TOMINGLEY
GOLD OPERATIONS PTY LTD
(A wholly owned subsidiary of Alkane Resources Ltd)
ABN 53 149 040 371

TOMINGLEY GOLD PROJECT

Monthly Environmental Monitoring Report

July 2017

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Document History

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1. Introduction and Scope

This Monthly Environmental Monitoring Report has been prepared to collate environmental monitoring data undertaken for the Tomingley Gold Project during the month of July 2017.

This report also compares data collected to targets and provides commentary on environmental issues during the month.

2. Weather for July 2017

A. Weather Station Data

TGO WEATHER DATA IS PRESENTED BELOW.

Figure 1. July 2017 wind rose

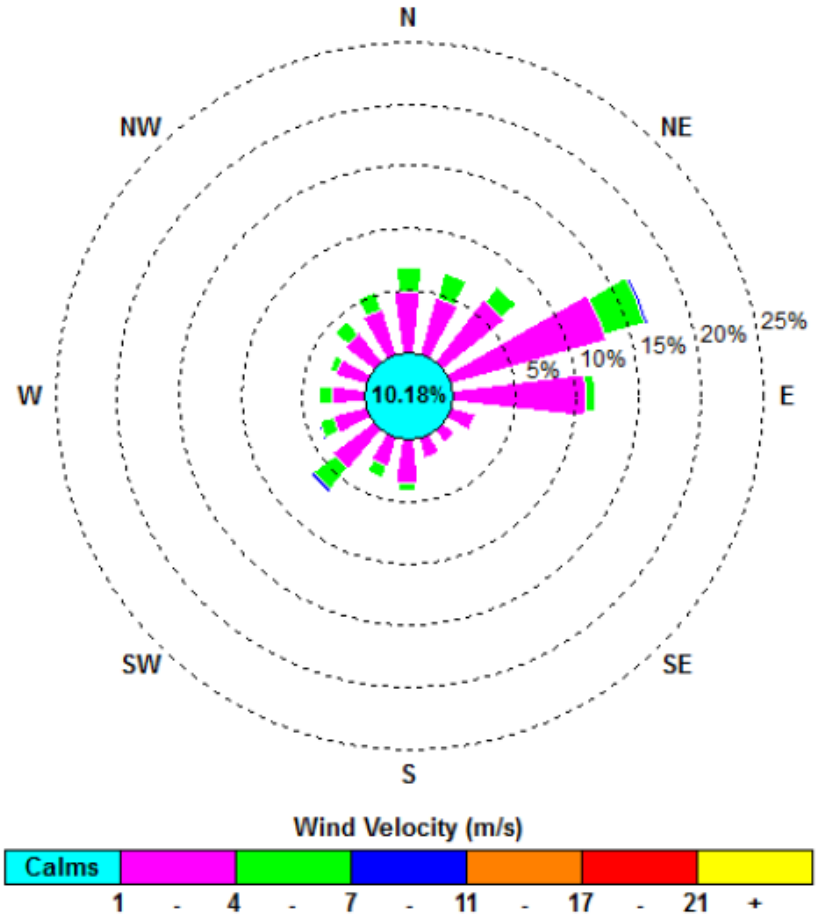


Figure 2. Rainfall July 2017

July 2017	Rainfall (mm)
July 3	2
July 19	0.2
July 31	8.8
Total Rainfall	11

3. Monitoring Locations

FIGURE 3 indicates the location of where monitoring is undertaken for the project. Any additional monitoring undertaken will be discussed within the body of this report.

