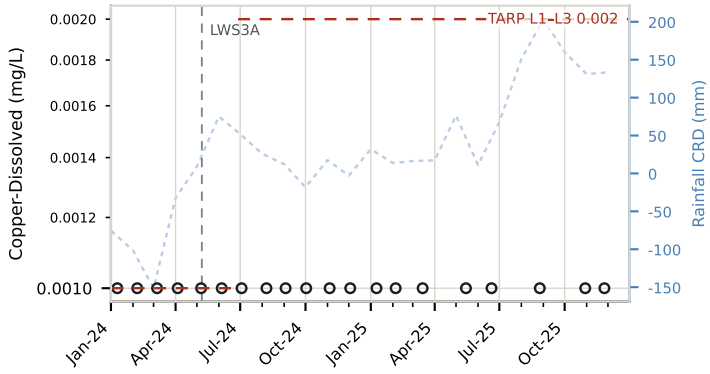
Iron-Dissolved



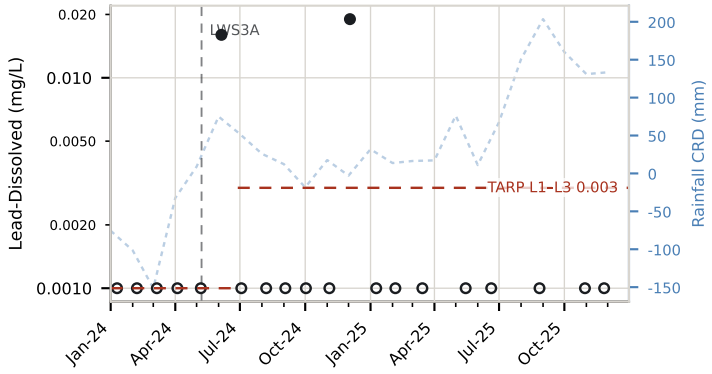
Manganese-Dissolved



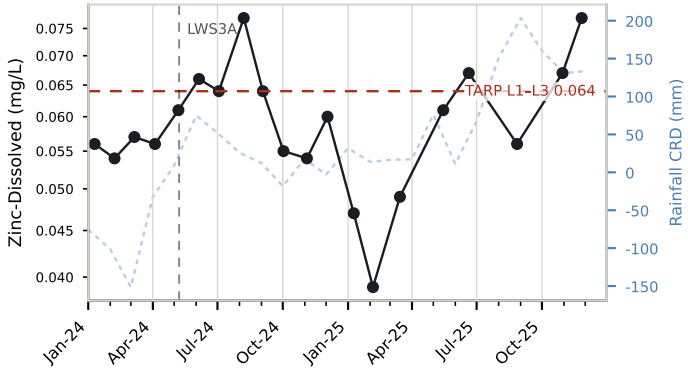
Copper-Dissolved



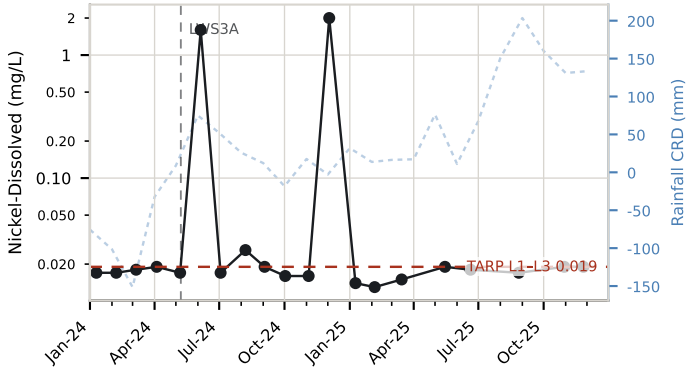
Lead-Dissolved



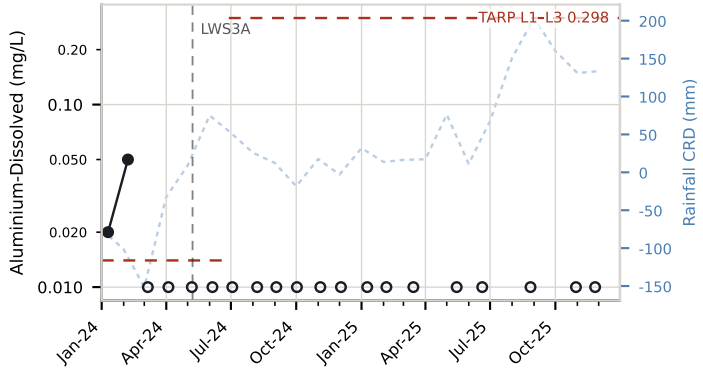
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)
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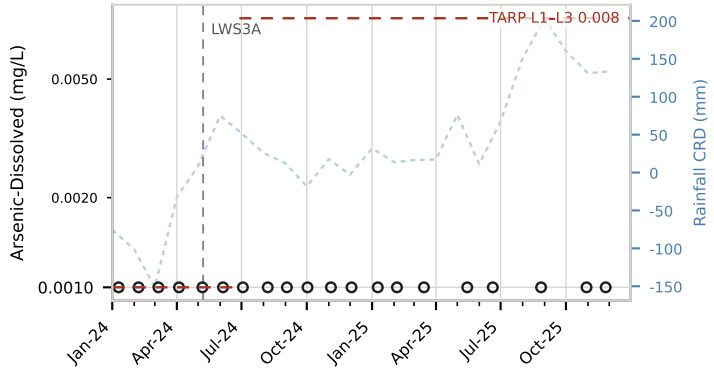
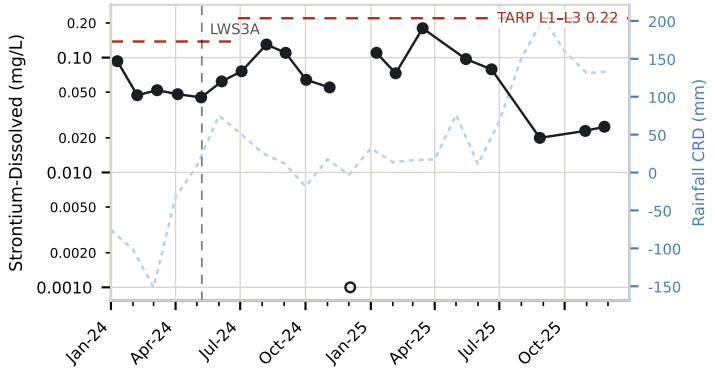
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

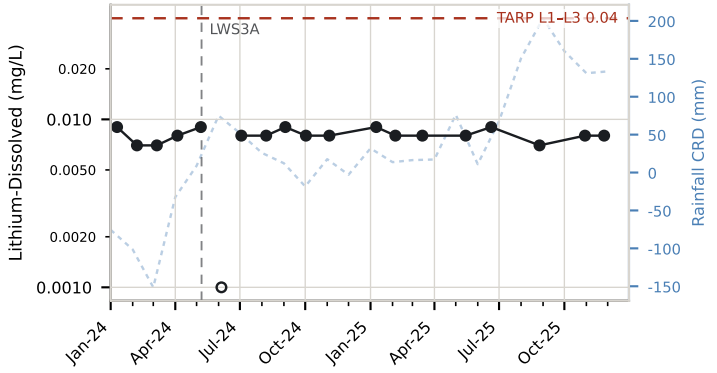
Arsenic-Dissolved



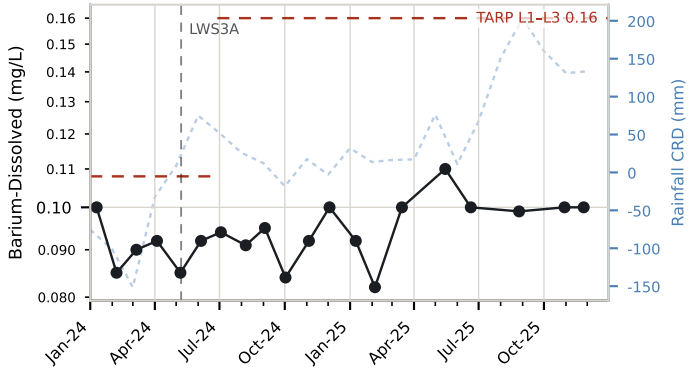
Strontium-Dissolved



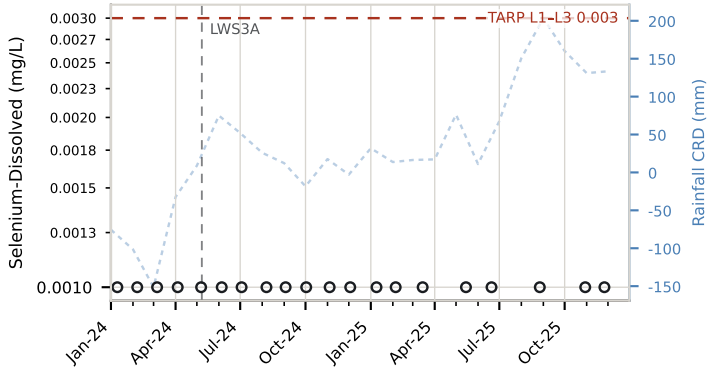
Lithium-Dissolved



Barium-Dissolved



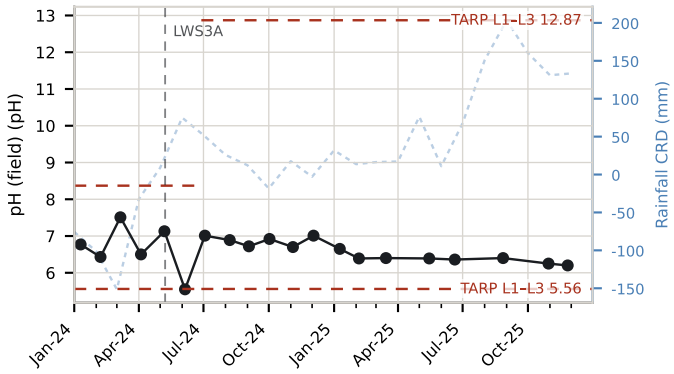
Selenium-Dissolved



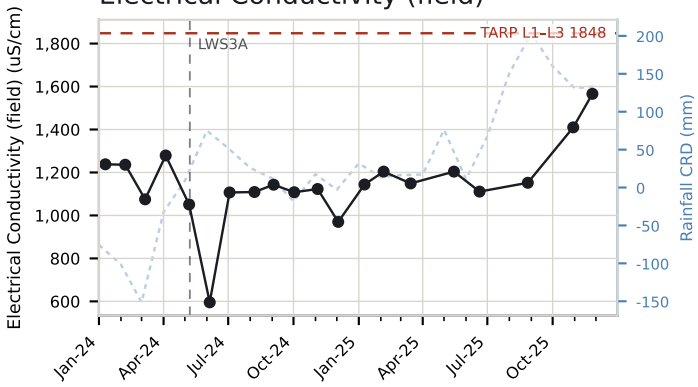
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

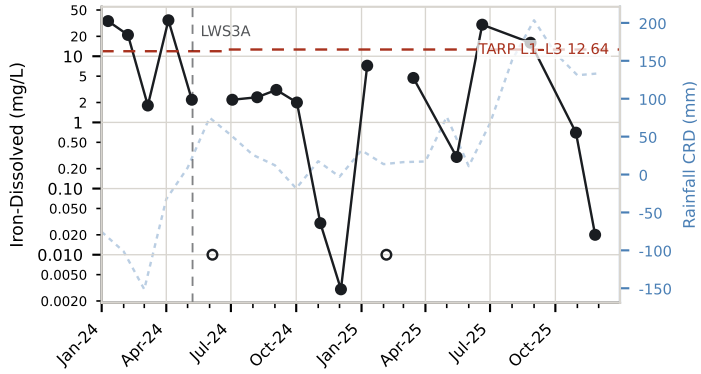
pH (field)



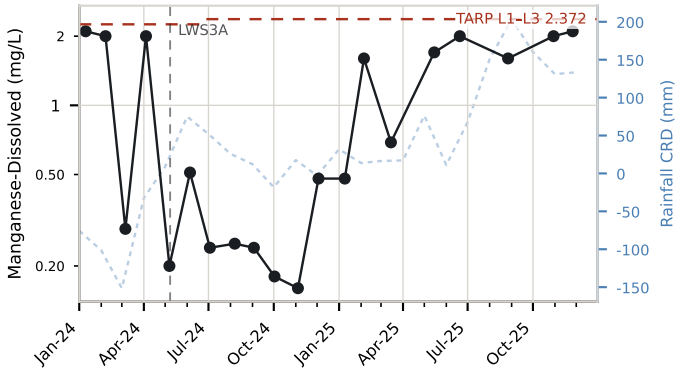
Electrical Conductivity (field)



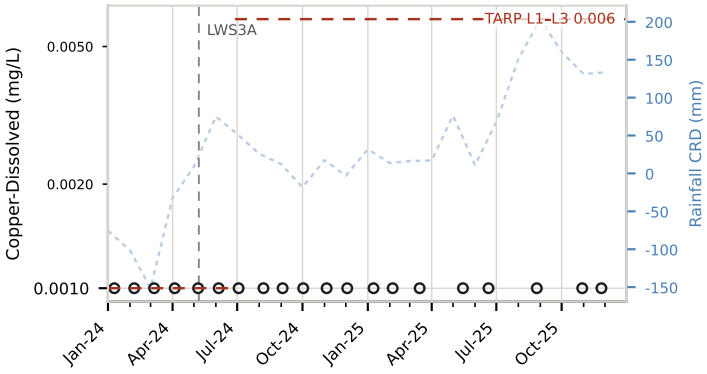
Iron-Dissolved



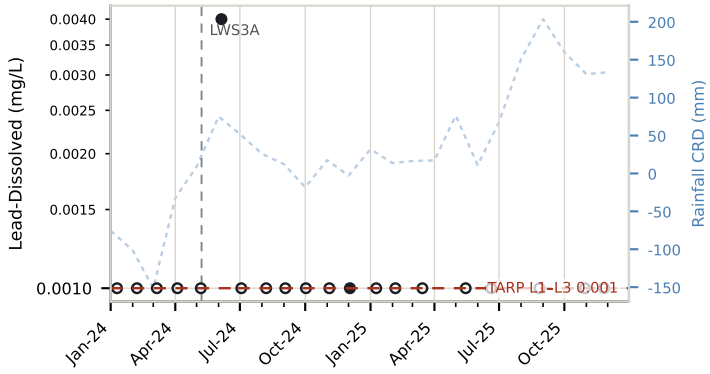
Manganese-Dissolved



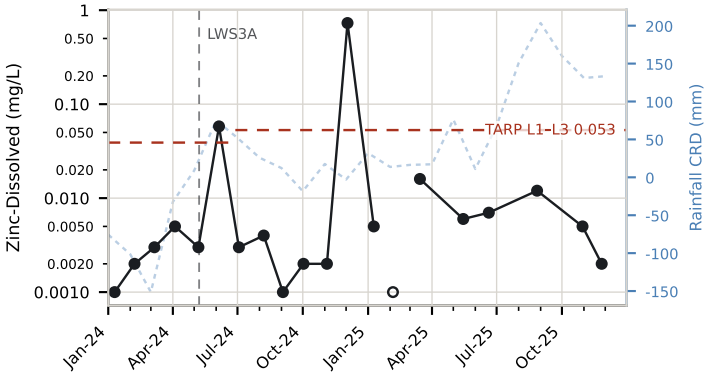
Copper-Dissolved



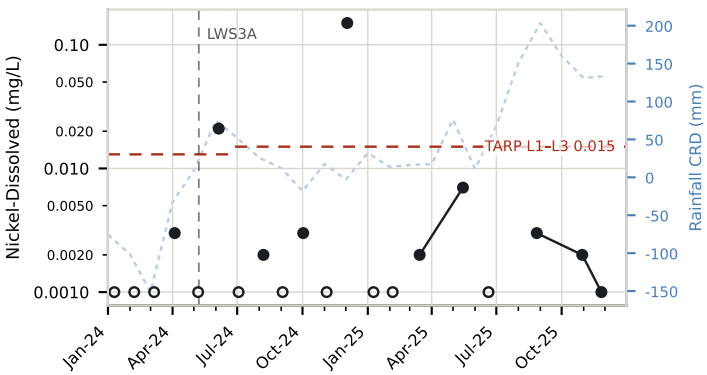
Lead-Dissolved



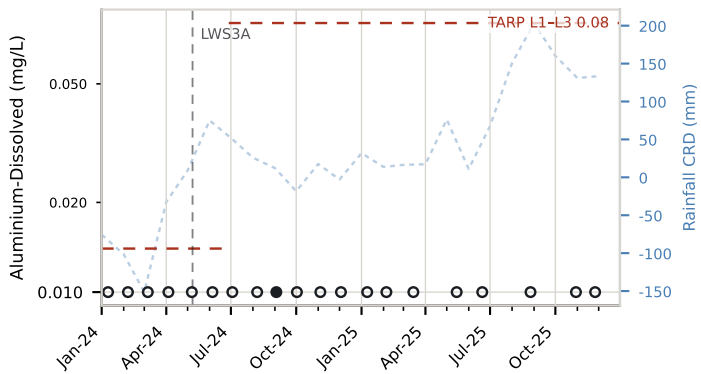
Zinc-Dissolved



Nickel-Dissolved



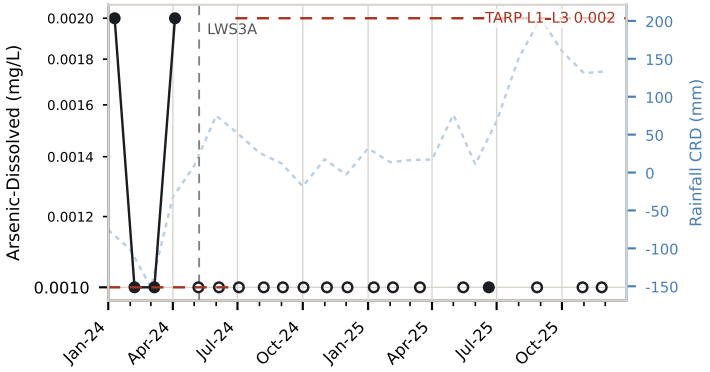
Aluminium-Dissolved



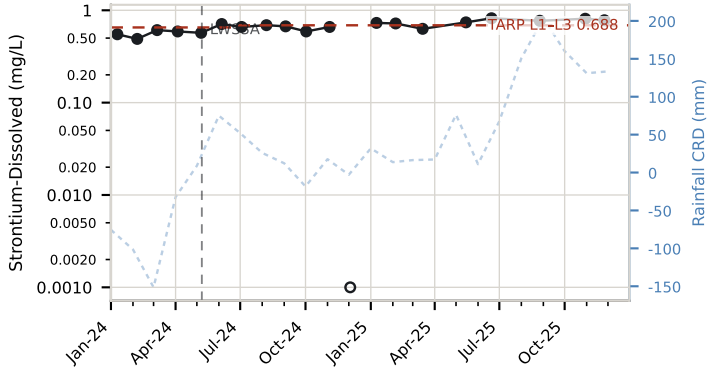
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

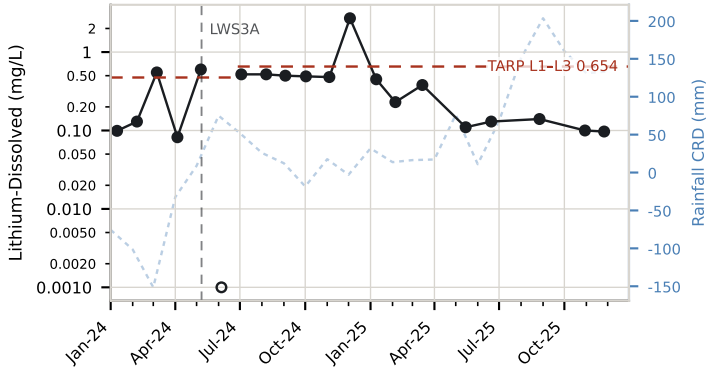
Arsenic-Dissolved



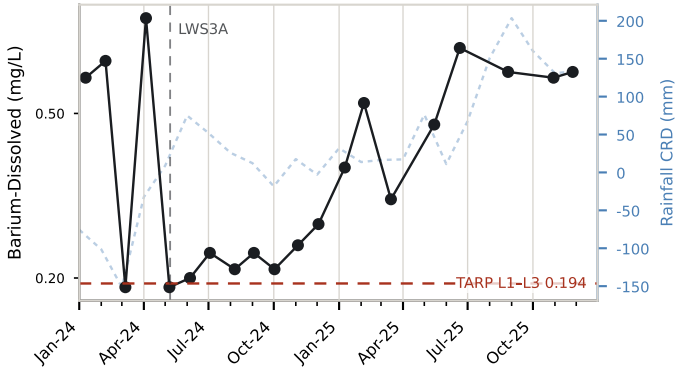
Strontium-Dissolved



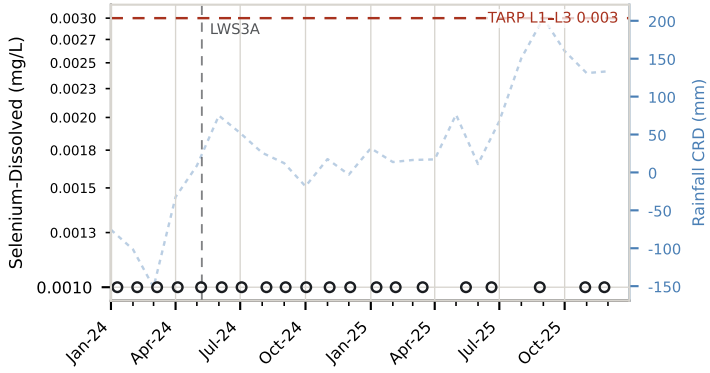
Lithium-Dissolved



Barium-Dissolved



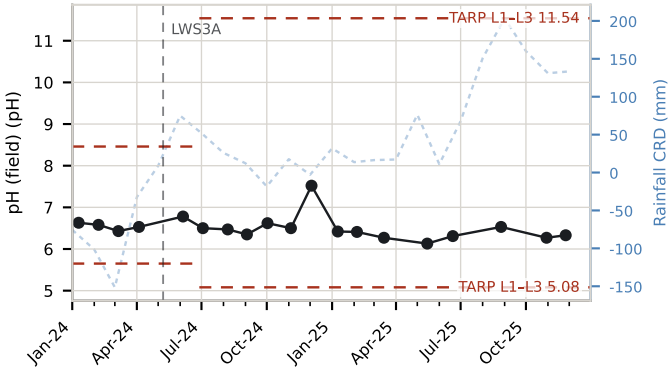
Selenium-Dissolved



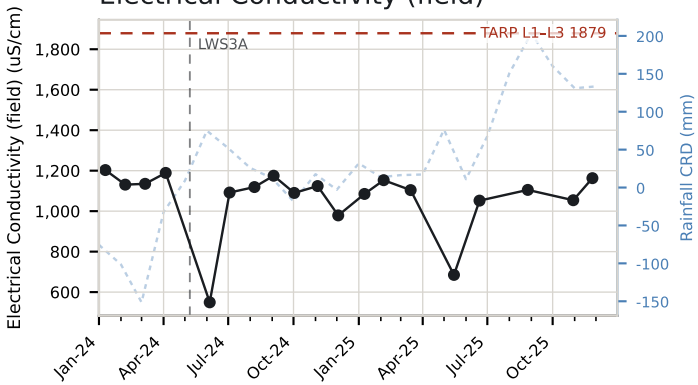
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

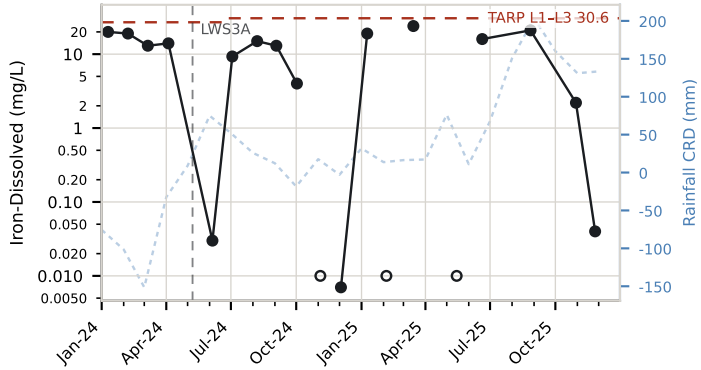
pH (field)



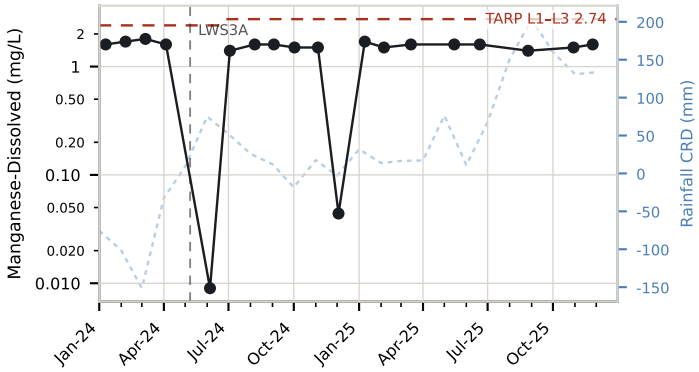
Electrical Conductivity (field)



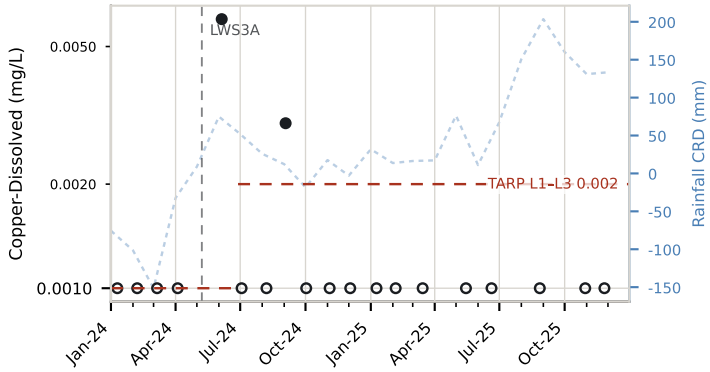
Iron-Dissolved



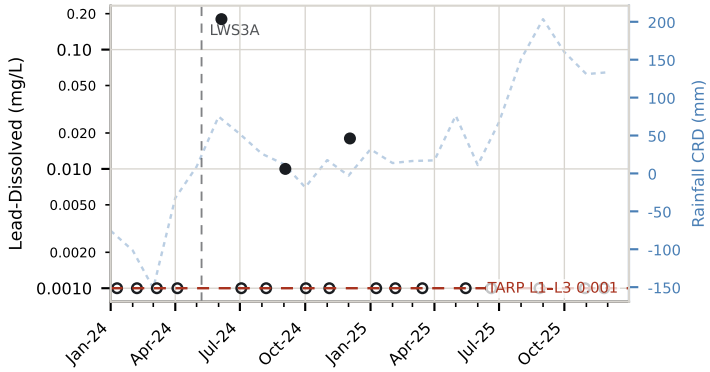
Manganese-Dissolved



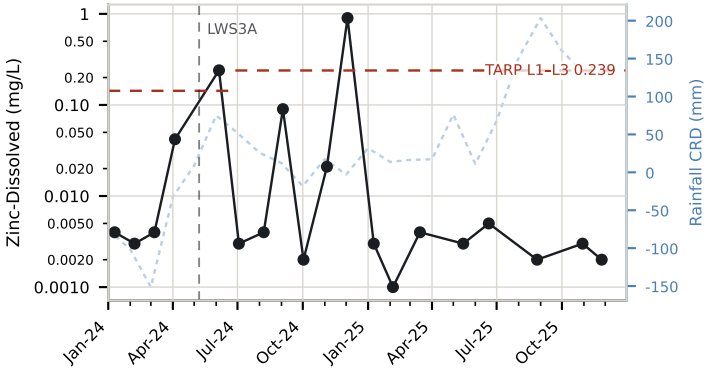
Copper-Dissolved



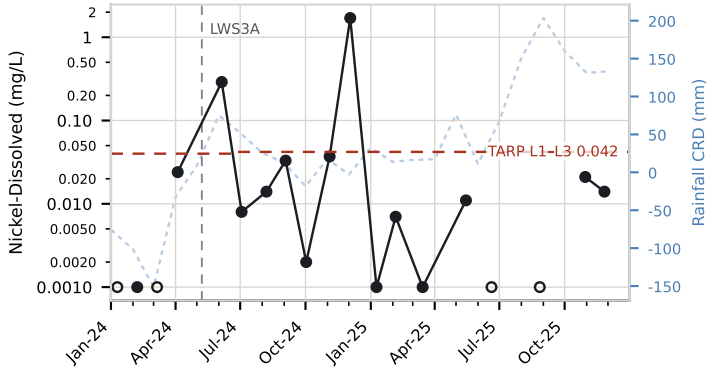
Lead-Dissolved



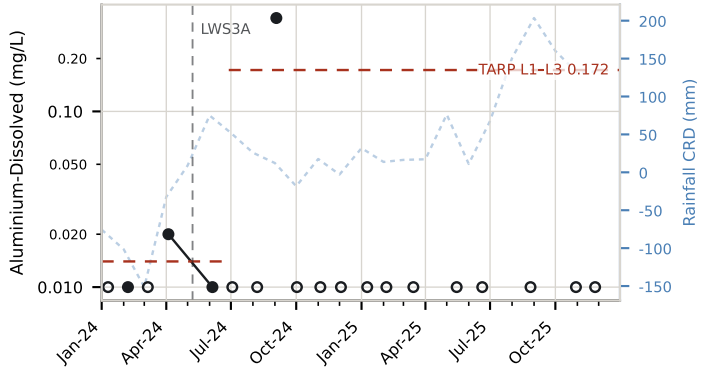
Zinc-Dissolved



Nickel-Dissolved



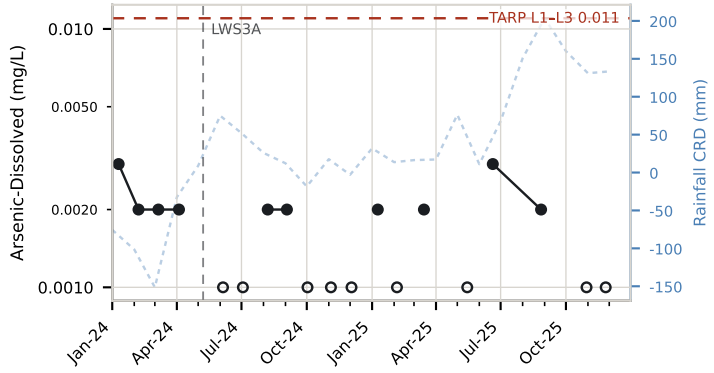
Aluminium-Dissolved



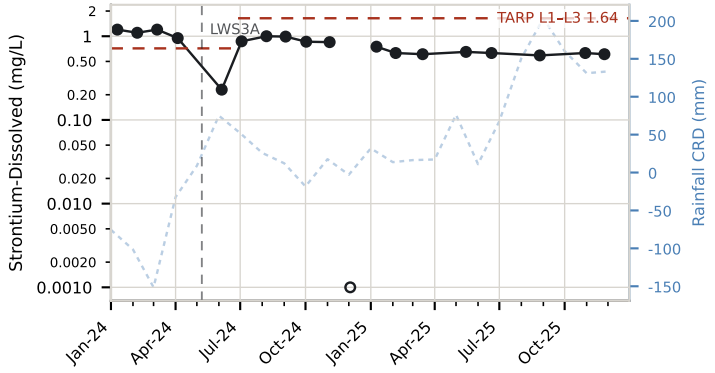
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

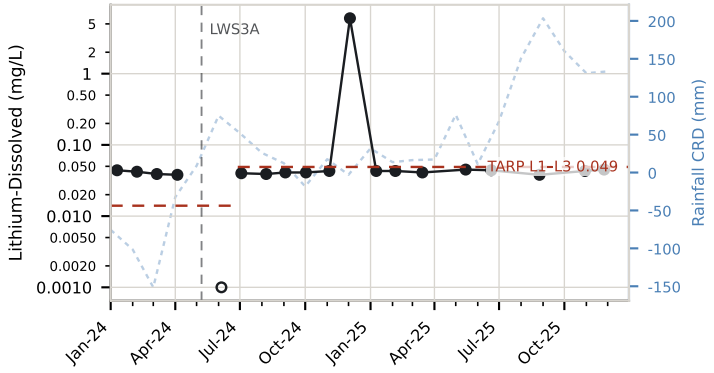
Arsenic-Dissolved



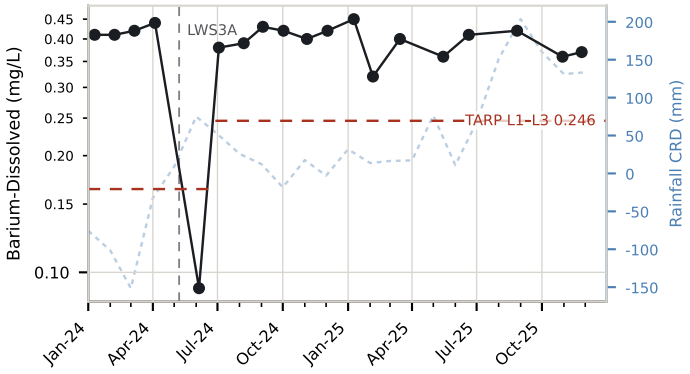
Strontium-Dissolved



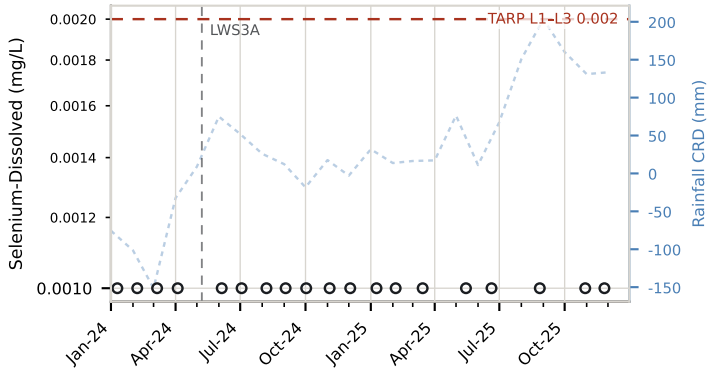
Lithium-Dissolved



Barium-Dissolved

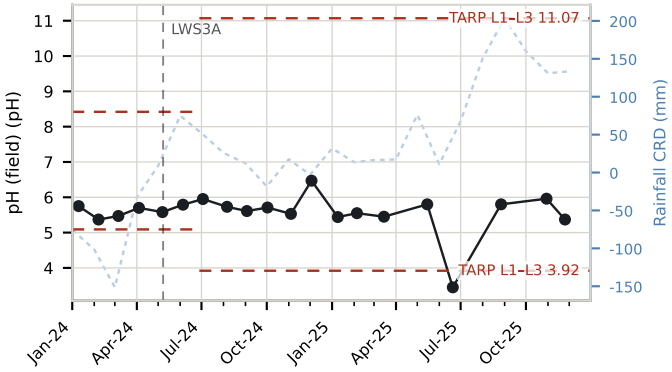


Selenium-Dissolved

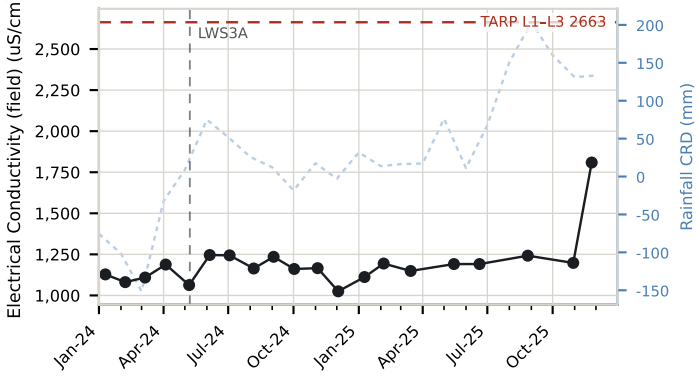


Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

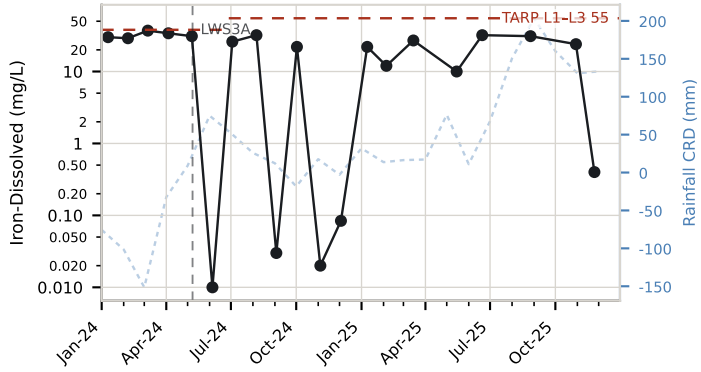
pH (field)



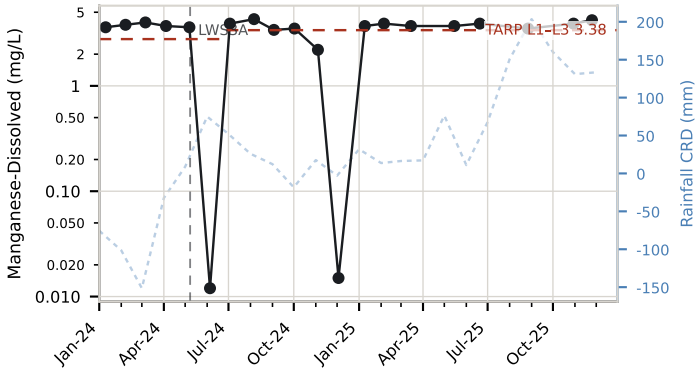
Electrical Conductivity (field)



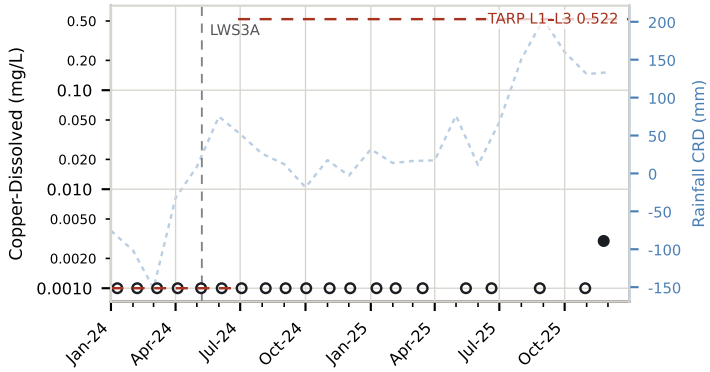
Iron-Dissolved



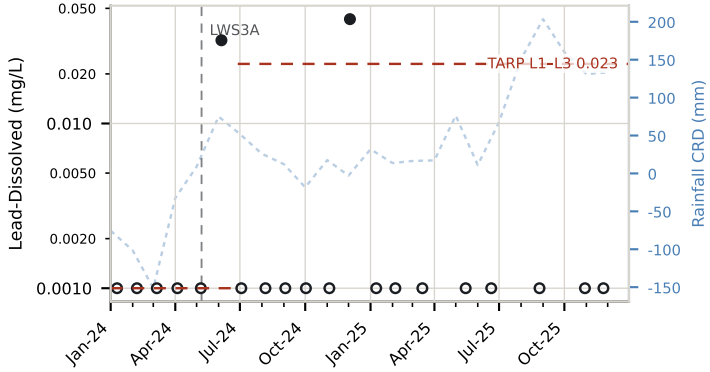
Manganese-Dissolved



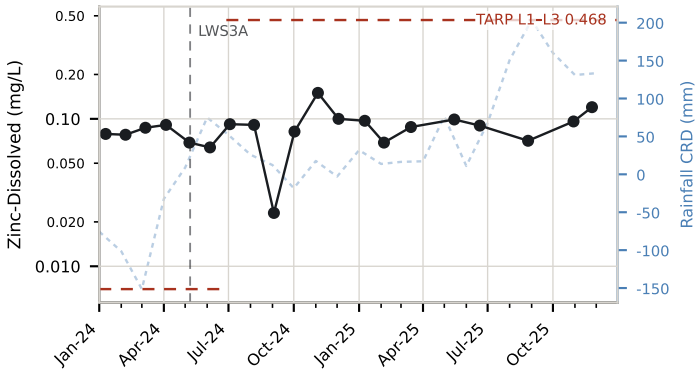
Copper-Dissolved



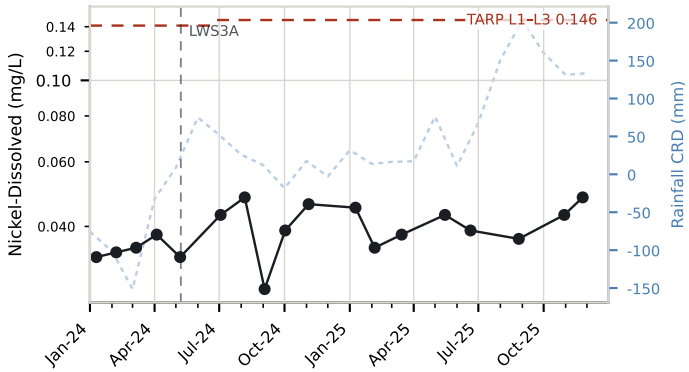
Lead-Dissolved



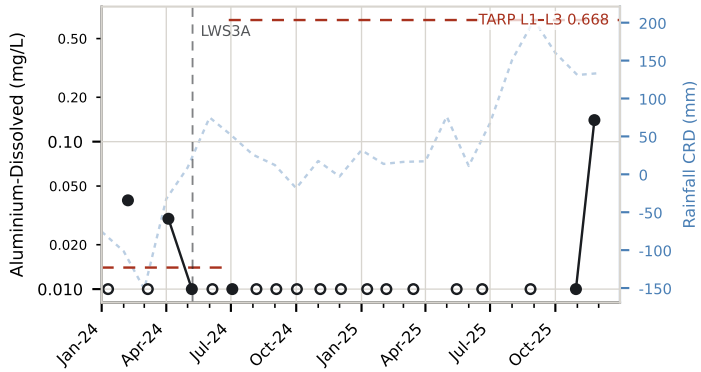
Zinc-Dissolved



Nickel-Dissolved



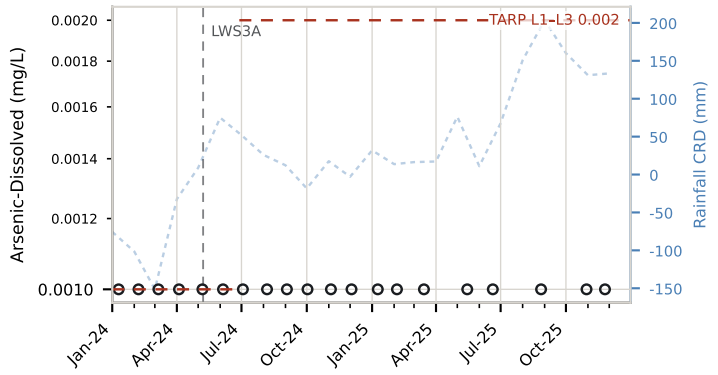
Aluminium-Dissolved



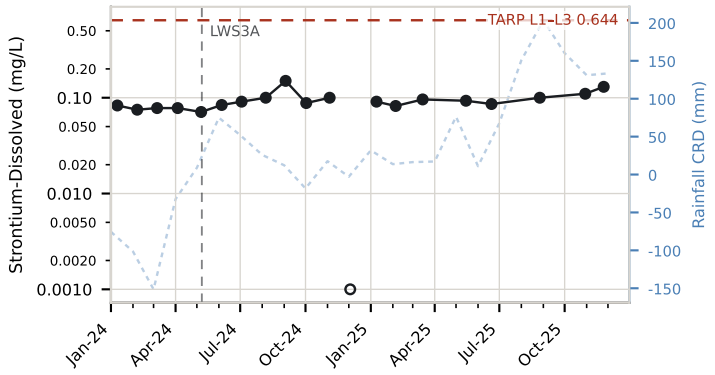
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

