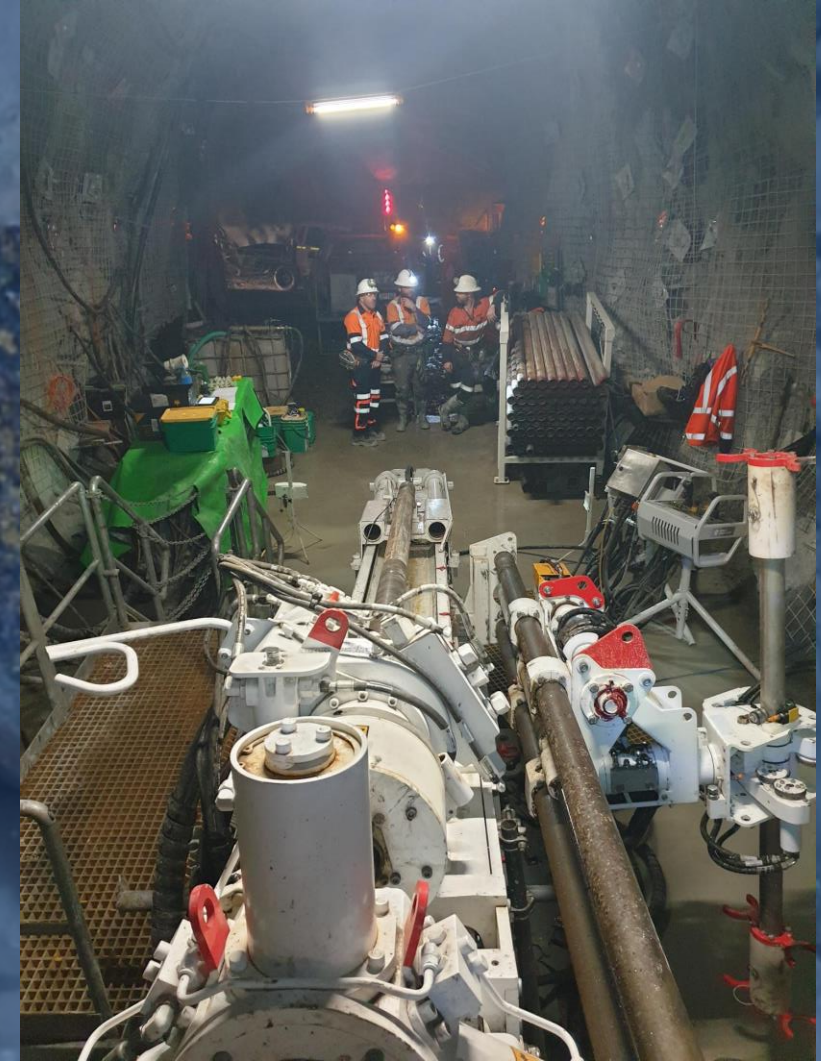


# Federation Mining

## Stakeholder Liaison Committee Meeting

4th December 2024



# Attendees



The Stakeholder Liaison Committee was established during recent Resource Consent amendments to allow for regular and formal interaction between affected parties for the duration of the consent.

The following organisations will be represented and invited to participate:

- Federation Mining
- West Coast Regional Council
- Buller District Council
- Te Rūnanga o Ngāti Waewae
- Department of Conservation
- Mine Waste Management (Advisory function)



# Meeting Agenda

- Introductions
- Action Items from previous meeting
- Presentations
  - Site update
  - Consent matters
  - Monitoring results
  - Mine Waste Management report
- Confirm follow up actions, Q&A



# Action Items From Previous Meeting

- Include rainfall data moving forward in meeting papers
- TARPs to be implemented
- Snapshot of any community concerns and mitigations to be shared next meeting
- Monitoring & sampling of WRS during civil works for process plant construction
- Paul Weber to provide progress report on Geochem review next meeting



# Snowy River Mine Updates



- Employment for over 70 people onsite, 60% reside on the West Coast.
- Over 10,000m of safe decline development has been completed across the twin declines.
- The Birthday Reef was intercepted in Feb 2024. Ore continues to be extracted from the reef.
- Panel A resource drilling program completed in December with a total of 16,000m completed. Panel B is currently underway.
- Over 50 million litres dewatered from the Blackwater workings.
- The sale between OceanaGold and Federation was completed in June 24 with Federation now the owners of the Snowy River asset.
- Construction of the processing plant base underway with full construction planned in second quarter of 2025 while funding arrangements are finalised.



