

NORTON GOLD FIELDS

# Annual Environmental Report

L9242



**Reporting Period:**

**1 July 2024 – 30 June 2025**

**ZERO HARM** - TEAMWORK - INNOVATION - PERFORMANCE DRIVEN - EFFICIENCY

## Table of Contents

1. Introduction .....	3
2. Operational Overview 2023-2024 .....	5
2.1. Golden Cities Operations .....	5
3. L9242 Golden Cities .....	6
3.1. Summary of any failure or malfunction .....	6
3.2. Measures taken to suppress dust .....	6
3.3. Monitoring of point source emissions to groundwater .....	6
3.4. Complaints Summary .....	10
3.5. Annual Audit Compliance Report .....	10
Appendix 1 –Laboratory Data for Golden Cities .....	11
Appendix 2 – L9242/2020/1 AACR.....	12

## Table of Tables

Table 1-1 Details of Reporting DWER Licences .....	3
Table 2-1 Summary of Golden Cities Material Transfers.....	5
Table 3-1 Monitoring of Point Source Emissions to Groundwater – Golden Arrow .....	7
Table 3-2 Monitoring of Point Source Emissions to Groundwater – Jakata .....	8
Table 3-3 Monitoring of Point Source Emissions to Groundwater – Mulgarrie .....	9
Table 3-4 Laboratory Analysis for Golden Cities Emission points .....	10

## Table of Figures

Figure 1-1 Map of Reporting Licences Locations and Norton Gold Fields Tenements .	4
Figure 2-1 Golden City Licence Activities .....	5

## 1. Introduction

This report has been prepared to address the requirements of an Annual Environmental Report, as provided within the Operating Licence conditions issued by the Department of Water and Environmental Regulation (DWER), to Norton Gold Fields Pty Ltd (Norton) or its subsidiary Paddington Gold Pty Ltd. This report has been prepared to comply with:

- L9242/2020/1 – Golden Cities – Condition 7

Each of the licences listed above has an annual reporting period of 12 months, commencing the 1<sup>st</sup> of July 2024 until the 30<sup>th</sup> of June 2025. This report is specific to the 2024-2025 calendar year. A brief Summary of the details is shown in **Table 1-1** and the areas covered by licences shown in **Figure 1-1**.

*Table 1-1 Details of Reporting DWER Licences*

Licence Number	Project	Expiry Date	Prescribed Activities	Assessed Production or Design Capacity
L9242/2020/1	Golden Cities	10/06/2040	Category 6: Mine dewatering	7,000,000 kL per annual period
			Category 12: Screening	1,000,000 tonnes per annual period

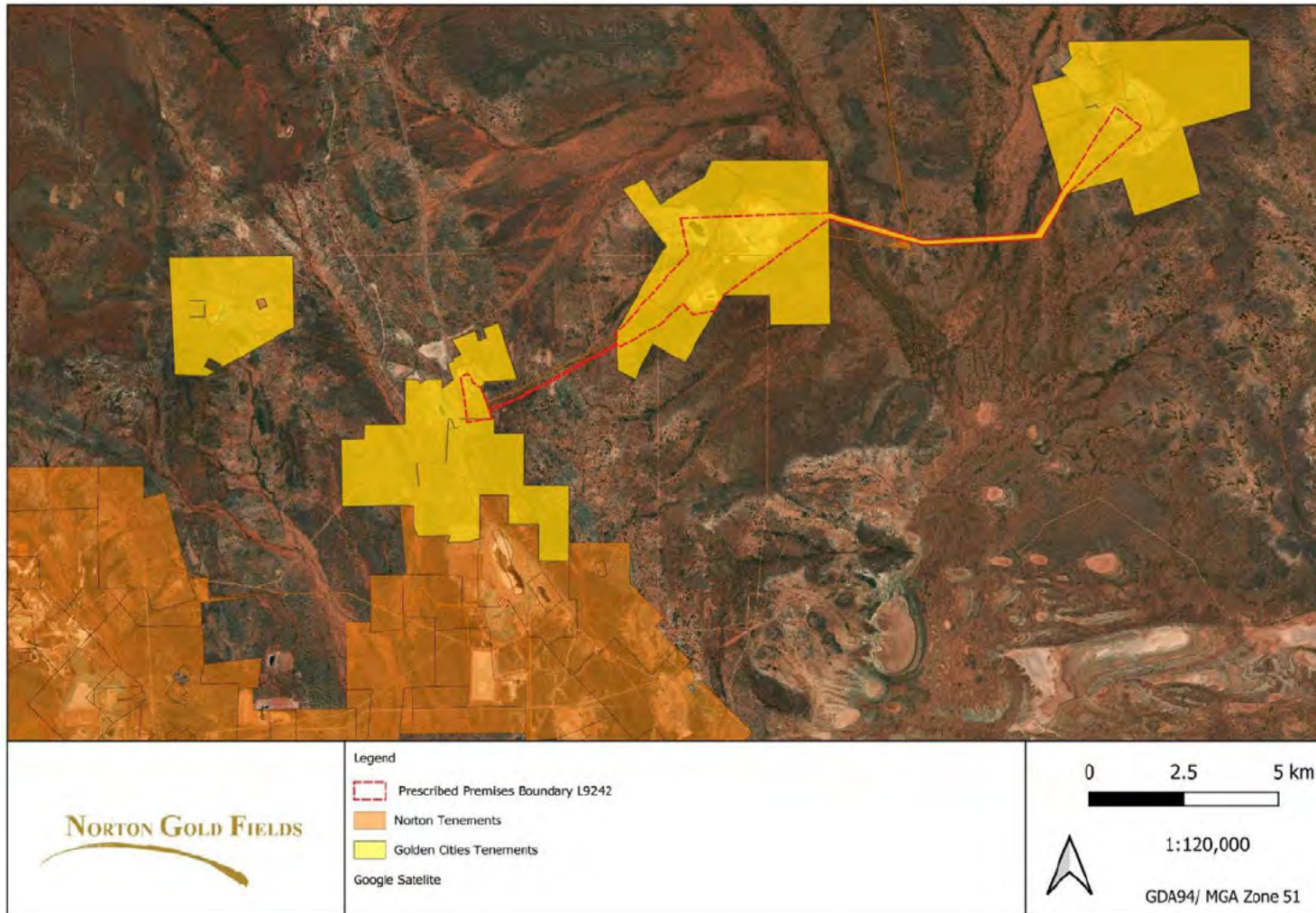


Figure 1-1 Map of Reporting Licences Locations and Norton Gold Fields Tenements

**ZERO HARM - TEAMWORK - INNOVATION - PERFORMANCE DRIVEN - EFFICIENCY**

## 2. Operational Overview 2023-2024

### 2.1. Golden Cities Operations

The Golden Cities Operations Licence (L9242) allows for dewatering to support Federal, Havana and Mulgarrie mining operations. During the 2024/25 annual period Norton mined 520,761 tonnes of ore which was processed at Nortons Paddington Plant. A more detailed breakdown is shown in Table 2-1. No crushing and screening activities were undertaken at Golden Cities during the reporting period.

Table 2-1 Summary of Golden Cities Material Transfers

Havana	Mulgarrie	Federal	Total
Total moved material (tonnes)			
2,385,306	54,483	602,364	520,761
Total moved ore (tonnes)			
53,940	39,637	427,184	3,042,153

Dewatering over the annual period consisted of a total of 5,485,613KL. This included dewatering from Federal to Mulgarrie (2,394,077KL) Havana discharging into Mulgarrie (780,960KL), Dewatering from Havana to Golden Arrow (1,304,663KL) and dewatering from Federal into Jakarta (1,005,913). The activities are shown in **Figure 2-1**.