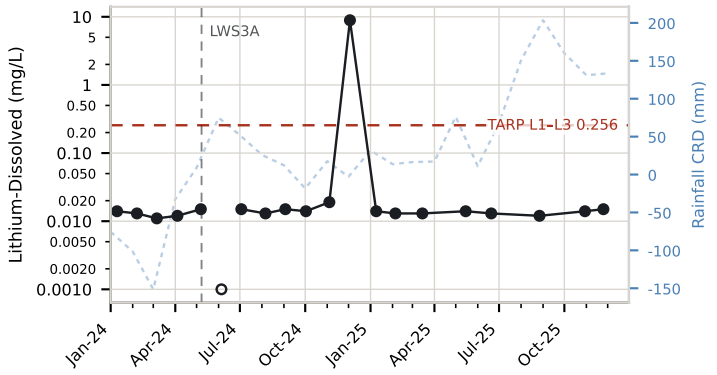
Arsenic-Dissolved



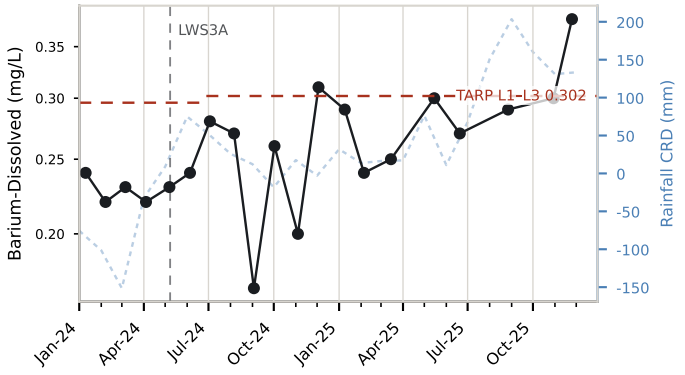
Strontium-Dissolved



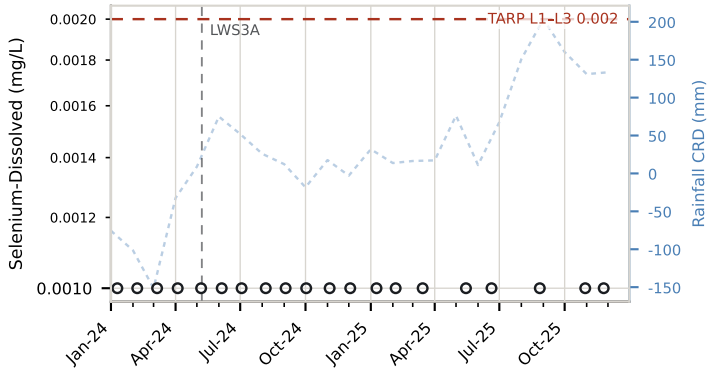
Lithium-Dissolved



Barium-Dissolved



Selenium-Dissolved



Result (detected)
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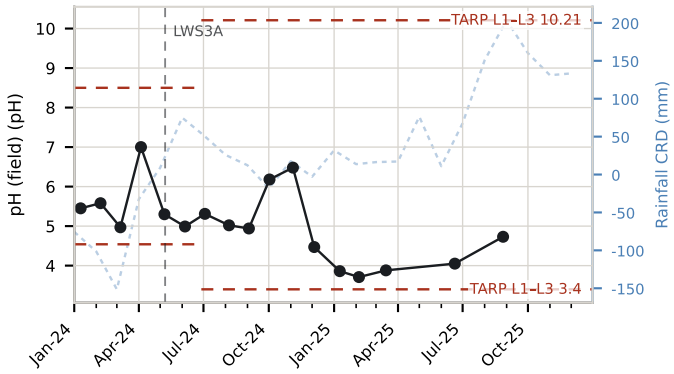
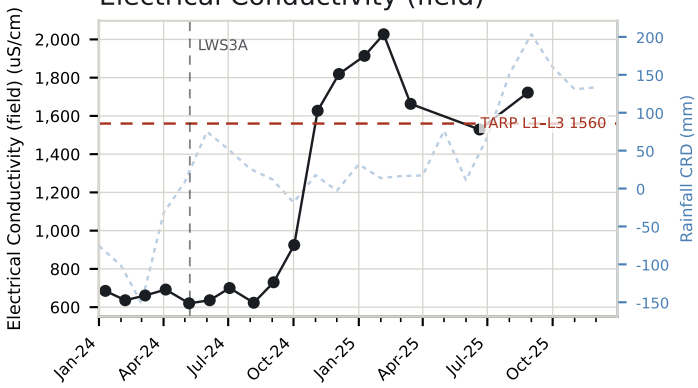
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

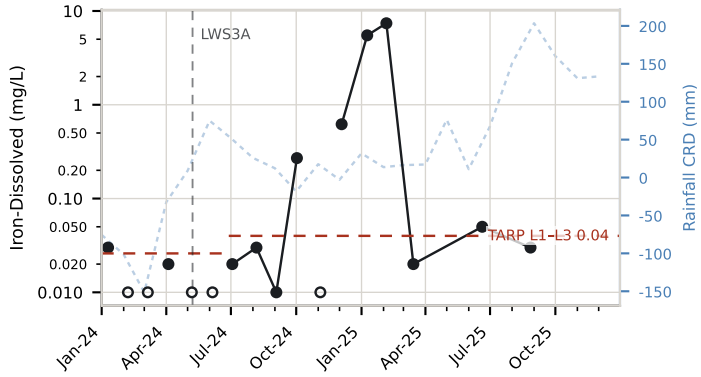
pH (field)



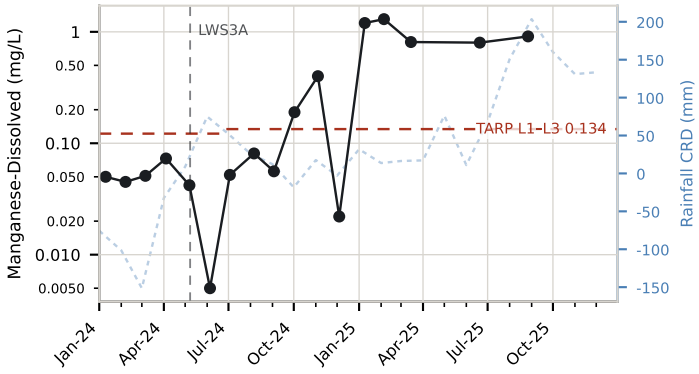
Electrical Conductivity (field)



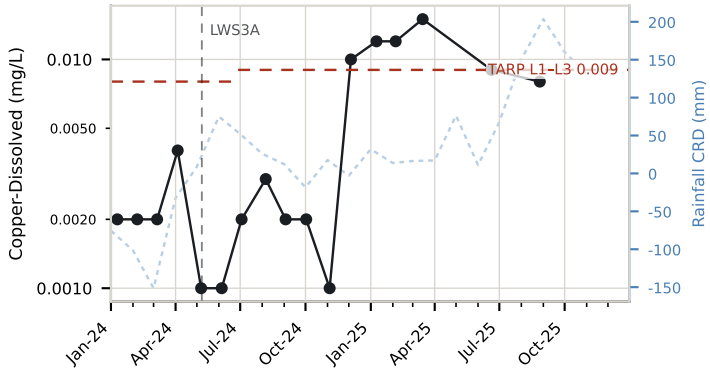
Iron-Dissolved



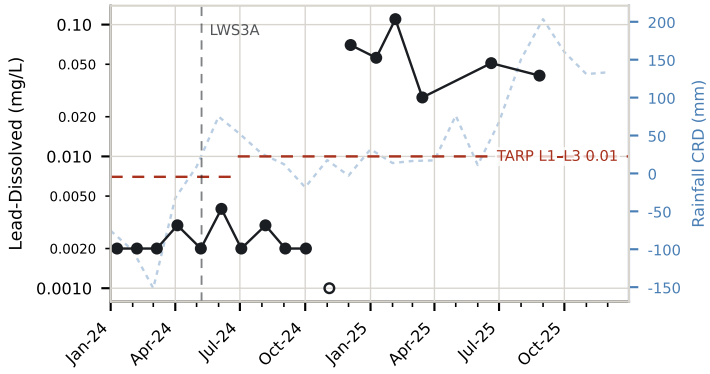
Manganese-Dissolved



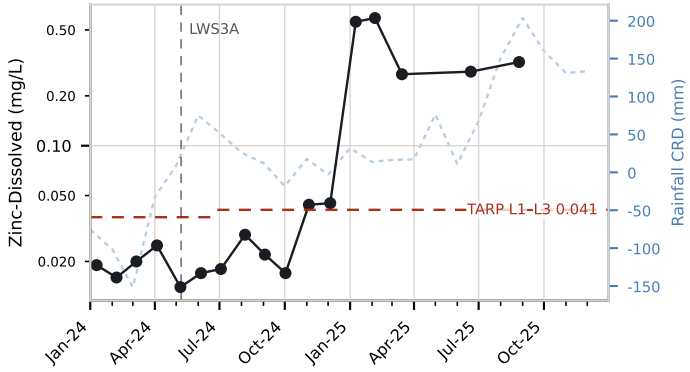
Copper-Dissolved



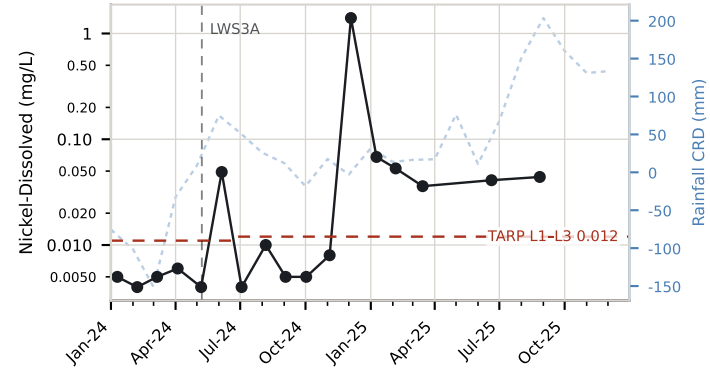
Lead-Dissolved



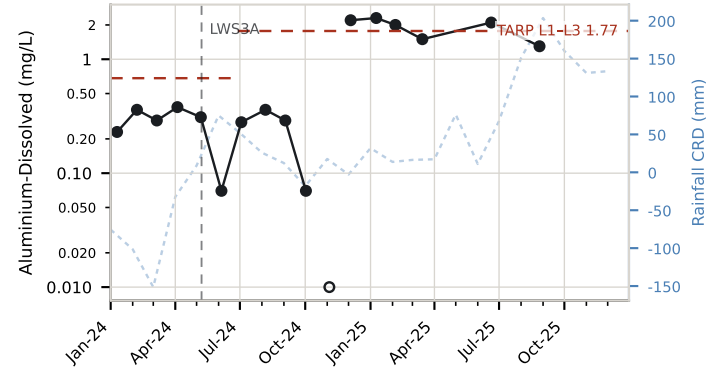
Zinc-Dissolved



Nickel-Dissolved



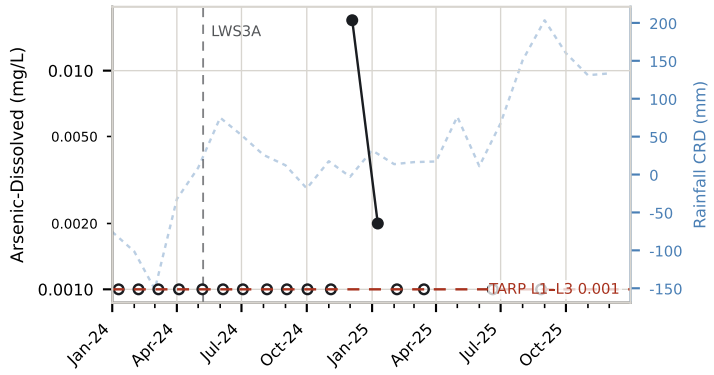
Aluminium-Dissolved



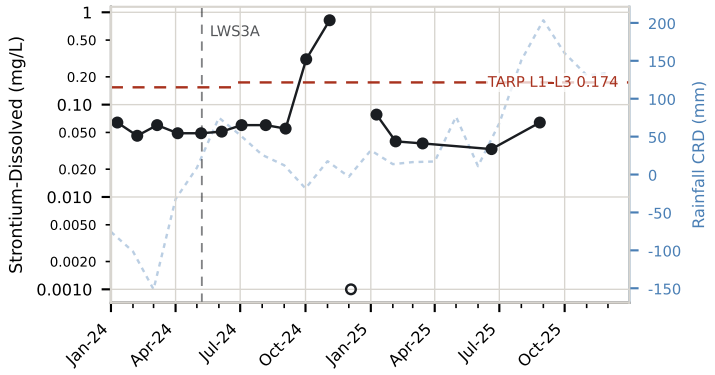
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

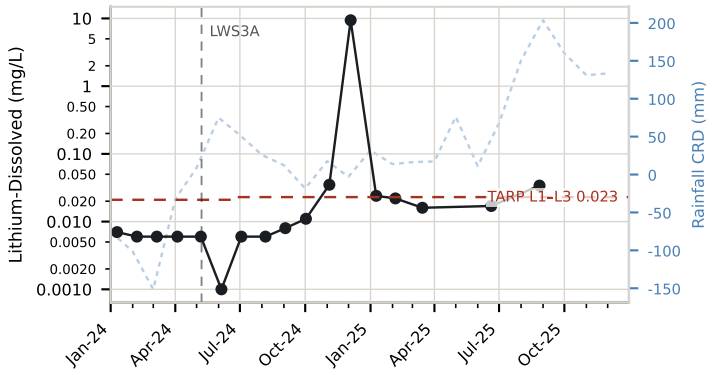
Arsenic-Dissolved



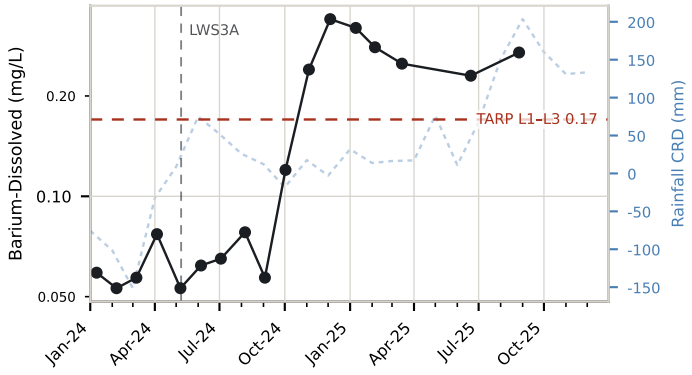
Strontium-Dissolved



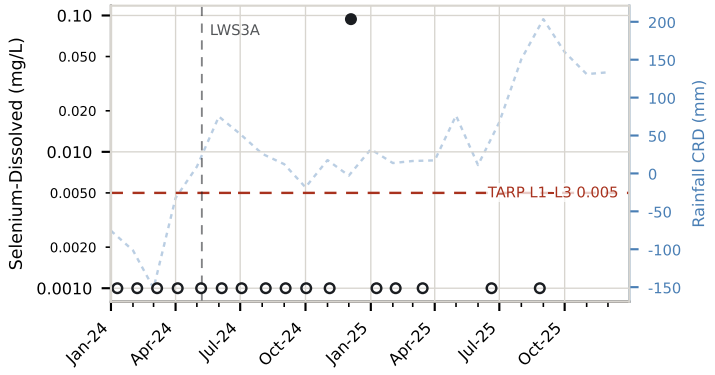
Lithium-Dissolved



Barium-Dissolved



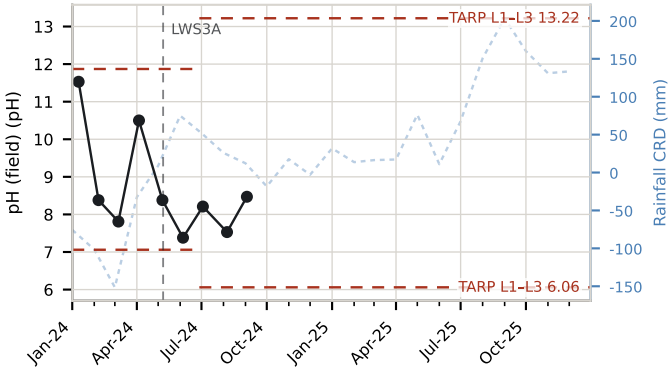
Selenium-Dissolved



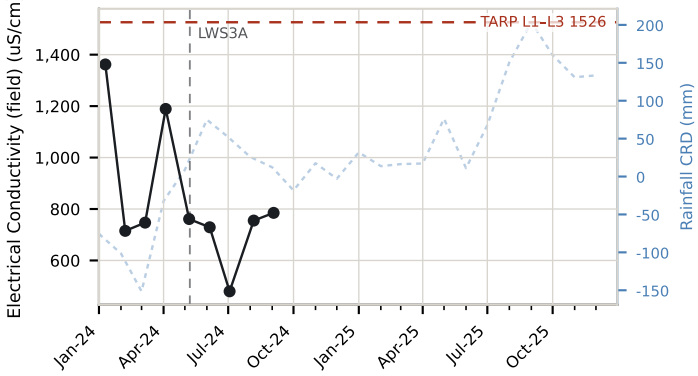
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

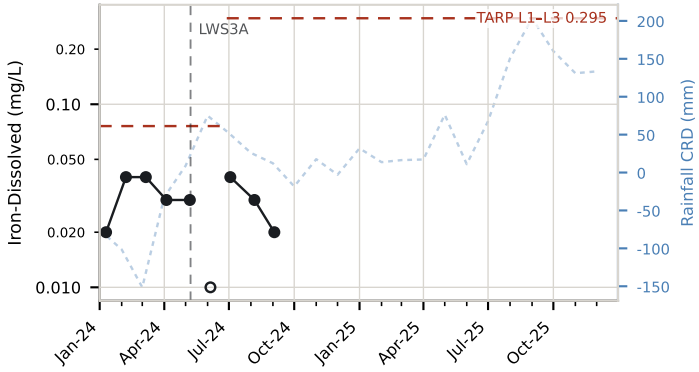
pH (field)



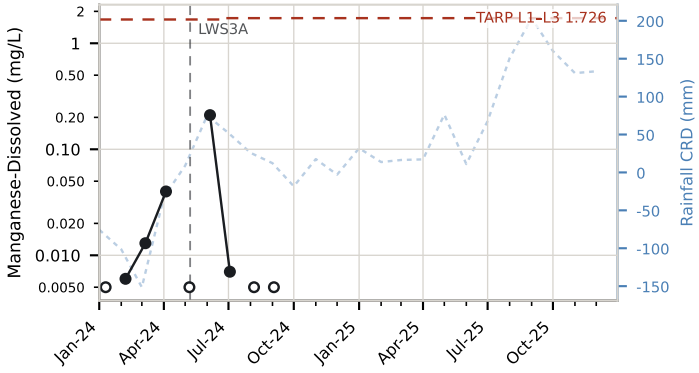
Electrical Conductivity (field)



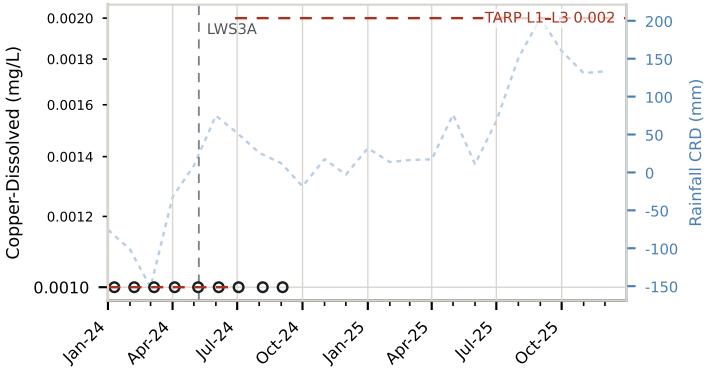
Iron-Dissolved



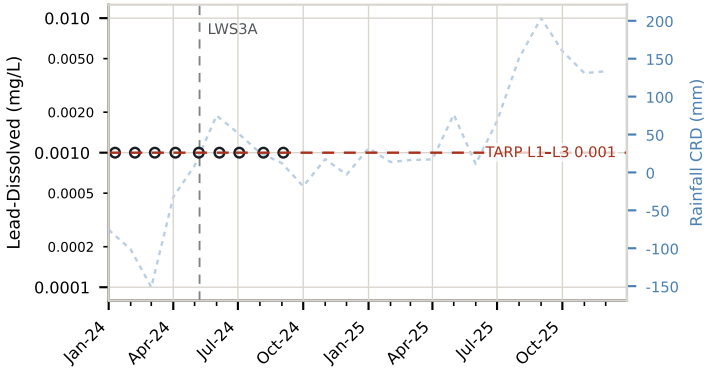
Manganese-Dissolved



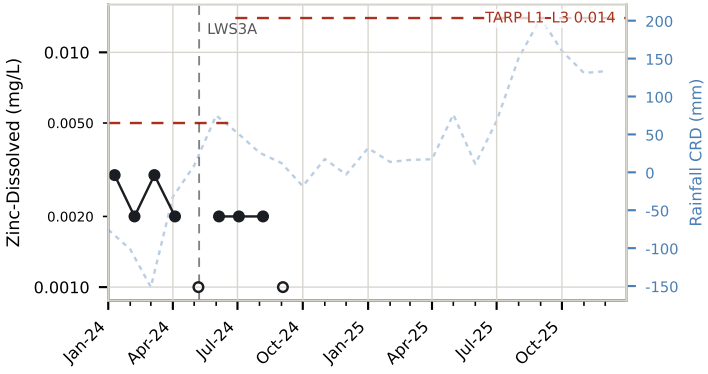
Copper-Dissolved



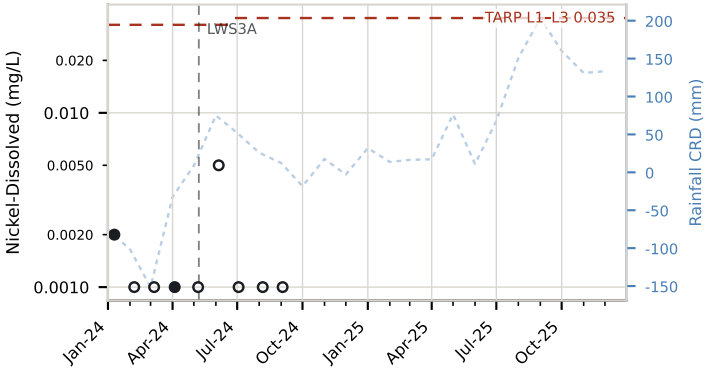
Lead-Dissolved



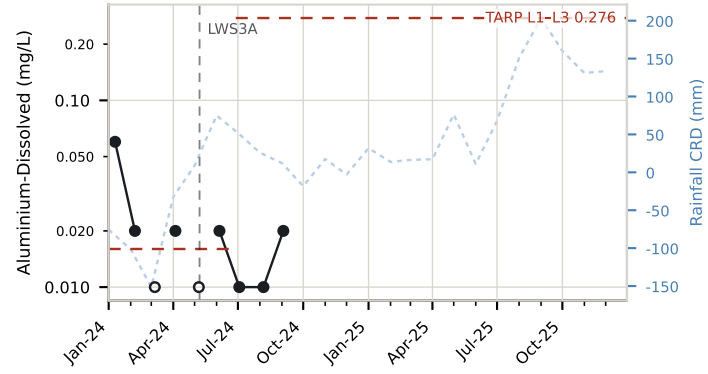
Zinc-Dissolved



Nickel-Dissolved



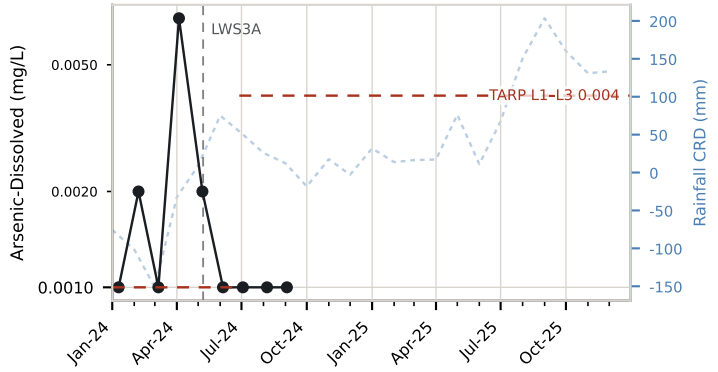
Aluminium-Dissolved



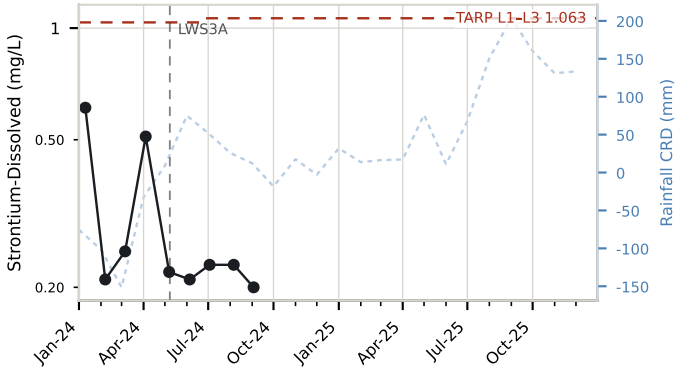
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

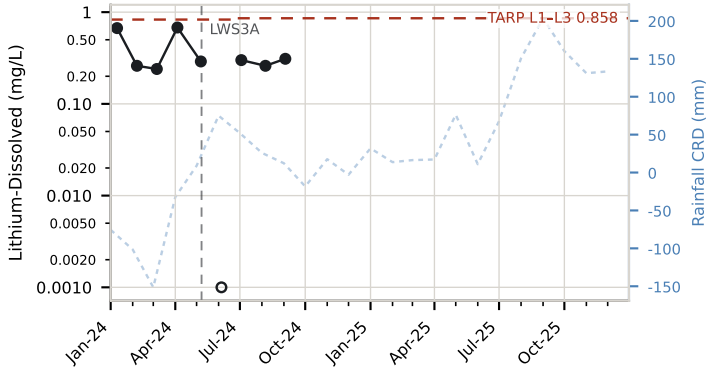
Arsenic-Dissolved



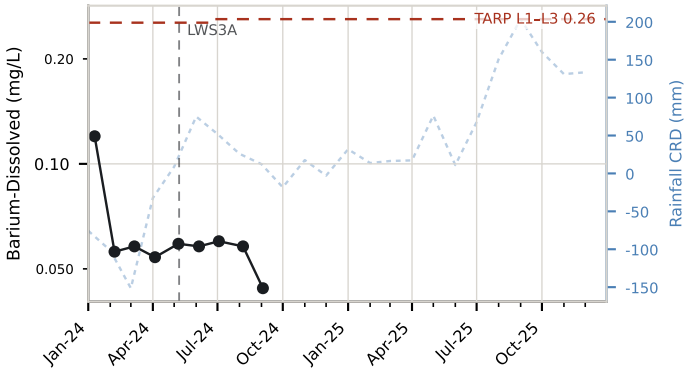
Strontium-Dissolved



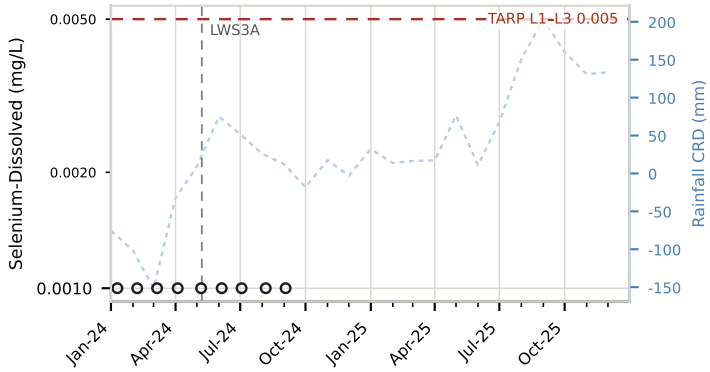
Lithium-Dissolved



Barium-Dissolved



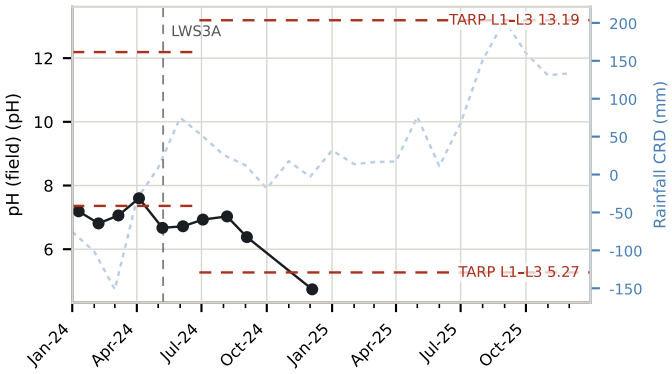
Selenium-Dissolved



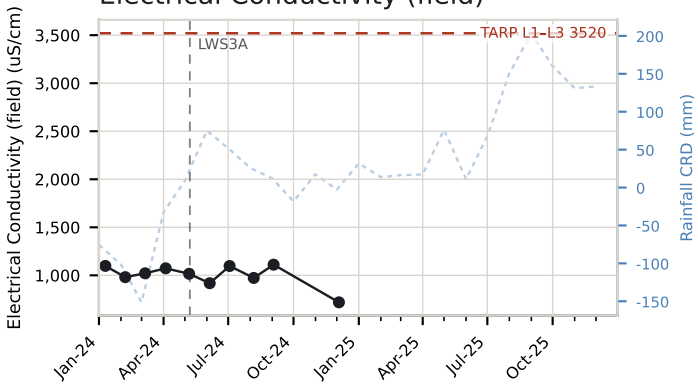
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

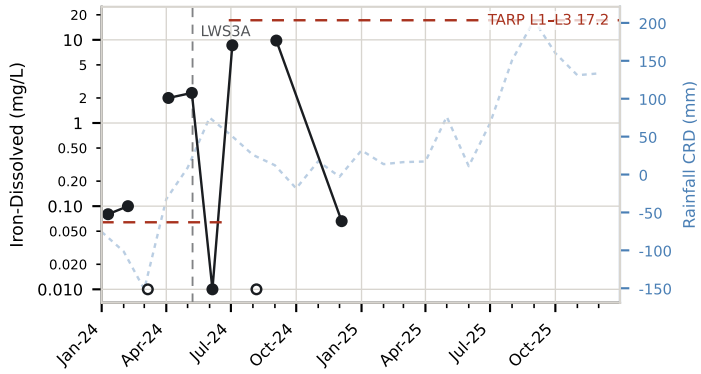
pH (field)



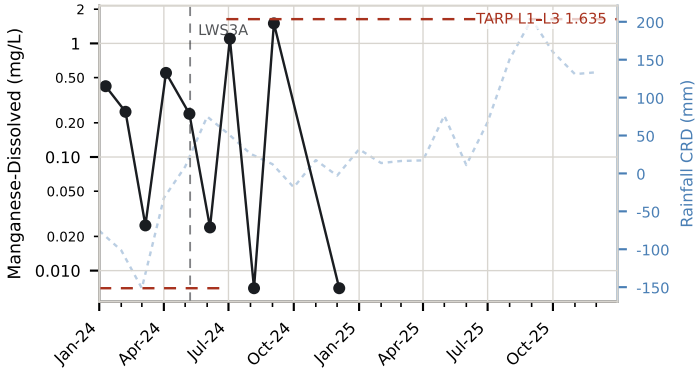
Electrical Conductivity (field)



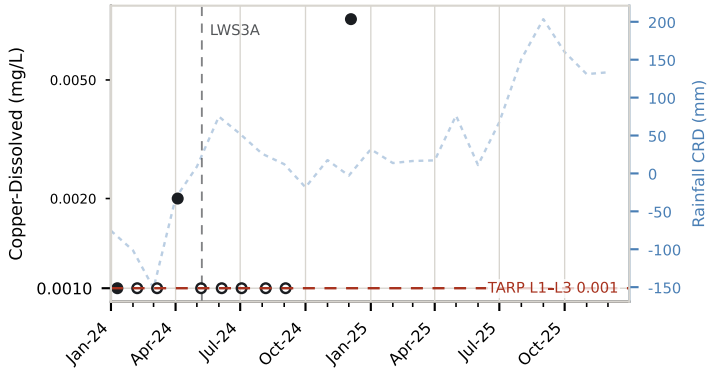
Iron-Dissolved



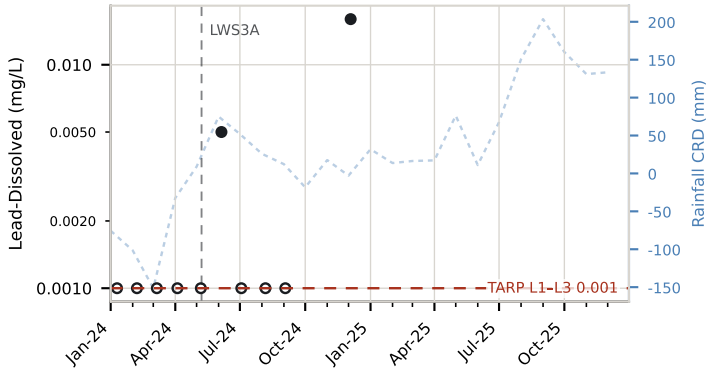
Manganese-Dissolved



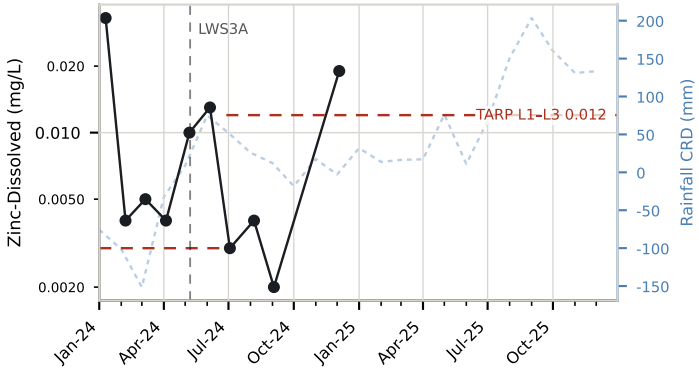
Copper-Dissolved



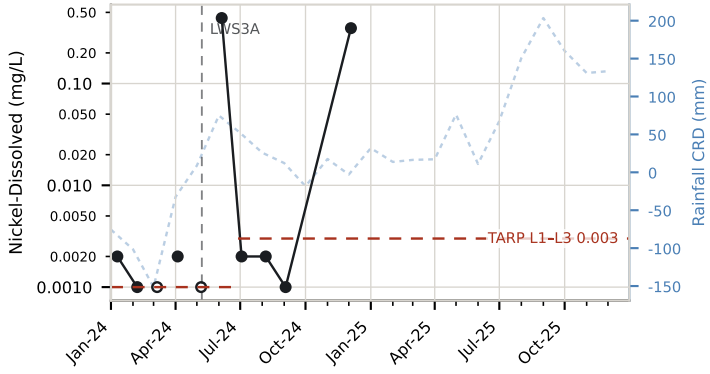
Lead-Dissolved



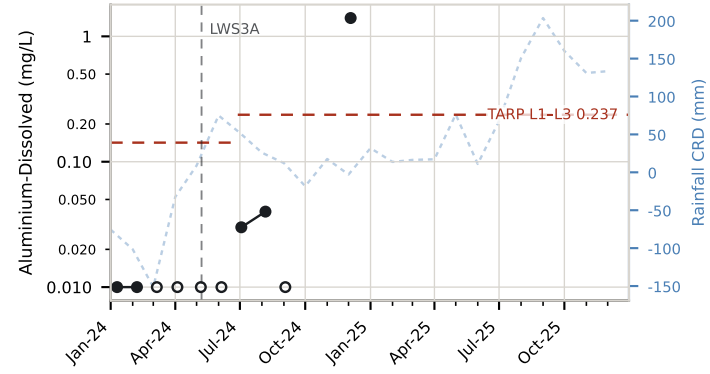
Zinc-Dissolved



Nickel-Dissolved



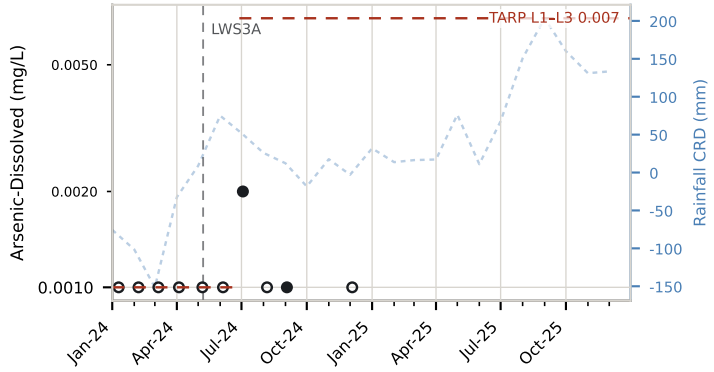
Aluminium-Dissolved



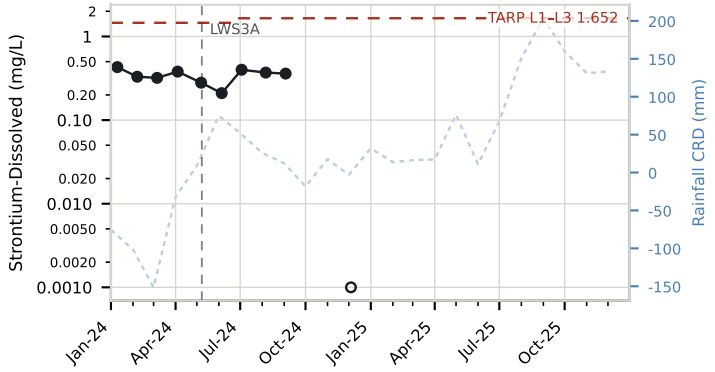
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

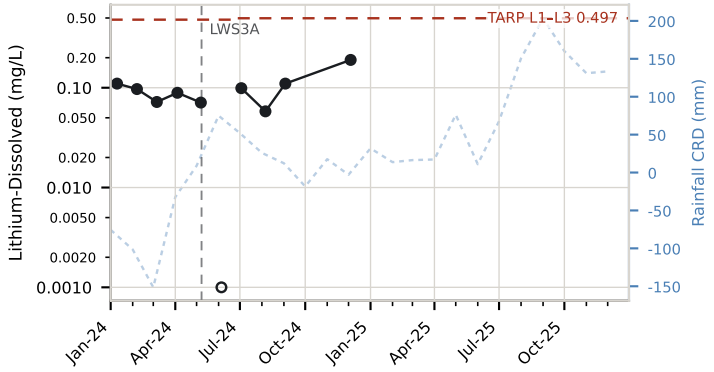
Arsenic-Dissolved



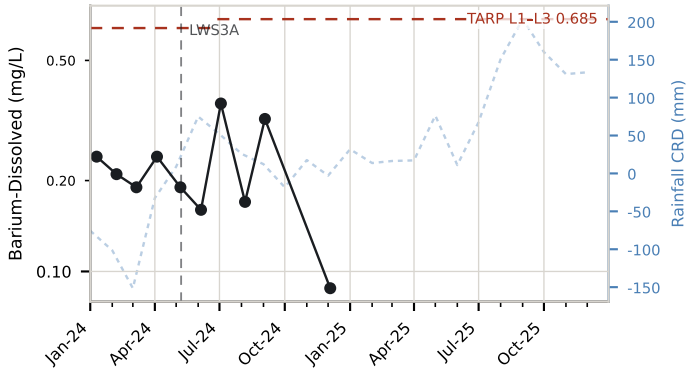
Strontium-Dissolved



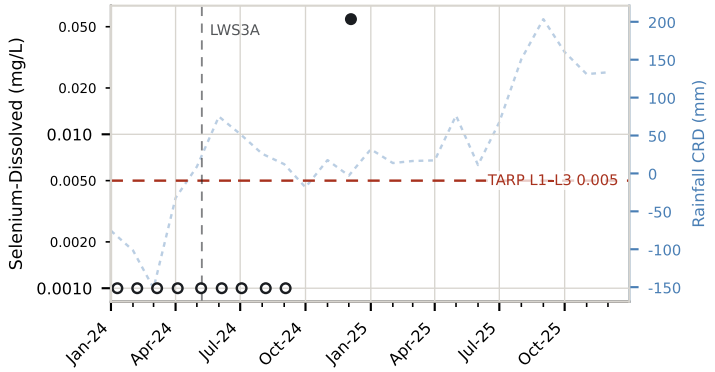
Lithium-Dissolved



Barium-Dissolved



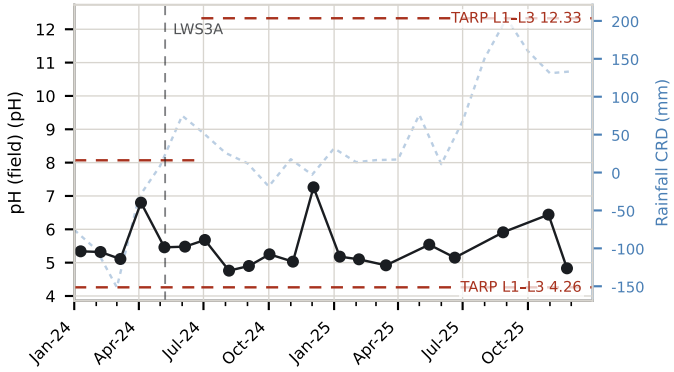
Selenium-Dissolved



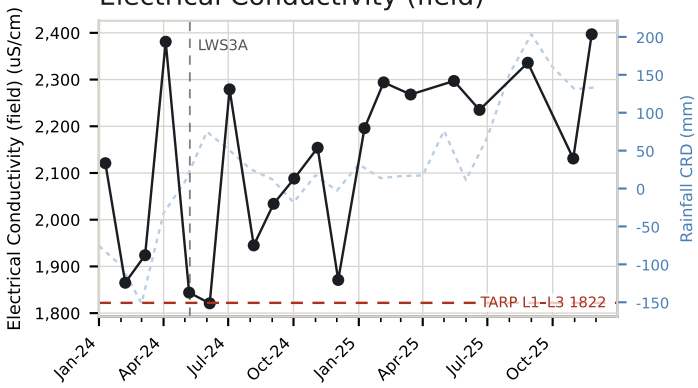
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

