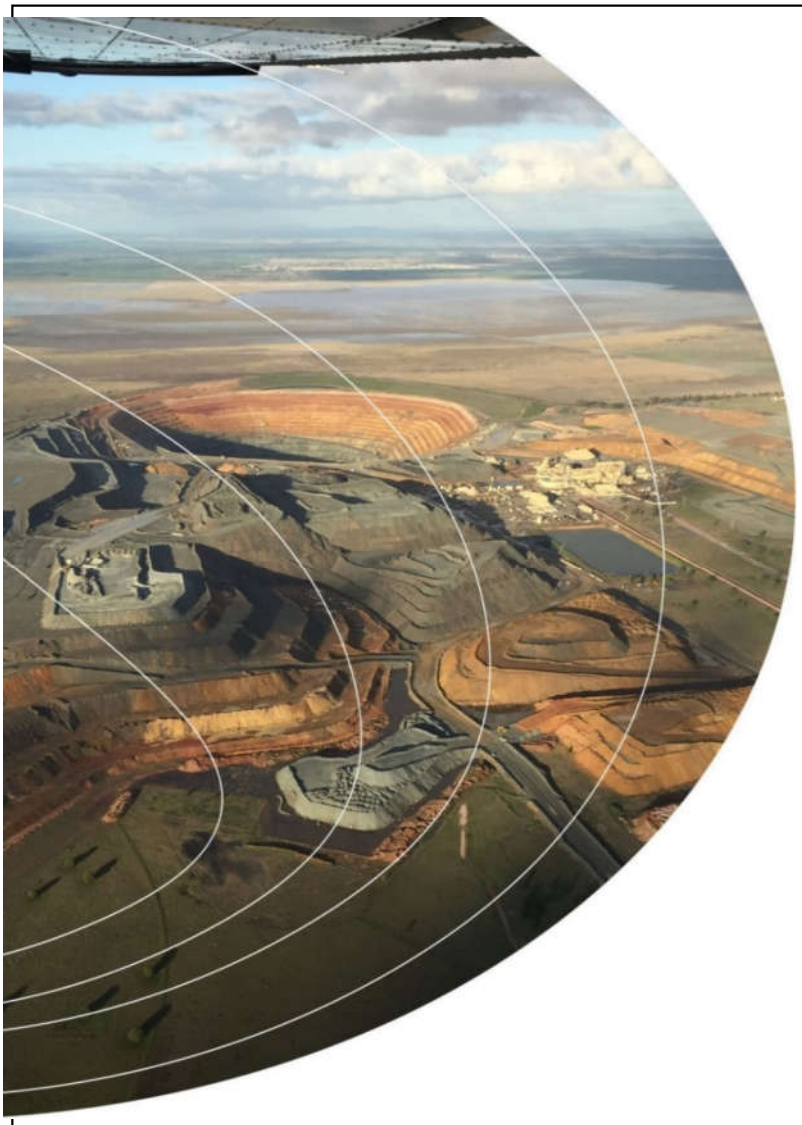

Environmental Monitoring Data

August 2024

EPL No: 11912
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671
http://www.epa.nsw.gov.au/licensing-and-regulation/public-registers

Dust

Monitoring Point: 1 <McLintocks Shed>
Dust monitoring, Dust gauge located on private property to the west of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	7.89	Water (dirty), Broken lid, Oily film on top
Monthly	15/02/2024	01/03/2024	21/03/2024	4.91	Water (dirty), Bugs, Grass, Bird poo
Monthly	13/03/2024	13/03/2024	23/04/2024	0.03	Insects, leaves, grass, seeds
Monthly	13/04/2024	06/05/2024	20/05/2024	16.11	Bird droppings, Plant matter
Monthly	16/05/2024	04/06/2024	27/06/2024	12.92	Water (brown), Dust, Bullet shell in funnel
Monthly	13/06/2024	28/06/2024	24/07/2024	6.16	Water, Insects, Bird poo, Plant matter
Monthly	12/07/2024	13/07/2024	27/08/2024	2.38	Water (brown), dust, Debris
Monthly	12/08/2024	29/08/2024	20/09/2024	7.05	Water, Insects, Sicks, Debris, Bird poo
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				8	
Lowest Value				0.0	
Mean of Sample				7.2	
Highest Sample Value				16.1	
Median				6.6	

Monitoring Point: 2 <Site Office>
Dust monitoring, Dust gauge located on private property to the south of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	6.19	Water, Insects, Bugs, Grasshopper, Bird poo
Monthly	15/02/2024	01/03/2024	21/03/2024	6.35	Water (milky), Insects, Bugs, Debris
Monthly	14/03/2023	02/04/2024	23/04/2024	1.82	Insects, Bird Poo
Monthly	13/04/2024	06/05/2024	20/05/2024	8.25	Veg matter, Bird droppings
Monthly	16/05/2024	04/06/2024	27/06/2024	2.66	Water, Insects, Beetle
Monthly	13/06/2024	28/06/2024	24/07/2024	4.02	Water, Insects, Bird poo, Floaties
Monthly	12/07/2024	13/07/2024	27/08/2024	3.44	Water (brown), Debris
Monthly	12/08/2024	29/08/2024	20/09/2024	4.08	Water, Insects, Dirt, Grass, Algae, Bird poo
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				8	
Lowest Value				1.8	
Mean of Sample				4.6	
Highest Sample Value				8.2	
Median				4.0	

Monitoring Point: 3 <DG06>
Dust monitoring, Dust gauge located on private property to the east of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	2.27	Water, Insects, Debris
Monthly	15/02/2024	01/03/2024	21/03/2024	1.38	Water, Insects, Debris
Monthly	14/03/2024	02/04/2024	23/04/2024	0.45	Insects, Bugs
Monthly	13/04/2024	06/05/2024	20/05/2024	0.93	Water, Insects, Bugs
Monthly	16/05/2024	04/06/2024	27/06/2024	0.62	Water, Insects, Plant Matter
Monthly	13/06/2024	28/06/2024	24/07/2024	0.42	Water, Insects
Monthly	13/07/2024	13/07/2024	27/08/2024	0.33	water, debris
Monthly	12/08/2024	29/08/2024	20/09/2024	0.34	Water, Insects
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				8	
Lowest Value				0.3	
Mean of Sample				0.8	
Highest Sample Value				2.3	
Median				0.5	

Monitoring Point: 4 <DG09>
Dust monitoring, Dust gauge located on private property to the south of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	1.64	Water, Insects, Bugs
Monthly	15/02/2024	01/03/2024	21/03/2024	1.47	Water, Insects, Bugs
Monthly	14/03/2024	02/04/2024	23/04/2024	0.33	Insects
Monthly	13/04/2024	06/05/2024	20/05/2024	5.37	Spider web in funnell
Monthly	16/05/2024	04/06/2024	27/06/2024	1.22	Water, Insects, Dust
Monthly	13/06/2024	28/06/2024	24/07/2024	1.75	Water, Insects, Poo
Monthly	12/07/2024	13/07/2024	27/08/2024	0.42	Water, Debris, insects
Monthly	12/08/2024	29/08/2024	20/09/2024	0.21	Water, insects
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				8	
Lowest Value				0.2	
Mean of Sample				1.5	
Highest Sample Value				5.4	
Median				1.3	

Monitoring Point: 5 <Site 52>
Dust monitoring, Dust gauge located within ML1535 and north of the open pit

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	2.95	Water, Insects, Bugs, Debris, Spider
Monthly	15/02/2024	01/03/2024	21/03/2024	4.04	Water, Beetle
Monthly	14/03/2023	02/04/2024	23/04/2024	0.38	Insects, Bugs
Monthly	13/04/2024	06/05/2024	20/05/2024	4.75	Veg matter, Dust
Monthly	16/05/2024	04/06/2024	27/06/2024	2.43	Water, Insects, Dust
Monthly	13/06/2024	28/06/2024	24/07/2024	1.84	Water, Insects
Monthly	12/07/2024	13/07/2024	27/08/2024	0.42	Water, Insects, Bugs
Monthly	12/08/2024	29/08/2024	20/09/2024	0.99	Water, Insects
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				8	
Lowest Value				0.4	
Mean of Sample				2.2	
Highest Sample Value				4.8	
Median				2.1	

Dust

Monitoring Point: 6 <DG01>
Dust monitoring, Dust gauge located on private property to the north of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m²/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	1.04	Water, Insects, Bugs
Monthly	15/02/2024	01/03/2024	21/03/2024	2.56	Water, Insects, Bugs
Monthly	14/03/2024	02/04/2024	23/04/2024	0.70	Insects, Bugs
Monthly	13/04/2024	06/05/2024	20/05/2024	1.22	
Monthly	16/05/2024	04/06/2024	27/06/2024	0.34	Water, Insects
Monthly	13/06/2024	28/06/2024	24/07/2024	0.32	Water, Insects
Monthly	12/07/2024	13/07/2024	27/08/2024	0.31	Water, insects, bugs
Monthly	12/08/2024	29/08/2024	20/09/2024	0.18	Water, Insects
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				8	
Lowest Value				0.2	
Mean of Sample				0.8	
Highest Sample Value				2.6	
Median				0.5	

Monitoring Point: 49 <HV1>
Dust monitoring, High volume sampler located on private property to the north of ML1535 boundary

Frequency	Date Sampled	Date Obtained	Date Published	Total Suspended Particles (µg/m³)	Comments
Every 7 days	Wednesday, 3 January 2024	20/02/2024	21/02/2024	24.8	
Every 7 days	Wednesday, 10 January 2024	20/02/2024	21/02/2024	26.0	
Every 7 days	Wednesday, 17 January 2024	20/02/2024	21/02/2024	34.4	
Every 7 days	Wednesday, 24 January 2024	20/02/2024	21/02/2024	44.7	
Every 7 days	Wednesday, 31 January 2024	20/02/2024	21/02/2024	75.0	
Every 7 days	Wednesday, 7 February 2024	14/03/2024	21/03/2023	18.1	
Every 7 days	Wednesday, 14 February 2024	14/03/2024	21/03/2024	72.0	
Every 7 days	Wednesday, 21 February 2024	14/03/2024	21/03/2024	33.3	
Every 7 days	Wednesday, 28 February 2024	14/03/2024	21/03/2024	55.0	
Every 7 days	Wednesday, 6 March 2024	19/04/2024	23/04/2024	59.4	
Every 7 days	Wednesday, 13 March 2024	19/04/2024	23/04/2024	74.7	
Every 7 days	Wednesday, 20 March 2024	19/04/2024	23/04/2024	37.4	
Every 7 days	Wednesday, 27 March 2024	19/04/2024	23/04/2024	83.5	
Every 7 days	Wednesday, 3 April 2024	10/05/2024	20/05/2024	27.4	
Every 7 days	Wednesday, 10 April 2024	10/05/2024	20/05/2024	24.9	
Every 7 days	Wednesday, 17 April 2024	10/05/2024	20/05/2024	64.8	
Every 7 days	Wednesday, 24 April 2024	10/05/2024	20/05/2024	66.0	
Every 7 days	Wednesday, 1 May 2024	17/06/2024	27/06/2024	19.3	
Every 7 days	Wednesday, 8 May 2024	17/06/2024	27/06/2024	12.9	
Every 7 days	Wednesday, 15 May 2024	17/06/2024	27/06/2024	22.1	
Every 7 days	Wednesday, 22 May 2024	17/06/2024	27/06/2024	25.5	
Every 7 days	Wednesday, 29 May 2024	17/06/2024	27/06/2024	27.4	
Every 7 days	Wednesday, 5 June 2024	11/07/2024	24/07/2024	11.4	
Every 7 days	Wednesday, 12 June 2024	11/07/2024	24/07/2024	14.6	
Every 7 days	Wednesday, 19 June 2024	11/07/2024	24/07/2024	9.1	
Every 7 days	Wednesday, 26 June 2024	11/07/2024	24/07/2024	7.4	
Every 7 days	Wednesday, 3 July 2024	12/08/2024	21/07/2024	14.6	
Every 7 days	Wednesday, 10 July 2024	12/08/2024	21/07/2024	1.9	
Every 7 days	Wednesday, 17 July 2024	12/08/2024	21/07/2024	2.4	
Every 7 days	Wednesday, 2 July 2024	12/08/2024	21/07/2024	8.6	
Every 7 days	Wednesday, 31 July 2024	12/08/2024	27/08/2024	15.4	
Every 7 days	Wednesday, 7 August 2024	10/09/2024	20/09/2024	12.5	
Every 7 days	Friday, 16 August 2024	10/09/2024	20/09/2024	9.2	Technical Issue
Every 7 days	Friday, 23 August 2024	10/09/2024	20/09/2024	14.6	Technical Issue
Every 7 days	Wednesday, 28 August 2024	10/09/2024	20/09/2024	40.9	
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Number of Samples Collected				35	
Lowest Value				1.9	
Mean of Sample				31.2	
Highest Sample Value				83.5	
Median				24.9	

