



SAINT ELMO PROJECT

ANNUAL AIR QUALITY MONITORING REPORT

1 January 2025– 31 December 2025

Reference: SEP-RPT-EV-00028

Date	Description	Originator	Reviewer	Approver
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1 EXECUTIVE SUMMARY

The Annual Air Quality Monitoring Report for the Saint Elmo Mine, covering the period from 1 January 2025 to 31 December 2025, provides a comprehensive overview of air quality in accordance with the Environmental Authority (EA) Permit P-EA-100119386, Schedule B. The monitoring system employed included a Partisol 2025di-Sequential Air Sampler (Partisol), HIVOL High Volume Air Sampler (HIVOL), Radiello Passive Sampler (Radiello), and Dust Deposition Gauges (DDGs) to track pollutants such as total suspended particulates (TSP), particulate matter (PM₁₀ and PM_{2.5}), vanadium (V), sulphur dioxide (SO₂), and dust deposition. Data collection adhered to the Multicom Resources Air Quality Management Plan MCR-PLA-EV-00016 (AQMP).

The initial preclearance survey was undertaken on the first mine pit and haul road at the Southern edge of the mining lease in November 2025 which enabled mine clearing activities to commence. The Saint Elmo homestead had not been occupied for an extended period prior to August 2025. The monitoring for this period revealed minimal air quality exceedances. Exceedances were recorded primarily for Dust Deposition Gauges (DDG), and were mostly driven by wildlife contamination, local bushfires particularly in the month of October, dry conditions, and strong winds, rather than mining operations. The monitoring equipment faced challenges, including equipment breakdowns, network dropouts, weather interference, technical malfunctions, and wildlife interference, which occasionally disrupted data accuracy. Delays in supply parts due to the mine's remote location further impacted operations. Notably, the Partisol machine was again decommissioned several times due to frequent malfunctions.

Key findings include:

- Particulate Matter (PM₁₀, PM_{2.5}): Remained within EA limits, with one exceedance in PM_{2.5} due to fires in the McKinlay Shire Region.
- Vanadium (V): Remained with EA limits, with no exceedances recorded throughout the reporting period.
- TSP: Remained with EA limits, with no exceedances recorded throughout the reporting period.
- Sulphur Dioxide (SO₂): No exceedances; levels remained within acceptable limits.
- Dust Deposition: Levels generally complied with the EA's limit, with occasional exceedances due to natural factors, such as local farming and dry conditions.
- Operational issues were endured with the Partisol 2500i Dichotomous Sequential Air Sampler (Partisol). The machine was dispatched for repairs twice within the reporting period and continued to fail. Technicians are expected to attend site to ensure it is operational. Technical issues with Hivol and Radiello samplers were largely mitigated through corrective actions like maintenance and repairs.

The report highlights the need to review and potentially adjust the dust deposition criteria to better align with background environmental levels, as the current limits do not fully account

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for the natural factors influencing air quality. Despite these challenges, air quality overall was largely compliant with EA standards. The findings underscore the importance of ongoing monitoring and adaptation of management strategies to maintain compliance and mitigate the impact of environmental air pollution at the Saint Elmo Mine.

2 INTRODUCTION

Multicom Resources is dedicated to maintaining high environmental standards, particularly in air quality management. As part of the Air Quality Management Plan (AQMP), this report is designed to assess our compliance with the conditions specified in Schedule B of our Environmental Authority (EA) P-EA-100119386 and to provide a comprehensive overview of our air quality monitoring efforts in 2025. Multicom Resources is committed to ensuring that the release of contaminants to air does not cause environmental harm unless authorised by the EA.

It is important to note that environmental data collected during this reporting period is primarily representative of background environmental levels. The first preclearance survey was undertaken in November for the mine haul road and pit, this enabled mining clearance activities to commence (**Figure 7**). The first clearing for mining purposes occurred late November 2025.

The Annual Air Quality Monitoring Report includes detailed data analysis on air quality parameters, an evaluation of monitoring results, plus a summary of exceedances or missed sampling events causing deviations from regulatory standards. By systematically analysing this information, we aim to ensure that our operations not only comply with regulatory requirements but also contribute positively to the environment.

At the time of writing this report, data retrieval from the below dates to the remainder of the year had not been possible.

- Hivol – December 23
- Radiello – December 22
- Dust Deposition December 15

This is due to extensive flooding during late December 2025 and early January 2026, which rendered the site inaccessible. Once access is restored and the samples are retrieved and analysed, the report will be updated should any exceedances be identified.

3 METHODOLOGY

To effectively monitor environmental background levels of dust deposition and particulate matter in ambient air, Multicom Resources employs four distinct sampling methods for real-time monitoring:

- 1. Partisol 2500i Dichotomous Sequential Air Sampler (Partisol)**
 - Parameters Monitored: PM10, Vanadium & PM2.5.
 - Sampling Frequency: Continuous sampling.
- 2. HIVOL 3000 High Volume Air Sampler (HIVOL)**
 - Parameters Monitored: Total Suspended Particulates (TSP).
 - Sampling Frequency: Samples taken every 6 days.
- 3. Radiello Diffusive Sampler (Radiello)**
 - Parameters Monitored: Sulphur Dioxide (SO₂).
 - Sampling Frequency: Continuous passive sampling.
- 4. Dust Deposition Gauges (DDG)**
 - Parameters Monitored: Dust deposition.
 - Sampling Frequency: Continuous sampling.

These devices were installed in April 2023 to establish a robust baseline for air quality monitoring. Based on the current conditions of the EA, the construction of eleven-point source release to air will be necessary to address the objectives related to stationary source emissions in accordance with EA conditions. However, this condition has not been triggered at the time of this report as the Research and Development Plant (RDP) has not yet been commissioned.

Additionally, weather station data has been included in this report to provide context for air quality monitoring results. The weather station monitors wind speed and direction, precipitation (rainfall), ambient temperature and humidity. This data is crucial for understanding how meteorological conditions may influence the dispersion of pollutants and overall air quality in the area.

To ensure data accuracy and reliability, independently certified annual calibration for the Partisol sampler was conducted in April 2025, and again in November 2025. Internal calibrations were carried out monthly for the active samplers Partisol and HIVOL. This calibration process is essential for maintaining the integrity of our monitoring efforts and ensuring compliance with environmental standards.

