

Environmental Management Report Pakenham Quarry



Compiled by
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Abstract

As the content of this report demonstrates, Cemex Pakenham has implemented a systematic, whole of site approach to environmental management and compliance with conditions of the *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. All employees and contractors on site are aware of the necessity to conduct operations with minimal disruption to the environment and the local community. Monitoring results reflect this commitment by complying with and surpassing the standards required. The site is on track in relation to scheduled works as per the Environmental Management Plan. All non-compliances and complaints have been documented and any appropriate remedies actioned.

This report provides graphical summaries of all results obtained during the relevant monitoring period. These graphical summaries indicate averages and data trends. Any results obtained that fall outside the required standards are reported in the *Non-Compliances* section.

Activity Synopsis

EMP Variances

Variance	Reason
Weather Monitoring Station not installed in pit manager's office. (2.1.3)	Awaiting repair of several units, delay with lab regarding filters and installation
No dust monitoring (other than depositional monthly) in place. (2.1.4)	Awaiting repair of several units, delay with lab regarding filters and installation

Non-Compliances and Complaints

One result obtained during this reporting period did not fall within the standards set out in *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. The non compliance related to dust location A5 which exceeded the limit of 4g/m²/month, this is currently under investigation.

Environmental Monitoring Results

Results Synopsis

Results obtained during this period complied with the standards set out in *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. Airborne dust monitoring was limited due to delays in delivery of equipment (refer EMP Variances).

1.1 Rehabilitation and Vegetation

All required actions have been completed in this reporting period. Biosis have been contacted to complete the 1 year audit on the net-gain offset, completion October 2009.

2.1.4 Air Quality – Dust

All units operational awaiting report for high volume sampler from Lear Siegler; still some issues with reactive monitors (Lear Siegler currently working through issues). Depositional results have indicated the dust emissions tabulated below. Where asterisks exist in the table, this indicates the unit was damaged. This damage occurs

primarily due to livestock and weather conditions. Location A5 extremely high, Amdel investigating.

		A1	A2	A3	A4	A5	A6	A7
Insoluble	g/m2/month	2.7	0.7	0.4	1.7	24	1.9	0.5

2.2.4 Operating Noise

All locations returned LAeq levels lower than the standards set out in *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. At the date of this report there had been no complaints in relation to operating noise and therefore no noise level monitoring at a complainant's residence. Refer to Figure 1.1

2.3.4 Blasting

Ground Vibration and Air Blast measurements conducted by specialist consultants were all within required standards as per *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. Refer to Figures 1.2, 1.3.

2.4.4 Surface and Ground Water

Appropriate visual observations were carried out during this period. All observations were in accordance with the standards set out in *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. No discharge occurred during this period. The tabulated results below are the monthly water tests completed by Amdel. Annual groundwater report and spring survey 2009 have both been completed and reports received. A summary of these reports will be included in the 3 monthly report.

	pH	TDS (mg/L)	TSS (mg/L)	TOC (mg/L)
September	8.4	400	<20	5.4

2.5.4 Slope Stability

Visual inspections of all the landslips in Toomuc Valley have been carried out after each blast. Visual inspections of the Toomuc Valley landslips were also carried out after each instance of heavy rainfall during this period. There were no morphological variances detected in the landslips as a result of these inspections. Visual inspections have been carried out of vegetation in these areas. All vegetation is healthy and growing well.


2.7.4 Traffic Management

Evaluation of trucks leaving the site concluded that there is minimal material being tracked onto public roadways, all loads for the month were covered and correctly loaded. Trucks that were non-compliant were informed and advised that continued non-compliance may result in disciplinary action. Refer Figure 1.4



References

Rinker Australia, 2008, *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*, Pakenham