The Golden Cities Operations will continue to comprise of open pit operations with the addition of underground operations at Federal in the 2024-2025 period.

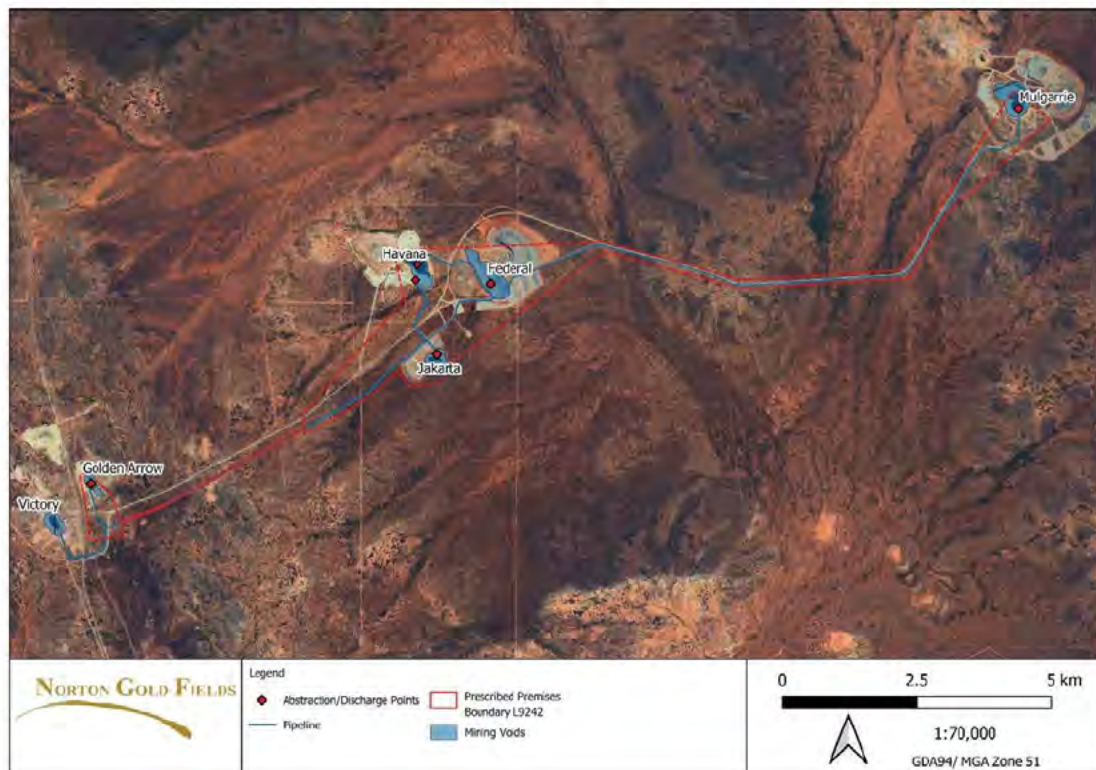


Figure 2-1 Golden City Licence Activities

### 3. L9242 Golden Cities

#### 3.1. Summary of any failure or malfunction

An incident occurred during the 2024-2025 annual period in relation to the failure of pollution control equipment.

The incident occurred on the 08/05/2025, in which a saline water storage tank overflowed. Most of the spill was contained by existing infrastructure with 170m<sup>3</sup> not being contained impacting 10,035m<sup>2</sup>. The area is being monitored to determine any environmental impact. The spill was reported to DEMIRS and DWER on the 9<sup>th</sup> of May 2025.

#### 3.2. Measures taken to suppress dust

Dust suppression activities are conducted as required in trafficked areas to manage dust emissions. These activities are managed to reduce the potential for adverse impact to vegetation and topsoil resources resulting from the application of hypersaline groundwater during this process. Abstracted groundwater (saline to hypersaline) is applied where dust suppression is required. This water is applied via a water cart at low pressures to reduce the potential for overspray onto adjacent vegetation or topsoil stockpiles. Haulage routes feature v-drains and/or bunds to prevent inadvertent runoff of saline/hypersaline water that may adversely impact vegetation and stockpiles.

#### 3.3. Monitoring of point source emissions to groundwater

Water from Havana Pit was dewatered into Golden Arrow Pit. A total of 1,304,663KL was discharged. Standing water level was recorded monthly showing a freeboard of greater than 6m throughout the year and monthly field monitoring was carried out. Annual sampling was undertaken in June. the monthly freeboard and flowmeter readings are presented in **Table 3-1**.

Water from Federal Pit was dewatered into Jakarta Pit. A total of 1,005,913KL was discharged. Standing water level was recorded monthly showing a freeboard of greater than 6m throughout the year and monthly field monitoring was carried out. Annual sampling was undertaken in June. The monthly freeboard and flowmeter readings are presented in **Table 3-2**.

Water from both Havana and Federal Pit were dewatered into Mulgarrie Pit. A total of 3,175,037KL was discharged. Standing water level was recorded monthly showing a freeboard of greater than 6m throughout the year and monthly field monitoring was carried out. Annual sampling was undertaken in June. The monthly freeboard and flowmeter readings are presented in **Table 3-3**.

Golden Arrow, Jakarta and Mulgarrie had monthly field readings taken as shown in **Table 3-1** to **Table 3-3**, as well as laboratory analysis carried out on 11<sup>th</sup> of June 2025, the results being shown in **Table 3-4**.

Table 3-1 Monitoring of Point Source Emissions to Groundwater – Golden Arrow

Emission Point	Parameter	Result		Averaging period	Method	Sample date
		Monthly	Cumulative			
Golden Arrow pit	Volume of dewatering water (kL)	0	0	Continuous	Flow meter reading	Jul-24
		0	0			Aug-24
		203,372	203,372			Sep-24
		153,291	356,663			Oct-24
		305,654	662,317			Nov-24
		168,480	830,797			Dec-24
		254,548	1,085,345			Jan-25
		120,119	1,205,464			Feb-25
		99,199	1,304,663			Mar-25
		0	1,304,663			Apr-25
		0	1,304,663			May-25
		0	1,304,663			Jun-25
		Freeboard (m) (6m below crest)	SWL			Freeboard
	355.82		47.18	Aug-24		
	355.82		47.18	Sep-24		
	370.31		32.69	Oct-24		
	379.89		23.11	Nov-24		
	386.13		16.87	Dec-24		
	389.53		13.47	Jan-25		
	393.00		10.00	Feb-25		
	394.91		8.09	Mar-25		
	395.53		7.48	Apr-25		
	395.07		7.93	May-25		
	394.71		8.29	Jun-25		
	394.34		8.66			
	Water Quality parameters	pH	TDS	Monthly spot sample	Field Measurements	Jul-24
		N/A	N/A			Aug-24
		N/A	N/A			Sep-24
		7.39	82,500			Oct-24
		7.58	86,100			Nov-24
		7.49	83,170			Dec-24
		7.1	82,500			Jan-25
		7.69	83,200			Feb-25
7.72		78,700	Mar-25			
7.75		81,500	Apr-25			
7.78		83,600	May-25			
7.91		85,600	Jun-25			
7.94		82,100				