4 AUSTRALIAN AND NEW ZEALAND STANDARDS

All sampling, analysis, and reporting of air quality conditions have been carried out in compliance with legislative requirements and applicable Australian Standards or their equivalents. The standards applied are as follows:

- AS/NZS 3580.9.9-2006 *Determination of suspended particulate matter – PM10 high volume sampler – Gravimetric method;*
- AS/NZS3580.9.10 *Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM (sub)2.5(/sub) low volume sampler—Gravimetric method*
- AS/NZS3580.9.3:2003 *Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—Total suspended particulate matter (TSP)—High volume sampler gravimetric method.*

5 CURRENT REPORTING PERIOD

This report presents the air quality data for the period of:

- 1 January 2025 – 31 December 2025

It should be noted that there was no mining activity until November 2025.

6 LOCATION

The Saint Elmo mine is located on rural, agricultural land. The predominant existing land use within the mine site and surrounding area is cattle grazing with several homesteads interspersed on the surrounding properties.

Immediately to the south of the mining boundary is the Flinders Highway. The Offsite Water Storage Facility (OWSF) and associated infrastructure are located near the Flinders River north-east of the mine. The pipeline from the OWSF to the Mine Infrastructure Area (MIA) on Saint Elmo Station is located along Punchbowl Road. The township of Julia Creek is located approximately 15 kilometres from the western boundary of the mining lease and consequently very unlikely to be impacted by any noise generated from the mine.

The current air quality Monitoring devices used are shown in **Figure 1-4** and the receiving environment monitoring locations are identified in **Table 1**.

It should be noted that during the month of July the Partisol and HiVol units were relocated slightly farther from the homestead. This action was taken at the request of the tenants. No complaints were received regarding noise from mining operations. The units were moved approximately 1 kilometre (km) from the homestead, and the updated coordinates are provided in the **Table 1**.



Figure 1 - Partisol 2500i Dichotomous Sequential Air Sampler



Figure 2 - HIVOL 3000 High Volume Air Sampler



Figure 3 - Radiello Diffusive Sampler

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Figure 4 – Five Dust Deposition Gauges

Table 1 - Monitoring Locations

Monitoring Location	Latitude / Longitude (GDA 94 MGA Zone 54)	Location Description
PARTISOL HIVOL	590963, 7723800	1km from Saint Elmo homestead
RADIELLO	590203, 7722982	Saint Elmo homestead
DUST DEPOSITION GUAGE (DDG)1	590440, 7722966	General downwind direction of Saint Elmo and Argyle homesteads
DDG2	589396, 7733165	General downwind direction of Burwood homestead
DDG3	592200, 7731258	General downwind direction of Burwood homestead ¹
DDG4	590203, 7722982	Saint Elmo homestead
DDG5	597371, 7723069	Upwind when wind blowing toward Saint Elmo homestead

The nearest existing sensitive receptors to the mining lease are summarised in **Table 2** with the closest receptor (A) being the Saint Elmo Homestead. The homestead is located approximately 270 meters west of the mining lease boundary and is the position at which most of the air quality equipment has been installed. All five sensitive receptors listed are residences. The geographic location of these receptors is shown in **Figure 6**.

Based on the air quality assessment undertaken for the project, and considering the location of sensitive receptors, receptor A would be the most affected by air emissions from the mine, and receptor E the least affected. The main sources of the air emissions would be the release of dust due to the operation of mobile heavy machinery including wind erosion, dozers, ROM ore haul trucks, scrapers, and product trucks.

Table 2 - List of Sensitive Receptors with Coordinates

ID	Real Property Description	Approximate Distance and Direction from Site Boundary	Easting (m)	Northing (m)	Latitude (°)	Longitude (°)
A	Lot 13 EN89	270 m west	590175	7722971	-20.5901	141.8653
B	Lot 4 EN30	4.2 km west	584451	7724151	-20.5798	141.8104
C	Lot 4 MF16	6.8 km north	588714	7739955	-20.4369	141.8503
D	Lot 2 MF3	10 km north-east	598316	7739202	-20.4431	141.9424
E	Lot 11 EN105	6.2 km south-west	591181	7709990	-20.7074	141.8756