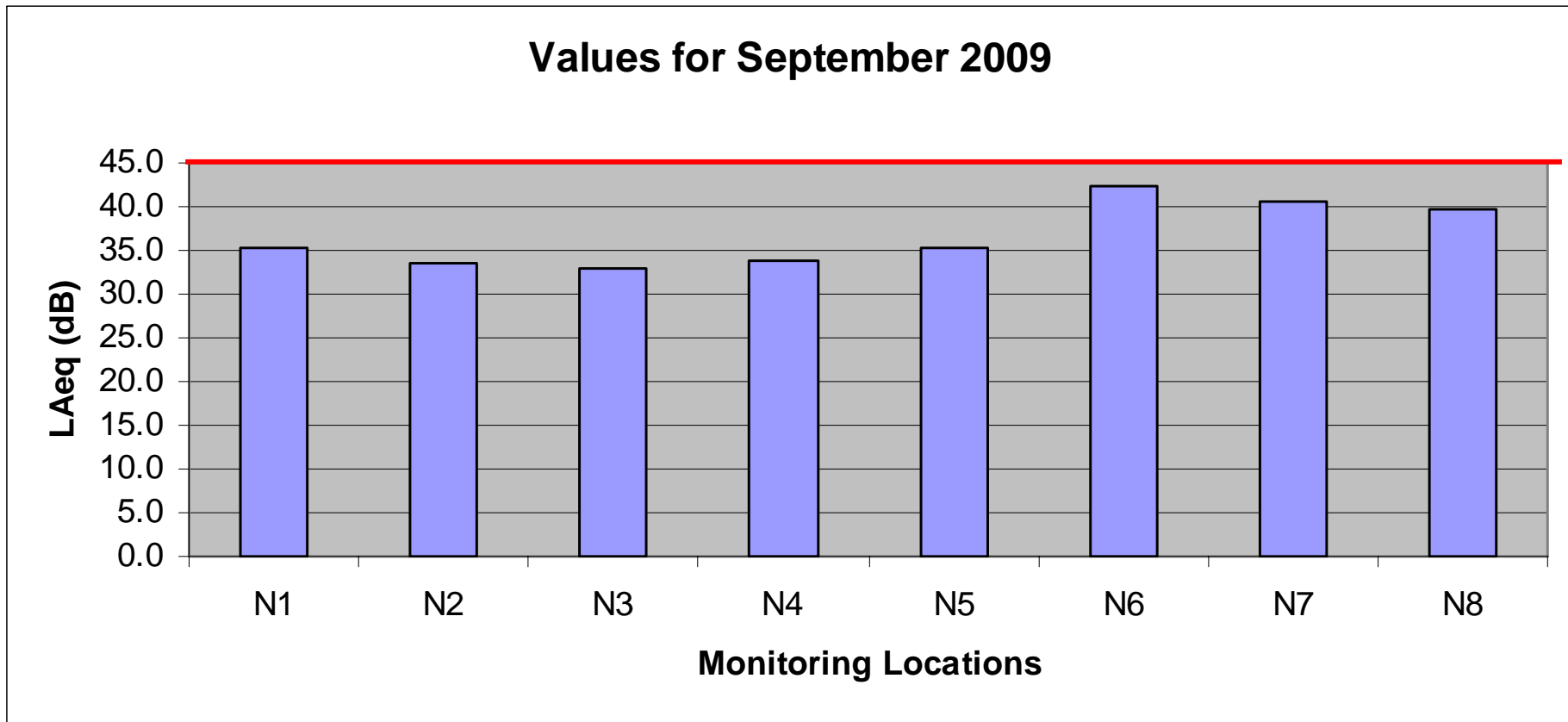


Figure1.1 Average Daily Values for Noise Monitoring of Sensitive Locations

Ground Vibration by Blast and Location

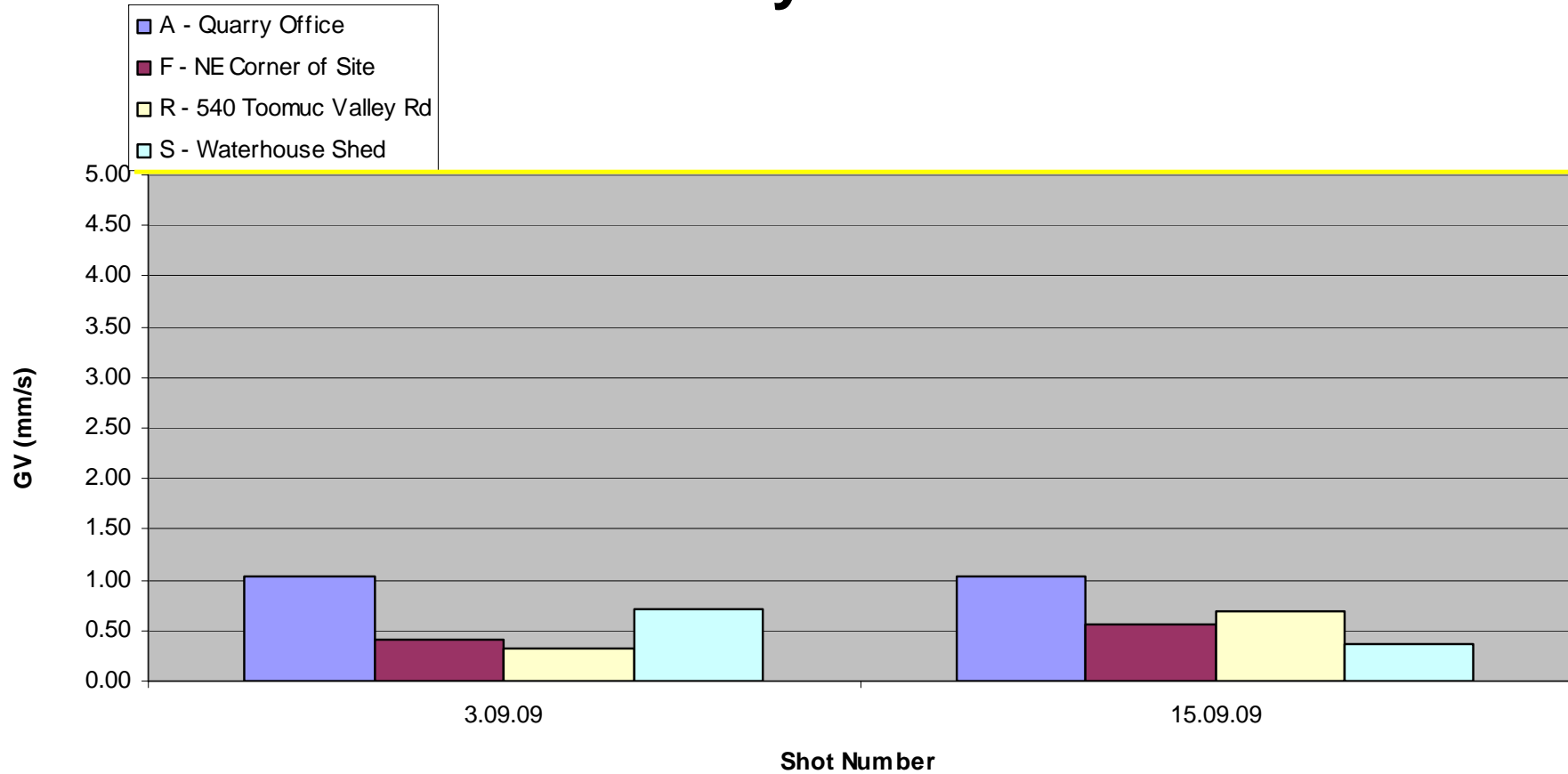


Figure 1.2: Ground Vibration by monitoring location and blast date. (Allowable Limit 5 mm/s).