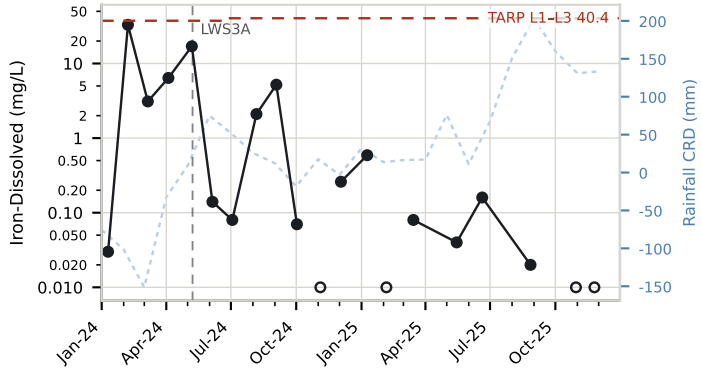
pH (field)



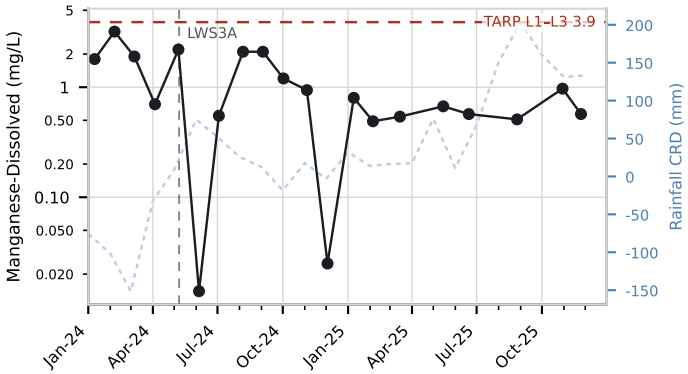
Electrical Conductivity (field)



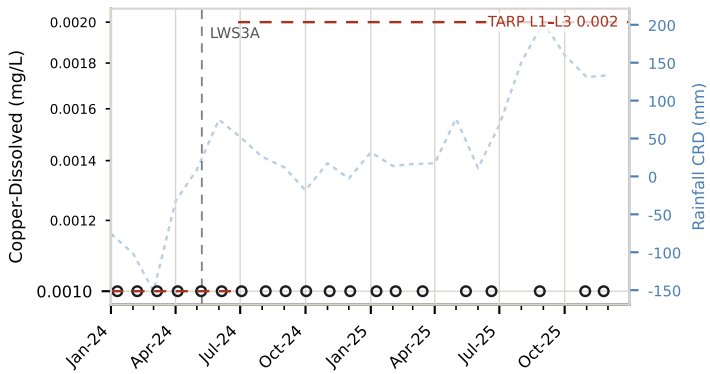
Iron-Dissolved



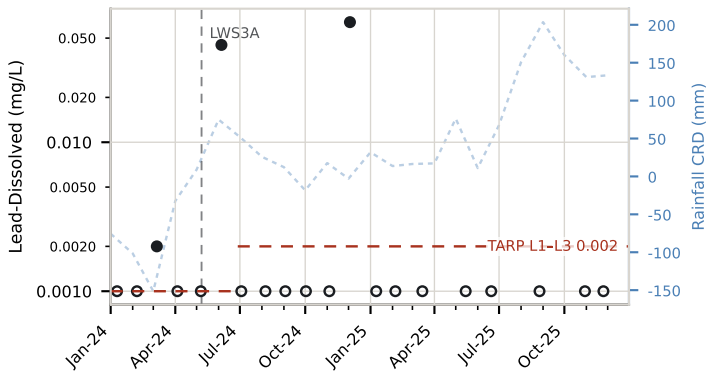
Manganese-Dissolved



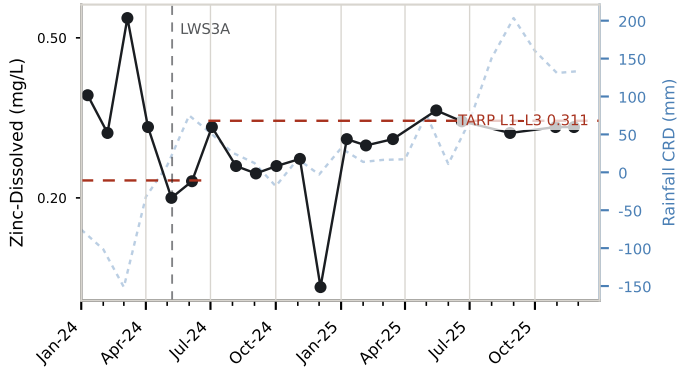
Copper-Dissolved



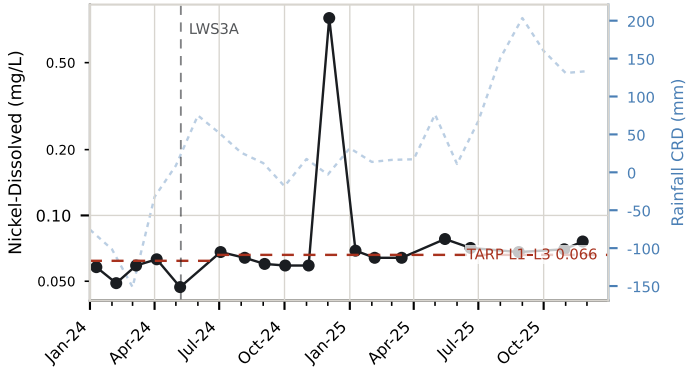
Lead-Dissolved



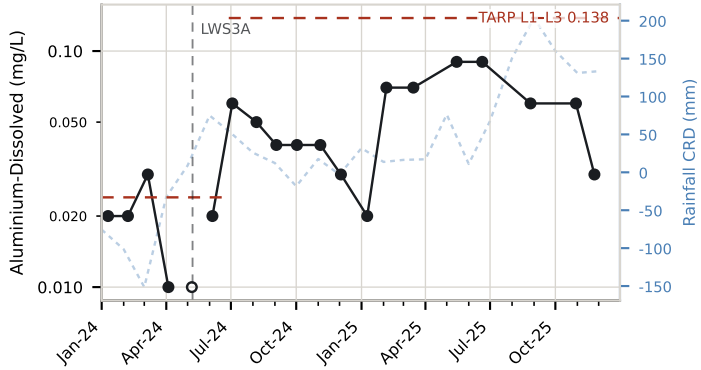
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)
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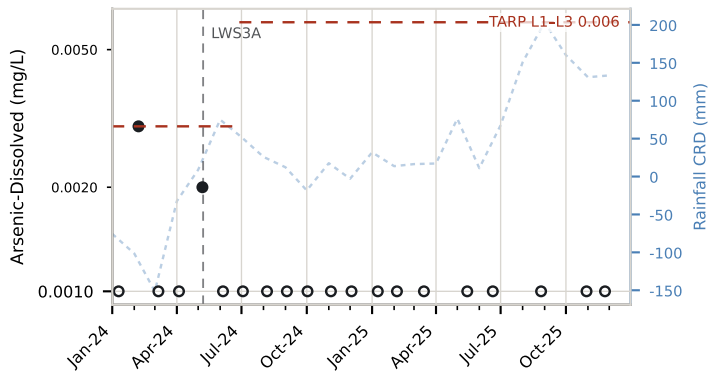
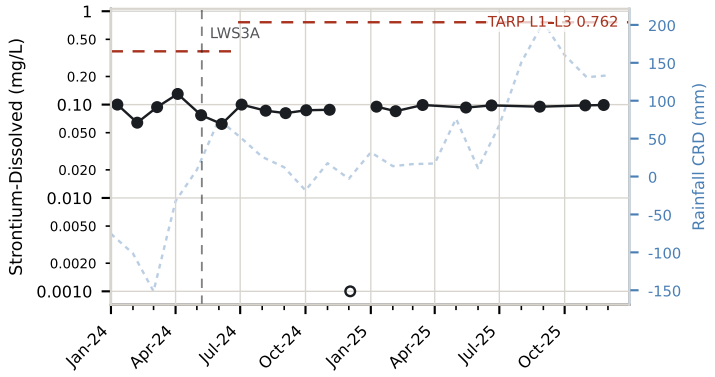
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

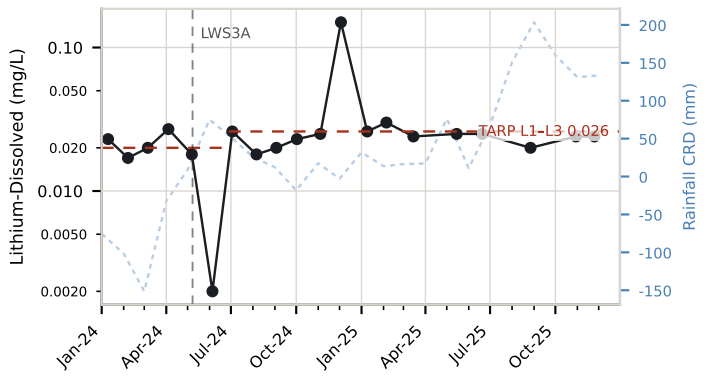
Arsenic-Dissolved



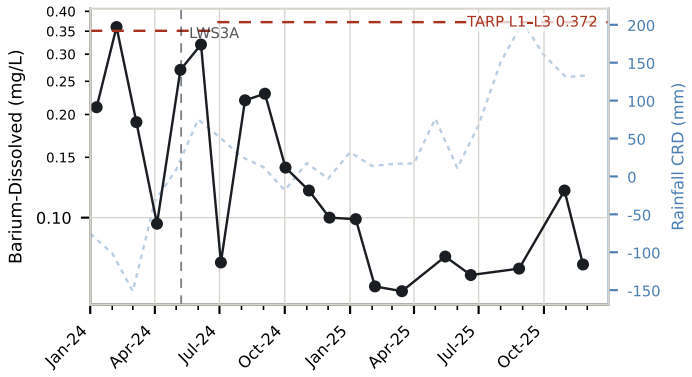
Strontium-Dissolved



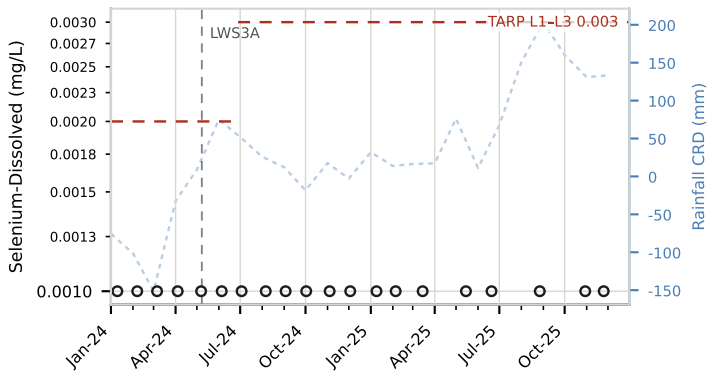
Lithium-Dissolved



Barium-Dissolved



Selenium-Dissolved



Result (detected)
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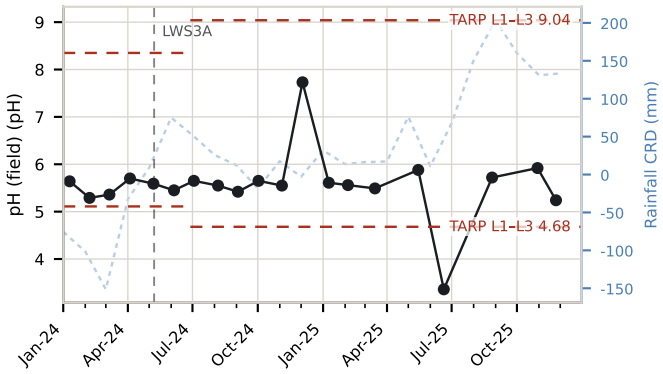
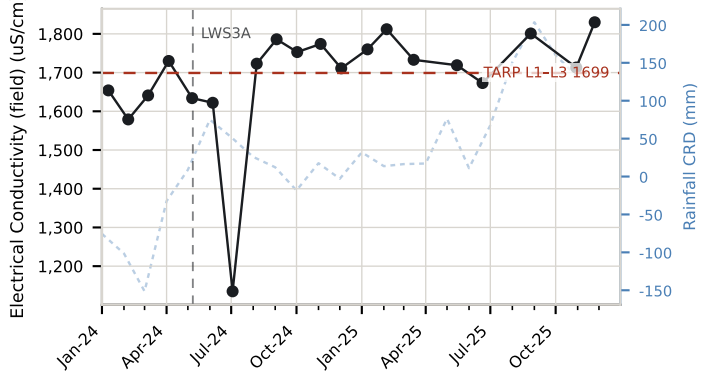
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

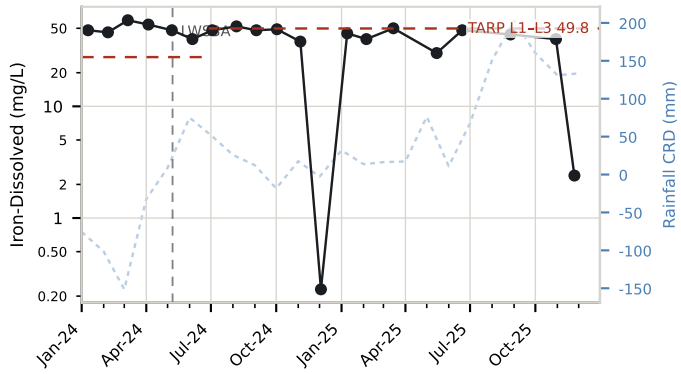
pH (field)



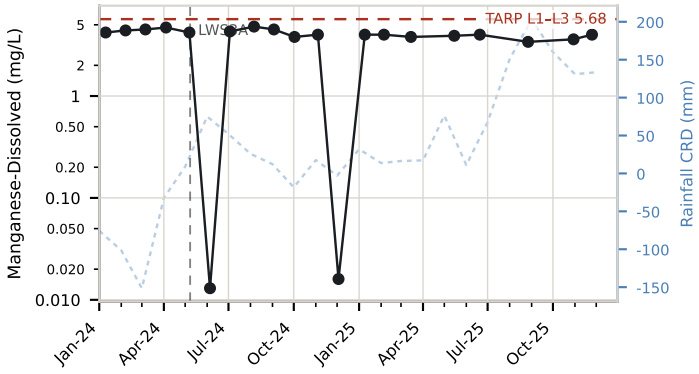
Electrical Conductivity (field)



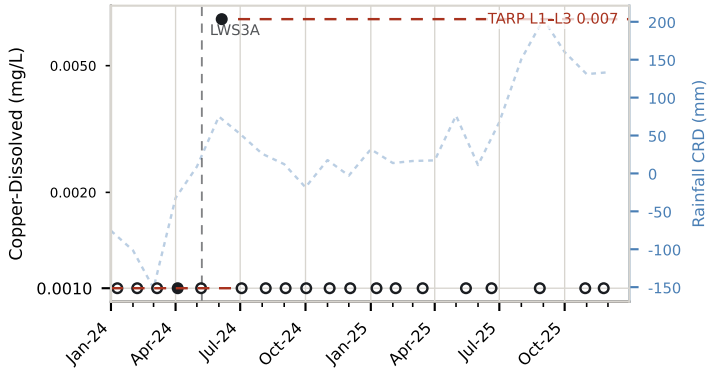
Iron-Dissolved



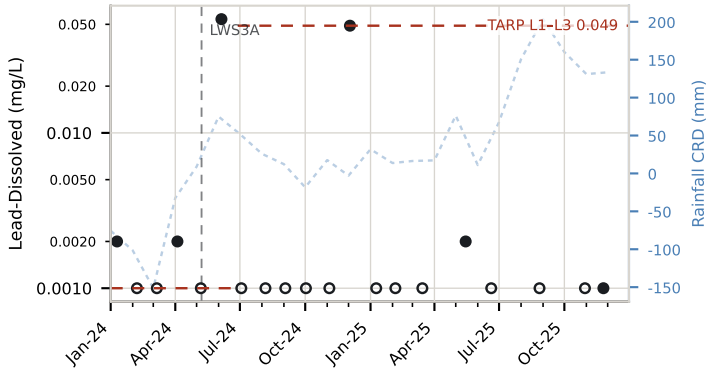
Manganese-Dissolved



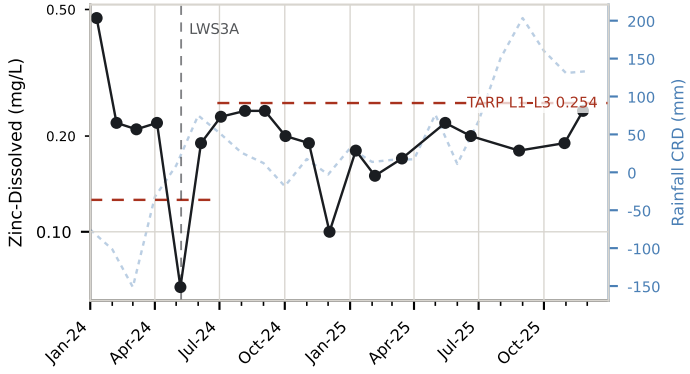
Copper-Dissolved



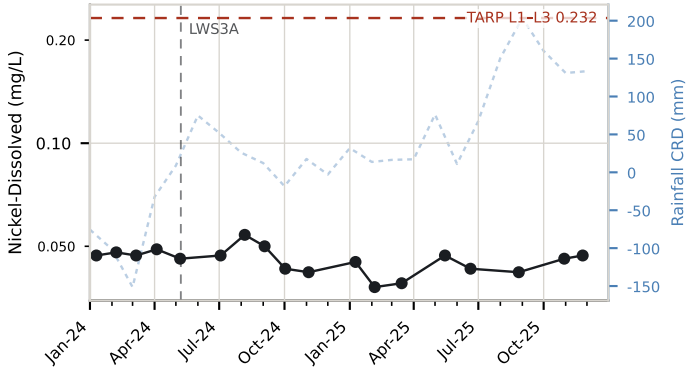
Lead-Dissolved



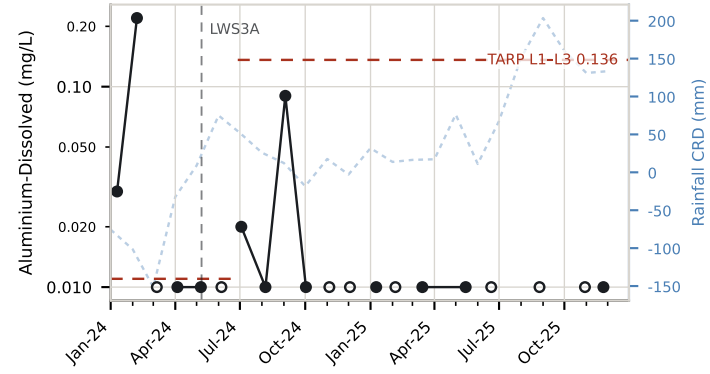
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)
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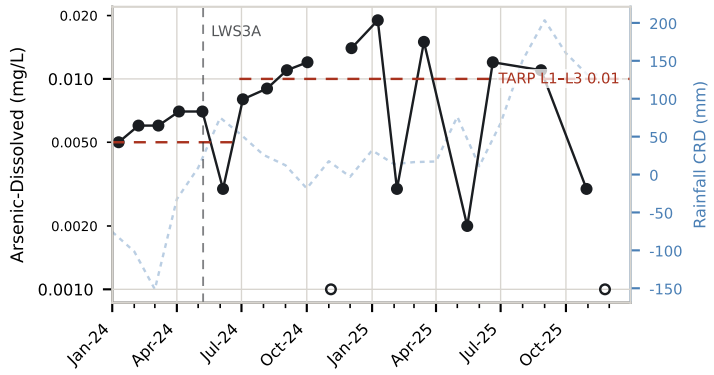
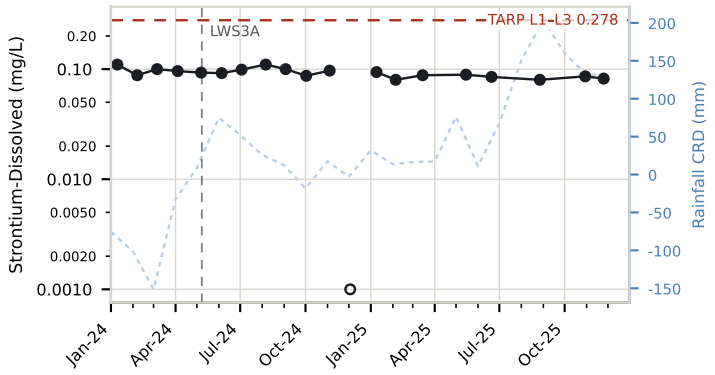
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

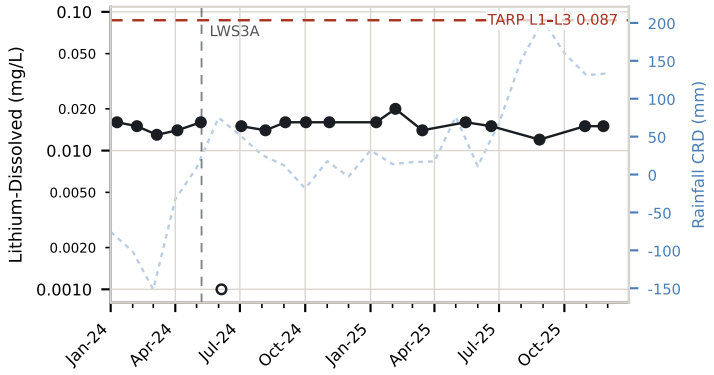
Arsenic-Dissolved



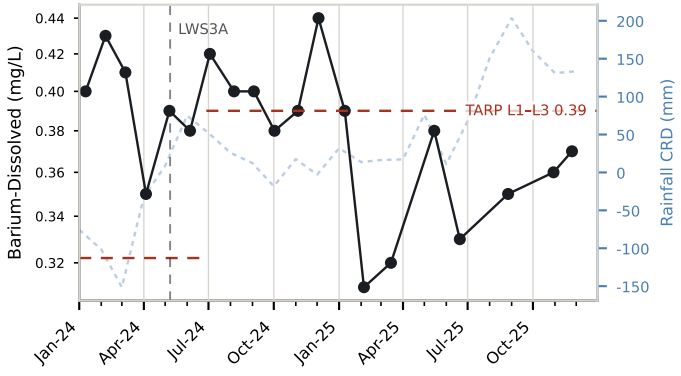
Strontium-Dissolved



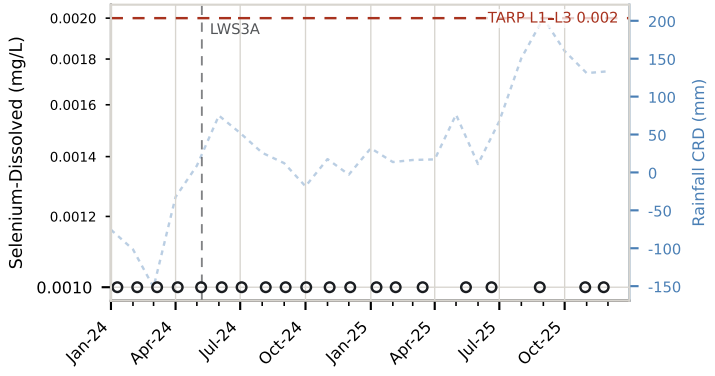
Lithium-Dissolved



Barium-Dissolved



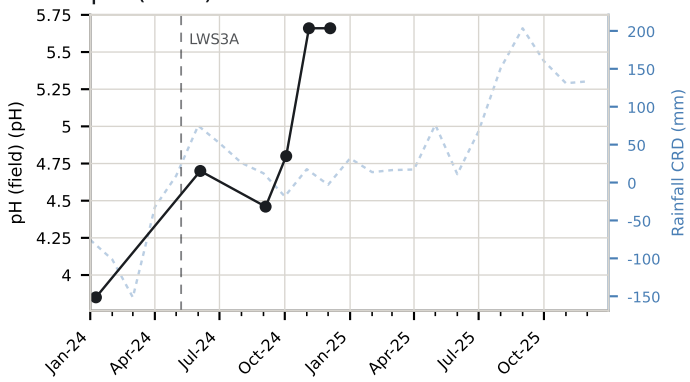
Selenium-Dissolved



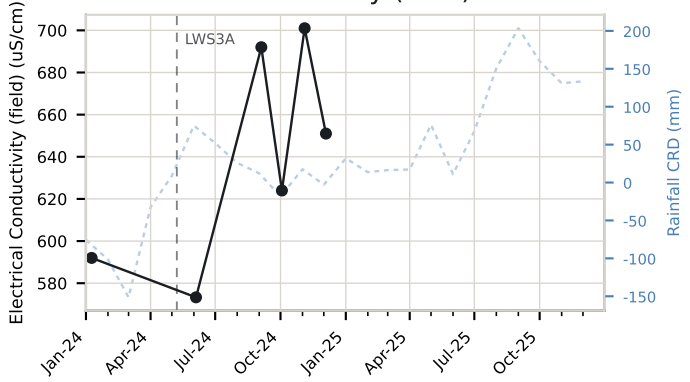
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

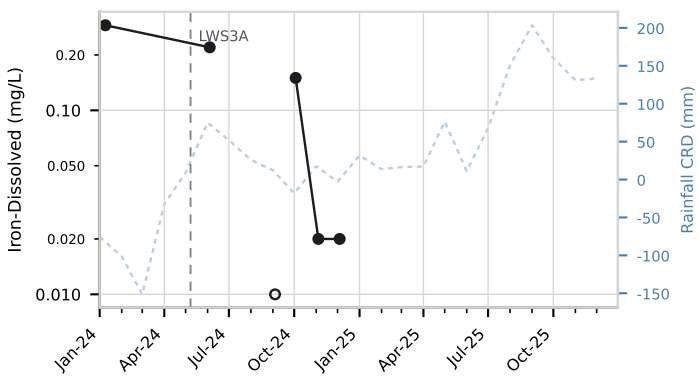
pH (field)



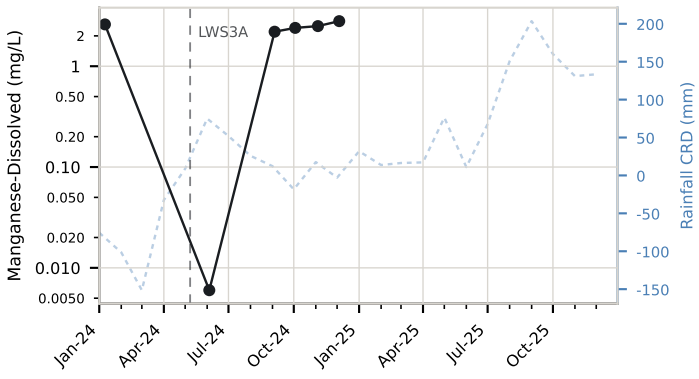
Electrical Conductivity (field)



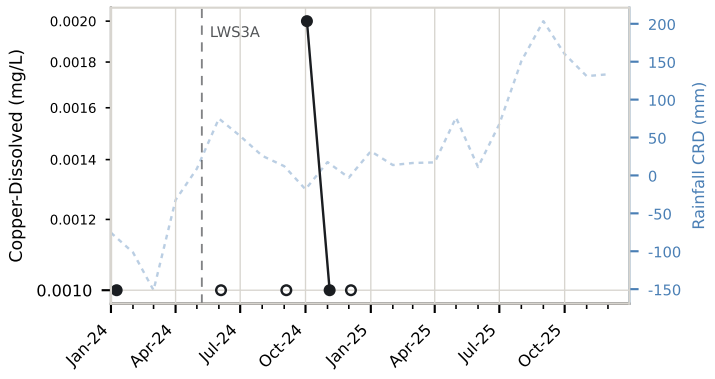
Iron-Dissolved



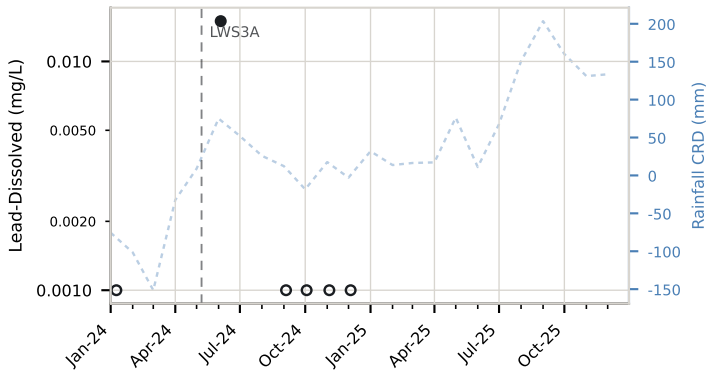
Manganese-Dissolved



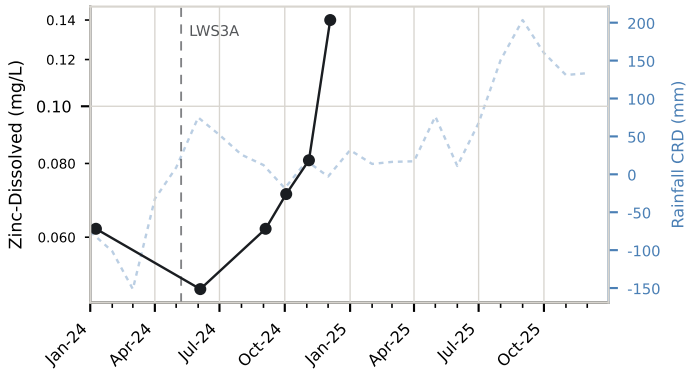
Copper-Dissolved



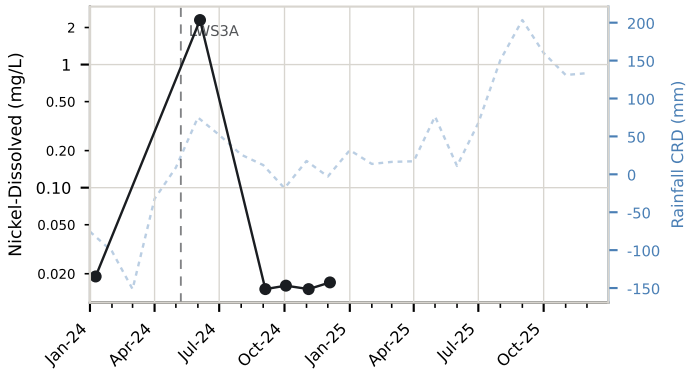
Lead-Dissolved



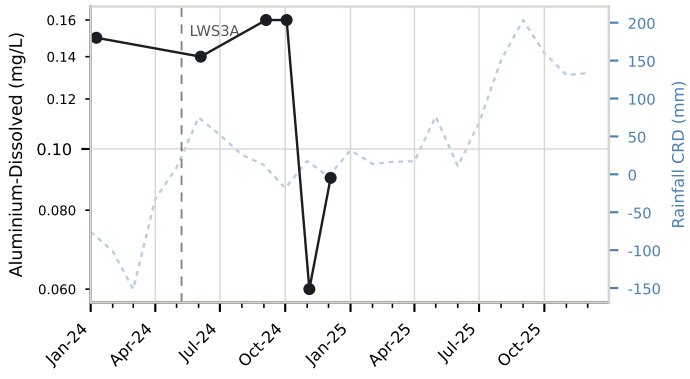
Zinc-Dissolved



Nickel-Dissolved



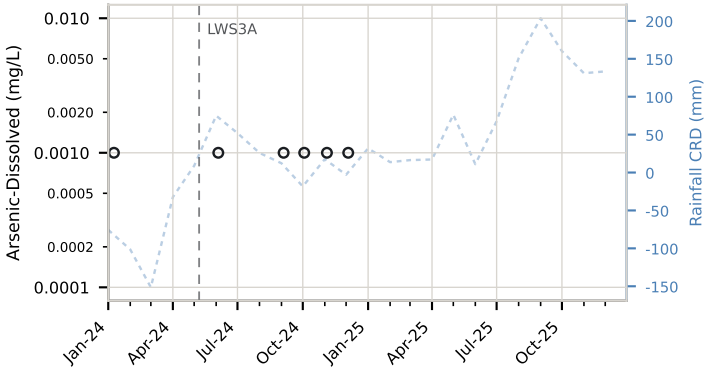
Aluminium-Dissolved



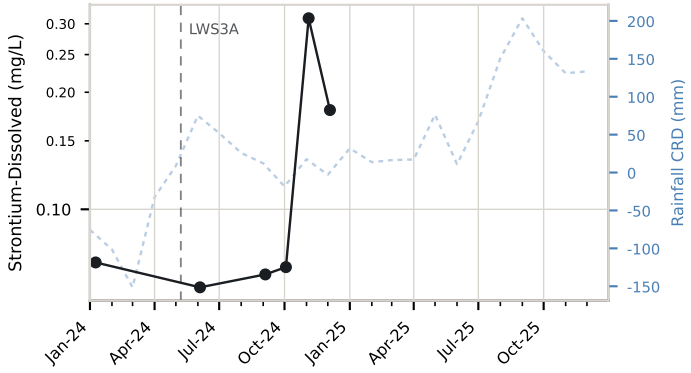
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

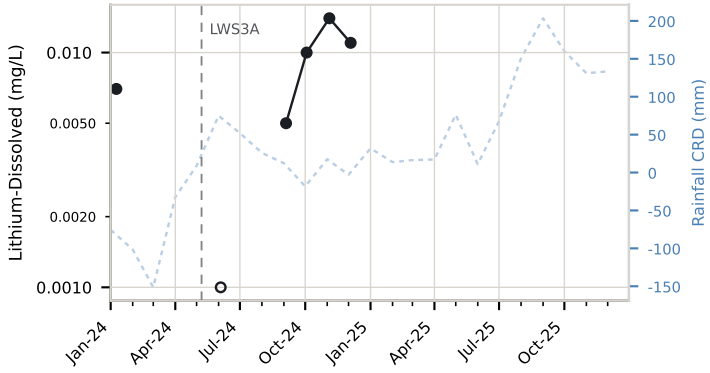
Arsenic-Dissolved



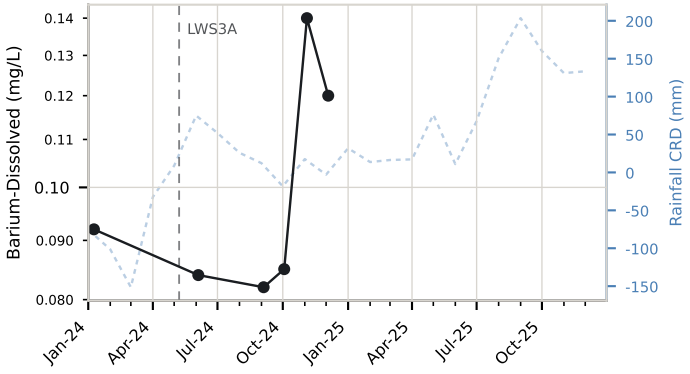
Strontium-Dissolved



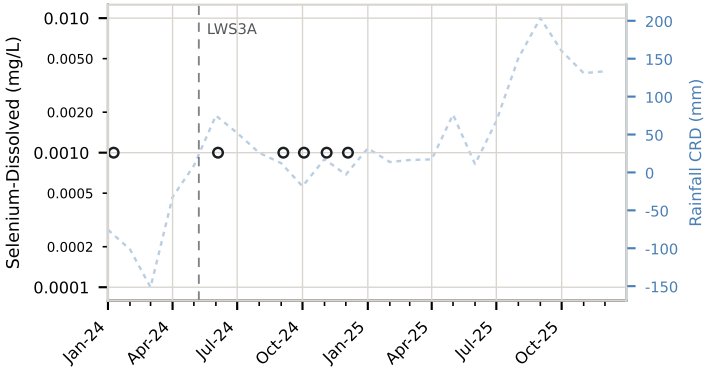
Lithium-Dissolved



Barium-Dissolved



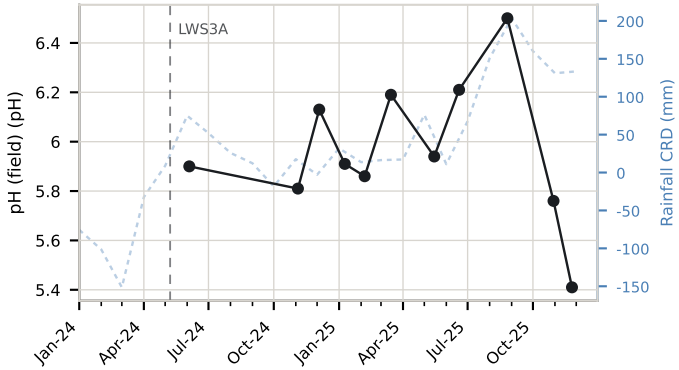
Selenium-Dissolved



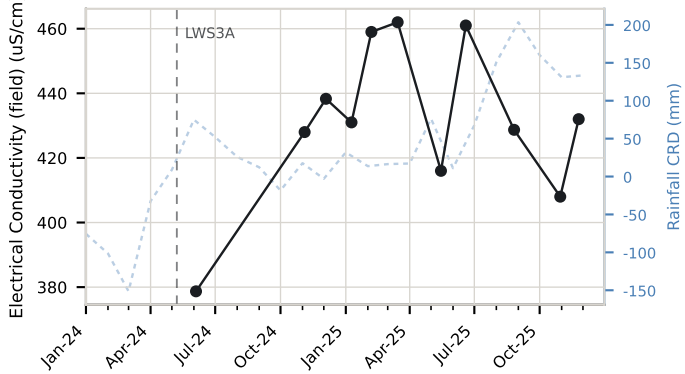
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

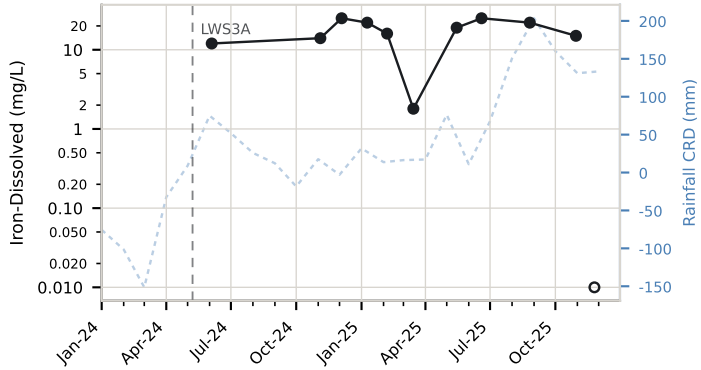
pH (field)



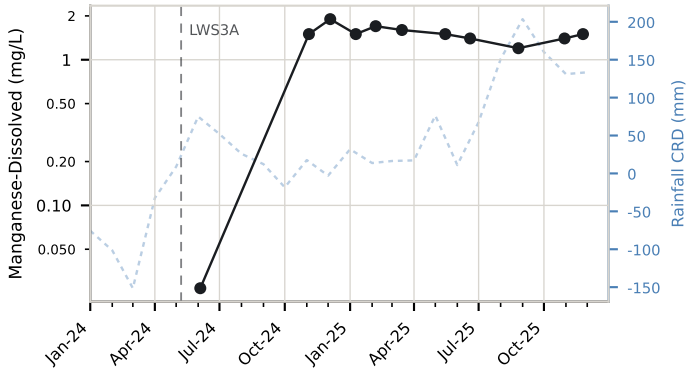
Electrical Conductivity (field)