Figure 3. TGO water and vegetation monitoring points

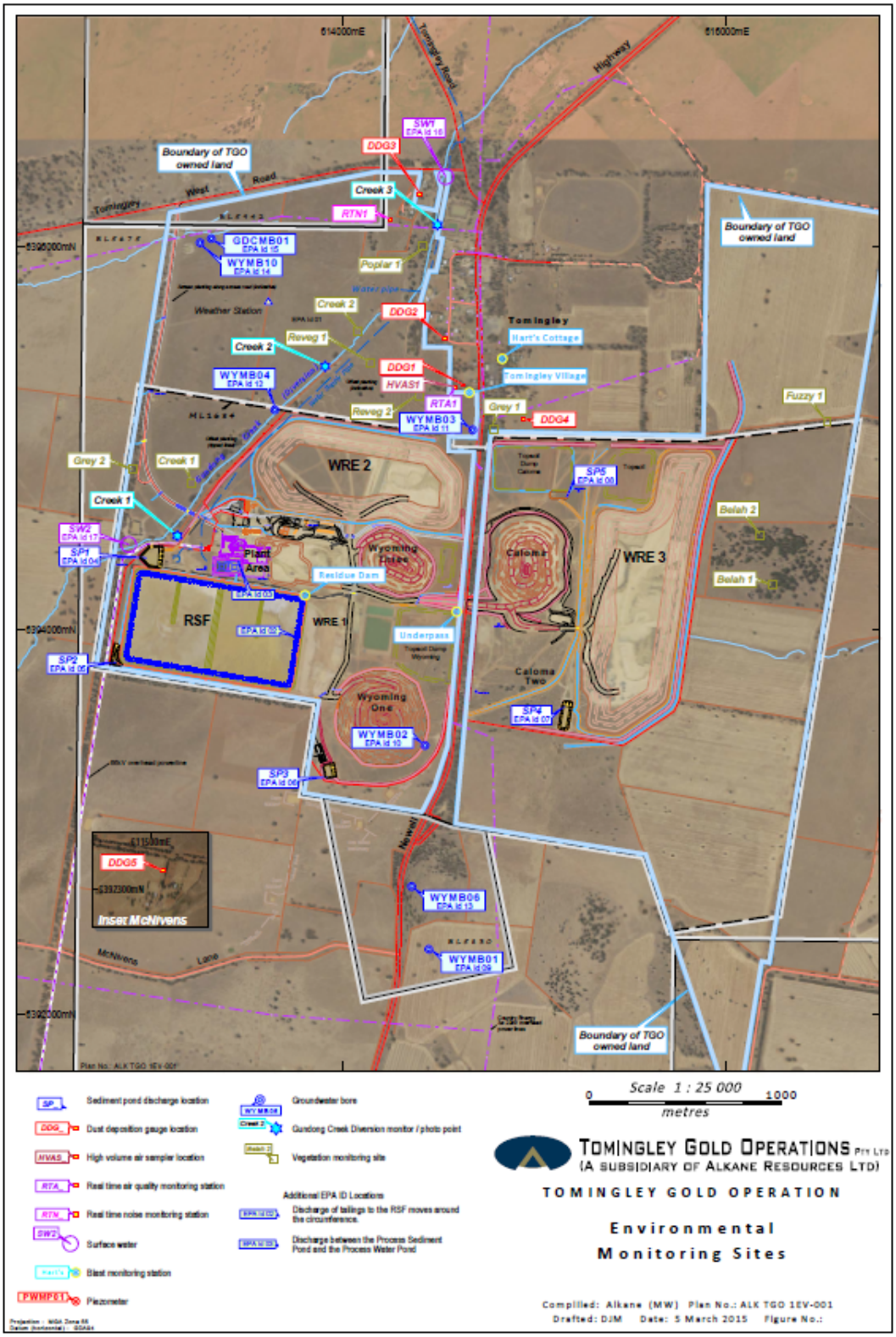
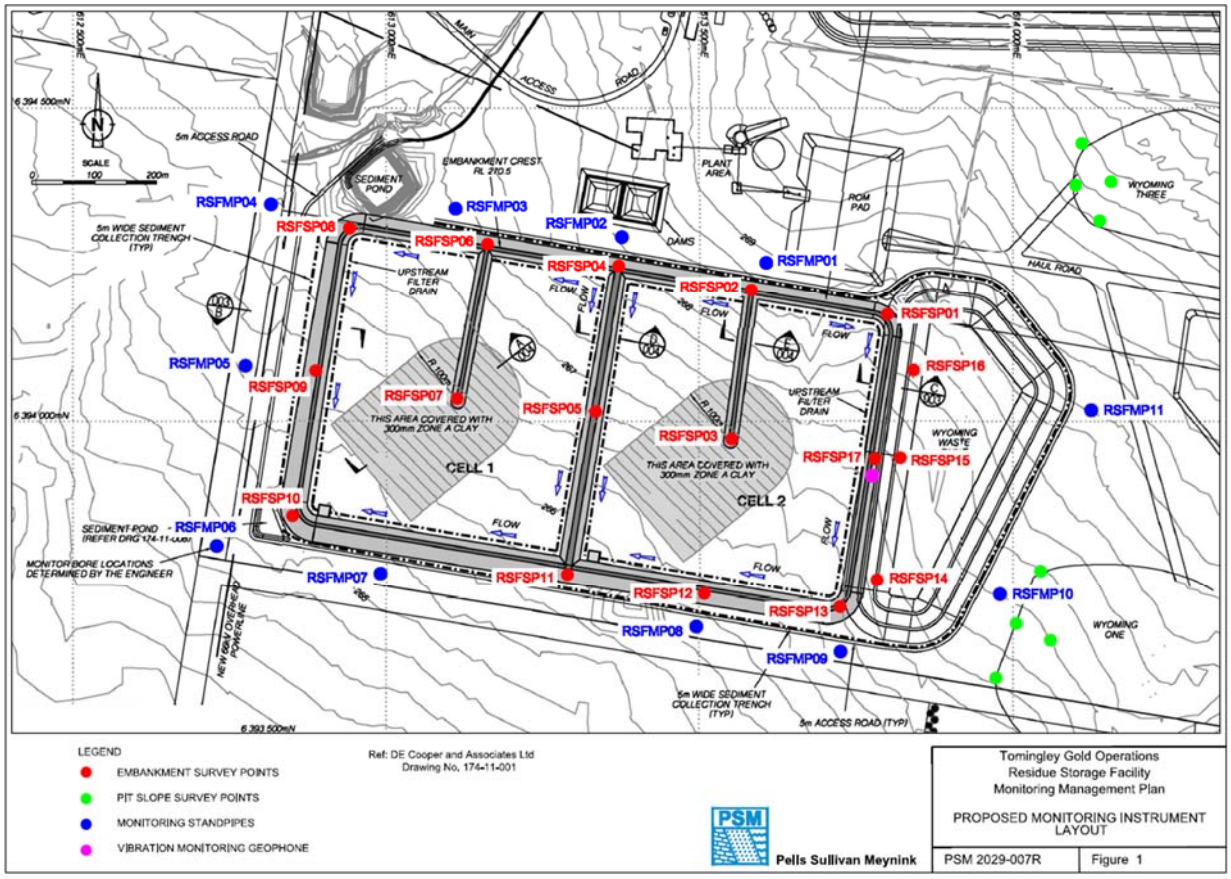