Air Blast Overpressure by Blast and Location

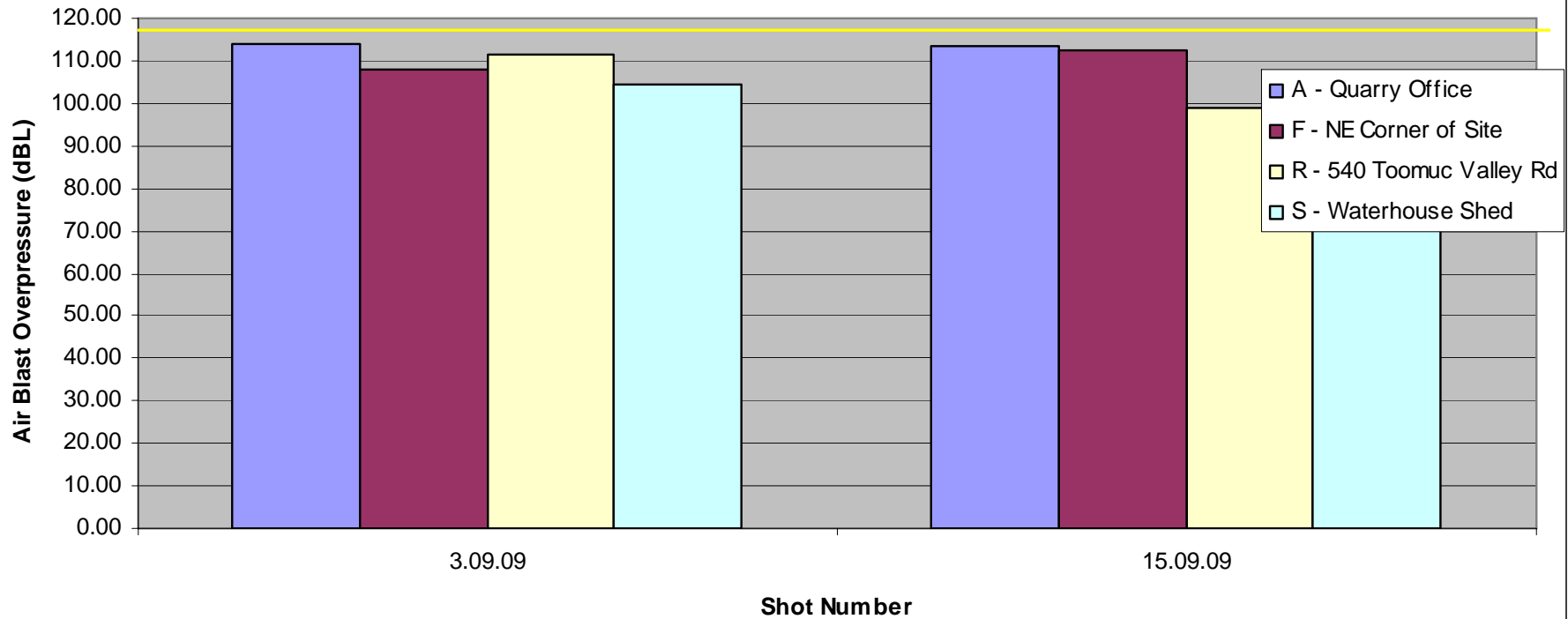


Figure 1.3: Air Blast by Monitoring Location and Blast Date (Allowable Limit 115 dBL in 95% of blasts, 120 dBL in 5% of blasts in 12month period).