Table 3-2 Monitoring of Point Source Emissions to Groundwater – Jakarta

Emission Point	Parameter	Result		Averaging period	Method	Sample date			
		Monthly	Cumulative						
Jakarta pit	Volume of dewatering water (kl)	134,446	134,446	Continuous	Flow meter reading	Jul-24			
		0	134,446			Aug-24			
		0	134,446			Sep-24			
		0	134,446			Oct-24			
		0	134,446			Nov-24			
		0	134,446			Dec-24			
		158,979	293,425			Jan-25			
		115,737	409,162			Feb-25			
		136,591	545,753			Mar-25			
		122,784	668,537			Apr-25			
		148,780	817,317			May-25			
		188,596	1,005,913			Jun-25			
		Freeboard (m) (6m below crest)	SWL			Freeboard	Monthly spot sample	Survey	Jul-24
			359.35			6.65			Aug-24
	359.24		6.76	Sep-24					
	358.60		7.40	Oct-24					
	357.94		8.06	Nov-24					
	357.27		8.73	Dec-24					
	357.18		8.82	Jan-25					
	357.59		8.41	Feb-25					
	357.89		8.11	Mar-25					
	358.02		7.98	Apr-25					
	359.30		6.70	May-25					
	359.61		6.39	Jun-25					
	358.75		7.25						
	Water Quality parameters		pH	TDS	Monthly spot sample	Field Measurements			Jul-24
		7.44	76,380	Aug-24					
		7.22	71,450	Sep-24					
		7.11	73,500	Oct-24					
		7.31	78,100	Nov-24					
		7.29	83,290	Dec-24					
		7.11	74,600	Jan-25					
		8.2	71,200	Feb-25					
7.56		73,300	Mar-25						
7.21		78,100	Apr-25						
7.35		71,000	May-25						
7.11		75,000	Jun-25						
7.72		76,100							

Table 3-3 Monitoring of Point Source Emissions to Groundwater – Mulgarrie

Emission Point	Parameter	Result		Averaging period	Method	Sample date			
		Monthly	Cumulative						
Mulgarrie pit	Volume of dewatering water (kL)	565,294	153,060	Continuous	Flow meter reading	Jul-24			
		443,750	251,250			Aug-24			
		375,940	349,440			Sep-24			
		335,930	529,920			Oct-24			
		410,430	589,200			Nov-24			
		442,360	780,960			Dec-24			
		172,111	953,071			Jan-25			
		124,913	1,077,984			Feb-25			
		151,979	1,229,963			Mar-25			
		135,866	1,365,829			Apr-25			
		153,230	1,519,059			May-25			
		136,574	3,175,037			Jun-25			
		Freeboard (m) (6m below crest)	SWL			Freeboard	Monthly spot sample	Survey	Jul-24
			306.00			58			Aug-24
	307.62		56.378	Sep-24					
	308.39		55.609	Oct-24					
	309.29		54.71	Nov-24					
	309.60		54.4	Dec-24					
	310.59		53.41	Jan-25					
	313.05		50.95	Feb-25					
	313.38		50.622	Mar-25					
	313.70		50.304	Apr-25					
	313.95		51.1	May-25					
	314.56		50.4	Jun-25					
	Water Quality parameters	pH	TDS	Monthly spot sample	Field Measurements	Jul-24			
		7.55	83,850			Aug-24			
		7.42	82,240			Sep-24			
		7.88	80,000			Oct-24			
		7.49	72,100			Nov-24			
		7.49	83,710			Dec-24			
		7.22	75,600			Jan-25			
		7.4	78,100			Feb-25			
		7.55	75,900			Mar-25			
7.3		72,500	Apr-25						
7.4		82,170	May-25						
7.7		81,220	Jun-25						
7.61	81,300								

Table 3-4 Laboratory Analysis for Golden Cities Emission points

Analyte	Units	Golden Arrow	Jakarta	Mulgarrie
pH		7.81	7.63	7.69
Conductivity		121,000	120,000	119,000
Total Dissolved Solids	mg/L	113,000	112,000	108,000
Hydroxide	mg/L	<1	<1	<1
Carbonate	mg/L	<1	<1	<1
Bicarbonate	mg/L	122	136	131
Alkalinity	mg/L	122	136	131
Reactive Silica	mg/L	20.0	18.4	20.2
Sulfate	mg/L	4,540	4,460	4,610
Chloride	mg/L	61,800	61,800	60,200
Nitrite	mg/L	0.40	1.27	0.07
Nitrate	mg/L	7.27	2.84	4.44
Nitrate+Nitrate	mg/L	7.67	4.11	4.51
Calcium	mg/L	2,620	2,610	2,540
Magnesium	mg/L	3,140	2,950	2,980
Potassium	mg/L	246	183	223
Sodium	mg/L	31,700	31,700	30,400
Mercury	mg/L	<0.00020	<0.00020	<0.00020
Chromium (VI)	mg/L	0.002	0.003	<0.001
Aluminium	µg/L	0.074	0.999	0.014
Antimony	µg/L	<0.0010	<0.0010	0.0020
Arsenic	µg/L	0.0124	0.0026	0.0432
Barium	µg/L	0.113	0.106	0.106
Beryllium	µg/L	<0.0002	<0.0002	<0.0002
Boron	µg/L	8.94	7.19	8.29
Cadmium	µg/L	0.0040	0.0016	0.0026
Chromium	µg/L	0.0086	0.0285	0.0076
Cobalt	µg/L	0.002	0.003	0.002
Copper	µg/L	0.215	1.5	0.024
Iron	µg/L	0.0003	0.0064	0.0018
Lead	µg/L	0.267	1.95	0.349
Manganese	µg/L	0.074	0.999	0.014
Molybdenum	µg/L	0.0779	0.0343	0.0578
Nickel	µg/L	0.0552	0.0625	0.0717
Selenium	µg/L	0.004	<0.004	0.004
Silver	µg/L	0.0016	0.0011	0.0030
Tin	µg/L	<0.01	<0.01	<0.01
Zinc	µg/L	<0.01	0.077	0.02
Total Anions		1,840	1,840	1,800
Total Cation		1,770	1,760	1,700
Ionic Balance		1.82	2.29	2.77

### 3.4. Complaints Summary

Norton received no complaints in relation to activities conducted at Golden Cities in the 2024-2025 reporting period.

### 3.5. Annual Audit Compliance Report

The Annual Audit Compliance Report for L9242/2020/1 is provided in Appendix 2 – L9242/2020/1 AACR.

