

TOMINGLEY GOLD PROJECT

Monthly Environmental Monitoring Report

September 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 September 2017.

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

2. Weather for September 2017

A. Weather Station Data

TGO WEATHER DATA IS PRESENTED BELOW.

Figure 1. September 2017 wind rose

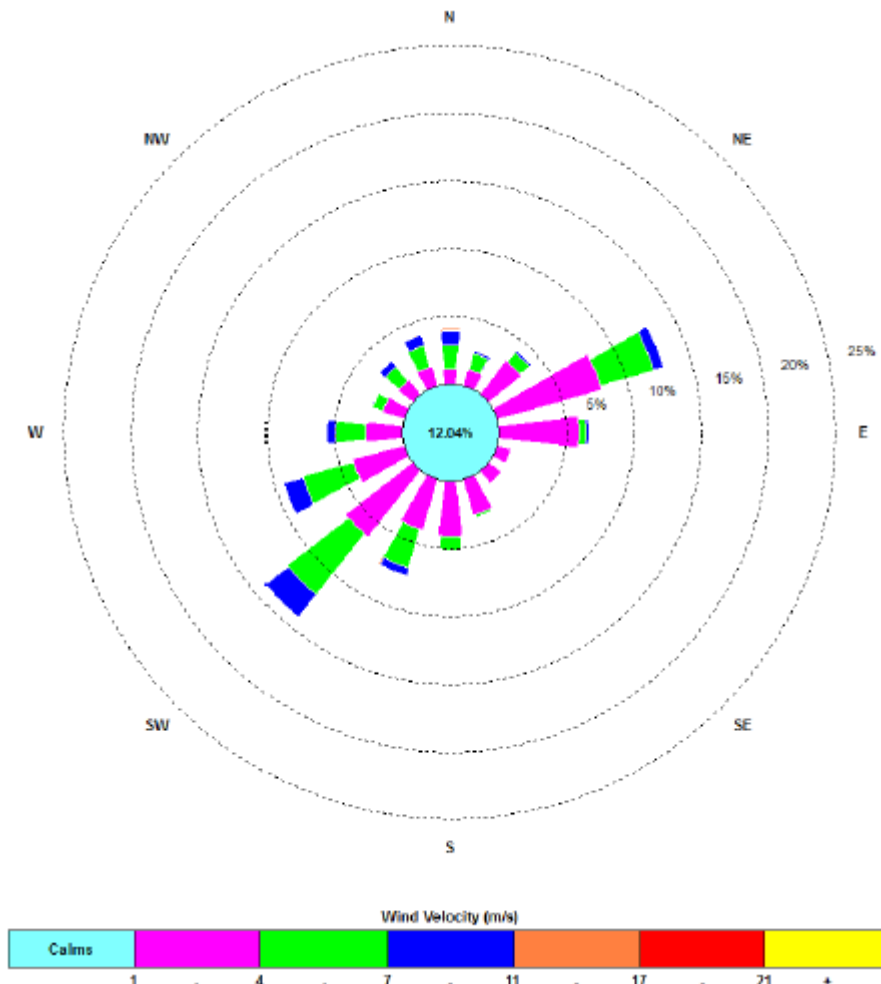


Figure 2. Rainfall September 2017