Surface Water

Monitoring Point: 12 <D1>
Stormwater quality monitoring, Northern waste emplacement contained water storage

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Comments
Monthly	09/01/2024	09/01/2024	21/02/2024	8.38	14133	14	
Monthly	18/01/2024	18/01/2024	21/02/2024	8.17	9145	18	Rainfall Monitoring Event
Monthly	06/02/2024	06/02/2024	21/03/2024	8.43	10038	41	
Monthly	05/03/2024	05/03/2024	23/04/2024	7.46	10710	19	
Monthly	20/03/2024	20/03/2024	23/04/2024	7.13	11060	9	Rainfall Monitoring Event
Monthly	07/04/2024	07/04/2024	20/05/2024	9.01	10886	34	Rainfall Monitoring Event
Monthly	23/04/2024	23/04/2024	20/05/2024	8.00	9160	14	
Monthly	06/05/2024	06/05/2024	27/06/2024	7.95	7451	22	Rainfall Monitoring Event
Monthly	19/06/2024	19/06/2024	24/07/2024	6.85	6817	10	
Monthly	17/07/2024	27/07/2024	27/08/2024	6.98	6179	3	
Monthly	29/08/2024	04/09/2024	20/09/2024	8.08	6566	34	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				11.00	11.00	11.00	
Lowest Value				6.85	6179.00	3.00	
Mean of Sample				7.86	9285.89	19.82	
Highest Sample Value				9.01	14133.00	41.00	
Median				8.00	9160.00	18.00	

Monitoring Point: 13 <D4>
Stormwater quality monitoring, Southern waste emplacement contained water storage

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Comments
Monthly	09/01/2024	09/01/2024	21/02/2024	7.85	10036	54	
Monthly	18/01/2024	18/01/2024	21/02/2024	8.19	3195	14	Rainfall Monitoring Event
Monthly	06/02/2024	06/02/2024	21/03/2024	8.94	1527	441	
Monthly	05/03/2024	05/03/2024	23/04/2024	-	-	-	Dry
Monthly	20/03/2024	20/03/2024	23/04/2024	7.73	21282	15	Rainfall Monitoring Event
Monthly	07/04/2024	07/04/2024	20/05/2024	8.94	30009	7	Rainfall Monitoring Event
Monthly	23/04/2024	23/04/2024	20/05/2024	7.84	28949	<1	Rainfall Monitoring Event
Monthly	06/05/2024	06/05/2024	27/06/2024	7.72	18039	3	
Monthly	19/06/2024	19/06/2024	24/07/2024	6.78	24872	4	
Monthly	17/07/2024	27/07/2024	27/08/2024	7.10	21105	11	
Monthly	29/08/2024	04/09/2024	20/09/2024	7.42	20703	5	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				10.00	10.00	9.00	
Lowest Value				6.78	1527.00	3.00	
Mean of Sample				7.85	17971.69	61.56	
Highest Sample Value				8.94	30009.00	441.00	
Median				7.79	20904.00	11.00	

Lake Water

Monitoring Point: 14 <P1>
Ambient water quality monitoring, Surface water point within ML1535 on Lake Cowal

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Comments
Weekly	04/01/2024	04/01/2024	21/02/2024	8.37	622.0	35	
Weekly	09/01/2024	09/01/2024	21/02/2024	8.42	632.0	30	
Weekly	16/01/2024	16/01/2024	21/02/2024	7.49	586.0	240	
Weekly	18/01/2024	18/01/2024	21/02/2024	8.51	588.0	89	Rainfall Monitoring Event
Weekly	22/01/2024	22/01/2024	21/02/2024	8.66	609.0	76	
Weekly	30/01/2024	30/01/2024	21/02/2024	8.52	615.0	59	
Weekly	06/02/2024	06/02/2024	21/03/2024	8.65	636.0	80	
Weekly	15/02/2024	15/02/2024	21/03/2024	8.95	599.0	105	
Weekly	20/02/2024	20/02/2024	21/03/2024	9.20	616.2	83	
Weekly	01/03/2024	01/03/2024	23/04/2024	8.39	665.0	112	
Weekly	08/03/2024	08/03/2024	23/04/2024	8.69	614.0	79	
Weekly	14/03/2024	14/03/2024	23/04/2024	7.88	622.0	63	
Weekly	18/03/2024	18/03/2024	23/04/2024	8.19	691.0	105	
Weekly	21/03/2024	21/03/2024	23/04/2024	7.76	642.0	177	Rainfall Monitoring Event
Weekly	26/03/2024	26/03/2024	23/04/2024	8.00	701.0	69	
Weekly	03/04/2024	03/04/2024	20/05/2024	8.93	594.0	116	
Weekly	08/04/2024	08/04/2024	20/05/2024	8.91	453.0	83	Rainfall Monitoring Event
Weekly	16/04/2024	16/04/2024	20/05/2024	8.82	746.0	64	
Weekly	23/04/2024	23/04/2024	20/05/2024	8.96	696.0	65	
Weekly	02/05/2024	02/05/2024	27/06/2024	8.39	606.0	155	
Weekly	06/05/2024	06/05/2024	27/06/2024	7.89	575.0	97	
Weekly	16/05/2024	16/05/2024	27/06/2024	8.02	736.0	114.0	
Weekly	21/05/2024	21/05/2024	27/06/2024	7.92	547.8	136	
Weekly	27/05/2024	27/05/2024	27/06/2024	7.59	559.0	101	
Weekly	05/06/2024	05/06/2024	24/07/2024	8.54	765.0	150	
Weekly	13/06/2024	13/06/2024	24/07/2024	8.03	587.0	98	
Weekly	17/06/2024	17/06/2024	24/07/2024	8.54	744.0	124	
Weekly	27/06/2024	27/06/2024	24/07/2024	7.67	737.5	65	
Weekly	03/07/2024	03/07/2024	27/08/2024	7.51	734.0	189	
Weekly	12/07/2024	12/07/2024	27/08/2024	8.08	702.8	59	
Weekly	19/07/2024	19/07/2024	27/08/2024	7.56	480.0	84	
Weekly	23/07/2024	23/07/2024	27/08/2024	8.42	588.0	84	
Weekly	01/08/2024	01/08/2024	20/09/2024	8.24	674.0	73	
Weekly	07/08/2024	07/08/2024	20/09/2024	7.95	693.0	32	
Weekly	13/08/2024	13/08/2024	20/09/2024	7.59	690.0	50	
Weekly	23/08/2024	23/08/2024	20/09/2024	8.14	558.4	59	
Weekly	30/08/2024	30/08/2024	20/09/2024	7.91	531.0	184	
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Number of Samples Collected				37	37	37	
Lowest Value				7.5	453.0	30.0	
Mean of Sample				8.3	633.4	97.1	
Highest Sample Value				9.2	765.0	240.0	
Median				8.2	622.0	84.0	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	07/02/2024	21/02/2024	158	<0.001	0.002	<0.0001	0.001	<0.001	0.002	0.001	<0.01	76	<0.005	
Quarterly	16/04/2024	01/05/2024	20/05/2024	170	<0.001	0.002	<0.0001	<0.001	<0.001	0.002	0.002	<0.01	64	<0.005	
Quarterly	23/07/2024	02/08/2024	27/08/2024	203	<0.001	0.002	<0.0001	0.002	<0.001	0.001	0.003	<0.01	84	0.006	
Quarterly															
Lowest Value				158.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.0	0.0	
Mean of Sample				177.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.7	0.0	
Highest Sample Value				203.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84.0	0.0	

Monitoring Point: 15 <P2>
Ambient water quality monitoring, Surface water point within ML1535 on Lake Cowal

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	22/01/2024	07/02/2024	21/02/2024	8.64	603	
Monthly	20/02/2024	20/02/2024	21/03/2024	9.22	616.4	
Monthly	18/03/2024	18/03/2024	23/04/2024	8.19	691	
Monthly	16/04/2024	16/04/2024	20/05/2024	8.83	745	
Monthly	16/05/2024	16/05/2024	27/06/2024	8.03	736	
Monthly	17/06/2024	17/06/2024	24/07/2024	8.54	755	
Monthly	23/07/2024	23/07/2024	27/08/2024	8.42	588	
Monthly	23/08/2024	23/08/2024	20/09/2024	8.14	558.3	
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				8	8	
Lowest Value				8.0	558.3	
Mean of Sample				8.5	661.6	
Highest Sample Value				9.2	755.0	
Median				8.5	653.7	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	07/02/2024	21/02/2024	155	<0.001	0.002	<0.0001	0.001	<0.001	0.002	0.002	<0.01	83	<0.005	
Quarterly	16/04/2024	01/05/2024	20/05/2024	171	<0.001	0.002	<0.0001	<0.001	<0.001	0.002	0.002	<0.01	63	<0.005	
Quarterly	23/07/2024	02/08/2024	27/08/2024	204	<0.001	0.002	<0.0001	0.002	<0.001	0.001	0.003	<0.01	70	0.005	
Quarterly															
Lowest Value				155.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.0	0.0	
Mean of Sample				176.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72.0	0.0	
Highest Sample Value				204.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.0	0.0	

Monitoring Point: 16 <P3>
Ambient water quality monitoring, Surface water point within ML1535 on Lake Cowal

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Comments
Weekly	04/01/2024	04/01/2024	21/02/2024	8.49	623.0	40	
Weekly	09/01/2024	09/01/2024	21/02/2024	8.49	627.0	28	
Weekly	16/01/2024	16/01/2024	21/02/2024	7.25	592.0	254	
Weekly	18/01/2024	18/01/2024	21/02/2024	8.47	586.0	142	Rainfall Monitoring Event
Weekly	22/01/2024	22/01/2024	21/02/2024	8.65	603.0	87	
Weekly	30/01/2024	30/01/2024	21/02/2024	8.72	653.0	66	
Weekly	06/02/2024	06/02/2024	21/03/2024	8.67	630.0	90	
Weekly	15/02/2024	15/02/2024	21/03/2024	9.13	601.0	89	
Weekly	20/02/2024	20/02/2024	21/03/2024	9.19	616.4	100	
Weekly	01/03/2024	01/03/2024	23/04/2024	8.73	640.0	111	
Weekly	08/03/2024	08/03/2024	23/04/2024	8.84	614.0	80	
Weekly	14/03/2024	14/03/2024	23/04/2024	8.15	601.0	61	
Weekly	18/03/2024	18/03/2024	23/04/2024	8.19	692.0	121	Rainfall Monitoring Event
Weekly	21/03/2024	21/03/2024	23/04/2024	7.7	654.0	197	
Weekly	26/03/2024	26/03/2024	23/04/2024	8.01	756.0	67	
Weekly	03/04/2024	03/04/2024	20/05/2024	8.94	589.0	108	
Weekly	08/04/2024	08/04/2024	20/05/2024	8.88	451.0	89	Rainfall Monitoring Event
Weekly	16/04/2024	16/04/2024	20/05/2024	8.82	745.0	63	
Weekly	23/04/2024	23/04/2024	20/05/2024	8.57	663.0	63	
Weekly	02/05/2024	02/05/2024	27/06/2024	8.46	613.0	174	
Weekly	06/05/2024	06/05/2024	27/06/2024	7.95	588.0	124	
Weekly	16/05/2024	16/05/2024	27/06/2024	8.02	736.0	101	
Weekly	21/05/2024	21/05/2024	27/06/2024	7.74	548.4	109	
Weekly	27/05/2024	27/05/2024	27/06/2024	7.80	560.0	119	
Weekly	05/06/2024	05/06/2024	24/07/2024	8.27	760.0	159	
Weekly	13/06/2024	13/06/2024	24/07/2024	7.93	855.0	92	
Weekly	17/06/2024	17/06/2024	24/07/2024	8.54	744.0	133	
Weekly	27/06/2024	27/06/2024	24/07/2024	7.98	745.2	58	
Weekly	03/07/2024	03/07/2024	27/08/2024	7.65	841.0	185	
Weekly	12/07/2024	12/07/2024	27/08/2024	7.99	707.8	48	
Weekly	19/07/2024	19/07/2024	27/08/2024	7.66	698.0	96	
Weekly	23/07/2024	23/07/2024	27/08/2024	8.43	589.0	94	
Weekly	01/08/2024	01/08/2024	20/09/2024	8.28	671.0	118	
Weekly	07/08/2024	07/08/2024	20/09/2024	7.93	677.0	29	
Weekly	13/08/2024	13/08/2024	20/09/2024	7.58	638.0	23	
Weekly	23/08/2024	23/08/2024	20/09/2024	8.14	557.8	40	
Weekly	30/08/2024	30/08/2024	20/09/2024	7.99	535.0	244	
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Weekly							
Number of Samples Collected				37	37	37	
Lowest Value				7.3	451.0	23.0	
Mean of Sample				8.3	648.6	102.8	
Highest Sample Value				9.2	855.0	254.0	
Median				8.3	630.0	94.0	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	07/02/2024	21/02/2024	165	<0.001	0.002	<0.0001	0.001	<0.001	0.002	0.001	<0.01	87	<0.005	
Quarterly	16/04/2024	01/05/2024	20/05/2024	175	<0.001	0.002	<0.0001	<0.001	<0.001	0.002	0.002	<0.01	63	<0.005	
Quarterly	23/07/2024	02/08/2024	27/08/2024	204	<0.001	0.002	<0.0001	0.002	<0.001	<0.001	0.003	<0.01	94	<0.005	
Quarterly															
Lowest Value				165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.0	0.0	
Mean of Sample				181.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.3	0.0	
Highest Sample Value				204.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.0	0.0	

