

# Summary of Environmental Monitoring Data 1 – 31 March 2025

# **Woodlawn Copper Zinc Project**

## **Document Review/Change History**

Date	Review/ChangeType	Revision	Authors		
	Created, Reviewed, Changed or Obsolete	No.	Reviewed by	Approved by	
16/04/2025	Document finalised	0	кс	KC	



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## **Compliance summary – March 2025**

Medium	Parameter	Compliant with license and project approval	Comment
Air	Deposited dust	Yes	-
	Total Suspended Particulate	Yes	-
	Particulate matter in the air with a diameter of 10 micrometres or less	Yes	-
Water	Surface water	NA	Reported quarterly – next due April 25
	Ground water	NA	Reported quarterly – next due April 25
Noise	Noise monitoring	NA	Not required – site not currently operational
Vibration	Blast monitoring	Yes	-



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#### 1. EPL LICENCE INFORMATION

Details of the EPL licence holder and licence versions are summarised in Table 1-1.

Table 1-1 EPL details

Environment Protection License Number	20821
Licensee	Tarago Operations Pty Ltd
Licensee address	Woodlawn Mine
Licensee address	507 Collector Road
	TARAGO NSW 2580
Premises	Woodlawn Mine
Fielilises	507 Collector Road
	TARAGO NSW 2580
Link to full linear on the	19 December 2023 Version:
Link to full licence on the EPA website	https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEONotice.aspx?DO
ELY Mensile	CID=-1&SYSUID=1&LICID=1635655
	22 September 2023 Version:
	https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?D
	OCID=284443&SYSUID=1&LICID=20821
	18 August 2022 Version:
	https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?D
	OCID=249503&SYSUID=1&LICID=20821
	16 Feb 2022 Version:
	https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?D
	OCID=236150&SYSUID=1&LICID=20821
	18 Jan 2019 Version:
	https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEONotice.aspx?DO
	CID=-1&SYSUID=1&LICID=20821
	7 May 2018 Version:
	https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEONotice.aspx?DO
	CID=-1&SYSUID=1&LICID=20821
	12 May 2017 Initial issue:
	https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEONotice.aspx?
	DOCID=-1&SYSUID=1&LICID=20821
Complaints telephone number	1800 371 124



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#### 2. INTRODUCTION

Tarago Operations Pty Ltd, a wholly owned subsidiary of Develop Global, holds Environment Protection Licence 20821 (EPL 20821) issued by the Environment Protection Agency (EPA) under the Protection of the Environment operations Act 1997 (the Act) and operates under the conditions of Project Approval 07\_0143 (MOD2) granted by the NSW Department of Planning and Infrastructure for the Woodlawn Mine Project. This report has been prepared to satisfy the reporting requirements of Section 66 (6) of the Protection of the Environment and Operations Act 1997, and also, Schedule 6, Condition 11of the Project Approval. These documents can be found on the Develop web site (https://develop.com.au).

Ownership of Woodlawn mine changed on 19 May 2022 when Develop purchased the Woodlawn Mine from Heron Resources.

The EPL was first issued on 29 March 2017 and has been reviewed numerous times since as included in Table 1-1.

This report summarises environmental monitoring results for the Woodlawn Mine for the period 1 – 31 March 2025.



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#### 3. METEOROLOGICAL MONITORING

Develop is required to undertake meteorological monitoring on site. Site weather is obtained from the meteorological station located at the EPL 11436 premises. The detailed August 2025 daily weather data is shown in Table 3-2. The total annual rainfall received on site to end of March 2025 has been 183mm.