# Resource Model Summary



	Reserve	Indicated Resource	Inferred Resource
Tonnes (t)	368,220	224,000	796,000
Grade (g/t)	10.8	24.6	24.0
Ounces	128,229	177,000	608,000

- 2023 drilling program totalled 72 drill holes for 16,000m, extending 230m below Blackwater Mine historical workings (focussed on Panel A)
- Panel A      177K oz Indicated Resource, 23K oz Inferred Resource (average drill spacing 50m)
- Panel B      585K oz Inferred Resource
- (drilling demonstrates 900m extending additional 530m below Panel A)
- PFS generated      128koz of JORC Reserves
- 12% increase in Mineral Resource Estimate (MRE) from 2014 OceanaGold PEA Inferred Resource estimate – 940kt @ 23 g/t for 695koz

# Snowy River Mine Process Plant Update



# Process Plant Update



- Process plan base under construction.
- Engineering is well advanced through partners Stantec engineering.
- The plant will occupy 10,000m2 of already disturbed land.



- Commissioning of the processing plant is due to commence in early 2026.
- Planning a consent amendment to allow some toll treatment offsite
- Some ore treated with cyanidation and detoxified in circuit.
- Seeking necessary licences for cyanide and radioactive measuring device for the mill.



# Proposed Development Plan & Timetable

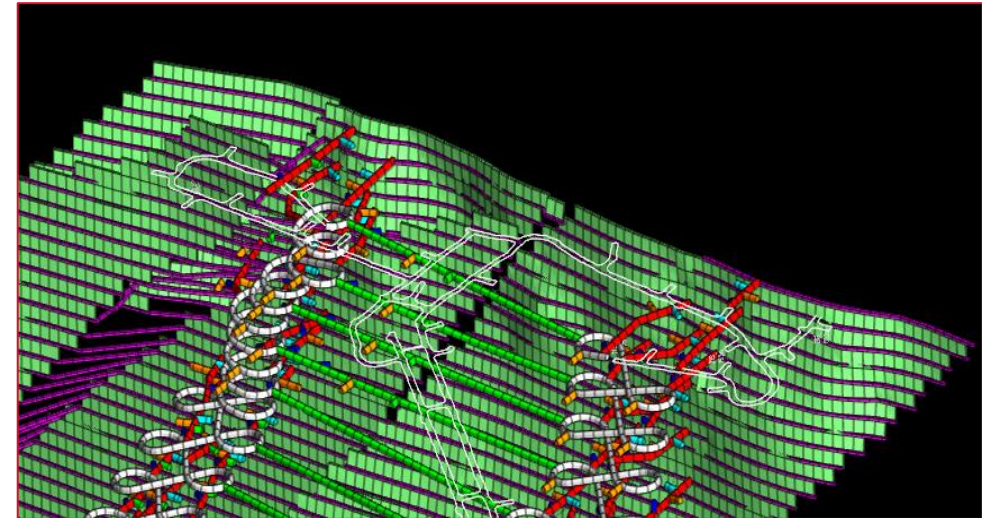
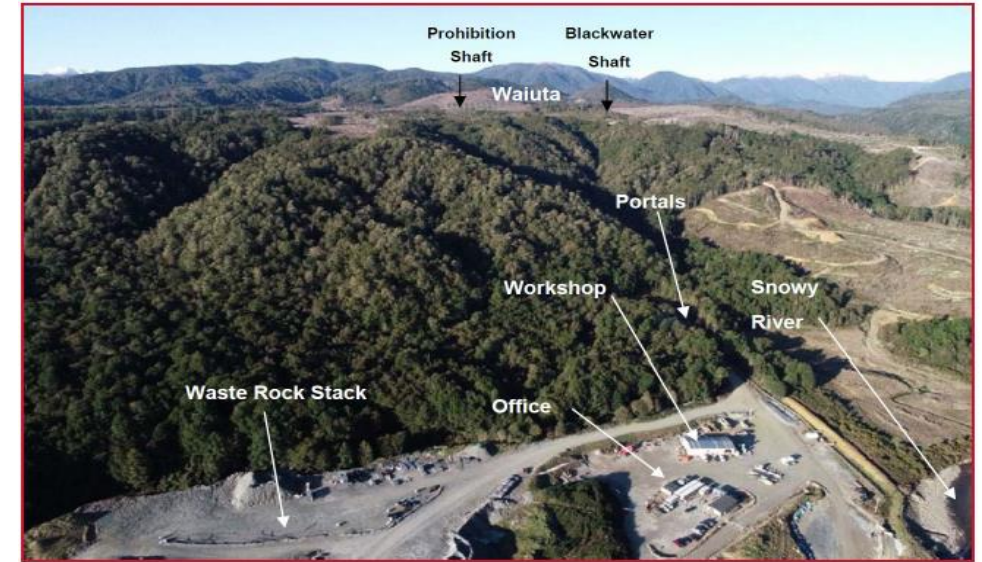