## Appendix 1 –Laboratory Data for Golden Cities

## Appendix 2 – L9242/2020/1 AACR



## Annual Audit Compliance Report Form

*Environmental Protection Act 1986, Part V Division 3*

Once completed, please submit this form either via email to [info@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au), or to the below postal address:

Department of Water and Environmental Regulation  
Locked Bag 10  
Joondalup DC WA 6919

Section A – Licence details			
Licence number:	L9242/2020/1	Licence file number:	DER2020/000062
Licence holder name:	Paddington Gold Pty Limited		
Trading as:			
ACN:	008 585 886		
Registered business address:	Level 1 Viskovich House 377 Hannan Street KALGOORLIE WA 6430		
Reporting period:	01/07/2024 to 30/06/2025		

Section B – Statement of compliance with licence conditions
Did you comply with all of your licence conditions during the reporting period? (please tick the appropriate box)
<input type="checkbox"/> Yes – please complete: <ul style="list-style-type: none"><li>• section C;</li><li>• section D (if required); and</li><li>• sign the declaration in Section F.</li></ul>
<input checked="" type="checkbox"/> No – please complete: <ul style="list-style-type: none"><li>• section C;</li><li>• section D (if required);</li><li>• section E; and</li><li>• sign the declaration in Section F.</li></ul>

Section C – Statement of actual production	
Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	Actual production quantity
Category 6: Mine dewatering	5,485,613 KL
Category 12: Screening etc. of material	0 Tonnes

Section D – Statement of actual Part 2 waste discharge quantity	
Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	Actual Part 2 waste discharge quantity
Category 6: Mine dewatering	N/A

**Section E – Details of non-compliance with licence condition**

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no:	2	Date(s) of non-compliance:	08/05/2025
---------------	---	----------------------------	------------

Details of non-compliance:

A saline water spill has resulted due to the failure of a generator supplying power to a stage pump responsible for transferring water from the receiving tank to various pits for storage. On identification of the fault and subsequent spill, the site electrician was informed and associated pumps were shut down to prevent further pumping of water.

What was the actual (or suspected) environmental impact of the non-compliance?

**NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

The environmental impact is still being evaluated, utilising photo monitoring of the potentially impacted area. A possible impact would be vegetation loss as a result of the hypersaline water spill.

See attached map for the area impacted.



Cause (or suspected cause) of non-compliance:

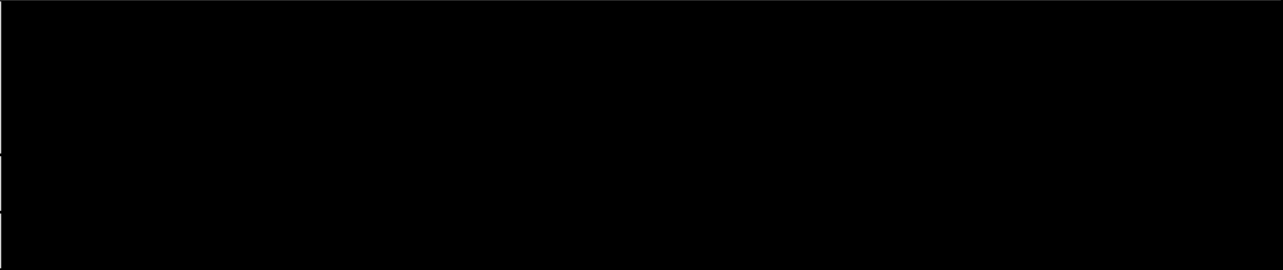
Section E – Details of non-compliance with licence condition	
Current investigations suggest that failure of the stage pump was the result of a generator trip due to a circuit breaker fault. This resulted in the receiving tank overflowing.	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
Norton intend to complete the following actions to prevent future incidents: <ul style="list-style-type: none"> <li>• Conduct additional inspections on the transfer pump stations to identify faults early</li> <li>• Maintain regular inspections on pipelines and associated infrastructure to ensure integrity..</li> </ul>	
Was this non-compliance previously reported to DWER?	
<input checked="" type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date: / /
<input checked="" type="checkbox"/> Reported to DWER in writing	Date: 09/05/2025

Section E – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	4	Date(s) of non-compliance:	01/07/2024 to 30/06/2025
Details of non-compliance:			
<p>The license holder is required to conduct visual integrity inspections of the dewater pipelines once every 12-hour period. As part of the response to the previous AACR for L8512 a review of the pipeline inspection process was undertaken. The inspection process was unable to be validated to show all inspections which had taken place.</p> <p>The total number of inspections would be 730 over the reporting period. However, the number of inspections could be validated where 376 inspections were conducted over the reporting period. As such the validated compliance rate was 51.51%.</p>			
<p>What was the actual (or suspected) environmental impact of the non-compliance?</p> <p><b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p>			
No direct impact occurred resulting from the lower rate of validated inspections			
Cause (or suspected cause) of non-compliance:			
During the reporting period the responsibility of the mining area was changed from an open pit mine to an underground mine. The change in operations resulted in a change in staff and some turnover of staff which resulted in a decrease of validated pipeline inspections.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
<p>We have further refined our process of validating inspections</p> <p>Additionally further training sessions have been undertaken to ensure the importance of validating the records as well as performing inspections.</p> <p>An increase in validated inspections has been seen since these changes were implemented.</p>			
Was this non-compliance previously reported to DWER?			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date: / /	
<input type="checkbox"/> Reported to DWER in writing		Date: / /	

**Section F – Declaration**

I / We declare that the information in this Annual Audit Compliance Report is true and correct and is not false or misleading in a material particular<sup>1</sup>.

I / We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation’s (DWER) website.



Date:	29/07/2025	Date:	29/07/2025
Seal (if signing under seal):			

<sup>1</sup> It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular.

<sup>2</sup> AACRs can only be signed by the licence holder or an authorised person with the legal authority to sign on behalf of the licence holder.





## QUALITY CONTROL REPORT

<b>Work Order</b>	<b>: EP2509524</b>	<b>Page</b>	: 1 of 7
<b>Client</b>	<b>: NORTON GOLDFIELDS</b>	<b>Laboratory</b>	: Environmental Division Perth
<b>Contact</b>	: Connor James Toon	<b>Contact</b>	: Customer Services EP
<b>Address</b>	: Level 36, Exchange Plaza, 2 The Esplanade PO Box 5762, St Georges Terrace Perth 6831	<b>Address</b>	: 26 Rigali Way Wangara WA Australia 6065
<b>Telephone</b>	: ----	<b>Telephone</b>	: +61-8-9406 1301
<b>Project</b>	: Annual Monitoring	<b>Date Samples Received</b>	: 16-Jun-2025
<b>Order number</b>	: 350172	<b>Date Analysis Commenced</b>	: 16-Jun-2025
<b>C-O-C number</b>	: ----	<b>Issue Date</b>	: 23-Jun-2025
<b>Sampler</b>	: Connor James Toon		
<b>Site</b>	: Paddington		
<b>Quote number</b>	: EP23NORTGOLDRO0002_V5		
<b>No. of samples received</b>	: 4		
<b>No. of samples analysed</b>	: 4		



Accreditation No. 825  
Accredited for compliance with  
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Canhuang Ke	Inorganics Supervisor	Perth Inorganics, Wangara, WA
Chris Lemaitre	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA



## General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :  
 Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot  
 CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.  
 LOR = Limit of reporting  
 RPD = Relative Percentage Difference  
 # = Indicates failed QC  
 \* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

## Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EA005P: pH by PC Titrator (QC Lot: 6666699)</b>									
EP2509524-001	Victory	EA005-P: pH Value	---	0.01	pH Unit	7.46	7.49	0.4	0% - 20%
<b>EA010P: Conductivity by PC Titrator (QC Lot: 6666700)</b>									
EP2509524-001	Victory	EA010-P: Electrical Conductivity @ 25°C	---	1	µS/cm	116000	117000	0.4	0% - 20%
<b>EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 6657097)</b>									
EP2509521-001	Anonymous	EA015H: Total Dissolved Solids @180°C	---	10	mg/L	131000	134000	2.3	0% - 20%
EP2509524 001	Victory	EA015H: Total Dissolved Solids @180°C	---	10	mg/L	102000	103000	1.5	0% - 20%
<b>ED037P: Alkalinity by PC Titrator (QC Lot: 6666698)</b>									
EP2509377-022	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037 P Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	9	9	0.0	No Limit
		ED037-P: Total Alkalinity as CaCO3	---	1	mg/L	9	9	0.0	No Limit
EP2509524-001	Victory	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	114	116	2.0	0% - 20%
		ED037 P Total Alkalinity as CaCO3	---	1	mg/L	114	116	2.0	0% - 20%
<b>ED040F: Dissolved Major Anions (QC Lot: 6652785)</b>									
EP2509521-001	Anonymous	ED040F: Silicon as SiO2	14464-46-1	0.1 (1.0)*	mg/L	8.4	8.3	1.8	No Limit
EP2509521 011	Anonymous	ED040F: Silicon as SiO2	14464 46 1	0.1	mg/L	8.7	8.4	2.6	0% - 20%
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6652783)</b>									
EP2509534-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	424	424	0.0	0% - 20%



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6652783) - continued</b>									
EP2509521-011	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	<1	0.0	No Limit
<b>ED045G: Chloride by Discrete Analyser (QC Lot: 6652784)</b>									
EP2509534-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	3800	3770	0.6	0% - 20%
EP2509521-011	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	<1	<1	0.0	No Limit
<b>ED093F: Dissolved Major Cations (QC Lot: 6653057)</b>									
EP2509427-001	Anonymous	ED093F: Calcium	7440-70-2	1 (2)*	mg/L	2390	2420	1.1	0% - 20%
		ED093F: Magnesium	7439-95-4	1 (2)*	mg/L	3960	4000	1.0	0% - 20%
		ED093F: Sodium	7440-23-5	1 (2)*	mg/L	49100	49200	0.2	0% - 20%
		ED093F: Potassium	7440-09-7	1 (2)*	mg/L	310	312	0.4	0% - 20%
EP2509453-005	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	326	318	2.5	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	349	340	2.5	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	898	875	2.5	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	1	1	0.0	No Limit
<b>EG035T: Total Mercury by FIMS (QC Lot: 6665219)</b>									
EP2509383-001	Anonymous	EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	<0.00004	0.0	No Limit
<b>EG050G LL-T: Total Hexavalent Chromium by Discrete Analyser - Low Level (QC Lot: 6658852)</b>									
EP2509468-029	Anonymous	EG050G: Hexavalent Chromium	18540-29-9	0.001	mg/L	<0.001	<0.001	0.0	No Limit
<b>EG093T: Total Metals in Saline Water by ORC-ICPMS (QC Lot: 6659857)</b>									
EP2509524-001	Victory	EG093A-T: Beryllium	7440-41-7	0.1 (0.2)*	µg/L	0.6	0.5	0.0	No Limit
		EG093A-T: Molybdenum	7439-98-7	0.1 (0.2)*	µg/L	58.6	55.9	4.8	0% - 20%
		EG093A-T: Silver	7440-22-4	0.1 (0.2)*	µg/L	1.7	1.8	0.0	No Limit
		EG093A-T: Cadmium	7440-43-9	0.2 (0.4)*	µg/L	3.9	3.6	8.4	No Limit
		EG093A-T: Cobalt	7440-48-4	0.2 (0.4)*	µg/L	83.0	79.6	4.1	0% - 20%
		EG093A-T: Lead	7439-92-1	0.2	µg/L	9.5	9.1	3.6	0% - 20%
		EG093A-T: Antimony	7440-36-0	0.5 (1.0)*	µg/L	6.1	5.4	10.6	No Limit
		EG093A-T: Arsenic	7440-38-2	0.5 (1.0)*	µg/L	5160	4840	6.5	0% - 20%
		EG093A-T: Manganese	7439-96-5	0.5 (1.0)*	µg/L	6570	6210	5.6	0% - 20%
		EG093A-T: Nickel	7440-02-0	0.5 (1.0)*	µg/L	152	144	5.8	0% - 20%
		EG093A-T: Barium	7440-39-3	1 (2)*	µg/L	142	134	6.3	0% - 20%
		EG093A-T: Copper	7440-50-8	1 (2)*	µg/L	189	178	6.3	0% - 20%
		EG093A-T: Boron	7440-42-8	100 (210)*	µg/L	8180	7940	3.0	0% - 20%
		EG093A-T: Aluminium	7429-90-5	5 (10)*	µg/L	12900	12300	4.9	0% - 20%
		EG093A-T: Tin	7440-31-5	5 (10)*	µg/L	<10	<10	0.0	No Limit
		EG093A-T: Zinc	7440-66-6	5 (10)*	µg/L	139	131	5.4	0% - 50%
<b>EG093T: Total Metals in Saline Water by ORC-ICPMS (QC Lot: 6659858)</b>									
EP2509524-001	Victory	EG093B-T: Selenium	7782-49-2	2 (4)*	µg/L	<4	<4	0.0	No Limit
		EG093B-T: Iron	7439-89-6	5 (10)*	µg/L	226000	206000	9.3	0% - 20%

Page : 4 of 7  
 Work Order : EP2509524  
 Client : NORTON GOLDFIELDS  
 Project : Annual Monitoring



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EK057G: Nitrite as N by Discrete Analyser (QC Lot: 6652781)</b>									
EP2509534-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EP2509521-011	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 6653075)</b>									
EP2509524-001	Victory	EK059G: Nitrite + Nitrate as N	---	0.01	mg/L	6.89	6.90	0.0	0% - 20%



### Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Result	Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)
Method: Compound	CAS Number	LOR	Unit	Low				High
<b>EA005P: pH by PC Titrator (QCLot: 6666699)</b>								
EA005-P: pH Value	---	---	pH Unit	---	4 pH Unit	101	98.5	102
				---	7 pH Unit	100	98.5	102
<b>EA010P: Conductivity by PC Titrator (QCLot: 6666700)</b>								
EA010-P: Electrical Conductivity @ 25°C	---	1	µS/cm	<1	24800 µS/cm	95.1	92.1	105
<b>EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 6657097)</b>								
EA015H: Total Dissolved Solids @180°C	---	10	mg/L	<10	2000 mg/L	100	80.0	120
				<10	293 mg/L	99.3	80.0	120
				<10	2470 mg/L	102	80.0	120
<b>ED037P: Alkalinity by PC Titrator (QCLot: 6666698)</b>								
ED037-P: Hydroxide Alkalinity as CaCO <sub>3</sub>	DMO-210-00 1	1	mg/L	<1	---	---	---	---
ED037-P: Carbonate Alkalinity as CaCO <sub>3</sub>	3812-32-6	1	mg/L	<1	---	---	---	---
ED037-P: Bicarbonate Alkalinity as CaCO <sub>3</sub>	71-52-3	1	mg/L	<1	---	---	---	---
ED037-P: Total Alkalinity as CaCO <sub>3</sub>	---	1	mg/L	<1	20 mg/L	108	85.1	126
				<1	200 mg/L	97.1	90.5	111
<b>ED040F: Dissolved Major Anions (QCLot: 6652785)</b>								
ED040F: Silicon as SiO <sub>2</sub>	14464-46-1	0.1	mg/L	<0.1	21.4 mg/L	106	88.6	112
<b>ED041G: Sulfate (Turbidimetric) as SO<sub>4</sub> 2- by DA (QCLot: 6652783)</b>								
ED041G: Sulfate as SO <sub>4</sub> - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	102	89.9	112
				<1	500 mg/L	97.5	89.9	112
<b>ED045G: Chloride by Discrete Analyser (QCLot: 6652784)</b>								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	100	88.6	113
				<1	1000 mg/L	102	88.6	113
<b>ED093F: Dissolved Major Cations (QCLot: 6653057)</b>								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	107	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	103	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	106	91.4	113
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	100	84.6	108
<b>EG035T: Total Mercury by FIMS (QCLot: 6665219)</b>								
EG035T-LL: Mercury	7439-97-6	0.00004	mg/L	<0.00004	0.005 mg/L	104	85.4	119
<b>EG050G LL-T: Total Hexavalent Chromium by Discrete Analyser - Low Level (QCLot: 6658852)</b>								