Table 3-2 Meteorological data: March 2025

Date (Mar 25)	Temp min (°C)	Temp max (°C)	Rain (mm)	No. of wet days (total)	Weather station - Hours recorded (n)	Avg wind speed (m/s)	Avg wind direction (deg)	Evapo transpiration (mm)
1	10.42	29.38	0.00	0.00	24.0	8.2	207.1	5.55
2	14.37	27.54	0.00	0.00	24.0	11.8	83.9	4.52
3	12.92	18.75	0.00	0.00	24.0	15.0	92.2	2.55
4	12.26	20.24	0.00	0.00	24.0	15.8	96.7	4.16
5	11.07	22.36	0.00	0.00	24.0	12.7	80.9	3.48
6	12.14	21.44	0.00	0.00	24.0	13.4	99.3	3.64
7	12.23	18.83	3.50	1.00	24.0	15.8	95.2	2.07
8	12.23	20.74	0.00	0.00	24.0	14.8	79.9	2.88
9	14.89	23.37	0.00	0.00	24.0	12.1	54.6	3.90
10	14.37	26.50	12.50	1.00	24.0	8.2	83.4	0.41
11	15.76	21.63	0.50	1.00	24.0	12.7	94.2	2.53
12	15.26	22.37	0.00	0.00	24.0	7.4	71.6	0.00
13	14.44	27.66	0.00	0.00	24.0	7.7	181.2	4.36
14	15.13	29.83	0.00	0.00	24.0	9.9	199.3	1.20
15	15.48	31.32	0.00	0.00	24.0	8.1	201.0	4.81
16	18.29	30.40	0.00	0.00	24.0	22.6	267.5	0.38
17	6.70	18.14	0.00	0.00	24.0	14.6	140.6	4.46
18	7.16	21.15	0.00	0.00	24.0	10.5	70.1	0.38
19	12.05	27.59	0.00	0.00	24.0	8.9	140.9	4.09
20	18.66	25.68	0.50	1.00	24.0	10.0	276.2	3.43
21	15.40	24.06	2.00	1.00	24.0	13.0	231.9	3.33
22	14.45	24.23	0.00	0.00	24.0	8.9	115.7	3.63
23	14.86	18.60	0.00	0.00	24.0	9.4	64.8	1.26
24	15.84	25.53	0.00	0.00	24.0	8.0	94.0	0.85
25	15.29	23.41	0.00	0.00	24.0	10.6	70.2	3.16
26	15.79	25.29	0.00	0.00	24.0	8.0	59.0	4.07
27	14.82	22.30	0.00	0.00	24.0	14.1	89.9	0.00
28	14.01	18.88	1.50	1.00	24.0	14.3	86.0	1.07
29	13.40	15.95	16.00	1.00	24.0	16.8	99.5	0.78
30	13.63	17.81	4.50	1.00	24.0	17.9	131.8	1.42
31	12.64	18.52	0.50	1.00	24.0	14.2	132.1	2.94
Average/ Total	6.70	31.32	41.50	9.0	24	12.1	122.28	2.62



Summary of Environmental Monitoring Data – March 2025

The wind rose in Figure 3-1 depicts the wind speed and direction recorded at 10 m above ground level. The wind rose shows a strong easterly influence in the winds experienced across site during March 2025.

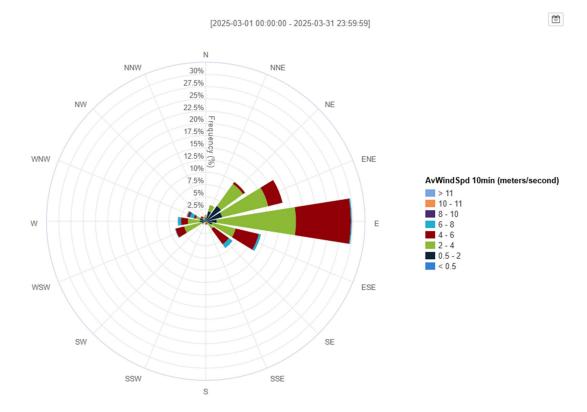


Figure 3-1 Wind rose for March 2025

#### 4. AIR QUALITY MONITORING

Air quality monitoring is undertaken in accordance with the conditions of EPL20821. There are four dust deposition gauges and two high volume air samples monitoring for PM10 and TSP separately. Table 4-3 summarises the frequency and units for monitoring data for the reporting period.

Table 4-3 Supporting information of EPL 20821 dust monitoring requirements

Parameter	Monitoring site	Monitoring frequency	Unit of measure
Air quality monitoring: Deposited Dust (insoluble solids)	DG 22, DG28, DG33, DG34	Monthly	g/m <sup>2</sup> /month
TSP	HVAS-1	24 hours every six days	μg/m³
PM10	HVAS-2	24 hours every six days	μg/m³

#### **Explanation of units of measurement**

mg/m³ = milligrams per cubic metre g/m²/month = grams per square metre per month μg/m³ = micrograms per cubic metre

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#### **WOODLAWN MINE**

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#### 4.1. Depositional Dust

Depositional dust monitoring around the Woodlawn site is undertaken on a monthly basis. Four depositional dust gauges DG22, DG28, DG33 and DG34 are present to monitor the levels of depositional dust. They are located on Site as follows:

- DG22 East side of void
- DG28 Pylara
- DG33 MBT plant
- DG34 Behind core shed

The limits for deposited dust are outlined in the Project Approval. The limits are summarised in Table 4-4 and only apply to the nearest sensitive receptor (identified in the management plan as DG28).

