Intended for

Audalia Resource Limited

Date

18 June, 2020

AUDALIA RESOURCES LIMITED MEDCALF PROJECT

DUST DEPOSITION STUDY

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AUDALIA RESOURCES LIMITED MEDCALF PROJECT DUST DEPOSITION STUDY

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1. INTRODUCTION

1.1 Background

Audalia Resources Limited (Audalia) is proposing to develop the Medcalf Project, a vanadium, titanium and iron project located approximately 470 km south east of Perth near Lake Johnston, Western Australia. The proposal includes the development of four open mine pits, beneficiation plant, tailings storage facility, evaporations ponds, process water facility, waste rock landform, private haul road, road train transfer area and associated infrastructure such as laydown areas, borrow and gravel pits, borefield, workshops, administration building and accommodation camp (Figure 1).

Baseline environmental surveys have identified one flora species listed as Threatened under the *Biodiversity Conservation Act 2016* (BC Act) within the Project site; *Marianthis aquilonaris*. In order to mitigate the potential impacts of mining operations on this species, Audalia propose to exclude all sub-populations of *M.aquilonaris* from the mine development envelope; and to implement a buffer zone (a nominal minimum of 30 m) around all sub-populations.

Audalia has requested that Ramboll Australia Pty Ltd (Ramboll) undertake air dispersion modelling of fugitive dust emissions from the proposed Project, to determine the potential dust deposition rates within and around the proposed buffer zones for the *M.aquilonaris* sub-populations.

1.2 Purpose of this Report

This report presents the assessment of the potential dust deposition rates associated with fugitive particulate emissions from the proposed Medcalf Project. The approach, methodology and results of the air dispersion modelling are detailed as well as the predicted impacts.

Two scenarios have been considered for the purpose of this assessment:

- A 'worst-case' scenario, based on mine scheduling information, mining production rates and the proximity of proposed operations to the *M.aquilonaris* sub-populations; and
- A mid-schedule mining scenario, assuming in-pit mining activity within close proximity of the *M.aquilonaris* sub-populations occurs at depths of 25 m or more below ground level.

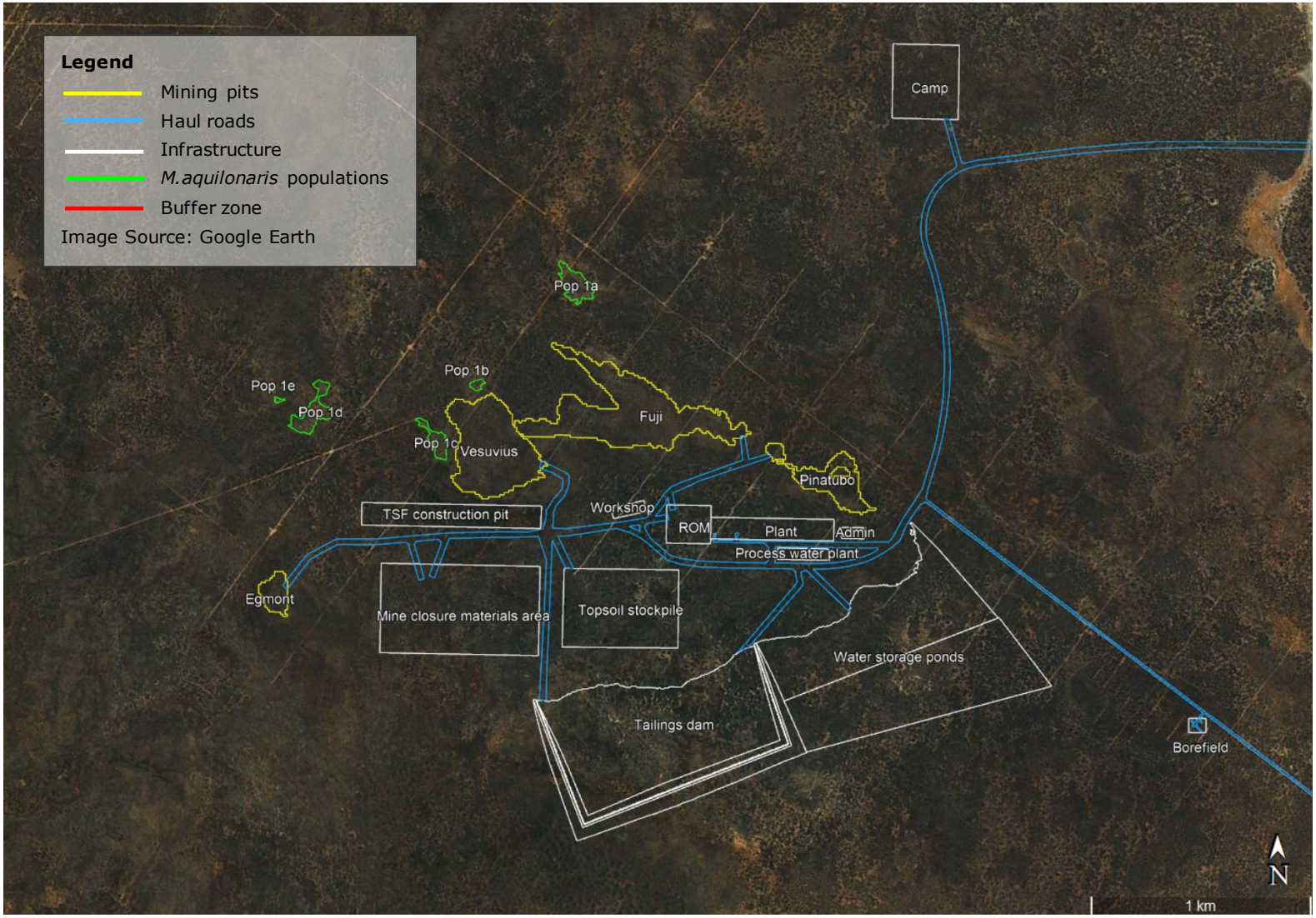


Figure 1: Medcalf Project Proposed Mine Site Layout

2. BACKGROUND INFORMATION

2.1 Operational Overview

The proposed Medcalf Project involves shallow (above the groundwater table) open pit mining for three separate open pits; the Vesuvius, Fuji, Pinatubo and Egmont deposits. The combined ore tonnage inventory is for 19.1 Million tonnes (Mt), with a waste/ore strip ratio of 0.15. The mine schedule indicates a pit life of 13 years and maximum combined ore and waste rock movement of 1.8 Million tonnes per annum (Mtpa) in Year 4 (Figure 2).

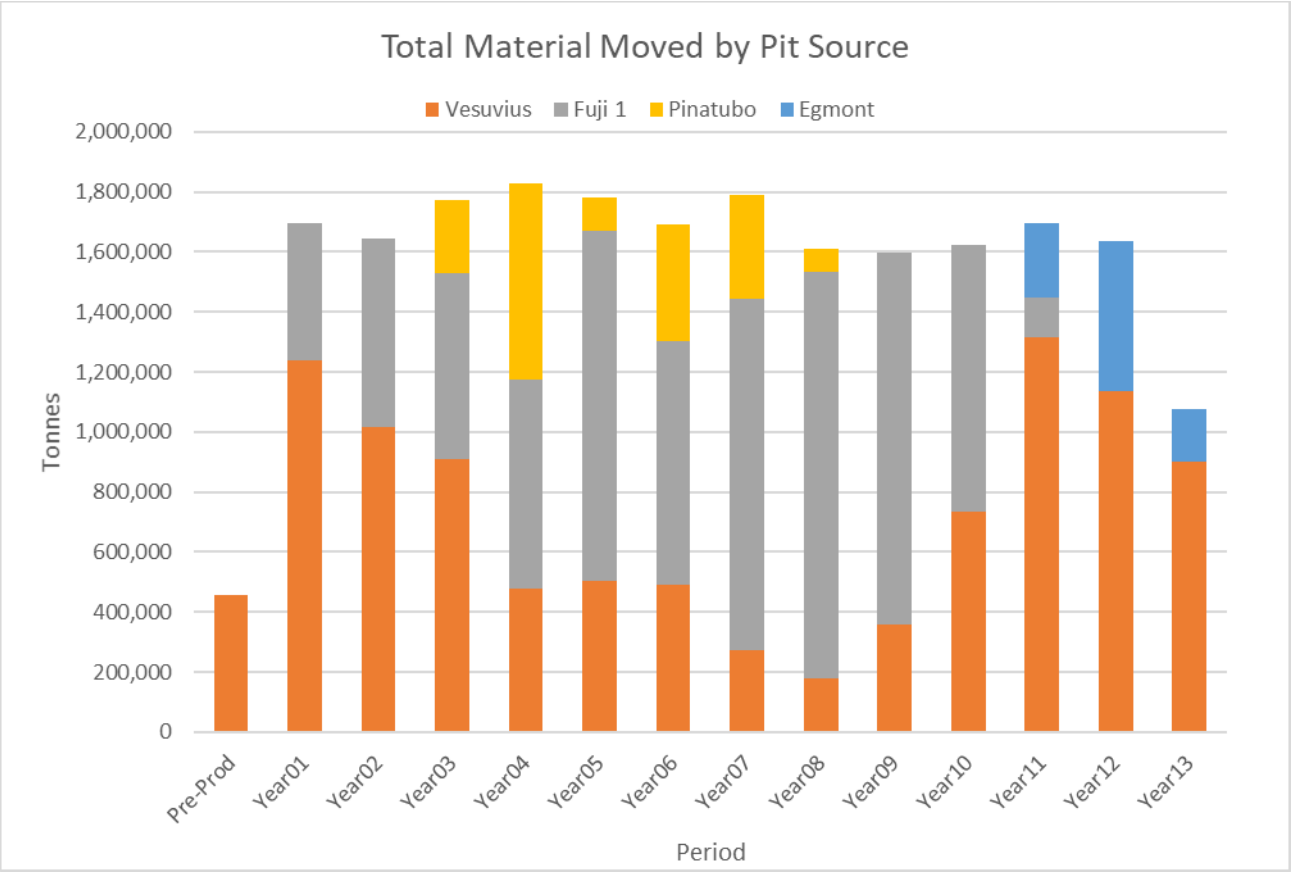


Figure 2: Proposed Mining Schedule

Mining will be by conventional load and haul, but will involve minimal drilling and assumed no blasting. A bulldozer will rip and clear the overburden and an excavator will load out the visible ore onto 50 tonne capacity articulated dump trucks that will deliver the ore to the run of mine (ROM) pad. Waste rock will be transported to a waste rock material storage area located to the south of the Vesuvius pit.

The ROM ore will be processed onsite at a beneficiation plant, incorporating a comminution circuit (including both crushing and milling processes) and a magnetic separation circuit, upgrading the ROM ore to a primary concentrate. The primary concentrate is dewatered by thickening and filtration, with the filter cake stacked and prepared for transport. The tailings generated from the magnetic separation circuit will be thickened and stored in an unlined tailings storage facility (TSF). Based on the current mining rate of 1.5 Mtpa, approximately 1.2 Mtpa of concentrate will be produced from the beneficiation plant.

The primary concentrate is proposed to be hauled by road trains along a 74 km private haul road from the mine to a dedicated road train transfer area adjacent to the Coolgardie-Esperance Highway. The primary concentrate will be stockpiled at this transfer area, and then loaded onto highway-approved road trains for the remainder of the journey to the Esperance Port.

Mining, processing and haulage operations will occur during day shifts only, nominally between 06:00 and 18:00 hrs. The mining fleet will nominally comprise:

- 1 x 4.3m^3 bucket excavator
- 4 x 50 t articulated dump trucks
- 1 x water cart
- 1 x grader
- 1 x dozer
- 1 x hammer drill
- 1 x front end loader

Review of the minesite layout indicates the western and northern boundaries of the Vesuvius pit are within closest proximity to any of the identified *M.aquilonaris* sub-populations, abutting the nominal 30 m exclusion zone for populations 1b and 1c (Figure 1). The proposed mining schedule indicates peak near-surface activity within the Vesuvius pit is scheduled to occur in Year 1. This year has therefore been selected as the 'worst-case' scenario for consideration in the dust deposition study, as it represents the highest mining production rate, within closest proximity to the *M.aquilonaris* sub-populations. The Year 11 mining schedule has been selected for the purpose of assessing the mid-schedule mining scenario as this represents the highest production rate for below ground level activity within the Vesuvius pit. Information provided by Audalia indicates mining activity within the Vesuvius pit during this year will be at 25 m or more below ground level.

2.2 Regional Climate

The proposed Medcalf Project is located in the Lake Johnston region of WA. The regional climate is characterised as arid to semi-arid, warm Mediterranean. Mean climate data for the Salmon Gums (91 km south-east of the Project site) and Norseman (98 km north-east of the Project site) Bureau of Meteorology (BoM) meteorological monitoring stations were obtained from the BoM. The long-term mean annual rainfall data for the two sites are presented in Figure 3. These data indicate the highest rainfall at the Salmon Gums site tends to occur between May and August; while the highest rainfall at the Norseman site occurs between May and July. The mean annual rainfall for the Salmon Gums[1] site is 341 mm; and for Norseman[2] is 298 mm.

[1] Source: http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_startYear=&p_c=-29035523&p_stn_num=012070

[2] Source: http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_startYear=&p_c=-29035523&p_stn_num=012009

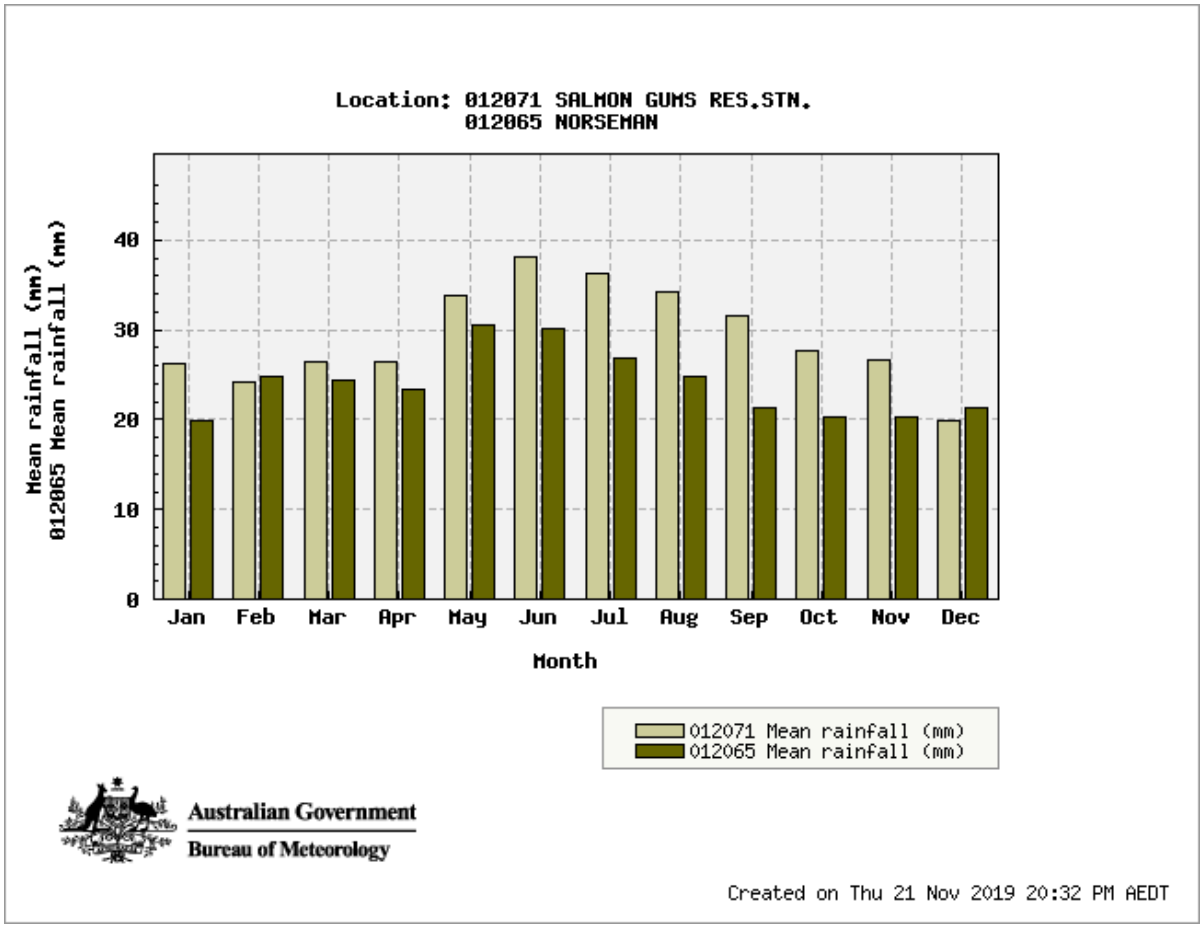
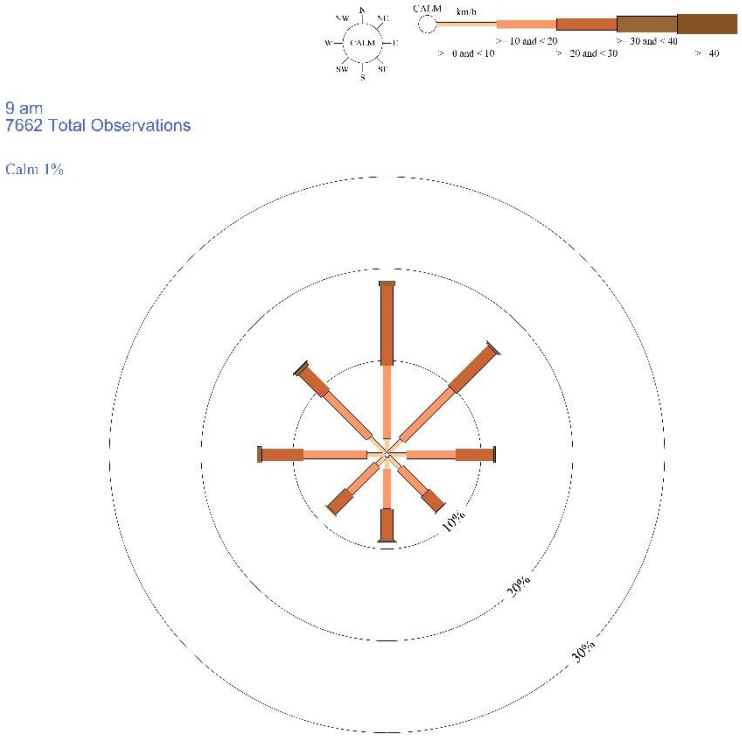


Figure 3: Long-term Mean Monthly Rainfall for Salmon Gums and Norseman BoM Monitoring Sites

Source: BoM

The 9 am and 3 pm annual wind roses for the Salmon Gums and Norseman monitoring sites are presented in Figure 4 and Figure 5. These wind roses indicate the Salmon Gums site experiences a higher percentage of stronger (i.e. > 5 m/s) winds in the morning and afternoon compared to the Norseman site. The wind direction tends northerly in the morning and southerly in the afternoon at Salmon Gums (Figure 4); while at Norseman the winds tend north-west through north-east in the morning and north-westerly in the afternoon (Figure 5).



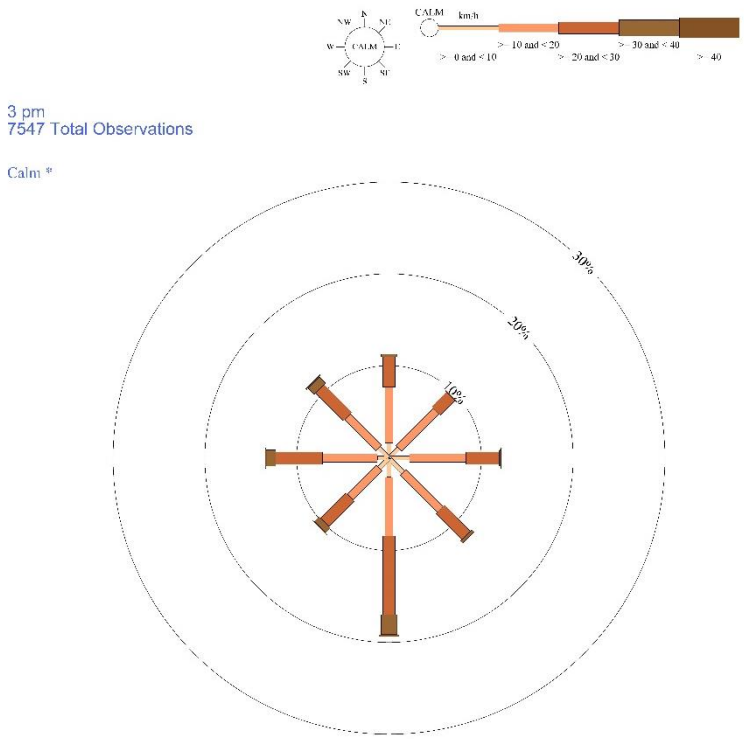
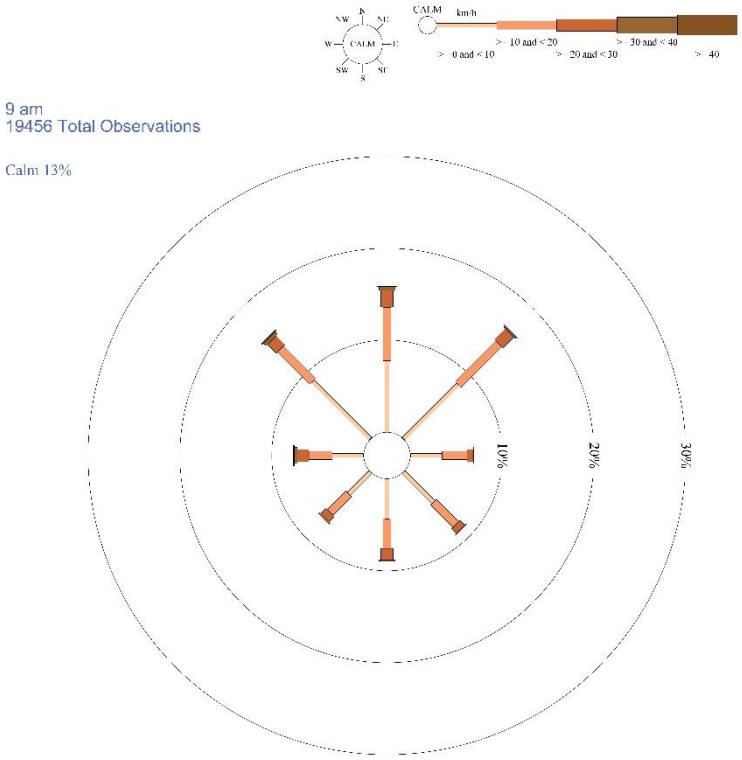


Figure 4: Salmon Gums Annual 9 AM and 3 PM Wind Roses (Nov 1985 to Aug 2019)

Source: BoM



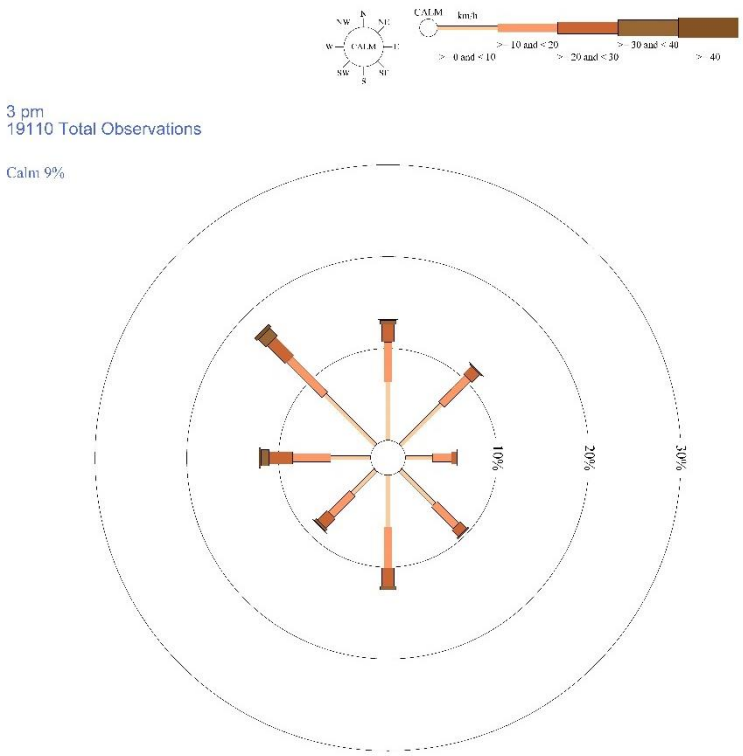


Figure 5: Norseman Annual 9 AM and 3 PM Wind Roses (Jan 1957 to Aug 2012)

Source: BoM

Hourly meteorological data were obtained from the BoM for the Salmon Gums site for a five-year period (from 2014 through 2018) for additional analysis. Annual wind roses are presented in Figure 6 and seasonal wind roses in Figure 7. The annual wind roses illustrate a relatively consistent pattern from year to year, with no clearly dominate wind component. However, review of the seasonal wind roses shows a clear distinction between the summer and winter months; moderate to strong easterly-through-southerly winds dominate the summer months, while light to moderate westerly-through-northerly winds characterise the winter months. During the transitional seasons of autumn and spring, the winds remain highly variable.