Lake Water

Monitoring Point: 17 <B1>
Ambient water quality monitoring, Surface water point within ML1535 on Lake Cowal

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	22/01/2024	07/02/2024	21/02/2024	8.55	605.0	
Monthly	20/02/2024	20/02/2024	21/03/2024	9.18	610.2	
Monthly	18/03/2024	18/03/2024	23/04/2024	8.43	693.0	
Monthly	16/04/2024	16/04/2024	20/05/2024	8.97	740.0	
Monthly	16/05/2024	16/05/2024	27/06/2024	8.23	735.0	
Monthly	17/06/2024	17/06/2024	24/07/2024	8.48	720.0	
Monthly	24/07/2024	24/07/2024	27/08/2024	8.44	567.0	
Monthly	23/08/2024	23/08/2024	20/09/2024	8.15	558.2	
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				8	8	
Lowest Value				8.2	558.2	
Mean of Sample				8.6	654.7	
Highest Sample Value				9.2	740.0	
Median				8.5	656.1	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	07/02/2024	21/02/2024	156	<0.001	0.002	<0.0001	<0.001	<0.001	0.002	0.002	<0.01	53	<0.005	
Quarterly	16/04/2024	01/05/2024	20/05/2024	172	<0.001	0.002	<0.0001	<0.001	<0.001	0.004	0.002	<0.01	75	<0.005	
Quarterly	24/07/2024	02/08/2024	27/08/2024	204	<0.001	0.002	<0.0001	0.002	<0.001	0.001	0.002	<0.01	80	<0.005	
Quarterly															
Lowest Value				156.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0	
Mean of Sample				177.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69.3	0.0	
Highest Sample Value				204.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0	0.0	

Monitoring Point: 18 <B6>
Ambient water quality monitoring, Surface water point on Lake Cowal to the south-east of ML1535 boundary

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	23/01/2024	07/02/2024	21/02/2024	6.77	204.3	
Monthly	20/02/2024	20/02/2024	21/03/2024	8.86	604.9	
Monthly	18/03/2024	18/03/2024	23/04/2024	9.03	680.0	
Monthly	17/04/2024	16/04/2024	20/05/2024	8.62	728.0	
Monthly	16/05/2024	16/05/2024	27/06/2024	7.86	721.0	
Monthly	17/06/2024	17/06/2024	24/07/2024	8.38	746.0	
Monthly	23/07/2024	23/07/2024	27/08/2024	8.18	540.0	
Monthly	23/08/2024	23/08/2024	20/09/2024	8.13	529.7	
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				8	8	
Lowest Value				6.8	204.3	
Mean of Sample				8.2	594.2	
Highest Sample Value				9.0	746.0	
Median				8.3	642.5	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	07/02/2024	21/02/2024	59	<0.001	0.003	<0.0001	0.002	<0.001	<0.001	0.003	<0.01	37	<0.005	
Quarterly	17/04/2024	01/05/2024	20/05/2024	174	<0.001	0.002	<0.0001	0.001	<0.001	0.003	0.002	<0.01	210	<0.005	
Quarterly	23/07/2024	02/08/2024	27/08/2024	192	<0.001	0.002	<0.0001	0.002	<0.001	0.001	0.003	<0.01	188	<0.005	
Quarterly															
Lowest Value				59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	0.0	
Mean of Sample				141.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	145.0	0.0	
Highest Sample Value				192.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	210.0	0.0	

Waste Rock Leachate

Monitoring Point: 41 <Northern Waste Emplacement>
Northern Waste Emplacement leachate quality monitoring

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	23/01/2024	-	-	-	-	No water present in toe drain
Monthly	27/02/2024	-	-	-	-	No water present in toe drain
Monthly	05/03/2024	-	-	-	-	No water present in toe drain
Monthly	10/04/2024	-	-	-	-	No water present in toe drain
Monthly	14/05/2024	-	-	-	-	No water present in toe drain
Monthly	19/06/2024	-	-	-	-	No water present in toe drain
Monthly	10/07/2024	-	-	-	-	No water present in toe drain
Monthly	22/08/2024	-	-	-	-	No water present in toe drain
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				0	0	
Lowest Value				0.0	0	
Mean of Sample				0.0	0	
Highest Sample Value				0.0	0	
Median				0.0	0	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)		Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in toe drain
Quarterly	10/04/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in toe drain
Quarterly	10/07/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in toe drain
Quarterly																								
Lowest Value				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Mean of Sample				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Highest Sample Value				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Monitoring Point: 42 <Southern Waste Emplacement>
Southern Waste Emplacement leachate quality monitoring

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	7.85	22140	
Monthly	27/02/2024	27/02/2024	21/03/2024	7.41	18716	
Monthly	05/03/2024	05/03/2024	23/04/2024	7.73	19340	
Monthly	10/04/2024	10/04/2024	20/05/2024	8.22	19721	
Monthly	14/05/2024	14/05/2024	27/06/2024	6.34	16911	
Monthly	19/06/2024	19/06/2024	27/07/2024	6.98	13374	
Monthly	10/07/2024	18/07/2024	27/08/2024	7.25	17723	
Monthly	22/08/2024	22/08/2024	20/09/2024	7.21	17404	
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				8	8	
Lowest Value				6.3	13374	
Mean of Sample				7.4	18166	
Highest Sample Value				8.2	22140	
Median				7.3	18220	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	08/02/2024	21/02/2024	216	<0.0005	<0.0005	0.0068	558	5620	0.001	0.01	<0.0002	705	0.079	0.0038	0.001	37	<0.002	3180	2950	41	4300	0.052	
Quarterly	10/04/2024	19/04/2024	20/05/2024	254	<0.0002	0.0004	0.00649	780	5560	0.0012	0.003	<0.0001	687	0.768	0.0043	0.001	42	0.0008	3160	3150	72	4780	0.098	
Quarterly	10/07/2024	18/07/2024	27/08/2024	270	<0.0005	<0.0005	0.0071	635	5260	<0.001	<0.005	<0.0002	656	0.681	0.003	<0.0005	35	<0.002	3110	2860	197	4290	0.115	
Quarterly																								
Lowest Value				216.0000	0.0000	0.0004	0	558	5260.000	0.0010	0.0030	0.0000	656.0000	0.0792	0.003	0.0010	35.000	0.0008	3110	2860	41.000	4290	0.052	
Mean of Sample				246.6667	0.0000	0.0004	0	658	5480.000	0.0011	0.0065	0.0000	682.6667	0.5094	0.004	0.0010	38.000	0.0008	3150	2987	103.333	4457	0.088	
Highest Sample Value				270.0000	0.0000	0.0004	0	780	5620.000	0.0012	0.0100	0.0000	705.0000	0.7680	0.004	0.0010	42.000	0.0008	3180	3150	197.000	4780	0.115	

Monitoring Point: 43 <Perimeter Waste Emplacement>
Perimeter Waste Emplacement leachate quality monitoring

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	23/01/2024	-	-	-	-	No water present in toe drain
Monthly	27/02/2024	-	-	-	-	No water present in toe drain
Monthly	05/03/2024	-	-	-	-	No water present in toe drain
Monthly	10/04/2024	-	-	-	-	No water present in toe drain
Monthly	14/05/2024	-	-	-	-	No water present in toe drain
Monthly	19/06/2024	-	-	-	-	No water present in toe drain
Monthly	10/07/2024	-	-	-	-	No water present in toe drain
Monthly	22/08/2024	-	-	-	-	No water present in toe drain
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				0	0	
Lowest Value				0.0	0	
Mean of Sample				0.0	0	
Highest Sample Value				0.0	0	
Median				0.0	0	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in toe drain
Quarterly	10/04/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in toe drain
Quarterly	10/07/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in toe drain
Quarterly																								
Lowest Value				0.0000	0.0000	0.0000	0	0	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.000	0.0000	0	0	0.000	0	0.000	
Mean of Sample				0.0000	0.0000	0.0000	0	0	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.000	0.0000	0	0	0.000	0	0.000	
Highest Sample Value				0.0000	0.0000	0.0000	0	0	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.000	0.0000	0	0	0.000	0	0.000	

Groundwater

Monitoring Point: 19 <PSS5A-R>
Groundwater quality monitoring, Piezometer located up gradient of southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.76	32273	20.570	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.76	31920	20.555	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.59	31833	20.600	
Monthly	11/04/2024	11/04/2024	20/05/2024	6.94	31827	20.570	
Monthly	23/05/2024	23/05/2024	27/06/2024	7.00	33449	20.570	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.74	31936	20.520	
Monthly	18/07/2024	18/07/2024	27/08/2024	6.60	33120	20.500	
Monthly	08/08/2024	08/08/2024	20/09/2024	6.68	31309	20.560	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.6	31309	20.500	
Mean of Sample				6.8	32208	20.556	
Highest Sample Value				7.0	33449	20.600	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	748	<0.0005	<0.0005	<0.0002	274	8930	<0.001	<0.004	<0.005	<0.0002	787	0.0462	0.0015	0.0037	23	0.003	5920	2440	24500	3920	<0.005	
Quarterly	11/04/2024	19/04/2024	20/05/2024	818	<0.0005	<0.0005	0.0005	298	9680	<0.001	<0.004	0.010	<0.0002	884	0.0309	0.0028	0.0082	31	0.003	6480	2450	25100	4380	0.007	
Quarterly	18/07/2024	26/07/2024	27/08/2024	821	<0.0005	<0.0005	0.0006	339	9750	0.002	<0.008	<0.005	<0.0002	884	0.0649	0.0026	0.0066	26	0.003	6360	2440	21500	4490	0.006	
Quarterly																									
Lowest Value				748.0	0.0000	0.0000	0.0005	274	8930	0.0020	0.0000	0.0100	0.0000	787	0.0309	0.0015	0.0037	23	0.0030	5920	2440	21500	3920	0.0060	
Mean of Sample				795.7	0.0000	0.0000	0.0006	304	9453	0.0020	0.0000	0.0100	0.0000	851.6667	0.0473	0.0023	0.0062	27	0.0030	6253	2443	23700	4263	0.0065	
Highest Sample Value				821.0	0.0000	0.0000	0.0006	339	9750	0.0020	0.0000	0.0100	0.0000	884	0.0649	0.0028	0.0082	31	0.0030	6480	2450	25100	4490	0.0070	