Table 4-4 Deposited dust limits

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level (Australian standard Limit)
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

 $<sup>^{</sup>d} \texttt{Wrvdsp} \ sdfw+ \texttt{Ih} \texttt{Hagfuhp} \ hqwdsp fuhdvh \texttt{Hagfuhqvdwhrqvtgxh} \texttt{wrmfwts} \textbf{av} \texttt{wh} \texttt{htsurmfwts} \textbf{av} \texttt{wth} \texttt{dfnjurxqg} \texttt{Hfrqfhqwdwhrqvtgxh} \texttt{wr} \texttt{wth} \texttt{wth$ 

Air quality results derived from the depositional dust gauges for March 2025 are shown in Table 4-5. The elevated temperatures and sporadic rainfall conditions experienced across the region during January contributed to higher amounts of insoluble solids being detected across the dust gauge network.

As further discussed in the updated Air Quality Management Plan (currently with the Department of Planning, Housing and Infrastructure for review and approval before it can be publicly available) insoluble solids represent the matter which does not dissolve in water whereby ash content is the matter that remains after the same sample has been combusted in the laboratory. Insoluble solids, therefore, also includes natural organic matter such as pollen which is why ash content is important in determining the impact of site activities on the results and is also presented in Table 4-5.

Table 4-5 March 2025 DDG results

DDG ID	EPL ID	Start date	End date	Insoluble solids (g/m2/month)	Rolling annual average (g/m2/month) <sup>1</sup>	Ash Content (g/m2/month)
DG22	2	06/03/2025	01/04/2025	1.9	1.73	1.44
DG28	1	06/03/2025	01/04/2025	1.6	1.66	0.74
DG33	4	06/03/2025	01/04/2025	0.7	1.58	0.38
DG34	25	06/03/2025	01/04/2025	1.2	1.18	0.71

<sup>&</sup>lt;sup>4#</sup>Uradyj#dyhudjh#Eddixadwhg#ehwzhhq#Pdufk#57#,#Pdufk#58#

fishsrvikingflyxwffuthræthhtivvhvyngflivflyvroxeonthrogyttivfghiliphgfle|flwdqgdugvffxwdidiffbV20]Vf68;314314=5336#Phwkrgvffart VdpsdrjflqgffqddvivfætfpelhqwfblfffkhwnplydwirgfætfsdwifxwdwhfPdwhufffhsrvikingfPdwhufffudylphwiffPhwkrgff



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#### 4.1.1. Compliance comments

Depositional dust results are within the criteria set out in the PA and the rolling annual average emissions are within the criteria set out in the PA.

#### 4.2. Atmospheric dust – particulate matter

The Project Approval requires monitoring of total suspended particulate (TSP) matter and particulate matter <  $10\mu m$  (PM10) to ensure particulate matter emissions generated by the project do not exceed the criteria listed at any residence on privately owned land. High volume air sampling (HVAS) equipment for atmospheric monitoring was installed on 16 October 2017 at Pylara Farm Homestead the nearest residence located to the east of Woodlawn Mine. Monitoring commenced on 17 October 2017 and is undertaken for a 24 hour cycle every 6 days.

The limits for TSP and PM10 outlined in the Project Approval (PA) are detailed in Table 4-6. Results for March 2025 are shown in Table 4-7.

Table 4-6 TSP and PM10 limits

Pollutant	Averaging Period	Criterion <sup>a</sup>
Total suspended particulate (TSP) matter	Annual	<sup>b</sup> 90 μg/m <sup>3</sup>
Particulate matter < 10 μm (PM <sub>10</sub> )	Annual	<sup>b</sup> 30 μg/m <sup>3</sup>
Particulate matter < 10 μm	24 hour	<sup>b</sup> 50 µg/m³

 $<sup>\</sup>label{eq:control_decomposition} $$ \frac{d}{dt} = \frac{d}{dt} \frac{d}{dt}$ 

Table 4-7 PM10 and TSP results March 2025

Date	PM10 (μg/m³)	PM10 rolling annual average	TSP (µg/m³)	TSP Rolling annual average
03/03/2025	9	7.75	13.3	13.06
09/03/2025	6.9	7.69	12.1	13.02
15/03/2025	25.1	8.00	53.9	13.63
21/03/2025	3.4	7.90	8.3	13.57
27/03/2025	4.9	7.86	9.98	13.49

#### 4.2.1. Compliance comments

The PM10 and TSP results for 24 hour period are within the criteria set out in the PA. The rolling annual average emissions are within the criteria set out in the PA.