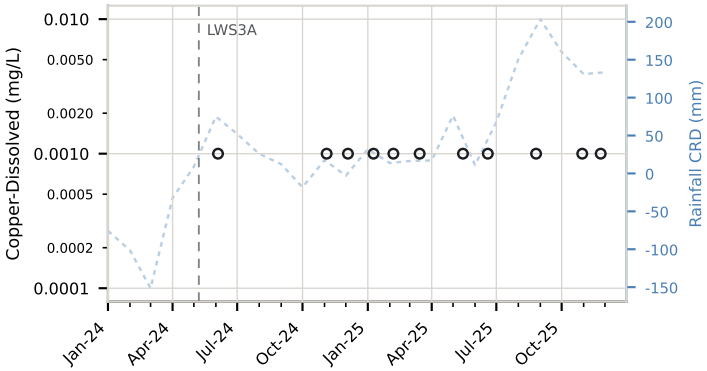
Iron-Dissolved



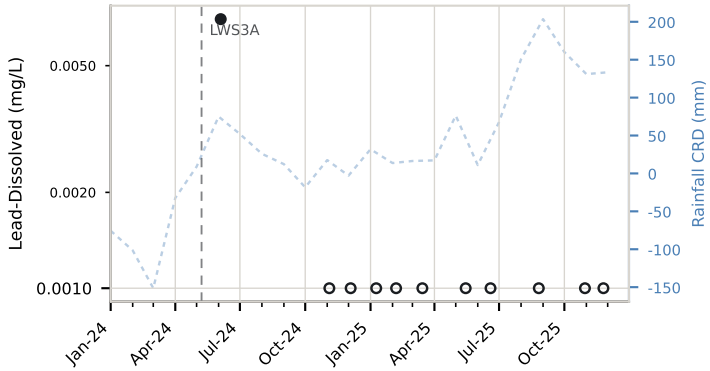
Manganese-Dissolved



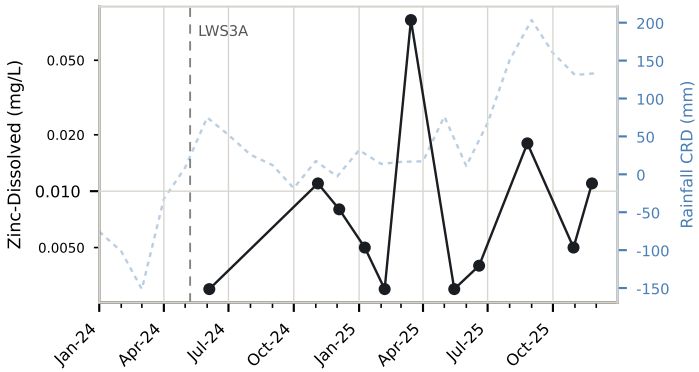
Copper-Dissolved



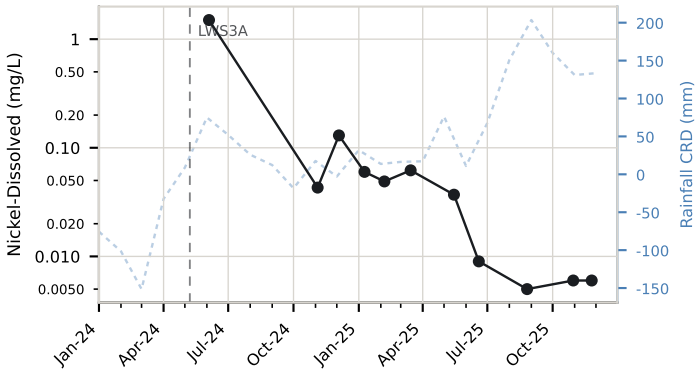
Lead-Dissolved



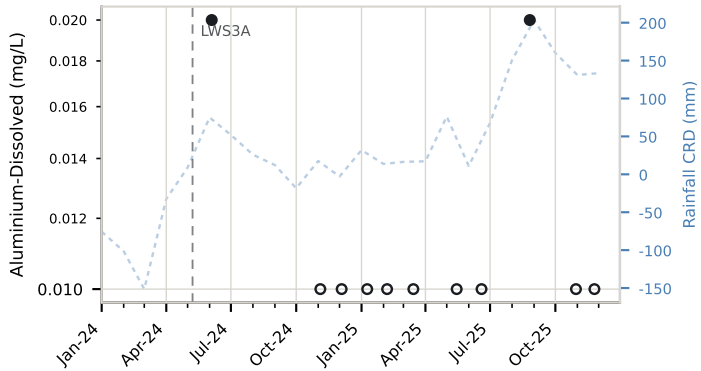
Zinc-Dissolved



Nickel-Dissolved



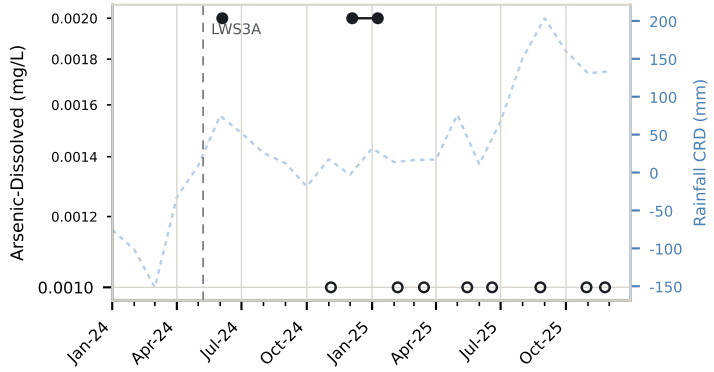
Aluminium-Dissolved



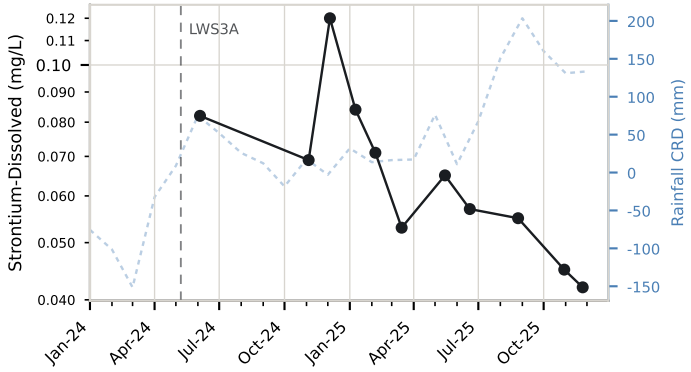
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

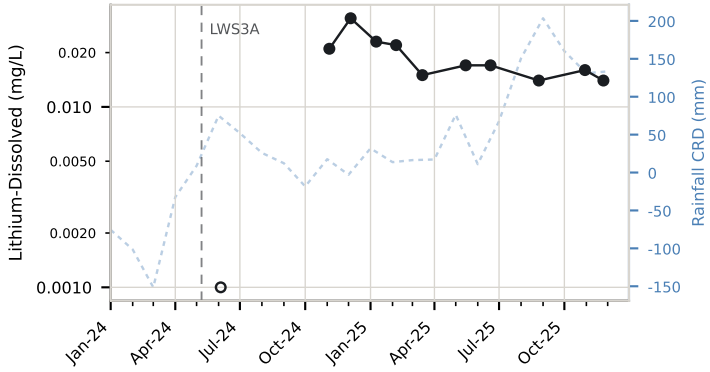
Arsenic-Dissolved



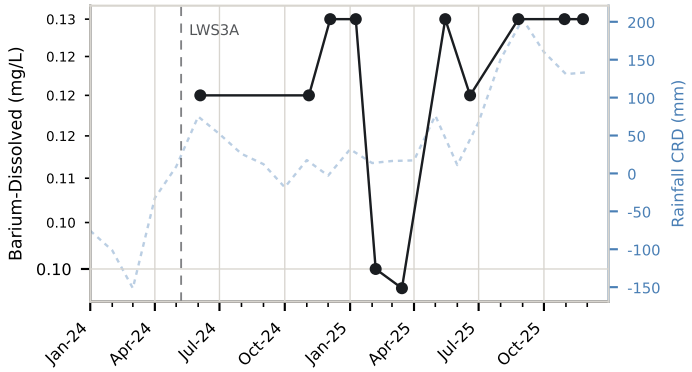
Strontium-Dissolved



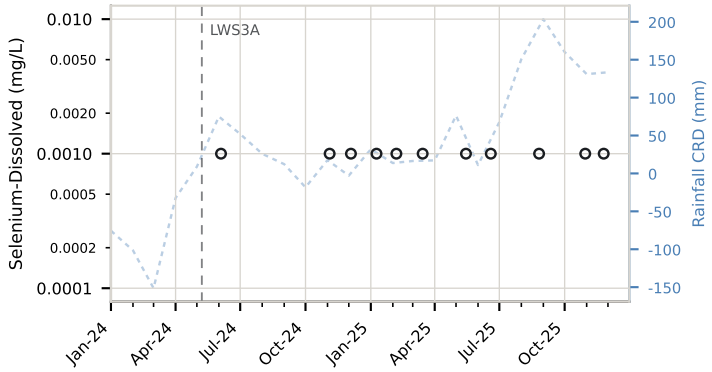
Lithium-Dissolved



Barium-Dissolved



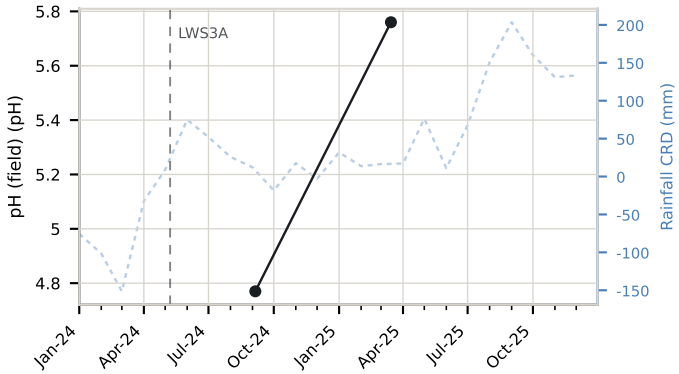
Selenium-Dissolved



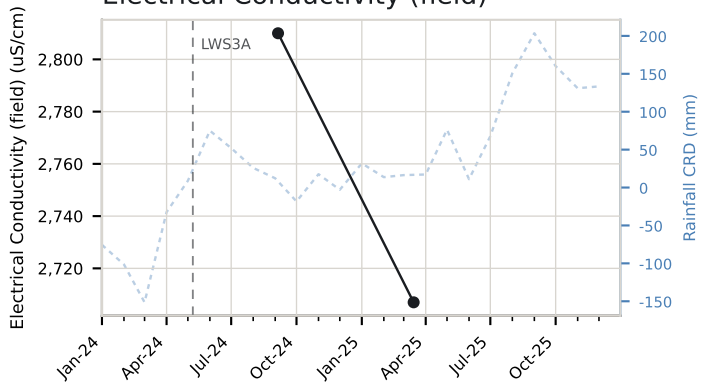
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

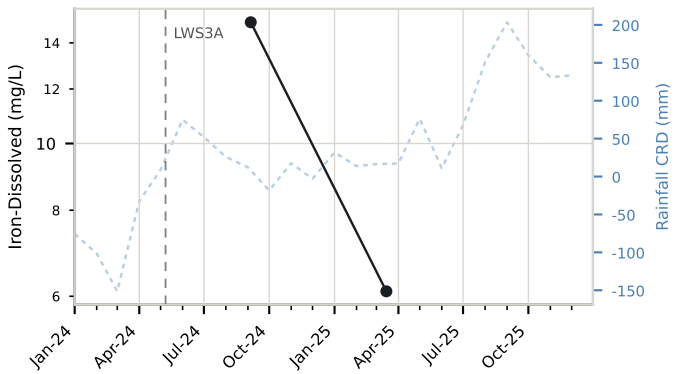
pH (field)



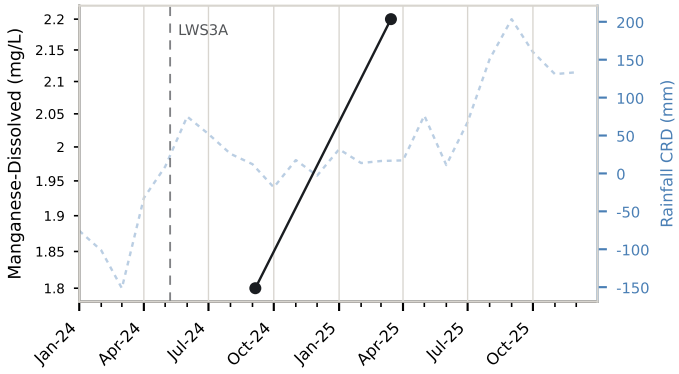
Electrical Conductivity (field)



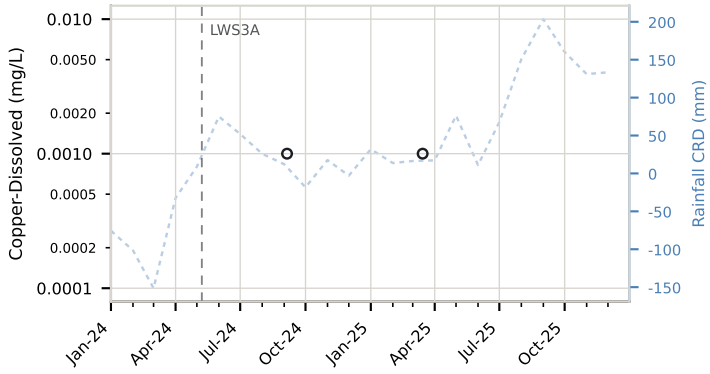
Iron-Dissolved



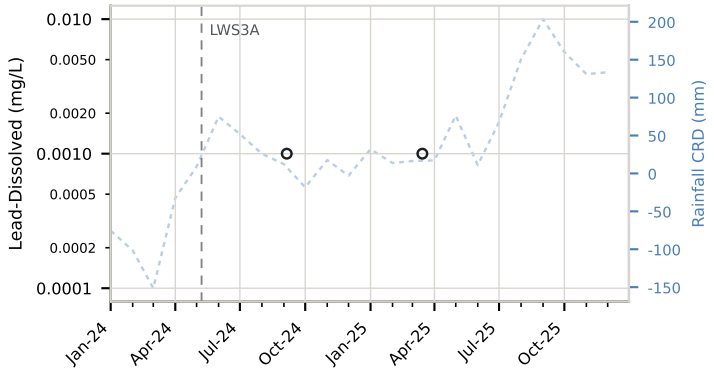
Manganese-Dissolved



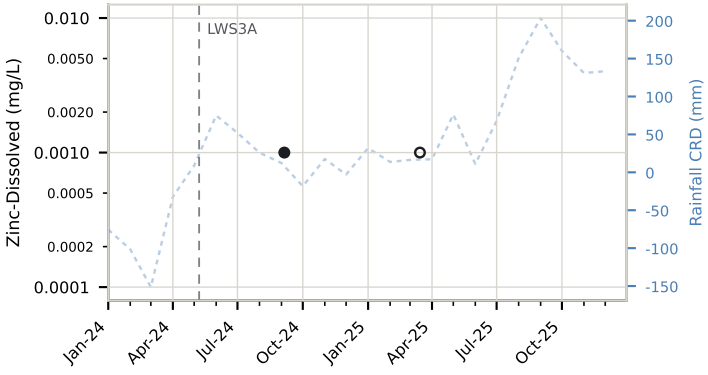
Copper-Dissolved



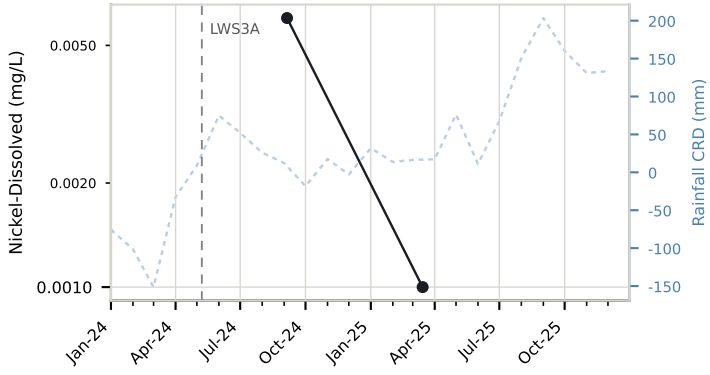
Lead-Dissolved



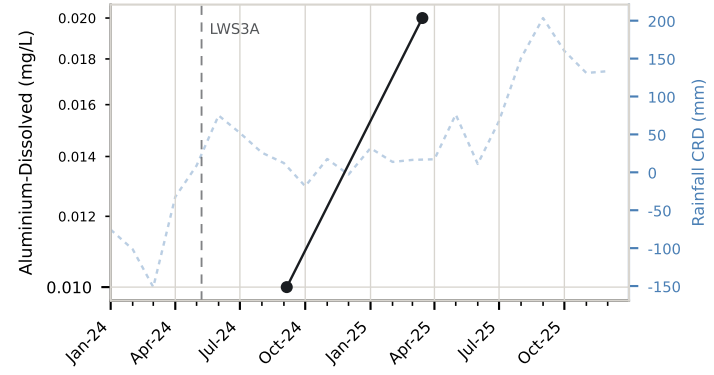
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)
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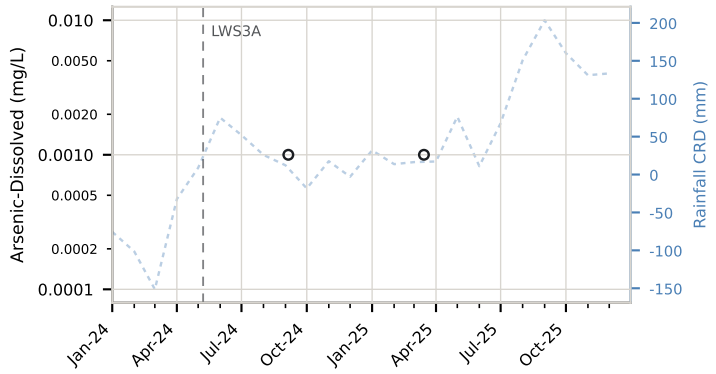
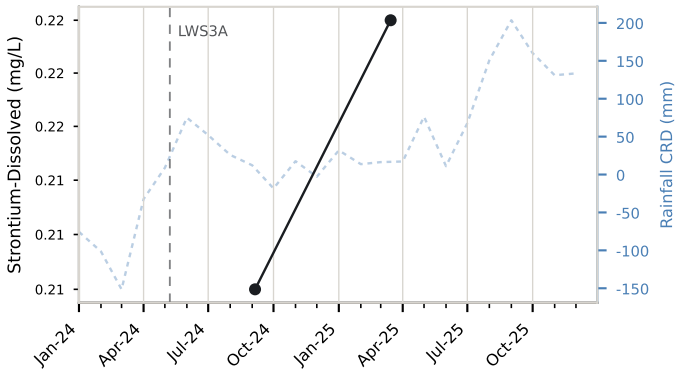
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

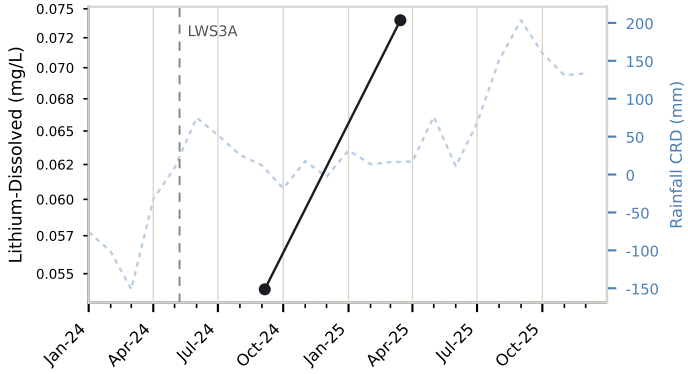
Arsenic-Dissolved



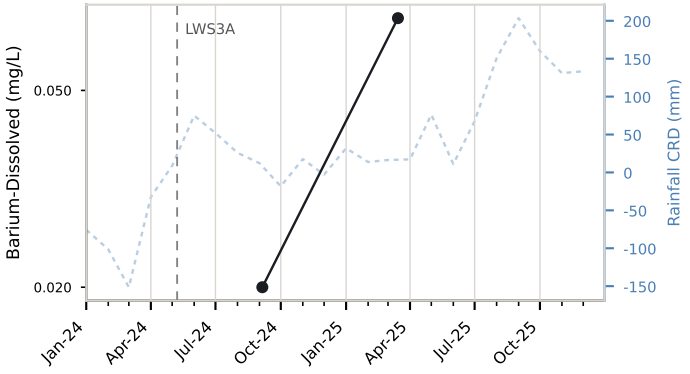
Strontium-Dissolved



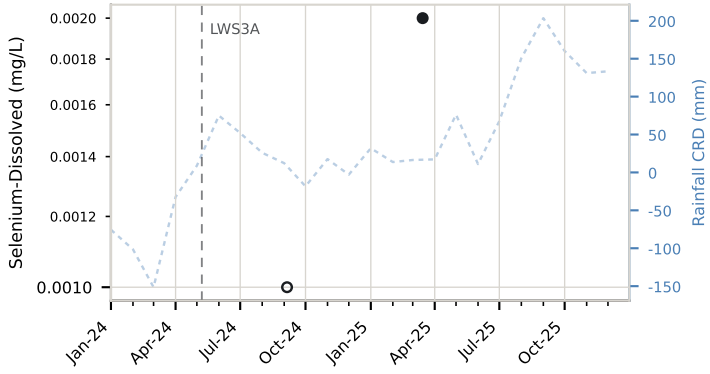
Lithium-Dissolved



Barium-Dissolved



Selenium-Dissolved



Result (detected)
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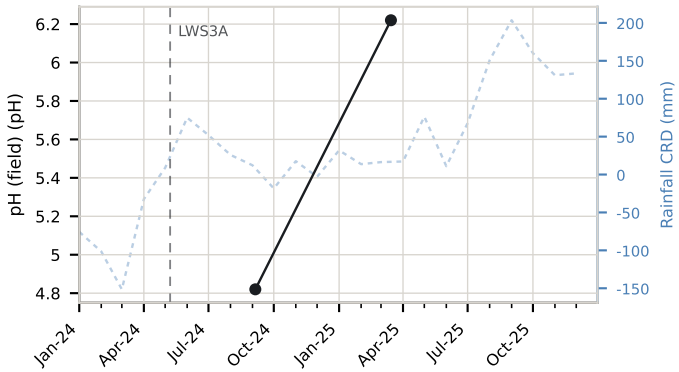
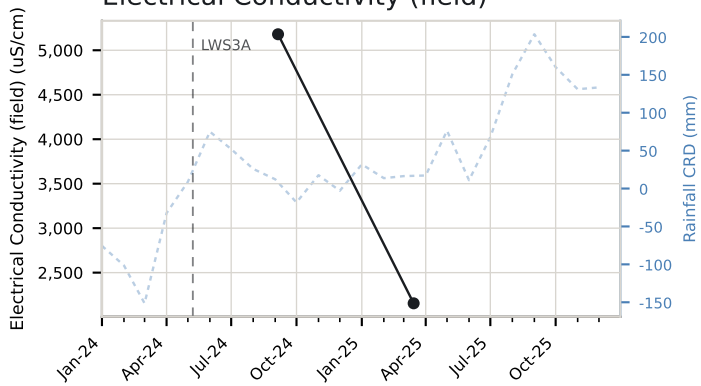
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

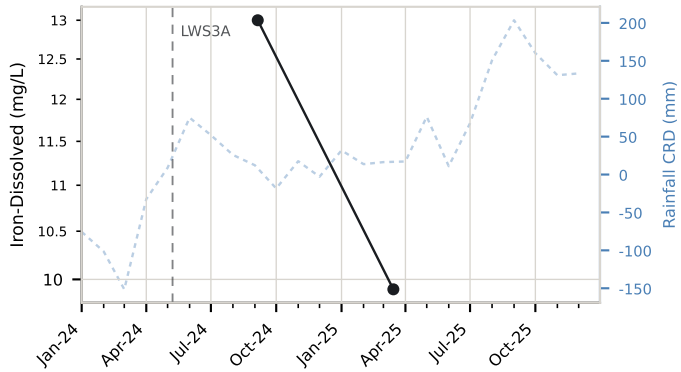
pH (field)



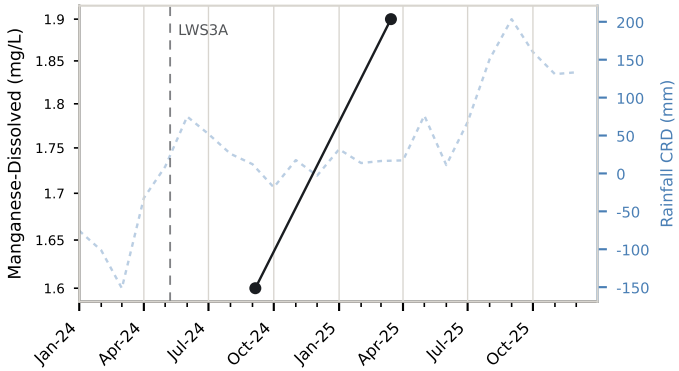
Electrical Conductivity (field)



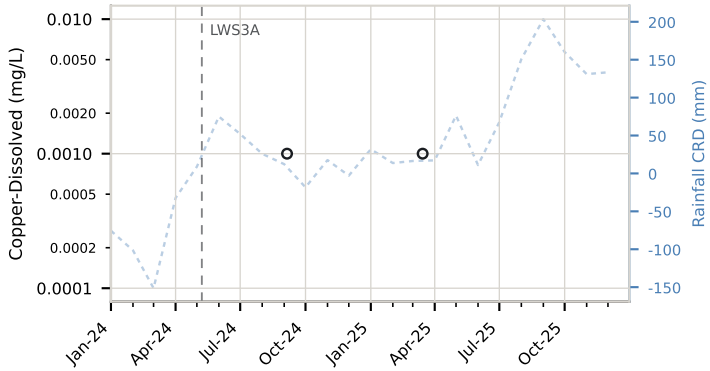
Iron-Dissolved



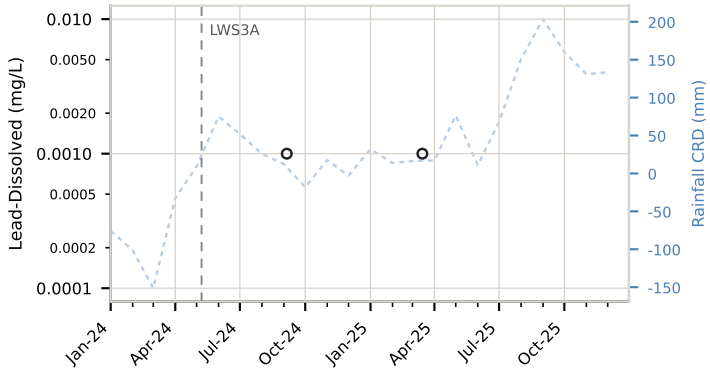
Manganese-Dissolved



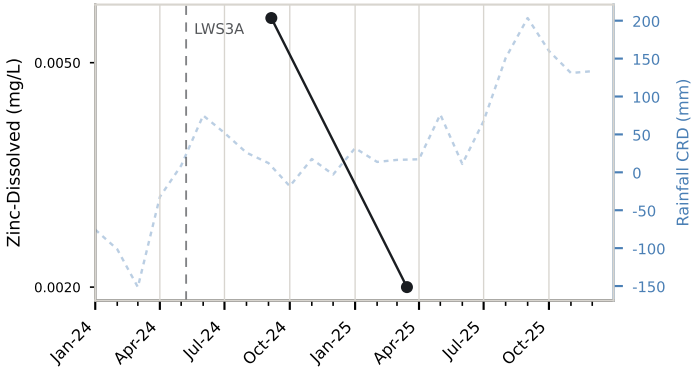
Copper-Dissolved



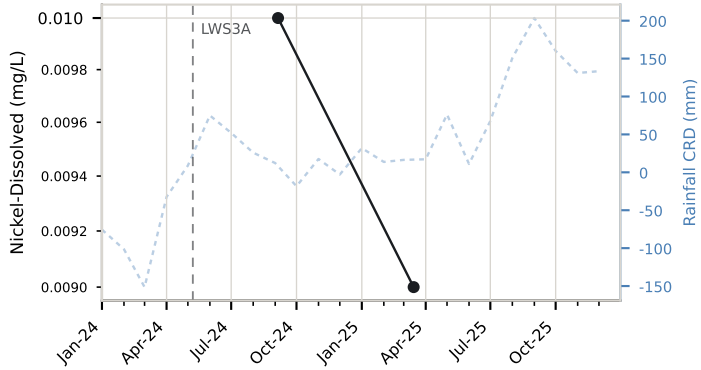
Lead-Dissolved



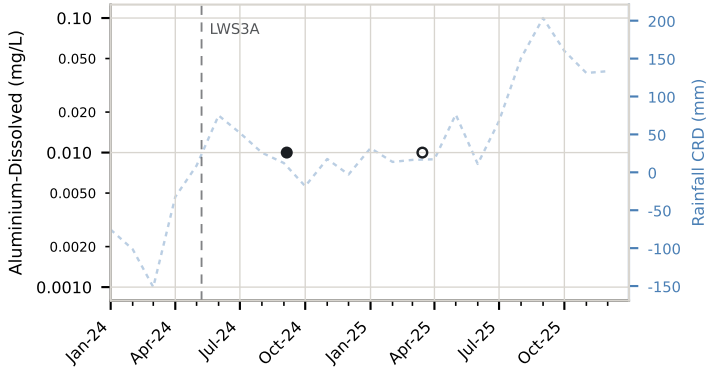
Zinc-Dissolved



Nickel-Dissolved



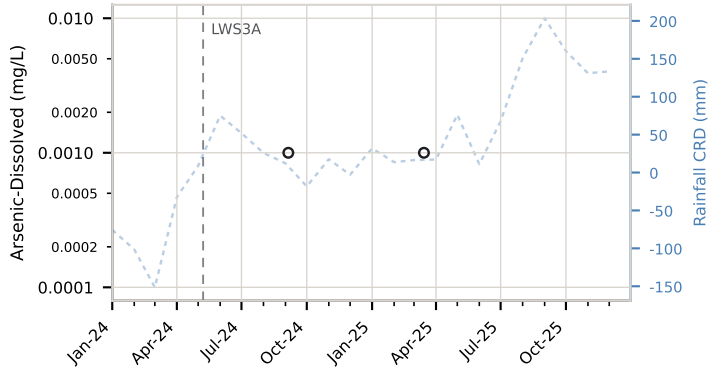
Aluminium-Dissolved



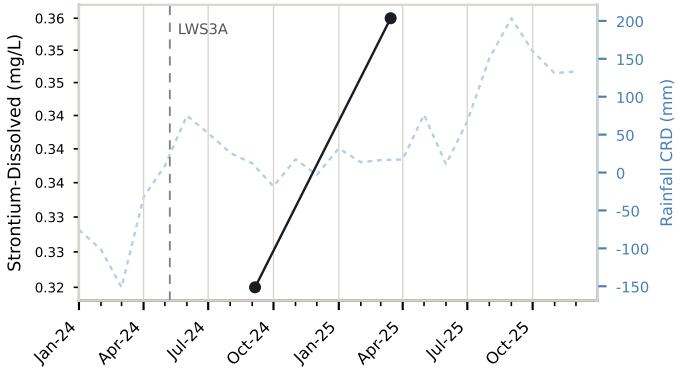
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

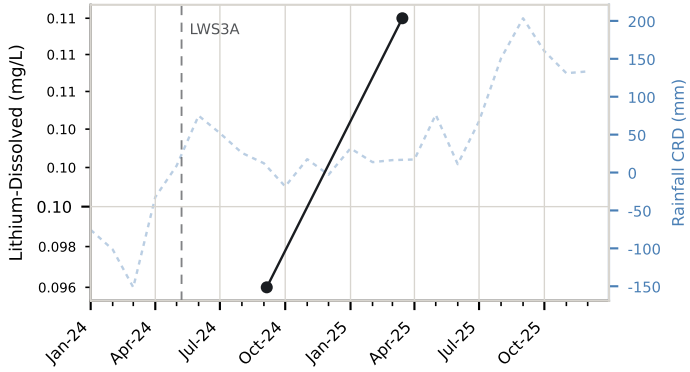
Arsenic-Dissolved



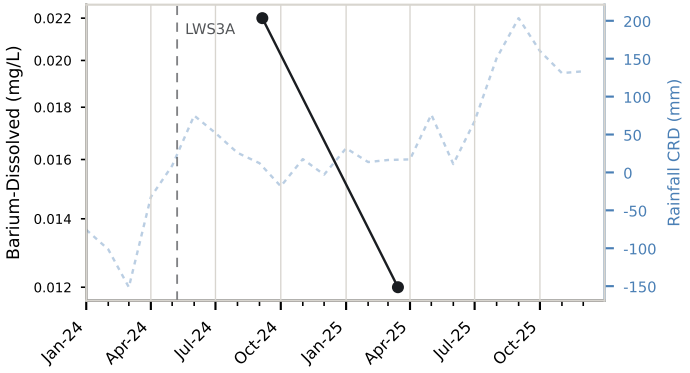
Strontium-Dissolved



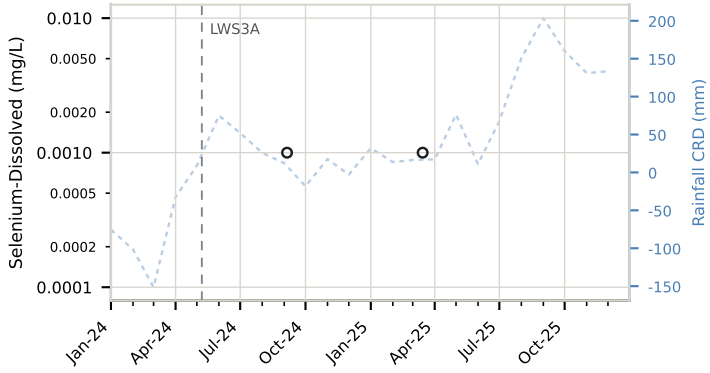
Lithium-Dissolved



Barium-Dissolved



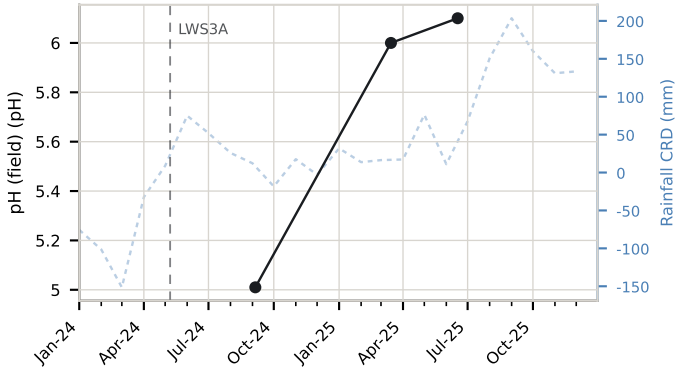
Selenium-Dissolved



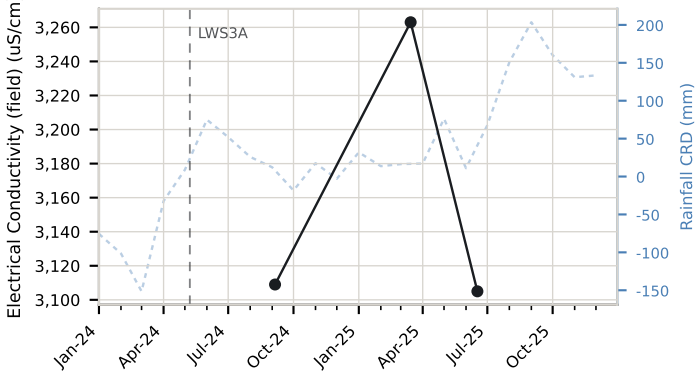
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

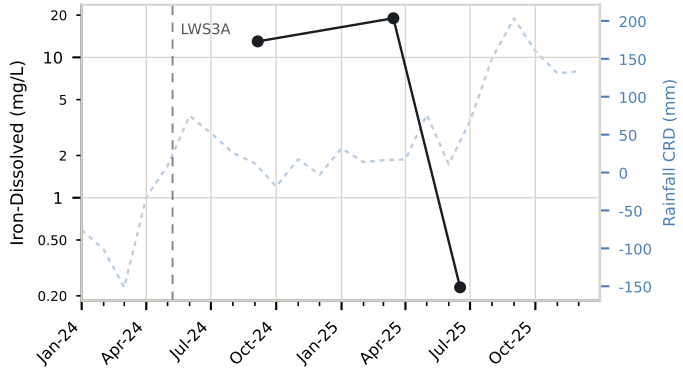
pH (field)



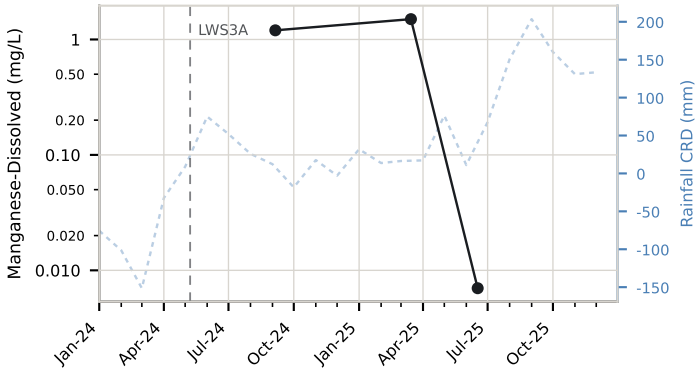
Electrical Conductivity (field)



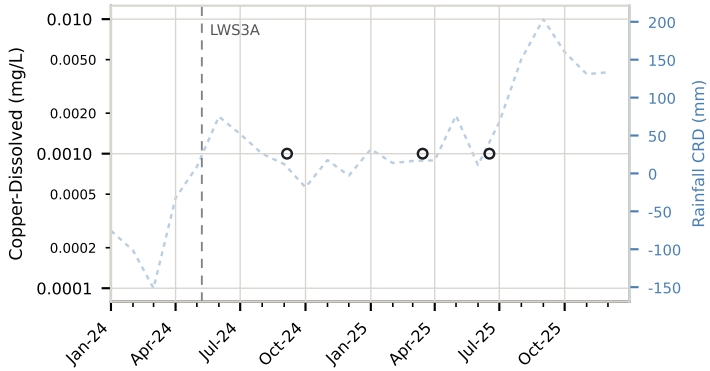
Iron-Dissolved



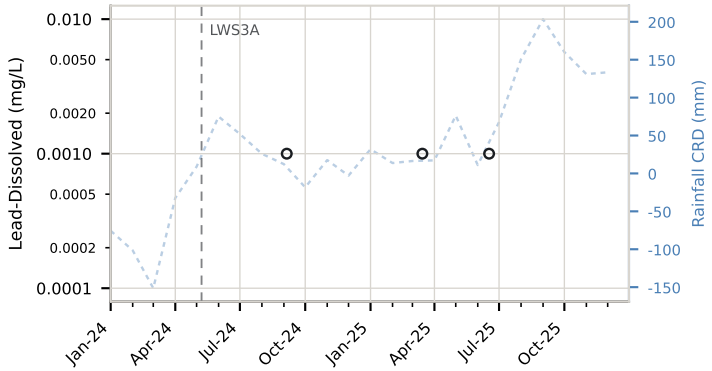
Manganese-Dissolved



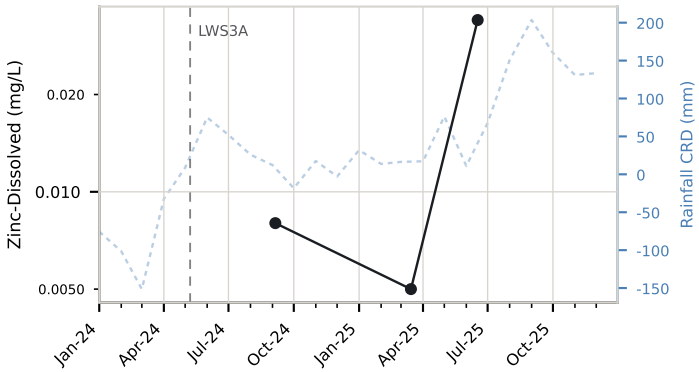
Copper-Dissolved



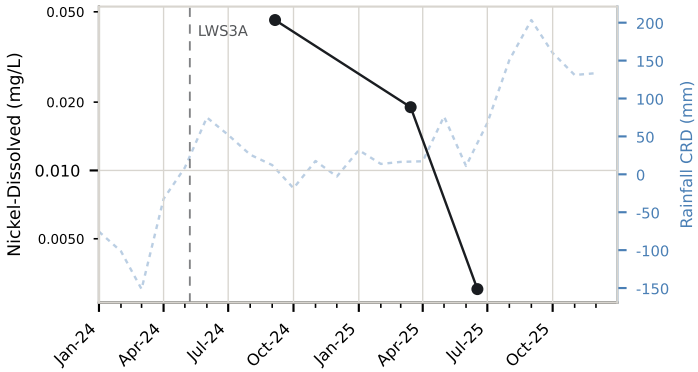
Lead-Dissolved



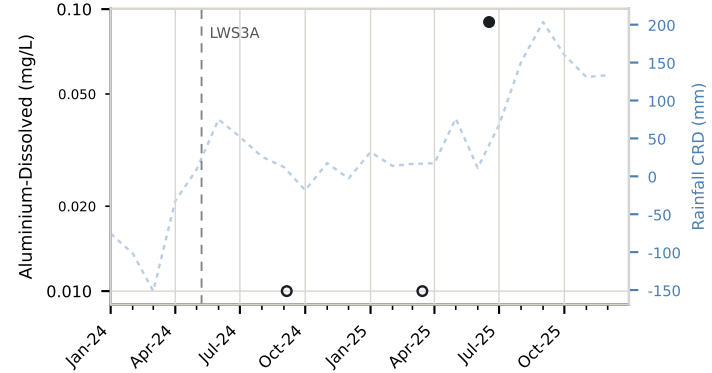
Zinc-Dissolved



Nickel-Dissolved



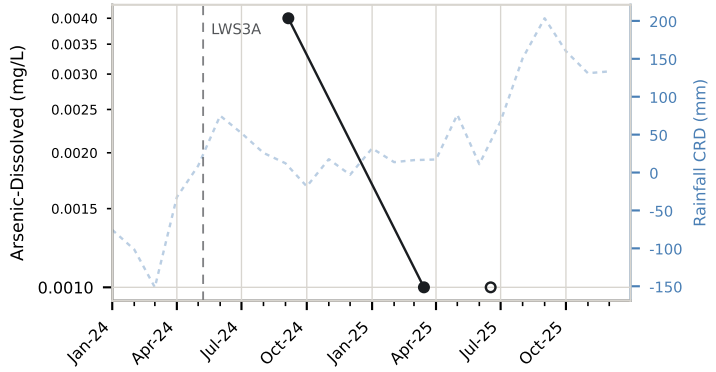
Aluminium-Dissolved



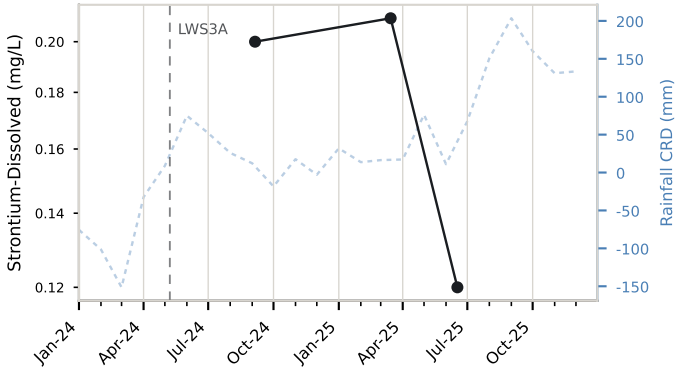
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