2024

Updated Mineral Resource Model  
Dewatering of historic workings  
Feasibility Study  
Decision to Mine  
Ore Development H2 2024

2025

UG ore development & stoping  
Mill Construction  
Pastefill plant and distribution system  
Production ~60koz – 65koz Au p.a.  
~10 – 12 year mine life based on business case  
First gold planned early 2026



# Drone Image



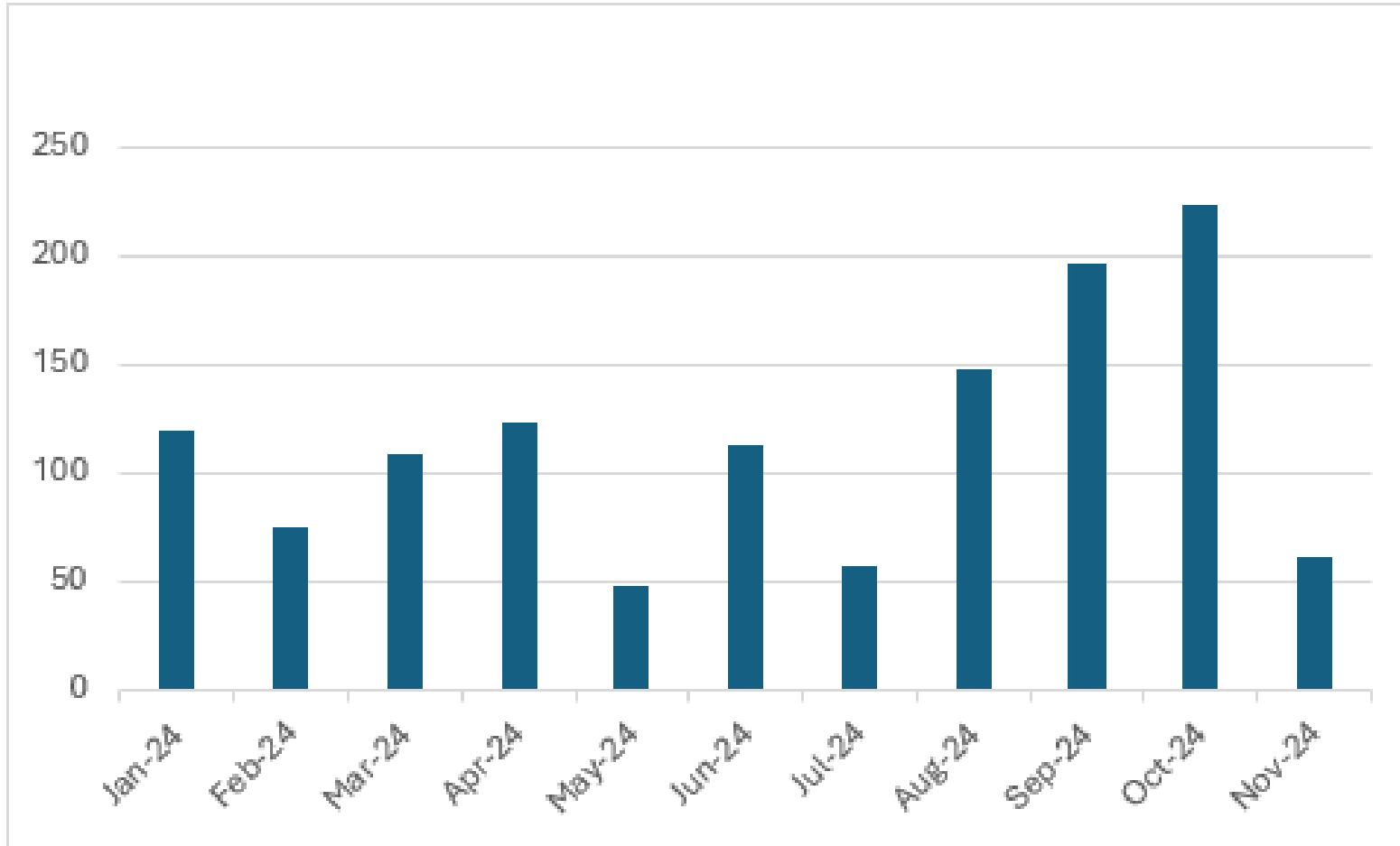
# Environment

- Growing team – Mark Brown, Megan Williams joining Cas Hutt on the Site Sustainability Team
- Performance and regulatory monitoring continues.
- Emissions data tracked by an external provider, Greenbase. Scope 1 & 2 emissions reported.
- Weed management, baiting and recycling remains the same.
- Low carbon intensity with estimated 0.03 tonnes of GHG emissions per ounce.
- 0.56 tCO<sub>2</sub>e per metre advanced.

	FY21	FY22	FY23	FY24
<b>Scope 1</b>	418 tCO <sub>2</sub> e	1,107 tCO <sub>2</sub> e	1,649 tCO <sub>2</sub> e	1,704 tCO <sub>2</sub> e
<b>Scope 2</b>	16 tCO <sub>2</sub> e	72 tCO <sub>2</sub> e	89 tCO <sub>2</sub> e	118 tCO <sub>2</sub> e
<b>Total Emissions</b>	436 TCO <sub>2</sub> e	1,179 tCO <sub>2</sub> e	1,737 tCO <sub>2</sub> e	1,822 tCO <sub>2</sub> e



# Site Rainfall Data



# Social Responsibility / Community



The community in which we operate continue to be of great importance with Federation proudly providing sponsorship or participation at the below events during 2024.

- Community engagement sessions at Greymouth, Westport and Reefton
- Greymouth Christmas event
- Quartzopolous Marathon
- Ikamatua Civil Defence
- Minerals West Coast
- Reefton Bowling Club
- Reefton Trotting Club
- Reefton Accommodation project
- State Highway Upgrade work near Snowy River Road



# Resource Consent Matters



- Updated Bond assessment with WCRC.
- Current cash bond is \$670,205.
- Waste Rock Stack footprint growth to design size planned for 2025.
- Power line and electrical infrastructure upgrade consenting – in progress.
- State Highway intersection upgrade – Late 2024. (next slide)
- Strong focus on water treatment, further enhancements will be needed.
- Water inlet from river will need replacement.
- Geochem review post drill program – in progress
- Bat survey planned with DoC
- Communication challenges with some sensors
- Community concern recorded in relation to traffic movement on Snowy River Road. Themes of feedback include:-
  - Traffic speed
  - Traffic noise
  - Vehicle behaviour
- Range of mitigations in place including speed monitoring, inductions, warning signs, communication with key suppliers, CCTV monitoring, vehicle monitoring, engagement with Council and Police.