September 2017	Rainfall (mm)
September 13	6
September 14	3
Total Rainfall	9

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

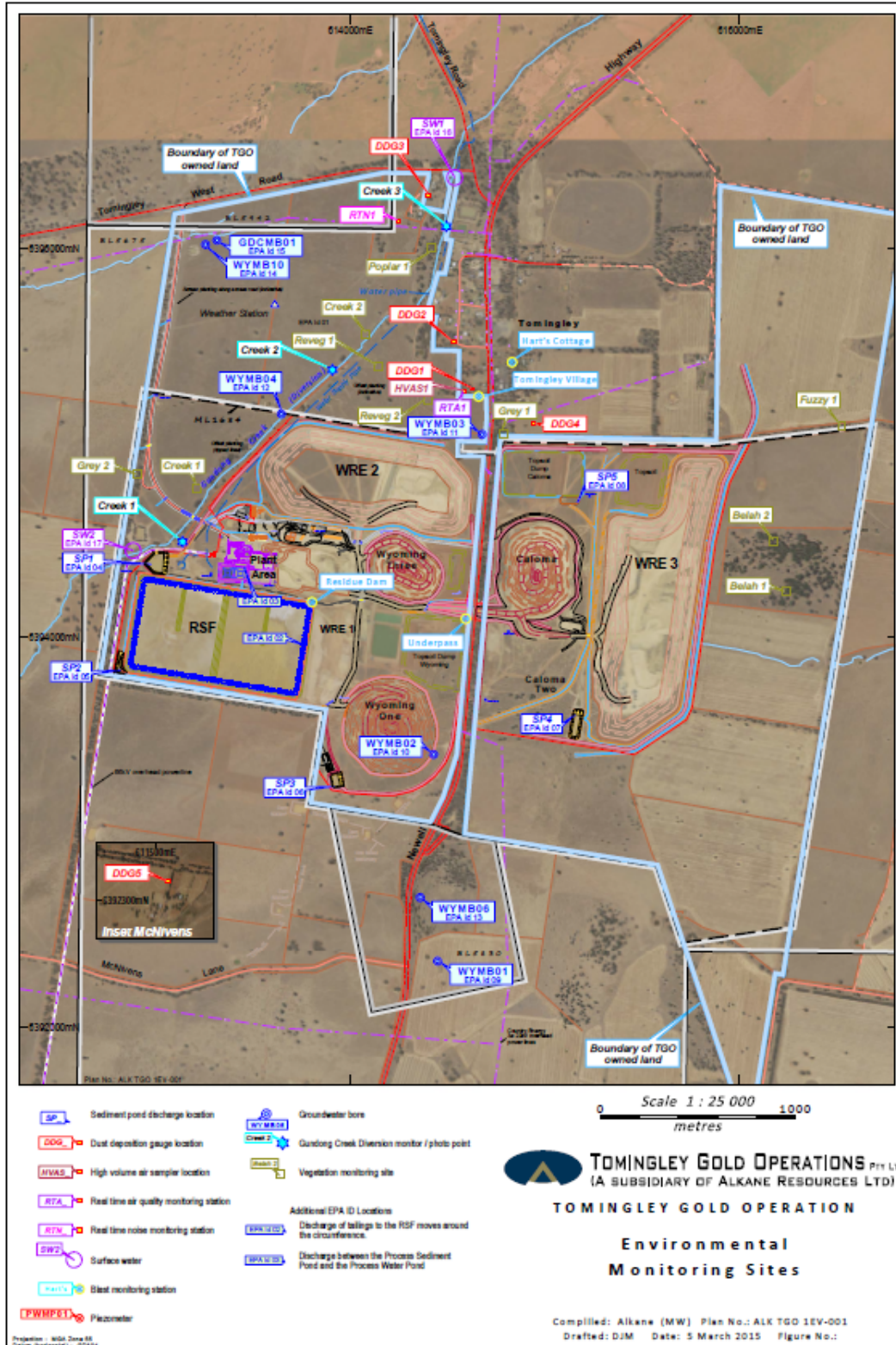
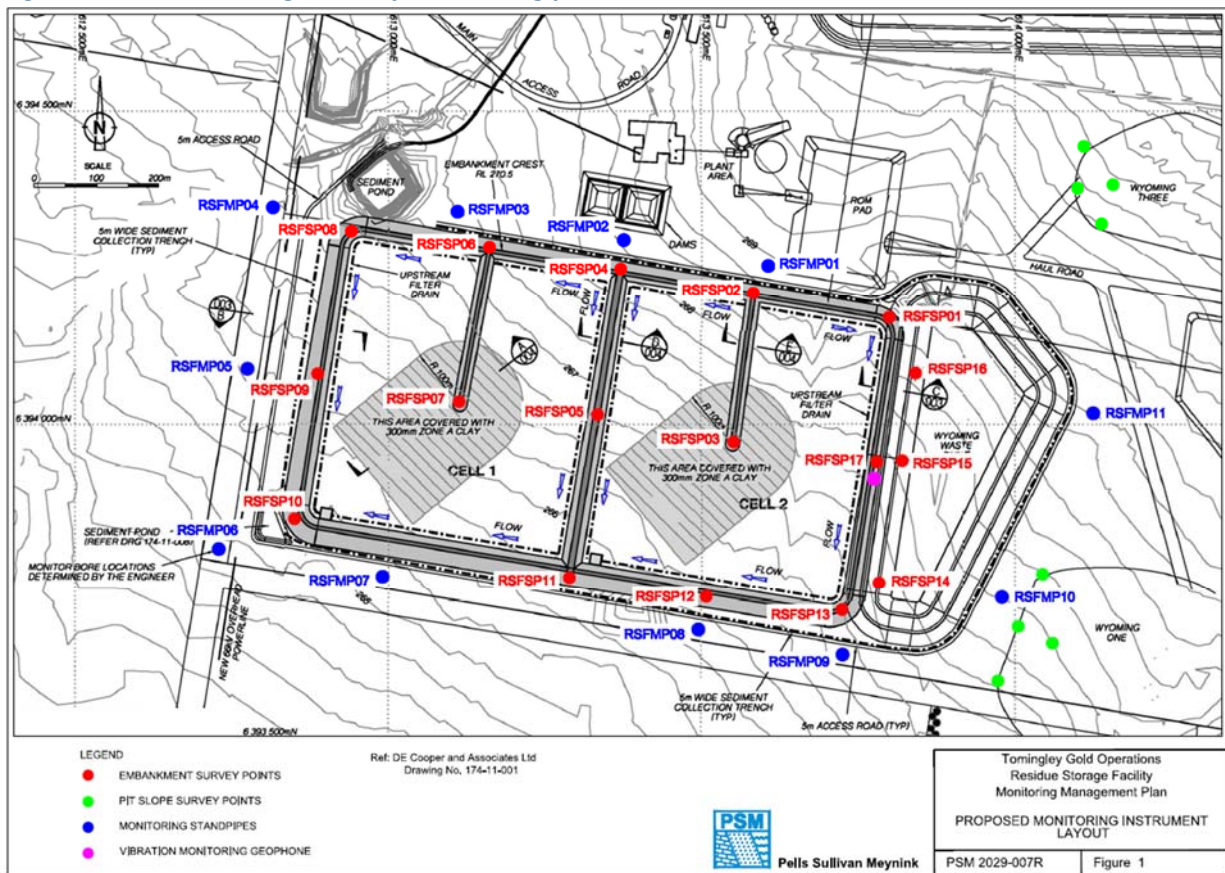