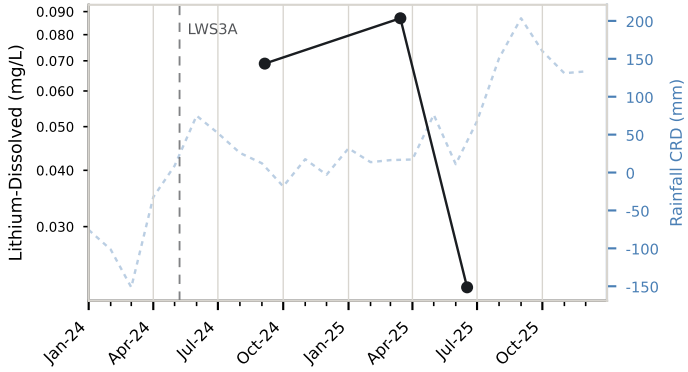
Arsenic-Dissolved



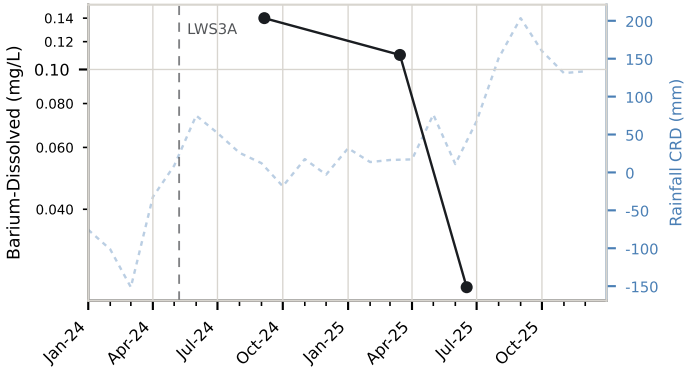
Strontium-Dissolved



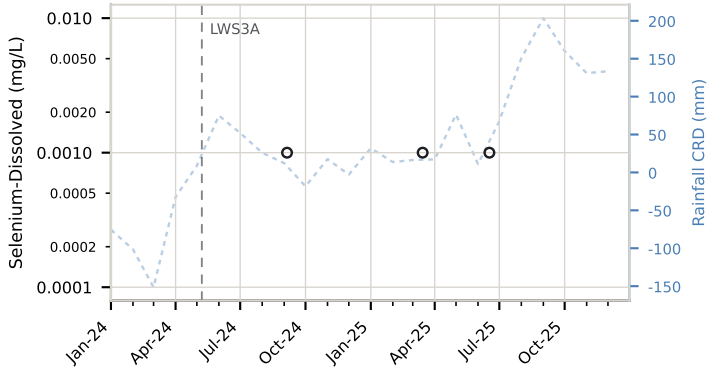
Lithium-Dissolved



Barium-Dissolved

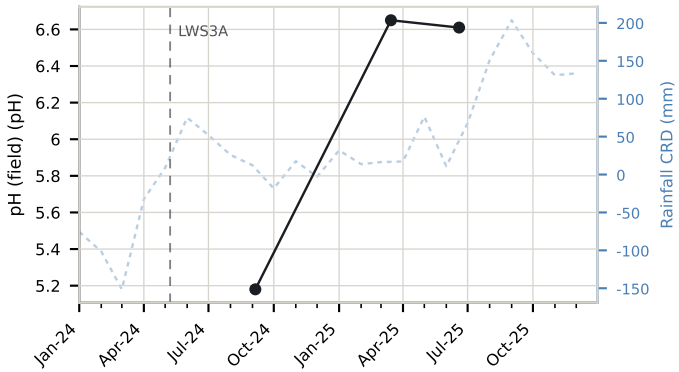


Selenium-Dissolved

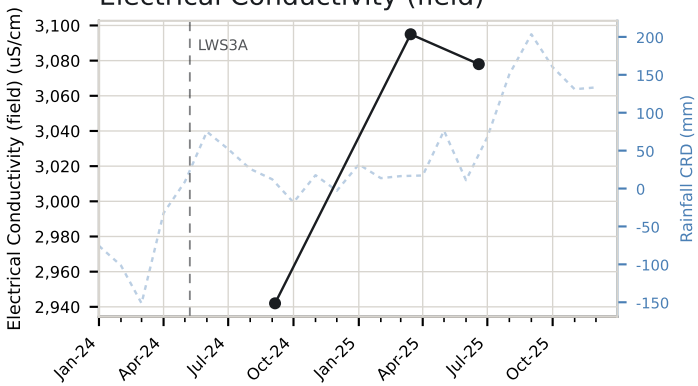


Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

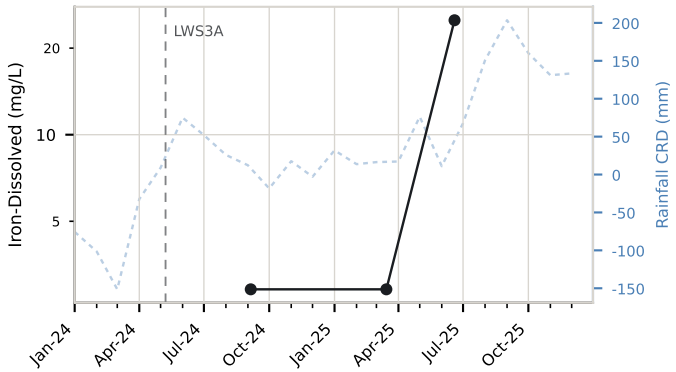
pH (field)



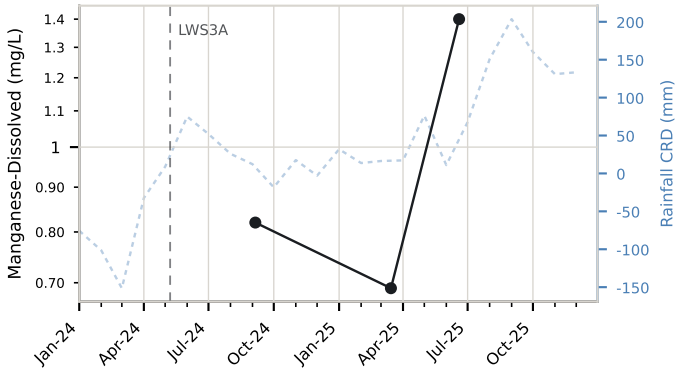
Electrical Conductivity (field)



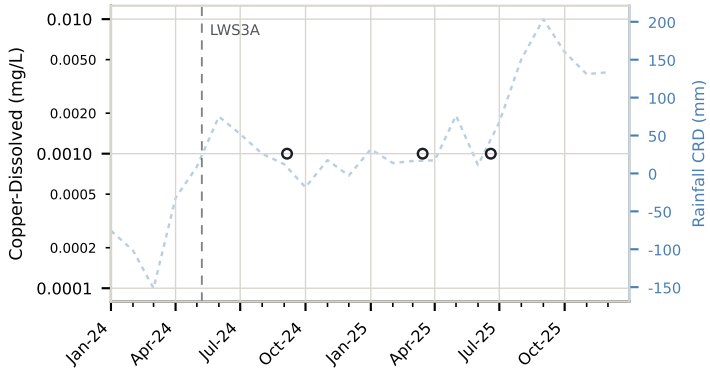
Iron-Dissolved



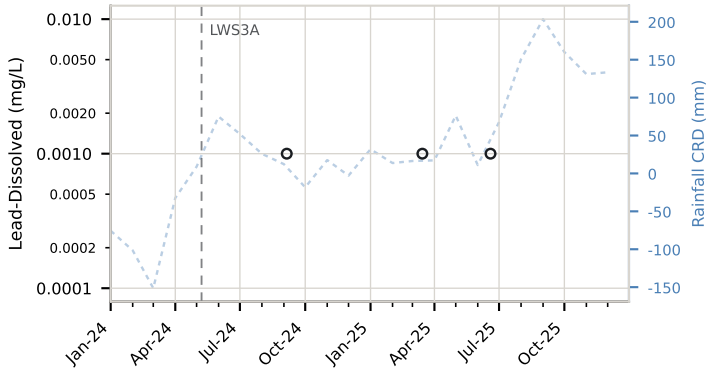
Manganese-Dissolved



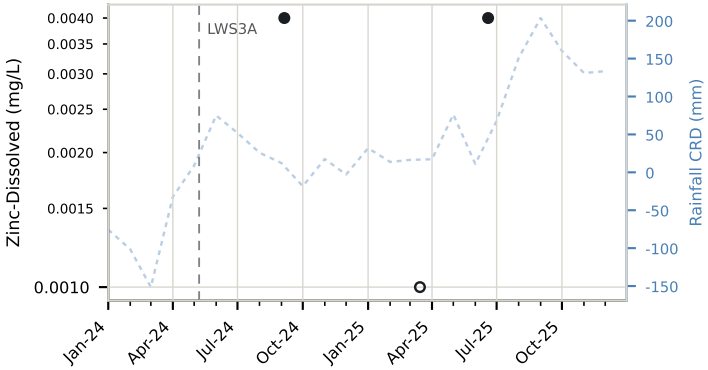
Copper-Dissolved



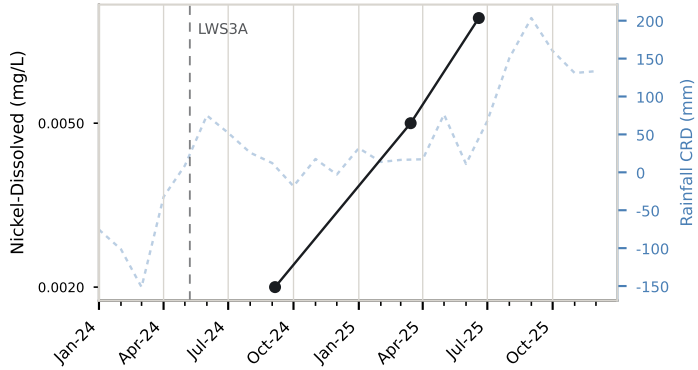
Lead-Dissolved



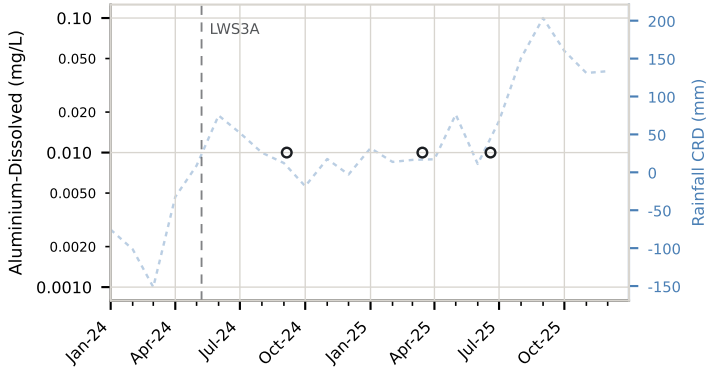
Zinc-Dissolved



Nickel-Dissolved



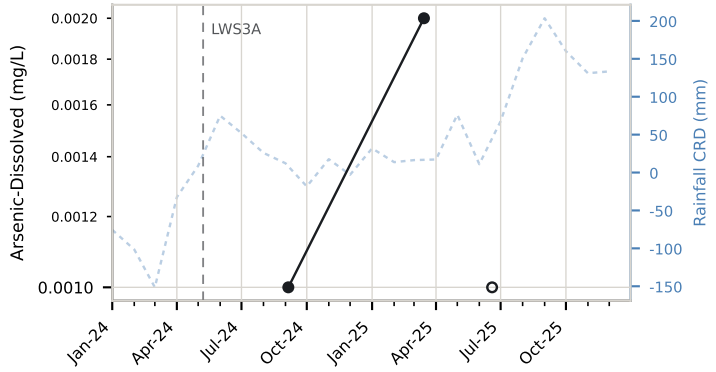
Aluminium-Dissolved



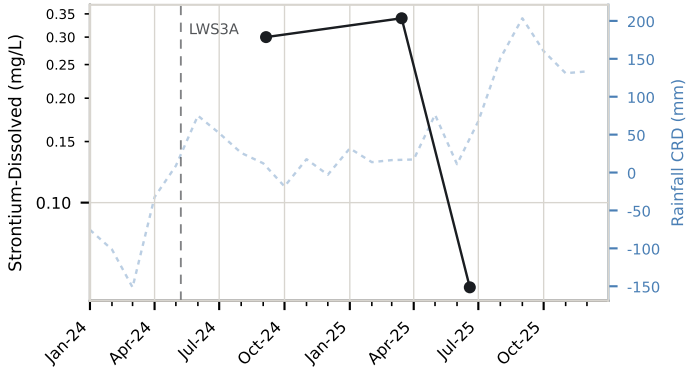
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

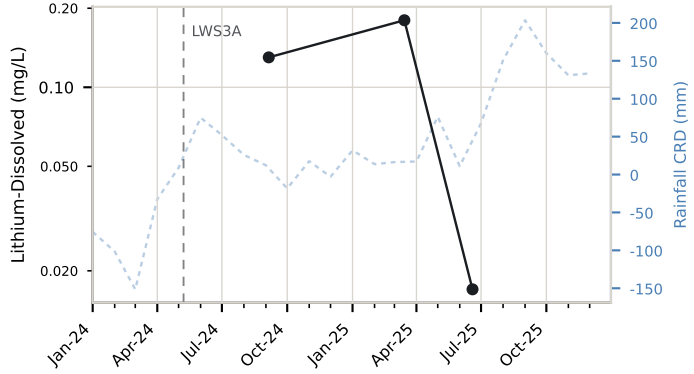
Arsenic-Dissolved



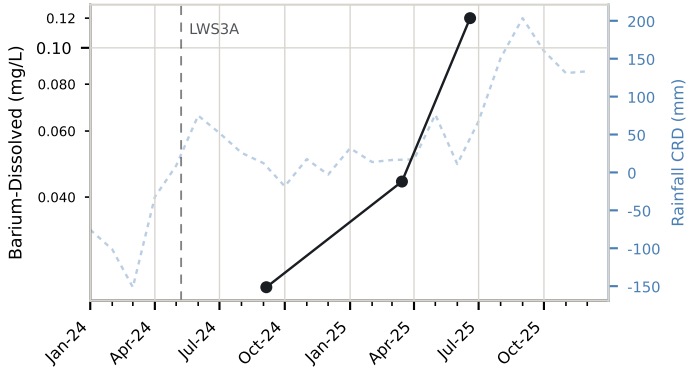
Strontium-Dissolved



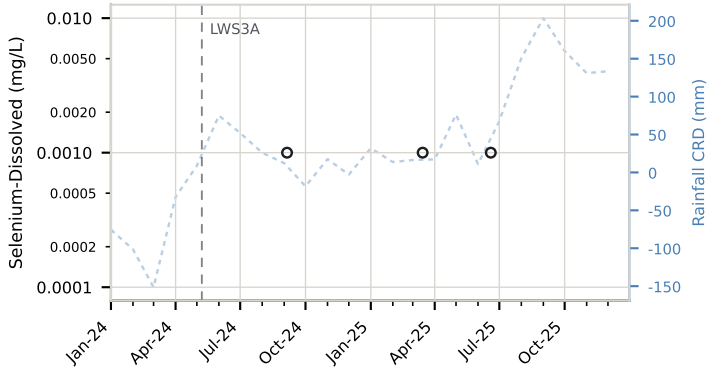
Lithium-Dissolved



Barium-Dissolved



Selenium-Dissolved



Result (detected)
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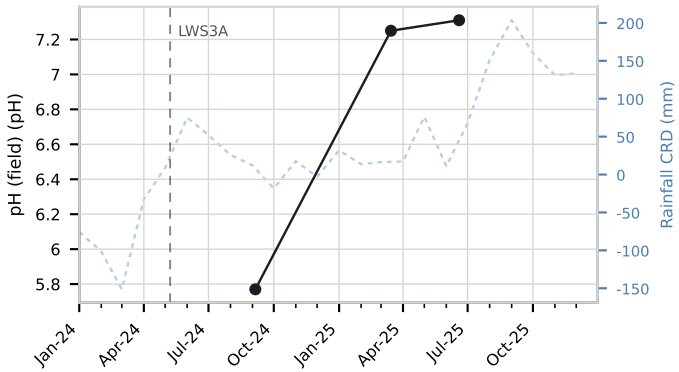
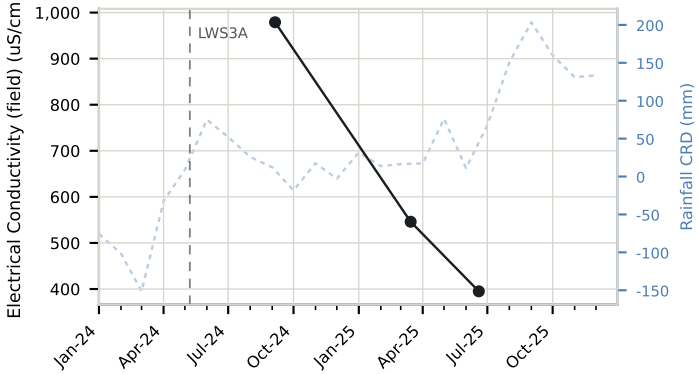
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

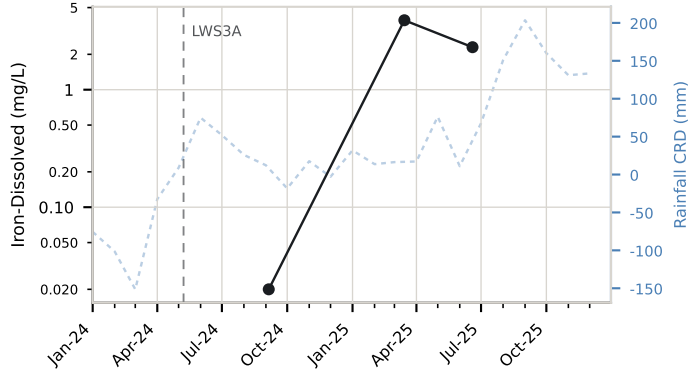
pH (field)



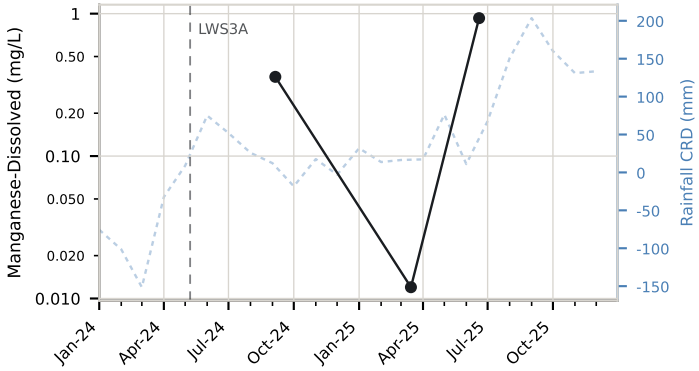
Electrical Conductivity (field)



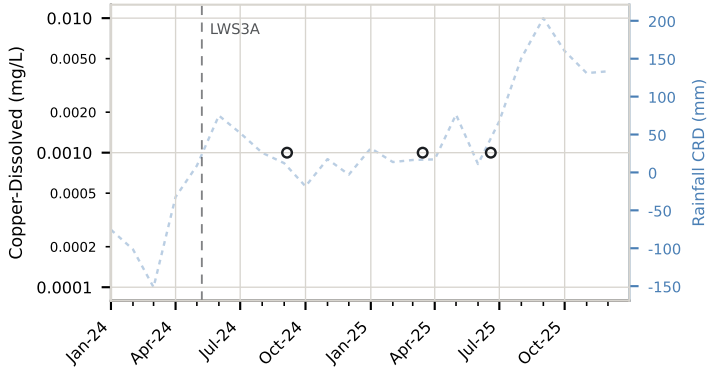
Iron-Dissolved



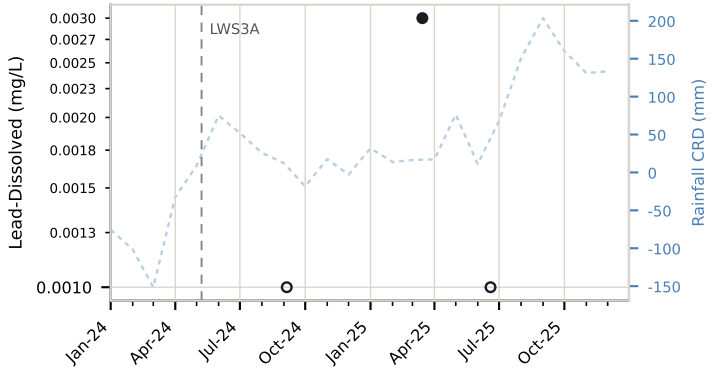
Manganese-Dissolved



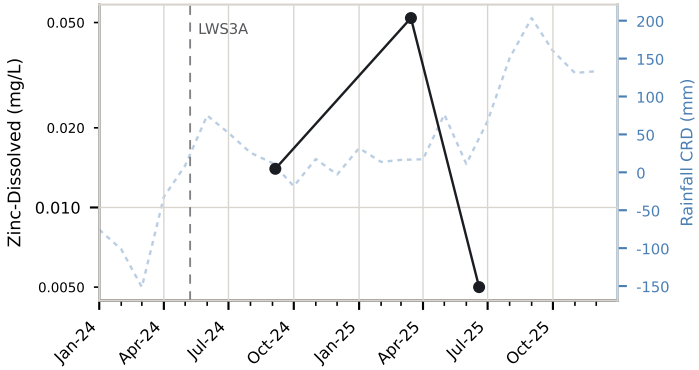
Copper-Dissolved



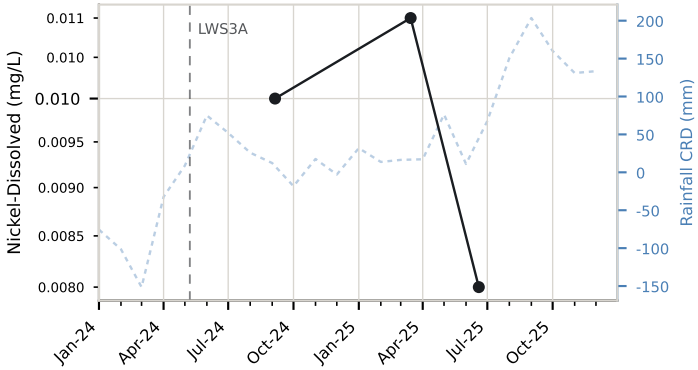
Lead-Dissolved



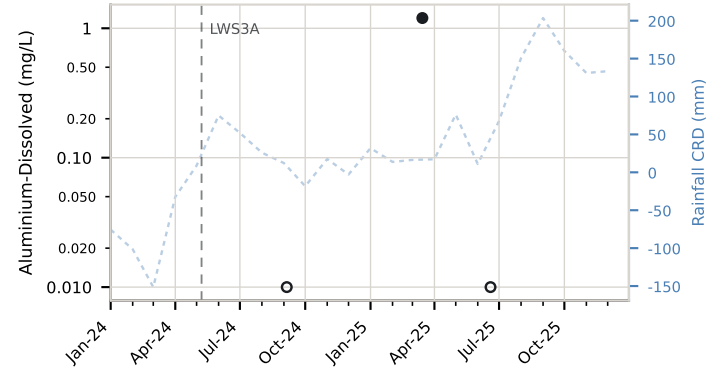
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)
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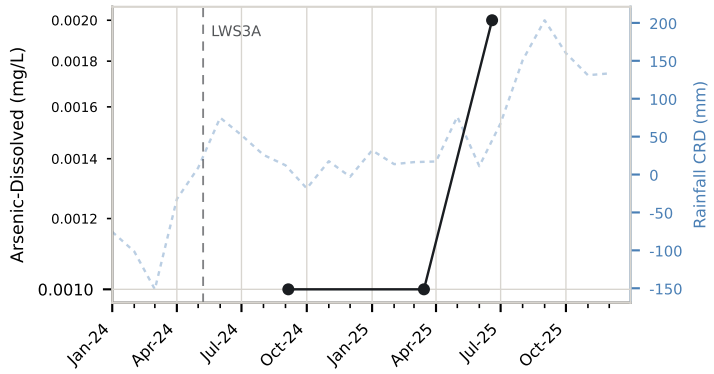
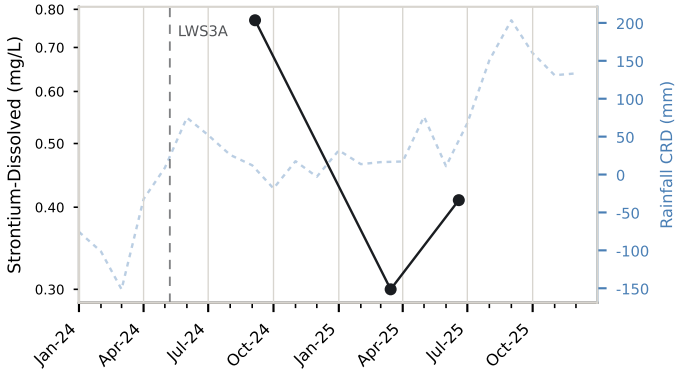
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

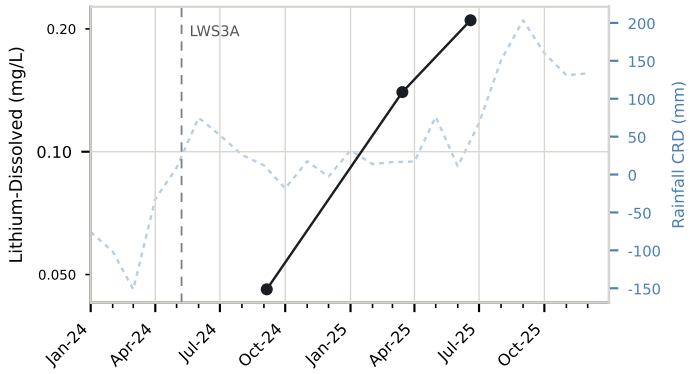
Arsenic-Dissolved



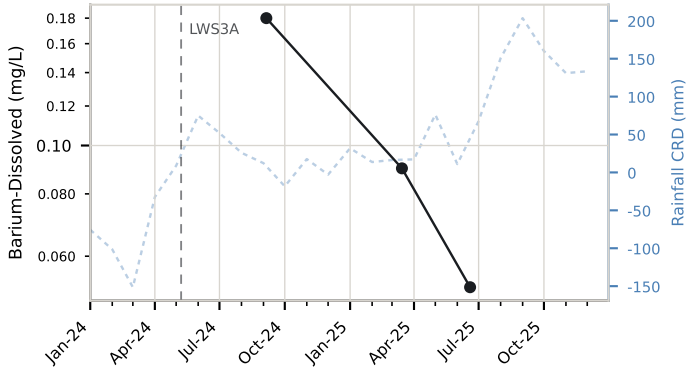
Strontium-Dissolved



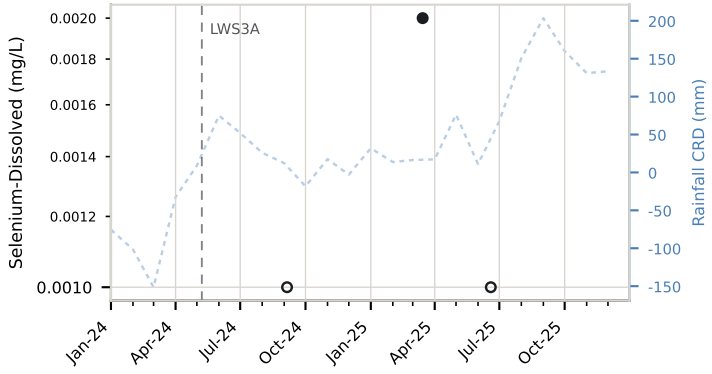
Lithium-Dissolved



Barium-Dissolved



Selenium-Dissolved



Result (detected)
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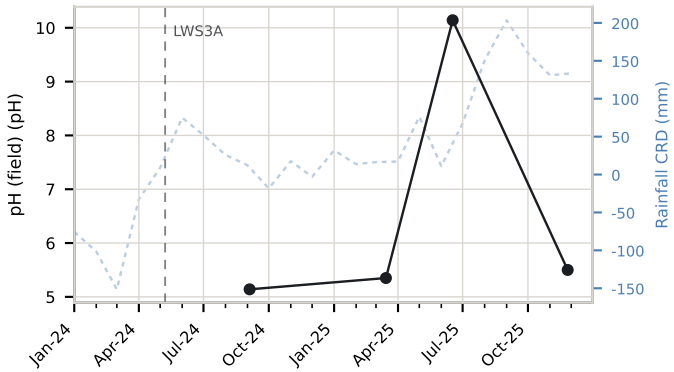
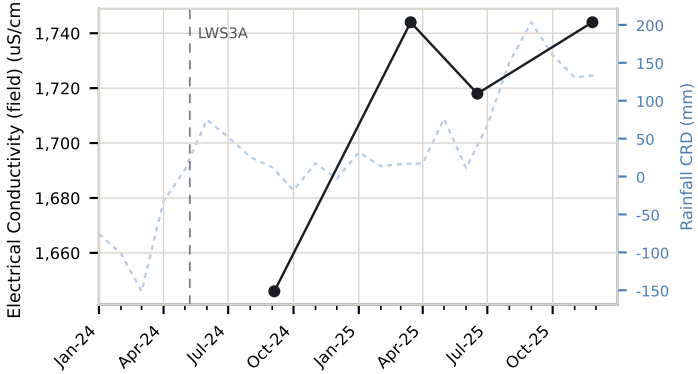
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

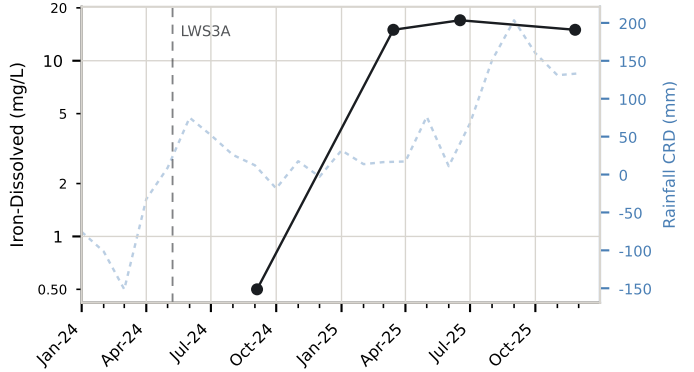
pH (field)



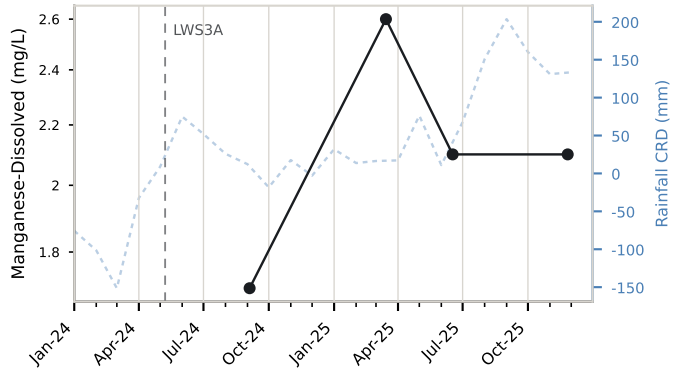
Electrical Conductivity (field)



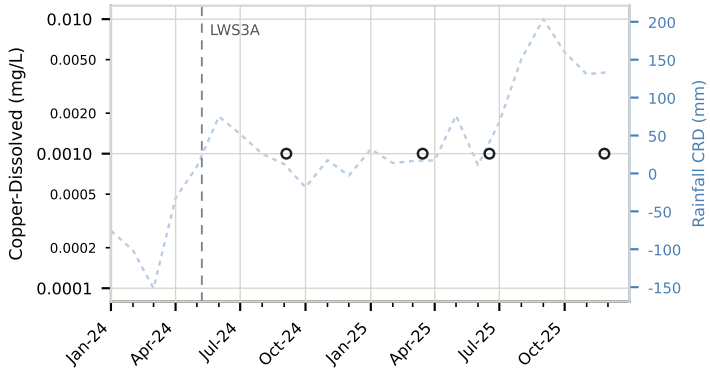
Iron-Dissolved



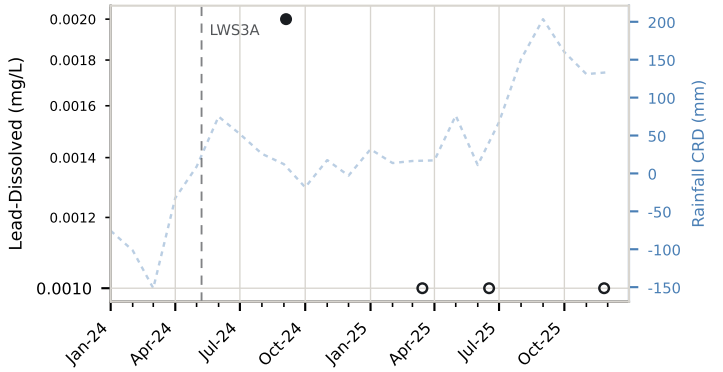
Manganese-Dissolved



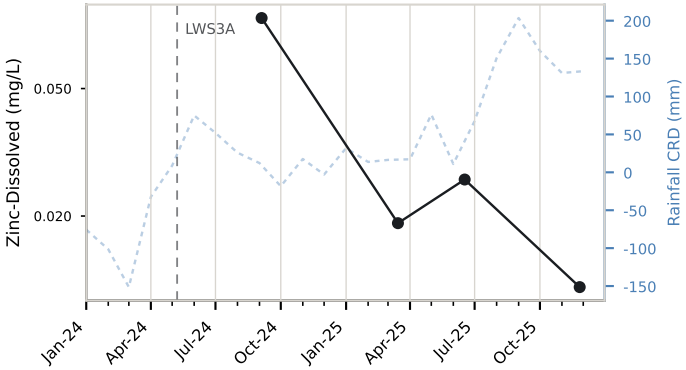
Copper-Dissolved



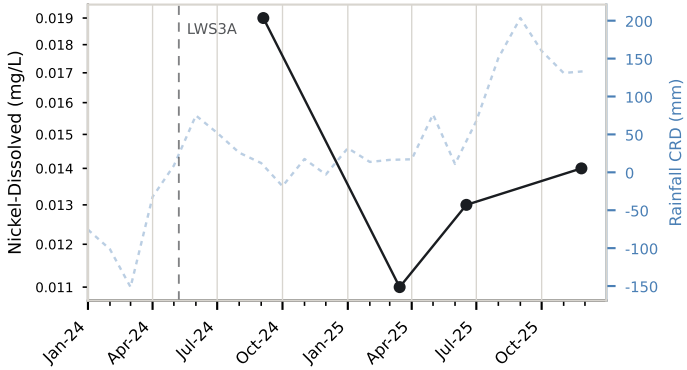
Lead-Dissolved



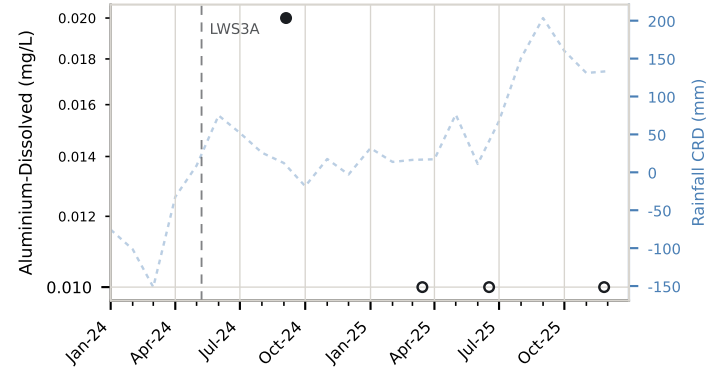
Zinc-Dissolved



Nickel-Dissolved



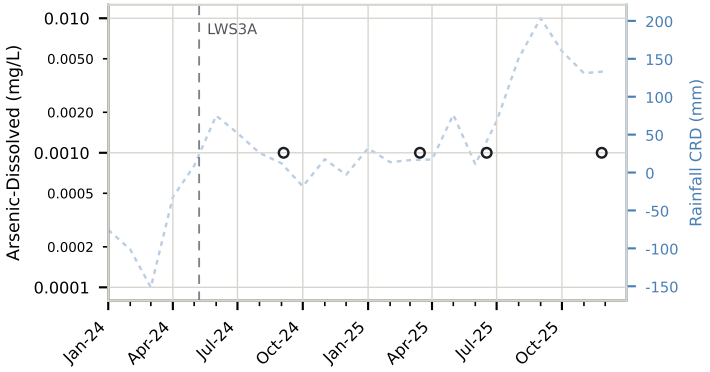
Aluminium-Dissolved



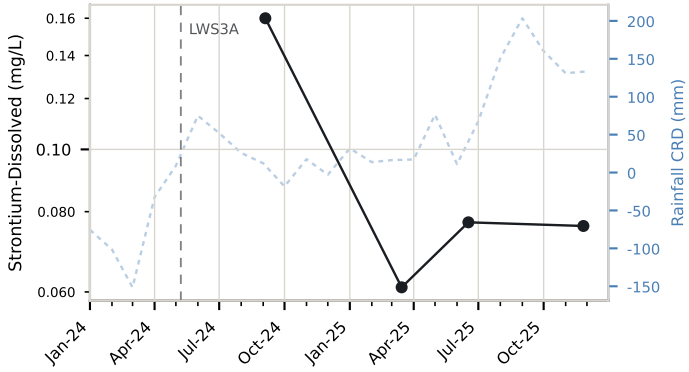
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

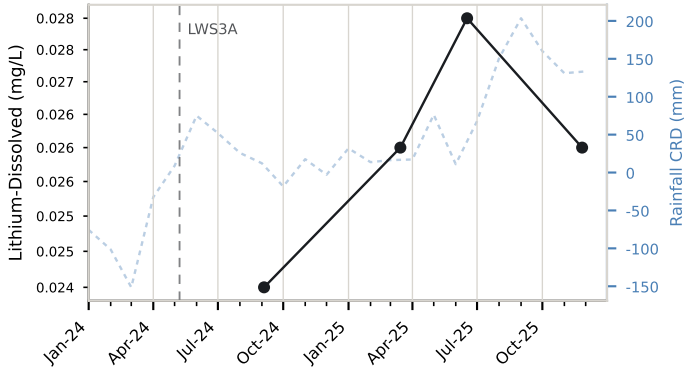
Arsenic-Dissolved



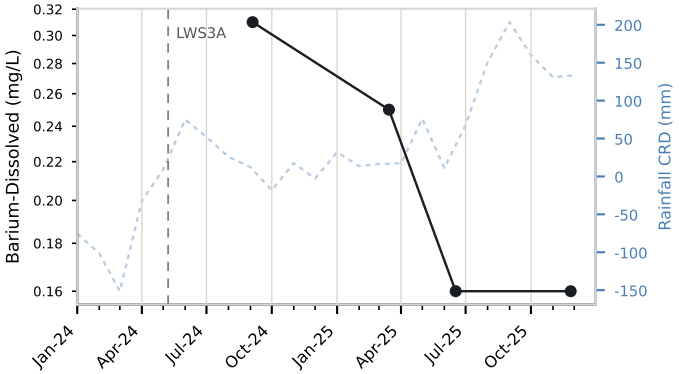
Strontium-Dissolved



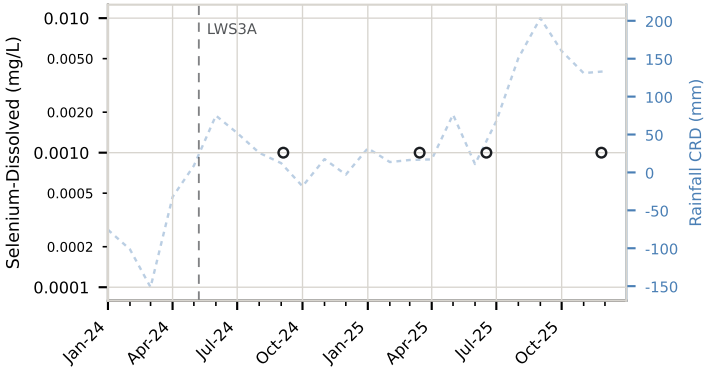
Lithium-Dissolved



Barium-Dissolved



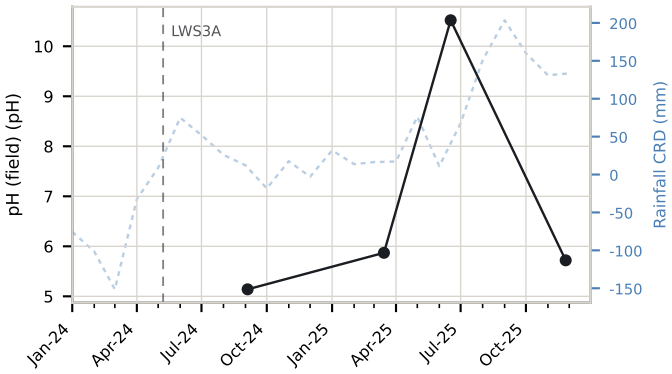
Selenium-Dissolved



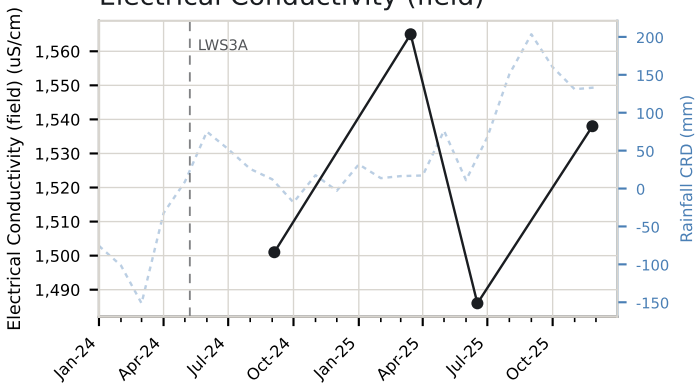
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