 $<sup>^{\</sup>circ}$ Wrvddp sdfwllhdffthp hqwddffthdvhldffrqfhqwdwlrqvlgxhlwrllhdfwlswrlledfnjurxgglffrqfhqwdwlrqvlgxhlwrllddrwkhull vrxufhv,  $^{\circ}$ 



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#### 5. SURFACE WATER MONITORING

Develop carries out surface water quality monitoring at six locations designated in EPL 20821. Monitoring and reporting is undertaken for the parameters and at the frequencies prescribed in EPL 20281 Condition M2.2. The locations are:

- Site 115 Allianoyonyiga Creek
- Site 105 Crisps Creek
- Site 100 Woodlawn/Wileroo Boundary South, below Waste Rock Dam
- Site 109 Pylara Boundary below South Tailings Dam
- Site 300 Processing Plant Pollution Control Dam
- Tailings Storage Facility 4 (TSF4)

Of the six surface monitoring locations designated in the EPL, two monitor water quality within the process water circuit, and the remaining 4 are for monitoring ephemeral analogue sites. The purpose of the surface water monitoring program is to ensure that mining operations have minimal impact on water quality.

Surface water quality results for the quarter January to March 2025 will be reported in the April 2025 report.

#### 6. GROUND WATER MONITORING

Groundwater monitoring is carried out quarterly at 11 ground water monitoring points in accordance with the requirements of EPL 20821. Monitoring and reporting is undertaken for the parameters and at the frequencies prescribed in EPL 20281 Condition M2.2. The purpose of the groundwater monitoring program is to ensure water quality impacts associated with the mining operation are minimised. There are three analogue groundwater locations and eight groundwater monitoring points listed in the EPL. The locations are:

- MB4 upgradient from the processing plant site
- MB5 southern face of the rehabilitated waste rock dump
- MB6 adjacent to mine entry
- MB8 adjacent to Collector Road and downstream of processing plant site
- MB11 below ED2 dam wall
- MB12 below ED2 dam wall
- MB13 western premises boundary
- MB14 background ground water quality site
- MB15 measure seepage from Rehabilitated Waste Rock Dump
- MB16 measures seepage from Rehabilitated Waste Rock Dump
- MB17 measures seepage from Rehabilitated Waste Rock Dump

Ground water monitoring results for the quarter January to March 2025 will be reported in the April 2025 report.



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#### 7. NOISE MONITORING

The EPL stipulates that noise from the premises must not exceed an L Aeq, 15 minute noise level of 35dB(A) at any sensitive receivers under the following meteorological conditions:

- Wind speeds up to 3 m/s at 10m above ground level or
- Temperature inversion conditions of up to 3°C/100m and wind speeds up to 2 m/s at 10 m above ground level.

Following the announcement by Heron Resources on 25 March 2020 that Woodlawn mine would enter care and maintenance, there has been no operational activities undertaken on the site. Since the purchase of Woodlawn Mine by Develop in May 2022, there have been no surface mining operations carried out. Consequently, noise monitoring was not undertaken during March 2025.

#### 8. BLAST MONITORING

EPL 20821 stipulates the criteria to be met to ensure that air-blast overpressure level from blasting at the Woodlawn project does not exceed the criteria detailed in Table 8-8 at any residence on privately owned land.

Table 8-8 Blasting criteria

Location	Time of blasting	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Residence on	Any time	120	10	0%
any privately- owned land	Day	115	5	5% of the total number of blasts over a period of 12 months
	Evening -	-	2	5% of the total number of blasts over a period of 12 months
	Night, and all day on Sundays and public holidays	-	1	0%

All blast data and blast events that trigger the monitoring equipment is recorded with the data retained on site. Blasting activities have recommenced from 8 August 2024. The blast log for March 2025 is contained in Table 8-9.



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Table 8-9 Blast log March 2025