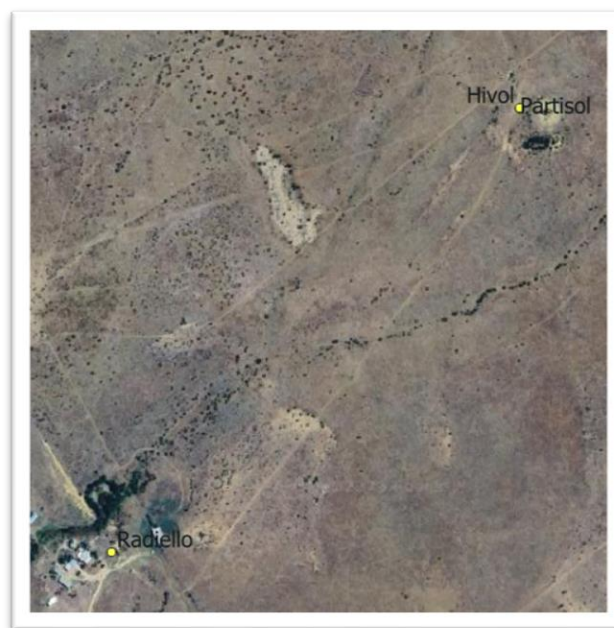


Figure 5 – Partisol, Hivol, Radiello Monitoring Equipment Location

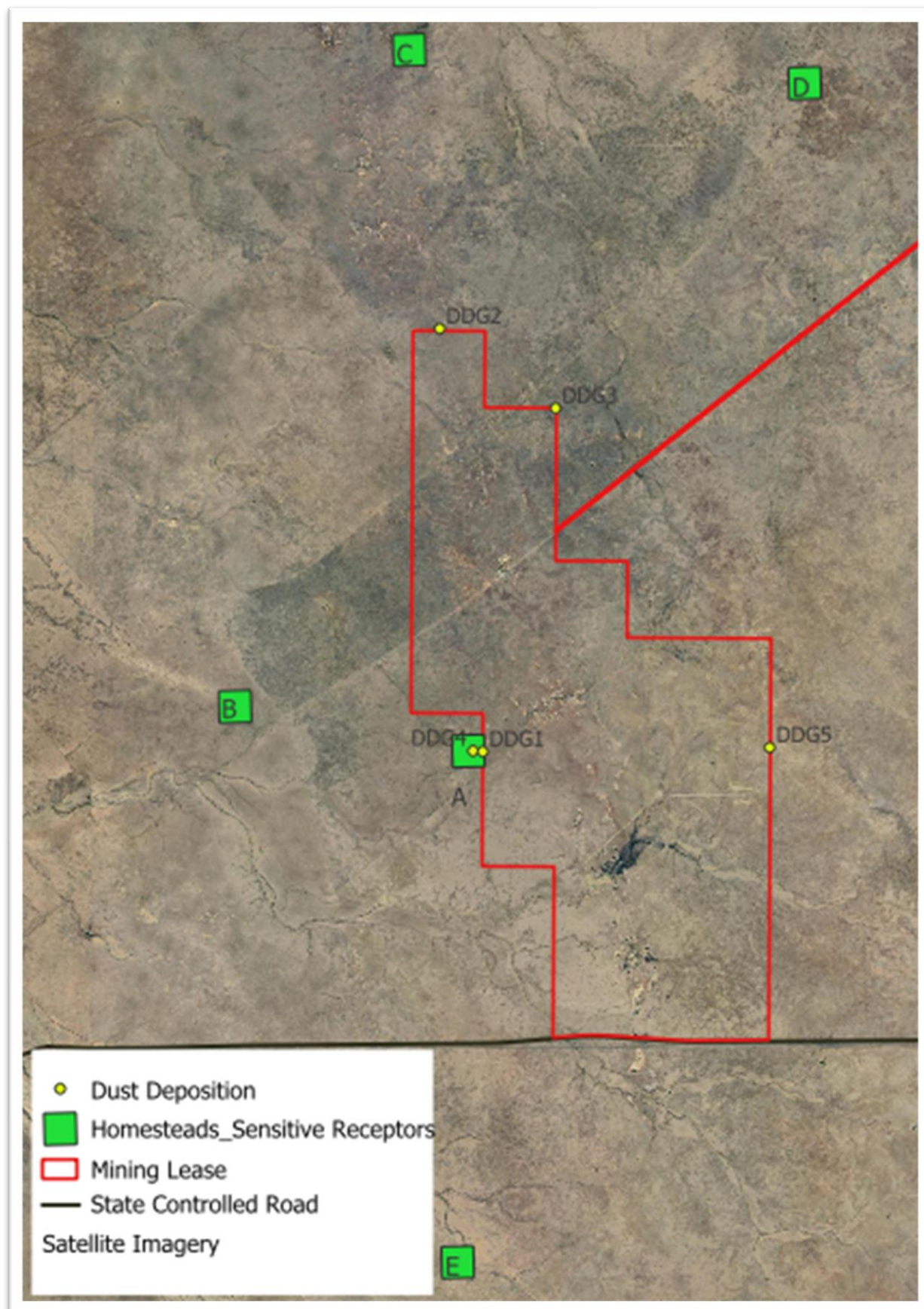


Figure 6 - Location of Sensitive Receptors and Dust Deposition Monitoring Gauges

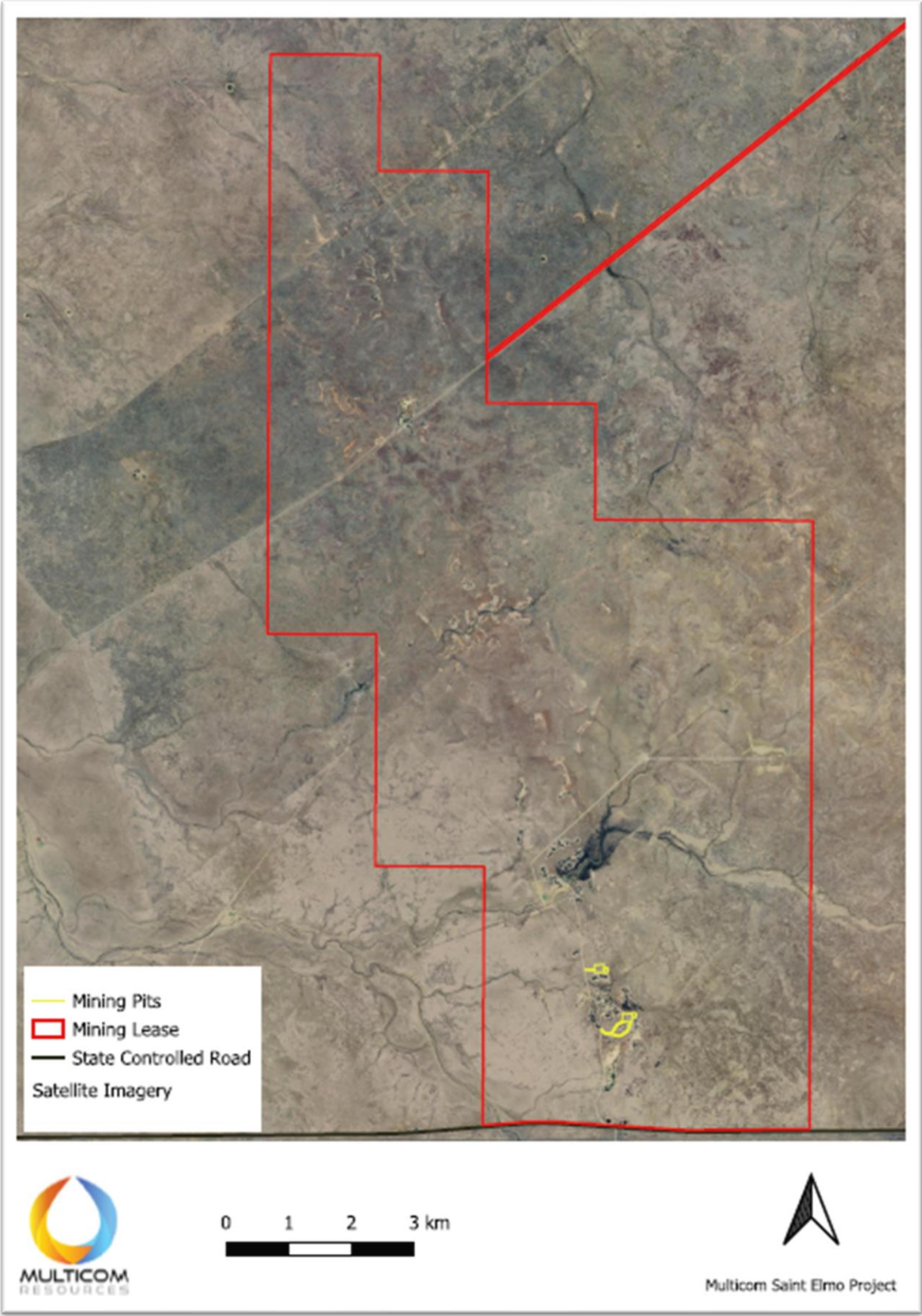


Figure 7 - Location of Mine Pits

7 AIR QUALITY CRITERIA

The EA specifies relevant ambient air quality criteria in Schedule B of the Environmental Authority (EA) Permit P-EA-100119386 for nearby sensitive receptors (**Table 3**). Relevant EA conditions for Stationary Sources have been provided in **Table 4** however, they are not applicable for the current reporting period as the equipment is not yet constructed. Further information can be obtained from the AQMP MCR-PLA-EV-00016 which identifies management and mitigation measures to be implemented as part of the Saint Elmo Project. These measures are in place to ensure impacts to environmental air quality levels resulting from mining activities comply with the conditions detailed in Schedule B of the EA.

Table 3 - Relevant Ambient Air Quality Criteria at the Sensitive Receptors

Air Quality Indicator	Limit Type	Averaging Time	Criteria
PM ₁₀	Maximum	24 hours	50 µg/m ³
PM _{2.5}	Maximum	24 hours	25 µg/m ³
TSP	Maximum	1 year	90 µg/m ³
Sulphur dioxide	Maximum	1 year	57 µg/m ³
Vanadium (total in PM ₁₀ fraction)	Maximum	24 hours	1.1 µg/m ³
Dust Deposition	Maximum	30 Days	120 mg/m ² /day

Table 4 - Relevant EA Specifications for Stationary Sources

Source Description	Minimum Release Height (m)	Minimum Exit Gas Temperature (°C)	Minimum Efflux Velocity (m/s)
RP1 – stack serving vanadium rotary kiln	30	820	3.0
RP2 – stack serving leach scrubber	20	80	3.0
RP3 – stack serving AMV flash dryer and deammoniation kiln scrubber	20	50	3.0
RP4 – stack serving fusion furnace dust collector	20	420	3.0
RP5 – stack serving vanadium bagging plant dust collector	10	Ambient	3.0
RP6 – stack serving crude alum deammoniation kiln scrubber	10	80	3.0
RP7 – stack serving stage 2 alum deammoniation kiln scrubber	10	80	3.0
RP8 – stack serving HPA calciner	10	1200	3.0
RP9 – stack serving HPA bagging plant dust collector	10	Ambient	3.0
RP10 – stack serving boiler	20	160	11.9
RP11 – stack serving condenser	TBA to the Department prior to commencement of operation	TBA to the Department prior to commencement of operation	TBA to the Department prior to commencement of operation

8 **PARTISOL: PM10, VANADIUM & PM2.5 MONITORING RESULTS**