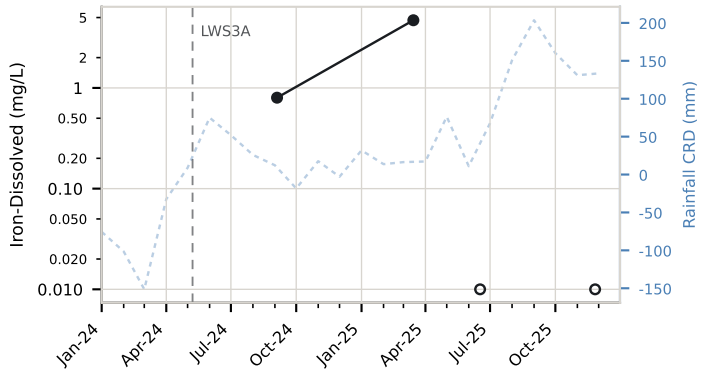
pH (field)



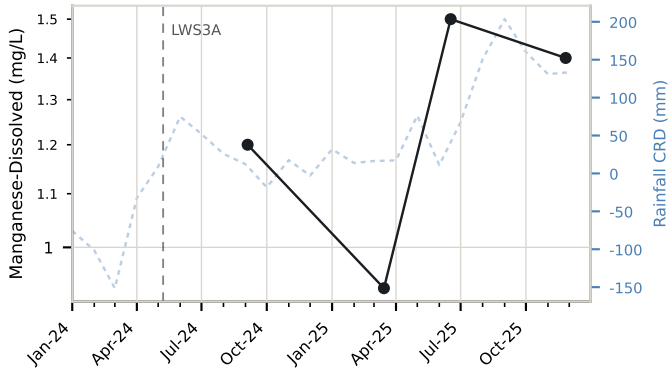
Electrical Conductivity (field)



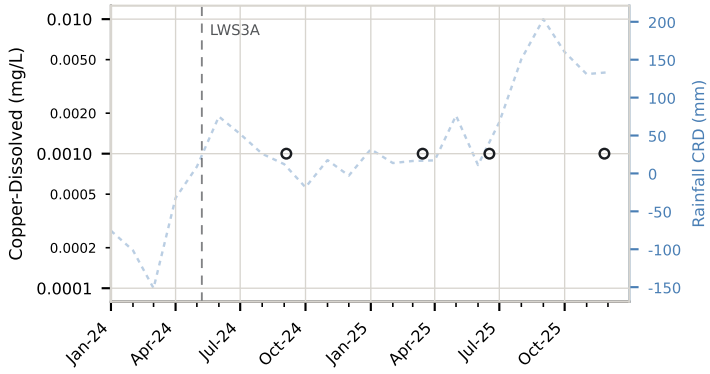
Iron-Dissolved



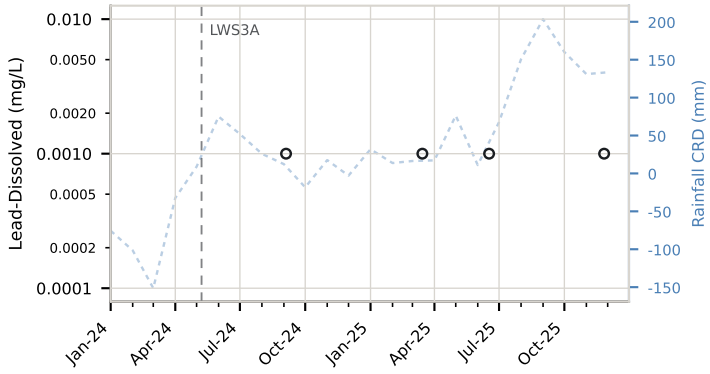
Manganese-Dissolved



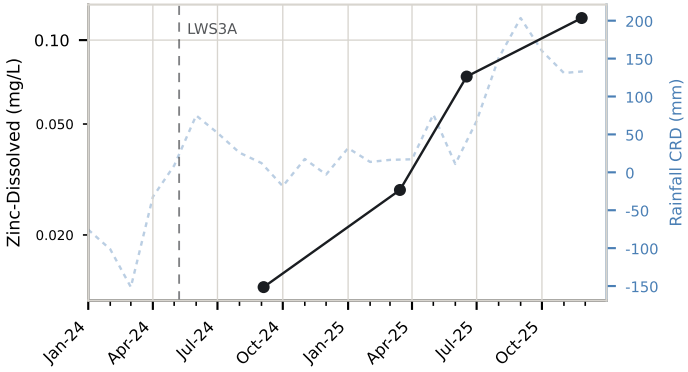
Copper-Dissolved



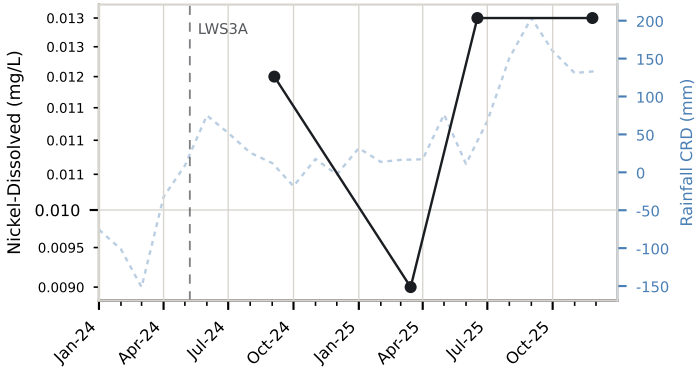
Lead-Dissolved



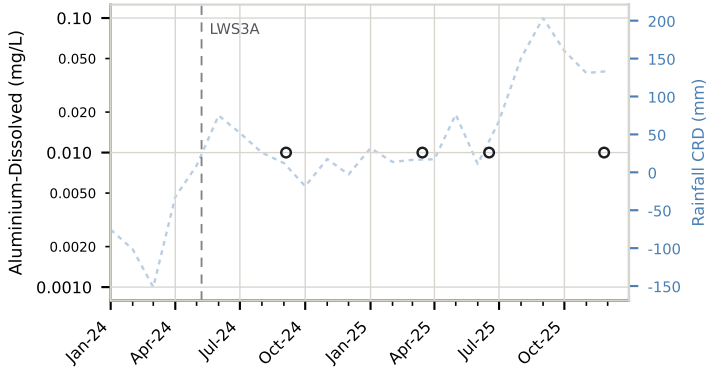
Zinc-Dissolved



Nickel-Dissolved

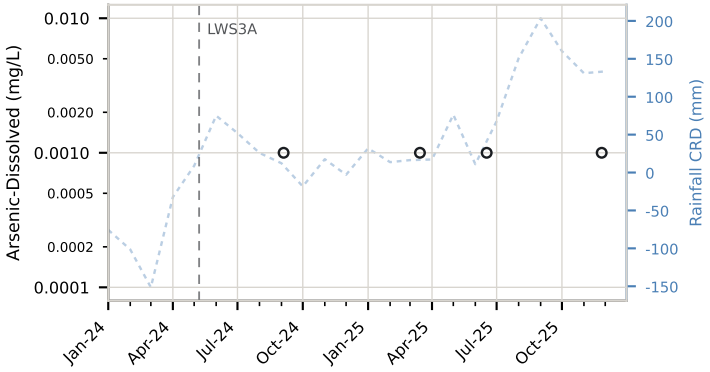


Aluminium-Dissolved

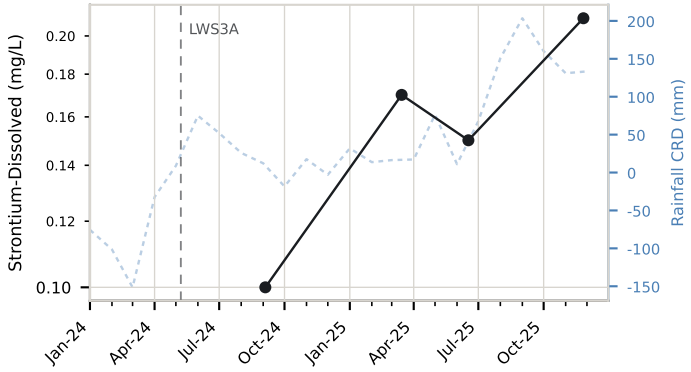


Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

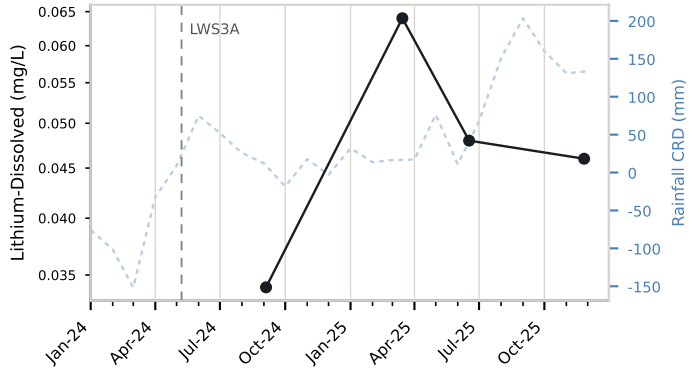
Arsenic-Dissolved



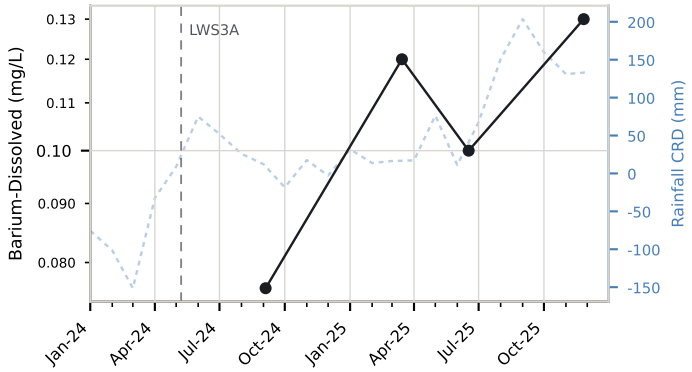
Strontium-Dissolved



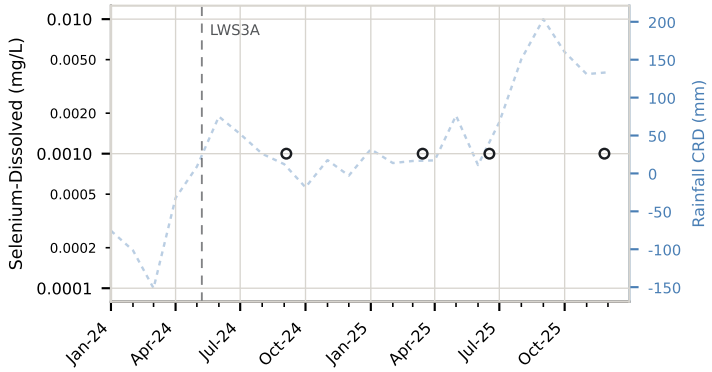
Lithium-Dissolved



Barium-Dissolved



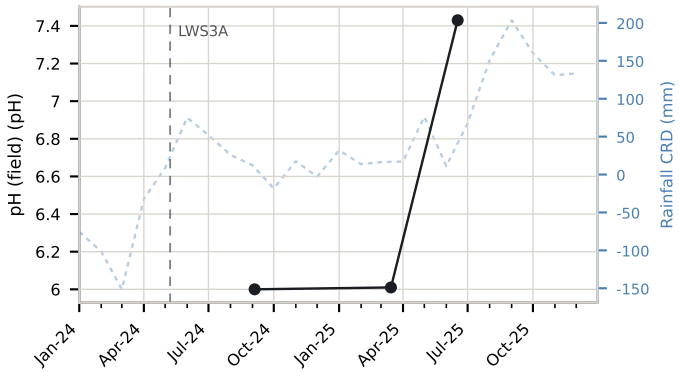
Selenium-Dissolved



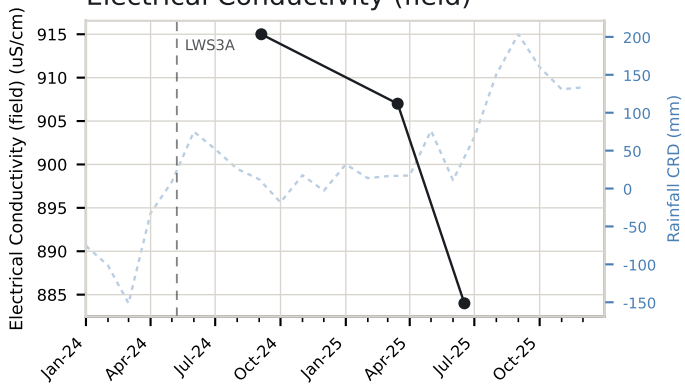
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

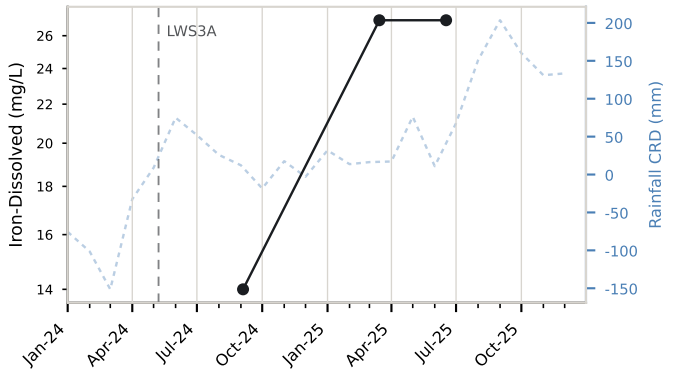
pH (field)



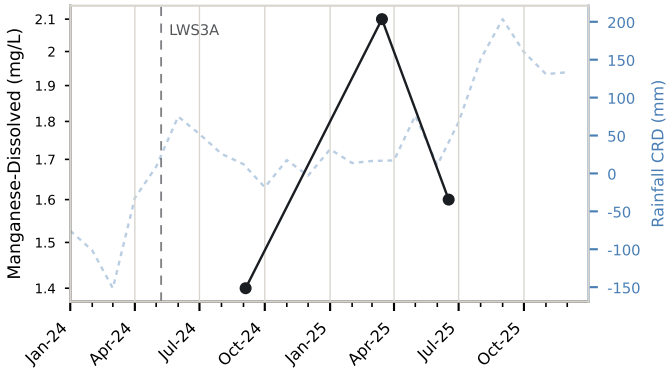
Electrical Conductivity (field)



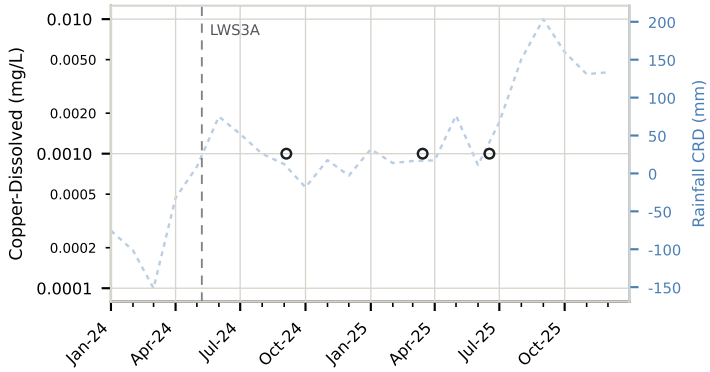
Iron-Dissolved



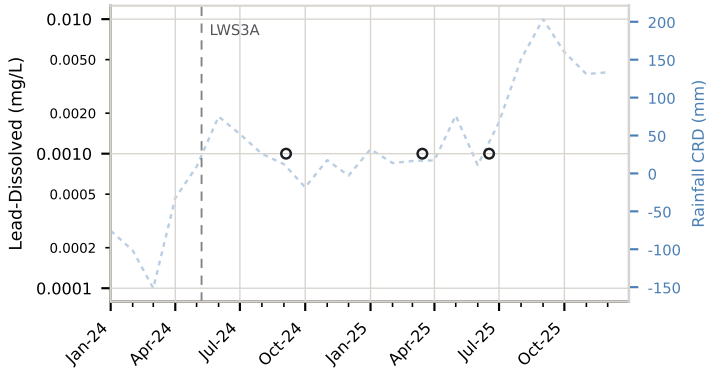
Manganese-Dissolved



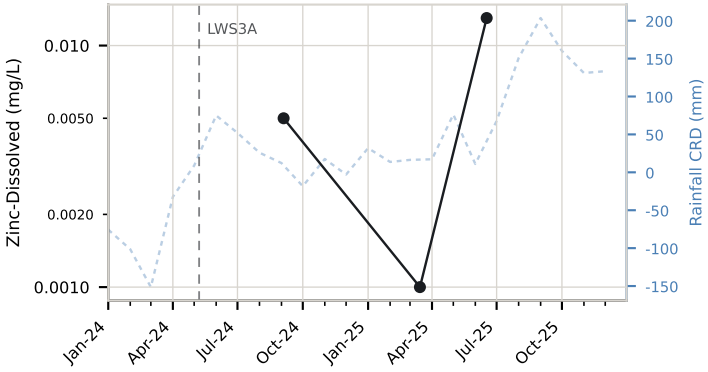
Copper-Dissolved



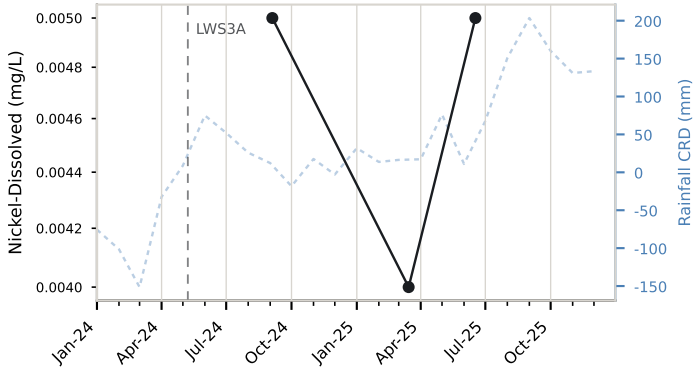
Lead-Dissolved



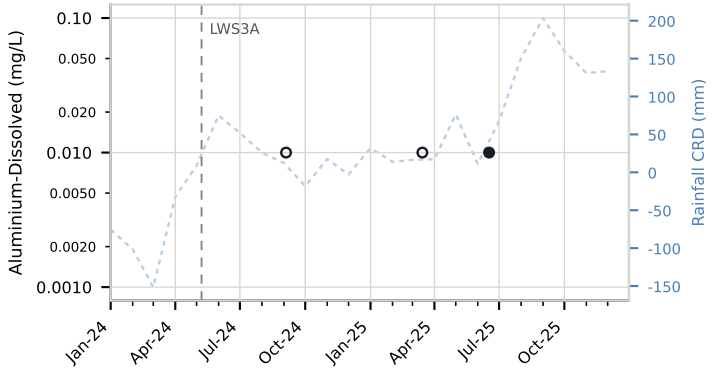
Zinc-Dissolved



Nickel-Dissolved



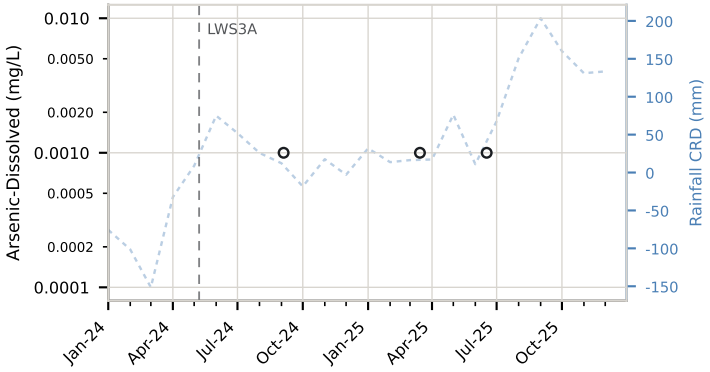
Aluminium-Dissolved



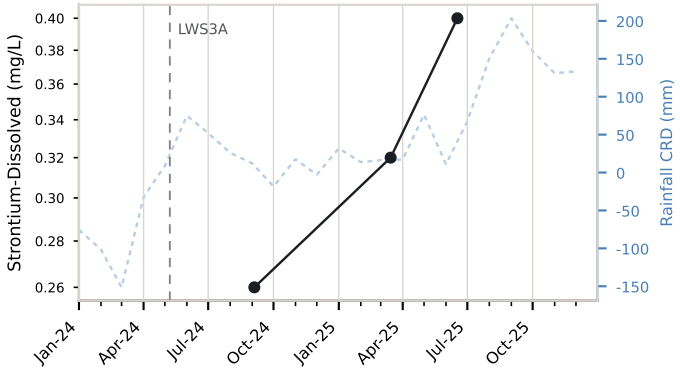
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

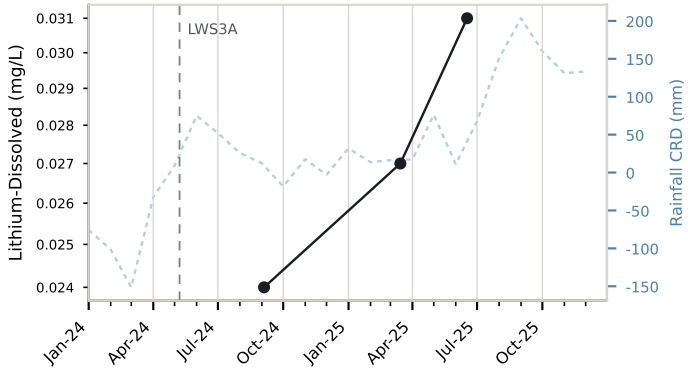
Arsenic-Dissolved



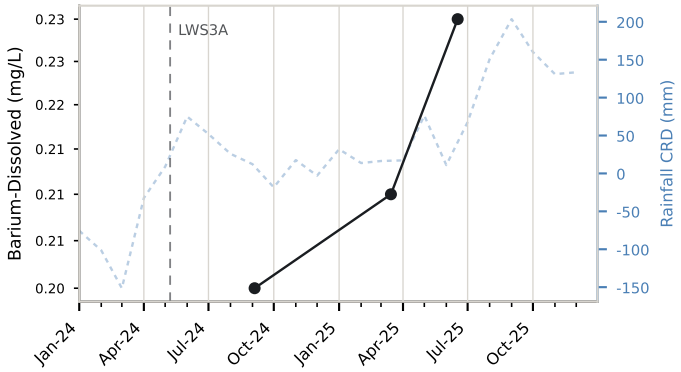
Strontium-Dissolved



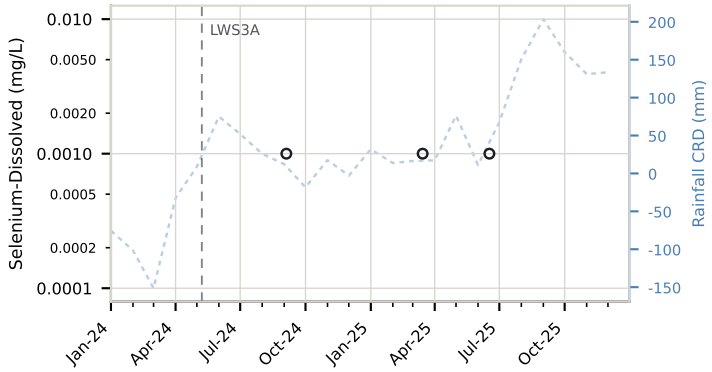
Lithium-Dissolved



Barium-Dissolved



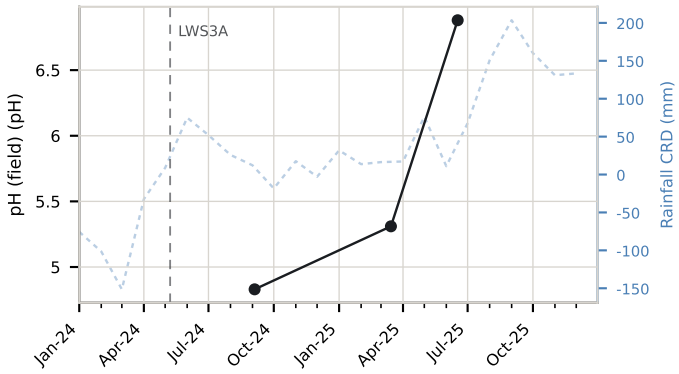
Selenium-Dissolved



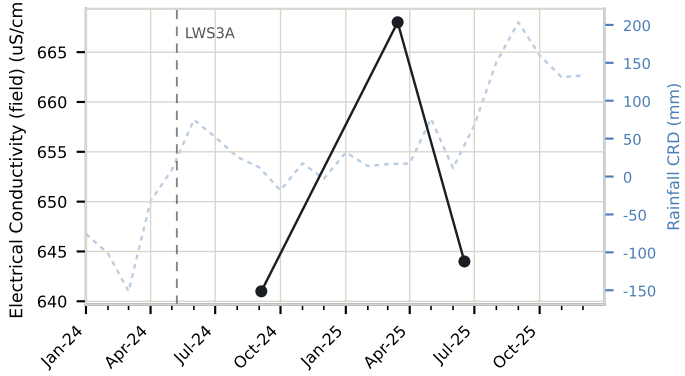
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

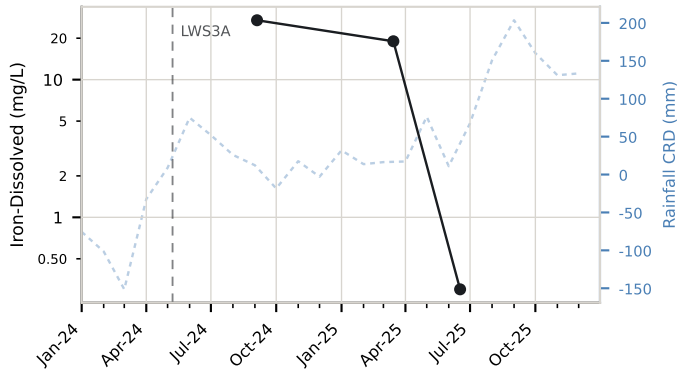
pH (field)



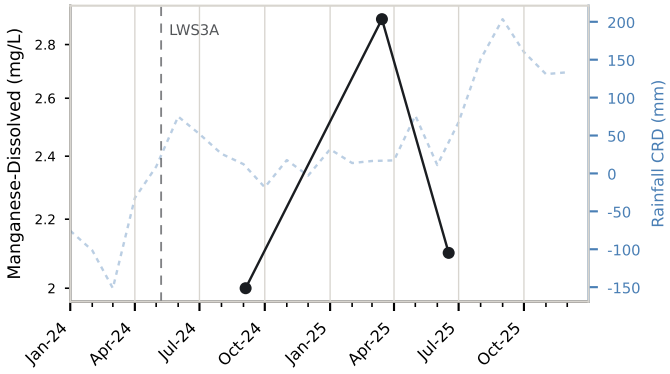
Electrical Conductivity (field)



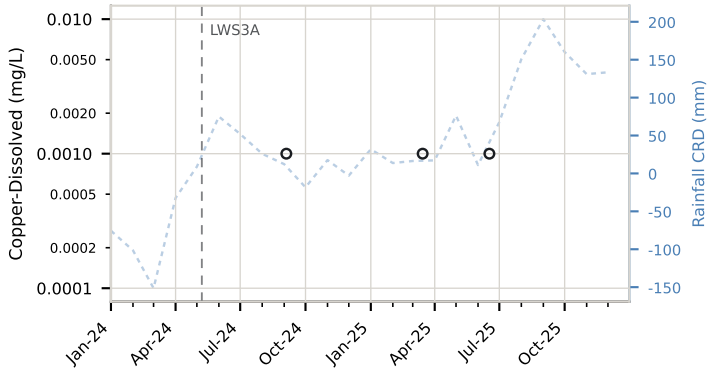
Iron-Dissolved



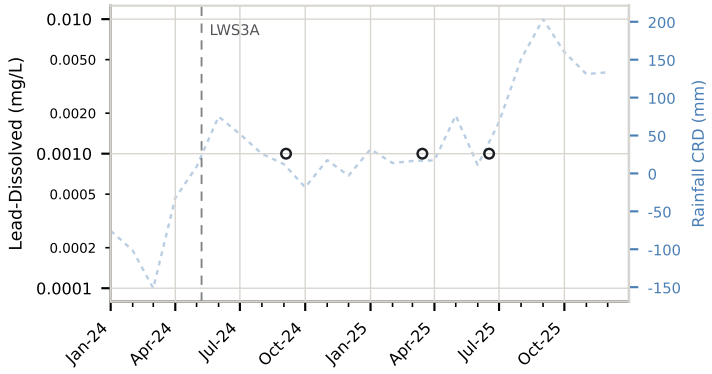
Manganese-Dissolved



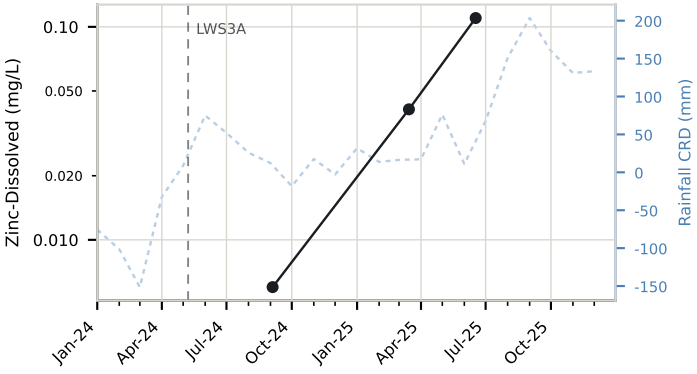
Copper-Dissolved



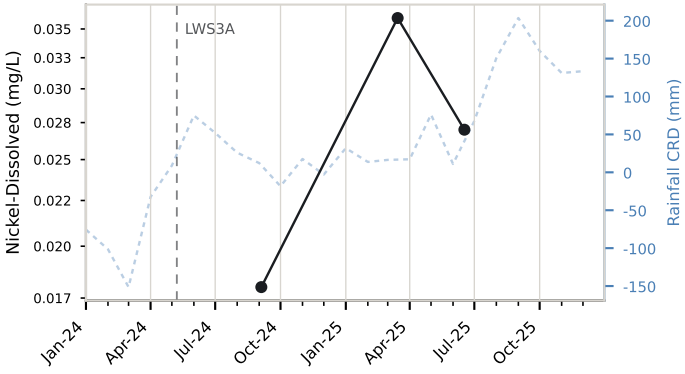
Lead-Dissolved



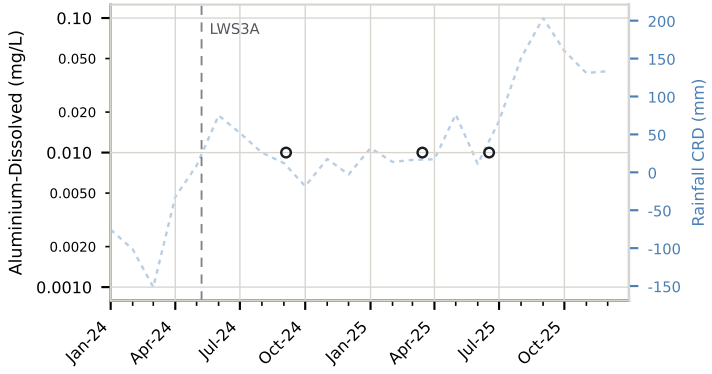
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)
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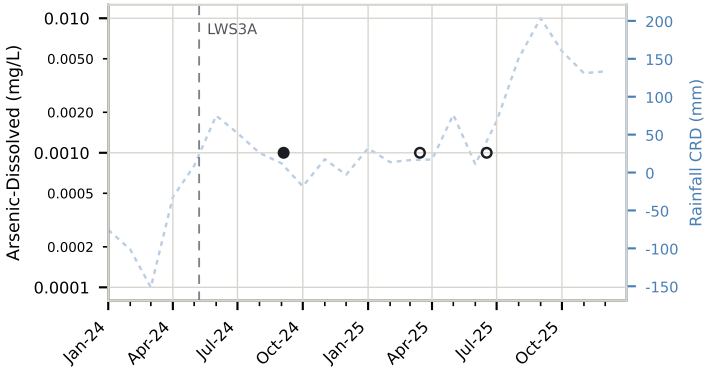
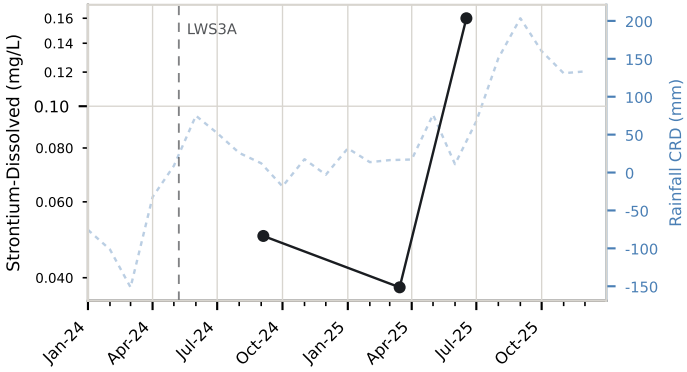
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

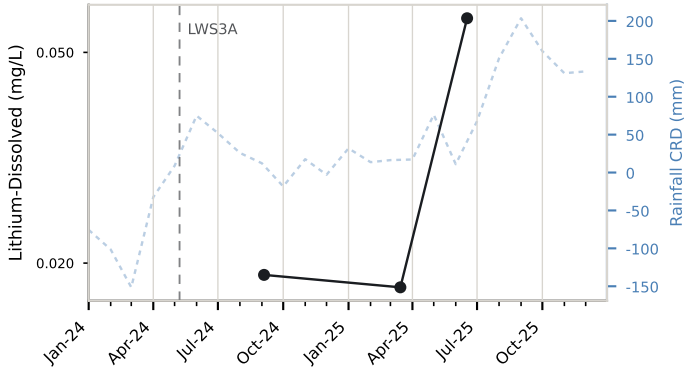
Arsenic-Dissolved



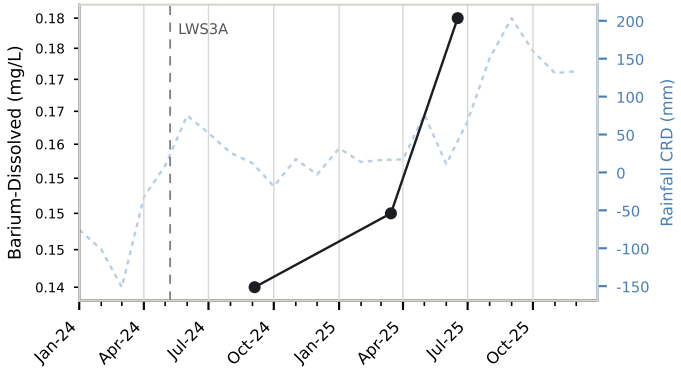
Strontium-Dissolved



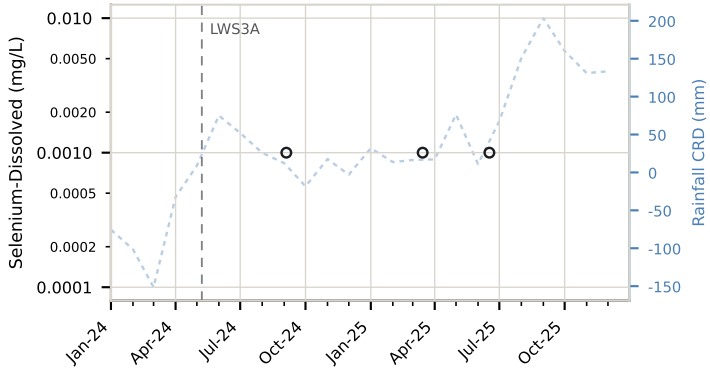
Lithium-Dissolved



Barium-Dissolved



Selenium-Dissolved



Result (detected)
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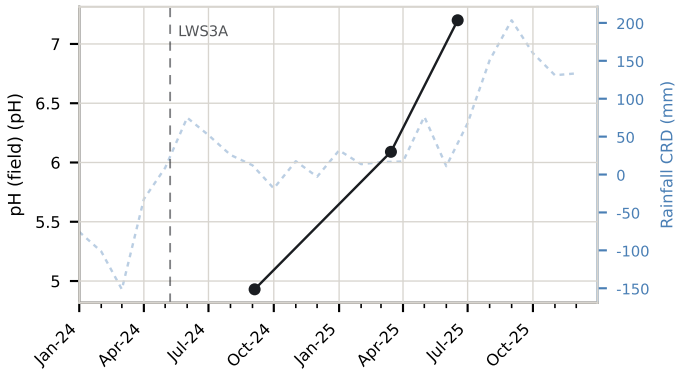
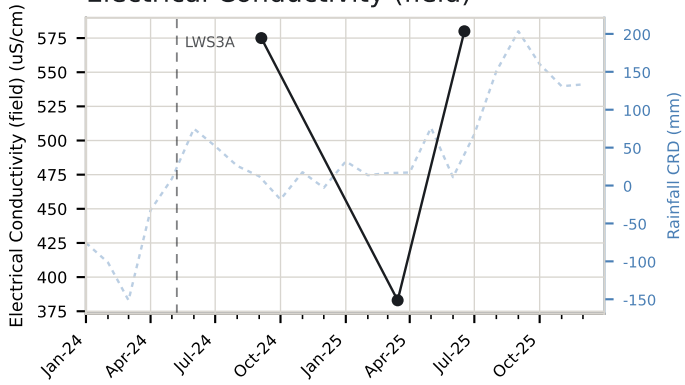
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

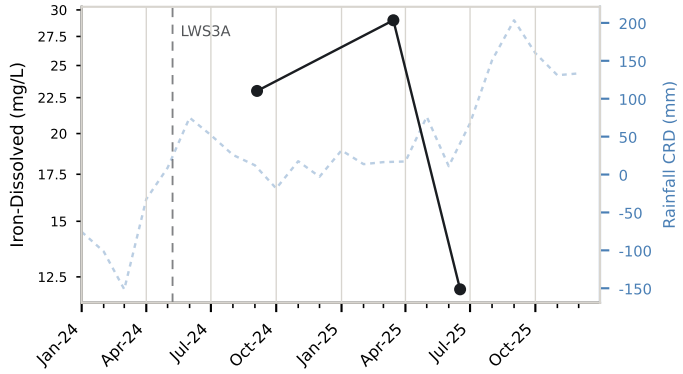
pH (field)



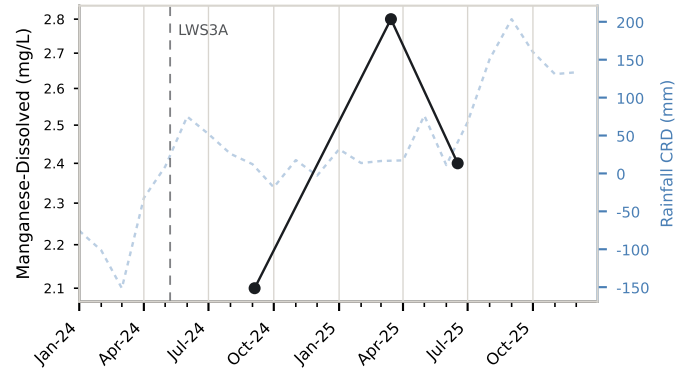
Electrical Conductivity (field)



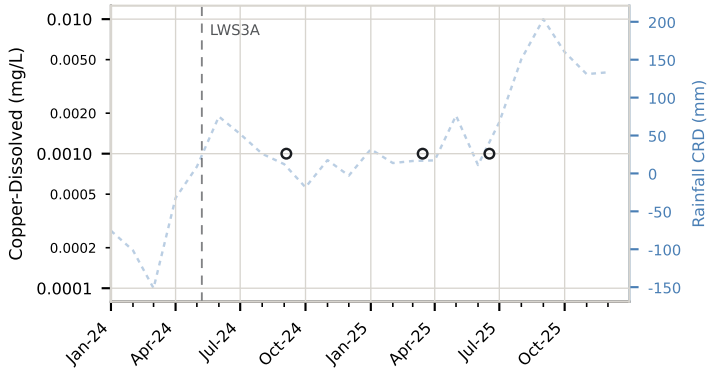
Iron-Dissolved



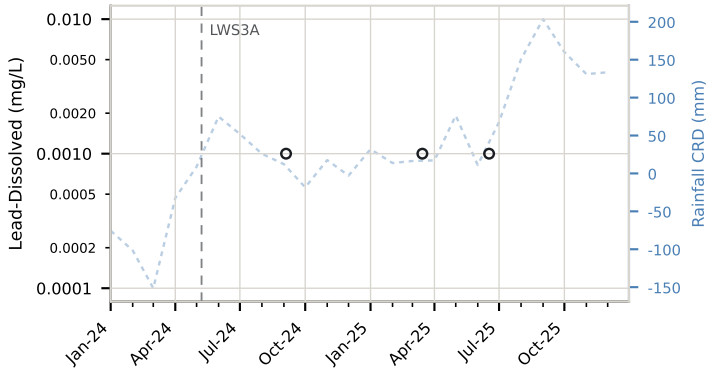
Manganese-Dissolved



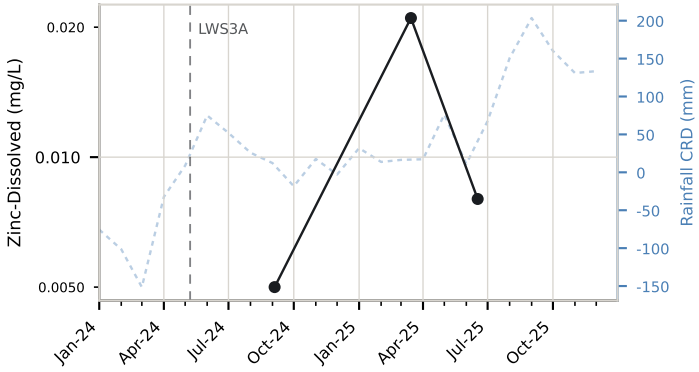
Copper-Dissolved



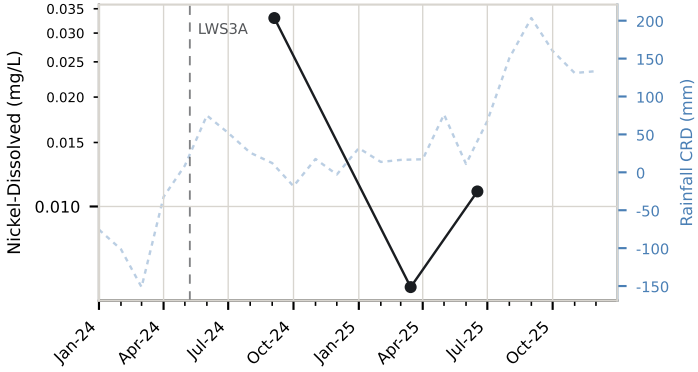
Lead-Dissolved



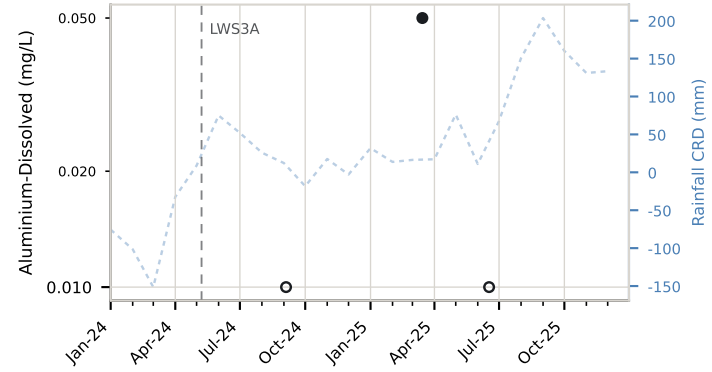
Zinc-Dissolved



Nickel-Dissolved



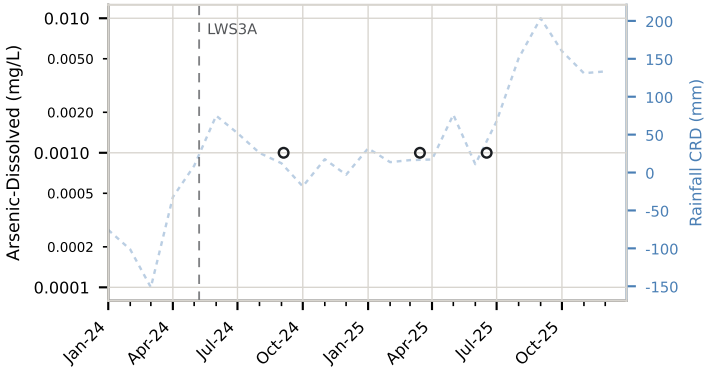
Aluminium-Dissolved



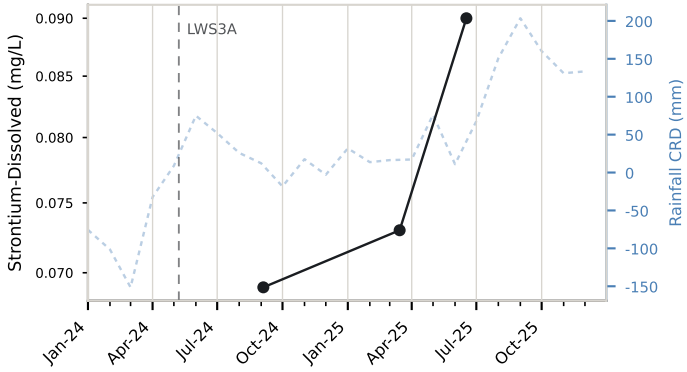
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