Figure 4 indicates the location of environmental and survey monitoring points on and around the Residue Storage Facility.

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/m³ and a 24-Hour Average of 50ug/m³.

The 24 hour average limit was exceeded on three occasions during September. Each of these occasions were as a result of extreme weather conditions and off site dust. None of these incidents were as a result of activities taking place on the mining lease. High Winds were recorded at the Tomingley Weather Station and the Dubbo BOM site of the days that the 24 hour criteria were exceeded.

The annual average at the end of September was 20.3ug/m³, well below the license limit.

Figure 5. TEOM Data September 2017

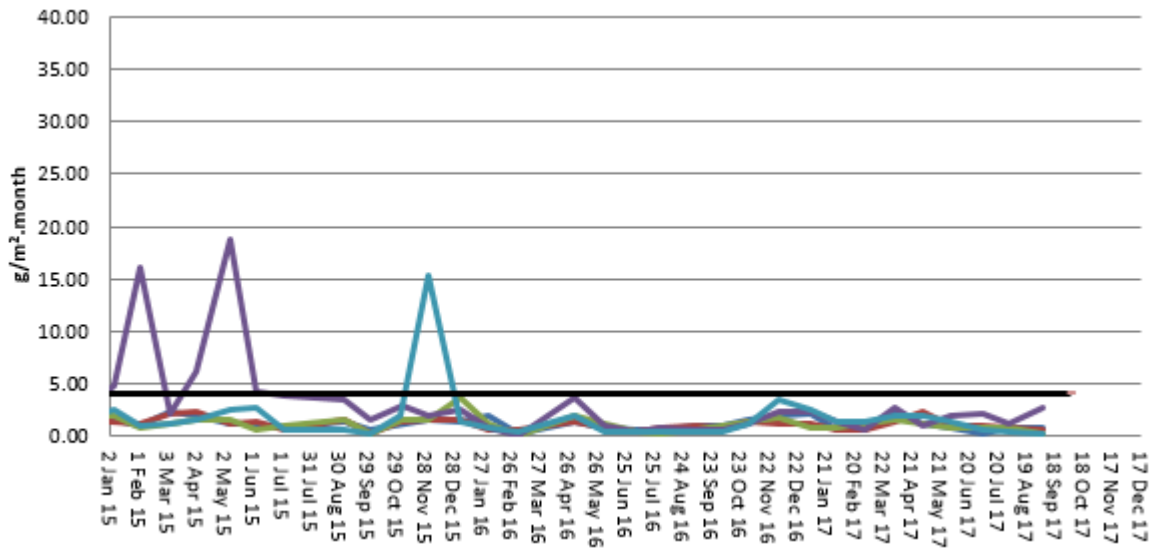
Date	24 Hr Averages	Running Average	Comment
	(µg/m ³)		
1/09/2017	21.1	18.7	
2/09/2017	20.8	18.8	
3/09/2017	76.2	19.0	
4/09/2017	25.3	19.0	
5/09/2017	16.4	19.0	
6/09/2017	21.7	19.1	
7/09/2017	37.8	19.1	
8/09/2017	40.8	19.2	
9/09/2017	23.9	19.2	
10/09/2017	25.0	19.3	
11/09/2017	17.1	19.3	
12/09/2017	23.9	19.3	
13/09/2017	37.5	19.4	
14/09/2017	17.7	19.4	
15/09/2017	13.6	19.3	
16/09/2017	14.3	19.3	
17/09/2017	15.9	19.3	
18/09/2017	17.6	19.4	
19/09/2017	36.5	19.5	
20/09/2017	23.7	19.5	
21/09/2017	17.9	19.6	
22/09/2017	22.9	19.6	
23/09/2017	72.8	19.8	
24/09/2017	57.4	19.9	
25/09/2017	34.6	20.0	
26/09/2017	25.1	20.0	
27/09/2017	45.2	20.1	
28/09/2017	22.8	20.2	
29/09/2017	27.4	20.2	
30/09/2017	27.7	20.3	
Average	29.3		
	24 Hour Criteria Exceedance		

Note: For comparison purposes, highlighted results indicate levels above the EPA and NEPM 24-hour maximum criteria for PM₁₀