Monitoring Point: 26 <PP03>
Groundwater quality monitoring, Piezometer located near the processing plant area

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.65	50023	17.425	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.64	48511	17.315	
Monthly	19/03/2024	19/03/2024	23/04/2024	6.04	46959	17.300	pH probe calibration error
Monthly	02/04/2024	02/04/2024	20/05/2024	6.53	49105	17.225	
Monthly	14/05/2024	14/05/2024	27/06/2024	6.73	50193	17.190	
Monthly	06/06/2024	06/06/2024	24/07/2024	6.72	48253	17.000	
Monthly	09/07/2024	09/07/2024	27/08/2024	6.60	47460	16.820	
Monthly	06/08/2024	06/08/2024	20/09/2024	6.78	47726	16.700	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.0	46959	16.700	
Mean of Sample				6.6	48529	17.122	
Highest Sample Value				6.8	50193	17.425	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	407	<0.0005	<0.0005	<0.0002	828	14300	0.003	<0.004	0.006	0.0008	1720	0.003	<0.0001	0.0008	58	0.01	9260	3380	41400	9150	0.02	
Quarterly	02/04/2024	11/04/2024	20/05/2024	447	<0.0005	<0.0005	<0.0002	696	16300	0.001	<0.004	0.033	0.0007	1720	0.0048	<0.0001	<0.0005	79	0.01	8940	3340	33300	8820	0.013	
Quarterly	09/07/2024	18/07/2024	27/08/2024	448	<0.0005	<0.0005	<0.0002	842	15300	0.002	<0.010	<0.005	0.0006	1760	<0.0005	0.000	<0.0005	53	0.01	9650	3620	36000	9350	0.013	
Quarterly																									
Lowest Value				407.0	0.0000	0.0000	0.0000	696	14300	0.0010	0.0000	0.0060	0.0006	1720	0.0030	0.0001	0.0008	53	0.0080	8940	3340	33300	8820	0.0130	
Mean of Sample				434.0	0.0000	0.0000	0.0000	789	15300	0.0020	0.0000	0.0195	0.0007	1733	0.0039	0.0001	0.0008	63	0.0090	9283	3447	36900	9107	0.0153	
Highest Sample Value				448.0	0.0000	0.0000	0.0000	842	16300	0.0030	0.0000	0.0330	0.0008	1760	0.0048	0.0001	0.0008	79	0.0100	9650	3620	41400	9350	0.0200	

Monitoring Point: 27 <PP04>
Groundwater quality monitoring, Piezometer located near the processing plant area

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.59	49241	15.675	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.60	48310	15.615	
Monthly	19/03/2024	19/03/2024	23/04/2024	6.03	42769	15.620	pH probe calibration error
Monthly	02/04/2024	02/04/2024	20/05/2024	6.58	48748	15.580	
Monthly	14/05/2024	14/05/2024	27/06/2024	6.73	49862	15.580	
Monthly	06/06/2024	06/06/2024	24/07/2024	6.65	48010	15.520	
Monthly	09/07/2024	09/07/2024	27/08/2024	6.59	49194	15.420	
Monthly	08/08/2024	08/08/2024	20/09/2024	6.69	46802	15.450	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.0	42769	15.420	
Mean of Sample				6.6	47867	15.558	
Highest Sample Value				6.7	49862	15.675	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	477	<0.0005	<0.0005	<0.0002	789	13800	0.003	<0.004	<0.005	<0.0002	1610	0.0031	0.0001	0.0024	52	0.009	9230	3480	40500	8600	0.018	
Quarterly	02/04/2024	11/04/2024	20/05/2024	517	<0.0005	<0.0005	<0.0002	689	15900	<0.001	<0.004	0.007	<0.0002	1660	0.0022	0.0005	0.0042	74	0.009	9020	3660	32600	8560	0.016	
Quarterly	09/07/2024	18/07/2024	27/08/2024	519	<0.0005	<0.0005	<0.0002	793	14600	0.002	<0.010	0.015	0.0005	1710	0.0011	0.0003	0.0031	49	0.008	9710	3500	35400	9020	0.019	
Quarterly																									
Lowest Value				477.0	0.0000	0.0000	0.0000	689	13800	0.0020	0.0000	0.0070	0.0005	1610	0.0011	0.0001	0.0024	49	0.0080	9020	3480	32600	8560	0.0160	
Mean of Sample				504.3	0.0000	0.0000	0.0000	757	14767	0.0025	0.0000	0.0110	0.0005	1660	0.0021	0.0003	0.0032	58	0.0087	9320	3547	36167	8727	0.0177	
Highest Sample Value				519.0	0.0000	0.0000	0.0000	793	15900	0.0030	0.0000	0.0150	0.0005	1710	0.0031	0.0005	0.0042	74	0.0090	9710	3660	40500	9020	0.0190	

Monitoring Point: 30 <P417A>
Groundwater quality monitoring, Piezometer located down gradient of southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.58	46945	11.010	
Monthly	22/02/2024	22/02/2024	21/03/2024	6.53	46677	10.985	
Monthly	14/03/2024	14/03/2024	23/04/2024	5.87	45007	10.98	pH probe calibration error
Monthly	03/04/2024	03/04/2024	20/05/2024	6.75	46423	10.970	
Monthly	23/05/2024	23/05/2024	27/06/2024	6.83	48805	10.95	
Monthly	20/06/2024	20/06/2024	24/07/2024	6.43	46399	10.81	
Monthly	04/07/2024	04/07/2024	27/08/2024	6.40	48134	10.910	
Monthly	01/08/2024	01/08/2024	20/09/2024	6.51	45656	10.410	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.9	45007	10.410	
Mean of Sample				6.5	46756	10.878	
Highest Sample Value				6.8	48805	11.010	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	450	<0.0005	<0.0005	0.001	654	13100	0.025	<0.004	1.82	<0.0002	1550	0.125	0.0065	0.476	38	0.01	8750	3150	38900	8020	<0.005	
Quarterly	03/04/2024	11/04/2024	20/05/2024	495	<0.0005	<0.0005	0.0003	545	14000	0.001	<0.004	0.006	<0.0002	1540	0.0088	0.0063	0.0074	53	0.009	8280	3180	31900	7700	<0.005	
Quarterly	04/07/2024	17/07/2024	27/08/2024	485	<0.0005	<0.0005	0.0008	708	14700	0.003	<0.004	<0.005	<0.0002	1620	0.0189	0.0048	0.0033	38	0.008	9220	3580	32400	8440	0.007	
Quarterly																									
Lowest Value				450.0	0.0000	0.0000	0.0003	545	13100	0.0010	0.0000	0.0060	0.0000	1540	0.0088	0.0048	0.0033	38	0.0080	8280	3150	31900	7700	0.0070	
Mean of Sample				476.7	0.0000	0.0000	0.0007	636	13933	0.0097	0.0000	0.9130	0.0000	1570	0.0509	0.0059	0.1622	43	0.0090	8750	3303	34400	8053	0.0070	
Highest Sample Value				495.0	0.0000	0.0000	0.0010	708	14700	0.0250	0.0000	1.8200	0.0000	1620	0.1250	0.0065	0.4760	53	0.0100	9220	3580	38900	8440	0.0070	

Groundwater

Monitoring Point: 31 <P417B>

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.67	41786	10.970	
Monthly	22/02/2024	22/02/2024	21/03/2024	6.63	43120	10.943	
Monthly	14/03/2024	14/03/2024	23/04/2024	5.99	42561	10.940	pH probe calibration error
Monthly	03/04/2024	03/04/2024	20/05/2024	6.89	41804	10.940	
Monthly	23/05/2024	23/05/2024	27/06/2024	7.14	44206	10.900	
Monthly	20/06/2024	20/06/2024	24/07/2024	6.68	42244	10.790	
Monthly	04/07/2024	04/07/2024	27/08/2024	6.37	55830	10.890	
Monthly	01/08/2024	01/08/2024	20/09/2024	6.84	41579	10.880	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.0	41579	10.790	
Mean of Sample				6.7	44391	10.907	
Highest Sample Value				7.1	55830	10.970	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	233	<0.0005	<0.0005	<0.0002	524	12500	0.003	<0.004	0.006	0.0006	1430	0.0019	0.0004	0.002	20	0.009	8010	2800	35500	7200	0.02	
Quarterly	03/04/2024	11/04/2024	20/05/2024	260	<0.0005	<0.0005	<0.0002	450	12900	0.002	<0.004	0.007	0.0005	1370	0.0034	0.0004	0.0011	30	0.009	7360	2810	29300	6760	0.04	
Quarterly	04/07/2024	17/07/2024	27/08/2024	248	<0.0005	<0.0005	<0.0002	578	13600	0.003	<0.004	0.007	0.0009	1370	0.0032	0.0003	0.002	21	0.008	8270	3080	29700	7080	0.037	
Quarterly																									
Lowest Value				233.0	0.0000	0.0000	0.0000	450	12500	0.0020	0.0000	0.0060	0.0005	1370	0.0019	0.0003	0.0011	20	0.0080	7360	2800	29300	6760	0.0200	
Mean of Sample				247.0	0.0000	0.0000	0.0000	517	13000	0.0027	0.0000	0.0067	0.0007	1390	0.0028	0.0004	0.0017	24	0.0087	7880	2897	31500	7013	0.0323	
Highest Sample Value				260.0	0.0000	0.0000	0.0000	578	13600	0.0030	0.0000	0.0070	0.0009	1430	0.0034	0.0004	0.0020	30	0.0090	8270	3080	35500	7200	0.0400	

Monitoring Point: 32 <P418A>
Groundwater quality monitoring, Piezometer located down gradient of northern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.57	49358	6.250	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.57	48627	6.170	
Monthly	06/03/2024	06/03/2024	23/04/2024	5.82	46228	6.120	pH probe calibration error
Monthly	03/04/2024	03/04/2024	20/05/2024	6.74	48552	6.070	
Monthly	23/05/2024	23/05/2024	27/06/2024	6.84	50995	5.920	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.57	48704	5.700	
Monthly	18/07/2024	18/07/2024	27/08/2024	6.25	48297	5.660	
Monthly	08/08/2024	08/08/2024	20/09/2024	6.44	48059	5.600	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.8	46228	5.600	
Mean of Sample				6.5	48603	5.936	
Highest Sample Value				6.8	50995	6.250	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	508	<0.0005	<0.0005	<0.0002	528	17600	0.01	<0.004	0.223	<0.0002	1550	0.405	0.004	0.0172	23	<0.002	10600	4570	39400	7700	0.007	
Quarterly	03/04/2024	11/04/2024	20/05/2024	554	<0.0005	<0.0005	<0.0002	441	15200	0.002	<0.004	0.091	<0.0002	1460	0.279	0.0028	0.0038	37	<0.002	9570	4930	33600	7110	0.009	
Quarterly	18/07/2024	26/07/2024	27/08/2024	556	<0.0005	0.0006	<0.0002	570	15300	<0.001	<0.008	1.05	<0.0002	1500	0.536	0.0032	0.0065	24	<0.002	10000	4450	34400	7600	0.008	
Quarterly																									
Lowest Value				508.0	0.0000	0.0006	0.0000	441	15200	0.002	0.000	0.091	0.0000	1460	0.2790	0.0028	0.0038	23	0.0000	9570	4450	33600	7110	0.0070	
Mean of Sample				539.3	0.0000	0.0006	0.0000	513	16033	0.006	0.000	0.455	0.0000	1503	0.4067	0.0033	0.0092	28	0.0000	10057	4650	35800	7470	0.0080	
Highest Sample Value				556.0	0.0000	0.0006	0.0000	570	17600	0.010	0.000	1.050	0.0000	1550	0.5360	0.0040	0.0172	37	0.0000	10600	4930	39400	7700	0.0090	