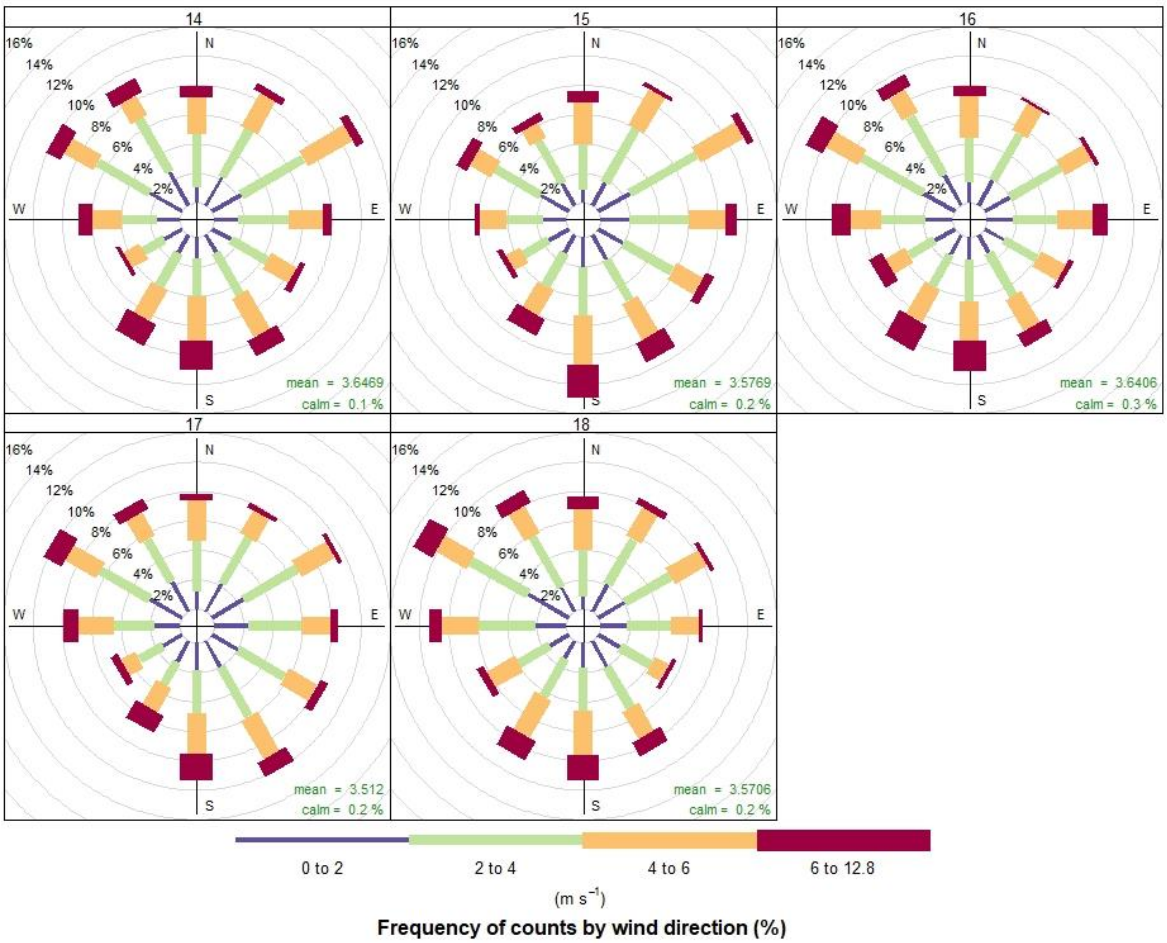


Figure 6: Salmon Gums Annual Wind Roses (2014-2018)

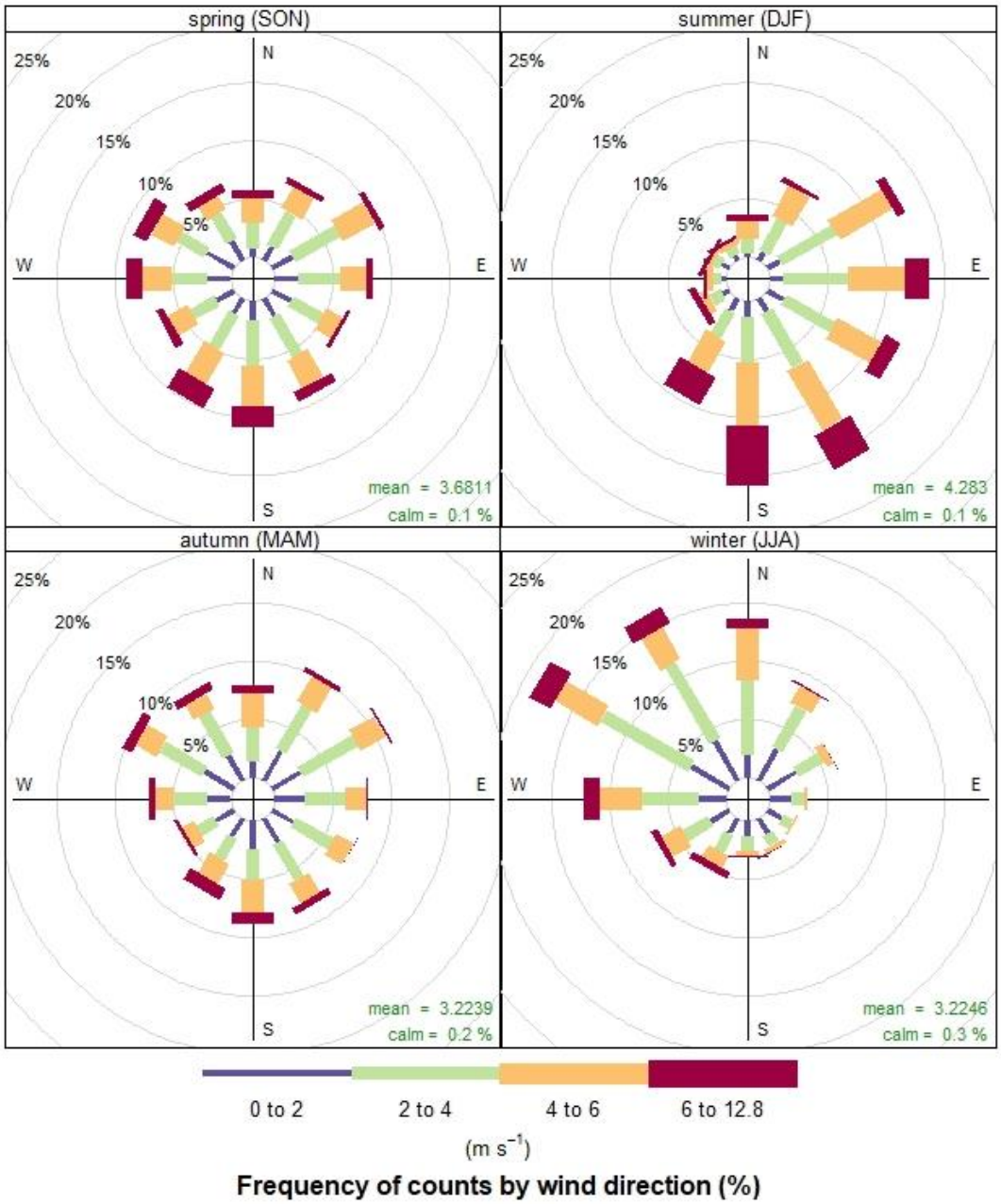


Figure 7: Salmon Gums Seasonal Wind Roses (2014-2018)

2.3 Existing Dust Deposition

Audalia have undertaken monthly dust deposition monitoring at the Project site since October 2018. The monitoring network comprises 12 dust deposition gauges, the locations of which are presented in Figure 8. Nine of the gauges are located within the immediate mine area (Figure 9) and two are within the proposed haul road envelope (DGM4 and DGM5). A background gauge is located approximately 18 km north-west of the proposed operations (DGM1). Deposition gauges DG1A, DG1B and DG1C are located at the respective *M.aquilonaris* sub-populations 1a, 1b and 1c.

The deposition gauges are collected on a monthly basis and sent to a NATA accredited laboratory for analysis. The samples are analysed in accordance with the applicable standards (AS3580.10.1:2016: Determination of particulate matter – Deposited matter – Gravimetric method) and results are reported for ash content, total soluble matter and total insoluble matter (g/m^2.month).

A summary of the monthly dust deposition monitoring results provided by Audalia is presented in Table 1. Total dust deposition has been calculated based on the sum of the total soluble and total insoluble matter. The average monthly dust deposition rates across all sites range between 0.08 g/m^2.month and 1.5 g/m^2.month.

A graphical representation of the monthly dust deposition rates is presented in Figure 10. The highest monthly deposition rates were reported in March and April 2019, the maximum being 5.2 g/m^2.month at DGM1 in April 2019. The exposure period for the March 2019 samples was 65 days, due to the presence of a regional fire which prohibited access for the monthly collection of the deposition gauges. Comparatively elevated depositions rates were also recorded for the 8 November 2018 sample period at DGM3, and the 29 November 2018 sample period at DGM4.

Figure 8: Locations of Dust Deposition Monitors

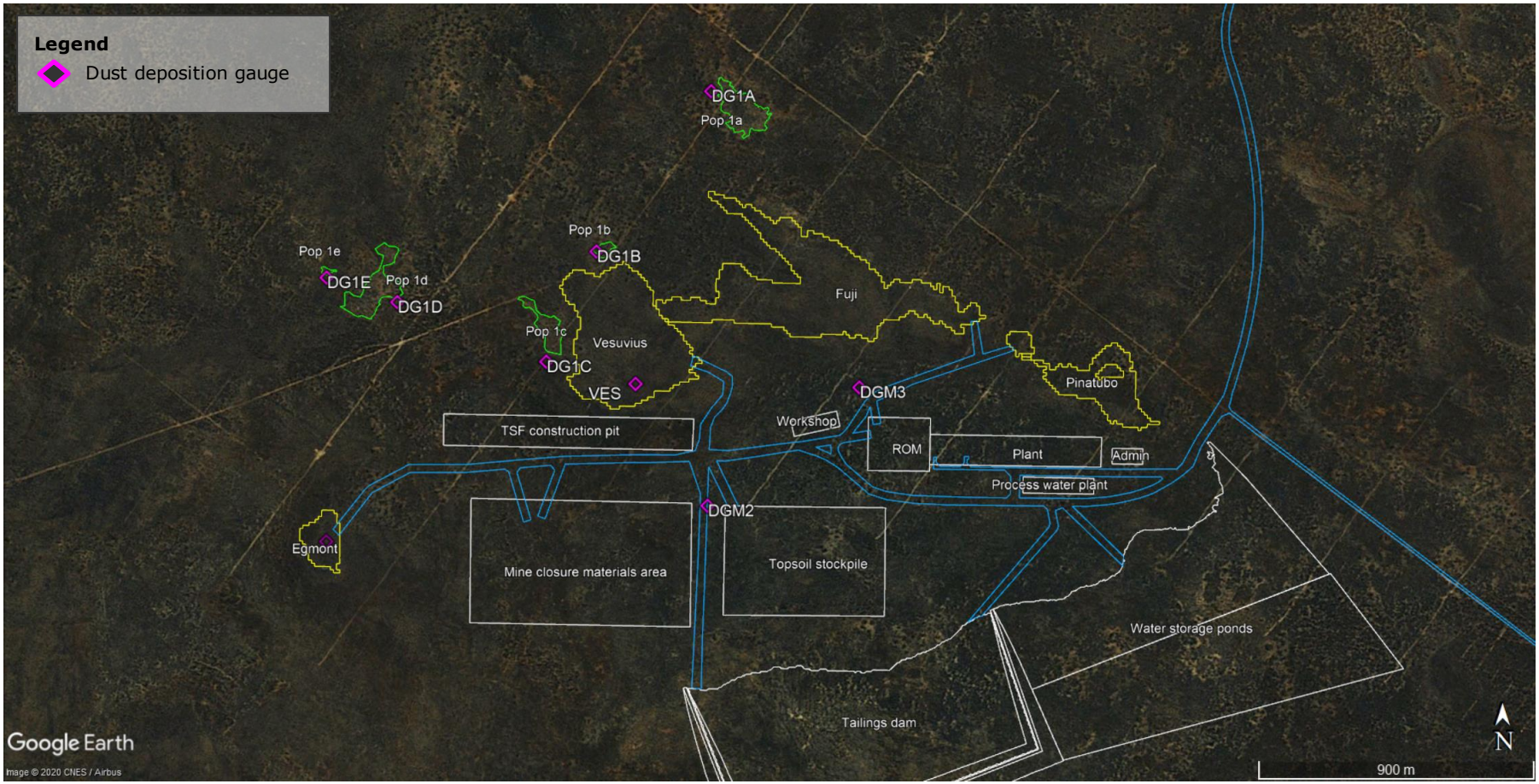


Figure 9: Locations of Dust Deposition Monitors – Mine Envelope

Table 1: Summary of Dust Deposition Monitoring Results

Sampling Period	Exposure Period (Days)[1]	Total Dust Deposition (g/m^2.month)											
		DG1A	Mine Envelope									Haul Road	
			DG1B	DG1C	DG1D	DG1E	DGM1	DGM2	DGM3	VES	EGM	DGM4	DGM5
10/09/18 - 08/11/18	59[2]	0.7	0.5	0.7	0.8	1	0.5	0.7	3	ND	ND	0.7	0.4
08/11/18 - 29/11/18	21	0.9	0.6	0.7	0.9	1.3	0.5	0.4	0.9	0.4	0.6	3.7	1.3
28/11/18 - 08/01/19	41	0.3	0.5	0.4	0.5	0.7	0.9	0.3	0.7	1.5	1.6	0.6	0.7
08/01/19 - 14/03/19	65[2]	2.1	2.2	1.9	2.2	2.2	ND	1.9	2.6	2.0	2.4	1.8	0.9
14/03/19 - 16/04/19	33	2.7	2.1	1.7	3.1	1.2	5.2	1.8	2.3	0.8	0.8	2.6	3.3
16/04/19 - 22/05/19	36	0.4	0.5	0.4	0.6	0.5	2.4	0.3	0.5	0.4	0.5	0.4	2.5
22/05/19 - 03/07/19	42/34[3]	0.3	0.3	0.4	0.4	1.3	0.5	0.2	0.3	1.1	1	0.5	0.4
03/07/19 - 31/07/19	30/36[4]	0.3	0.4	1.1	0.3	0.4	0.5	ND	0.2	0.4	0.6	0.3	0.2
31/07/19 - 29/08/19	29	0.2	0.4	0.2	0.2	0.5	1.6	0.4	0.3	0.6	0.6	0.3	0.5
Average	-	0.9	0.8	0.8	1.0	1.0	1.5	0.8	1.2	0.9	1.0	1.2	1.1

Notes

1. Typical exposure period specified in AS3580.10.1:2016 is 30±2 days.
2. Presence of fire prohibited collection of dust deposition gauge within monthly period.
3. Sample exposure period is 34 days for DGM4 and DGM5 and 42 days for all other gauges.
4. Sample exposure period is 36 days for DGM4 and DGM5 and 30 days for all other gauges.
5. ND = No data.

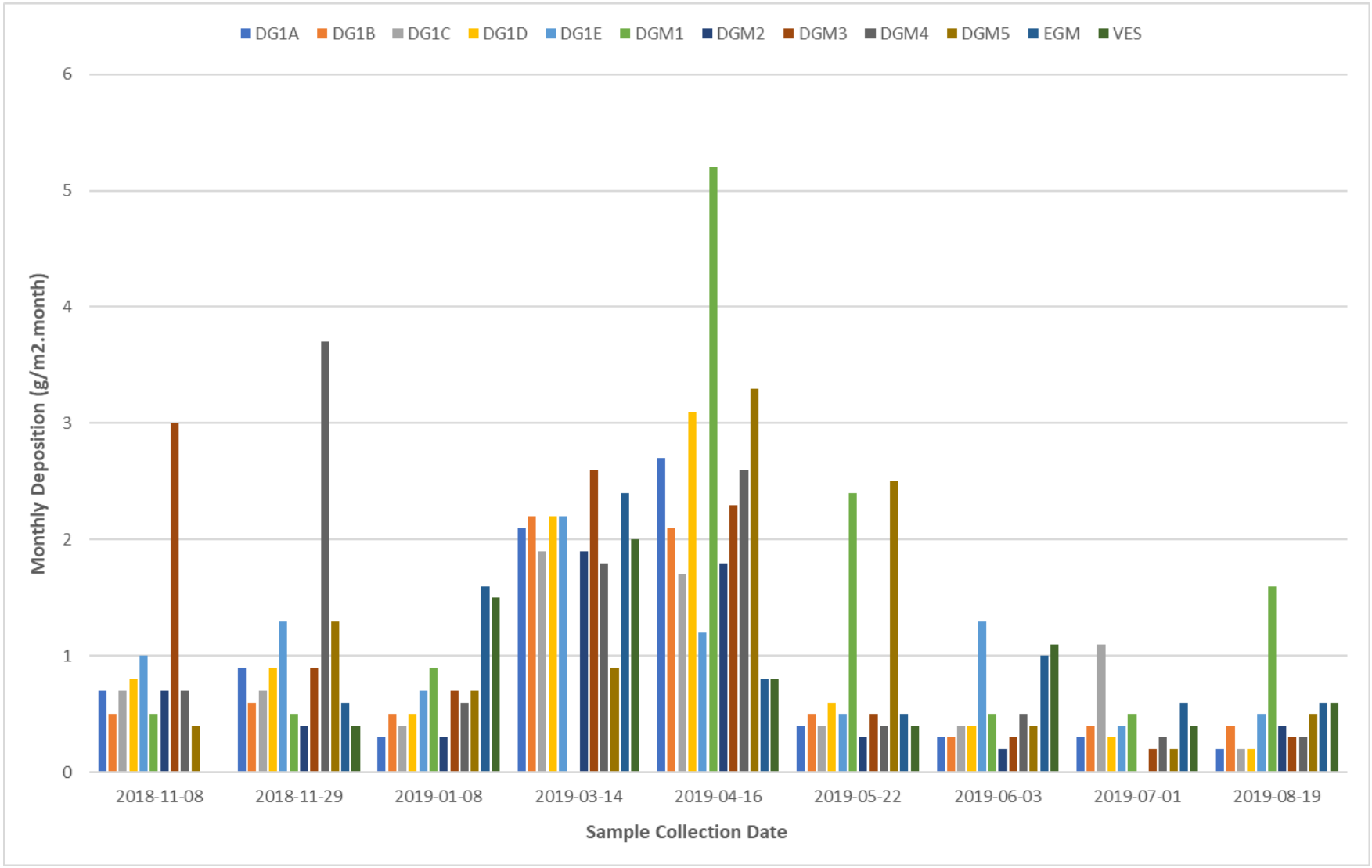


Figure 10: Summary of Monthly Dust Deposition Rates

3. ASSESSMENT CRITERIA

3.1 Particulate Deposition

There are no specific assessment guidelines available for impacts on vegetation from dust deposition, however a number of studies on impacts to vegetation from particulate deposition have been completed in Australia and globally.

Most studies of the effects of mineral dusts on vegetation have focussed on dusts that have chemical effects (e.g. cement dust) or where dust loads exceed 7 g/m^2. Relatively inert mineral dusts, such as those generated in the mining process or from unsealed haul roads principally influence light and temperature relations of leaves.

A study by Doley and Rossato (2010) used published data to assess the impacts of particulate deposition on photosynthesis in cotton leaves and canopies. The study indicated that many plants species have similar ranges of values for the photosynthetic parameters used in assessing the impacts on cotton and it is possible to use the cotton estimates as a general estimate for the purpose of modelling the impacts particulate deposition and thereby the environmental risks associated with dust generating activities. The results of the study indicated that at deposition levels of approximately 0.3 g/m^2.day, the estimated reductions in canopy photosynthesis of cotton plants would be less than 7% with a <1% decrease in productivity (Doley & Rossato, 2010).

Matsuki et al. (2016) sought to assess the relationship between dust accumulation on plant surfaces and plant health and survivorship using data from two medium-term monitoring studies undertaken in semi-arid Australia. The study sites were located at the Windarling Range (approximately 300 km north-west of the Project site), and Barrow Island (approximately 50 km off the Pilbara coast of Western Australia). Plant health and survivorship of a threatened subspecies (*Tetratheca paynterae paynterae*) were measured at varying distances from open pit mining operations at the Windarling Range study site between 2003 and 2014 and compared with dust load (assessed between 2004 and 2010) and dust deposition (measured between 2011 and 2013). At Barrow Island, plant health and floristic composition were measured at varying distances from a construction site between 2009 and 2012 and compared with dust deposition measurements.