Sub-Matrix: **WATER**

Method: Compound				CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
								Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
								Low	High		
<b>EG050G LL-T: Total Hexavalent Chromium by Discrete Analyser - Low Level (QCLot: 6658852) - continued</b>											
EG050G: Hexavalent Chromium				18540-29-9	0.001	mg/L	<0.001	0.05 mg/L	104	87.9	112
<b>EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6659857)</b>											
EG093A-T: Aluminium				7429-90-5	5	µg/L	<5	50 µg/L	110	88.3	121
EG093A-T: Antimony				7440-36-0	0.5	µg/L	<0.5	2 µg/L	116	86.0	130
EG093A-T: Arsenic				7440-38-2	0.5	µg/L	<0.5	10 µg/L	104	87.3	117
EG093A-T: Barium				7440-39-3	1	µg/L	<1	10 µg/L	106	84.9	123
EG093A-T: Beryllium				7440-41-7	0.1	µg/L	<0.1	10 µg/L	106	70.0	130
EG093A-T: Boron				7440-42-8	100	µg/L	<105	---	---	---	---
EG093A-T: Cadmium				7440-43-9	0.2	µg/L	<0.2	10 µg/L	101	90.7	112
EG093A-T: Cobalt				7440-48-4	0.2	µg/L	<0.2	10 µg/L	102	85.8	117
EG093A-T: Copper				7440-50-8	1	µg/L	<1	10 µg/L	97.6	85.3	116
EG093A-T: Lead				7439-92-1	0.2	µg/L	<0.2	10 µg/L	105	90.8	114
EG093A-T: Manganese				7439-96-5	0.5	µg/L	<0.5	10 µg/L	103	85.6	117
EG093A-T: Molybdenum				7439-98-7	0.1	µg/L	<0.1	10 µg/L	120	93.1	134
EG093A-T: Nickel				7440-02-0	0.5	µg/L	<0.5	10 µg/L	101	82.4	121
EG093A-T: Silver				7440-22-4	0.1	µg/L	<0.1	2 µg/L	103	88.0	112
EG093A-T: Tin				7440-31-5	5	µg/L	<5	10 µg/L	102	90.3	113
EG093A-T: Zinc				7440-66-6	5	µg/L	<5	10 µg/L	114	78.3	123
<b>EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6659858)</b>											
EG093B-T: Iron				7439-89-6	5	µg/L	<5	50 µg/L	95.0	93.0	118
EG093B-T: Selenium				7782-49-2	2	µg/L	<2	10 µg/L	98.4	80.2	110
<b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 6652781)</b>											
EK057G: Nitrite as N				14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	110	88.7	113
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6653075)</b>											
EK059G: Nitrite + Nitrate as N				---	0.01	mg/L	<0.01	0.5 mg/L	99.0	90.5	110

### Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID				Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%) MS	Acceptable Limits (%)	
Sample ID	Method: Compound	CAS Number		Low	High		
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6652783)</b>							
EP2509534-002	Anonymous						



Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Low	High		
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6652783) - continued</b>							
EP2509534-002	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	# Not Determined	70.4	130
<b>ED045G: Chloride by Discrete Analyser (QCLot: 6652784)</b>							
EP2509534-002	Anonymous	ED045G: Chloride	16887-00-6	200 mg/L	# Not Determined	70.0	130
<b>EG035T: Total Mercury by FIMS (QCLot: 6665219)</b>							
EP2509524-001	Victory	EG035T-LL: Mercury	7439-97-6	0.025 mg/L	99.4	70.0	130
<b>EG050G LL-T: Total Hexavalent Chromium by Discrete Analyser - Low Level (QCLot: 6658852)</b>							
EP2509468-029	Anonymous	EG050G: Hexavalent Chromium	18540-29-9	0.05 mg/L	108	70.0	130
<b>EG093T: Total Metals in Saline Water by ORC-ICPMS (QCLot: 6659857)</b>							
EP2509524-002	Golden Arrow	EG093A-T: Arsenic	7440-38-2	50 µg/L	94.7	70.0	130
		EG093A-T: Barium	7440-39-3	50 µg/L	77.2	70.0	130
		EG093A-T: Beryllium	7440-41-7	50 µg/L	88.4	70.0	130
		EG093A-T: Cadmium	7440-43-9	12.5 µg/L	87.0	70.0	130
		EG093A-T: Cobalt	7440-48-4	50 µg/L	96.1	70.0	130
		EG093A-T: Copper	7440-50-8	50 µg/L	95.7	70.0	130
		EG093A-T: Lead	7439-92-1	50 µg/L	95.7	70.0	130
		EG093A-T: Manganese	7439-96-5	50 µg/L	# Not Determined	70.0	130
		EG093A-T: Nickel	7440-02-0	50 µg/L	87.0	70.0	130
EG093A-T: Zinc	7440-66-6	50 µg/L	91.9	70.0	130		
<b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 6652781)</b>							
EP2509534-002	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	117	70.0	130
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 6653075)</b>							
EP2509524-002	Golden Arrow	EK059G: Nitrite + Nitrate as N	—	0.5 mg/L	# Not Determined	70.0	130



## QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EP2509524	Page	: 1 of 8
Client	: NORTON GOLDFIELDS	Laboratory	: Environmental Division Perth
Contact	: Connor James Toon	Telephone	: +61-8-9406 1301
Project	: Annual Monitoring	Date Samples Received	: 16-Jun-2025
Site	: Paddington	Issue Date	: 23-Jun-2025
Sampler	: Connor James Toon	No. of samples received	: 4
Order number	: 350172	No. of samples analysed	: 4

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

### Summary of Outliers

#### Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO** Method Blank value outliers occur.
- **NO** Duplicate outliers occur.
- **NO** Laboratory Control outliers occur.
- Matrix Spike outliers exist - please see following pages for full details.
- For all regular sample matrices, where applicable to the methodology, **NO** surrogate recovery outliers occur.

#### Outliers : Analysis Holding Time Compliance

- Analysis Holding Time Outliers exist - please see following pages for full details.

#### Outliers : Frequency of Quality Control Samples

- **NO** Quality Control Sample Frequency Outliers exist.



### Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: WATER

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
<b>Matrix Spike (MS) Recoveries</b>							
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA	EP2509534--002	Anonymous	Sulfate as SO4 - Turbidimetric	14808-79-8	Not Determined	---	MS recovery not determined, background level greater than or equal to 4x spike level.
ED045G: Chloride by Discrete Analyser	EP2509534--002	Anonymous	Chloride	16887-00-6	Not Determined	---	MS recovery not determined, background level greater than or equal to 4x spike level.
EG093T: Total Metals in Saline Water by ORC-ICPMS	EP2509524--002	Golden Arrow	Manganese	7439-96-5	Not Determined	---	MS recovery not determined, background level greater than or equal to 4x spike level.
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Ar	EP2509524--002	Golden Arrow	Nitrite + Nitrate as N	---	Not Determined	---	MS recovery not determined, background level greater than or equal to 4x spike level.