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

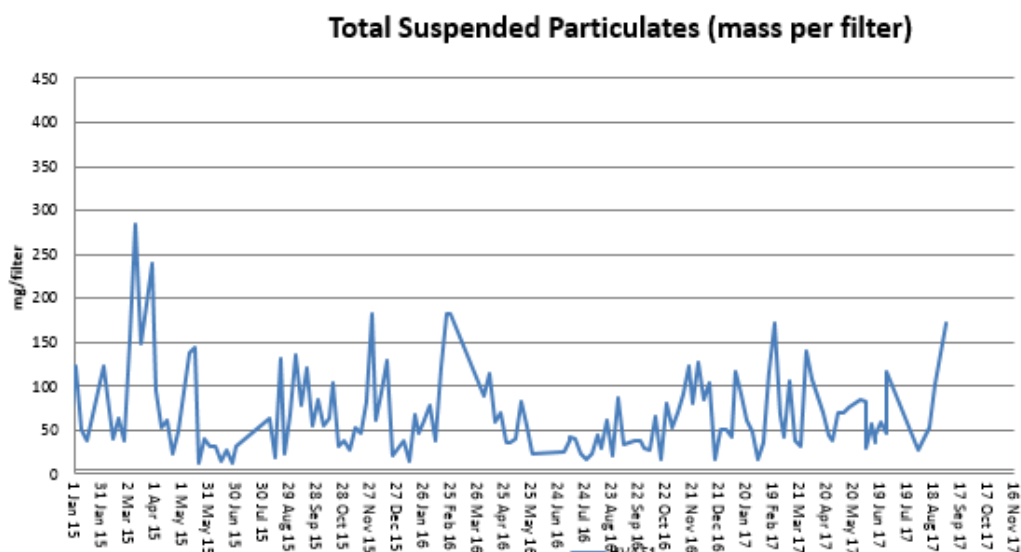


C. High Volume Air Sampler - Total Suspended Particulates

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

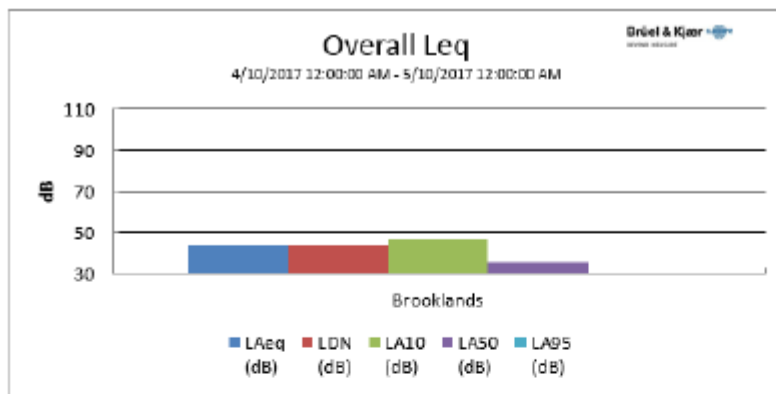


5. Noise Monitoring

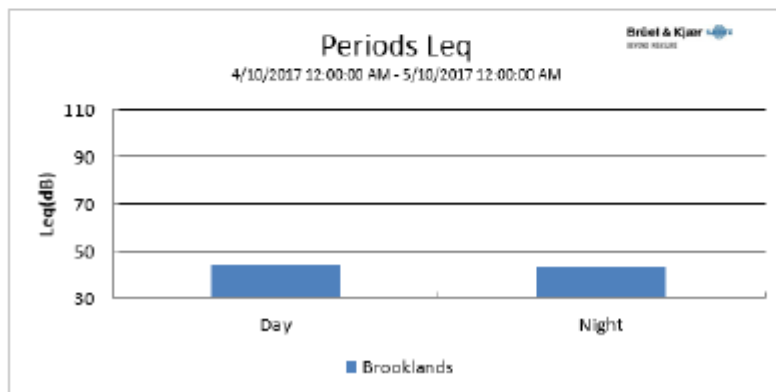
A. Real-Time Noise Monitoring

See real-time noise monitoring data presented below.

Figure 8. TGO Noise Monitoring 1/9/2017 - 30/9/2017



Location	Start Time	End Time	Activity	LDN (dB)	LAeq (dB)	LAF (dB)	LAMin (dB)	LA10 (dB)	LA50 (dB)	LA95 (dB)
Brooklands	4/10 12:00:00 AM	5/10 12:00:00 AM	100%	43.5	43.5	23.9	46.9	35.5	29.0	



6. Surface Water Monitoring

A. Gundong Creek

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

B. Sedimentation Ponds

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

7. Groundwater Monitoring

Groundwater was undertaken during September in line with license requirements.

Results from this round of monitoring fell within expected limits.

A further round of monitoring is scheduled in for December.

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
80392	2/09/2017 13:22	0.18	Harts Cottage
80392	2/09/2017 13:22	0.19	Tomingley Village
80465	5/09/2017 13:59	0.06	Harts Cottage
80465	5/09/2017 13:59	0.08	Tomingley Village
80496	6/09/2017 14:36	0.09	Harts Cottage
80496	6/09/2017 14:36	0.09	Tomingley Village
80543	9/09/2017 12:55	0.09	Harts Cottage
80543	9/09/2017 12:55	0.09	Tomingley Village
80673	13/09/2017 14:57	0.07	Harts Cottage
80673	13/09/2017 14:57	0.08	Tomingley Village
80733	18/09/2017 11:03	0.07	Harts Cottage
80733	18/09/2017 11:03	0.09	Tomingley Village
80955	23/09/2017 13:00	0.03	Harts Cottage
80955	23/09/2017 13:00	0.04	Tomingley Village
80954	26/09/2017 13:02	0.04	Harts Cottage
80954	26/09/2017 13:02	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: 2.69 ppm
- Daily maximum: 6.93 ppm on 28th September
- Daily minimum: 1.45 ppm on 19th September
- Number of exceedances: zero

10. Biodiversity Monitoring

Fauna deaths:

- Two animals were found deceased in the RSF during the course of September. Analysis revealed that their deaths were not cyanide related and the events were reported to the EPA as per RGO's EPL conditions.

Vertebrate pests

- A program of trapping feral cats and foxes has continued with no feral cats being captured during September.