Figure 4 indicates the location of environmental and survey monitoring points on and around the Residue Storage Facility.

Figure 4. Residue Storage Facility monitoring points



4. Air Quality Monitoring

A. PM10 Monitoring

PM10 is measured via a Tapered Element Oscillating Microbalance (TEOM) located at the southern edge of the Tomingley Village. This machine transmits real-time data via the internet to a computer located on site.

The Performance Criteria for PM10 has been set at an Annual Average of 30ug/m^3 and a 24-Hour Average of 50ug/m^3.

The 24 hour average limit was not exceeded during July.

The annual average at the end of May was 18.2ug/m^3, well below the license limit.

Figure 5. TEOM Data July 2017

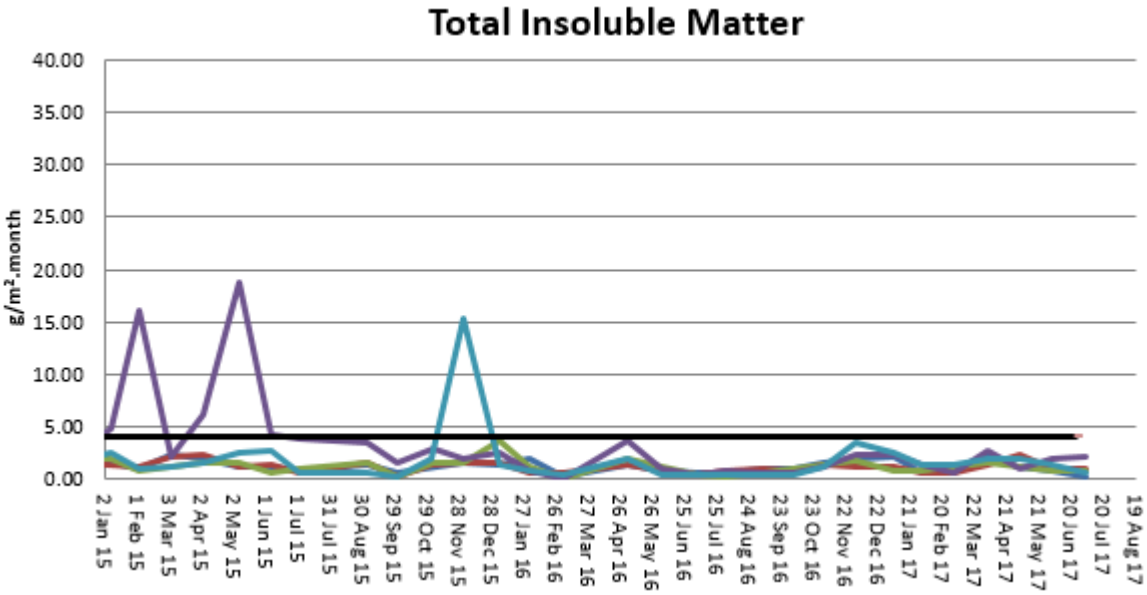
Date	24 Hr Averages	Running Average	Comment
	(µg/m3)		
1/07/2017	14.3	17.8	
2/07/2017	12.4	17.8	
3/07/2017	11.0	17.8	
4/07/2017	8.6	17.8	
5/07/2017	10.4	17.8	
6/07/2017	10.4	17.8	
7/07/2017	11.3	17.8	
8/07/2017	16.4	17.8	
9/07/2017	12.6	17.8	
10/07/2017	15.9	17.8	
11/07/2017	22.8	17.9	
12/07/2017	12.3	17.9	
13/07/2017	12.0	17.9	
14/07/2017	14.7	17.9	
15/07/2017	13.9	17.9	
16/07/2017	14.8	17.9	
17/07/2017	13.0	17.9	
18/07/2017	12.3	17.9	
19/07/2017	9.4	17.9	
20/07/2017	14.4	17.9	
21/07/2017	17.9	17.9	
22/07/2017	12.4	17.9	
23/07/2017	15.7	18.0	
24/07/2017	18.7	18.0	
25/07/2017	17.6	18.0	
26/07/2017	25.8	18.0	
27/07/2017	15.4	18.1	
28/07/2017	18.7	18.1	
29/07/2017	18.4	18.1	
30/07/2017	43.5	18.2	
31/07/2017	12.3	18.2	
Average	**15.4**		
	24 Hour Criteria Exceedance		

Note: For comparison purposes, highlighted results indicate levels above the EPA and NEPM 24-hour maximum criteria for PM_{10}

B. Depositional Dust

Depositional Dust monitoring undertaken during this month returned the results indicated in the table below. The performance criteria for deposited dust is averaged over 12 months.