The data collected from the Saint Elmo Partisol Machine provides annual averages for PM10, Vanadium, and PM2.5 (**Table 5**). Monitoring is scheduled to be conducted continuously in accordance with EA requirements, which specify that the 24 hour average concentrations must not exceed: 50 µg/m³ for PM10, 1.1 µg/m³ for Vanadium and 25µg/m³ for PM2.5. Annual PM10, Vanadium, and PM2.5 levels remained below the required limits overall, however one individual 24-hour PM2.5 sample returned an exceedance (**Table 6**). The exceedance on October 21 2025 was attributed to fires in the Mckinlay Shire Region.

Throughout the reporting period, data capture consistently remained below 40%. Although the machine experienced several malfunctions leading to its decommissioning, all data gaps have been addressed, and the percentage of data captured each year is provided (**Table 7**). The machine is checked weekly, but due to its offsite location many data gaps occurred. From April 30 to July 6 and November 11 to December 12 data was not captured due to the machine being decommissioned for repairs. Both repairs during this period were caused by pump malfunctions. During the April 30 to July 6 period, two separate rental machines were hired, one for sampling PM10 and Vanadium, and the other for PM2.5. Upon commissioning of the rental machines, one machine had essential parts missing while the other was experiencing sampling errors. Both rental machines were returned without any sampling being conducted.

The remote location of the Saint Elmo Mine poses additional operational challenges. The difficulty in sourcing specialized components and arranging repairs was compounded by a shortage of trained technicians in the area. Arranging replacement parts to be delivered often creating further delays. Other technical issues occurred such as filter jams, shuttle errors, and sensor errors or flow errors causing operational inefficiencies.

Table 5 - Partisol Results Summary (PM10, Vanadium, PM2.5)

Partisol Results Summary			
Parameter	Annual Average (ug/m3)	Data Capture %	Exceedances
PM10	0.28	35.62%	0
Vanadium	0.28	35.62%	0
PM2.5	0.21	35.62%	1

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Table 6 - Partisol Exceedances

Exceedances				
Limit PM10 50mg/m3/day Limit PM2.5 25mg/m3/day Limit Vanadium 1.1mg/m3/day				
Parameter	Start Date	End Date	Value mg/m3/day	Explanation
PM2.5	21/10/2025	22/10/2025	27.09	Bushfires in the Region