Matsuki et al. (2016) report that neither plant health nor survivorship appear to be related to distance from the mining pit at the Windarling Range site. Dust deposition rates ranged between 0.6 to 20.1 g/m^2.month and were slightly higher closer to the edge of the pit (up to approximately 100 m), decreasing rapidly with distance; however, there was no significant difference in plant health condition over the same distance (Matsuki et al., 2016). The authors note that although plants adjacent to the pit showed higher dust loads and physiological signs of stress, this did not appear to have impacted the health condition or survivorship of the species in question. At the Barrow Island study site, dust deposition rates ranged between 0 and 77 g/m^2.month, although no statistically significant relationship was observed between deposition rates and distance from the source (Matsuki et al., 2016). Plant health condition was also reportedly unrelated to distance from the source of dust, instead affected by environmental conditions (namely rainfall).

It should be noted that as the area around the mine is an arid environment, it is likely that natural vegetation in the region would have a degree of tolerance to these conditions. Matsuki et al. (2016) note that plants in semi-arid environments are likely to be exposed to dust naturally and as a result, may be less likely to suffer from short-term impacts of dust. The Doley and

Rossato (2010) study also noted that in more complex plant associations, species that grow in heavily shaded understories are much more likely to be susceptible to dust deposition than plants exposed to direct sunlight. Ramboll understands the vegetation of the region does not typically contain dense undergrowth and this is therefore not considered as a factor for the air dispersion modelling study.

In summary, the Doley and Rosato (2010) study provides a general estimate for assessing the impacts of dust deposition on vegetation, namely that levels of 0.3 g/m^2/day or more may be associated with a reduction in canopy photosynthesis; while the Matsuki et al. (2016) report suggests plants within semi-arid regions, such as that of the Project site, may be able to tolerate higher deposition rates without significant impact to plant health condition.

3.2 Amenity

The New South Wales Department of Environment and Climate Change (NSW DECC) have published dust deposition criteria, designed to take into account potential amenity impacts, such as dust depositing on fabrics and buildings. The use of these guidelines serve as a reference as to the potential magnitude of the impacts associated with dust deposition, but are not intended to be used as an indication of acceptability of the predicted impacts.

The NSW guidelines are based on studies undertaken on coal dust deposition in the Hunter Valley in NSW by the National Energy Research and Demonstration Council (NERDC, 1988). While the dust deposition guideline is expressed as g/m^2/month, the NSW DECC has indicated that the monthly average deposition (to be compared against the guideline value) is to be determined from data spanning no less than one year, so as to account for seasonal variations.

Table 2: Amenity Dust Deposition Criteria

Pollutant	Averaging Period	Criteria (g/m^2/month)
Deposited dust[1]	Annual (increase)[2]	2
	Annual (total)[3]	4

Notes

1. Dust is assessed as insoluble solids as defined by AS 3580.10.1-1991 (AM-19).
2. Maximum increase in deposited dust level.
3. Maximum total deposited dust level.

The NSW Environmental Defender's Office (EDO) advises that the criteria for the maximum increase in deposited dust of 2 g/m^2/month is applicable when baseline data on deposited dust exists, while the total deposited dust criteria of 4 g/m^2/month criteria is applied when no baseline data exists.

4. AIR DISPERSION MODELLING AND METHODOLOGY

4.1 Air Dispersion Model

The American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) (Version 16216) has been used to predict the potential dust deposition rates associated with fugitive particulate emissions from the proposed Medcalf Project.

AERMOD is one of the current United States Environment Protection Agency (USEPA) recommended air dispersion models and was specially designed to support the USEPA's regulatory modelling programs. AERMOD is a current-generation air dispersion model that incorporates concepts such as planetary boundary layer theory and advanced methods for handling complex terrain and was developed to replace the Industrial Source Complex Model-Short Term (ISCST3) as the USEPA's preferred model for most local scale regulatory applications.

4.2 Meteorological Data

In the absence of site-specific meteorological monitoring data suitable for use in dispersion modelling, The Air Pollution Model (TAPM) (Version 4) was used to generate the required meteorological parameters. TAPM was developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO) and consists of coupled prognostic meteorological and air pollution dispersion model components. The meteorological component of TAPM predicts the local-scale meteorological features, such as sea breezes and terrain-induced circulations, using the larger-scale synoptic meteorology as boundary conditions combined with other data including terrain, land use, soil and surface types. TAPM has been used extensively throughout Australia for generating site specific meteorological files for use in air dispersion modelling studies.

It is noted that past versions of TAPM under-predicted the frequency of occurrence of low wind speeds, although this has been improved considerably in Version 4. In addressing the light wind issue, TAPM Version 4 tends to under-predict the high winds at the surface, which is important particularly for fugitive dust assessments involving wind erosion. However, comparison of the TAPM predicted wind speeds for the 2014 to 2018 calendar years to the wind speed data measured at the BoM Salmon Gums site indicates similar percentage distributions in both datasets, across a range of wind speed categories, particularly in relation to higher wind speeds (i.e. > 6 m/s) (Figure 11).

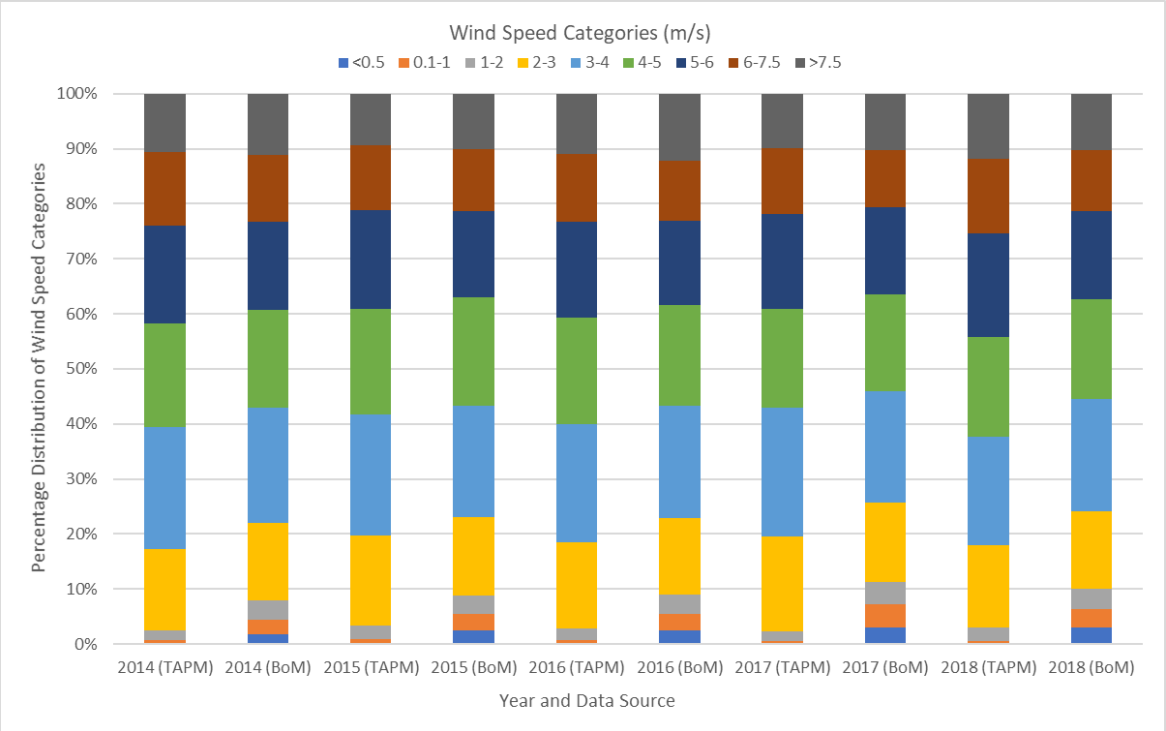


Figure 11: Percentage Distribution of Wind Speeds

Annual wind roses derived from the TAPM predicted meteorological dataset are presented in Figure 12 for the calendar years 2014 to 2018. Comparison of these wind roses to those presented in Figure 6 (based on meteorological monitoring data for the BoM Salmon Gums site) shows similar wind speed and direction, with no clearly dominate wind component.

The TAPM predicted meteorological data for the 2018 calendar year was selected for use in the model. These data are considered comparable to the available regional meteorological monitoring data and have the highest annual average wind speed (3.8 m/s) of all years considered. A seasonal wind rose for the 2018 (TAPM predicted) calendar year is presented in Figure 13. This figure illustrates a similar pattern of seasonal wind distributions, as compared to the seasonal wind roses based on the BoM data presented in Figure 7.

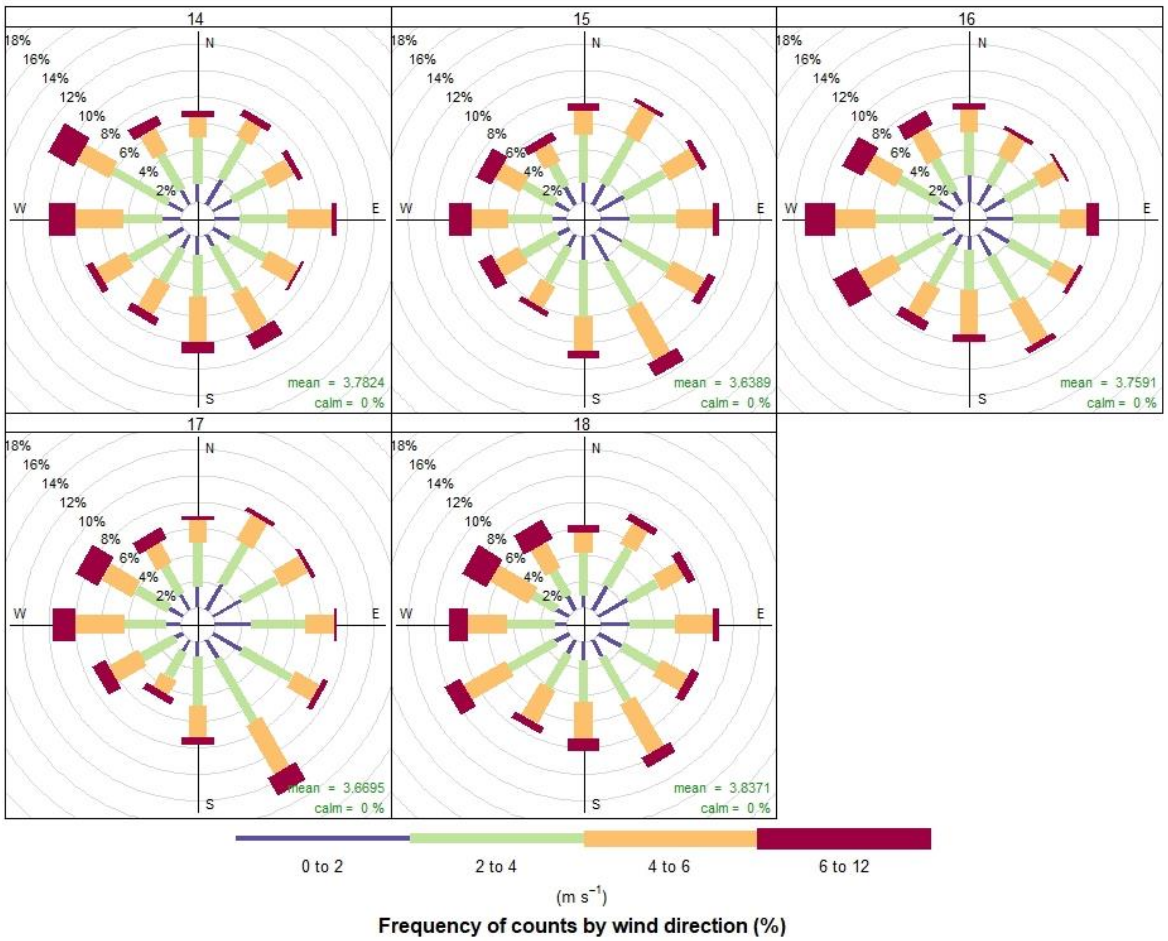


Figure 12: TAPM Predicted Annual Wind Roses (2014-2018)

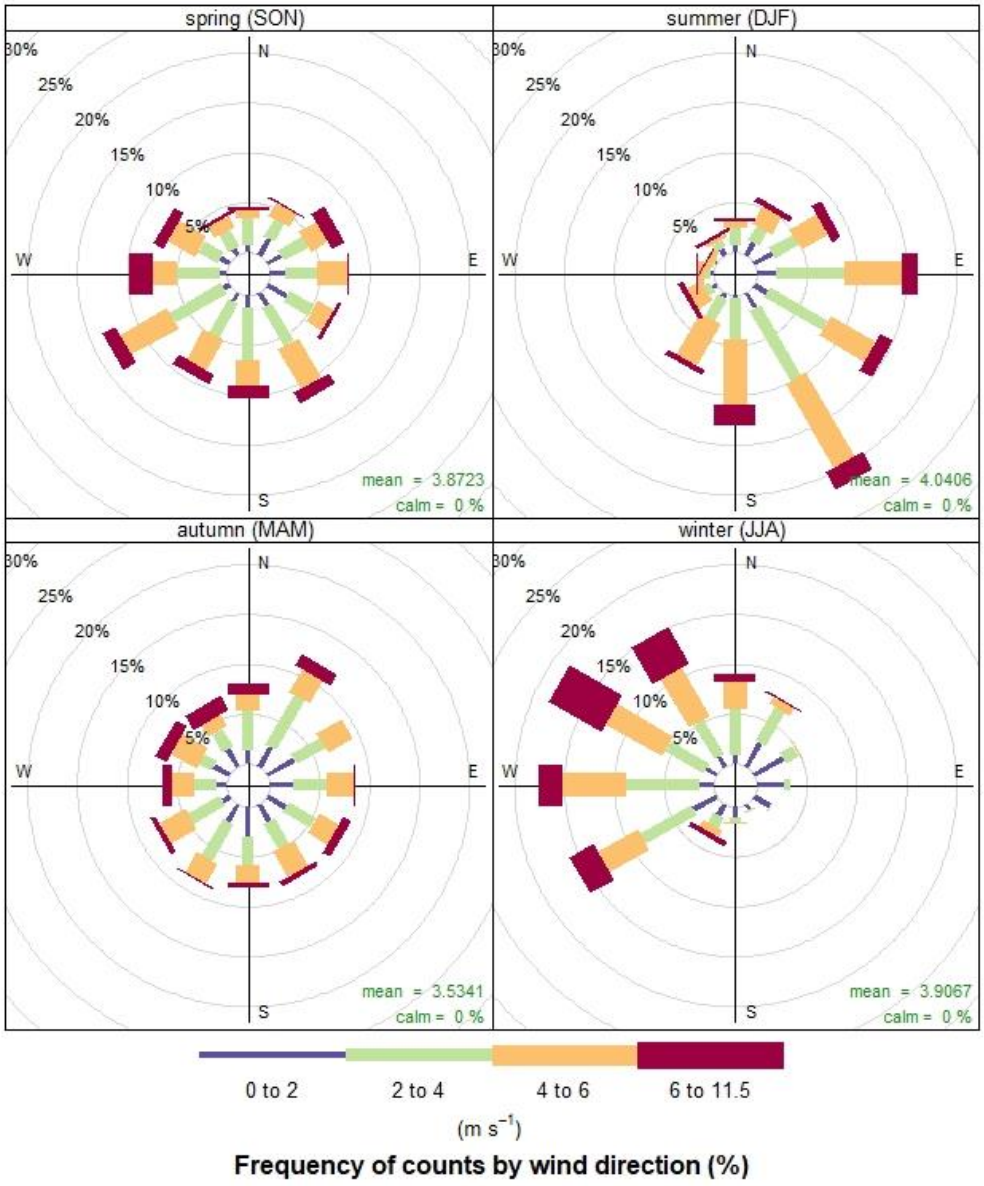


Figure 13: TAPM Predicted Seasonal Wind Rose (2018)

4.3 Model Parameterisation

4.3.1 AERMET

AERMET is the meteorological pre-processor for AERMOD. AERMET (Version 18081) was used to process the TAPM predicted surface parameters and upper air data for the Project site. The options selected for processing the hourly surface data within AERMET are described below:

- Adjust surface friction velocity (ADJ_U*): The ADJ_U* is a regulatory default option within AERMET designed to counteract AERMOD's tendency to overpredict concentrations under low wind speed, stable atmosphere conditions (typical night-time environment);
- Temperature difference measurements: Temperature difference near the surface is used to infer sensible heat flux;

- Process stable boundary layer (SBL) using a Bulk Richardson Number: Processes the SBL using a Bulk Richardson Number provides a robust method for estimating boundary layer parameters under stable conditions when representative cloud cover data are not available (USEPA, 2004).

The albedo and Bowen ratio values were based on AERMET guidance for the land-use type corresponding to the surrounds of the meteorological monitoring station.

The AERMET inputs files are included as Appendix 1.

4.3.2 AERMOD

AERMOD was set up with two nested receptor grids centred on the Project site in order to provide coverage at greater distances from the site without sacrificing resolution close to the sources. A summary of the receptor grids is presented in Table 3.

Table 3: AERMOD Grid Receptor Parameters

Parameter	Grid 1	Grid 2
Dimensions	8 km x 8 km	3 km x 3 km
Spacing	250 m	100 m
SW Easting[1] (mE)	288,741	291,241
SW Northing[1] (mN)	6,394,305	6,396,805

Notes

1. MGA94

Terrain elevation data for the model domain were obtained from the US National Aeronautics and Space Administration's (NASA) Shuttle Radar Topography Mission (SRTM3/SRTM1) and incorporated into AERMOD using the AERMAP terrain processor.

The adjusted friction velocity and low wind (adjust horizontal meander) options were selected, in-line with the treatment of meteorological data within AERMET.

Each emission source was individually modelled in AERMOD using a fixed emission rate and the particle size distribution data detailed in Table 6 (refer to Section 4.4.3). The resultant outputs for each source were scaled against the corresponding hourly variable emissions for total suspended particulate (TSP) to generate predicted dust deposition rates for each hour of the year, at each model grid point and sensitive receptor. The predicted deposition rates for each source were then combined to produce the monthly deposition rates predicted for the modelled scenario.

Samples of the AERMOD input files are included as Appendix 2.

4.4 Emission Estimates

4.4.1 Factors Influencing Dust Emissions

To predict particulate deposition rates in a realistic manner, hourly estimates of particulate emissions are required from all major sources in the area. Factors which are important for particulate generation include:

- Ore type being handled. This is related to the size distribution of the material, shape and composition of the fines fraction;
- Moisture content. Increasing the moisture content decreases the dustiness of the ores with there normally being a moisture threshold above which particulate generation by material

handling is negligible, known as practical extinction. This occurs as moisture acts to apply adhesive forces between particles;
- The operation occurring. Factors which are important are the drop height, the degree to which the falling ore is exposed to the wind such that winnowing can occur, and the particulate control mechanism used. Control mechanisms may include enclosing the operation, the use of water sprays and particulate extraction to a bag filter or to a wet scrubber;
- Quantity of ore/overburden being moved and the number of movements;
- Size of stockpiles and level of activity;
- Level of vehicle traffic; and
- Ambient wind speed. For material handling operations exposed to the air, particulate emissions increase with increasing wind speed. For wind erosion, particulate emissions are negligible below a wind speed threshold, but increase rapidly above the threshold. Dust emissions from wind erosion are also dependent on the erodibility of the material which is dependent on the size distribution of the material and whether a crust has been developed.

4.4.2 Emission Estimation

Emission factors and control efficiencies were based on the National Pollutant Inventory (NPI) Emission Estimation Technique (EET) Manual for Mining 2012 Version 3.1 (NPI, 2012). The emission factors are considered conservative in that they allow for variation in the moisture content of the ores and some failure in control equipment to occur. Some of the emissions factors rely on moisture content in determining an emission rate. Information provided by Audalia indicates the moisture content of the ore and overburden is likely to be low and the default NPI values for 'low' moisture ores (i.e. those with a moisture content less than 4%) were subsequently adopted. A default silt content of 10% as outlined in the NPI emissions manual was also utilised.

The calculation of emission estimates associated with 'worst-case' mining activities has been based on the anticipated mining rate for Year 1. As outlined in Section 2.1, Year 1 is considered the 'worst-case' scenario for potential dust deposition impacts, as it represents the highest mining production rate, within closest proximity to the *M.aquilonaris* sub-populations. The calculation of emission estimates associated with 'mid-schedule' mining activities is conservatively based on the mining schedule for Year 11, as this represents the highest production rate for below ground level activity within the Vesuvius pit. The emission estimates for excavating, truck loading, stockpiling, reclaiming, processing and waste rock dumping were subsequently based on the annual throughputs for the respective periods.

A summary of the TSP emission estimates associated with operational activities is presented in Table 4. The emission estimates have been calculated assuming operations occur during the day shift only (nominally between 06:00 and 18:00 hrs), as advised by Audalia. The effects of wind and rainfall on emission estimates were also taken into consideration, as per the methodologies described Section 0 and Section 4.4.2.3. The calculation of wind erosion from exposed surface areas is outline in Section 4.4.2.2. It is noted that dust emission estimates for fugitive dust sources contain a degree of uncertainty due to the complexity of characterising emission rates and control efficiencies.

Table 4: Summary of Fugitive Particulate Emission Estimates – Year 01

Activity	Emission Factor		Emission Factor Variable		Dust Control		TSP Emission Rate	Comments
	TSP	Unit	Rate	Unit	Measure	Efficiency	g/s	
Dozing								
Vesuvius	17	kg/hour	12	hours/day	Operational controls based on wind direction	100%	4.7[1]	Assumes default NPI parameters for silt content (10%) and moisture content (2%).
Fuji					NA	Na	4.7	
Mine Closure Materials Stockpile							4.7	
Excavation								
Vesuvius	0.025	kg/t	1,240,275	tpa	NA	NA	2.0	Based on Year 1 waste and ore throughput.
Fuji			456,650				0.7	
TSF Materials Pit			669,349				1.1	
Truck Loading								
Vesuvius	0.025	kg/t	1,240,275	tpa	NA	NA	2.0	Based on Year 1 waste and ore throughput.
Fuji			456,650				0.7	
TSF Materials Pit			669,349				1.1	
Truck Unloading								
ROM Pad	0.012	kg/t	1,407,625	tpa	NA	NA	1.1	
Mine Closure Materials Stockpile			289,300				0.2	
Topsoil Stockpile			320,556				0.2	
Ore Reclaim (FEL)								
ROM Pad	0.025	kg/t	1,407,625	tpa	NA	NA	2.2	
Ore Processing								
Primary Crusher	0.2	kg/t	1,500,000	tpa	Water sprays	50%	9.5	Assumes maximum plant throughput rate of 1.5 Mtpa and low moisture content.
Secondary Crusher	0.6		1,500,000				29	
Screening	0.08		1,500,000				3.8	
Wheel Generated Dust Emissions								
Vesuvius to ROM	5.4	kg/km	20,995	km/yr	Water sprays	50%	3.6	Assumes default NPI parameters for silt content (10%) and moisture content (2%). Assumes approximate off-road haul truck weight loaded 84 t and unloaded 38 t. Assumes approximate outbound haulage weight 296 t and inbound haulage weight 76 t.
ROM to Vesuvius	3.8		20,995				2.5	
Vesuvius to Mine Closure	5.4		2,089				0.4	
Mine Closure to Vesuvius	3.8		2,089				0.3	
Vesuvius to Topsoil	5.4		1,536				0.3	
Topsoil to Vesuvius	3.8		1,536				0.2	
Fuji to ROM	5.4		3,062				0.5	
ROM to Fuji	3.8		3,062				0.4	
Fuji to Mine Closure	5.4		6,706				1.2	
Mine Closure to Fuji	3.8		6,706				0.8	
Fuji to Topsoil	5.4		4,762				0.8	
Topsoil to Fuji	3.8		4,762				0.6	
TSF Materials Pit to TSF	5.4		12,949				2.2	
TSF to TSF Materials Pit	3.8		12,949				1.6	
Haulage Outbound	7.5		24,287				7.4	
Haulage Inbound	5.0		24,287				4.0	

Activity	Emission Factor		Emission Factor Variable		Dust Control		TSP Emission Rate	Comments
	TSP	Unit	Rate	Unit	Measure	Efficiency	g/s	
Windblown Dust Emissions								
Vesuvius	Refer to Section 4.4.2.2				Water sprays	50%	Refer to Section 4.4.2.2	
Fuji								
Mine Closure Materials Stockpile								
TSF Construction Materials Pit								
ROM Pad								
Topsoil Stockpile								

Notes

1. Emission rate for dozing activities when operational controls not applied (i.e. when winds are outside of the 'arc of influence').