### Outliers : Analysis Holding Time Compliance

Matrix: WATER

Method	Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
<b>EA005P: pH by PC Titrator</b>							
Clear Plastic Bottle - Natural	Golden Arrow, Mulgarrie	---	---	---	23-Jun-2025	11-Jun-2025	12
<b>EK057G: Nitrite as N by Discrete Analyser</b>							
Clear Plastic Bottle - Natural	Golden Arrow, Mulgarrie	---	---	---	16-Jun-2025	13-Jun-2025	3
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser</b>							
Clear Plastic Bottle - Natural	Golden Arrow, Mulgarrie	---	---	---	16-Jun-2025	13-Jun-2025	3

### Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: WATER

Evaluation: \* = Holding time breach ; ✓ = Within holding time.



Matrix: WATER Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EA005P: pH by PC Titrator</b>								
Clear Plastic Bottle - Natural (EA005-P) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	23-Jun-2025	11-Jun-2025	✖
<b>EA010P: Conductivity by PC Titrator</b>								
Clear Plastic Bottle - Natural (EA010-P) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	23-Jun-2025	09-Jul-2025	✔
<b>EA015: Total Dissolved Solids dried at 180 ± 5 °C</b>								
Clear Plastic Bottle - Natural (EA015H) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	18-Jun-2025	18-Jun-2025	✔
<b>ED037P: Alkalinity by PC Titrator</b>								
Clear Plastic Bottle - Natural (ED037-P) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	23-Jun-2025	25-Jun-2025	✔
<b>ED040F: Dissolved Major Anions</b>								
Clear Plastic Bottle - Natural (ED040F) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	17-Jun-2025	09-Jul-2025	✔
<b>ED041G: Sulfate (Turbidimetric) as SO<sub>4</sub> 2- by DA</b>								
Clear Plastic Bottle - Natural (ED041G) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	16-Jun-2025	09-Jul-2025	✔
<b>ED045G: Chloride by Discrete Analyser</b>								
Clear Plastic Bottle - Natural (ED045G) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	16-Jun-2025	09-Jul-2025	✔
<b>ED093F: Dissolved Major Cations</b>								
Clear Plastic Bottle - Natural (ED093F) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	17-Jun-2025	18-Jun-2025	✔
<b>EG035T: Total Mercury by FIMS</b>								
Clear HDPE (U-T ORC) - Unfiltered; Lab-acidified (EG035T-LL) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	20-Jun-2025	09-Jul-2025	✔
<b>EG050G LL-T: Total Hexavalent Chromium by Discrete Analyser - Low Level</b>								
Clear Plastic Bottle - NaOH (EG050G LL-T) Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	18-Jun-2025	09-Jul-2025	✔



Matrix: WATER Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EG093T: Total Metals in Saline Water by ORC-ICPMS</b>								
<b>Clear HDPE (U-T ORC) - Unfiltered; Lab-acidified (EG093A-T)</b> Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	19-Jun-2025	08-Dec-2025	✔	19-Jun-2025	08-Dec-2025	✔
<b>EK057G: Nitrite as N by Discrete Analyser</b>								
<b>Clear Plastic Bottle - Natural (EK057G)</b> Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	16-Jun-2025	13-Jun-2025	✖
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser</b>								
<b>Clear Plastic Bottle - Natural (EK059G)</b> Victory, Jakarta,	Golden Arrow, Mulgarrie	11-Jun-2025	---	---	---	16-Jun-2025	13-Jun-2025	✖



## Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: \* = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Alkalinity by Auto Titrator	ED037-P	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	1	4	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Anions - Dissolved	ED040F	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	4	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH by Auto Titrator	EA005-P	1	6	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Dissolved Solids (High Level)	EA015H	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Hexavalent Chromium by DA - Low Level	EG050G LL-T	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	1	5	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	1	4	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water -Suite B by ORC-ICPMS	EG093B-T	1	7	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Laboratory Control Samples (LCS)</b>							
Alkalinity by Auto Titrator	ED037-P	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Anions - Dissolved	ED040F	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH by Auto Titrator	EA005-P	2	6	33.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Dissolved Solids (High Level)	EA015H	3	15	20.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Hexavalent Chromium by DA - Low Level	EG050G LL-T	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water -Suite B by ORC-ICPMS	EG093B-T	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Method Blanks (MB)</b>							
Alkalinity by Auto Titrator	ED037-P	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Anions - Dissolved	ED040F	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



Matrix: **WATER** Evaluation: \* = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Method Blanks (MB) - Continued</b>							
Nitrite as N by Discrete Analyser	EK057G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Dissolved Solids (High Level)	EA015H	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Hexavalent Chromium by DA - Low Level	EG050G LL-T	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water -Suite B by ORC-ICPMS	EG093B-T	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Matrix Spikes (MS)</b>							
Chloride by Discrete Analyser	ED045G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Hexavalent Chromium by DA - Low Level	EG050G LL-T	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS - Low Level	EG035T-LL	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



## Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
pH by Auto Titrator	EA005-P	WATER	In house: Referenced to APHA 4500 H+ B. This procedure determines pH of water samples by automated ISE. This method is compliant with NEPM Schedule B(3)
Conductivity by Auto Titrator	EA010-P	WATER	In house: Referenced to APHA 2510 B. This procedure determines conductivity by automated ISE. This method is compliant with NEPM Schedule B(3)
Total Dissolved Solids (High Level)	EA015H	WATER	In house: Referenced to APHA 2540C. A gravimetric procedure that determines the amount of 'filterable' residue in an aqueous sample. A well-mixed sample is filtered through a glass fibre filter (1.2um). The filtrate is evaporated to dryness and dried to constant weight at 180+/-5C. This method is compliant with NEPM Schedule B(3)
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Major Anions - Dissolved	ED040F	WATER	In house: Referenced to APHA 3120. The 0.45µm filtered samples are determined by ICP/AES for Sulfur and/or Silicon content and reported as Sulfate and/or Silica after conversion by gravimetric factor.
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G. The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocyanate forms highly-coloured ferric thiocyanate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS - Low Level	EG035T-LL	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
Total Hexavalent Chromium by DA - Low Level	EG050G LL-T	WATER	In house: Referenced to APHA 3500 Cr-A & B. Hexavalent chromium is determined directly on water sample by Seal Discrete Analyser as received by pH adjustment and colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3).