Table 7 - Partisol Data Gaps

Data Gaps		
Start Date	End Date	Explanation
1/01/2025	28/02/2025	Partisol Out of Service - Awaiting Parts for repair, several issues experienced, parts delays, wet weater access issues, lack of service personnel, road closures etc.
2/04/2025	12/04/2025	Wet weather, no access to site
12/04/2025	29/04/2025	Shuttle X Errors, Filter Jam Errors, Technicians and mechanic involved for a suspected air leak
29/04/2025	3/06/2025	Partisol decommissioned and sent to Lear Sieglar in Brisbane for Repairs
13/06/2025	20/06/2025	Town Power Outrages, - partisol machine not reset.
26/06/2025	28/06/2025	Shuttle X Error - Machine didn't start
15/08/2025	19/08/2025	Power Failure
2/09/2025	30/09/2025	Shuttle X Error - No Sample
10/10/2025	15/10/2025	Machine Flow Rate error
24/10/2025	7/11/2025	Partisol Machine experiencing Shuttle X Errors, Temp Diff (R1), Temp2 Diff (R2), Flow Var (01), Flow 2 Var (02), Sample Period (P) Errors, Failing to detect filter advances, Technicians involved and requested machine to be decommissioned and sent to Lear Sieglar in Brisbane for repairs.
7/11/2025	3/12/2025	Partisol decommissioned and sent to Lear Sieglar in Brisbane for Repairs
3/12/2025	11/12/2025	Partisol Machine Returned - Temperature Errors - ALS contacted and are sending additional parts to fault find
11/12/2025	31/12/2025	Additional parts arrive to resolve Temperature Errors and Partisol machine set to run, Shuttle X Errors occurred, technicians requested to attend site to repair the machine

9 HIVOL: TOTAL SUSPENDED PARTICULATE MONITORING RESULTS

The Saint Elmo HIVOL data presents annual average TSP levels (**Table 8**). Monitoring is conducted every six days in accordance with the AQMP. The EA specifies that the annual average TSP concentration must not exceed 90 mg/m³. Data capture throughout the reporting periods was above 85%.

Data losses occurred due to rain events that impeded access to the machine. **Table 9** provides a detailed explanation of all data gap occurrences. No mining or construction activities took place prior to November 2025, the TSP annual levels remained below the required limits.

Native wildlife also contributed to sampling difficulties. Frogs frequently inhabited the HIVOL filters contaminating samples (**Figure 8**). Furthermore, a mechanical malfunction occurred, requiring the replacement of the flow sensor.

Table 8 – 2025 HIVOL Summary

HIVOL Results Summary		
TSP Annual Average ug/m3	Data Capture %	Exceedances
12.64	89%	0

Table 9 - HIVOL Data Gaps

Data Gaps		
Start Date	End Date	Explanation
27/01/2025	28/01/2025	Rain Event - No access to site to collect samples
2/02/2025	3/02/2025	Rain Event - No access to site to collect samples
8/02/2025	9/02/2025	Rain Event - No access to site to collect samples
14/02/2025	15/02/2025	Rain Event - No access to site to collect samples
28/03/2025	29/03/2025	Rain Event - No access to site to collect samples
3/04/2025	4/04/2025	Rain Event - No access to site to collect samples
29/12/2025	30/12/2025	Rain Event - No access to site to collect samples



Figure 8 – Contaminated Hivol Sample

10 RADIELLO: SULPHUR DIOXIDE MONITORING RESULTS

Radiello diffusive samplers have been utilized to monitor sulphur dioxide (SO₂) concentrations at the Saint Elmo homestead. Monitoring occurs every 14 days, in line with Environmental Authority (EA) requirements, which stipulate that the annual average SO₂ concentration must not exceed 57 mg/m³. The annual averages for SO₂ are summarized in **Table 10**. No exceedances have occurred during this reporting period, ensuring full compliance with the conditions outlined in the EA.

The data capture rate for 2025 was 85.33%. **Table 11** provides details of all data gaps, which have been attributed to factors such as extreme weather conditions. Sun exposure causing the degradation of plastic casings and holders, along with wind gusts knocking the radiello tags off their tags resulting in the tubes falling and compromising sample integrity.

Table 10 – 2025 Annual Average for Radiello

Radiello Results Summary		
S02 ug/m3/annual	Data Capture %	Exceedances
0.01	85.33%	0

Table 11 - Data Gaps for Radiello

Data Gaps		
Start Date	End Date	Explanation
7/01/2025	20/01/2025	Sample lost in transit
1/04/2025	11/04/2025	Sample knocked down
30/09/2025	13/10/2025	Radiello Tag disintegrated in the sun, sample lost
10/12/2025	21/12/2025	Sample knocked down in storms



Figure 9 - Radiello Damage

11 DDG: DUST DEPOSITION MONITORING RESULTS

A total of five Dust Deposition Gauges (DDGs) have been installed on the boundary of the mining lease to monitor dust deposition levels in accordance with the EA requirements, which stipulate that the average must not exceed 120mg/m²/day. The averages for all DDGs have been assessed (Error! Reference source not found.12).

Over the monitoring period, dust deposition exceeded 120 mg/m²/day on nine occasions based on the annual averaging period (Table 13). These exceedances have been attributed to environmental background levels, factors such as dry conditions, wind movement, and the presence of cattle in the paddocks. No mining activities occurred prior to November 2025 and only minimal topsoil clearing took place during November. These results suggest that the current dust deposition thresholds may not fully reflect background or natural dust conditions in the area.

Notably, DDG4 is situated near a cattle watering point, where cattle are frequently present, along with a farm access road to the homestead which could attribute to the higher dust deposition levels observed in that location. A small farm related excavation was carried out by the farm owner adjacent to DDG4 throughout June which correlates well with the abnormally high exceedance occurred for 2025.It is important to note that this activity was not under the control of the EA holder. Upon disregarding the outlier of a sample, the annual average would have been 74.15ug/m2/annual average (previously was 205.7mg/m2), bringing it within acceptable limits.

Table 12 - Annual Average for Dust Deposition

DDG Annual Averages				
Monitoring Location	Total Solids mg/m2/annual average	Data Capture (days per year)	Data Capture %	Exceedances
DDG1	42.27	348.0	95%	1
DDG2	111.06	348.0	95%	2
DDG3	54.58	348.0	95%	2
DDG4	205.70	348.0	95%	4
DDG5	31.50	348.0	95%	0

Table 13 - Exceedances for Dust Deposition

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Exceedances				
DDG Limit 120mg/m2/day				
Monitoring Location	Start Date	End Date	Value mg/m2/day	Explanation
DDG3	1/01/2025	13/01/2025	282.35	Environmental dust, no mining occurring
DDG1	8/05/2025	2/06/2025	130.77	Environmental dust, no mining occurring
DDG2	8/05/2025	2/06/2025	392.31	Environmental dust, no mining occurring
DDG3	8/05/2025	2/06/2025	138.46	Environmental dust, no mining occurring
DDG4	8/05/2025	2/06/2025	123.08	Environmental dust, no mining occurring
DDG2	3/06/2025	8/07/2025	472.22	Environmental dust, no mining occurring
DDG4	3/06/2025	8/07/2025	1652.78	Environmental dust, no mining occurring
DDG4	22/10/2025	19/11/2025	282.76	Environmental dust, no mining occurring
DDG4	20/11/2025	14/12/2025	128.00	Environmental dust