Monitoring Point: 33 <P418B>
Groundwater quality monitoring, Piezometer located down gradient of northern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.45	47073	6.300	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.45	46436	6.225	
Monthly	06/03/2024	06/03/2024	23/04/2024	5.73	42205	6.190	pH probe calibration error
Monthly	03/04/2024	03/04/2024	20/05/2024	6.61	46093	6.120	
Monthly	23/05/2024	23/05/2024	27/06/2024	6.7	48671	5.950	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.44	46428	5.790	
Monthly	18/07/2024	18/07/2024	27/08/2024	6.25	48297	5.660	
Monthly	09/08/2024	09/08/2024	20/09/2024	6.30	45710	5.680	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.7	42205	5.660	
Mean of Sample				6.4	46364	5.989	
Highest Sample Value				6.7	48671	6.300	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	616	<0.0005	<0.0005	<0.0002	382	13000	0.16	<0.004	0.053	0.001	1290	0.024	0.0062	0.1700	14	0.006	9710	4540	36000	6270	0.078	
Quarterly	03/04/2024	11/04/2024	20/05/2024	639	<0.0005	<0.0005	<0.0002	341	13600	0.054	<0.004	0.055	<0.0002	1370	0.0815	0.0051	0.1130	26	0.005	9620	4550	31300	6490	0.043	
Quarterly	18/07/2024	26/07/2024	27/08/2024	667	<0.0005	<0.0005	<0.0002	483	14500	0.064	<0.008	0.026	0.0003	1450	0.0217	0.0056	0.195	16	0.006	10600	4580	33900	7180	0.072	
Quarterly																									
Lowest Value				616.0	0.0000	0.0000	0.0000	341	13000	0.0540	0.0000	0.0260	0.0003	1290	0.0217	0.0051	0.1130	14	0.0050	9620	4540	31300	6270	0.0430	
Mean of Sample				640.7	0.0000	0.0000	0.0000	402	13700	0.0927	0.0000	0.0447	0.0007	1370	0.0424	0.0056	0.1593	19	0.0057	9977	4557	33733	6647	0.0643	
Highest Sample Value				667.0	0.0000	0.0000	0.0000	483	14500	0.1600	0.0000	0.0550	0.0010	1450	0.0815	0.0062	0.1950	26	0.0060	10600	4580	36000	7180	0.0780	

Groundwater

Monitoring Point: 36 <PDB1A>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.52	54830	16.700	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.49	54227	16.765	
Monthly	15/03/2024	15/03/2024	23/04/2024	5.78	53089	16.800	pH probe calibration error
Monthly	03/04/2024	03/04/2024	20/05/2024	6.60	54451	16.790	
Monthly	25/05/2024	25/05/2024	27/06/2024	6.25	55739	16.710	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.27	54067	16.760	
Monthly	04/07/2024	04/07/2024	27/08/2024	6.21	56160	16.760	
Monthly	01/08/2024	01/08/2024	20/09/2024	6.37	53219	16.680	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.8	53089	16.680	
Mean of Sample				6.3	54473	16.746	
Highest Sample Value				6.6	56160	16.800	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	0.0036	<0.0005	0.0041	978	15500	0.002	<0.005	<0.0002	1780	3.02	0.0007	0.0036	37	0.002	10000	4200	45800	9770	0.006	
Quarterly	03/04/2024	11/04/2024	20/05/2024	0.0242	<0.0005	0.0025	1460	17200	0.002	0.011	<0.0002	1660	2.41	0.001	0.0182	221	<0.002	9520	3440	37300	10500	0.008	
Quarterly	04/07/2024	17/07/2024	27/08/2024	<0.0005	<0.0005	<0.0002	483	14500	0.064	0.026	0.0003	1450	0.0217	0.0056	0.195	16	0.006	10600	4580	33900	7180	0.072	
Quarterly																							
Lowest Value				0.0036	0.0000	0.0025	483	14500	0.002	0.0110	0.0003	1450	0.0217	0.0007	0.004	16	0.002	9520	3440	33900	7180	0.006	
Mean of Sample				0.0139	0.0000	0.0033	974	15733	0.023	0.0185	0.0003	1630	1.8172	0.0024	0.072	91	0.004	10040	4073	39000	9150	0.029	
Highest Sample Value				0.0242	0.0000	0.0041	1460	17200	0.064	0.0260	0.0003	1780	3.0200	0.0056	0.195	221	0.006	10600	4580	45800	10500	0.072	

Monitoring Point: 38 <PDB3A>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	7.04	49808.1	81.100	
Monthly	23/02/2024	23/02/2024	21/03/2024	7.10	49498	81.105	
Monthly	19/03/2024	19/03/2024	23/04/2024	6.50	44719	81.250	pH probe calibration error
Monthly	11/04/2024	11/04/2024	20/05/2024	7.46	47726.0	81.190	
Monthly	25/05/2024	25/05/2024	27/06/2024	6.93	53242	81.200	
Monthly	21/06/2024	21/06/2024	24/07/2024	6.95	52893	81.24	
Monthly	04/07/2024	04/07/2024	27/08/2024	6.95	53278	81.405	
Monthly	06/08/2024	06/08/2024	20/09/2024	6.98	52491	81.350	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.5	44719	81.100	
Mean of Sample				7.0	50457	81.230	
Highest Sample Value				7.5	53278	81.405	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	0.0067	0.0013	0.0054	1010	13800	0.01	0.007	0.001	1720	0.09	0.0068	0.0154	44	0.006	8500	3610	43000	9600	0.395	
Quarterly	11/04/2024	19/04/2024	20/05/2024	0.0102	0.0016	0.0049	1120	17300	0.014	0.019	0.0016	1910	0.118	0.0069	0.0219	66	0.005	9330	3860	45100	10700	0.498	
Quarterly	04/07/2024	17/07/2024	27/08/2024	0.0023	0.0013	0.00500	1340	17000	0.006	0.013	0.0016	2020.00	0.126	0.0038	0.0211	44	0.004	10100	3960	39000	11700	0.24	
Quarterly																							
Lowest Value				0.0023	0.0013	0.0049	1010	13800	0.006	0.0070	0.0010	1720	0.0864	0.0038	0.015	44	0.004	8500	3610	39000	9600	0.240	
Mean of Sample				0.0064	0.0014	0.0051	1157	16033	0.010	0.0130	0.0014	1883	0.1101	0.0058	0.019	51	0.005	9310	3810	42367	10667	0.378	
Highest Sample Value				0.0102	0.0016	0.0054	1340	17300	0.014	0.0190	0.0016	2020	0.1260	0.0069	0.022	66	0.006	10100	3960	45100	11700	0.498	

Monitoring Point: 40 <PDB5A>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.39	54140	33.380	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.40	53505	33.536	
Monthly	19/03/2024	19/03/2024	23/04/2024	5.68	51567	33.640	pH probe calibration error
Monthly	03/04/2024	03/04/2024	20/05/2024	6.56	54422	33.600	
Monthly	25/05/2024	25/05/2024	27/06/2024	6.09	56144	33.520	
Monthly	20/06/2024	20/06/2024	24/07/2024	6.25	53538	33.370	
Monthly	11/07/2024	11/07/2024	27/08/2024	6.07	55920	33.350	
Monthly	06/08/2024	06/08/2024	20/09/2024	6.30	52488	33.350	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.7	51567	33.350	
Mean of Sample				6.2	53966	33.468	
Highest Sample Value				6.6	56144	33.640	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	<0.0005	0.0046	0.0036	763	15500	0.002	0.179	<0.0002	1940	0.0415	0.0024	0.109	39	0.003	9610	3250	46100	9890	0.035	
Quarterly	03/04/2024	11/04/2024	20/05/2024	<0.0005	0.0046	0.0052	720	17800	0.003	0.007	<0.0002	2040	0.0273	0.0006	0.0251	69	0.003	9720	3370	38000	10200	0.039	
Quarterly	11/07/2024	24/07/2024	27/08/2024	<0.0005	0.0036	0.004	856	20400	0.007	0.249	<0.0002	2030	0.0407	0.009	0.163	49	0.003	10600	3220	37300	10500	0.034	
Quarterly																							
Lowest Value				0.0000	0.0036	0.0036	720	15500	0.002	0.0070	0.0000	1940	0.0273	0.0006	0.025	39	0.003	9610	3220	37300	9890	0.034	
Mean of Sample				0.0000	0.0043	0.0043	780	17900	0.004	0.1450	0.0000	2003	0.0365	0.0040	0.099	52	0.003	9977	3280	40467	10197	0.036	
Highest Sample Value				0.0000	0.0046	0.0052	856	20400	0.007	0.2490	0.0000	2040	0.0415	0.0090	0.163	69	0.003	10600	3370	46100	10500	0.039	

Monitoring Point: 52 <PDB1B>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	7.08	7157.2	4.780	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.54	27754	4.725	
Monthly	07/03/2024	07/03/2024	23/04/2024	5.50	27257	4.840	pH probe calibration error
Monthly	03/04/2024	03/04/2024	20/05/2024	6.76	20329	4.870	
Monthly	25/05/2024	25/05/2024	27/06/2024	6.65	13388	4.360	
Monthly	20/06/2024	20/06/2024	24/07/2024	6.48	20832	4.120	
Monthly	04/07/2024	04/07/2024	27/08/2024	6.48	18764	4.340	
Monthly	01/08/2024	01/08/2024	20/09/2024	6.74	15839	4.060	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.5	7157	4.060	
Mean of Sample				6.5	18915	4.512	
Highest Sample Value				7.1	27754	4.870	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	<0.0005	0.001	<0.0002	77	2320	0.012	0.112	<0.0002	152	0.037	0.0013	0.0187	8	<0.002	1420	434	5130	818	<0.005	
Quarterly	03/04/2024	11/04/2024	20/05/2024	<0.0005	0.0008	0.0004	542	11800	0.007	0.137	0.0003	1340	0.190	0.0009	0.0195	28	<0.002	6520	3040	26700	6870	0.17	
Quarterly	04/07/2024	17/07/2024	27/08/2024	<0.0005	0.0013	<0.0002	270	6160	0.008	0.153	<0.0002	585	0.0722	0.0008	0.0043	12	<0.002	3430	1500	12400	3080	0.008	
Quarterly																							
Lowest Value				0.0000	0.0008	0.0004	77	2320	0.007	0.1120	0.0003	152	0.0368	0.0008	0.004	8	0.000	1420	434	5130	818	0.008	
Mean of Sample				0.0000	0.0010	0.0004	296	6760	0.009	0.1340	0.0003	692	0.0997	0.0010	0.014	16	0.000	3790	1658	14743	3589	0.091	
Highest Sample Value				0.0000	0.0013	0.0004	542	11800	0.012	0.1530	0.0003	1340	0.1900	0.0013	0.020	28	0.000	6520	3040	26700	6870	0.173	

Groundwater

Monitoring Point: S3 <PDB3B>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.09	52108	17.760	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.07	51370	17.720	
Monthly	15/03/2024	15/03/2024	23/04/2024	5.37	50490	17.800	pH probe calibration error
Monthly	11/04/2024	11/04/2024	20/05/2024	6.33	51637	17.860	
Monthly	25/05/2024	25/05/2024	27/06/2024	5.87	53984	17.880	
Monthly	21/06/2024	21/06/2024	24/07/2024	5.7	51364	17.890	
Monthly	04/07/2024	04/07/2024	27/08/2024	5.83	53277	18.000	
Monthly	01/08/2024	01/08/2024	20/09/2024	6.02	50341	17.950	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.4	50341	17.720	
Mean of Sample				5.9	51821	17.858	
Highest Sample Value				6.3	53984	18.000	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	<0.0005	<0.0005	0.0008	1100	15000	0.002	0.01	<0.0002	2130	0.0226	0.0021	0.0087	45	0.016	9100	5080	47000	11500	<0.005	
Quarterly	11/04/2024	19/04/2024	20/05/2024	<0.0005	<0.0005	0.0007	1050	17100	0.001	0.007	<0.0002	2060	0.0235	0.0009	0.0307	54	0.016	8880	5190	47600	11100	0.014	
Quarterly	04/07/2024	17/07/2024	27/08/2024	0.015	0.0015	0.0013	3010	16600	0.047	<0.005	0.0007	1320	0.143	0.0177	0.148	49	<0.002	7570	2290	31800	13000	0.552	
Quarterly																							
Lowest Value				0.0150	0.0015	0.0007	1050	15000	0.001	0.0070	0.0007	1320	0.0226	0.0009	0.009	45	0.016	7570	2290	31800	11100	0.014	
Mean of Sample				0.0150	0.0015	0.0009	1720	16233	0.017	0.0085	0.0007	1837	0.0630	0.0069	0.062	49	0.016	8517	4187	42133	11867	0.283	
Highest Sample Value				0.0150	0.0015	0.0013	3010	17100	0.047	0.0100	0.0007	2130	0.1430	0.0177	0.148	54	0.016	9100	5190	47600	13000	0.552	