Table 5: Summary of Fugitive Particulate Emission Estimates – Year 11

Activity	Emission Factor		Emission Factor Variable		Dust Control		TSP Emission Rate	Comments
	TSP	Unit	Rate	Unit	Measure	Efficiency	g/s	
Dozing								
Egmont	17	kg/hour	12	hours/day	NA	NA	4.7	Assumes default NPI parameters for silt content (10%) and moisture content (2%).
Excavation								
Vesuvius	0.025	kg/t	1,313,950	tpa	Pit retention	50%	1.0	Based on Year 11 waste and ore throughput.
Fuji			131,950				0.1	
Egmont			249,800		NA	NA	0.4	
TSF Materials Pit			198,776				0.2	
Truck Loading								
Vesuvius	0.025	kg/t	1,313,950	tpa	Pit retention	50%	1.0	Based on Year 11 waste and ore throughput.
Fuji			131,950				0.2	
Egmont			249,800		NA	NA	0.4	
TSF Materials Pit			198,776				0.2	
Truck Unloading								
ROM Pad	0.012	kg/t	1,325,950	tpa	NA	NA	1.0	
Mine Closure Materials Stockpile			369,750				0.3	
Topsoil Stockpile			19,684				0.01	
Ore Reclaim (FEL)								
ROM Pad	0.025	kg/t	1,325,950	tpa	NA	NA	2.1	
Ore Processing								
Primary Crusher	0.2	kg/t	1,500,000	tpa	Water sprays	50%	9.5	Assumes maximum plant throughput rate of 1.5 Mtpa and low moisture content.
Secondary Crusher	0.6		1,500,000				29	
Screening	0.08		1,500,000				3.8	
Wheel Generated Dust Emissions								
Vesuvius to ROM	5.4	kg/km	5.4	km/yr	Water sprays	50%	3.3	Assumes default NPI parameters for silt content (10%) and moisture content (2%). Assumes approximate off-road haul truck weight loaded 84 t and unloaded 38 t. Assumes approximate outbound haulage weight 296 t and inbound haulage weight 76 t.
ROM to Vesuvius	3.8		3.8				2.3	
Vesuvius to Mine Closure	5.4		5.4				1.0	
Mine Closure to Vesuvius	3.8		3.8				0.7	
Fuji to ROM	5.4		5.4				0.3	
ROM to Fuji	3.8		3.8				0.2	
Egmont to ROM	5.4		5.4				1.0	
ROM to Egmont	3.8		3.8				0.7	
Egmont to Mine Closure	5.4		5.4				0.3	
Mine Closure to Egmont	3.8		3.8				0.2	
Egmont to Topsoil	5.4		5.4				0.1	
Topsoil to Egmont	3.8		3.8				0.1	
TSF Materials Pit to TSF	5.4		5.4				0.7	
TSF to TSF Materials Pit	3.8		3.8				0.5	
Haulage Outbound	7.5		9.6				7.4	
Haulage Inbound	5.0		5.2				4.0	

Activity	Emission Factor		Emission Factor Variable		Dust Control		TSP Emission Rate	Comments
	TSP	Unit	Rate	Unit	Measure	Efficiency	g/s	
Windblown Dust Emissions								
Vesuvius	Refer to Section 4.4.2.2				Water sprays	50%	Refer to Section 4.4.2.2	
Fuji								
Pinatubo								
Mine Closure Materials Stockpile								
TSF Construction Materials Pit								
ROM Pad								
Topsoil Stockpile								

The determination of emissions associated with dozing operations within the Vesuvius pit assumes operational controls are implemented to restrict dozing activity when the wind direction falls within the 'arcs of influence' for sub-populations 1b and 1c. The extents of these arcs are illustrated in Figure 14 (namely between 60° and 285° for sub-population 1b and between 325° and 195° for sub-population 1c).

Figure 14: Arcs of influence for Pop 1b and Pop 1c

Analysis of the TAPM predicted meteorological data generated for the project site (refer to Section 4.2), indicates that during operating hours (nominally between 06:00 and 18:00 hrs), winds most frequently fall within the specified arcs of influence during the summer months, and less frequently during the winter months (Figure 15).

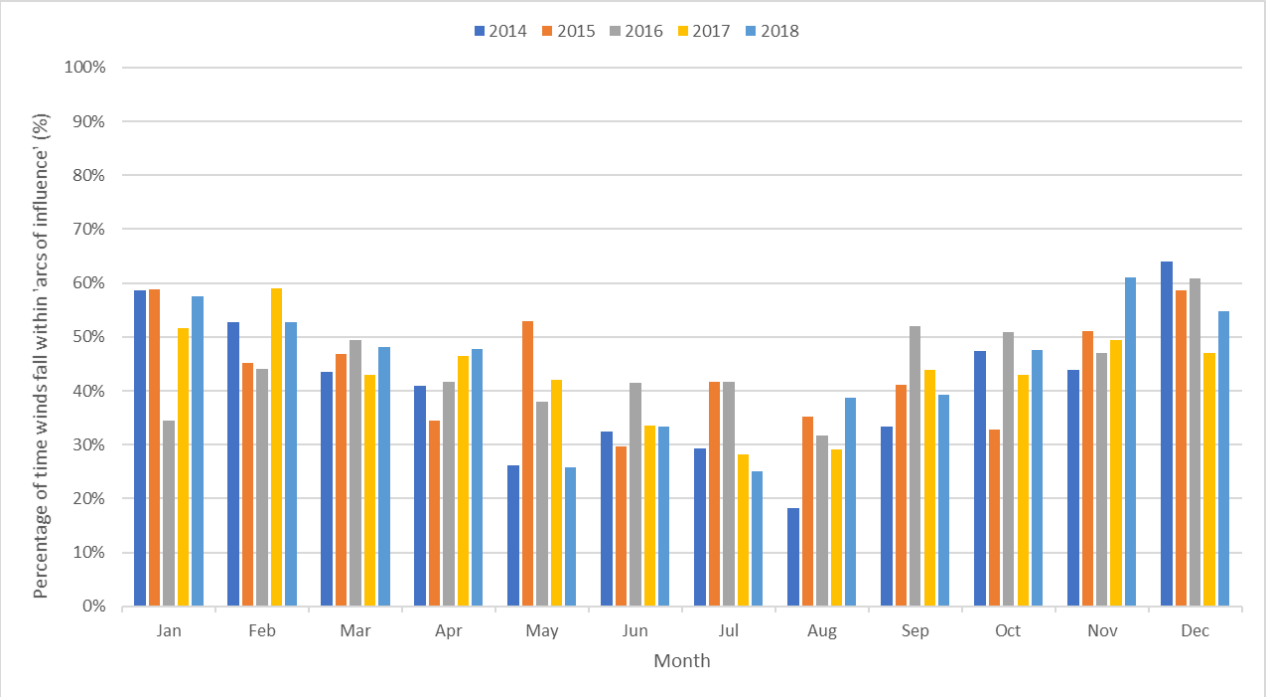


Figure 15: Percentage of time wind direction falls with arcs of influence for Pop 1b and 1c, during operating hours

4.4.2.1 Wind Speed Dependence for Material Handling

For all material handling processes exposed to the wind, increasing wind speed acts to increase dust emissions through winnowing of the particles from the falling ore. The USEPA batch drop equations (USEPA, 2004a) specify that the dust emission increases with the wind speed to the power of 1.3, as follows:

$$E_{Actual} = E_{2.2} (WS/2.2)^{1.3}$$

Where:

WS is the wind speed at the drop height;
$E_{2.2}$ is the dust emission given for a wind speed of 2.2 m/s; and
E_{Actual} is the final emission rate.

The average source height was assumed to be 5 m above the surface, with the 10 m wind speeds used to estimate the 5 m wind speeds using the 1/7 power law given by:

$$WS_5 = WS_{10} (5/10)^{(1/7)}$$

Where:

WS_{10} is the wind speed at 10 m.
WS_5 is the calculated wind speed at 5 m.

4.4.2.2 Wind Erosion

Dust emissions generated by wind are generally negligible below a wind speed threshold, but increase rapidly when wind speeds exceed the threshold. Dust emissions from wind erosion are also dependent on the erodibility of the material which in turn is dependent on the size distribution of the material and whether a crust has developed. In general, material with a large (>50%) fraction of non-erodible particles (generally particles greater than 1 mm to 2 mm) will

not erode as the erodible fraction is protected by these particles. Fine ores are generally much more erodible by wind erosion, particularly if they have a large fraction of particles in the range from 0.1 mm to 0.25 mm which can be dislodged by wind and then rolled and skipped along the surface (saltation). These larger particles can then dislodge the smaller (<50 µm) dust fraction which can remain suspended in the air.

The NPI Emission Estimation Technique (EET) Manual for Mining (NPI, 2011) specifies a wind erosion factor of 0.2 kg/ha/hr for all sources with the exception of coal stockpiles. However, this factor is considered approximate as it does not take into account variations in the climate of an area or the soil or ore type. Previous studies investigating the impact of dust emissions from mining facilities have used the Shao (2000) equation to parameterise particulate emissions for live stockyards and surrounding roads. The same method was also adopted to estimate the wind erosion factor for this assessment, as follows:

$$E_{wind} = 5.2E\text{-}07 * WS3 * (1- (WST/WS10)^2))$$

Where:

WST is the threshold for wind erosion in m/s, taken to be 7.5 m/s (SKM, 2003); and
E_{wind} is the PM_{10} emissions ($g/m^2/s$).

Dust emissions generated by wind erosion were considered in this assessment for all exposed surface areas, including the mining pits, mine closure materials stockpile, TSF construction material pit, ROM pad and topsoil stockpile.

4.4.2.3 Rainfall Dependence

To account for the effects of rainfall in reducing dust emissions, a simple scheme was adopted. With regards to wind erosion, rainfall was assumed to not only suppress dust emissions at the time rain was occurring, but to also result in a suppression of the dust emissions that gradually decreases over time as the areas dry out. Without stockpile activity, material can form a strong crust and be resistant to wind erosion for extended periods.

Dust emissions were taken to linearly return to a rainfall unaffected state within 400 hours of the rainfall evaporating if the rainfall event was greater than 25 mm. During the period when it was raining or if the rainfall had not evaporated, emissions were set to zero. The evaporation rate at the surface was assumed to be 1.25 times the amount from a Class A pan with a limit to the amount of water on/near the surface of 75 mm. Daily average evaporation rates for each month were obtained from the BoM for the Salmon Gums monitoring station.

These time scales have been adopted from previous dust assessments (ENVIRON, 2004) and were originally based on observations of the time taken for high dust levels to return following a large rainfall event in the Pilbara region. It is noted that the return to dusty conditions is not just a function of the evaporation of the water, but is determined more importantly from the activity level within the stockpile area, as surfaces are disturbed and fresh surfaces are created as a result of reclaiming, stacking and vehicle movement.

4.4.3 Particle Size Distribution

Particle size distribution data used in the model for particles in the sub-fraction of the waste rock and ROM representing potential TSP emissions were based on the USEPA distributions for batch drop, wind erosion and vehicle emissions (USEPA, 2004a, b and c) as listed in Table 6. A

distribution composite to all three USEPA distributions was adopted and applied for this study in the absence of actual data.

Table 6: Source Particle Size Distributions

Particle Size Range	Representative Particle Size	Percentage of Particulate (%) in Various Size Ranges			
µm	µm	USEPA Batch Drop	USEPA Wind Erosion	USEPA Unpaved Road	This Study
<2.5	1.0	11	14.8	3.3	9
2.5 - 5.0	3.8	9	22.2	18.7	8
5.0 - 7.5	6.3	15			7
7.5 – 10	8.3				6
10 – 15	12.5	13	7	52	14
15 – 23	19	26	30		15
23 – 30	26				15
30 – 40	35	26	26	26	15
40 – 50	45				11

Notes

1. Particle sizes are equivalent aerodynamic size and not the physical size. The equivalent aerodynamic size relates to the aerodynamic properties of the particle as is used in dust sampling. For example PM_{10} samplers measure the dust below 10 µm equivalent aerodynamic size and not the physical size.
2. Wind erosion and vehicle emission size distributions are given for below 30 µm only, but have been adjusted here to less than 50 µm based on assuming 74% of the particulate is less than 30 µm as per the batch drop distribution.

The particle sizes specified in Table 6 are based on the equivalent aerodynamic diameter and not the physical size. The equivalent aerodynamic diameter relates to the aerodynamic properties of the particle with a density of 1 g/cm^3 as is used in particulate matter sampling.

5. MODELLING RESULTS

5.1 Predicted Particulate Deposition Rates

A summary of the maximum daily and monthly average deposition rates predicted at the *M.aquilonaris* sub-populations (1a, 1b, 1c and 1d) is presented in Table 7. The range of monthly deposition rates measured at the *M.aquilonaris* sub-populations are also presented for comparison. Contours of the predicted daily and monthly average deposition rates for the Year 1 and Year 11 operating scenarios are presented in Figure 16 to Figure 19.

Table 7: Summary of Maximum Predicted Dust Deposition Rates

Receptor	Maximum Predicted Dust Deposition Rate				Range of Measured Dust Deposition Rates (g/m^2.month)[1]
	Year 1		Year 11		
	g/m^2.day	g/m^2.month	g/m^2.day	g/m^2.month	
Pop 1a	0.3	1.8	0.2	1.3	0.2 – 2.7
Pop 1b	0.8	10.1	0.5	5.8	0.3 – 2.2
Pop 1c	0.7	7.7	0.6	4.7	0.2 – 1.9
Pop 1d	0.2	1.2	0.2	1.1	0.2 – 3.1

Notes

1. As measured at the Project site between October 2018 and August 2019.

The greatest impacts associated with the modelled operating scenarios are predicted to occur at sub-population 1b. The maximum 24-hour and monthly average deposition rates predicted at this location for Year 1 are 0.8 g/m^2.month and 10.1 g/m^2.month respectively (Table 7). The maximum 24-hour and monthly average deposition rates predicted at this location for Year 11 are 0.5 g/m^2.month and 5.8 g/m^2.month respectively (Table 7). This scenario assumes dozing is no longer required within the Vesuvius pit, and that in-pit activities (i.e. excavation and truck loading) are occurring at depth and associated emissions are reduced as a result of pit retention.

At sub-population 1c, the maximum predicted 24-hour and monthly average deposition rates for Year 1 operations are 0.7 g/m^2.month and 7.7 g/m^2.month respectively (Table 7). For Year 11 operations, the maximum predicted 24-hour and monthly average deposition rates are 0.6 g/m^2.month and 4.7 g/m^2.month respectively (Table 7). At sub-populations 1a and 1d, the maximum predicted deposition rates for Year 1 operations are no more than 0.3 g/m^2.day and 1.8 g/m^2.month. For Year 11, the maximum predicted 24-hour and monthly average deposition rates are 0.2 g/m^2.month and 1.3 g/m^2.month respectively (Table 7).

Comparison of the predicted monthly dust deposition rates to the monthly deposition rates measured at the Project site between October 2018 and August 2019, indicates the maximum predicted impacts are within the range of measured dust deposition at sub-populations 1a and 1d but remain higher than the measured deposition rate at sub-populations 1b and 1c. Review of the contour plots however, indicates that the predicted deposition rates fall rapidly with increasing distance from the modelled emission sources. For example, the maximum predicted monthly deposition rate for the Year 1 scenario at sub-population 1b falls from 10.1 g/m^2.month to less than 5 g/m^2.month within 65 m of the Vesuvius pit boundary (Figure 17); while at sub-population 1c, the maximum predicted monthly deposition falls from 7.7 g/m^2 to less than 5 g/m^2 within 100 m of the Vesuvius pit boundary (Figure 17).

Figure 16: Maximum Predicted 24-Hour Average Deposition Rates – Year 1 (g/m^2.day)

Figure 17: Maximum Predicted Monthly Average Deposition Rates – Year 1 (g/m^2.month)

Figure 18: Maximum Predicted 24-Hour Average Deposition Rates – Year 11 (g/m^2.day)

Figure 19: Maximum Predicted Monthly Average Deposition Rates – Year 11 (g/m^2.month)

A summary of the monthly deposition rates predicted at each of *M.aquilonaris* sub-populations is presented in Table 8, indicating the greatest impacts are expected to occur between October and March, with the highest deposition rates predicted to occur in January.

Table 8: Summary of Monthly Predicted Dust Deposition Rates

Month	Maximum Predicted Monthly Dust Deposition Rate (g/m^2)							
	Year 01				Year 11			
	Pop 1a	Pop 1b	Pop 1c	Pop 1d	Pop 1a	Pop 1b	Pop 1c	Pop 1d
January	1.8	10.1	7.7	1.2	1.3	5.8	4.7	1.1
February	1.4	7.2	3.7	0.8	0.9	4.0	2.3	0.7
March	1.6	7.7	4.2	0.7	1.1	4.3	2.6	0.7
April	0.9	4.9	2.0	0.4	0.6	2.8	1.4	0.5
May	0.7	3.4	2.6	0.3	0.6	1.9	1.5	0.3
June	0.3	2.3	1.1	0.2	0.2	1.3	0.7	0.2
July	0.3	2.7	0.9	0.2	0.2	1.5	0.6	0.2
August	0.3	4.5	0.6	0.0	0.3	2.5	0.5	0.1
September	0.6	4.8	1.6	0.3	0.4	2.7	1.2	0.3
October	1.5	8.0	3.6	0.7	0.9	4.5	2.2	0.6
November	1.2	7.8	2.3	0.4	0.7	4.4	1.5	0.5
December	1.5	8.4	3.8	0.6	0.9	4.7	2.4	0.7

Comparison of the predicted monthly dust deposition rates to the deposition rates measured at the Project site between October 2018 and August 2019 (as presented in Section 2.3) shows the range of predicted impacts for both Year 1 and Year 11 is within the order of the measured deposition at sub-populations 1a and 1d (i.e. up to 3.1 g/m^2.month). However, the monthly deposition rates predicted at sub-populations 1b and 1c are up to five times higher than the measured deposition rates at these sites for the Year 1 scenario, and up to three times higher than the measured deposition rates at these sites for the Year 11 scenario.

The predicted deposition rates presented for sub-populations 1b and 1c are considered to be conservative, as Ramboll understands the footprint of the Vesuvius pit has subsequently been revised and the distance between the proposed pit crest and sub-populations 1b and 1c has increased. The implications of the revised footprint in relation to the results of the air dispersion modelling assessment are discussed further in Section 9.

Monthly pollution roses of the 1-hour average dust deposition rates predicted at sub-populations 1b and 1c are presented in Figure 20 and Figure 21 respectively, illustrating the percentage frequency of predicted deposition rates associated with different wind directions. The highest 1-hour average dust deposition rates predicted at sub-population 1b for the month of January are associated with winds from a south-easterly direction (Figure 20). A similar pattern is evident for February, while the influence of southerly winds becomes more apparent in March. Elevated deposition rates are again predicted in October through December, associated with winds from a southerly arc.

Figure 21 illustrates the dominance of easterly to south-easterly winds on predicted deposition rates at sub-population 1c, between the months of January to March. Similar patterns are again evident in October to December, associated with winds from north-easterly through south-easterly directions (Figure 21).