12 METEOROLOGICAL DATA

Weather patterns significantly influence particulate matter in the air, either mitigating or exacerbating air pollution levels. During the monitoring period, weather conditions followed typical seasonal trends apart from an above average monsoonal trough causing widespread flooding in December 2025. Julia Creek, located in a semi-arid climate zone, experiences hot, humid summers and dry, warm winters. Low precipitation combined with hot, windy days increases the amount of particulate matter in the air. On the other hand, high levels of precipitation help cleanse the air, and reduced wind speeds lower the concentration of particulate matter. For the purposes of this report, data has been compiled from the Saint Elmo Weather Station. The following information outlines the average of the highest daily average (HDA) and lowest daily averages (LDA) for:

- Temperature
- Precipitation
- Humidity
- Wind Speed and Direction

All data covers the period from January 1, 2025, to December 31, 2025. All data gaps are explained in **Table 14**.

Julia Creek seasons will be classified as the following, with the wet and dry seasons falling in between these periods:

- | | |
|---------------------------------|---------------------------------|
| • Summer (December - February) | • Wet Season (December - March) |
| • Autumn (March - May) | • Dry Season (April - November) |
| • Winter (June - August) | |
| • Spring (September - November) | |

Temperature:

Julia Creek experiences significant temperature fluctuations, ranging from 0°C to 45°C. The coolest temperatures are typically recorded in July (winter) while the warmest occur in December and January (summer). High temperatures, especially in the summer months, contribute to dry, dusty conditions, which increase particulate matter in the air. Throughout 2025, St Elmo Mine recorded an average temperature high of 34.2 in November 2025 and a low of 11.0 in June 2025 (**Figure 11**).

Precipitation:

Rainfall levels are typically highest in late summer, during the wet season, with January often receiving the heaviest precipitation. Winter months are drier, with significantly reduced rainfall. Rainfall has a "cleaning" effect on the air, washing away pollutants such as particulate matter, sulphur dioxide, and nitrogen, leading to decreased concentrations of these pollutants. Precipitation between January 2025 to December 2025 consisted of high rainfall throughout January, February, March and the highest total falling in December. Low rainfall from May to September, with August and September each receiving a total of 0.8mm (**Figure 12**). Reporting periods followed expected rainfall patterns for the Julia Creek area.

Humidity:

Julia Creek humidity levels are highest in the summer months during the wet season, peaking in February when atmospheric moisture is most prevalent. The lowest humidity levels are typically observed in mid-spring, with September and October being the driest months. Humidity reduces air circulation, meaning pollutants and other particulates are trapped in the air. Humidity throughout the 2025 reporting period was high following rainfall events and low from June to September (**Figure 13**) this coincided with the dry season.

Wind Speed and Direction:

Wind patterns in Julia Creek are shaped by the local topography and weather systems. The town experiences dominant easterly to south easterly winds, which offer cooling relief during the summer months. However, wind speeds can fluctuate, and gusty conditions are often observed. Thunderstorms disperse pollutants, while lower wind speeds may result in pollutant accumulation. Wind direction can also transport pollutants from nearby sources, such as bushfires or dust from nearby mustering events. Wind speeds during the monitoring period ranged from 0 m/s to 12.1 m/s, with prevailing winds typically heading south or southeast (**Figure 14**).

Calibration:

Independent calibrations were performed before the equipment purchase in April 2023. Routine calibrations and regular maintenance were carried out throughout the year to maintain data accuracy. The data presented in this report is accurate to the best of our knowledge.

Air Quality Considerations:

Most air quality exceedances are expected to occur during the dry summer months, characterized by hot temperatures and high winds. Air quality exceedances, excluding contamination events, are outlined below with a focus on the potential impact of meteorological factors. For the data analysis, exceedances will be factored in but will also include higher-level samples that do not exceed the EA limits, providing comparison of air quality and weather data.

PM10

The air quality data for PM10 in 2025 indicated no exceedances, suggesting that the particulate matter levels remained within acceptable limits. The highest recorded concentrations of PM10 occurred in October 2025 (35.89 $\mu\text{g}/\text{m}^3$), these elevated levels coincided with significant bushfires within the McKinlay Shire Region. No mining activities had occurred prior to or during the elevated levels which suggests the primary influence on PM10 levels were due to weather conditions. Despite the elevated levels of PM10, all results are compliant against the conditions specified in the EA.

PM2.5

For PM2.5 there was only one exceedance recorded in October 2025, with a concentration of 27.09 $\mu\text{g}/\text{m}^3$. This exceedance occurred on the same day as elevated PM₁₀ results and was attributed to extensive bushfires in the McKinlay Shire Region. Throughout the remainder of the year, PM2.5 concentrations remained below the EA limit of 25 $\mu\text{g}/\text{m}^3$. The second highest 24-hour concentration was 19.05 $\mu\text{g}/\text{m}^3$, which also coincided with significant bushfire activity in the region. These elevated concentrations are therefore considered to be the result of extreme weather conditions. No mining activities had occurred prior to or during the periods of elevated PM2.5 level.

Vanadium

Air quality monitoring data for vanadium in 2025 indicated no exceedances. The highest recorded concentration occurred in October 2025 (0.90 $\mu\text{g}/\text{m}^3$), coinciding with significant bushfire activity within the McKinlay Shire Region. No mining activities were occurring prior to or during this period of elevated concentrations, suggesting that meteorological conditions and bushfire emissions were the primary contributors to the increased vanadium levels. Despite these elevated concentrations, all results remained compliant with the conditions specified in the EA.

TSP

Air quality monitoring for total suspended particulates (TSP) indicated that there were no exceedances of relevant criteria throughout the reporting period. The highest recorded TSP concentration was 45.71 $\mu\text{g}/\text{m}^3$, measured in October. This elevated result coincided with significant bushfire activity within the region, highlighting the influence of environmental factors such as meteorological conditions and local events on particulate matter levels. No mining activities were occurring prior to or during this period of elevated concentrations, indicating that bushfire emissions and prevailing weather conditions were the primary contributors to the increased TSP levels.