Monitoring Point: S4 <PDB5B>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	5.94	49965	13.985	
Monthly	23/02/2024	23/02/2024	21/03/2024	5.94	49395	14.350	
Monthly	15/03/2024	15/03/2024	23/04/2024	5.22	48379	14.160	pH probe calibration error
Monthly	16/04/2024	16/04/2024	20/05/2024	7.16	46959	14.615	
Monthly	25/05/2025	25/05/2025	27/06/2024	6.42	47346	14.490	
Monthly	20/06/2024	20/06/2024	24/07/2024	6.7	45329	14.330	
Monthly	11/07/2024	11/07/2024	27/08/2024	6.31	46417	14.930	
Monthly	06/08/2024	06/08/2024	20/09/2024	6.49	42327	14.040	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.2	42327	13.985	
Mean of Sample				6.3	47015	14.363	
Highest Sample Value				7.2	49965	14.930	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	<0.0005	0.001	0.0015	793	14100	0.007	0.131	<0.0002	1770	0.0199	0.078	0.0649	41	<0.002	8840	3320	42900	9270	0.006	
Quarterly	16/04/2024	01/05/2024	20/05/2024	0.0161	0.0019	0.00119	2670	16000	0.106	0.033	0.002	1340	0.0984	0.0208	0.155	43	0.0013	7340	2470	41200	12200	0.488	
Quarterly	11/07/2024	24/07/2024	27/08/2024	0.015	0.0015	0.0013	3010	16600	0.047	<0.005	0.0007	1320	0.143	0.0177	0.148	49	<0.002	7570	2290	31800	13000	0.552	
Quarterly																							
Lowest Value				0.0150	0.0010	0.0012	793	14100	0.007	0.0330	0.0007	1320	0.0199	0.0177	0.065	41	0.001	7340	2290	31800	9270	0.006	
Mean of Sample				0.0156	0.0015	0.0013	2158	15567	0.053	0.0820	0.0014	1477	0.0871	0.0388	0.123	44	0.001	7917	2693	38633	11490	0.349	
Highest Sample Value				0.0161	0.0019	0.0015	3010	16600	0.106	0.1310	0.0020	1770	0.1430	0.0780	0.155	49	0.001	8840	3320	42900	13000	0.552	

Monitoring Point: S7 <IWL06A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.7	44692	3.510	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.72	44208	3.460	
Monthly	07/03/2024	07/03/2024	23/04/2024	5.82	42958	3.430	pH probe calibration error
Monthly	10/04/2024	10/04/2024	20/05/2024	6.79	44374	3.280	
Monthly	23/05/2024	23/05/2024	27/06/2024	6.96	46245	3.270	
Monthly	06/06/2024	06/06/2024	24/07/2024	6.62	44164	3.150	
Monthly	11/07/2024	11/07/2024	27/08/2024	6.38	46297	3.145	
Monthly	01/08/2024	01/08/2024	20/09/2024	6.61	43414	3.200	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.8	42958	3.145	
Mean of Sample				6.6	44544	3.306	
Highest Sample Value				7.0	46297	3.510	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	371	<0.0005	<0.0005	<0.0002	786	12400	<0.001	<0.004	0.023	<0.0002	1400	0.0607	0.0017	0.017	42	0.006	8080	3100	37000	7730	0.011	
Quarterly	10/04/2024	19/04/2024	20/05/2024	415	<0.0005	<0.0005	<0.0002	838	14600	0.002	<0.004	0.031	<0.0002	1470	0.0456	0.0012	0.018	54	0.006	8450	3230	38200	8140	0.007	
Quarterly	11/07/2024	24/07/2024	27/08/2024	383	<0.0005	<0.0005	<0.0002	923	14800	0.003	<0.004	0.03	<0.0002	1480	0.0568	0.0013	0.0156	55	0.005	8850	3100	31300	8400	0.017	
Quarterly																									
Lowest Value				371.0	0.0000	0.0000	0.0000	786	12400	0.0020	0.0000	0.0230	0.0000	1400	0.0456	0.0012	0.0156	42	0.0050	8080	3100	31300	7730	0.0070	
Mean of Sample				389.7	0.0000	0.0000	0.0000	849	13933	0.0025	0.0000	0.0280	0.0000	1450	0.0544	0.0014	0.0169	50	0.0057	8460	3143	35500	8090	0.0117	
Highest Sample Value				415.0	0.0000	0.0000	0.0000	923	14800	0.0030	0.0000	0.0310	0.0000	1480	0.0607	0.0017	0.0180	55	0.0060	8850	3230	38200	8400	0.0170	

Monitoring Point: S8 <IWL06B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.62	44075	3.240	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.59	43674	3.210	
Monthly	07/03/2024	07/03/2024	23/04/2024	5.79	42536	3.150	pH probe calibration error
Monthly	10/04/2024	10/04/2024	20/05/2024	6.68	43638	3.100	
Monthly	23/05/2024	23/05/2024	27/06/2024	6.82	45667	3.030	
Monthly	06/06/2024	06/06/2024	24/07/2024	6.49	43588	2.970	
Monthly	11/07/2024	11/07/2024	27/08/2024	6.24	45337	2.970	
Monthly	01/08/2024	01/08/2024	20/09/2024	6.50	42837	3.000	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				5.8	42536	2.970	
Mean of Sample				6.5	43919	3.084	
Highest Sample Value				6.8	45667	3.240	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	548	<0.0005	<0.0005	0.0003	645	12600	0.004	<0.004	0.052	<0.0002	1480	0.0832	0.0032	0.453	39	0.006	7970	3120	36200	7700	<0.005	
Quarterly	10/04/2024	19/04/2024	20/05/2024	610	<0.0005	<0.0005	<0.0002	685	14000	0.006	<0.004	0.034	<0.0002	1600	0.0389	0.003	0.272	49	0.006	8490	3530	36900	8300	0.015	
Quarterly	11/07/2024	24/07/2024	27/08/2024	593	<0.0005	<0.0005	0.0002	732	14300	0.003	<0.004	0.024	<0.0002	1570	0.0663	0.0029	0.418	48	0.006	8730	3100	30200	8290	0.007	
Quarterly																									
Lowest Value				548.0	0.0000	0.0000	0.0002	645	12600	0.0030	0.0000	0.0240	0.0000	1480	0.0389	0.0029	0.2720	39	0.0060	7970	3100	30200	7700	0.0070	
Mean of Sample				583.7	0.0000	0.0000	0.0003	687	13633	0.0043	0.0000	0.0367	0.0000	1550	0.0628	0.0030	0.3810	45	0.0060	8397	3250	34433	8097	0.0110	
Highest Sample Value				610.0	0.0000	0.0000	0.0003	732	14300	0.0060	0.0000	0.0520	0.0000	1600	0.0832	0.0032	0.4530	49	0.0060	8730	3530	36900	8300	0.0150	

Groundwater

Monitoring Point: 59 <IWL05A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.59	41718	3.340	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.58	41333	3.262	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.36	41221	3.300	
Monthly	10/04/2024	10/04/2024	20/05/2024	6.76	41428	3.340	
Monthly	25/05/2024	25/05/2024	27/06/2024	6.49	41508	3.340	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.55	41342	3.250	
Monthly	09/07/2024	09/07/2024	27/08/2024	6.36	42738	3.260	
Monthly	06/08/2024	06/08/2024	20/09/2024	6.63	40352	3.250	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				7	8	8	
Lowest Value				6.4	40352	3.250	
Mean of Sample				6.5	41705	3.293	
Highest Sample Value				6.8	43508	3.340	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	672	<0.0005	<0.0005	<0.0002	302	11400	0.004	<0.004	0.019	<0.0002	1310	0.0726	0.0504	0.428	49	0.011	8180	3130	33400	6150	<0.005	
Quarterly	10/04/2024	19/04/2024	20/05/2024	725	<0.0005	<0.0005	<0.0002	365	13000	0.002	<0.004	0.007	<0.0002	1520	0.0473	0.0253	0.287	57	0.011	9130	3320	34000	7170	0.011	
Quarterly	09/07/2024	18/07/2024	27/08/2024	734	<0.0005	<0.0005	<0.0002	341	12000	0.003	<0.010	<0.005	<0.0002	1360	0.0392	0.0155	0.186	55	0.01	8550	3060	29400	6450	0.008	
Quarterly																									
Lowest Value				672.0	0.0000	0.0000	0.0000	302	11400	0.0020	0.0000	0.0070	0.0000	1310	0.0392	0.0155	0.1860	49	0.0100	8180	3060	29400	6150	0.0080	
Mean of Sample				710.3	0.0000	0.0000	0.0000	336	12133	0.0030	0.0000	0.0130	0.0000	1397	0.0530	0.0304	0.3003	54	0.0107	8620	3170	32267	6590	0.0095	
Highest Sample Value				734.0	0.0000	0.0000	0.0000	365	13000	0.0040	0.0000	0.0190	0.0000	1520	0.0726	0.0504	0.4280	57	0.0110	9130	3320	34000	7170	0.0110	

Monitoring Point: 60 <IWL05B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.61	42980	2.940	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.59	42655	2.880	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.42	42485	2.96	
Monthly	10/04/2024	10/04/2024	20/05/2024	6.79	42809	2.940	
Monthly	25/05/2024	25/05/2024	27/06/2024	6.48	44904	2.940	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.56	42771	2.840	
Monthly	09/07/2024	09/07/2024	27/08/2024	6.37	44208	2.830	
Monthly	06/08/2024	06/08/2024	20/09/2024	6.65	41864	2.800	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.4	41864	2.800	
Mean of Sample				6.6	43085	2.891	
Highest Sample Value				6.8	44904	2.960	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	430	<0.0005	<0.0005	<0.0002	135	11800	0.049	<0.004	1.02	<0.0002	1380	0.0828	0.0112	0.443	39	0.002	8230	2860	35200	6020	<0.005	
Quarterly	10/04/2024	19/04/2024	20/05/2024	457	<0.0005	<0.0005	<0.0002	186	14100	0.102	<0.004	2.44	<0.0002	1640	0.143	0.0367	1.250	48	0.002	9470	2860	34500	7220	<0.005	
Quarterly	09/07/2024	18/07/2024	27/08/2024	461	<0.0005	<0.0005	<0.0002	158	12700	0.004	<0.010	0.065	<0.0002	1410	0.0183	0.0165	0.145	45	<0.002	8500	2720	30200	6200	<0.005	
Quarterly																									
Lowest Value				430.0	0.0000	0.0000	0.0000	135	11800	0.0040	0.0000	0.0650	0.0000	1380	0.0183	0.0112	0.1450	39	0.0020	8230	2720	30200	6020	0.0000	
Mean of Sample				449.3	0.0000	0.0000	0.0000	160	12867	0.0517	0.0000	1.1750	0.0000	1477	0.0814	0.0215	0.6127	44	0.0020	8733	2813	33300	6480	0.0000	
Highest Sample Value				461.0	0.0000	0.0000	0.0000	186	14100	0.1020	0.0000	2.4400	0.0000	1640	0.1430	0.0367	1.2500	48	0.0020	9470	2860	35200	7220	0.0000	