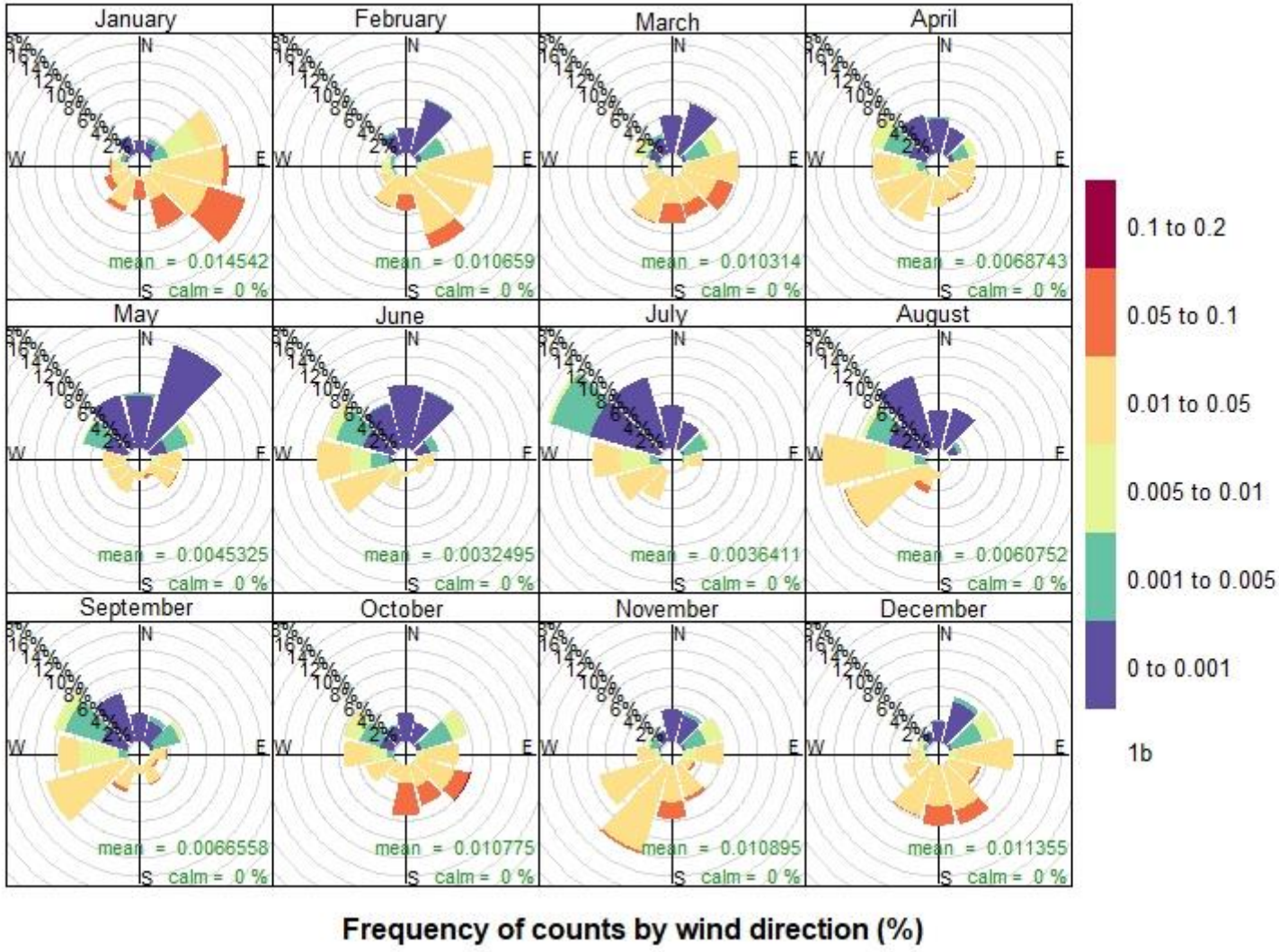


Figure 20: Pollution Rose for Predicted Monthly Deposition (g/m^2) at Population 1b

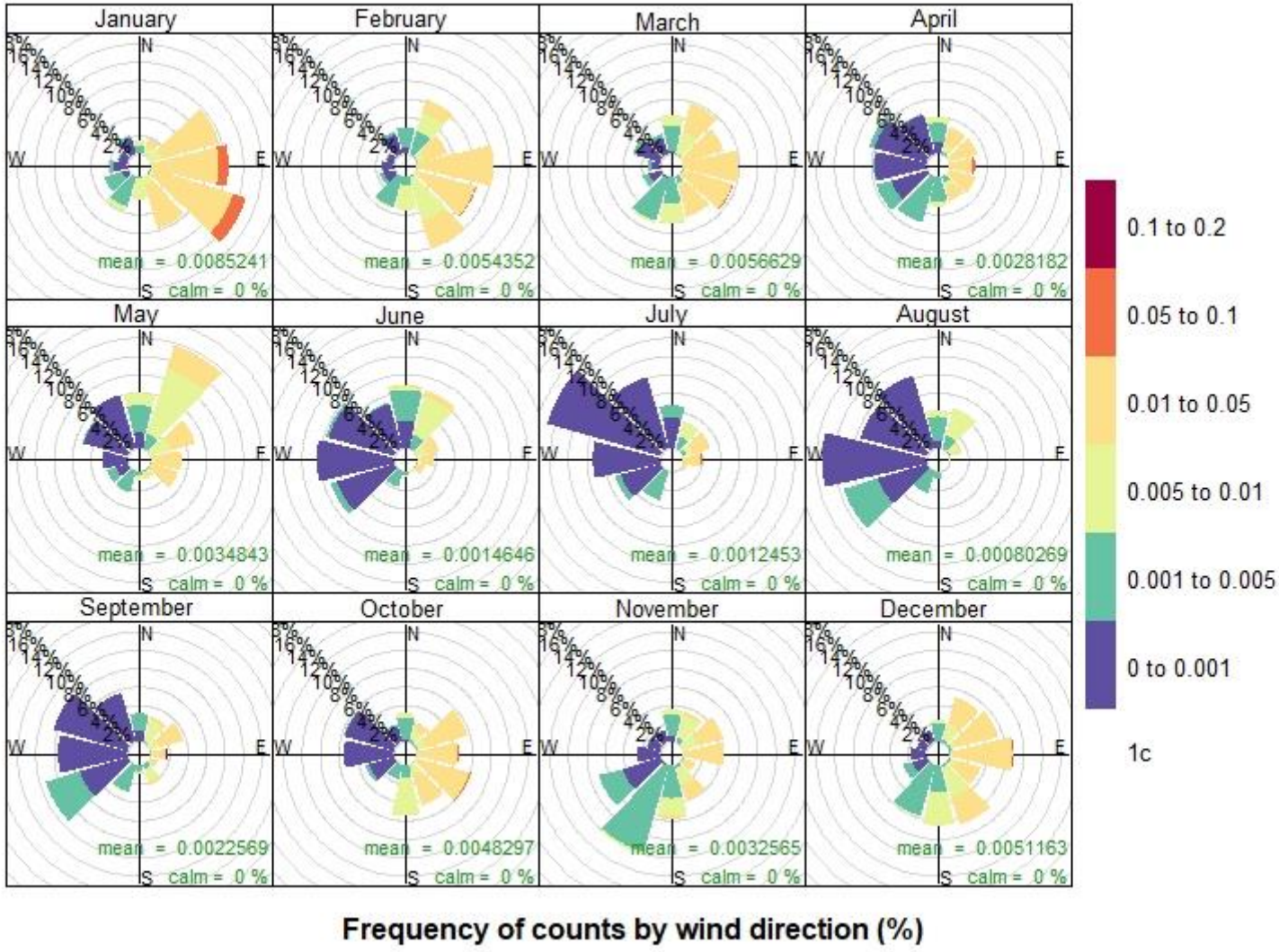


Figure 21: Pollution Rose for Predicted Monthly Deposition (g/m^2) at Population 1c

Percentage source contributions to the maximum 24-hour average dust depositions rates predicted at sub-populations 1a to 1d for the 'worst-case' Year 1 operating scenario are presented in Figure 22. These data indicate that fugitive emissions from mining operations within the Vesuvius pit contribute the greatest proportion (51%) to the maximum predicted 24-hour average dust deposition rate at sub-population 1c, followed by fugitive emissions from the processing plant (40%). At sub-population 1b, fugitive emissions associated with mining operations within the Vesuvius pit also dominate the maximum predicted 24-hour average dust deposition rate (94%). Fugitive emissions from the processing plant contribute the highest proportion (64%) to the maximum predicted 24-hour average dust deposition rate at sub-population 1a, followed by emissions from mining activity within the Fuji pit (26%). Emissions from the processing plant also contribute the greatest proportion (63%) to the maximum predicted 24-hour average dust deposition rate at sub-population 1d, second to mining activity within the Vesuvius pit (23%).

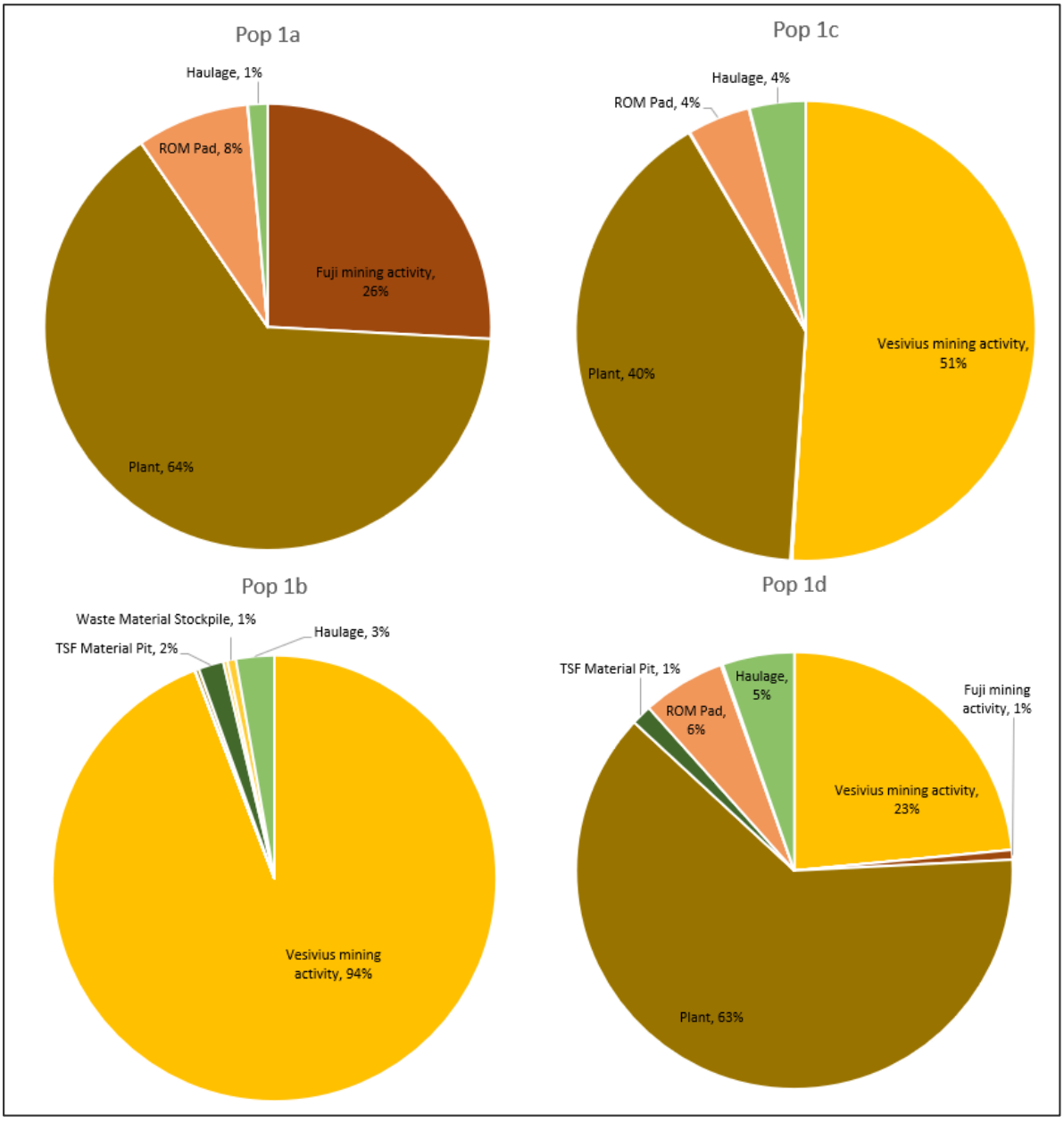


Figure 22: Source Contribution to Maximum Predicted 24-hour Average Dust Deposition Rates (Year 01)

In the absence of specific assessment guidelines for impacts on vegetation from dust deposition, it is difficult to definitively assess the potential impact of the predicted dust deposition rates on the *M.aquilonaris* sub-populations. The highest daily dust deposition rates predicted at sub-populations 1b and 1c are greater than the deposition levels at which reductions in canopy photosynthesis of cotton plants are reported by Doley and Rosato (2010) (i.e. 0.3 g/m^2.day). However, the monthly dust deposition rates predicted at these locations are within the range of measured deposition rates reported by Matsuki et al. (2016) (i.e. up to 20 g/m^2.month at the Windarling Range study site), for which no significant association between plant health and dust deposition was reported.

Following confirmation with Audalia, this assessment assumes implementation of the following dust control measures:

- Implementation of an operational control strategy to restrict dozing operations within Vesuvius pit when winds fall within the 'arcs of influence' for sub-populations 1b and 1c;
- Regular watering of unpaved haul roads within the Project site, applied at a rate of no less than 2 litres/m^2/hour;
- Utilisation of water sprays on the crushing and screening units; and
- Application of dust suppression to exposed surface areas (inclusive of the mining pits, mine closure materials stockpile, TSF construction material pit, ROM pad and topsoil stockpile) using water trucks and/or cannons.

In addition to the measures listed above it is recommended housekeeping measures be undertaken around the processing plant to remove spillages and minimise the potential for subsequent re-entrainment of particulates via wind or vehicle movement.

6. CONCLUSION

Audalia is proposing to develop the Medcalf Project, a vanadium, titanium and iron project located approximately 470 km south east of Perth near Lake Johnston, Western Australia. The proposal includes the development of four open mine pits, beneficiation plant, tailings storage facility, evaporations ponds, process water facility, waste rock landform, private haul road, road train transfer area and associated infrastructure such as laydown areas, borrow and gravel pits, borefield, workshops, administration building and accommodation camp.

Baseline environmental surveys have identified one flora species listed as Threatened under the BC Act within the Project site; *M. aquilonaris*. In order to mitigate the potential impacts of mining operations on this species, Audalia propose to exclude all sub-populations of *M.aquilonaris* from the mine development envelope; and to implement a buffer zone (nominally 30 m) around all sub-populations.

Review of the proposed minesite layout indicates the western and northern boundaries of the Vesuvius pit are within closest proximity to any of the identified *M.aquilonaris* sub-populations. The proposed mining schedule indicates peak near-surface activity within the Vesuvius pit is scheduled to occur in Year 1. This year has therefore been selected as the 'worst-case' scenario for consideration in the dust deposition study, as it represents the highest mining production rate, within closest proximity to the *M.aquilonaris* sub-populations. The Year 11 mining schedule has been selected for the purpose of assessing the mid-schedule mining scenario as this represents the highest production rate for below ground level activity within the Vesuvius pit. Information provided by Audalia indicates mining activity within the Vesuvius pit during this year will be at 25 m or more below ground level.

Air dispersion modelling of fugitive dust emissions from the proposed Project has been undertaken for the nominated scenarios, to determine the potential dust deposition rates within and around the proposed buffer zones for the *M.aquilonaris* sub-populations. Fugitive TSP emissions associated with mining operations, stockpiling, crushing and screening and vehicle movements on unpaved roads have been considered in the assessment, as well as wind erosion of exposed surfaces including the mining pits, ROM pad and WRD.

The greatest impacts associated with the modelled operating scenarios are predicted to occur at sub-population 1b. The maximum 24-hour and monthly average deposition rates predicted at this location for Year 1 are 0.8 g/m^2.month and 10.1 g/m^2.month respectively; and the maximum 24-hour and monthly average deposition rates predicted for Year 11 are 0.5 g/m^2.month and 5.8 g/m^2.month respectively. Review of the monthly deposition rates predicted at each of *M.aquilonaris* sub-populations indicates the greatest impacts are expected to occur between October and March, with the highest deposition rates predicted to occur in January. The predicted deposition rates presented for sub-populations 1b and 1c are considered to be conservative, as Ramboll understands the footprint of the Vesuvius pit has been revised since modelling was completed and the distance between the proposed pit crest and sub-populations 1b and 1c has increased. The implications of the revised footprint in relation to the results of the air dispersion modelling assessment are discussed further in the Addendum (Section 9).

Comparison of the predicted monthly dust deposition rates to the monthly deposition rates measured at the Project site between October 2018 and August 2019, indicates the maximum predicted impacts are within the range of measured dust deposition at sub-populations 1a and 1d, but remain higher than the measured deposition rate at sub-populations 1b and 1c. The

deposition rates are predicted to fall rapidly with increasing distance from the modelled emission sources.

Analysis of the source contributions to the maximum 24-hour average dust depositions rates predicted at the *M.aquilonaris* sub-populations indicates that fugitive emissions from mining operations within the Vesuvius pit contribute the greatest proportion to the predicted impacts at populations 1c and 1b; while fugitive emissions from the processing plant dominate the 24-hour average dust deposition rates at populations 1a and 1d.

In the absence of specific assessment guidelines for impacts on vegetation from dust deposition, it is difficult to definitely assess the potential impact of the predicted dust deposition rates on the *M.aquilonaris* sub-populations. The highest daily dust deposition rates predicted at sub-populations 1b and 1c are greater than the deposition levels at which reductions in canopy photosynthesis of cotton plants are reported in the literature; however, the monthly dust deposition rates predicted at these locations are within the range of deposition rates reported at the Windarling Range study site, for which no significant association between plant health and dust deposition was reported.

This assessment assumes implementation of the following dust control measures:

- Implementation of an operational control strategy to restrict dozing operations within Vesuvius pit when winds fall within the 'arcs of influence' for sub-populations 1b and 1c;
- Regular watering of unpaved haul roads within the Project site, applied at a rate of no less than 2 litres/m^2/hour;
- Utilisation of water sprays on the crushing and screening units; and
- Application of dust suppression to exposed surface areas (inclusive of the mining pits, mine closure materials stockpile, TSF construction material pit, ROM pad and topsoil stockpile) using water trucks and/or cannons.

In addition to the measures listed above it is recommended housekeeping measures be undertaken around the processing plant to remove spillages and minimise the potential for subsequent re-entrainment of particulates via wind or vehicle movement.

In considering these results it should also be noted that the prediction of dust deposition rates from fugitive sources by air dispersion modelling is difficult primarily due to the complexity and uncertainty in estimating dust emissions due to numerous factors that can affect the emissions. Modelling results have a degree of inherent uncertainty but are useful in prioritising management measures to control and reduce dust emissions.

7. LIMITATIONS

Ramboll prepared this report in accordance with the scope of work as outlined in our proposal to Audalia dated 7 June 2019 and in accordance with our understanding and interpretation of current regulatory standards.

The conclusions presented in this report represent Ramboll's professional judgement based on information made available during the course of this assignment and are true and correct to the best of Ramboll's knowledge as at the date of the assessment.

Ramboll did not independently verify all of the written or oral information provided during the course of this investigation. While Ramboll has no reason to doubt the accuracy of the information provided to it, the report is complete and accurate only to the extent that the information provided to Ramboll was itself complete and accurate.

This report does not purport to give legal advice. This advice can only be given by qualified legal advisors.

7.1 User Reliance

This report has been prepared for Audalia and may not be relied upon by any other person or entity without Ramboll's express written permission.

8. REFERENCES

Doley, D. & Rossato, L. 2010 'Mineral Particulates and Vegetation: Modelled effects of Dust on Photosynthesis in Plant Canopies', *Air Quality and Climate Change*, Volume 44 No.2, May 2010.

ENVIRON Australia Pty Ltd. 2004. 'Port Hedland Dust Modelling Assessment.' Report prepared for Fortescue Metals Group Limited, August 2004.

Matsuki, M., Gardener, M., Smith, A., Howard, K. & Gove, A. 2016. 'Impacts of dust on plant health, survivorship and plant communities in semi-arid environments', *Austral Ecology*, Volume 41, pp 417-427.

National Pollutant Inventory (NPI). 2012. 'Emission Estimation Technique Manual for Mining.' Version 3.1, January 2012.

National Environmental Protection Council (NEPC). 2015. 'National Environmental Protection (Ambient Air Quality Measure)'. National Environmental Protection Council, December 2015.

NSW EPA (2016). 'Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales'. State of New South Wales and the Environment Protection Authority, November 2016.

United States Environmental Protection Agency (USEPA). 2004a. 'Compilation of air Pollutant Emission factors, AP-42, Fifth Edition, Volume 1: Stationary Point and Area Sources. Section 13.2.4. Aggregate Handling and Storage Piles. 1/95.'

United States Environmental Protection Agency (USEPA). 2004b. 'Compilation of air Pollutant Emission factors, AP-42, Fifth Edition, Volume 1: Stationary Point and Area Sources. Section 13.2.5. Industrial Wind Erosion. 1/95.'

United States Environmental Protection Agency (USEPA). 2006. 'Compilation of air Pollutant Emission factors, AP-42, Fifth Edition, Volume 1: Stationary Point and Area Sources. Section 13.2.2. Unpaved Roads. 11/06.'

9. ADDENDUM

Ramboll understand since completion of the air dispersion assessment, the footprint of the Vesuvius pit has been revised and the distance between the proposed pit crest and sub-populations 1b and 1c has increased. The revised pit boundary is set back an additional 30 to 50 m from the sub-population 1b buffer zone; and between 15 to 50 m further back from the sub-population 1c buffer zone (Figure 23). In effect, the minimum distance between the pit crest and sub-population 1b has increased from 30 m to 60 m, and the minimum distance between the pit crest and sub-population 1c has increased from 30 m to 45 m.

While the effect of this revision is not likely to have significant impact on the findings of the air dispersion modelling assessment, the predicted deposition rates at sub-population 1b and 1c are likely to be slightly lower than those presented in Table 7 and Table 8, given the modelling results indicate predicted deposition rates rapidly decrease with increasing distance from the modelled emission sources (refer to Section 5.1).

Assuming the dispersion of fugitive emissions from the revised Vesuvius pit footprint is similar to that predicted for the original pit footprint (based on a similarly shaped pit crest), an indication of the likely effect of increasing the distance between the pit boundary and *M.aquilonaris* sub-populations can be inferred from the contours presented in Figure 16 to Figure 21. For example, the 24-hour average deposition rate predicted at sub-population 1b for the Year 1 operating scenario is likely to be closer to 0.5 g/m^2.day rather than 0.8 g/m^2.day; and 5.0 g/m^2.month rather than 10.1 g/m^2.month. At sub-population 1c the predicted 24-hour average deposition rate is also likely to be closer to 0.65 g/m^2.day rather than 0.7 g/m^2.day; and 6.3 g/m^2.month rather than 7.7 g/m^2.month.

The findings of the air dispersion assessment however, remain the same; in the absence of specific assessment guidelines for impacts on vegetation from dust deposition, it is difficult to definitively assess the potential impact of the predicted dust deposition rates on the *M.aquilonaris* sub-populations. Despite the proposed increase in distance between the Vesuvius pit footprint and sub-populations 1b and 1c, the highest predicted daily dust deposition rates are likely to remain above the level at which reductions in canopy photosynthesis of cotton plants are reported (i.e. 0.3 g/m^2.day); but remain within the range of measured deposition rates reported at the Windarling Range study site (i.e. up to 20 g/m^2.month), for which no significant association between plant health and dust deposition was reported.