Figure 6. Dust Deposition Results 2015 - 2017

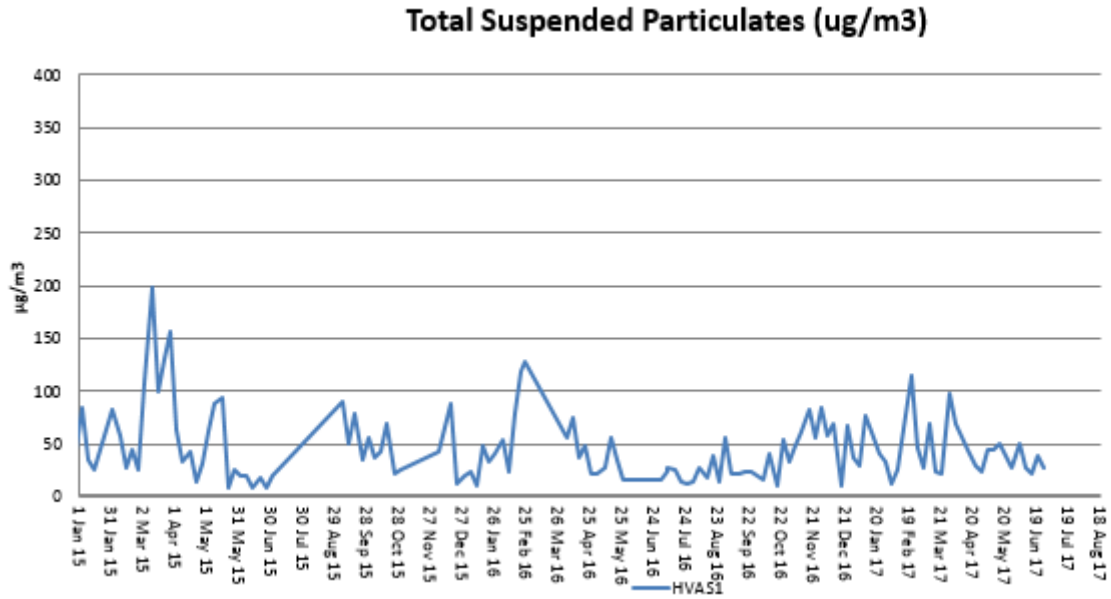


C. High Volume Air Sampler - Total Suspended Particulates

High Volume Air Sampling (HVAS) for Total Suspended Particulates (TSP) was undertaken this month. Figure 7 below provides the results.