Monitoring Point: 61 <IWL04A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.81	35398	29.430	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.82	34926	29.440	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.63	34793	29.500	
Monthly	11/04/2024	11/04/2024	20/05/2024	6.97	34922	29.470	
Monthly	25/05/2024	25/05/2024	27/06/2024	6.69	36542	29.490	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.78	34699	29.430	
Monthly	18/07/2024	18/07/2024	27/08/2024	6.63	36167	29.400	
Monthly	08/08/2024	08/08/2024	20/09/2024	6.70	34212	29.480	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.6	34212	29.400	
Mean of Sample				6.8	35207	29.455	
Highest Sample Value				7.0	36542	29.500	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	737	0.0008	<0.0005	<0.0002	340	9370	0.003	<0.004	0.016	<0.0002	930	0.0228	0.0033	0.0743	46	0.004	7010	2930	27500	4680	0.015	
Quarterly	11/04/2024	19/04/2024	20/05/2024	771	0.0006	<0.0005	<0.0002	353	10600	0.004	<0.004	0.023	<0.0002	1040	0.0325	0.0026	0.0599	50	0.004	7350	2920	26800	5160	0.015	
Quarterly	18/07/2024	18/07/2024	27/08/2024	797	<0.0005	<0.0005	<0.0002	392	10500	0.003	<0.008	0.013	<0.0002	982	0.0134	0.0033	0.0676	43	0.004	7040	2730	24300	5020	0.014	
Quarterly																									
Lowest Value				737.0	0.0006	0.0000	0.0000	340	9370	0.0030	0.0000	0.0130	0.0000	930	0.0134	0.0026	0.0599	43	0.0040	7010	2730	24300	4680	0.0140	
Mean of Sample				768.3	0.0007	0.0000	0.0000	362	10157	0.0033	0.0000	0.0173	0.0000	984	0.0229	0.0031	0.0673	46	0.0040	7133	2860	26200	4953	0.0147	
Highest Sample Value				797.0	0.0008	0.0000	0.0000	392	10600	0.0040	0.0000	0.0230	0.0000	1040	0.0325	0.0033	0.0743	50	0.0040	7350	2930	27500	5160	0.0150	

Groundwater

Monitoring Point: 62 <IWL04B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	-	-	-	Dry
Monthly	21/02/2024	21/02/2024	21/03/2024	-	-	-	Dry
Monthly	06/03/2024	06/03/2024	23/04/2024	-	-	-	Dry
Monthly	11/04/2024	11/04/2024	20/05/2024	-	-	-	Dry
Monthly	25/05/2024	25/05/2024	27/06/2024	-	-	-	Dry
Monthly	18/06/2024	18/06/2024	24/07/2024	-	-	-	Dry
Monthly	18/07/2024	18/07/2024	27/08/2024	-	-	-	Dry
Monthly	08/08/2024	08/08/2024	20/09/2024	-	-	-	Dry
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				0	0	0	
Lowest Value				0.0	0	0.000	
Mean of Sample				0.0	0	0.000	
Highest Sample Value				0.0	0	0.000	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly	11/04/2024	19/04/2024	20/05/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly	18/07/2024	18/07/2024	27/08/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly																									
Lowest Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Mean of Sample				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Highest Sample Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	

Monitoring Point: 63 <IWL03A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.84	38736	23.385	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.85	38364	23.42	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.67	38303	23.42	
Monthly	11/04/2024	11/04/2024	20/05/2024	7.04	38340	23.370	
Monthly	25/05/2024	27/06/2024	27/06/2024	6.75	40236	23.410	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.83	38276	23.36	
Monthly	18/07/2024	18/07/2024	27/08/2024	6.68	39799	23.330	
Monthly	08/08/2024	08/08/2024	20/09/2024	6.75	37576	23.420	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.7	37576	23.330	
Mean of Sample				6.8	38704	23.389	
Highest Sample Value				7.0	40236	23.420	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	694	<0.0005	<0.0005	<0.0002	371	10700	0.001	<0.004	0.018	<0.0002	803	0.0054	0.0007	0.0214	21	0.006	7770	3410	29600	4230	<0.005	
Quarterly	11/04/2024	19/04/2024	20/05/2024	677	<0.0005	<0.0005	<0.0002	360	11800	0.001	<0.004	<0.005	<0.0002	891	0.0052	0.0005	0.013	28	0.005	8280	3360	31700	4570	<0.005	
Quarterly	18/07/2024	18/07/2024	27/08/2024	716	<0.0005	<0.0005	<0.0002	432	11900	0.009	<0.008	0.22	<0.0002	861	0.0275	0.0014	0.2270	25	0.005	8020	3090	26500	4620	<0.005	
Quarterly																									
Lowest Value				677.0	0.0000	0.0000	0.0000	360	10700	0.0010	0.0000	0.0180	0.0000	803	0.0052	0.0005	0.0133	21	0.0050	7770	3090	26500	4230	0.0000	
Mean of Sample				695.7	0.0000	0.0000	0.0000	388	11467	0.0037	0.0000	0.1190	0.0000	852	0.0127	0.0009	0.0872	25	0.0053	8023	3287	29267	4473	0.0000	
Highest Sample Value				716.0	0.0000	0.0000	0.0000	432	11900	0.0090	0.0000	0.2200	0.0000	891	0.0275	0.0014	0.2270	28	0.0060	8280	3410	31700	4620	0.0000	

Monitoring Point: 64 <IWL03B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	-	-	-	Dry
Monthly	21/02/2024	21/02/2024	21/03/2024	-	-	-	Dry
Monthly	06/03/2024	06/03/2024	23/04/2024	-	-	-	Dry
Monthly	11/04/2024	11/04/2024	20/05/2024	-	-	-	Dry
Monthly	25/05/2024	27/06/2024	27/06/2024	-	-	-	Dry
Monthly	18/06/2024	18/06/2024	24/07/2024	-	-	-	Dry
Monthly	18/07/2024	18/07/2024	27/08/2024	-	-	-	Dry
Monthly	08/08/2024	08/08/2024	20/09/2024	-	-	-	Dry
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				0	0	0	
Lowest Value				0.0	0	0.000	
Mean of Sample				0.0	0	0.000	
Highest Sample Value				0.0	0	0.000	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly	11/04/2024	19/04/2024	20/05/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly	18/07/2024	26/07/2024	27/08/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly																									
Lowest Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Mean of Sample				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Highest Sample Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	

Monitoring Point: 65 <IWL02A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.85	46452	11.570	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.84	45769	11.690	
Monthly	07/03/2024	07/03/2024	23/04/2024	5.95	44962	11.640	pH probe calibration error
Monthly	10/04/2024	10/04/2024	20/05/2024	6.97	46003	11.770	
Monthly	23/05/2024	23/05/2024	27/06/2024	7.10	48077	11.590	
Monthly	25/06/2024	25/06/2024	24/07/2024	6.77	45924	11.67	
Monthly	09/07/2024	09/07/2024	27/08/2024	6.64	47645	11.820	
Monthly	08/08/2024	08/08/2024	20/09/2024	6.79	45091	11.000	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.0	44962	11.000	
Mean of Sample				6.7	46240	11.594	
Highest Sample Value				7.1	48077	11.820	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	707	<0.0005	<0.0005	<0.0002	375	12400	0.002	<0.004	0.018	<0.0002	1000	0.0196	0.0023	0.0985	30	0.033	9940	4640	36500	5050	<0.005	
Quarterly	10/04/2024	19/04/2024	20/05/2024	701	<0.0005	<0.0005	<0.0002	357	14000	0.003	<0.004	0.038	<0.0002	1060	0.0585	0.002	0.0432	36	0.03	10200	4730	34400	5260	0.006	
Quarterly	09/07/2024	18/07/2024	27/08/2024	752	<0.0005	<0.0005	<0.0002	380	12900	0.015	<0.010	1.26	<0.0002	1040	0.0669	0.0024	0.474	33	0.029	10400	4250	33000	5230	<0.005	
Quarterly																									
Lowest Value				701.0	0.0000	0.0000	0.0000	357	12400	0.0020	0.0000	0.0180	0.0000	1000	0.0196	0.0020	0.0432	30	0.0290	9940	4250	33000	5050	0.0060	
Mean of Sample				720.0	0.0000	0.0000	0.0000	371	13100	0.0067	0.0000	0.4387	0.0000	1033	0.0483	0.0022	0.2052	33	0.0307	10180	4540	34633	5180	0.0060	
Highest Sample Value				752.0	0.0000	0.0000	0.0000	380	14000	0.0150	0.0000	1.2600	0.0000	1060	0.0669	0.0024	0.4740	36	0.0330	10400	4730	36500	5260	0.0060	

Groundwater

Monitoring Point: 66 <IWL02B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	-	-	10.65	Too shallow to sample
Monthly	21/02/2024	21/02/2024	21/03/2024	7.06	49913	10.535	
Monthly	07/03/2024	07/03/2024	23/04/2024	6.77	46989	10.49	pH probe calibration error
Monthly	10/04/2024	10/04/2024	20/05/2024	7.25	45960	10.4	
Monthly	23/05/2024	23/05/2024	27/06/2024	7.45	48902	10.25	
Monthly	25/06/2024	25/06/2024	24/07/2024	7.11	48390	10.6	
Monthly	09/07/2024	09/07/2024	27/08/2024	7.04	48443	10	
Monthly	08/08/2024	08/08/2024	20/09/2024	7.18	41429	9.9	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				7	7	8	
Lowest Value				6.8	43429	9.900	
Mean of Sample				7.1	47432	10.353	
Highest Sample Value				7.5	49913	10.650	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	23/01/2024	21/02/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly	10/04/2024	19/04/2024	20/05/2024	455	<0.0005	0.0012	<0.0002	444	13700	0.004	<0.004	0.036	0.0003	1100	0.009	0.0009	0.0011	24	0.003	10300	4150	35100	5640	0.042	
Quarterly	09/07/2024	18/07/2024	27/08/2024	446	<0.0005	0.0007	0.0002	451	13900	0.007	<0.010	0.045	0.0003	1110	0.0133	0.0004	0.0013	19	0.003	10600	4390	35500	5700	0.068	
Quarterly																									
Lowest Value				446.0	0.0000	0.0007	0.0002	444	13700	0.0040	0.0000	0.0360	0.0003	1100	0.0090	0.0004	0.0011	19	0.0030	10300	4150	35100	5640	0.0420	
Mean of Sample				450.5	0.0000	0.0010	0.0002	448	13800	0.0055	0.0000	0.0405	0.0003	1105	0.0112	0.0007	0.0012	22	0.0030	10450	4270	35300	5670	0.0550	
Highest Sample Value				455.0	0.0000	0.0012	0.0002	451	13900	0.0070	0.0000	0.0450	0.0003	1110	0.0133	0.0009	0.0013	24	0.0030	10600	4390	35500	5700	0.0680	

Monitoring Point: 67 <IWL01A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.76	46698	3.810	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.76	46354	3.810	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.62	43958	3.840	
Monthly	03/04/2024	03/04/2024	20/05/2024	6.94	45149	3.850	
Monthly	23/05/2024	23/05/2024	27/06/2024	7.02	48189	3.920	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.78	46170	3.88	
Monthly	18/07/2024	18/07/2024	27/08/2024	6.6	47947	3.850	
Monthly	08/08/2024	08/08/2024	20/09/2024	6.65	45317	4.000	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.6	43958	3.810	
Mean of Sample				6.8	46223	3.870	
Highest Sample Value				7.0	48189	4.000	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	537	<0.0005	<0.0005	0.0004	433	12700	0.002	<0.004	0.007	<0.0002	1170	0.0315	0.0013	0.0652	23	0.03	9500	4800	36000	5900	<0.005	
Quarterly	03/04/2024	11/04/2024	20/05/2024	588	<0.0005	<0.0005	0.0005	472	13100	0.002	<0.004	0.022	<0.0002	1330	0.0923	0.0024	0.0566	26	0.03	10600	4770	31500	6660	0.01	
Quarterly	18/07/2024	26/07/2024	27/08/2024	585	<0.0005	<0.0005	0.0004	535	14100	0.003	<0.008	<0.005	<0.0002	1250	0.0286	0.002	0.0606	26	0.03	10100	4420	33600	6480	0.006	
Quarterly																									
Lowest Value				537.0	0.0000	0.0000	0.0004	433	12700	0.0020	0.0000	0.0070	0.0000	1170	0.0286	0.0013	0.0566	23	0.0300	9500	4420	31500	5900	0.0060	
Mean of Sample				570.0	0.0000	0.0000	0.0004	480	13300	0.0023	0.0000	0.0145	0.0000	1250	0.0508	0.0019	0.0608	25	0.0300	10067	4663	33700	6347	0.0080	
Highest Sample Value				588.0	0.0000	0.0000	0.0005	535	14100	0.0030	0.0000	0.0220	0.0000	1330	0.0923	0.0024	0.0652	26	0.0300	10600	4800	36000	6660	0.0100	