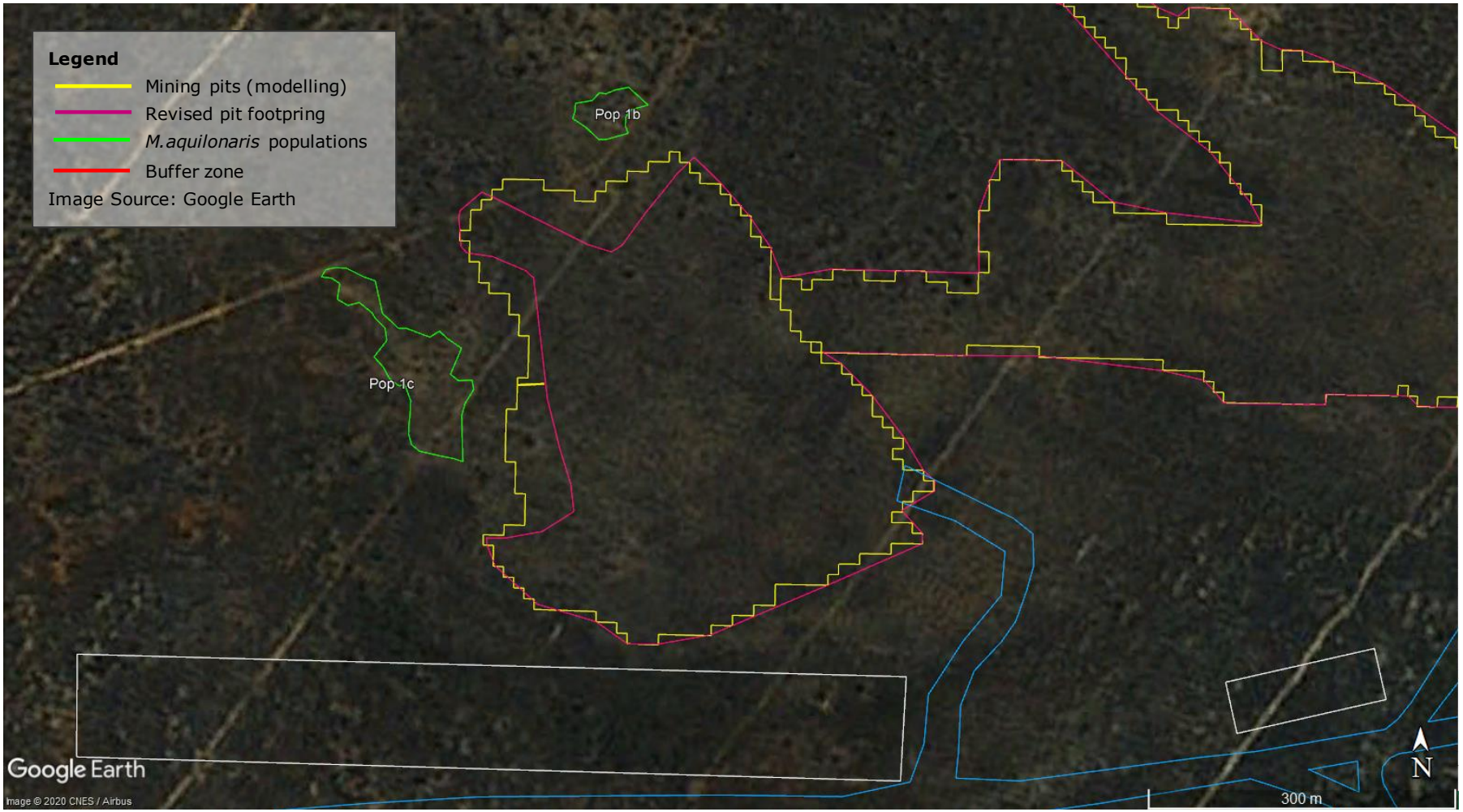


Figure 23: Proposed Revision of Vesuvius Pit Boundary

APPENDIX 1
AERMET INPUT FILES

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** Lakes Environmental Software Inc.
** Date: 2019/11/05
** File: E:\Audalia\AERMET\Audalia_Medcalf.IN1
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  MESSAGES   Audalia_Medcalf.MG1

ONSITE

** Location of the Onsite Data File
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  QAOUT      Audalia_Medcalf.OQA

  XDATES     2018/01/01 TO 2018/12/31

  LOCATION   00000001 32.530S    120.790E 0 420.00

  OBS/HOUR   1
  THRESHOLD  0.5

  OSHEIGHTS  10
  DELTA_TEMP 1 10.00 24.00

  READ       1 OSYR OSMO OSDY OSHR WS01 WD01 TT01 DT01 RH01 NRAD INSO MHGT PRCP
PRES

  FORMAT     1 FREE

  AUDIT      WS WD NRAD PRCP RH TT PRES MHGT DT01

  RANGE      WS 0 <= 50 99
  RANGE      WD 0 <= 360 999
  RANGE      NRAD -100 < 800 999
  RANGE      PRCP 0 <= 25400 -9
  RANGE      RH 0 <= 100 999
  RANGE      TT -30 < 40 99
  RANGE      PRES 9000 < 10999 99999
  RANGE      MHGT 0 < 4000 -999
  RANGE      DT01 -2 < 5 9
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** Lakes Environmental Software Inc.
** Date: 2019/11/05
** File: E:\Audalia\AERMET\Audalia_Medcalf.IN2
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JOB
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  MESSAGES   Audalia_Medcalf.MG2

ONSITE

  QAOUT      Audalia_Medcalf.OQA

MERGE

  OUTPUT     Audalia_Medcalf.MRG

  XDATES     2018/01/01 TO 2018/12/31
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** AERMET View Ver. 9.6.0
** Lakes Environmental Software Inc.
** Date: 2019/11/05
** File: E:\Audalia\AERMET\Audalia_Medcalf.IN3
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  MESSAGES    Audalia_Medcalf.MG3

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  MODEL       AERMOD

  OUTPUT      aermet.sfc
  PROFILE     aermet.pfl

  XDATES      2018/01/01  TO 2018/12/31

  METHOD      WIND_DIR  NORAND
  METHOD      STABLEBL  BULKRN
  METHOD      STABLEBL  ADJ_U*
  METHOD      CCVR SUB_CC
  METHOD      TEMP SUB_TT

** Primary Surface Characteristics
  FREQ_SECT   SEASONAL 1
  SECTOR      1   0 360

** Period - Sector - Albedo - Bowen Ratio - Surface Roughness

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  SITE_CHAR    2  1   0.2500  6.0000  0.15000
  SITE_CHAR    3  1   0.2500  6.0000  0.15000
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APPENDIX 2
AERMOD INPUT FILES

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** Lakes Environmental Software Inc.
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**
**
**********************************
** AERMOD Control Pathway
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   AVERTIME 1
   POLLUTID TSP
   RUNORNOT RUN
   ERRORFIL Audalia_Medcalf.err
CO FINISHED
**
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** AERMOD Source Pathway
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** DESCRSRC Fuji 2 (Pinatubo) (revised)
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6397716.996      413.740
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   LOCATION L0002484     VOLUME   293847.099
6398236.233  383.70
   LOCATION L0002485     VOLUME   293829.084
6398229.253  384.20
   LOCATION L0002486     VOLUME   293811.069
6398222.272  384.96
   LOCATION L0002487     VOLUME   293793.054
6398215.291  385.72
   LOCATION L0002488     VOLUME   293775.039
6398208.310  386.49
   LOCATION L0002489     VOLUME   293757.024
6398201.329  387.26
   LOCATION L0002490     VOLUME   293739.010
6398194.349  388.03
   LOCATION L0002491     VOLUME   293720.995
6398187.368  388.80
   LOCATION L0002492     VOLUME   293702.980
6398180.387  389.52
   LOCATION L0002493     VOLUME   293684.965
6398173.406  389.85
   LOCATION L0002494     VOLUME   293666.950
6398166.425  390.26
   LOCATION L0002495     VOLUME   293648.935
6398159.445  390.72
   LOCATION L0002496     VOLUME   293630.920
6398152.464  391.26
   LOCATION L0002497     VOLUME   293612.905
6398145.483  392.09
   LOCATION L0002498     VOLUME   293594.890
6398138.502  393.00
   LOCATION L0002499     VOLUME   293576.875
6398131.521  393.91
   LOCATION L0002500     VOLUME   293558.860
6398124.541  394.95
   LOCATION L0002501     VOLUME   293544.495
6398112.995  396.06
   LOCATION L0002502     VOLUME   293533.720
6398096.958  397.13
   LOCATION L0002503     VOLUME   293522.945
6398080.921  398.16
   LOCATION L0002504     VOLUME   293512.171
6398064.885  399.14
   LOCATION L0002505     VOLUME   293501.396
6398048.848  400.08
   LOCATION L0002506     VOLUME   293490.621
6398032.811  401.03
   LOCATION L0002507     VOLUME   293479.847
6398016.774  402.19
   LOCATION L0002508     VOLUME   293469.072
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   LOCATION L0002509     VOLUME   293458.297
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   LOCATION L0002510     VOLUME   293439.848
6397980.862  405.79
   LOCATION L0002511     VOLUME   293420.728
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   LOCATION L0002512     VOLUME   293401.608
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   LOCATION L0002517     VOLUME   293306.007
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   LOCATION L0002518     VOLUME   293286.886
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   LOCATION L0002519     VOLUME   293267.766
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   LOCATION L0002520     VOLUME   293248.646
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   LOCATION L0002521     VOLUME   293229.526
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   LOCATION L0002525     VOLUME   293153.045
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6397936.503  412.39
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   LOCATION L0002528     VOLUME   293095.684
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   LOCATION L0002529     VOLUME   293076.564
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   LOCATION L0002530     VOLUME   293057.443
6397925.413  414.50
   LOCATION L0002531     VOLUME   293038.323
6397922.640  415.32
   LOCATION L0002532     VOLUME   293031.171
6397913.959  415.98
   LOCATION L0002533     VOLUME   293040.595
6397897.094  416.49
   LOCATION L0002534     VOLUME   293050.020
6397880.229  417.03
   LOCATION L0002535     VOLUME   293059.445
6397863.363  417.62
   LOCATION L0002536     VOLUME   293068.870
6397846.498  418.25
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6397829.632  418.29
   LOCATION L0002538     VOLUME   293087.719
6397812.767  418.36
   LOCATION L0002539     VOLUME   293097.144
6397795.901  418.66
   LOCATION L0002540     VOLUME   293106.569
6397779.036  418.96
** End of LINE VOLUME Source ID = SLINE11
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** Line Source Represented by Separated Volume
Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC FUJI1 to WRD
** PREFIX
** Length of Side = 9.80
** Configuration = Separated
** Emission Rate = 1.0
** Vertical Dimension = 7.14
** SZINIT = 3.32
** Nodes = 7
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** 293894.096,  6398256.595,  382.13, 3.57, 9.09
** 293558.530,  6398123.230,  395.05, 3.57, 9.09
** 293455.280,  6397987.713,  404.04, 3.57, 9.09
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   LOCATION L0002544     VOLUME   293882.680
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   LOCATION L0002545     VOLUME   293886.448
6398295.529  383.92
   LOCATION L0002546     VOLUME   293890.215
6398276.350  383.31
   LOCATION L0002547     VOLUME   293893.983
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   LOCATION L0002549     VOLUME   293858.313
6398242.374  383.47
   LOCATION L0002550     VOLUME   293840.149
6398235.155  383.93
   LOCATION L0002551     VOLUME   293821.985
6398227.936  384.47
   LOCATION L0002552     VOLUME   293803.821
6398220.717  385.25
   LOCATION L0002553     VOLUME   293785.657
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   LOCATION L0002556     VOLUME   293731.165
6398191.841  388.36
   LOCATION L0002557     VOLUME   293713.002
6398184.622  389.14
   LOCATION L0002558     VOLUME   293694.838
6398177.403  389.66
   LOCATION L0002559     VOLUME   293676.674
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   LOCATION L0002560     VOLUME   293658.510
6398162.965  390.47
   LOCATION L0002561     VOLUME   293640.346
6398155.746  390.98
   LOCATION L0002562     VOLUME   293622.182
6398148.527  391.64
   LOCATION L0002563     VOLUME   293604.018
6398141.308  392.56
   LOCATION L0002564     VOLUME   293585.854
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   LOCATION L0002565     VOLUME   293567.691
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   LOCATION L0002566     VOLUME   293552.659
6398115.523  395.68
   LOCATION L0002567     VOLUME   293540.813
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   LOCATION L0002568     VOLUME   293528.967
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   LOCATION L0002574     VOLUME   293457.894
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   LOCATION L0002575     VOLUME   293440.209
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   LOCATION L0002576     VOLUME   293420.871
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   LOCATION L0002577     VOLUME   293401.532
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   LOCATION L0002578     VOLUME   293382.194
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6397974.134  408.56
   LOCATION L0002580     VOLUME   293343.518
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   LOCATION L0002581     VOLUME   293324.179
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   LOCATION L0002582     VOLUME   293304.841
6397965.611  410.58
   LOCATION L0002583     VOLUME   293285.503
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   LOCATION L0002585     VOLUME   293246.826
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   LOCATION L0002586     VOLUME   293227.488
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   LOCATION L0002587     VOLUME   293208.150
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   LOCATION L0002588     VOLUME   293188.812
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   LOCATION L0002589     VOLUME   293169.473
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   LOCATION L0002590     VOLUME   293150.135
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   LOCATION L0002591     VOLUME   293130.797
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   LOCATION L0002592     VOLUME   293111.459
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   LOCATION L0002593     VOLUME   293092.121
6397934.358  412.99
   LOCATION L0002594     VOLUME   293072.782
6397931.517  413.63
   LOCATION L0002595     VOLUME   293053.444
6397928.676  414.48
   LOCATION L0002596     VOLUME   293034.106
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   LOCATION L0002597     VOLUME   293014.768
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   LOCATION L0002598     VOLUME   292995.376
6397920.669  416.76
   LOCATION L0002599     VOLUME   292975.865
6397919.500  417.13
   LOCATION L0002600     VOLUME   292956.354
6397918.331  417.49
   LOCATION L0002601     VOLUME   292936.843
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   LOCATION L0002602     VOLUME   292917.333
6397915.994  417.89
   LOCATION L0002603     VOLUME   292897.822
6397914.825  417.65
   LOCATION L0002604     VOLUME   292878.311
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   LOCATION L0002605     VOLUME   292858.800
6397912.487  417.11
   LOCATION L0002606     VOLUME   292839.289
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   LOCATION L0002607     VOLUME   292819.778
6397910.149  416.00
   LOCATION L0002608     VOLUME   292800.267
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   LOCATION L0002609     VOLUME   292780.757
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   LOCATION L0002610     VOLUME   292761.246
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   LOCATION L0002611     VOLUME   292741.735
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   LOCATION L0002612     VOLUME   292722.224
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   LOCATION L0002613     VOLUME   292702.713
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   LOCATION L0002615     VOLUME   292663.691
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   LOCATION L0002616     VOLUME   292644.181
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   LOCATION L0002618     VOLUME   292605.159
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   LOCATION L0002619     VOLUME   292585.648
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   LOCATION L0002620     VOLUME   292566.137
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   LOCATION L0002621     VOLUME   292546.626
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   LOCATION L0002622     VOLUME   292532.822
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   LOCATION L0002623     VOLUME   292528.134
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   LOCATION L0002624     VOLUME   292523.446
6397847.811  402.30
   LOCATION L0002625     VOLUME   292518.758
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   LOCATION L0002626     VOLUME   292514.070
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   LOCATION L0002627     VOLUME   292509.382
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   LOCATION L0002628     VOLUME   292504.694
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   LOCATION L0002630     VOLUME   292495.318
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   LOCATION L0002631     VOLUME   292490.630
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** End of LINE VOLUME Source ID = SLINE12
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** Line Source Represented by Separated Volume
Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC EGMONT to WRD
** PREFIX
** Length of Side = 9.80
** Configuration = Separated
** Emission Rate = 1.0
** Vertical Dimension = 7.14
** SZINIT = 3.32
** Nodes = 5
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   LOCATION L0002636    VOLUME   291887.804
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   LOCATION L0002644    VOLUME   292000.232
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   LOCATION L0002645    VOLUME   292016.988
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   LOCATION L0002646    VOLUME   292033.745
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   LOCATION L0002647    VOLUME   292050.501
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   LOCATION L0002651    VOLUME   292127.188
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   LOCATION L0002652    VOLUME   292146.531
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   LOCATION L0002659    VOLUME   292281.933
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   LOCATION L0002660    VOLUME   292301.276
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   LOCATION L0002661    VOLUME   292320.619
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   LOCATION L0002662    VOLUME   292339.962
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   LOCATION L0002663    VOLUME   292359.306
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   LOCATION L0002664    VOLUME   292378.649
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   LOCATION L0002666    VOLUME   292401.458
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   LOCATION L0002667    VOLUME   292407.168
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   LOCATION L0002668    VOLUME   292412.878
6397825.914  395.96
   LOCATION L0002669    VOLUME   292418.589
6397807.413  395.81
   LOCATION L0002670    VOLUME   292424.299
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   LOCATION L0002671    VOLUME   292430.009
6397770.412  395.24
   LOCATION L0002672    VOLUME   292435.719
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   LOCATION L0002673    VOLUME   292441.429
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6397714.909  393.99
** End of LINE VOLUME Source ID = SLINE13
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** Line Source Represented by Adjacent Volume
Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC EGMONT to TOP
** PREFIX
** Length of Side = 9.80
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 7.14
** SZINIT = 3.32
** Nodes = 8
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   LOCATION L0002678    VOLUME   291861.501
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   LOCATION L0002679    VOLUME   291867.692
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   LOCATION L0002681    VOLUME   291880.073
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   LOCATION L0002682    VOLUME   291886.263
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LOCATION L0002720 VOLUME 292209.142 6397873.710 391.96
LOCATION L0002721 VOLUME 292218.925 6397874.297 392.03
LOCATION L0002722 VOLUME 292228.707 6397874.884 392.23
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LOCATION L0002730 VOLUME 292306.966 6397879.579 394.49
LOCATION L0002731 VOLUME 292316.749 6397880.166 394.68
LOCATION L0002732 VOLUME 292326.531 6397880.753 394.86
LOCATION L0002733 VOLUME 292336.314 6397881.340 395.04
LOCATION L0002734 VOLUME 292346.096 6397881.927 395.21
LOCATION L0002735 VOLUME 292355.878 6397882.514 395.38
LOCATION L0002736 VOLUME 292365.661 6397883.101 395.55
LOCATION L0002737 VOLUME 292375.443 6397883.688 395.72
LOCATION L0002738 VOLUME 292385.226 6397884.275 396.16
LOCATION L0002739 VOLUME 292394.982 6397885.169 396.80
LOCATION L0002740 VOLUME 292404.727 6397886.209 397.46
LOCATION L0002741 VOLUME 292414.472 6397887.248 398.11
LOCATION L0002742 VOLUME 292424.217 6397888.288 398.76
LOCATION L0002743 VOLUME 292433.961 6397889.327 399.41
LOCATION L0002744 VOLUME 292443.706 6397890.367 400.06
LOCATION L0002745 VOLUME 292453.451 6397891.406 400.72
LOCATION L0002746 VOLUME 292463.195 6397892.445 401.32
LOCATION L0002747 VOLUME 292472.940 6397893.485 401.89
LOCATION L0002748 VOLUME 292482.685 6397894.524 402.47
LOCATION L0002749 VOLUME 292492.430 6397895.564 403.05
LOCATION L0002750 VOLUME 292502.174 6397896.603 403.64
LOCATION L0002751 VOLUME 292511.919 6397897.643 404.23
LOCATION L0002752 VOLUME 292521.664 6397898.682 404.83