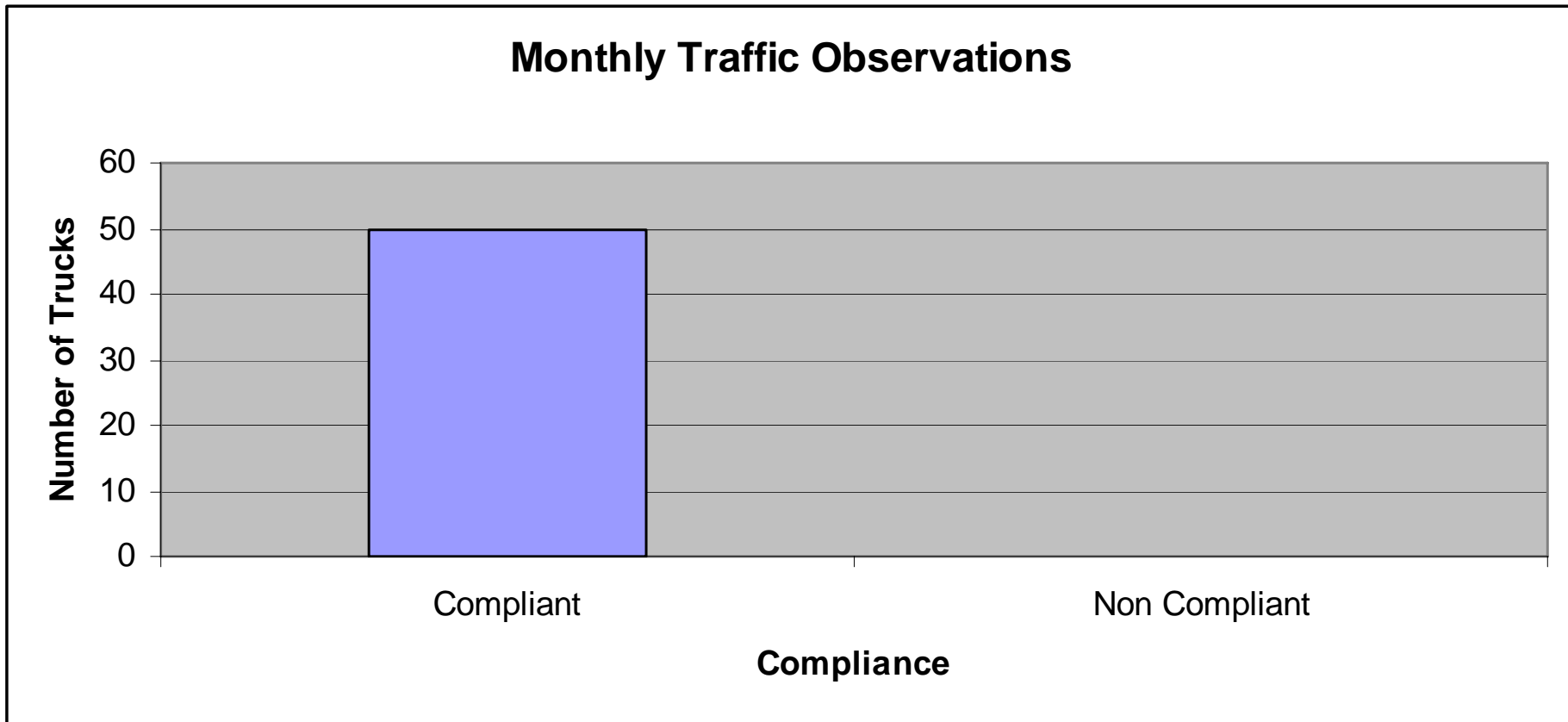
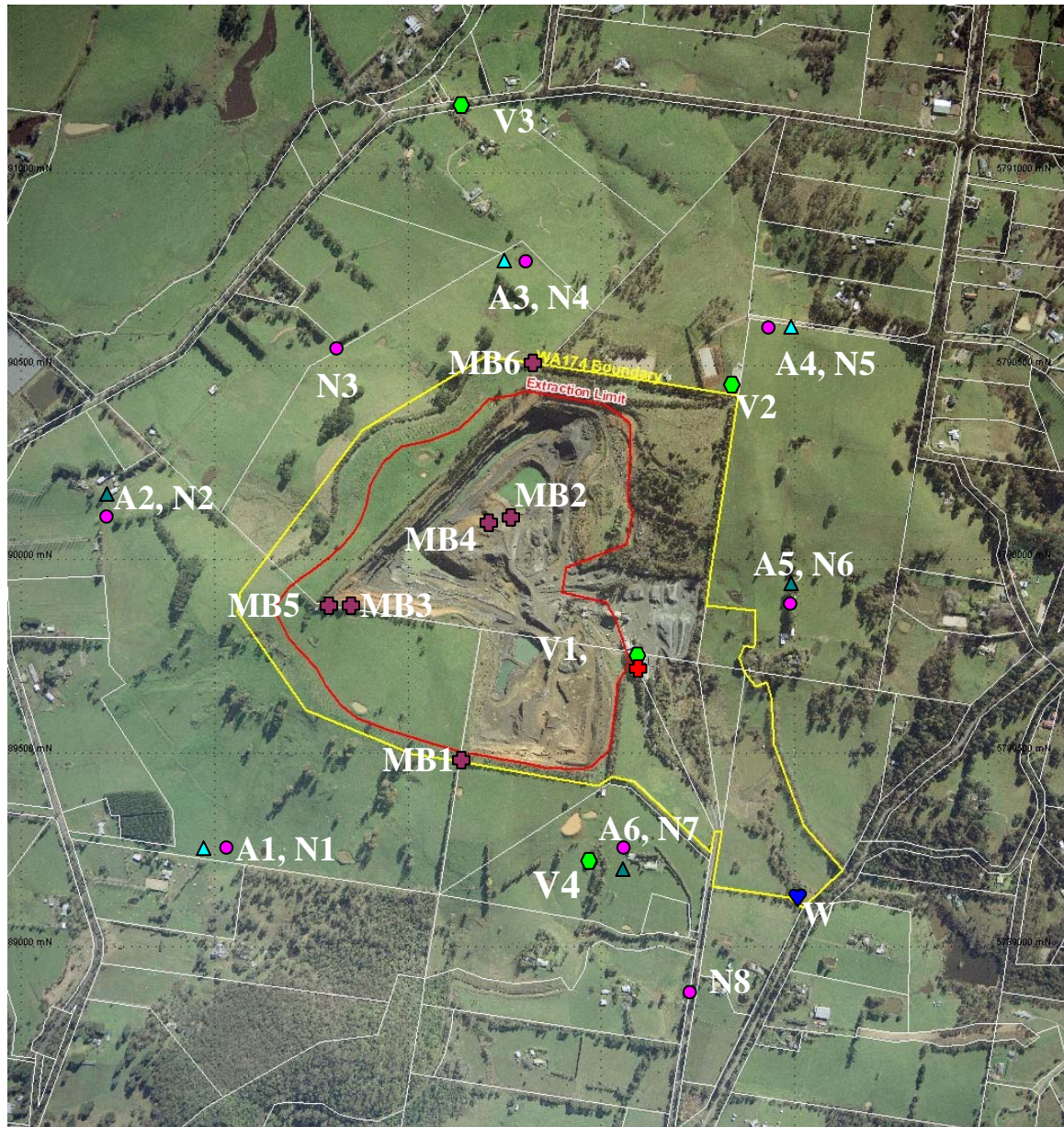


Figure 1.4: Traffic observations for reporting period

Figure 1.12 – Monitoring Locations



LEGEND:

- ▲ A = Air monitoring location (▲ signifies high volume compliance monitoring station at A2, A5, A6)
(Note: Background PM₁₀ monitoring also at address to be determined)
- N = Noise Monitoring location
- V = Blast Vibration and Noise Overpressure location
- ◆ W = Surface Water Sampling Point
- MB = Groundwater monitoring bores
- S = Weather Station