<i>Analytical Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
Total Metals in Saline Water Suite A by ORC-ICPMS	EG093A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020. The ORC-ICPMS technique removes interfering species through a series of chemical reactions prior to ion detection. Ions are passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to measurement by a discrete dynode ion detector. This method is compliant with NEPM Schedule B(3).
Total Metals in Saline Water -Suite B by ORC-ICPMS	EG093B-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020. The ORC-ICPMS technique removes interfering species through a series of chemical reactions prior to ion detection. Ions are passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to measurement by a discrete dynode ion detector. This method is compliant with NEPM Schedule B(3).
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined separately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NO <sub>x</sub> ) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO <sub>2</sub> +NO <sub>3</sub> ) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* FN055 - PG	WATER	In house: Referenced to APHA 1030E. This method is compliant with NEPM Schedule B(3)
<i>Preparation Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
Digestion for Total Recoverable Metals - ORC	* FN25-ORC	WATER	In house: Referenced to USEPA SW846-3005. This is an Ultrapure Nitric acid digestion procedure used to prepare surface and ground water samples for analysis by ORC- ICPMS. This method is compliant with NEPM Schedule B(3)



## CERTIFICATE OF ANALYSIS

Work Order	: EP2509524	Page	: 1 of 5
Client	: NORTON GOLDFIELDS	Laboratory	: Environmental Division Perth
Contact	: Connor James Toon	Contact	: Customer Services EP
Address	: Level 36, Exchange Plaza, 2 The Esplanade PO Box 5762, St Georges Terrace Perth 6831	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: —	Telephone	: +61-8-9406 1301
Project	: Annual Monitoring	Date Samples Received	: 16-Jun-2025 11:50
Order number	: 350172	Date Analysis Commenced	: 16-Jun-2025
C-O-C number	: —	Issue Date	: 23-Jun-2025 20:59
Sampler	: Connor James Toon		
Site	: Paddington		
Quote number	: EP23NORTGOLDRO0002_V5		
No. of samples received	: 4		
No. of samples analysed	: 4		



Accreditation No. 825  
Accredited for compliance with  
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Canhuang Ke	Inorganics Supervisor	Perth Inorganics, Wangara, WA
Chris Lemaitre	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA



Page : 2 of 5  
Work Order : EP2509524  
Client : NORTON GOLDFIELDS  
Project : Annual Monitoring

## General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.  
LOR = Limit of reporting  
^ = This result is computed from individual analyte detections at or above the level of reporting  
ø = ALS is not NATA accredited for these tests.  
- = Indicates an estimated value.

- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO<sub>2</sub> and Fluoride to the Anions.
- EG035: Positive Mercury on samples EP2509524- 001, 003 and 004 confirmed by re-preparation and re-analysis.
- EG093: Metals LOR for samples EP2509524 -001 to -004 raised due to high TDS content.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EG093: Samples containing high levels of sulfate may precipitate barium under the acidic conditions of this method and may therefore bias results low.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected, Results should be scrutinised accordingly.



## Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)		Sample ID		Victory	Golden Arrow	Jakarta	Mulgarrie	---
Sampling date / time		11-Jun-2025 00:00		11-Jun-2025 00:00	11-Jun-2025 00:00	11-Jun-2025 00:00	11-Jun-2025 00:00	---
Compound	CAS Number	LOR	Unit	EP2509524-001	EP2509524-002	EP2509524-003	EP2509524-004	---
				Result	Result	Result	Result	---
<b>EA005P: pH by PC Titrator</b>								
pH Value	---	0.01	pH Unit	7.46	7.81	7.63	7.69	---
<b>EA010P: Conductivity by PC Titrator</b>								
Electrical Conductivity @ 25°C	---	1	µS/cm	116000	121000	120000	119000	---
<b>EA015: Total Dissolved Solids dried at 180 ± 5 °C</b>								
Total Dissolved Solids @180°C	---	10	mg/L	102000	113000	112000	108000	---
<b>ED037P: Alkalinity by PC Titrator</b>								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	---
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	---
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	114	122	136	131	---
Total Alkalinity as CaCO3	---	1	mg/L	114	122	136	131	---
<b>ED040F: Dissolved Major Anions</b>								
Silicon as SiO2	14464-46-1	0.1	mg/L	18.2	20.0	18.4	20.2	---
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA</b>								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	4650	4540	4460	4610	---
<b>ED045G: Chloride by Discrete Analyser</b>								
Chloride	16887-00-6	1	mg/L	54000	61800	61800	60200	---
<b>ED093F: Dissolved Major Cations</b>								
Calcium	7440-70-2	1	mg/L	2540	2620	2610	2540	---
Magnesium	7439-95-4	1	mg/L	2920	3140	2950	2980	---
Sodium	7440-23-5	1	mg/L	29800	31700	31700	30400	---
Potassium	7440-09-7	1	mg/L	226	246	183	223	---
<b>EG035T: Total Mercury by FIMS</b>								
Mercury	7439-97-8	0.00004	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	---
<b>EG050G LL-T: Total Hexavalent Chromium by Discrete Analyser - Low Level</b>								
Hexavalent Chromium	18540-29-9	0.001	mg/L	<0.001	0.002	0.003	<0.001	---
<b>EG093T: Total Metals in Saline Water by ORC-ICPMS</b>								
Aluminium	7429-90-5	5	µg/L	12900	74	999	14	---
Antimony	7440-36-0	0.5	µg/L	6.1	<1.0	<1.0	2.0	---



### Analytical Results

Sub-Matrix: GROUNDWATER  
 (Matrix: WATER)

Sample ID

				Victory	Golden Arrow	Jakarta	Mulgarrie	---
Sampling date / time				11-Jun-2025 00:00	11-Jun-2025 00:00	11-Jun-2025 00:00	11-Jun-2025 00:00	---
Compound	CAS Number	LOR	Unit	EP2509524-001	EP2509524-002	EP2509524-003	EP2509524-004	---
				Result	Result	Result	Result	---

#### EG093T: Total Metals in Saline Water by ORC-ICPMS - Continued

Arsenic	7440-38-2	0.5	µg/L	5160	12.4	2.6	43.2	---
Barium	7440-39-3	1	µg/L	142	113	106	106	---
Beryllium	7440-41-7	0.1	µg/L	0.6	<0.2	<0.2	<0.2	---
Boron	7440-42-8	100	µg/L	8180	8940	7190	8290	---
Cadmium	7440-43-9	0.2	µg/L	3.9	4.0	1.6	2.6	---
Cobalt	7440-48-4	0.2	µg/L	83.0	8.6	28.5	7.6	---
Copper	7440-50-8	1	µg/L	189	2	3	2	---
Iron	7439-89-6	5	µg/L	226000	215	1500	24	---
Lead	7439-92-1	0.2	µg/L	9.5	0.3	6.4	1.8	---
Manganese	7439-96-5	0.5	µg/L	6570	267	1950	349	---
Molybdenum	7439-98-7	0.1	µg/L	58.6	77.9	34.3	57.8	---
Nickel	7440-02-0	0.5	µg/L	152	55.2	62.5	71.7	---
Selenium	7782-49-2	2	µg/L	<4	4	<4	4	---
Silver	7440-22-4	0.1	µg/L	1.7	1.6	1.1	3.0	---
Tin	7440-31-5	5	µg/L	<10	<10	<10	<10	---
Zinc	7440-66-6	5	µg/L	139	<10	77	20	---

#### EK057G: Nitrite as N by Discrete Analyser

Nitrite as N	14797-65-0	0.01	mg/L	0.05	0.40	1.27	0.07	---
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#### EK058G: Nitrate as N by Discrete Analyser

Nitrate as N	14797-55-8	0.01	mg/L	6.84	7.27	2.84	4.44	---
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#### EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser

Nitrite + Nitrate as N	---	0.01	mg/L	6.89	7.67	4.11	4.51	---
------------------------	-----	------	------	------	------	------	------	-----

#### EN055: Ionic Balance

Total Anions	---	0.01	meq/L	1620	1840	1840	1800	---
Total Cations	---	0.01	meq/L	1670	1770	1760	1700	---
Ionic Balance	---	0.01	%	1.42	1.82	2.29	2.77	---