Blast Monitor ID: UM15923		ID: UM15923 Monitor	Blast Monitor ID: UM14301 Monitor		
Date	Time	PPV (mm/s)	location	PPV (mm/s)	location
1-Mar-25	05:40	Not Detected	On Site	Not Detected	On Site
2-Mar-25	05:45	Not Detected	On Site	Not Detected	On Site
2-Mar-25	17:30	Not Detected	On Site	Not Detected	On Site
3-Mar-25	05:30	Not Detected	On Site	Not Detected	On Site
3-Mar-25	17:30	Not Detected	On Site	Not Detected	On Site
4-Mar-25	05:30	Not Detected	On Site	Not Detected	On Site
4-Mar-25	17:30	Not Detected	On Site	Not Detected	On Site
5-Mar-25	05:50	Not Detected	On Site	Not Detected	On Site
5-Mar-25	17:30	Not Detected	On Site	Not Detected	On Site
6-Mar-25	00:00	Not Detected	On Site	Not Detected	On Site
6-Mar-25	05:50	Not Detected	On Site	Not Detected	On Site
6-Mar-25	17:50	Not Detected	On Site	Not Detected	On Site
7-Mar-25	05:34	Not Detected	On Site	Not Detected	On Site
7-Mar-25	17:50	Not Detected	On Site	Not Detected	On Site
8-Mar-25	05:17	Not Detected	On Site	Not Detected	On Site
8-Mar-25	17:50	Not Detected	On Site	Not Detected	On Site
9-Mar-25	05:54	Not Detected	On Site	Not Detected	On Site
10-Mar-25	06:00	Not Detected	On Site	Not Detected	On Site
10-Mar-25	17:50	Not Detected	On Site	Not Detected	On Site
11-Mar-25	02:30	Not Detected	On Site	Not Detected	On Site
11-Mar-25	17:45	Not Detected	On Site	Not Detected	On Site
12-Mar-25	05:30	Not Detected	On Site	Not Detected	On Site
12-Mar-25	17:30	Not Detected	On Site	Not Detected	On Site
13-Mar-25	05:30	Not Detected	On Site	Not Detected	On Site
13-Mar-25	17:30	Not Detected	On Site	0.429	On Site
14-Mar-25	05:30	Not Detected	On Site	0.302	On Site
14-Mar-25	17:50	Not Detected	On Site	Not Detected	On Site
15-Mar-25	05:30	Not Detected	On Site	Not Detected	On Site
15-Mar-25	17:40	Not Detected	On Site	0.419	On Site
16-Mar-25	05:30	Not Detected	On Site	0.239	On Site
16-Mar-25	17:40	Not Detected	On Site	0.472	On Site
17-Mar-25	05:30	Not Detected	On Site	0.255	On Site
17-Mar-25	17:30	Not Detected	On Site	0.38	On Site
18-Mar-25	05:30	Not Detected	On Site	Not Detected	On Site
18-Mar-25	17:30	Not Detected	On Site	Not Detected	On Site
19-Mar-25	05:35	Not Detected	On Site	0.228	On Site
19-Mar-25	18:00	Not Detected	On Site	Not Detected	On Site
20-Mar-25	05:35	Not Detected	On Site	0.272	On Site
20-Mar-25	18:00	Not Detected	On Site	Not Detected	On Site
21-Mar-25	5:30	Not Detected	On Site	0.272	On Site



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		Blast Monitor ID: UM15923 Monitor		Blast Monitor ID: UM14301 Monitor	
Date	Time	PPV (mm/s)	location	PPV (mm/s)	location
21-Mar-25	18:00	Not Detected	On Site	Not Detected	On Site
22-Mar-25	05:45	Not Detected	On Site	0.354	On Site
22-Mar-25	18:00	1.38	On Site	Not Detected	On Site
23-Mar-25	5:30	Not Detected	On Site	Not Detected	On Site
23-Mar-25	18:00	Not Detected	On Site	0.251	On Site
24-Mar-25	06:45	Not Detected	On Site	Not Detected	On Site
24-Mar-25	18:00	0.209	On Site	0.601	On Site
25-Mar-25	02:30	Not Detected	On Site	Not Detected	On Site
25-Mar-25	18:00	0.668	On Site	0.676	On Site
27-Mar-25	5:40	Not Detected	On Site	Not Detected	On Site
27-Mar-25	14:00	Not Detected	On Site	Not Detected	On Site
27-Mar-25	18:00	Not Detected	On Site	Not Detected	On Site
28-Mar-25	05:40	Not Detected	On Site	0.382	On Site
28-Mar-25	18:00	Not Detected	On Site	Not Detected	On Site
29-Mar-25	05:30	Not Detected	On Site	Not Detected	On Site
29-Mar-25	17:30	Not Detected	On Site	Not Detected	On Site
30-Mar-25	05:30	Not Detected	On Site	Not Detected	On Site
30-Mar-25	17:30	Not Detected	On Site	0.319	On Site
31-Mar-25	05:40	Not Detected	On Site	Not Detected	On Site
31-Mar-25	17:30	Not Detected	On Site	Not Detected	On Site

### 8.1.1. Compliance comments

The blast results are within the criteria set out in the PA.

#### 9. COMPLAINTS

A complaints register is available on the Develop website (under the link *community documents*') and is updated monthly.