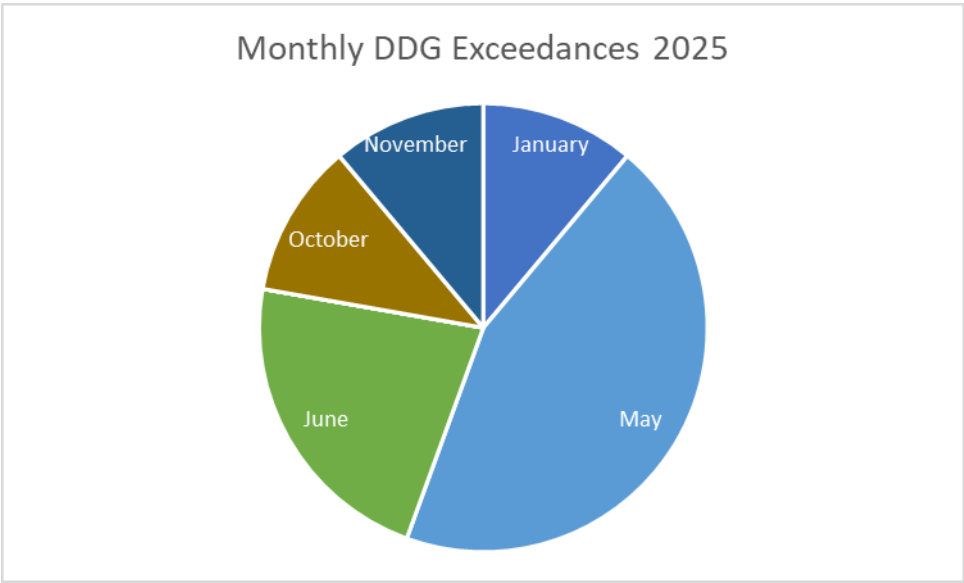
SO₂

The annual average concentration of SO₂ was 2.07 $\mu\text{g}/\text{m}^3$, which is well below the specified Environmental Authority (EA) limit of 57 $\mu\text{g}/\text{m}^3$. Sulphur dioxide levels remained consistently low throughout 2025, with no recorded exceedances, indicating the relatively low and stable concentrations point to minimal industrial or natural SO₂ emissions in the region with no major weather events influencing the data. The absence of exceedances reflects good air quality with respect to SO₂ during the 2025 reporting period.

Dust Deposition

Several exceedances in dust deposition were recorded throughout 2025, with a higher frequency occurring in May (**Figure 10**). While weather conditions varied across the reporting periods, the data suggests that the fluctuations in dust deposition most often occurred when weather events such as higher temperatures, lack of precipitation and higher wind speeds were combined with local events such as heavy grazing, lack of ground cover and other farming activities. These factors contributed to the presence of more natural dust in the environment.

Figure 10 –Monthly DDG Exceedances for 2025



Analysis of exceedance-level trends indicates that dry conditions and local activities (farm work), contributed to more frequent dust deposition spikes during the reporting period. Dust deposition levels varied across the months of 2025, with the highest values recorded in June. Overall, the data likely reflects natural environmental influences such as elevated temperatures and reduced vegetation cover during certain periods, contributing to increased dust levels.

Table 14 – Meteorological Data Gaps

Data Gaps		
Start Date	End Date	Explanation
27/03/2025	27/03/2025	Data Upload Error
3/09/2025	3/09/2025	Data Upload Error

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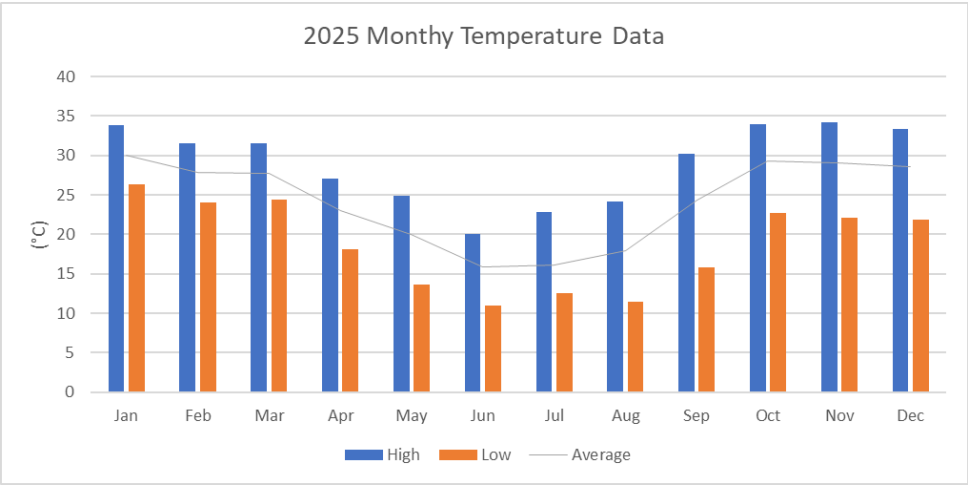