# Resource Consent Changes



- Primary purpose of proposed change is to allow for toll treatment of sulphide ore offsite
- Change to Regional and District Consent necessary
  - Regional – Change to Condition 130 in relation to placement of 50% of process waste underground
  - District – Additional provision for heavy vehicle movements in daily schedule with restrictions on evenings, weekends & school bus times
  - Pre lodgement meetings completed
  - Affected party dialogue underway
  - Submission of application planned prior to Christmas 2024

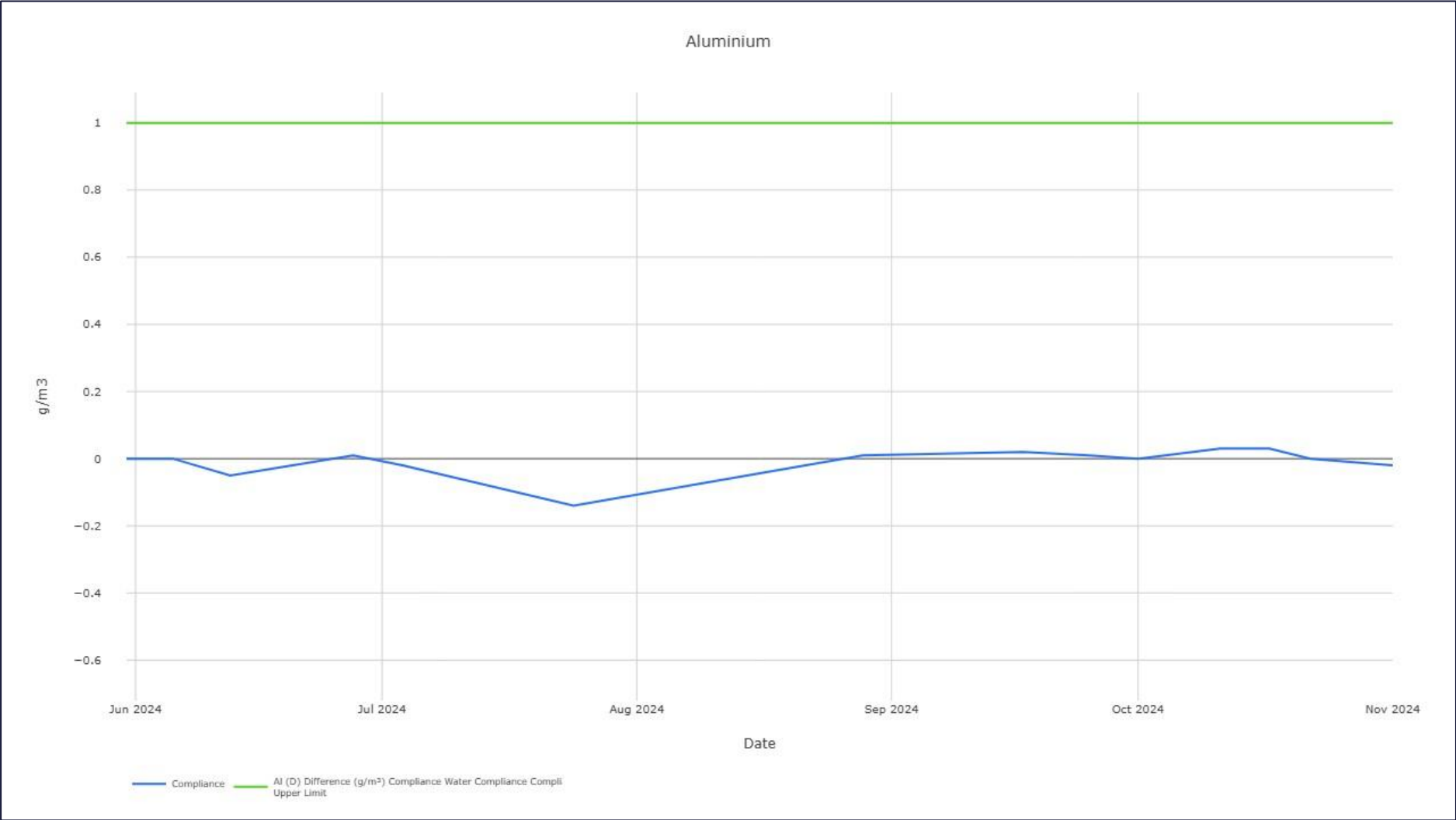
# State Highway Upgrade

- Engineering progressing on track
- Safety in design workshop completed and submitted to regulator for review
- Road works in the schedule for late January 2025
- Fence line to be relocated off road reserve and reinstated on boundary
- All necessary permits are in hand to do field work