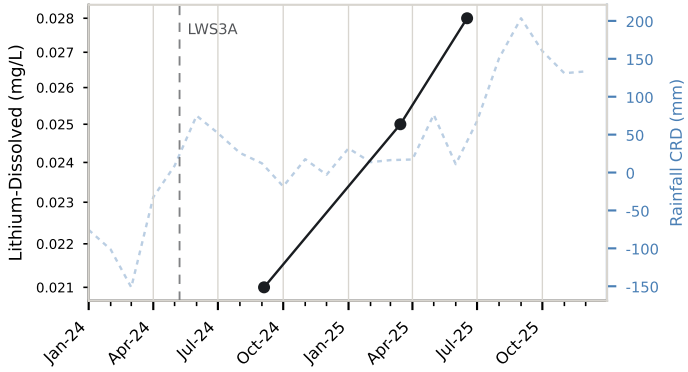
Arsenic-Dissolved



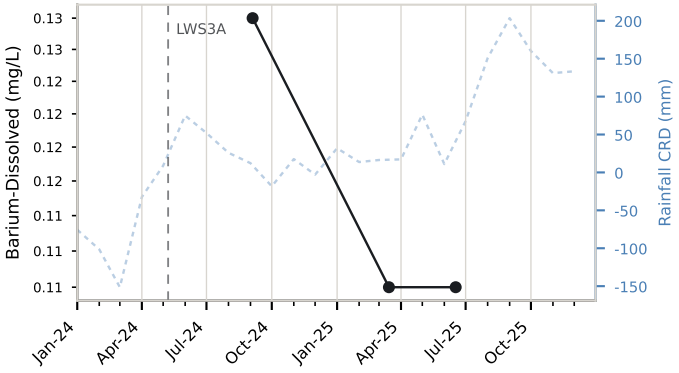
Strontium-Dissolved



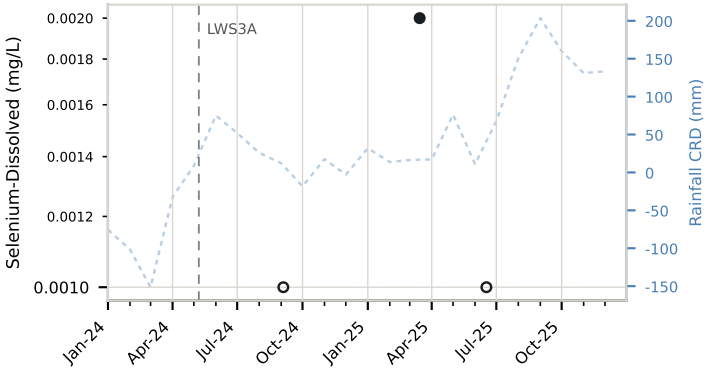
Lithium-Dissolved



Barium-Dissolved



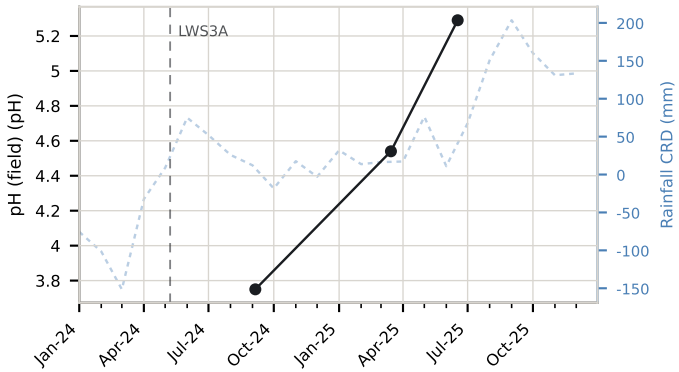
Selenium-Dissolved



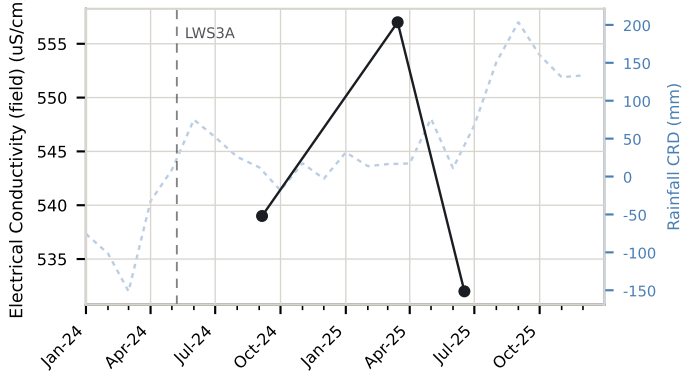
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

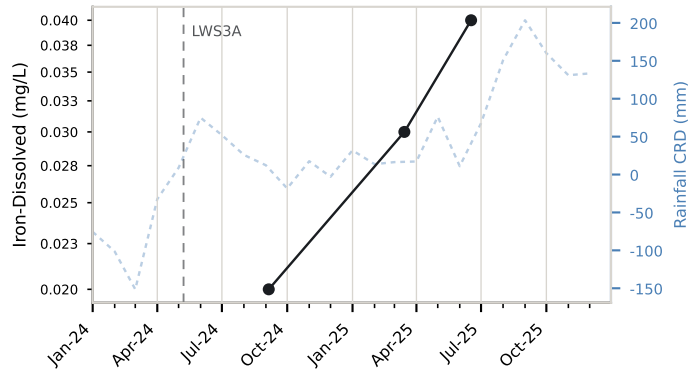
pH (field)



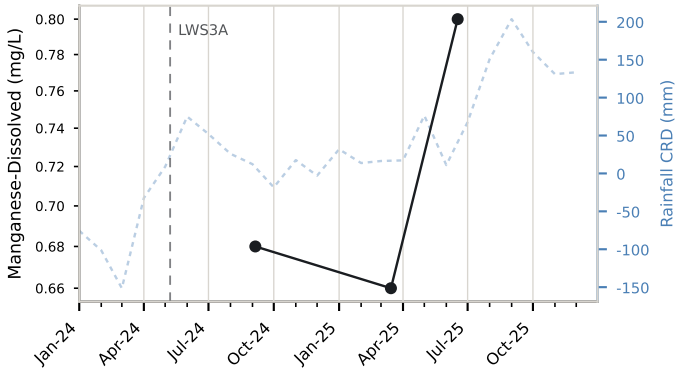
Electrical Conductivity (field)



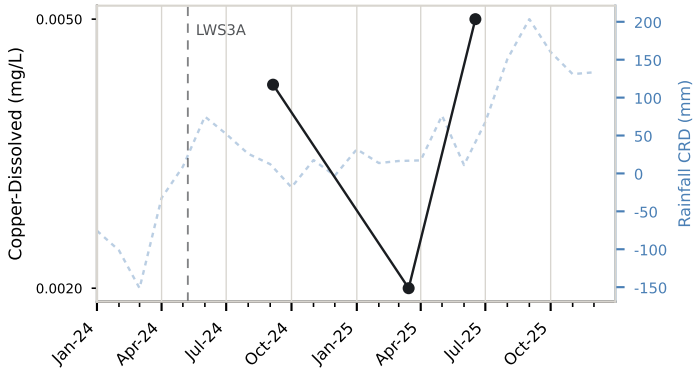
Iron-Dissolved



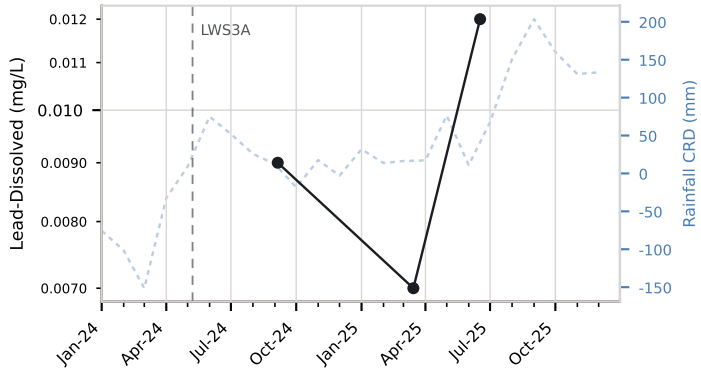
Manganese-Dissolved



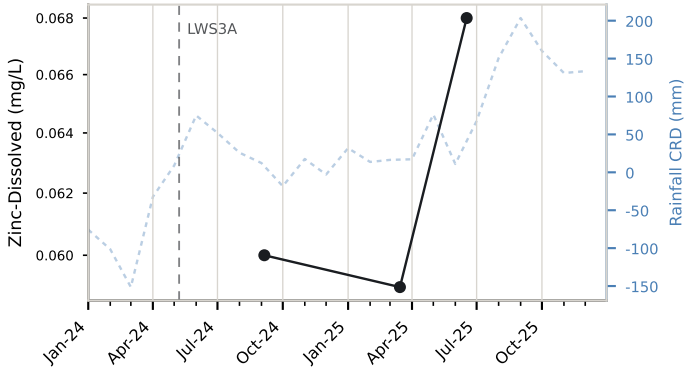
Copper-Dissolved



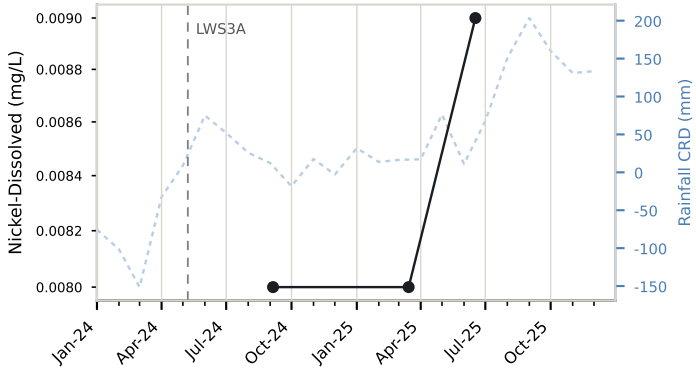
Lead-Dissolved



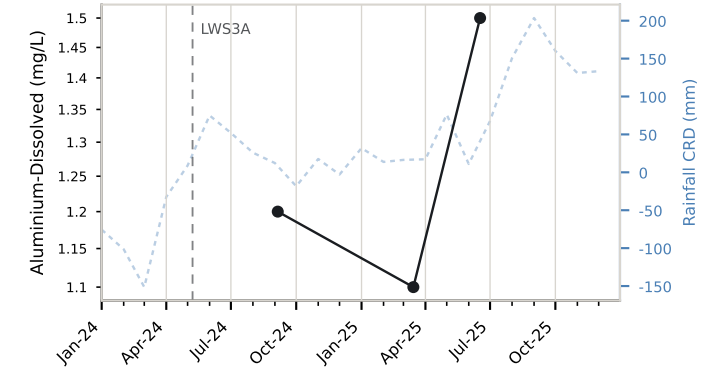
Zinc-Dissolved



Nickel-Dissolved



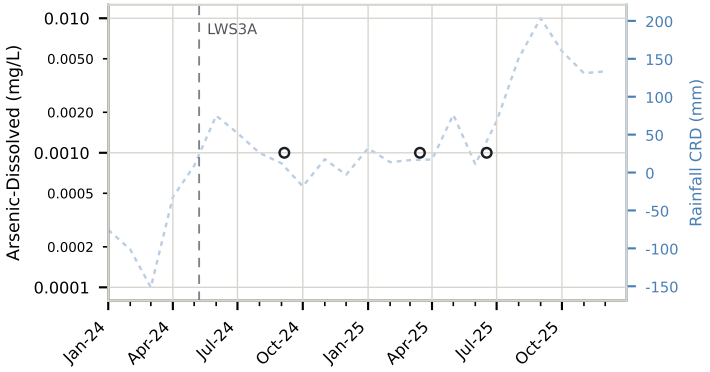
Aluminium-Dissolved



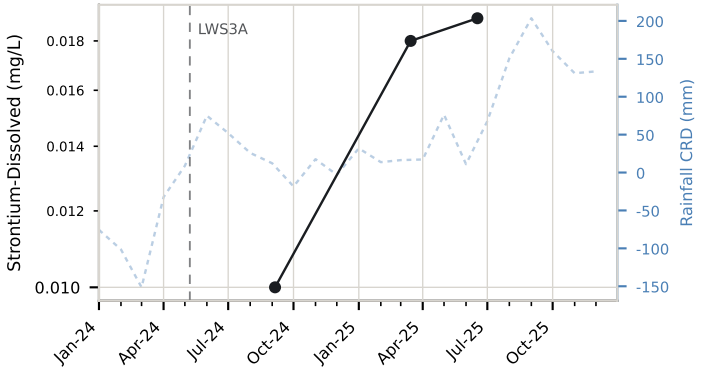
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

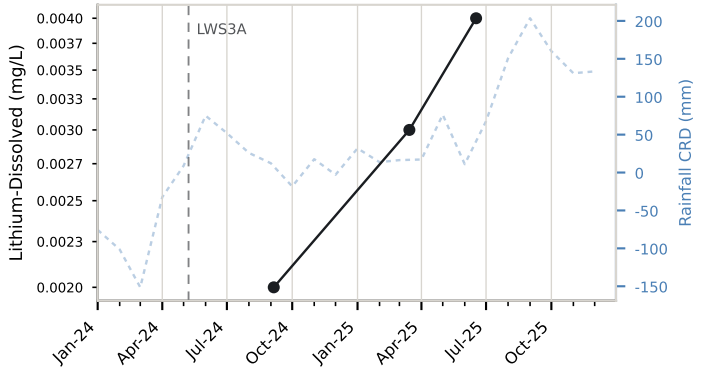
Arsenic-Dissolved



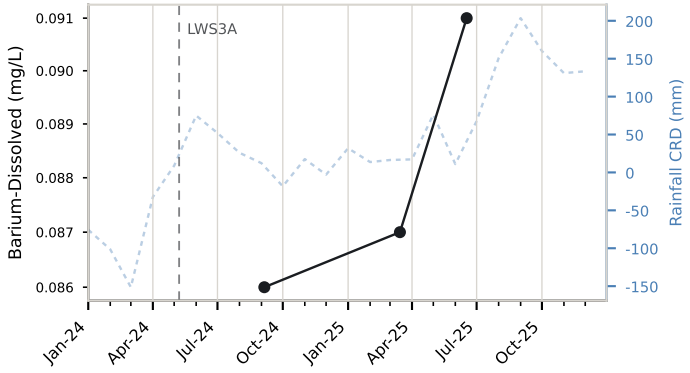
Strontium-Dissolved



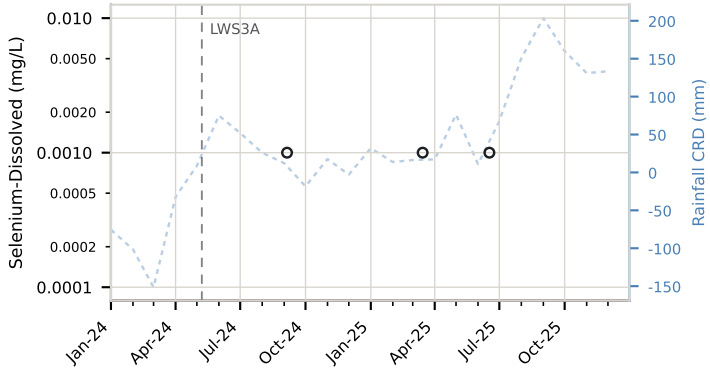
Lithium-Dissolved



Barium-Dissolved



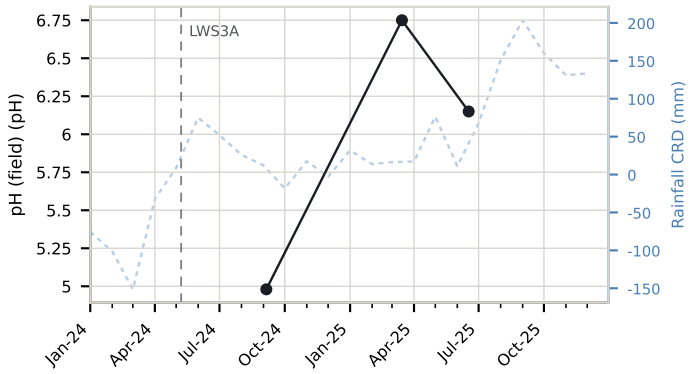
Selenium-Dissolved



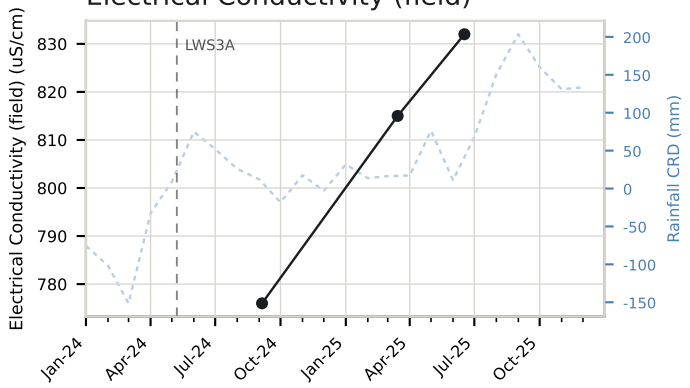
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

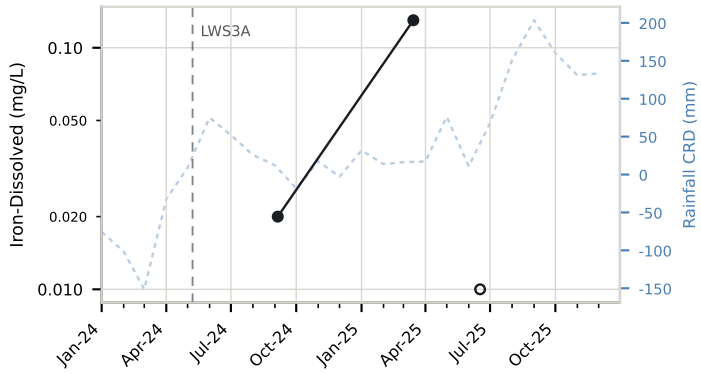
pH (field)



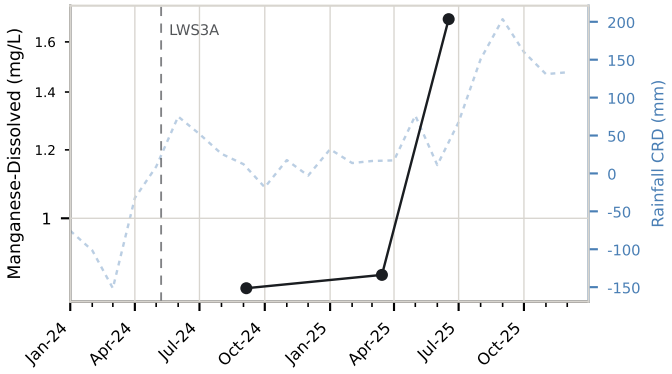
Electrical Conductivity (field)



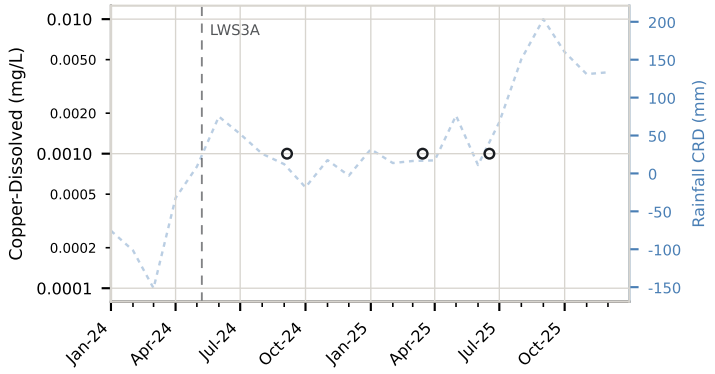
Iron-Dissolved



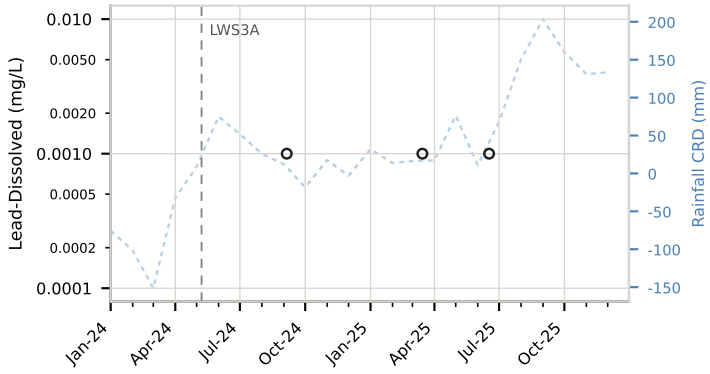
Manganese-Dissolved



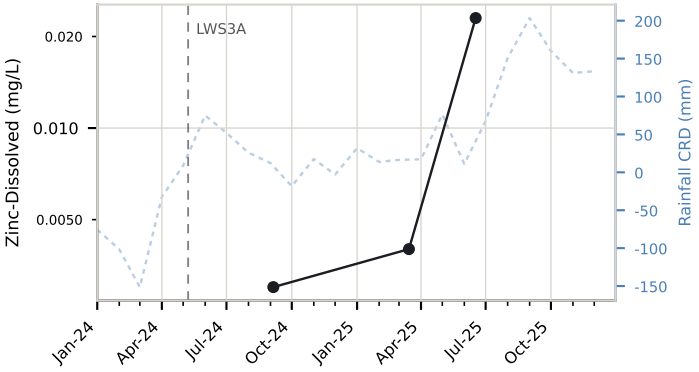
Copper-Dissolved



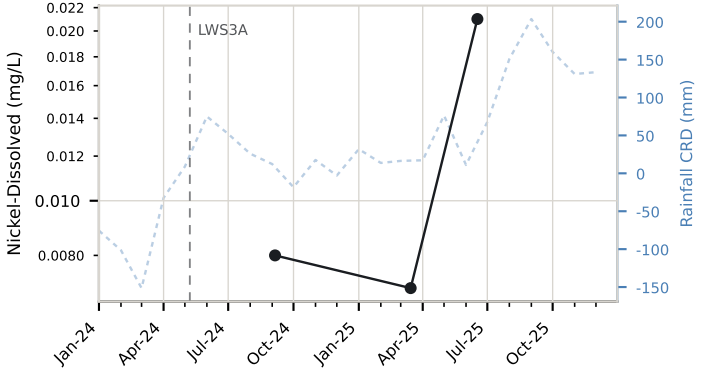
Lead-Dissolved



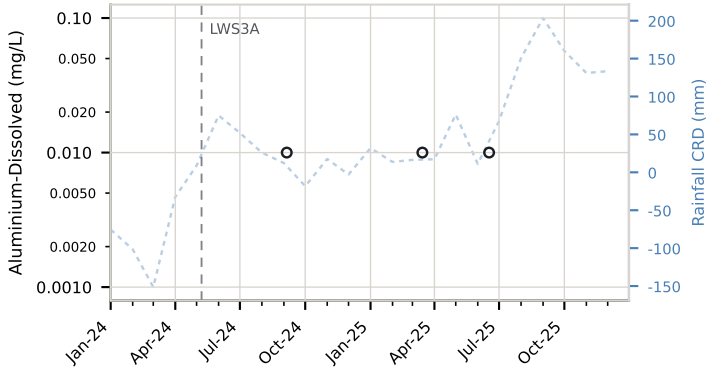
Zinc-Dissolved



Nickel-Dissolved



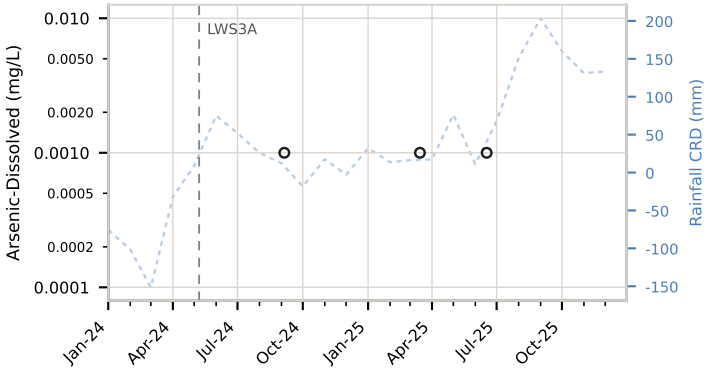
Aluminium-Dissolved



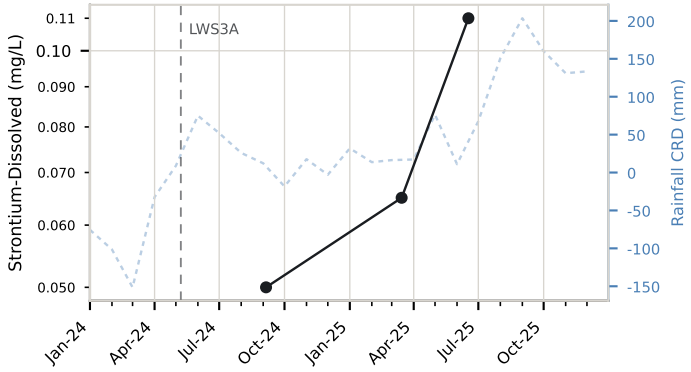
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

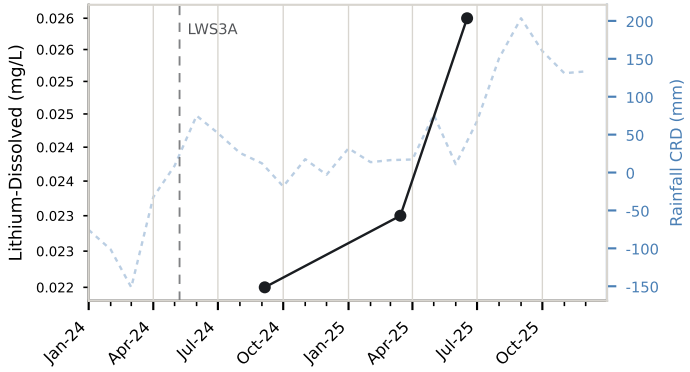
Arsenic-Dissolved



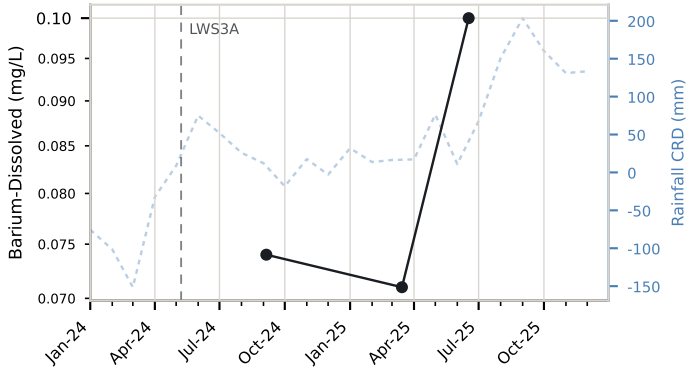
Strontium-Dissolved



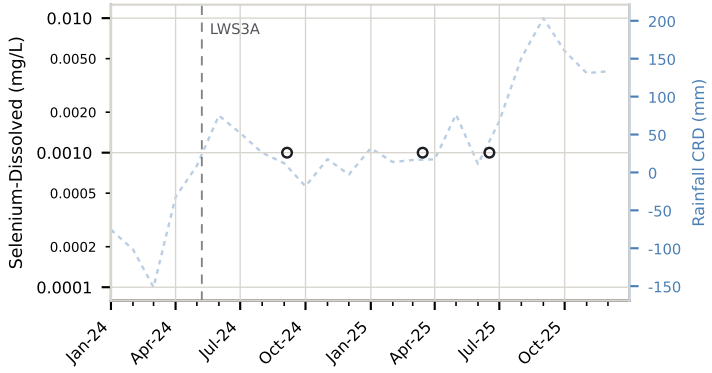
Lithium-Dissolved



Barium-Dissolved



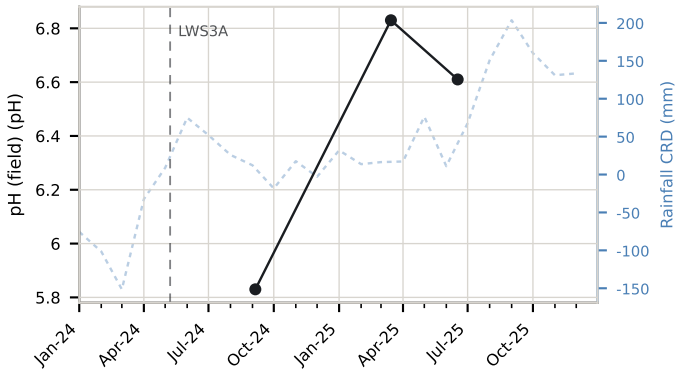
Selenium-Dissolved



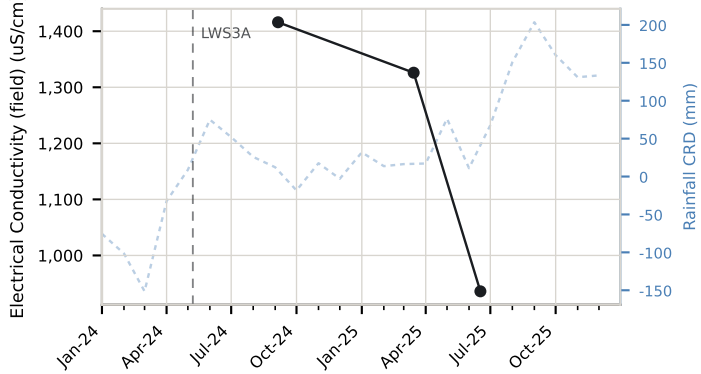
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

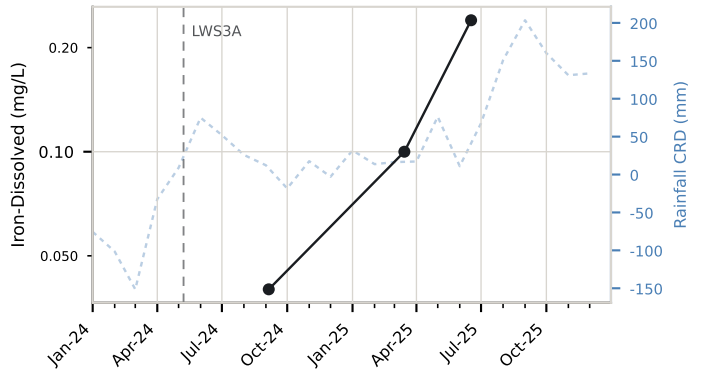
pH (field)



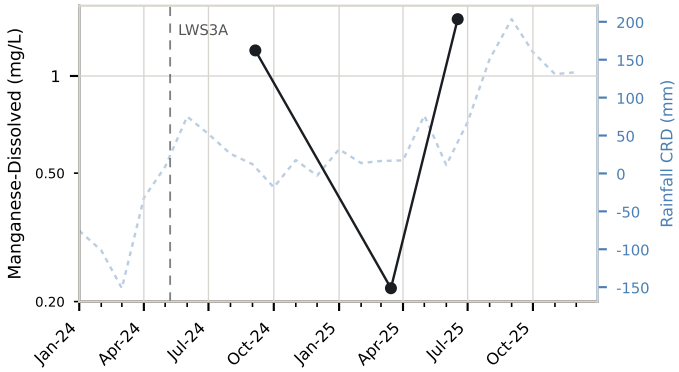
Electrical Conductivity (field)



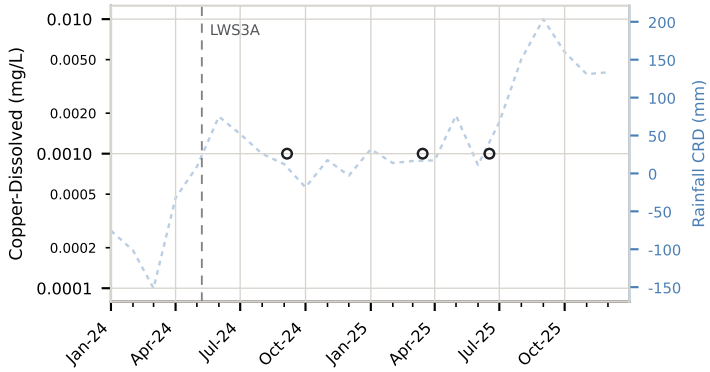
Iron-Dissolved



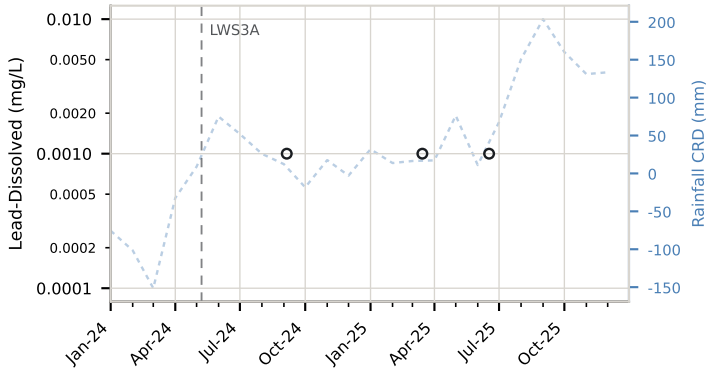
Manganese-Dissolved



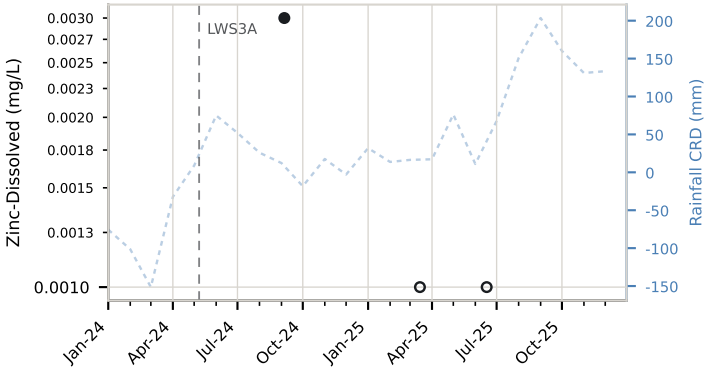
Copper-Dissolved



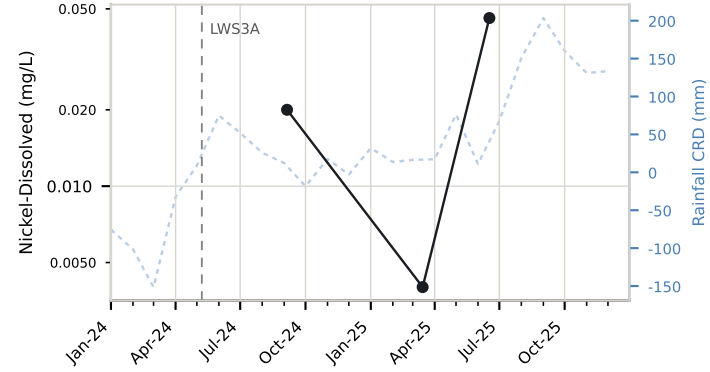
Lead-Dissolved



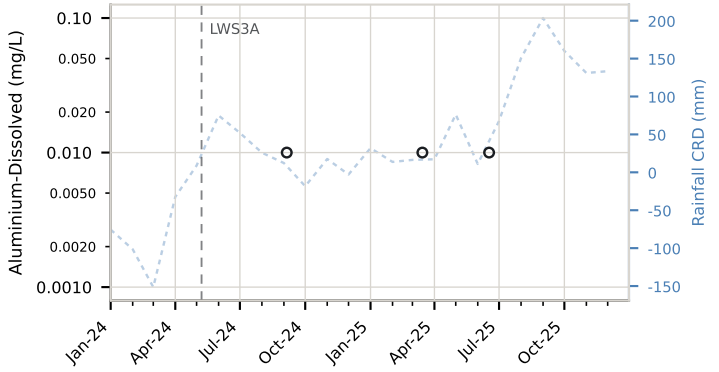
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)
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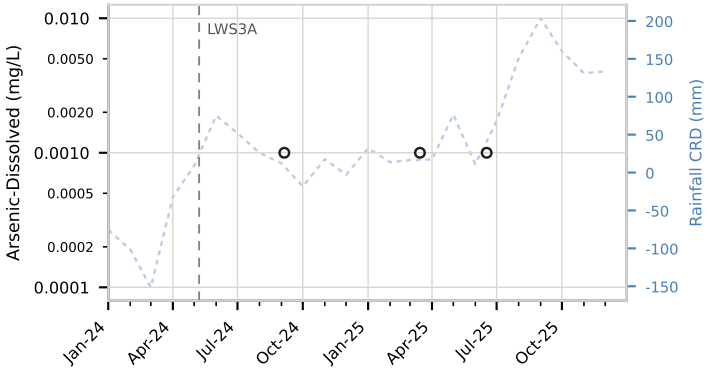
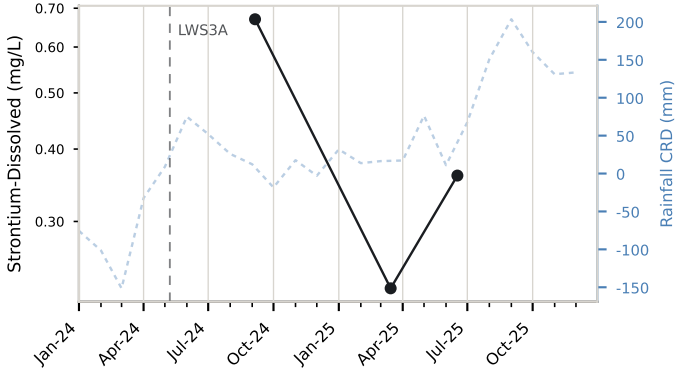
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