Figure 11 - 2025 Monthly Temperature Data

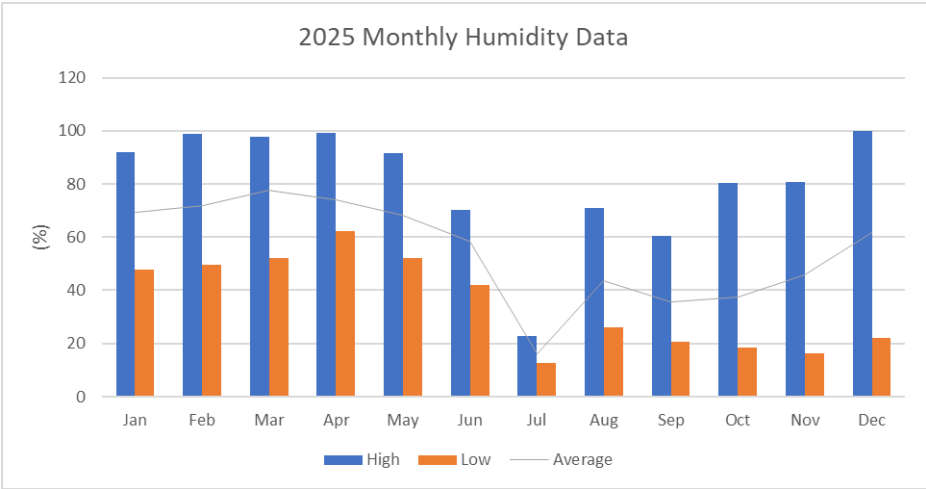


Figure 13 – 2025 Monthly Humidity Data

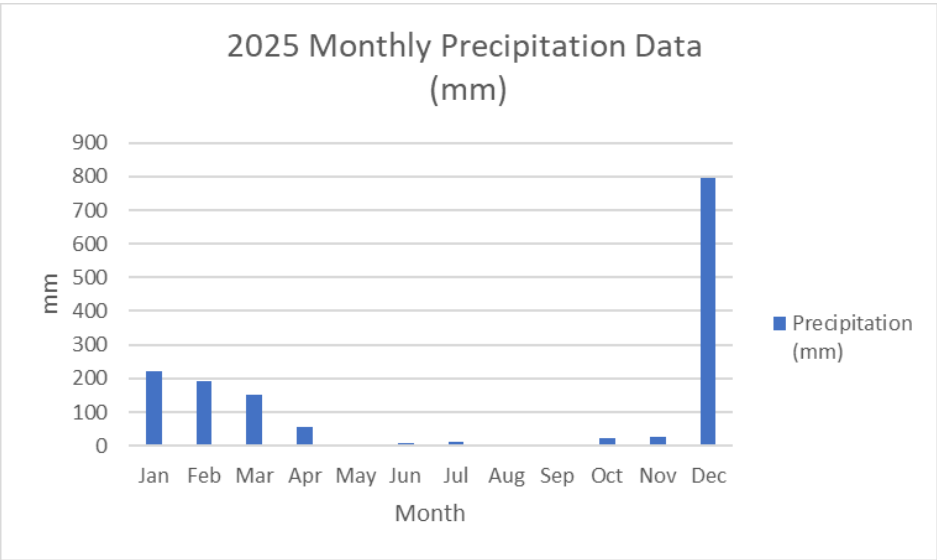


Figure 12 - 2025 Monthly Precipitation Data

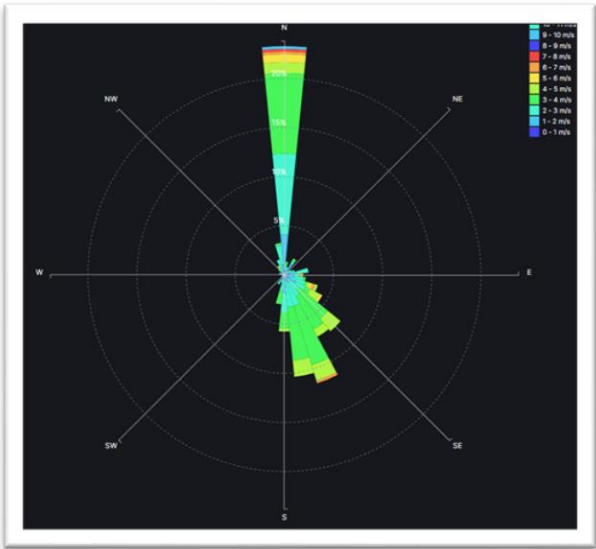


Figure 14 - 2025 Annual Wind Direction/Speed

13 COMPLAINTS

No air quality complaints were received during this reporting period.

14 CONCLUSION

The Annual Air Quality Monitoring Report for the period from 1 January 2025 to 31 December 2025, demonstrates that air quality monitoring at the Saint Elmo Mine effectively adhered to relevant environmental standards. No mining or construction activities took place prior to November 2025, with only minimal topsoil clearing works occurring during November. The nearest homestead remained unoccupied until August, no air quality complaints were received from any operations that were undertaken. Exceedances, particularly in Dust Deposition Gauges (DDGs), were largely attributed to natural sources such as bushfires, wildlife contamination, and environmental dust. These factors, rather than mining activities, contributed to the recorded exceedances, suggesting that the current dust deposition thresholds may not fully account for the consistently high natural dust levels in the area.

Data gaps during the monitoring period were caused by equipment issues, including network failures, technical malfunctions, wildlife interference, and wet weather conditions that impacted the accessibility of monitoring sites. Additionally, some samples were lost in transit. Despite these challenges, the monitoring results generally complied with the Environmental Authority (EA) conditions, and no air quality complaints were received, indicating that the air quality management measures were effective in minimizing potential impacts.

Operational challenges associated with the Dichotomous Partisol Sampler significantly limited data availability, with approximately 30% data capture achieved over the reporting period. This impeded the overall assessment of particulate matter for the Saint Elmo Project. All other air quality sampling methods maintained data capture rates above 80% throughout the reporting period. Despite minor operational challenges, data completeness for these methods met monitoring objectives and supported a robust and representative assessment of ambient air quality for the Project.

Weather conditions, particularly dry and windy periods, played a major role in influencing particulate levels and dust deposition. Moving forward, ongoing monitoring will be essential to address operational challenges, improve data consistency, and ensure continued compliance with air quality standards while minimizing the impact of environmental air particulates from the mine.

Overall, the Saint Elmo Mine met the air quality requirements set forth by the EA. Although there were some isolated exceedances due to environmental factors like cattle dust and bushfires, air quality remained within acceptable limits for the most part.

15 APPENDIX A - GLOSSARY

Parameter or Term	Description
AQ	Air Quality
AQMP	Air Quality Management Plan
DDG	Dust Deposition Gauge
EA	Environmental Authority
g/Nm ³	Grams per normal cubic metre
km	Kilometer
km/h	Kilometers per hour
mg/m ²	Milligrams per square metre
mg/m ³	Milligrams per cubic metre
mg/Nm ³	Milligrams per normal cubic metre
MIA	Mine Infrastructure Area
mm	Millimetres
m/s	Metres per second
OWSF	Offsite Water Storage Facility
PM ₁₀	Particulates suspended in air with aerodynamic diameter less than 10 microns
PM _{2.5}	Particulates suspended in air with aerodynamic diameter less than 2.5 microns
RDP	Research and Development Plant
SO ₂	Sulphur Dioxide
TSP	Total particulates suspended in air
µg/m ³	Micrograms per cubic metre
µg/m ²	Micrograms per square metre
%OL	Percentage Over Limit
%	Percentage