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   LOCATION L0002754     VOLUME   292541.153
6397900.761  405.96
   LOCATION L0002755     VOLUME   292550.903
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   LOCATION L0002756     VOLUME   292560.689
6397902.264  406.90
   LOCATION L0002757     VOLUME   292570.475
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   LOCATION L0002758     VOLUME   292580.260
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   LOCATION L0002759     VOLUME   292590.046
6397903.847  408.28
   LOCATION L0002760     VOLUME   292599.832
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   LOCATION L0002764     VOLUME   292638.975
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   LOCATION L0002766     VOLUME   292658.547
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   LOCATION L0002774     VOLUME   292736.833
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   LOCATION L0002775     VOLUME   292746.619
6397912.290  413.88
   LOCATION L0002776     VOLUME   292756.404
6397912.818  414.26
   LOCATION L0002777     VOLUME   292766.190
6397913.345  414.64
   LOCATION L0002778     VOLUME   292775.976
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   LOCATION L0002779     VOLUME   292785.762
6397914.401  415.30
   LOCATION L0002780     VOLUME   292795.548
6397914.928  415.61
   LOCATION L0002781     VOLUME   292805.333
6397915.456  415.93
   LOCATION L0002782     VOLUME   292815.119
6397915.984  416.24
   LOCATION L0002783     VOLUME   292824.905
6397916.511  416.55
   LOCATION L0002784     VOLUME   292834.691
6397917.039  416.85
   LOCATION L0002785     VOLUME   292844.477
6397917.567  417.16
   LOCATION L0002786     VOLUME   292854.262
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   LOCATION L0002787     VOLUME   292864.048
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   LOCATION L0002788     VOLUME   292873.834
6397919.150  417.54
   LOCATION L0002789     VOLUME   292883.620
6397919.677  417.64
   LOCATION L0002790     VOLUME   292893.405
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   LOCATION L0002791     VOLUME   292903.191
6397920.733  417.81
   LOCATION L0002792     VOLUME   292912.977
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   LOCATION L0002793     VOLUME   292922.763
6397921.788  417.97
   LOCATION L0002794     VOLUME   292932.549
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   LOCATION L0002795     VOLUME   292942.334
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   LOCATION L0002796     VOLUME   292952.120
6397923.371  417.49
   LOCATION L0002797     VOLUME   292961.906
6397923.899  417.28
   LOCATION L0002798     VOLUME   292971.692
6397924.426  417.08
   LOCATION L0002799     VOLUME   292981.477
6397924.954  416.87
   LOCATION L0002800     VOLUME   292991.147
6397924.527  416.69
   LOCATION L0002801     VOLUME   293000.523
6397921.673  416.63
   LOCATION L0002802     VOLUME   293009.898
6397918.820  416.50
   LOCATION L0002803     VOLUME   293019.274
6397915.967  416.30
   LOCATION L0002804     VOLUME   293028.649
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   LOCATION L0002805     VOLUME   293037.997
6397910.228  415.93
   LOCATION L0002806     VOLUME   293042.322
6397901.434  416.22
   LOCATION L0002807     VOLUME   293046.647
6397892.640  416.52
   LOCATION L0002808     VOLUME   293050.972
6397883.846  416.82
   LOCATION L0002809     VOLUME   293055.297
6397875.052  417.14
   LOCATION L0002810     VOLUME   293059.622
6397866.258  417.47
   LOCATION L0002811     VOLUME   293063.947
6397857.464  417.80
   LOCATION L0002812     VOLUME   293068.272
6397848.670  418.15
   LOCATION L0002813     VOLUME   293072.597
6397839.876  418.34
   LOCATION L0002814     VOLUME   293076.922
6397831.082  418.31
   LOCATION L0002815     VOLUME   293081.247
6397822.288  418.30
   LOCATION L0002816     VOLUME   293085.572
6397813.494  418.33
   LOCATION L0002817     VOLUME   293089.897
6397804.700  418.47
   LOCATION L0002818     VOLUME   293094.222
6397795.906  418.62
   LOCATION L0002819     VOLUME   293098.547
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** End of LINE VOLUME Source ID = SLINE14
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** Line Source Represented by Separated Volume
Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC VES to ROM
** PREFIX
** Length of Side = 9.80
** Configuration = Separated
** Emission Rate = 1.0
** Vertical Dimension = 7.14
** SZINIT = 3.32
** Nodes = 7
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** 293076.693,  6398172.704,  415.36, 3.57, 9.01
** 293080.996,  6398123.230,  414.00, 3.57, 9.01
** 293025.068,  6398032.885,  416.49, 3.57, 9.01
** 293016.464,  6397923.181,  416.04, 3.57, 9.01
** 293326.216,  6397961.900,  411.97, 3.57, 9.01
** 293539.171,  6398002.771,  400.91, 3.57, 9.01
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6398234.715  421.72
   LOCATION L0002821    VOLUME   292989.956
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   LOCATION L0002822    VOLUME   293006.569
6398214.779  421.08
   LOCATION L0002823    VOLUME   293023.182
6398204.811  419.82
   LOCATION L0002824    VOLUME   293039.795
6398194.843  418.29
   LOCATION L0002825    VOLUME   293056.408
6398184.875  416.71
   LOCATION L0002826    VOLUME   293073.022
6398174.907  415.09
   LOCATION L0002827    VOLUME   293078.001
6398157.669  414.46
   LOCATION L0002828    VOLUME   293079.679
6398138.367  414.14
   LOCATION L0002829    VOLUME   293078.796
6398119.676  414.04
   LOCATION L0002830    VOLUME   293068.598
6398103.203  414.68
   LOCATION L0002831    VOLUME   293058.400
6398086.730  415.18
   LOCATION L0002832    VOLUME   293048.202
6398070.256  415.53
   LOCATION L0002833    VOLUME   293038.005
6398053.783  415.74
   LOCATION L0002834    VOLUME   293027.807
6398037.310  415.82
   LOCATION L0002835    VOLUME   293023.960
6398018.758  415.61
   LOCATION L0002836    VOLUME   293022.445
6397999.443  415.62
   LOCATION L0002837    VOLUME   293020.930
6397980.129  415.61
   LOCATION L0002838    VOLUME   293019.415
6397960.814  415.58
   LOCATION L0002839    VOLUME   293017.900
6397941.499  415.53
   LOCATION L0002840    VOLUME   293017.457
6397923.306  416.03
   LOCATION L0002841    VOLUME   293036.681
6397925.709  415.23
   LOCATION L0002842    VOLUME   293055.906
6397928.112  414.42
   LOCATION L0002843    VOLUME   293075.130
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   LOCATION L0002844    VOLUME   293094.355
6397932.918  413.05
   LOCATION L0002845    VOLUME   293113.580
6397935.321  412.70
   LOCATION L0002846    VOLUME   293132.804
6397937.724  412.35
   LOCATION L0002847    VOLUME   293152.029
6397940.127  412.01
   LOCATION L0002848    VOLUME   293171.253
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   LOCATION L0002849    VOLUME   293190.478
6397944.933  412.06
   LOCATION L0002850    VOLUME   293209.703
6397947.336  412.19
   LOCATION L0002851    VOLUME   293228.927
6397949.739  412.31
   LOCATION L0002852    VOLUME   293248.152
6397952.142  412.18
   LOCATION L0002853    VOLUME   293267.376
6397954.546  411.79
   LOCATION L0002854    VOLUME   293286.601
6397956.949  411.38
   LOCATION L0002855    VOLUME   293305.826
6397959.352  410.96
   LOCATION L0002856    VOLUME   293325.050
6397961.755  410.40
   LOCATION L0002857    VOLUME   293344.089
6397965.331  409.60
   LOCATION L0002858    VOLUME   293363.116
6397968.982  408.83
   LOCATION L0002859    VOLUME   293382.143
6397972.634  408.09
   LOCATION L0002860    VOLUME   293401.170
6397976.286  407.35
   LOCATION L0002861    VOLUME   293420.197
6397979.937  406.52
   LOCATION L0002862    VOLUME   293439.224
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   LOCATION L0002863    VOLUME   293458.251
6397987.240  404.76
   LOCATION L0002864    VOLUME   293477.278
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   LOCATION L0002865    VOLUME   293496.305
6397994.544  403.33
   LOCATION L0002866    VOLUME   293515.332
6397998.195  402.78
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6398001.847  402.25
** End of LINE VOLUME Source ID = SLINE15
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** Line Source Represented by Separated Volume
Sources
** LINE VOLUME Source ID = SLINE16
** DESCRSRC FUJI1 to ROM
** PREFIX
** Length of Side = 9.80
** Configuration = Separated
** Emission Rate = 1.0
** Vertical Dimension = 7.14
** SZINIT = 3.32
** Nodes = 4
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** 293545.624,  6398118.928,  395.09, 3.57, 9.04
** 293562.833,  6398037.188,  399.97, 3.57, 9.04
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   LOCATION L0002869     VOLUME   293879.958
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   LOCATION L0002870     VOLUME   293882.411
6398325.050  384.76
   LOCATION L0002871     VOLUME   293884.863
6398305.780  384.24
   LOCATION L0002872     VOLUME   293887.316
6398286.510  383.66
   LOCATION L0002873     VOLUME   293889.769
6398267.240  383.11
   LOCATION L0002874     VOLUME   293889.896
6398249.366  382.69
   LOCATION L0002875     VOLUME   293871.731
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6398235.601  383.44
   LOCATION L0002877     VOLUME   293835.400
6398228.719  383.95
   LOCATION L0002878     VOLUME   293817.235
6398221.836  384.73
   LOCATION L0002879     VOLUME   293799.069
6398214.954  385.50
   LOCATION L0002880     VOLUME   293780.904
6398208.071  386.27
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   LOCATION L0002882     VOLUME   293744.573
6398194.306  387.82
   LOCATION L0002883     VOLUME   293726.408
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   LOCATION L0002884     VOLUME   293708.243
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   LOCATION L0002885     VOLUME   293690.077
6398173.658  389.78
   LOCATION L0002886     VOLUME   293671.912
6398166.776  390.17
   LOCATION L0002887     VOLUME   293653.747
6398159.893  390.63
   LOCATION L0002888     VOLUME   293635.581
6398153.011  391.15
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6398146.128  391.90
   LOCATION L0002890     VOLUME   293599.251
6398139.246  392.81
   LOCATION L0002891     VOLUME   293581.085
6398132.363  393.72
   LOCATION L0002892     VOLUME   293562.920
6398125.481  394.74
   LOCATION L0002893     VOLUME   293545.816
6398118.018  395.75
   LOCATION L0002894     VOLUME   293549.818
6398099.009  396.69
   LOCATION L0002895     VOLUME   293553.819
6398080.000  397.56
   LOCATION L0002896     VOLUME   293557.821
6398060.991  398.41
   LOCATION L0002897     VOLUME   293561.823
6398041.982  399.24
** End of LINE VOLUME Source ID = SLINE16
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** Line Source Represented by Separated Volume
Sources
** LINE VOLUME Source ID = SLINE17
** DESCRSRC EGMONT to ROM
** PREFIX
** Length of Side = 9.80
** Configuration = Separated
** Emission Rate = 1.0
** Vertical Dimension = 7.14
** SZINIT = 3.32
** Nodes = 8
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** 291953.841,  6397815.629,  397.78, 3.57, 9.08
** 292059.243,  6397865.103,  393.04, 3.57, 9.08
** 292379.751,  6397880.160,  395.91, 3.57, 9.08
** 292569.044,  6397905.973,  405.83, 3.57, 9.08
** 292956.234,  6397923.181,  417.51, 3.57, 9.08
** 293313.310,  6397964.052,  412.06, 3.57, 9.08
** 293537.020,  6398004.922,  400.82, 3.57, 9.08
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   LOCATION L0002900     VOLUME   291867.101
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   LOCATION L0002901     VOLUME   291879.213
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   LOCATION L0002902     VOLUME   291891.326
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   LOCATION L0002903     VOLUME   291903.439
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   LOCATION L0002904     VOLUME   291915.552
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   LOCATION L0002909     VOLUME   291986.343
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   LOCATION L0002912     VOLUME   292039.365
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   LOCATION L0002913     VOLUME   292057.039
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   LOCATION L0002914     VOLUME   292076.313
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   LOCATION L0002915     VOLUME   292095.816
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   LOCATION L0002916     VOLUME   292115.318
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   LOCATION L0002917     VOLUME   292134.821
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   LOCATION L0002918     VOLUME   292154.324
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   LOCATION L0002919     VOLUME   292173.826
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   LOCATION L0002929     VOLUME   292368.852
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   LOCATION L0002930     VOLUME   292388.286
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   LOCATION L0002931     VOLUME   292407.631
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   LOCATION L0002932     VOLUME   292426.976
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   LOCATION L0002933     VOLUME   292446.321
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   LOCATION L0002934     VOLUME   292465.666
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   LOCATION L0002935     VOLUME   292485.011
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   LOCATION L0002936     VOLUME   292504.356
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   LOCATION L0002937     VOLUME   292523.701
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   LOCATION L0002938     VOLUME   292543.046
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   LOCATION L0002939     VOLUME   292562.391
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   LOCATION L0002945     VOLUME   292679.366
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   LOCATION L0002946     VOLUME   292698.871
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   LOCATION L0002952     VOLUME   292815.900
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   LOCATION L0002972     VOLUME   293204.622
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   LOCATION L0002978     VOLUME   293320.931
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** End of LINE VOLUME Source ID = SLINE17
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** Line Source Represented by Separated Volume
Sources
** LINE VOLUME Source ID = SLINE18
** DESCRSRC HAUL
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** Configuration = Separated
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** End of LINE VOLUME Source ID = SLINE18
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** Line Source Represented by Separated Volume
Sources
** LINE VOLUME Source ID = SLINE19
** DESCRSRC TSF Pit to TSF
** PREFIX
** Length of Side = 9.80
** Configuration = Separated
** Emission Rate = 1.0
** Vertical Dimension = 7.14
** SZINIT = 3.32
** Nodes = 4
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   LOCATION L0003735     VOLUME   293074.096
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** End of LINE VOLUME Source ID = SLINE19
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292566.162  6398408.877
  AREAVERT VES          292603.114  6398368.103
292609.485  6398346.442
  AREAVERT VES          292590.372  6398261.072
292590.372  6398243.234
  AREAVERT VES          292617.130  6398185.895
292564.888  6398165.508
  AREAVERT VES          292631.146  6398101.799
292729.258  6398073.767
  AREAVERT VES          292808.257  6398087.783
292947.143  6398161.686
  AREAVERT VES          292991.739  6398175.702
292966.256  6398205.008
  AREAVERT VES          292998.110  6398226.669
292842.660  6398407.603
  AREAVERT VES          292837.563  6398457.296
292733.080  6398551.586
  AREAVERT VES          292670.645  6398494.248
  SRCPARAM FUJI1        5.3155E-06      0.000
48
  AREAVERT FUJI1        293582.032  6398477.215
293491.313  6398571.612
  AREAVERT FUJI1        293341.748  6398650.072
293258.384  6398691.754
  AREAVERT FUJI1        293209.346  6398690.528
293119.852  6398729.759
  AREAVERT FUJI1        293019.325  6398773.893
293014.421  6398755.503
  AREAVERT FUJI1        293072.040  6398700.336
293132.112  6398681.947
  AREAVERT FUJI1        293307.421  6398500.507
293307.421  6398485.796
  AREAVERT FUJI1        293215.476  6398485.796
293152.953  6398501.733
  AREAVERT FUJI1        293123.530  6398536.060
293057.329  6398542.189
  AREAVERT FUJI1        293040.166  6398493.152
293042.618  6398412.240
  AREAVERT FUJI1        292982.547  6398429.403
292899.183  6398429.403
  AREAVERT FUJI1        292847.693  6398412.240
292891.827  6398354.620
  AREAVERT FUJI1        293216.702  6398344.813
293281.676  6398311.712
  AREAVERT FUJI1        293380.978  6398310.486
293559.965  6398316.616
  AREAVERT FUJI1        293562.417  6398350.942
293585.710  6398370.558
  AREAVERT FUJI1        293633.522  6398369.332
293655.589  6398401.206
  AREAVERT FUJI1        293681.334  6398399.980
293692.367  6398385.269
  AREAVERT FUJI1        293737.727  6398363.202
293808.832  6398339.909
  AREAVERT FUJI1        293807.606  6398330.101
293841.932  6398330.101
  AREAVERT FUJI1        293837.028  6398363.202
293889.744  6398369.332
  AREAVERT FUJI1        293908.133  6398386.495
293883.614  6398423.273
  AREAVERT FUJI1        293856.643  6398430.629
293837.028  6398403.658
  AREAVERT FUJI1        293818.639  6398403.658
293818.639  6398431.855
  AREAVERT FUJI1        293785.539  6398483.344
293697.271  6398502.959
  AREAVERT FUJI1        293615.133  6398500.507
293580.806  6398467.407
  SRCPARAM FUJI2        0.0000181516      0.000
21
  AREAVERT FUJI2        294324.953  6398315.390
294245.267  6398225.896
  AREAVERT FUJI2        294188.874  6398240.608
294116.543  6398234.478
  AREAVERT FUJI2        294058.924  6398263.901
294052.794  6398343.587
  AREAVERT FUJI2        293981.689  6398342.361
293978.012  6398292.097
  AREAVERT FUJI2        294035.631  6398250.415
294106.735  6398222.219
  AREAVERT FUJI2        294101.832  6398191.570
294150.869  6398141.306
  AREAVERT FUJI2        294271.012  6398120.465
294321.275  6398054.265
  AREAVERT FUJI2        294362.957  6398037.101
294479.422  6398049.361
  AREAVERT FUJI2        294478.196  6398060.394
294446.321  6398068.976
  AREAVERT FUJI2        294408.317  6398103.302
294399.736  6398222.219
  AREAVERT FUJI2        294375.217  6398283.516
  SRCPARAM EGM          0.0000508032      0.000
8
  AREAVERT EGM          291842.427  6397716.996
291788.911  6397731.012
  AREAVERT EGM          291721.379  6397676.222
291717.557  6397630.352
  AREAVERT EGM          291765.976  6397556.449
291819.491  6397542.433
  AREAVERT EGM          291848.798  6397527.143
291851.346  6397692.787
  SRCPARAM TSF_PIT      0.00001175      0.000
815.900   104.310     0.000
  SRCPARAM WRD_01           0.57     4.200
94.230     1.050
  SRCPARAM WRD_02           0.34     4.200
72.007     1.050
  SRCPARAM WRD_03           0.03     4.200
22.223     1.050
  SRCPARAM WRD_04           0.03     4.200
21.040     1.050
  SRCPARAM WRD_05           0.03     4.200
21.040     1.050
  SRCPARAM ROM              1.0      4.200
[redacted]
84.091     0.930
  SRCPARAM TOP_02           0.15     2.000
38.272     0.930
  SRCPARAM TOP_03           0.14     2.000
37.733     0.930
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** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0002356     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002357     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002358     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002359     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002360     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002361     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002362     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002363     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002364     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002365     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002366     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002367     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002368     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002369     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002370     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002371     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002372     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002373     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002374     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002375     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002376     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002377     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002378     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002379     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002380     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002381     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002382     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002383     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002384     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002385     0.0322580645      3.57
8.84      3.32
   SRCPARAM L0002386     0.0322580645      3.57
8.84      3.32
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** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0002421     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002422     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002423     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002424     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002425     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002426     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002427     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002428     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002429     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002430     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002431     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002432     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002433     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002434     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002435     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002436     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002437     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002438     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002439     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002440     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002441     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002442     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002443     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002444     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002445     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002446     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002447     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002448     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002449     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002450     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002451     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002452     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002453     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002454     0.0185185185      3.57
9.10      3.32
   SRCPARAM L0002455     0.0185185185      3.57
9.10      3.32
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   SRCPARAM L0002456     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002457     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002458     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002459     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002460     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002461     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002462     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002463     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002464     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002465     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002466     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002467     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002468     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002469     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002470     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002471     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002472     0.0185185185     3.57
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   SRCPARAM L0002473     0.0185185185     3.57
9.10      3.32
   SRCPARAM L0002474     0.0185185185     3.57
9.10      3.32
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** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0002475     0.0151515152     3.57
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   SRCPARAM L0002476     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002477     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002478     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002479     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002480     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002481     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002482     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002483     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002484     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002485     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002486     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002487     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002488     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002489     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002490     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002491     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002492     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002493     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002494     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002495     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002496     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002497     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002498     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002499     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002500     0.0151515152     3.57
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   SRCPARAM L0002501     0.0151515152     3.57
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   SRCPARAM L0002502     0.0151515152     3.57
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   SRCPARAM L0002503     0.0151515152     3.57
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   SRCPARAM L0002504     0.0151515152     3.57
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   SRCPARAM L0002505     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002506     0.0151515152     3.57
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   SRCPARAM L0002507     0.0151515152     3.57
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   SRCPARAM L0002510     0.0151515152     3.57
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   SRCPARAM L0002511     0.0151515152     3.57
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8.99      3.32
   SRCPARAM L0002515     0.0151515152     3.57
8.99      3.32
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8.99      3.32
   SRCPARAM L0002518     0.0151515152     3.57
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   SRCPARAM L0002519     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002520     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002521     0.0151515152     3.57
8.99      3.32
   SRCPARAM L0002522     0.0151515152     3.57
8.99      3.32
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8.99      3.32
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   SRCPARAM L0002525     0.0151515152      3.57
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8.99      3.32
   SRCPARAM L0002528     0.0151515152      3.57
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8.99      3.32
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8.99      3.32
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   SRCPARAM L0002532     0.0151515152      3.57
8.99      3.32
   SRCPARAM L0002533     0.0151515152      3.57
8.99      3.32
   SRCPARAM L0002534     0.0151515152      3.57
8.99      3.32
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8.99      3.32
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8.99      3.32
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8.99      3.32
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8.99      3.32
   SRCPARAM L0002539     0.0151515152      3.57
8.99      3.32
   SRCPARAM L0002540     0.0151515152      3.57
8.99      3.32
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** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0002541     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002542     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002543     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002544     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002545     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002546     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002547     0.010989011       3.57
9.09      3.32
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9.09      3.32
   SRCPARAM L0002549     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002550     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002551     0.010989011       3.57
9.09      3.32
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9.09      3.32
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9.09      3.32
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9.09      3.32
   SRCPARAM L0002555     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002556     0.010989011       3.57
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   SRCPARAM L0002558     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002559     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002560     0.010989011       3.57
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   SRCPARAM L0002562     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002563     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002564     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002565     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002566     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002567     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002568     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002569     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002570     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002571     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002572     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002573     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002574     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002575     0.010989011       3.57
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   SRCPARAM L0002576     0.010989011       3.57
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   SRCPARAM L0002577     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002578     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002579     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002580     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002581     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002582     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002583     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002584     0.010989011       3.57
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9.09      3.32
   SRCPARAM L0002586     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002587     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002588     0.010989011       3.57
9.09      3.32
   SRCPARAM L0002589     0.010989011       3.57
9.09      3.32
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   SRCPARAM L0002590     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002591     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002592     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002593     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002594     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002595     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002596     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002597     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002598     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002599     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002600     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002601     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002602     0.010989011     3.57
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   SRCPARAM L0002603     0.010989011     3.57
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   SRCPARAM L0002604     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002605     0.010989011     3.57
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   SRCPARAM L0002611     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002612     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002613     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002614     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002615     0.010989011     3.57
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   SRCPARAM L0002616     0.010989011     3.57
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   SRCPARAM L0002617     0.010989011     3.57
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   SRCPARAM L0002618     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002619     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002620     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002621     0.010989011     3.57
9.09      3.32
   SRCPARAM L0002622     0.010989011     3.57
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   SRCPARAM L0002623     0.010989011     3.57
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   SRCPARAM L0002629     0.010989011     3.57
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   SRCPARAM L0002630     0.010989011     3.57
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   SRCPARAM L0002631     0.010989011     3.57
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** LINE VOLUME Source ID = SLINE13
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   SRCPARAM L0002633     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002634     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002635     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002636     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002637     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002638     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002639     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002640     0.023255814     3.57
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   SRCPARAM L0002641     0.023255814     3.57
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   SRCPARAM L0002643     0.023255814     3.57
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   SRCPARAM L0002644     0.023255814     3.57
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   SRCPARAM L0002645     0.023255814     3.57
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   SRCPARAM L0002646     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002647     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002648     0.023255814     3.57
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   SRCPARAM L0002649     0.023255814     3.57
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   SRCPARAM L0002650     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002651     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002652     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002653     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002654     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002655     0.023255814     3.57
9.01      3.32
   SRCPARAM L0002656     0.023255814     3.57
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   SRCPARAM L0002658    0.023255814     3.57
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   SRCPARAM L0002659    0.023255814     3.57
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   SRCPARAM L0002660    0.023255814     3.57
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   SRCPARAM L0002661    0.023255814     3.57
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   SRCPARAM L0002662    0.023255814     3.57
9.01      3.32
   SRCPARAM L0002663    0.023255814     3.57
9.01      3.32
   SRCPARAM L0002664    0.023255814     3.57
9.01      3.32
   SRCPARAM L0002665    0.023255814     3.57
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   SRCPARAM L0002666    0.023255814     3.57
9.01      3.32
   SRCPARAM L0002667    0.023255814     3.57
9.01      3.32
   SRCPARAM L0002668    0.023255814     3.57
9.01      3.32
   SRCPARAM L0002669    0.023255814     3.57
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   SRCPARAM L0002670    0.023255814     3.57
9.01      3.32
   SRCPARAM L0002671    0.023255814     3.57
9.01      3.32
   SRCPARAM L0002672    0.023255814     3.57
9.01      3.32
   SRCPARAM L0002673    0.023255814     3.57
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   SRCPARAM L0002674    0.023255814     3.57
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   SRCPARAM L0002676    0.0068965517    3.57
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   SRCPARAM L0002677    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002678    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002679    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002680    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002681    0.0068965517    3.57
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   SRCPARAM L0002682    0.0068965517    3.57
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   SRCPARAM L0002683    0.0068965517    3.57
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   SRCPARAM L0002684    0.0068965517    3.57
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   SRCPARAM L0002685    0.0068965517    3.57
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   SRCPARAM L0002686    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002687    0.0068965517    3.57
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   SRCPARAM L0002688    0.0068965517    3.57
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   SRCPARAM L0002689    0.0068965517    3.57
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   SRCPARAM L0002690    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002691    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002692    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002693    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002694    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002695    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002696    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002697    0.0068965517    3.57
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   SRCPARAM L0002698    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002699    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002700    0.0068965517    3.57
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   SRCPARAM L0002701    0.0068965517    3.57
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   SRCPARAM L0002702    0.0068965517    3.57
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   SRCPARAM L0002703    0.0068965517    3.57
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   SRCPARAM L0002704    0.0068965517    3.57
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   SRCPARAM L0002705    0.0068965517    3.57
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   SRCPARAM L0002706    0.0068965517    3.57
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   SRCPARAM L0002707    0.0068965517    3.57
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   SRCPARAM L0002708    0.0068965517    3.57
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   SRCPARAM L0002712    0.0068965517    3.57
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   SRCPARAM L0002713    0.0068965517    3.57
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   SRCPARAM L0002714    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002715    0.0068965517    3.57
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   SRCPARAM L0002718    0.0068965517    3.57
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   SRCPARAM L0002719    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002720    0.0068965517    3.57
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   SRCPARAM L0002721    0.0068965517    3.57
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   SRCPARAM L0002722    0.0068965517    3.57
4.56      3.32
   SRCPARAM L0002723    0.0068965517    3.57
4.56      3.32
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SRCPARAM L0002790 0.0068965517 3.57 4.56 3.32
SRCPARAM L0002791 0.0068965517 3.57 4.56 3.32