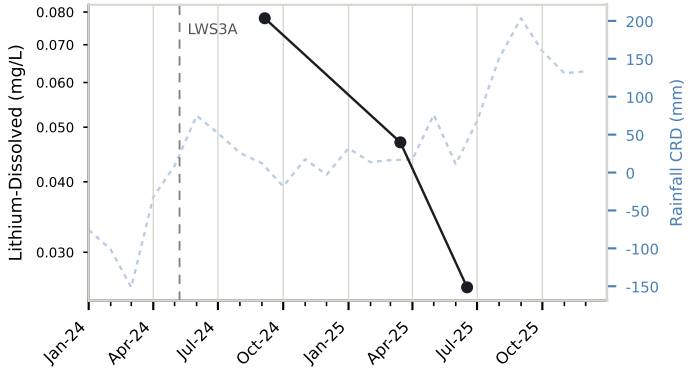
Arsenic-Dissolved



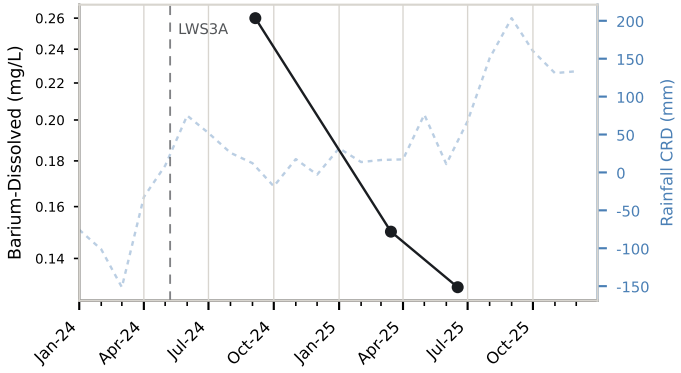
Strontium-Dissolved



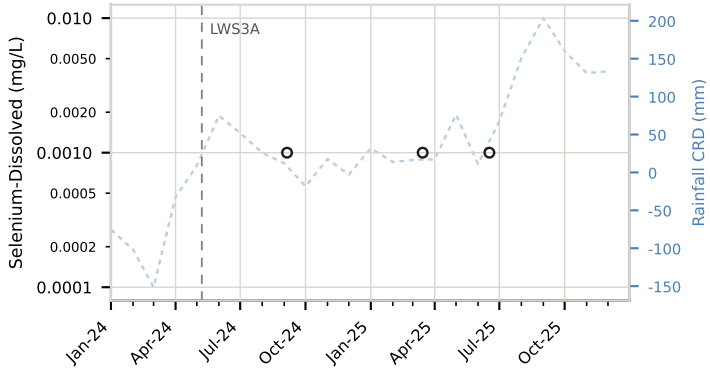
Lithium-Dissolved



Barium-Dissolved



Selenium-Dissolved



Result (detected)
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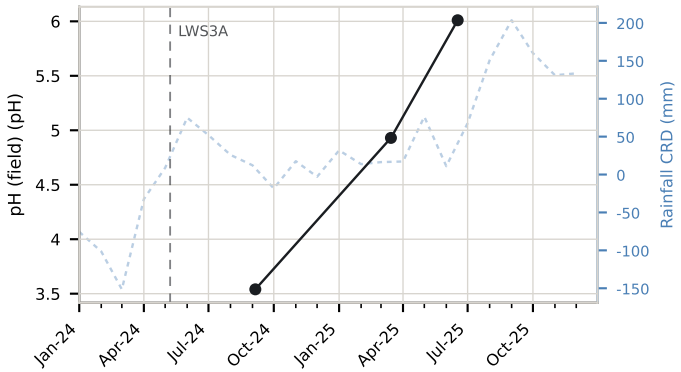
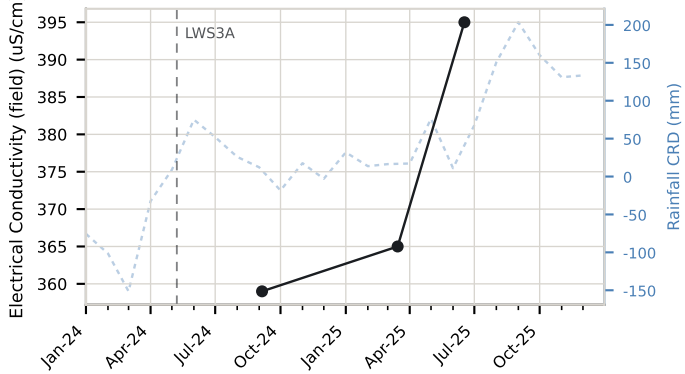
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

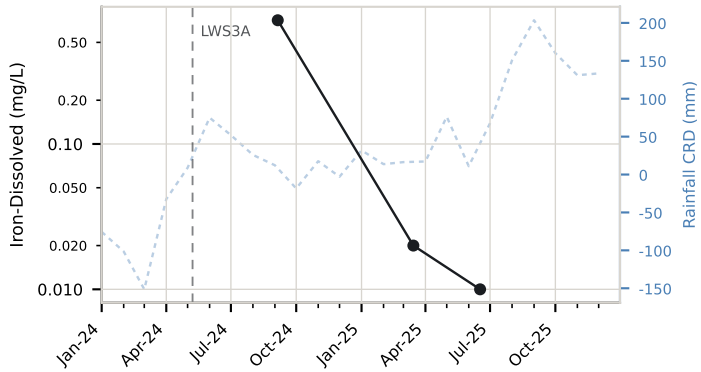
pH (field)



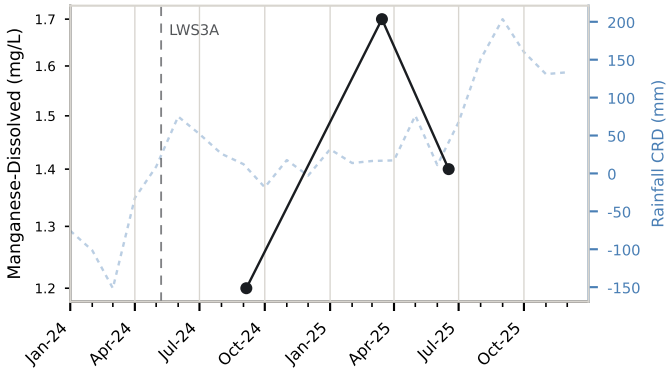
Electrical Conductivity (field)



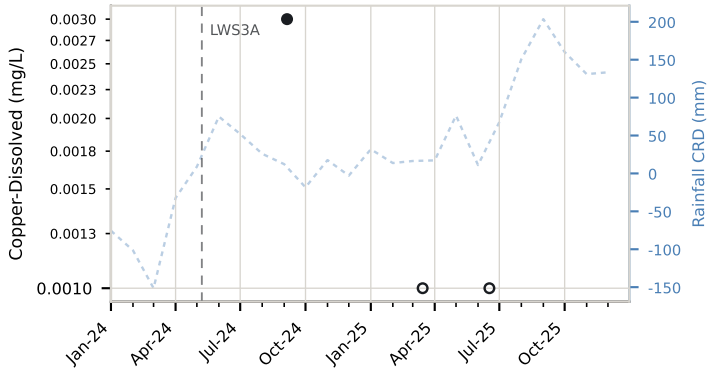
Iron-Dissolved



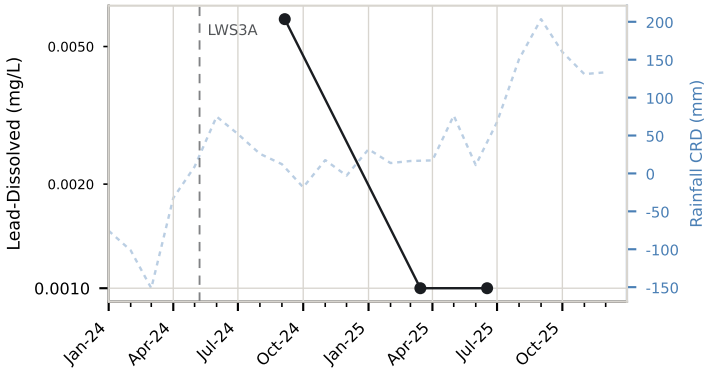
Manganese-Dissolved



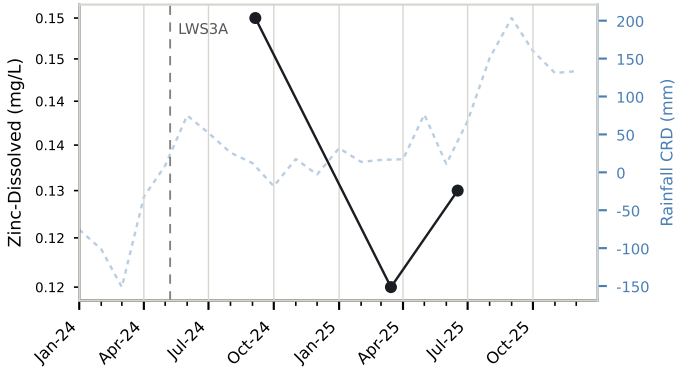
Copper-Dissolved



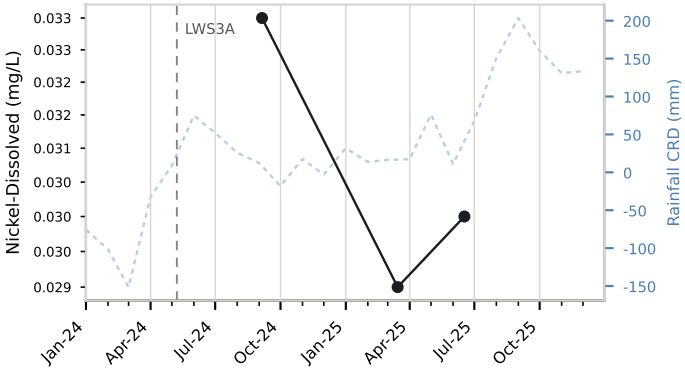
Lead-Dissolved



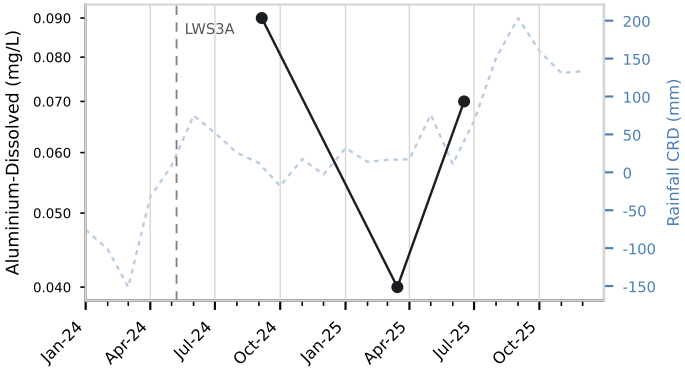
Zinc-Dissolved



Nickel-Dissolved



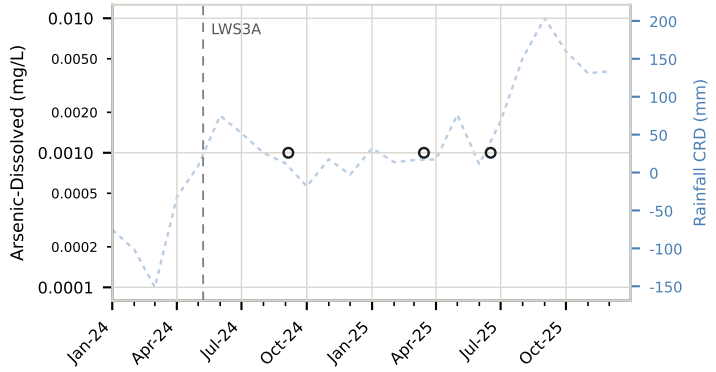
Aluminium-Dissolved



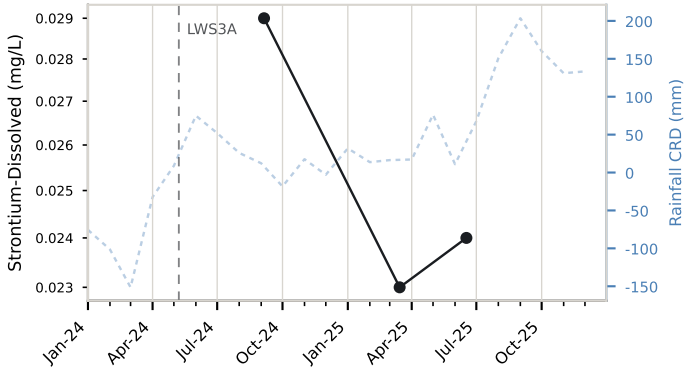
Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

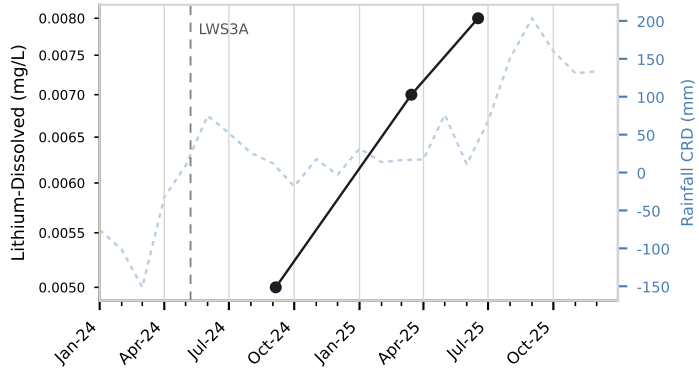
Arsenic-Dissolved



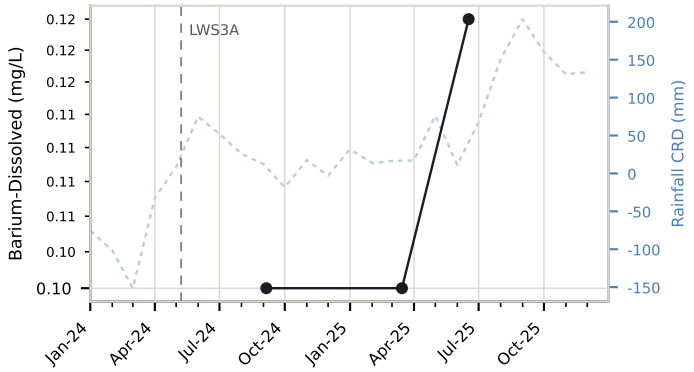
Strontium-Dissolved



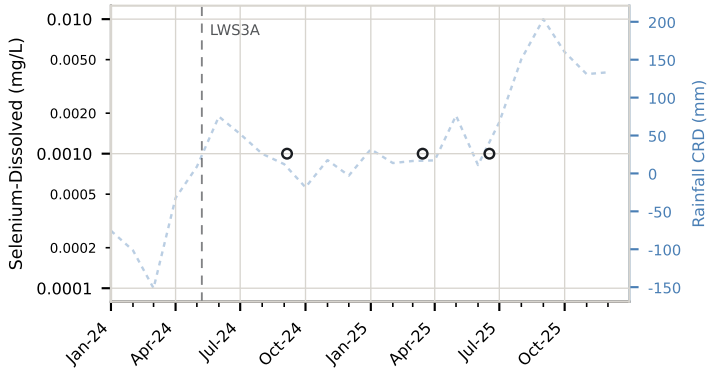
Lithium-Dissolved



Barium-Dissolved

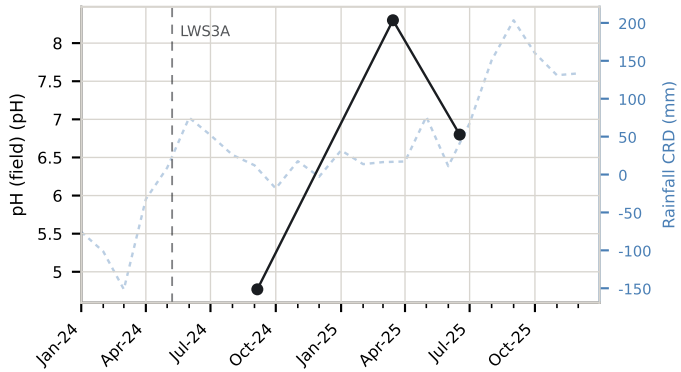


Selenium-Dissolved

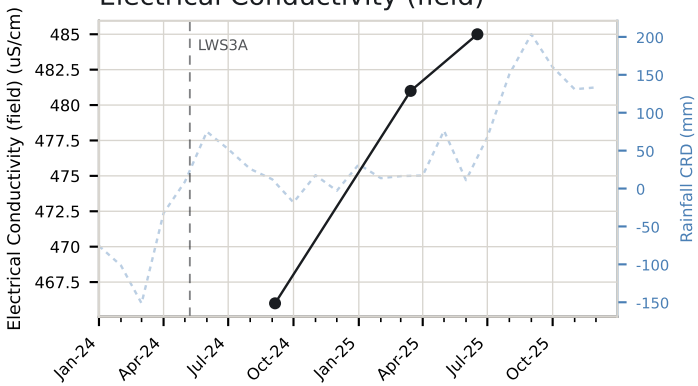


Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

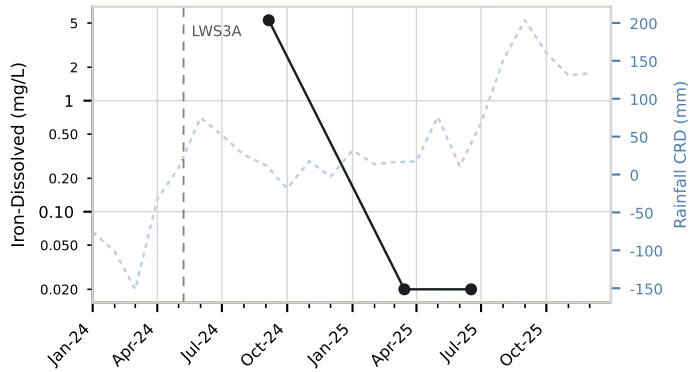
pH (field)



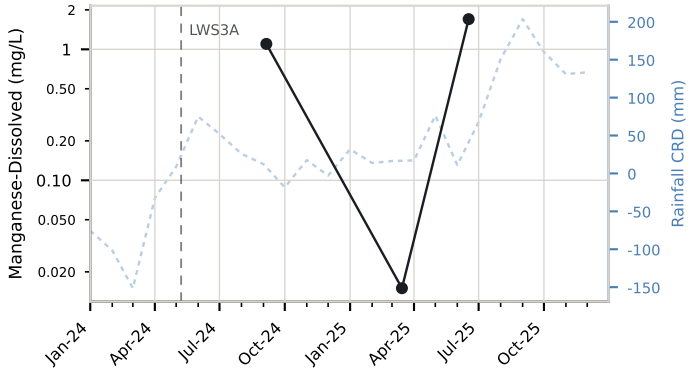
Electrical Conductivity (field)



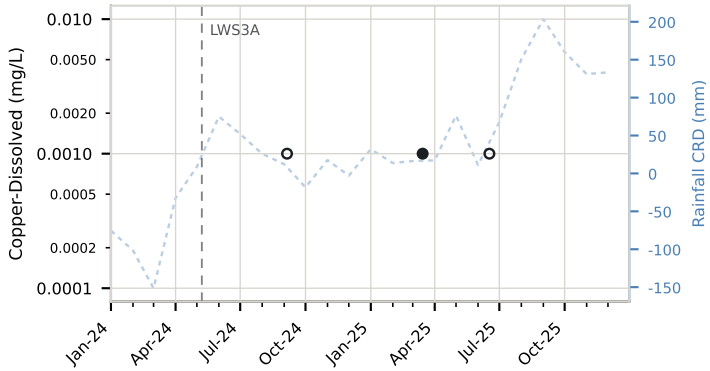
Iron-Dissolved



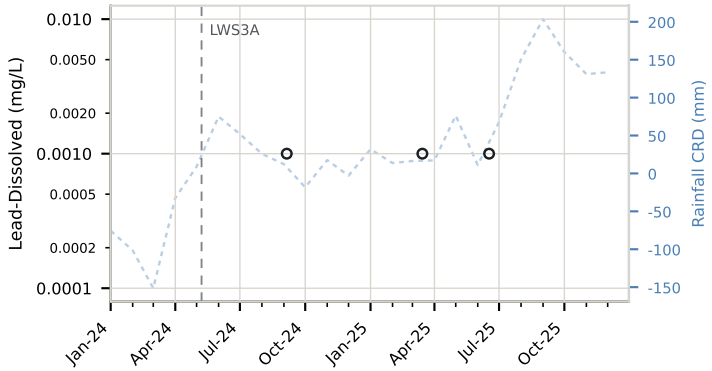
Manganese-Dissolved



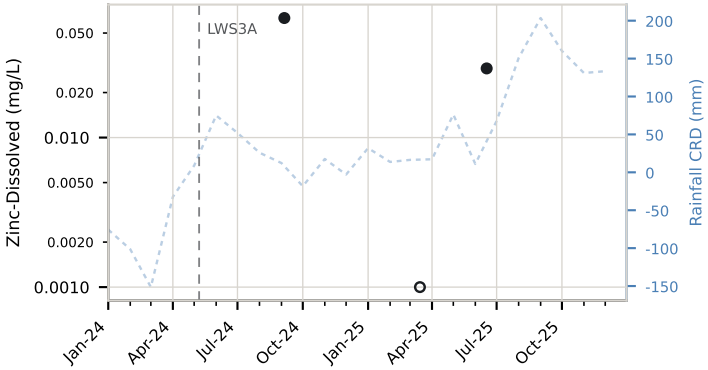
Copper-Dissolved



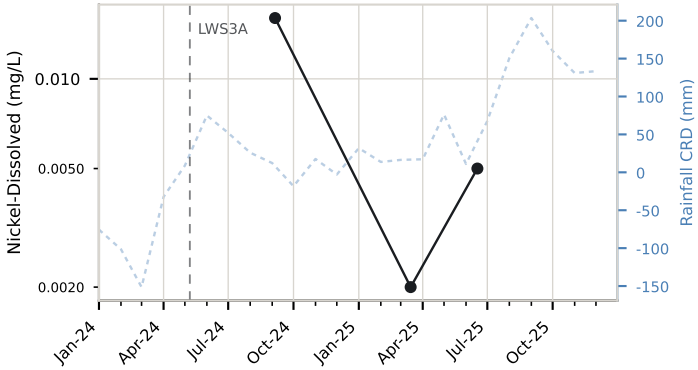
Lead-Dissolved



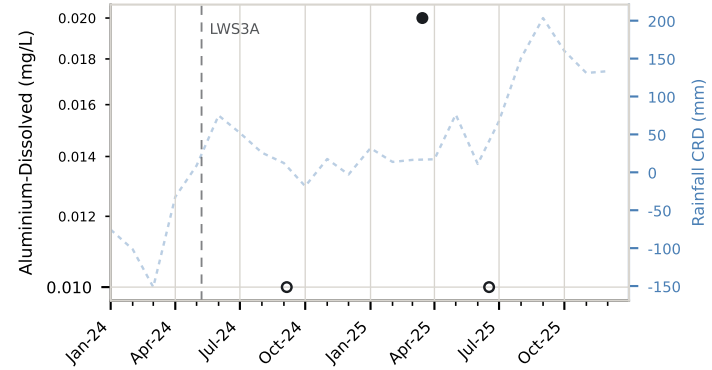
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)
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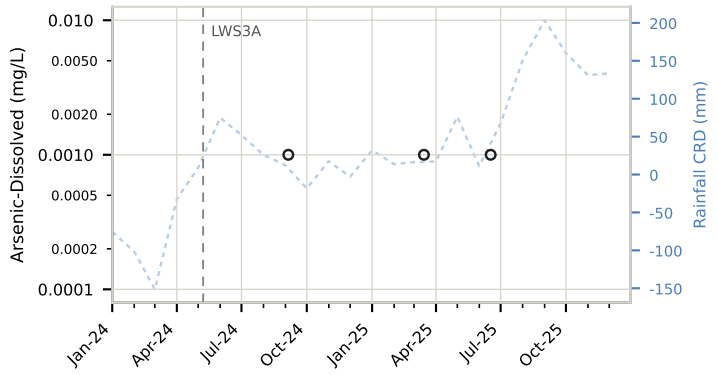
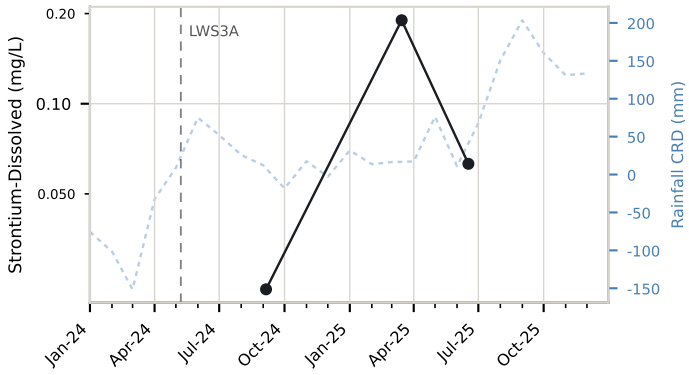
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

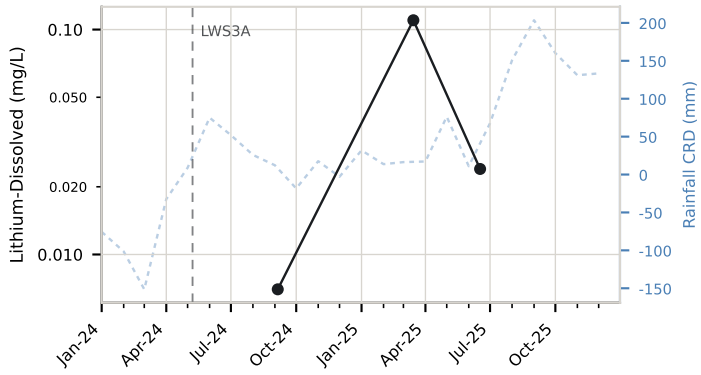
Arsenic-Dissolved



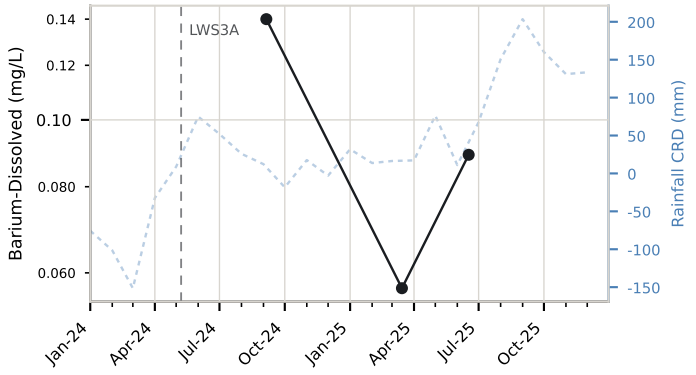
Strontium-Dissolved



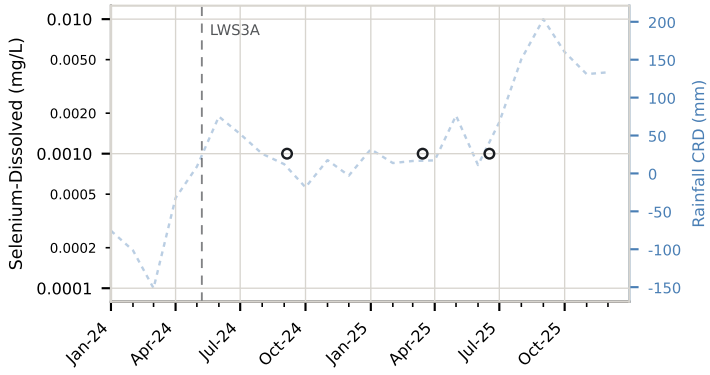
Lithium-Dissolved



Barium-Dissolved

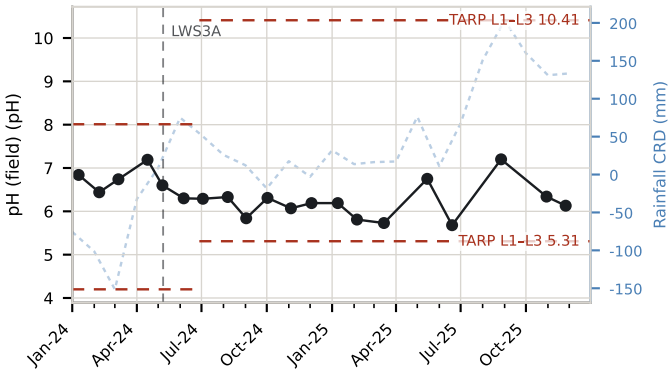


Selenium-Dissolved

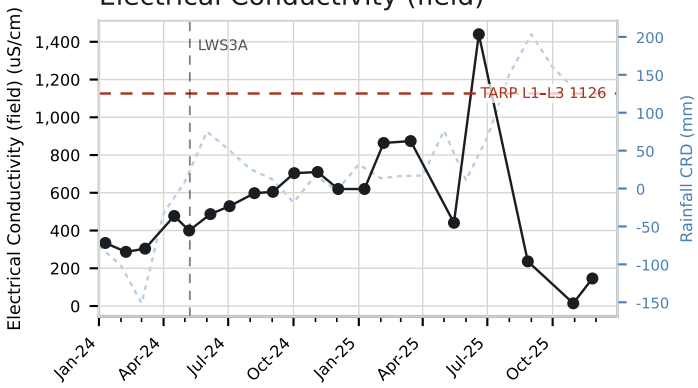


Result (detected)
Below limit of reporting — a valid result, plotted at the LOR
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

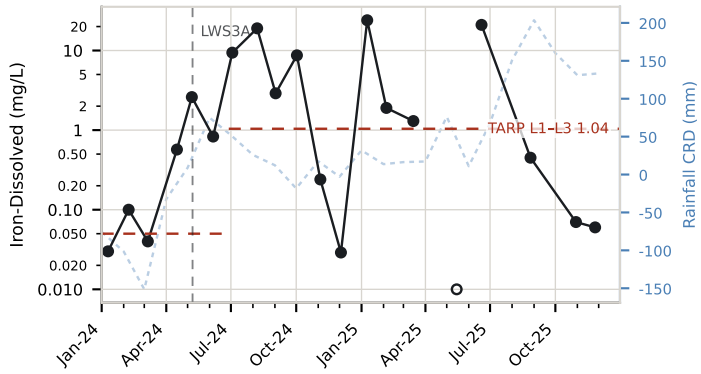
pH (field)



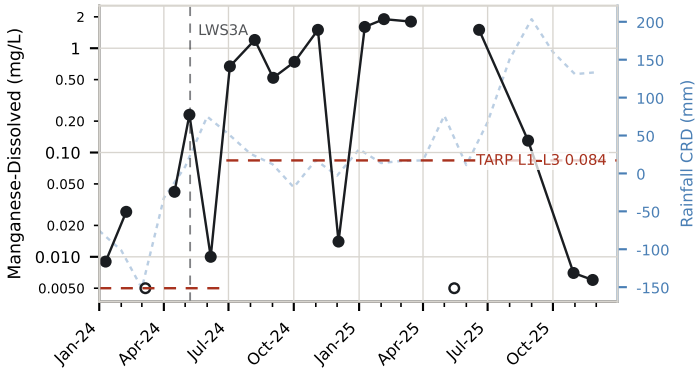
Electrical Conductivity (field)



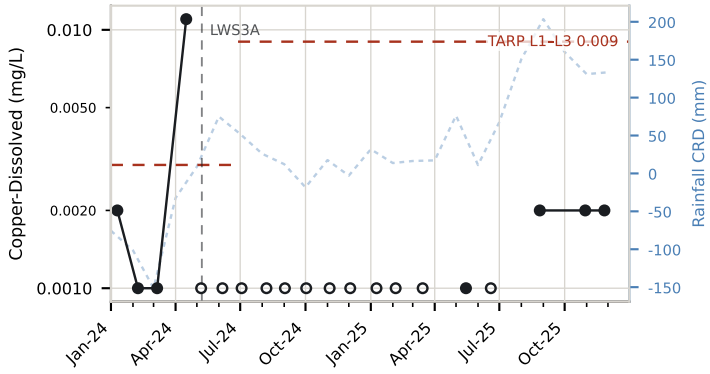
Iron-Dissolved



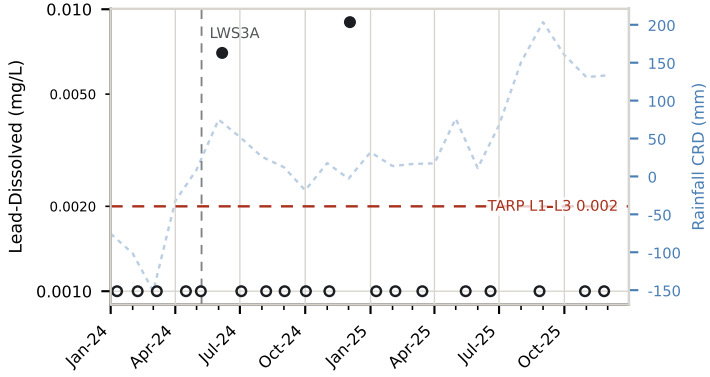
Manganese-Dissolved



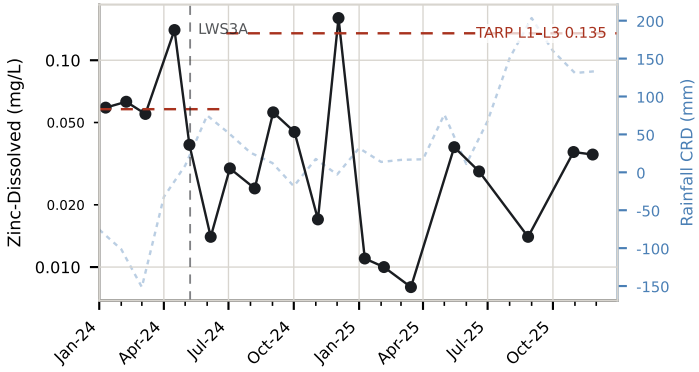
Copper-Dissolved



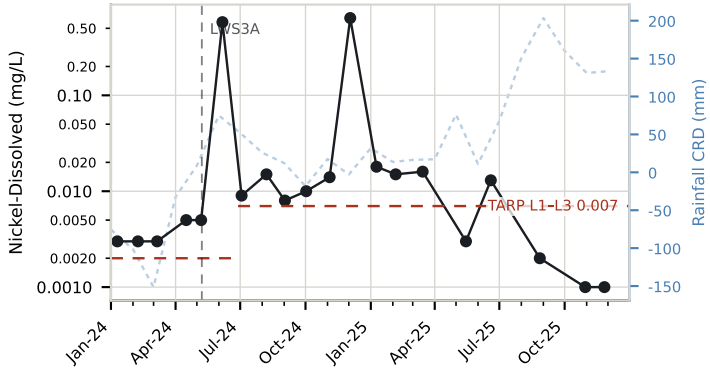
Lead-Dissolved



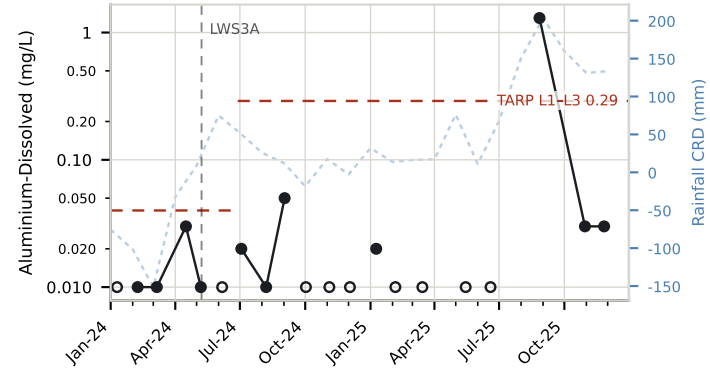
Zinc-Dissolved



Nickel-Dissolved



Aluminium-Dissolved



Result (detected)
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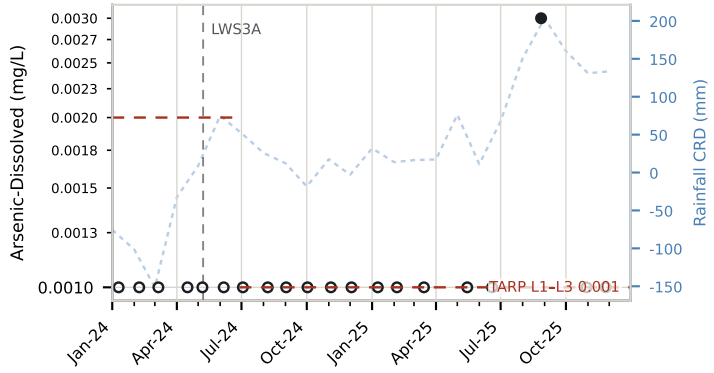
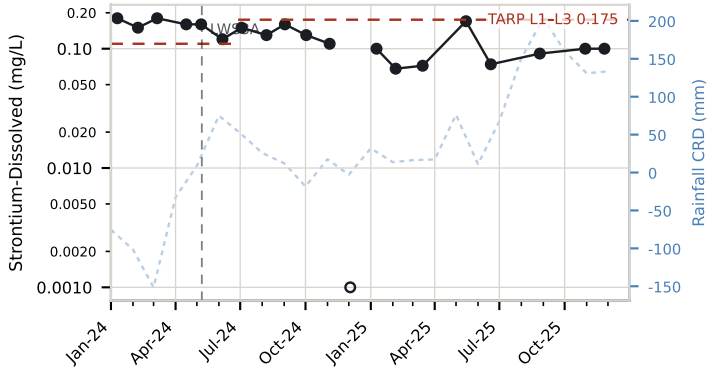
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR

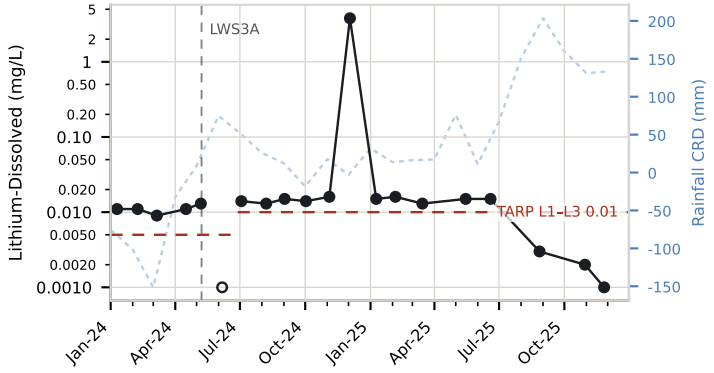
Arsenic-Dissolved



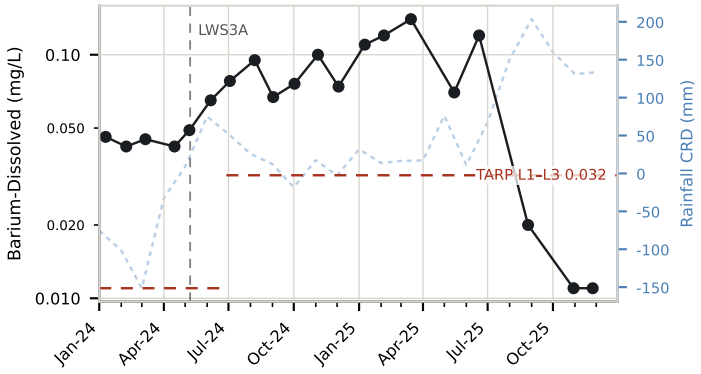
Strontium-Dissolved



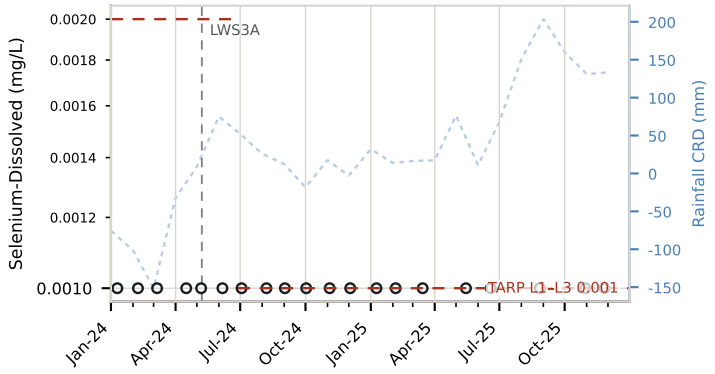
Lithium-Dissolved



Barium-Dissolved



Selenium-Dissolved



Result (detected)
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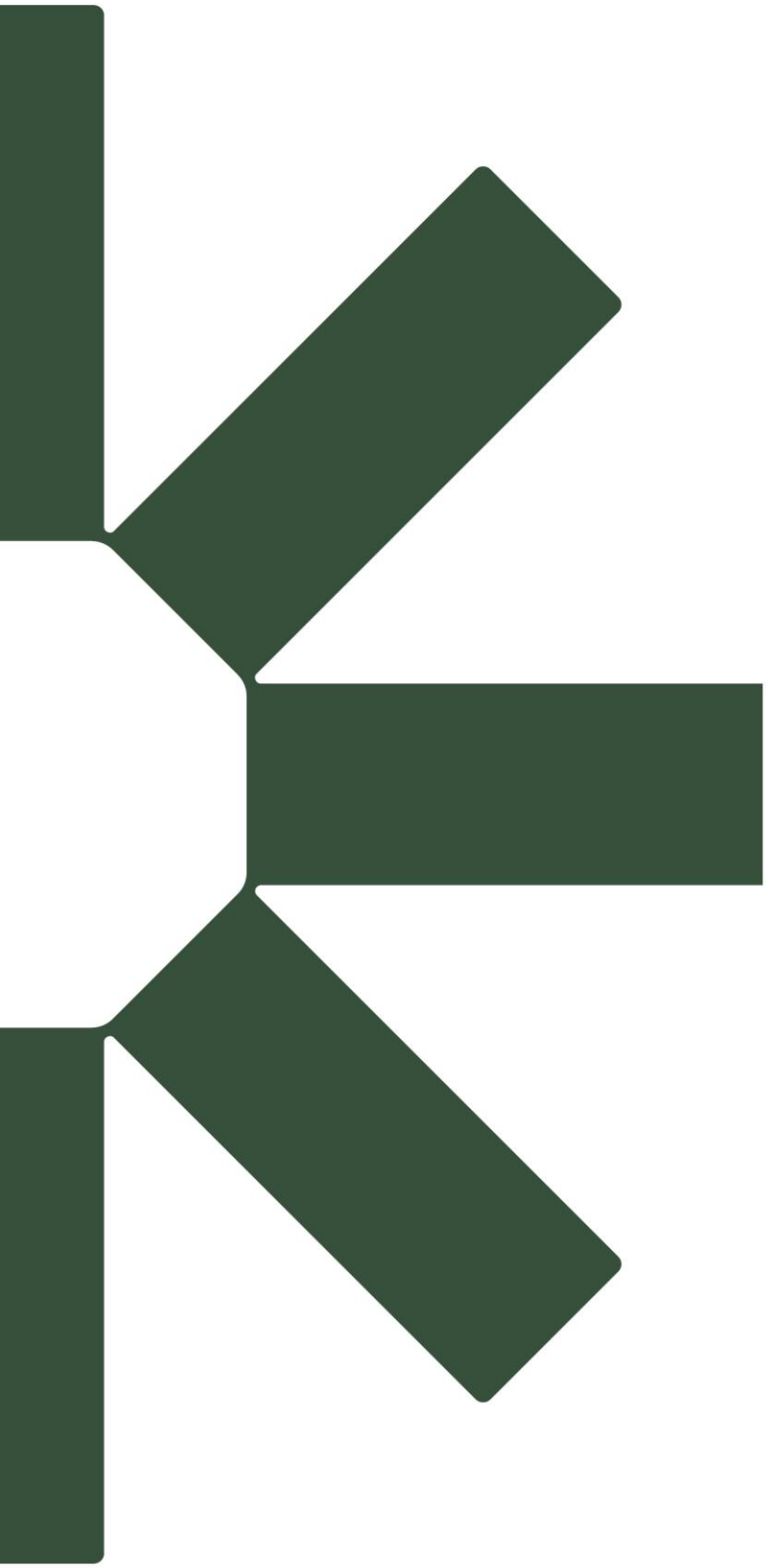
TARP threshold (level and value labelled; steps where the GTR revised it)
Rainfall CRD
Longwall start

SLR



Making Sustainability Happen