Monitoring Point: 68 <IWL01B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.48	36511	4.150	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.52	36623	4.165	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.22	35466	4.150	
Monthly	03/04/2024	03/04/2024	20/05/2024	6.63	35265	4.150	
Monthly	23/05/2024	23/05/2024	27/06/2024	6.75	37829	4.260	
Monthly	18/06/2024	18/06/2024	24/07/2024	6.44	35792	4.200	
Monthly	18/07/2024	18/07/2024	27/08/2024	6.31	37396	4.200	
Monthly	08/08/2024	08/08/2024	20/09/2024	6.32	34803	4.330	
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				8	8	8	
Lowest Value				6.2	34803	4.150	
Mean of Sample				6.5	36211	4.201	
Highest Sample Value				6.8	37829	4.330	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	330	<0.0005	<0.0005	<0.0002	190	10400	0.002	<0.004	0.008	<0.0002	760	0.0328	0.0002	0.0033	2	<0.02	7520	2830	28000	3600	<0.005	
Quarterly	03/04/2024	11/04/2024	20/05/2024	386	<0.0005	<0.0005	<0.0002	242	10700	0.002	<0.004	0.014	<0.0002	827	0.0302	0.0023	0.0298	5	0.01	7860	3040	23900	4010	0.005	
Quarterly	18/07/2024	26/07/2024	27/08/2024	386	<0.0005	<0.0005	<0.0002	262	11800	0.002	<0.004	0.011	<0.0002	852	0.0258	0.0025	0.0679	4	0.003	8040	2960	26800	4160	<0.005	
Quarterly																									
Lowest Value				330.0	0.0000	0.0000	0.0000	190	10400	0.0020	0.0000	0.0080	0.0000	760	0.0258	0.0002	0.0033	2	0.0030	7520	2830	23900	3600	0.0050	
Mean of Sample				367.3	0.0000	0.0000	0.0000	231	10967	0.0020	0.0000	0.0110	0.0000	813	0.0296	0.0017	0.0337	4	0.0065	7807	2943	26233	3923	0.0050	
Highest Sample Value				386.0	0.0000	0.0000	0.0000	262	11800	0.0020	0.0000	0.0140	0.0000	852	0.0328	0.0025	0.0679	5	0.0100	8040	3040	28000	4160	0.0050	

Ambient Noise

Q1 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA		Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01	13/02/2024	04/03/2024	21/03/2024	25	26	-	
Laurel Park	N11	13/02/2024	04/03/2024	21/03/2024	<20	<20	35	
Lakeview III (New Westella)	N09	13/02/2024	04/03/2024	21/03/2024	<20	<20	38	
Bramboyne	N10	13/02/2024	04/03/2024	21/03/2024	<20	<20	35	
The Glen	N12	13/02/2024	04/03/2024	21/03/2024	<20	<20	37	
Caloola 2	N15	13/02/2024	04/03/2024	21/03/2024	<20	<20	35	
Lakeview I & II (Lakeview)	N17	13/02/2024	04/03/2024	21/03/2024	<20	<20	36	
Foxman Downs 2	N16	13/02/2024	04/03/2024	21/03/2024	<20	<20	36	

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA		Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01	14/02/2024	04/03/2024	21/03/2024	39	36	-	
Laurel Park	N11	14/02/2024	04/03/2024	21/03/2024	<20	<20	35	
Lakeview III (New Westella)	N09	15/02/2024	04/03/2024	21/03/2024	<20	<20	38	
Bramboyne	N10	14/02/2024	04/03/2024	21/03/2024	<20	<20	35	
The Glen	N12	14/02/2024	04/03/2024	21/03/2024	<20	<20	37	
Caloola 2	N15	14/02/2024	04/03/2024	21/03/2024	<20	<20	35	
Lakeview I & II (Lakeview)	N17	15/02/2024	04/03/2024	21/03/2024	<20	<20	36	
Foxman Downs 2	N16	14/02/2024	04/03/2024	21/03/2024	<20	<20	36	

<20 - Mine noise emission inaudible or barely audible

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA		Noise Criteria $LA_{eq(15minute)}$ - dBA	Night dB(A) LAFmax	Comments
					Survey 1	Survey 2			
New Lake Foreshore	N01	14/02/2024	04/03/2024	21/03/2024	40	32	-	-	
Laurel Park	N11	14/02/2024	04/03/2024	21/03/2024	22	22	35	52	
Lakeview III (New Westella)	N09	15/02/2024	04/03/2024	21/03/2024	25	24	38	52	
Bramboyne	N10	15/02/2024	04/03/2024	21/03/2024	20	22	35	52	
The Glen	N12	14/02/2024	04/03/2024	21/03/2024	<20	<20	37	52	
Caloola 2	N15	14/02/2024	04/03/2024	21/03/2024	<20	<20	35	52	
Lakeview I & II (Lakeview)	N17	15/02/2024	04/03/2024	21/03/2024	29	28	36	52	
Foxman Downs 2	N16	14/02/2024	04/03/2024	21/03/2024	<20	<20	36	52	

<20 - Mine noise emission inaudible or barely audible

Q2 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA		Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01	22/05/2024	27/06/2024	27/06/2024	28	27	-	
Laurel Park	N11	22/05/2024	27/06/2024	27/06/2024	<20	<20	35	
Lakeview (New Westella)	N09	22/05/2024	27/06/2024	27/06/2024	20	21	38	
Bramboyne	N10	22/05/2024	27/06/2024	27/06/2024	27	21	35	
The Glen	N12	22/05/2024	27/06/2024	27/06/2024	21	20	37	
Caloola 2	N15	22/05/2024	27/06/2024	27/06/2024	<20	<20	35	
Lakeview I & II (Lakeview)	N17	22/05/2024	27/06/2024	27/06/2024	24	25	36	
Foxman Downs 2	N16	22/05/2024	27/06/2024	27/06/2024	<20	<20	36	

<20 - Mine noise emission inaudible or barely audible

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA		Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01	23/05/2024	27/06/2024	27/06/2024	30	28	-	
Laurel Park	N11	23/05/2024	27/06/2024	27/06/2024	<20	<20	35	
Lakeview (New Westella)	N09	23/05/2024	27/06/2024	27/06/2024	22	22	38	
Bramboyne	N10	23/05/2024	27/06/2024	27/06/2024	<20	<20	35	
The Glen	N12	23/05/2024	27/06/2024	27/06/2024	<20	<20	37	
Caloola 2	N15	23/05/2024	27/06/2024	27/06/2024	<20	<20	35	
Lakeview I & II (Lakeview)	N17	23/05/2024	27/06/2024	27/06/2024	25	22	36	
Foxman Downs 2	N16	23/05/2024	27/06/2024	27/06/2024	<20	<20	36	

<20 - Mine noise emission inaudible or barely audible

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA		Noise Criteria $LA_{eq(15minute)}$ - dBA	Night dB(A) LAFmax	Comments
					Survey 1	Survey 2			
New Lake Foreshore	N01	23/05/2024	27/06/2024	27/06/2024	32	32	-	-	
Laurel Park	N11	23/05/2024	27/06/2024	27/06/2024	<20	<20	35	52	
Lakeview (New Westella)	N09	24/05/2024	27/06/2024	27/06/2024	20	21	38	52	
Bramboyne	N10	23/05/2024	27/06/2024	27/06/2024	<20	<20	35	52	
The Glen	N12	23/05/2024	27/06/2024	27/06/2024	<20	<20	37	52	
Caloola 2	N15	23/05/2024	27/06/2024	27/06/2024	<20	<20	35	52	
Lakeview I & II (Lakeview)	N17	24/05/2024	27/06/2024	27/06/2024	22	22	36	52	
Foxman Downs 2	N16	23/05/2024	27/06/2024	27/06/2024	<20	<20	36	52	

<20 - Mine noise emission inaudible or barely audible

Ambient Noise

Q3 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Night dB(A) LAFmax	Comments
New Lake Foreshore	N01								
Laurel Park	N11								
Lakeview (New Westella)	N09								
Bramboyne	N10								
The Glen	N12								
Caloola 2	N15								
Lakeview I & II (Lakeview)	N17								
Foxman Downs 2	N16								

<20 - Mine noise emission inaudible or barely audible

Q4 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Night dB(A) LAFmax	Comments
New Lake Foreshore	N01								
Laurel Park	N11								
Lakeview (New Westella)	N09								
Bramboyne	N10								
The Glen	N12								
Caloola 2	N15								
Lakeview I & II (Lakeview)	N17								
Foxman Downs 2	N16								

<20 - Mine noise emission inaudible or barely audible

Blasting

Table 1: Compliance percentages for the previous 12 months

Type of Exceedance	Total Number of Blasts (12 months)	No. of Exceedences (12 Months)			
		Daily Operation	Evening Operation	Night, Sunday and Public Holiday	Total % Exceedance
Open Pit					
Vibration	177	0	0	0	0.0%
Overpressure	177	0	0	2	1.1%
Underground					
Vibration	684	0	0	0	0.0%
Overpressure	684	0	0	1	0.1%
Combined					
Vibration	861	0	0	0	0.0%
Overpressure	861	0	0	3	0.3%

Table 2: Exceedances in the past 12 months

Exceedences in the past 12 months			
Type	**Location**	**Date**	**Source**
Overpressure	BM03 Coniston Residence	31st October 2023	Underground
Overpressure	BM01 Gumbelah Residence, BM02 Hillgrove Residence	12th November 2023	Open Pit
Overpressure	BM02 Hillgrove Residence	23rd June 2024	Open Pit

Date obtained: 09/09/2024

Cyanide

Monitoring Point: 48
Water quality monitoring, automated sampler located at the processing plant

			Total Cyanide (mg/L)				
Frequency	**Month**	**No Sampled during Month**	**Minimum**	**Mean**	**Median**	**Maximum**	**Comments**
Weekly	January	5	1.90	7.10	7.20	14.30	
Weekly	February	4	1.62	5.05	4.43	9.74	
Weekly	March	4	3.57	6.35	6.71	8.42	
Weekly	April	5	2.30	4.80	5.20	6.80	
Weekly	May	3	3.37	6.89	7.34	9.51	
Weekly	June	5	6.25	8.91	8.59	12.67	
Weekly	July	4	5.93	6.46	6.15	7.62	
Weekly	August	4	4.92	5.19	5.14	5.60	
Weekly	September	4					
Weekly	October	5					
Weekly	November	4					
Weekly	December	4					

			WAD Cyanide (mg/L)		Concentration Limits		
Frequency	**Month**	**No Sampled during Month**	**Minimum**	**Maximum**	**90th Percentile**	**100th Percentile**	**Comments**
Twice daily	January	62	0	11.41	20.00	30.00	
Twice daily	February	58	0.34	9.55	20.00	30.00	
Twice daily	March	53	0.39	10.36	20.00	30.00	Shutdown 06/03/2024 - 10/03/2024
Twice daily	April	58	0.25	12.61	20.00	30.00	Shutdown 05/04/2024
Twice daily	May	62	0	10.44	20.00	30.00	
Twice daily	June	60	1.019	11.025	20.00	30.00	
Twice daily	July	62	0.956	19.58	20.00	30.00	
Twice daily	August	62	1.485	8.96	20.00	30.00	
Twice daily	September						
Twice daily	October						
Twice daily	November						
Twice daily	December						

EPL Correction Log

Monitoring Point	Monitoring Point Type	Date Sampled	Date Obtained	Date Originally Published	Parameter	Original	Correction	Comments
P555A-R	Groundwater	23/05/2024	31/05/2024	20/05/2024	Cyanide	-	<0.004	Missed sample bottle
P417A	Groundwater	23/05/2024	31/05/2024	20/05/2024	Cyanide	-	<0.004	Missed sample bottle
P417B	Groundwater	23/05/2024	31/05/2024	20/05/2024	Cyanide	-	<0.004	Missed sample bottle
P418A	Groundwater	23/05/2024	31/05/2024	20/05/2024	Cyanide	-	<0.004	Missed sample bottle
P418B	Groundwater	23/05/2024	31/05/2024	20/05/2024	Cyanide	-	<0.004	Missed sample bottle

EPL Exceedances

Monitoring Point	Monitoring Point Type	Date Sampled	Date Obtained	Date Reported	Parameter	Value	EPL Limit	Comments