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   SRCPARAM L0002793     0.0068965517      3.57
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   SRCPARAM L0002794     0.0068965517      3.57
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   SRCPARAM L0002821     0.0208333333      3.57
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   SRCPARAM L0002830     0.0208333333      3.57
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   SRCPARAM L0002831     0.0208333333      3.57
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   SRCPARAM L0002832     0.0208333333      3.57
9.01      3.32
   SRCPARAM L0002833     0.0208333333      3.57
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   SRCPARAM L0002834     0.0208333333      3.57
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   SRCPARAM L0002836     0.0208333333      3.57
9.01      3.32
   SRCPARAM L0002837     0.0208333333      3.57
9.01      3.32
   SRCPARAM L0002838     0.0208333333      3.57
9.01      3.32
   SRCPARAM L0002839     0.0208333333      3.57
9.01      3.32
   SRCPARAM L0002840     0.0208333333      3.57
9.01      3.32
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9.01      3.32
   SRCPARAM L0002842     0.0208333333      3.57
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9.01      3.32
   SRCPARAM L0002845     0.0208333333      3.57
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   SRCPARAM L0002846     0.0208333333      3.57
9.01      3.32
   SRCPARAM L0002847     0.0208333333      3.57
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   SRCPARAM L0002849     0.0208333333      3.57
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   SRCPARAM L0002850     0.0208333333      3.57
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   SRCPARAM L0002867     0.0208333333      3.57
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   SRCPARAM L0002871     0.0333333333      3.57
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   SRCPARAM L0002912     0.0108695652      3.57
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  SRCPARAM L0003249     0.0051282051     4.00
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  SRCPARAM L0003250     0.0051282051     4.00
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10.65      3.72
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10.65      3.72
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  SRCPARAM L0003268     0.0051282051     4.00
10.65      3.72
  SRCPARAM L0003269     0.0051282051     4.00
10.65      3.72
  SRCPARAM L0003270     0.0051282051     4.00
10.65      3.72
  SRCPARAM L0003271     0.0051282051     4.00
10.65      3.72
  SRCPARAM L0003272     0.0051282051     4.00
10.65      3.72
  SRCPARAM L0003273     0.0051282051     4.00
10.65      3.72
  SRCPARAM L0003274     0.0051282051     4.00
10.65      3.72
  SRCPARAM L0003275     0.0051282051     4.00
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  SRCPARAM L0003276     0.0051282051     4.00
10.65      3.72
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** LINE VOLUME Source ID = SLINE19
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9.09      3.32
  SRCPARAM L0003732          0.02     3.57
9.09      3.32
  SRCPARAM L0003733          0.02     3.57
9.09      3.32
  SRCPARAM L0003734          0.02     3.57
9.09      3.32
  SRCPARAM L0003735          0.02     3.57
9.09      3.32
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9.09      3.32
  SRCPARAM L0003737          0.02     3.57
9.09      3.32
  SRCPARAM L0003738          0.02     3.57
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9.09      3.32
  SRCPARAM L0003740          0.02     3.57
9.09      3.32
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 SRCPARAM L0003741      0.02     3.57
9.09     3.32
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 SRCPARAM L0003746      0.02     3.57
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9.09     3.32
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9.09     3.32
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9.09     3.32
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9.09     3.32
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9.09     3.32
 SRCPARAM L0003759      0.02     3.57
9.09     3.32
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9.09     3.32
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 SRCPARAM L0003762      0.02     3.57
9.09     3.32
 SRCPARAM L0003763      0.02     3.57
9.09     3.32
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9.09     3.32
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9.09     3.32
 SRCPARAM L0003766      0.02     3.57
9.09     3.32
 SRCPARAM L0003767      0.02     3.57
9.09     3.32
 SRCPARAM L0003768      0.02     3.57
9.09     3.32
 SRCPARAM L0003769      0.02     3.57
9.09     3.32
 SRCPARAM L0003770      0.02     3.57
9.09     3.32
 SRCPARAM L0003771      0.02     3.57
9.09     3.32
 SRCPARAM L0003772      0.02     3.57
9.09     3.32
 SRCPARAM L0003773      0.02     3.57
9.09     3.32
 SRCPARAM L0003774      0.02     3.57
9.09     3.32
 SRCPARAM L0003775      0.02     3.57
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 SRCPARAM L0003776      0.02     3.57
9.09     3.32
 SRCPARAM L0003777      0.02     3.57
9.09     3.32
 SRCPARAM L0003778      0.02     3.57
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 SRCPARAM L0003779      0.02     3.57
9.09     3.32
 SRCPARAM L0003780      0.02     3.57
9.09     3.32
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  PARTDIAM FUJI2 1 3.8 6.3 8.3 12.5 19 26 35 45
  PARTDIAM WRD_01 1 3.8 6.3 8.3 12.5 19 26 35
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  PARTDIAM PLANT04 1 3.8 6.3 8.3 12.5 19 26 35
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  PARTDIAM PLANT05 1 3.8 6.3 8.3 12.5 19 26 35
45
  PARTDIAM WRD_02 1 3.8 6.3 8.3 12.5 19 26 35
45
  PARTDIAM WRD_03 1 3.8 6.3 8.3 12.5 19 26 35
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  PARTDIAM WRD_04 1 3.8 6.3 8.3 12.5 19 26 35
45
  PARTDIAM WRD_05 1 3.8 6.3 8.3 12.5 19 26 35
45
  PARTDIAM ROM 1 3.8 6.3 8.3 12.5 19 26 35 45
  PARTDIAM PLANT01 1 3.8 6.3 8.3 12.5 19 26 35
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  PARTDIAM PLANT02 1 3.8 6.3 8.3 12.5 19 26 35
45
  PARTDIAM PLANT03 1 3.8 6.3 8.3 12.5 19 26 35
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  PARTDIAM VES 1 3.8 6.3 8.3 12.5 19 26 35 45
  PARTDIAM EGM 1 3.8 6.3 8.3 12.5 19 26 35 45
  PARTDIAM FUJI1 1 3.8 6.3 8.3 12.5 19 26 35 45
  PARTDIAM L0002421  1 3.8 6.3 8.3 12.5 19 26
35 45
  PARTDIAM L0002422  1 3.8 6.3 8.3 12.5 19 26
35 45
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[LINE VOLUME SOURCES TRUNCATED FOR
REPORTING]
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  PARTDIAM TOP_01  1 3.8 6.3 8.3 12.5 19 26 35
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  PARTDIAM TOP_02  1 3.8 6.3 8.3 12.5 19 26 35
45
  PARTDIAM TOP_03  1 3.8 6.3 8.3 12.5 19 26 35
45
  PARTDIAM TSF_PIT 1 3.8 6.3 8.3 12.5 19 26 35
45
  MASSFRAX FUJI2 0.09 0.08  0.07 0.06 0.14 0.15
0.15 0.15 0.11
  MASSFRAX WRD_01 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15  0.11
  MASSFRAX PLANT04 0.09 0.08 0.07 0.06  0.14
0.15 0.15 0.15  0.11
  MASSFRAX PLANT05 0.09 0.08 0.07 0.06  0.14
0.15 0.15 0.15  0.11
  MASSFRAX WRD_02 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15  0.11
  MASSFRAX WRD_03 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15  0.11
  MASSFRAX WRD_04 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15  0.11
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0.15 0.15 0.15 0.11
   MASSFRAX ROM 0.09 0.08 0.07 0.06 0.14 0.15
0.15 0.15 0.11
   MASSFRAX PLANT01 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15 0.11
   MASSFRAX PLANT02 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15 0.11
   MASSFRAX PLANT03 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15 0.11
   MASSFRAX VES 0.09 0.08 0.07 0.06 0.14 0.15
0.15 0.15 0.11
   MASSFRAX EGM 0.09 0.08 0.07 0.06 0.14 0.15
0.15 0.15 0.11
   MASSFRAX FUJI1 0.09 0.08 0.07 0.06 0.14 0.15
0.15 0.15 0.11
   MASSFRAX L0002421 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15 0.11
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[LINE VOLUME SOURCES TRUNCATED FOR
REPORTING]
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0.15 0.15 0.15 0.11
   MASSFRAX TOP_01 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15 0.11
   MASSFRAX TOP_02 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15 0.11
   MASSFRAX TOP_03 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15 0.11
   MASSFRAX TSF_PIT 0.09 0.08 0.07 0.06 0.14
0.15 0.15 0.15 0.11
   PARTDENS FUJI2 1 1 1 1 1 1 1 1 1
   PARTDENS WRD_01 1 1 1 1 1 1 1 1 1
   PARTDENS PLANT04 1 1 1 1 1 1 1 1 1
   PARTDENS PLANT05 1 1 1 1 1 1 1 1 1
   PARTDENS WRD_02 1 1 1 1 1 1 1 1 1
   PARTDENS WRD_03 1 1 1 1 1 1 1 1 1
   PARTDENS WRD_04 1 1 1 1 1 1 1 1 1
   PARTDENS WRD_05 1 1 1 1 1 1 1 1 1
   PARTDENS ROM 1 1 1 1 1 1 1 1 1
   PARTDENS PLANT01 1 1 1 1 1 1 1 1 1
   PARTDENS PLANT02 1 1 1 1 1 1 1 1 1
   PARTDENS PLANT03 1 1 1 1 1 1 1 1 1
   PARTDENS VES 1 1 1 1 1 1 1 1 1
   PARTDENS EGM 1 1 1 1 1 1 1 1 1
   PARTDENS FUJI1 1 1 1 1 1 1 1 1 1
   PARTDENS L0002421 1 1 1 1 1 1 1 1 1
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[LINE VOLUME SOURCES TRUNCATED FOR
REPORTING]
…
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   PARTDENS TOP_01 1 1 1 1 1 1 1 1 1
   PARTDENS TOP_02 1 1 1 1 1 1 1 1 1
   PARTDENS TOP_03 1 1 1 1 1 1 1 1 1
   PARTDENS TSF_PIT 1 1 1 1 1 1 1 1 1
   SRCGROUP EGM      EGM
   SRCGROUP VES-WRD  L0002421 L0002422
L0002423  L0002424 L0002425  L0002426
   SRCGROUP VES-WRD  L0002427 L0002428
L0002429  L0002430 L0002431  L0002432
   SRCGROUP VES-WRD  L0002433 L0002434
L0002435  L0002436 L0002437  L0002438
   SRCGROUP VES-WRD  L0002439 L0002440
L0002441  L0002442 L0002443  L0002444
   SRCGROUP VES-WRD  L0002445 L0002446
L0002447  L0002448 L0002449  L0002450
   SRCGROUP VES-WRD  L0002451 L0002452
L0002453  L0002454 L0002455  L0002456
   SRCGROUP VES-WRD  L0002457 L0002458
L0002459  L0002460 L0002461  L0002462
   SRCGROUP VES-WRD  L0002463 L0002464
L0002465  L0002466 L0002467  L0002468
   SRCGROUP VES-WRD  L0002469 L0002470
L0002471  L0002472 L0002473  L0002474
   SRCGROUP FUJ1-WRD L0002541 L0002542
L0002543  L0002544 L0002545  L0002546
   SRCGROUP FUJ1-WRD L0002547 L0002548
L0002549  L0002550 L0002551  L0002552
   SRCGROUP FUJ1-WRD L0002553 L0002554
L0002555  L0002556 L0002557  L0002558
   SRCGROUP FUJ1-WRD L0002559 L0002560
L0002561  L0002562 L0002563  L0002564
   SRCGROUP FUJ1-WRD L0002565 L0002566
L0002567  L0002568 L0002569  L0002570
   SRCGROUP FUJ1-WRD L0002571 L0002572
L0002573  L0002574 L0002575  L0002576
   SRCGROUP FUJ1-WRD L0002577 L0002578
L0002579  L0002580 L0002581  L0002582
   SRCGROUP FUJ1-WRD L0002583 L0002584
L0002585  L0002586 L0002587  L0002588
   SRCGROUP FUJ1-WRD L0002589 L0002590
L0002591  L0002592 L0002593  L0002594
   SRCGROUP FUJ1-WRD L0002595 L0002596
L0002597  L0002598 L0002599  L0002600
   SRCGROUP FUJ1-WRD L0002601 L0002602
L0002603  L0002604 L0002605  L0002606
   SRCGROUP FUJ1-WRD L0002607 L0002608
L0002609  L0002610 L0002611  L0002612
   SRCGROUP FUJ1-WRD L0002613 L0002614
L0002615  L0002616 L0002617  L0002618
   SRCGROUP FUJ1-WRD L0002619 L0002620
L0002621  L0002622 L0002623  L0002624
   SRCGROUP FUJ1-WRD L0002625 L0002626
L0002627  L0002628 L0002629  L0002630
   SRCGROUP FUJ1-WRD L0002631
   SRCGROUP VES-TOP  L0002356 L0002357
L0002358  L0002359 L0002360  L0002361
   SRCGROUP VES-TOP  L0002362 L0002363
L0002364  L0002365 L0002366  L0002367
   SRCGROUP VES-TOP  L0002368 L0002369
L0002370  L0002371 L0002372  L0002373
   SRCGROUP VES-TOP  L0002374 L0002375
L0002376  L0002377 L0002378  L0002379
   SRCGROUP VES-TOP  L0002380 L0002381
L0002382  L0002383 L0002384  L0002385
   SRCGROUP VES-TOP  L0002386
   SRCGROUP FUJ1-ROM L0002868 L0002869
L0002870  L0002871 L0002872  L0002873
   SRCGROUP FUJ1-ROM L0002874 L0002875
L0002876  L0002877 L0002878  L0002879
   SRCGROUP FUJ1-ROM L0002880 L0002881
L0002882  L0002883 L0002884  L0002885
   SRCGROUP FUJ1-ROM L0002886 L0002887
L0002888  L0002889 L0002890  L0002891
   SRCGROUP FUJ1-ROM L0002892 L0002893
L0002894  L0002895 L0002896  L0002897
   SRCGROUP HAUL     L0003082 L0003083
L0003084  L0003085 L0003086  L0003087
   SRCGROUP HAUL     L0003088 L0003089
L0003090  L0003091 L0003092  L0003093
   SRCGROUP HAUL     L0003094 L0003095
L0003096  L0003097 L0003098  L0003099
   SRCGROUP HAUL     L0003100 L0003101
L0003102  L0003103 L0003104  L0003105
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   SRCGROUP HAUL    L0003106 L0003107
L0003108 L0003109 L0003110 L0003111
   SRCGROUP HAUL    L0003112 L0003113
L0003114 L0003115 L0003116 L0003117
   SRCGROUP HAUL    L0003118 L0003119
L0003120 L0003121 L0003122 L0003123
   SRCGROUP HAUL    L0003124 L0003125
L0003126 L0003127 L0003128 L0003129
   SRCGROUP HAUL    L0003130 L0003131
L0003132 L0003133 L0003134 L0003135
   SRCGROUP HAUL    L0003136 L0003137
L0003138 L0003139 L0003140 L0003141
   SRCGROUP HAUL    L0003142 L0003143
L0003144 L0003145 L0003146 L0003147
   SRCGROUP HAUL    L0003148 L0003149
L0003150 L0003151 L0003152 L0003153
   SRCGROUP HAUL    L0003154 L0003155
L0003156 L0003157 L0003158 L0003159
   SRCGROUP HAUL    L0003160 L0003161
L0003162 L0003163 L0003164 L0003165
   SRCGROUP HAUL    L0003166 L0003167
L0003168 L0003169 L0003170 L0003171
   SRCGROUP HAUL    L0003172 L0003173
L0003174 L0003175 L0003176 L0003177
   SRCGROUP HAUL    L0003178 L0003179
L0003180 L0003181 L0003182 L0003183
   SRCGROUP HAUL    L0003184 L0003185
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   SRCGROUP HAUL    L0003190 L0003191
L0003192 L0003193 L0003194 L0003195
   SRCGROUP HAUL    L0003196 L0003197
L0003198 L0003199 L0003200 L0003201
   SRCGROUP HAUL    L0003202 L0003203
L0003204 L0003205 L0003206 L0003207
   SRCGROUP HAUL    L0003208 L0003209
L0003210 L0003211 L0003212 L0003213
   SRCGROUP HAUL    L0003214 L0003215
L0003216 L0003217 L0003218 L0003219
   SRCGROUP HAUL    L0003220 L0003221
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   SRCGROUP HAUL    L0003226 L0003227
L0003228 L0003229 L0003230 L0003231
   SRCGROUP HAUL    L0003232 L0003233
L0003234 L0003235 L0003236 L0003237
   SRCGROUP HAUL    L0003238 L0003239
L0003240 L0003241 L0003242 L0003243
   SRCGROUP HAUL    L0003244 L0003245
L0003246 L0003247 L0003248 L0003249
   SRCGROUP HAUL    L0003250 L0003251
L0003252 L0003253 L0003254 L0003255
   SRCGROUP HAUL    L0003256 L0003257
L0003258 L0003259 L0003260 L0003261
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L0003264 L0003265 L0003266 L0003267
   SRCGROUP HAUL    L0003268 L0003269
L0003270 L0003271 L0003272 L0003273
   SRCGROUP HAUL    L0003274 L0003275
L0003276
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   SRCGROUP TSF-TSF  L0003731 L0003732
L0003733 L0003734 L0003735 L0003736
   SRCGROUP TSF-TSF  L0003737 L0003738
L0003739 L0003740 L0003741 L0003742
   SRCGROUP TSF-TSF  L0003743 L0003744
L0003745 L0003746 L0003747 L0003748
   SRCGROUP TSF-TSF  L0003749 L0003750
L0003751 L0003752 L0003753 L0003754
   SRCGROUP TSF-TSF  L0003755 L0003756
L0003757 L0003758 L0003759 L0003760
   SRCGROUP TSF-TSF  L0003761 L0003762
L0003763 L0003764 L0003765 L0003766
   SRCGROUP TSF-TSF  L0003767 L0003768
L0003769 L0003770 L0003771 L0003772
   SRCGROUP TSF-TSF  L0003773 L0003774
L0003775 L0003776 L0003777 L0003778
   SRCGROUP TSF-TSF  L0003779 L0003780
   SRCGROUP TSF_PIT  TSF_PIT
   SRCGROUP WRD      WRD_01 WRD_02 WRD_03
WRD_04 WRD_05
   SRCGROUP VES      VES
   SRCGROUP FUJ_1    FUJI1
   SRCGROUP FUJ_2    FUJI2
   SRCGROUP ROM      ROM
   SRCGROUP PLANT    PLANT01 PLANT02
PLANT03 PLANT04 PLANT05
   SRCGROUP VES-ROM  L0002820 L0002821
L0002822 L0002823 L0002824 L0002825
   SRCGROUP VES-ROM  L0002826 L0002827
L0002828 L0002829 L0002830 L0002831
   SRCGROUP VES-ROM  L0002832 L0002833
L0002834 L0002835 L0002836 L0002837
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L0002840 L0002841 L0002842 L0002843
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L0002846 L0002847 L0002848 L0002849
   SRCGROUP VES-ROM  L0002850 L0002851
L0002852 L0002853 L0002854 L0002855
   SRCGROUP VES-ROM  L0002856 L0002857
L0002858 L0002859 L0002860 L0002861
   SRCGROUP VES-ROM  L0002862 L0002863
L0002864 L0002865 L0002866 L0002867
   SRCGROUP FUJ1-TOP L0002475 L0002476
L0002477 L0002478 L0002479 L0002480
   SRCGROUP FUJ1-TOP L0002481 L0002482
L0002483 L0002484 L0002485 L0002486
   SRCGROUP FUJ1-TOP L0002487 L0002488
L0002489 L0002490 L0002491 L0002492
   SRCGROUP FUJ1-TOP L0002493 L0002494
L0002495 L0002496 L0002497 L0002498
   SRCGROUP FUJ1-TOP L0002499 L0002500
L0002501 L0002502 L0002503 L0002504
   SRCGROUP FUJ1-TOP L0002505 L0002506
L0002507 L0002508 L0002509 L0002510
   SRCGROUP FUJ1-TOP L0002511 L0002512
L0002513 L0002514 L0002515 L0002516
   SRCGROUP FUJ1-TOP L0002517 L0002518
L0002519 L0002520 L0002521 L0002522
   SRCGROUP FUJ1-TOP L0002523 L0002524
L0002525 L0002526 L0002527 L0002528
   SRCGROUP FUJ1-TOP L0002529 L0002530
L0002531 L0002532 L0002533 L0002534
   SRCGROUP FUJ1-TOP L0002535 L0002536
L0002537 L0002538 L0002539 L0002540
   SRCGROUP EGM-ROM  L0002898 L0002899
L0002900 L0002901 L0002902 L0002903
   SRCGROUP EGM-ROM  L0002904 L0002905
L0002906 L0002907 L0002908 L0002909
   SRCGROUP EGM-ROM  L0002910 L0002911
L0002912 L0002913 L0002914 L0002915
   SRCGROUP EGM-ROM  L0002916 L0002917
L0002918 L0002919 L0002920 L0002921
   SRCGROUP EGM-ROM  L0002922 L0002923
L0002924 L0002925 L0002926 L0002927
   SRCGROUP EGM-ROM  L0002928 L0002929
L0002930 L0002931 L0002932 L0002933
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   SRCGROUP EGM-ROM  L0002940 L0002941
L0002942 L0002943 L0002944 L0002945
   SRCGROUP EGM-ROM  L0002946 L0002947
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   SRCGROUP EGM-ROM  L0002952 L0002953
L0002954 L0002955 L0002956 L0002957
   SRCGROUP EGM-ROM  L0002958 L0002959
L0002960 L0002961 L0002962 L0002963
   SRCGROUP EGM-ROM  L0002964 L0002965
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   SRCGROUP EGM-ROM  L0002970 L0002971
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   SRCGROUP EGM-WRD  L0002632 L0002633
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   SRCGROUP EGM-WRD  L0002662 L0002663
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   SRCGROUP EGM-TOP  L0002675 L0002676
L0002677 L0002678 L0002679 L0002680
   SRCGROUP EGM-TOP  L0002681 L0002682
L0002683 L0002684 L0002685 L0002686
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L0002689 L0002690 L0002691 L0002692
   SRCGROUP EGM-TOP  L0002693 L0002694
L0002695 L0002696 L0002697 L0002698
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   SRCGROUP EGM-TOP  L0002705 L0002706
L0002707 L0002708 L0002709 L0002710
   SRCGROUP EGM-TOP  L0002711 L0002712
L0002713 L0002714 L0002715 L0002716
   SRCGROUP EGM-TOP  L0002717 L0002718
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   SRCGROUP EGM-TOP  L0002771 L0002772
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L0002803 L0002804 L0002805 L0002806
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L0002815 L0002816 L0002817 L0002818
   SRCGROUP EGM-TOP  L0002819
SO FINISHED
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** AERMOD Receptor Pathway
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**
RE STARTING
   INCLUDED Audalia_Medcalf.rou
RE FINISHED
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**********************************
** AERMOD Meteorology Pathway
**********************************
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ME STARTING
   SURFFILE ..\..\AERMET\Audalia_Medcalf.SFC
   PROFFILE ..\..\AERMET\Audalia_Medcalf.PFL
   SURFDATA 0 2018
   UAIRDATA 0 2018
   SITEDATA 1 2018
   PROFBASE 420.0 METERS
   STARTEND 2018 1 1 1 2018 12 31 24
ME FINISHED
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** AERMOD Output Pathway
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   RECTABLE 1 1ST
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Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 VES-WRD UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 FUJ1-WRD UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 VES-TOP UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 FUJ1-ROM UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 HAUL UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 TOP UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 TSF-TSF UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 TSF_PIT UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 WRD UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 VES UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
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Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 FUJ_2 UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 ROM UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 PLANT UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 VES-ROM UNFORM
Audalia_Medcalf.AD\POSTFILE.POS 31
   POSTFILE 1 FUJ1-TOP UNFORM
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OU FINISHED
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** Project Parameters
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** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     -51
** ZONEINX  0
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