The performance criteria for TSP is averaged over 12 months

Figure 7. Hi-Volume Air Sampler Data 2015 - 2017

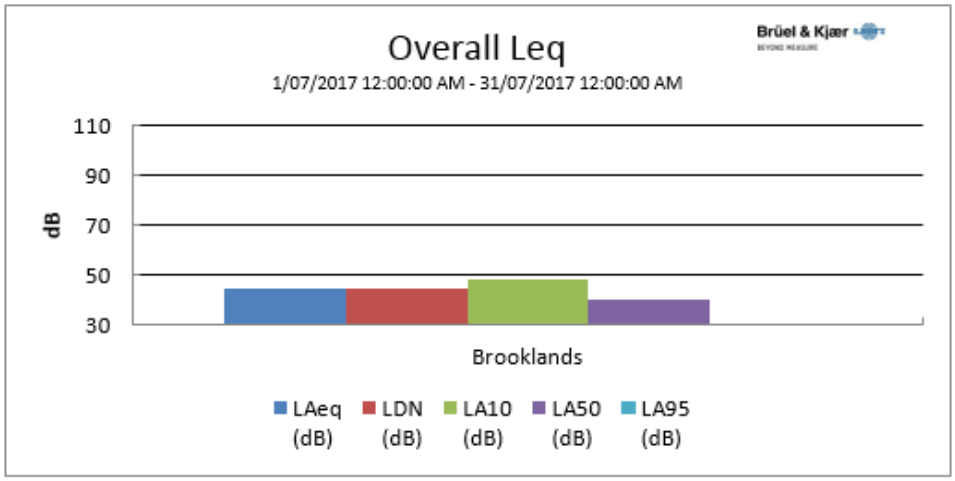


5. Noise Monitoring

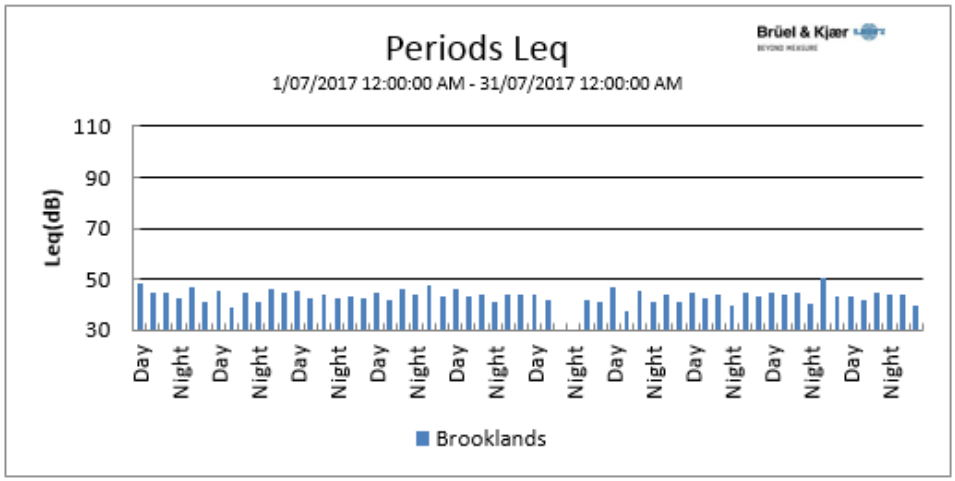
A. Real-Time Noise Monitoring

See real-time noise monitoring data presented below.

Figure 8. TGO Noise Monitoring 1/7/2017 - 31/7/2017



Location	Start Time	End Time	Activity	LDN (dB)	L_{Aeq} (dB)	L_{AF} (dB)	L_{AMin} (dB)	L_{A10} (dB)	L_{A50} (dB)	L_{A95} (dB)
Brooklands	1/07 12:00:00 AM	31/07 12:00:00 AM	94%	44.7	44.7		21.2	47.8	40.2	29.8



6. Surface Water Monitoring

A. Gundong Creek

Gundong Creek did not flow during July and as such, no water sampling was undertaken.

B. Sedimentation Ponds

Sediment basins did not experience any discharges during the month of July.

7. Groundwater Monitoring

Groundwater was undertaken during June in line with license requirements.

Results from this round of monitoring fell within expected limits.

A further round of monitoring is scheduled in for September.

8. Blast Monitoring

Blasts are carried out in all open cut pits and vibration and decibels are monitored from several locations. Below are the vibration results recorded from the monitors at Hart's Cottage and Tomingley Village.

Figure 9. Blast Monitoring

EventKey	Date/Time	Max R (mm/s)	Location
79063	1/07/2017 12:59	0.07	Harts Cottage
79063	1/07/2017 12:59	0.08	Tomingley Village
79209	6/07/2017 11:09	0.29	Harts Cottage
79209	6/07/2017 11:09	0.55	Tomingley Village
79287	8/07/2017 13:01	0.07	Harts Cottage
79287	8/07/2017 13:01	0.1	Tomingley Village
79376	13/07/2017 15:16	0.34	Harts Cottage
79376	13/07/2017 15:16	0.43	Tomingley Village
79456	17/07/2017 11:03	0.04	Harts Cottage
79456	17/07/2017 11:03	0.04	Tomingley Village
79605	19/07/2017 13:22	0.06	Harts Cottage
79605	19/07/2017 13:22	0.05	Tomingley Village
79658	20/07/2017 13:13	0.11	Harts Cottage
79658	20/07/2017 13:13	0.14	Tomingley Village
79543	21/07/2017 13:01	0.33	Harts Cottage
79543	21/07/2017 13:01	0.53	Tomingley Village
79637	27/07/2017 11:12	0.16	Harts Cottage
79637	27/07/2017 11:12	0.19	Tomingley Village
79703	29/07/2017 13:01	0.08	Harts Cottage
79703	29/07/2017 13:01	0.06	Tomingley Village

9. Residue Storage Facility

Residue from the processing plant is discharged into the Residue Storage Facility or RSF. The Environmental Protection Licences dictates that the Weak Acid Dissociable (WAD) Cyanide found in this residue must be less than 20 milligrams per litre for 90% of the time and less than 30 milligrams per litre for 100% of the time.

WAD cyanide discharge levels are shown below with the maximum reading well below the 100th percentile limit of 30ppm.

- Monthly average: 3.52 ppm
- Daily maximum: 12.78 ppm on 3rd July
- Daily minimum: 1.20 ppm on 14th July
- Number of exceedances: zero

10. Biodiversity Monitoring

Fauna deaths:

- There were no fauna deaths in the RSF for the month.

Vertebrate pests

- A program of trapping feral cats and foxes has continued with one feral cat being caught during July.