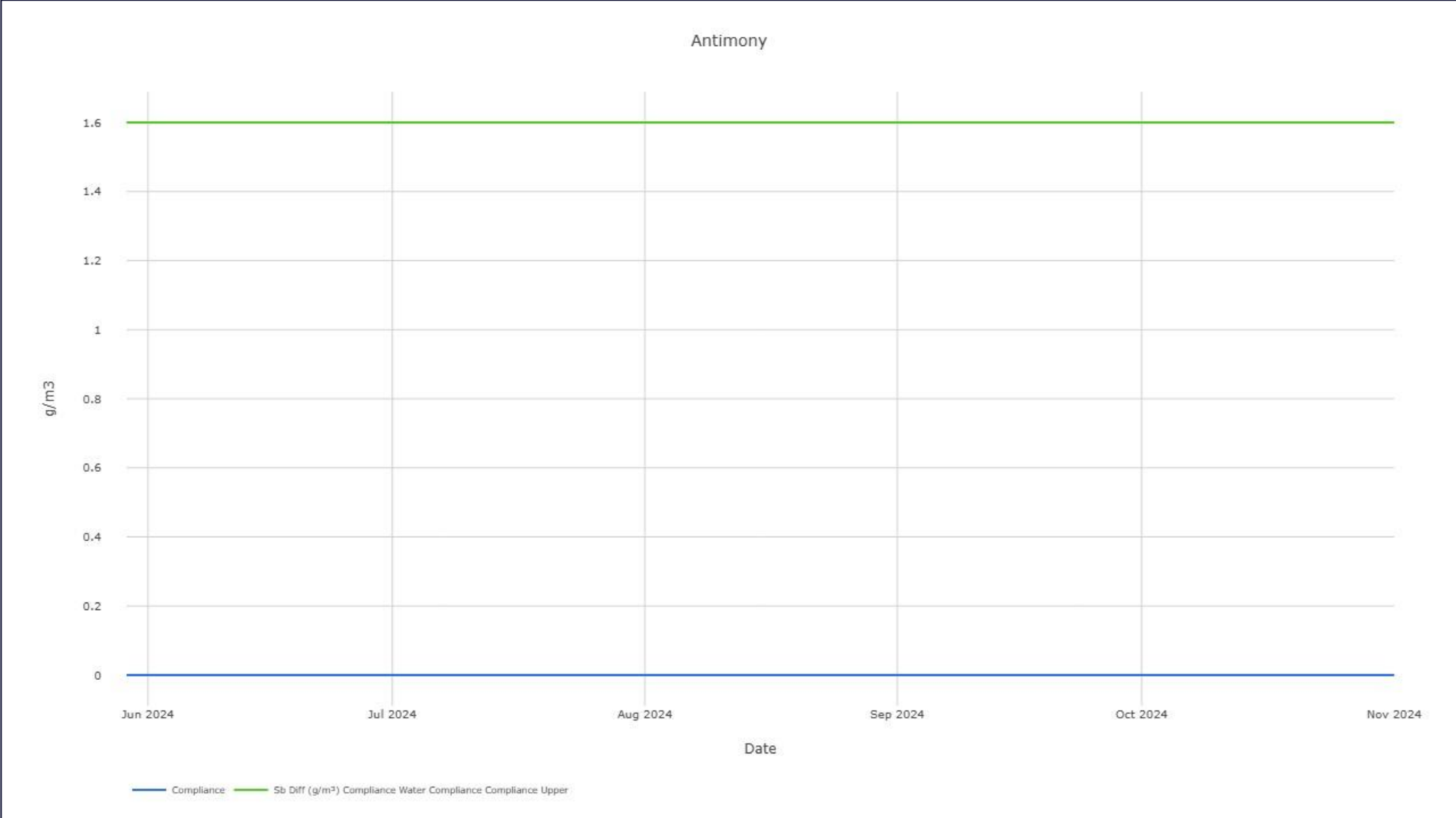




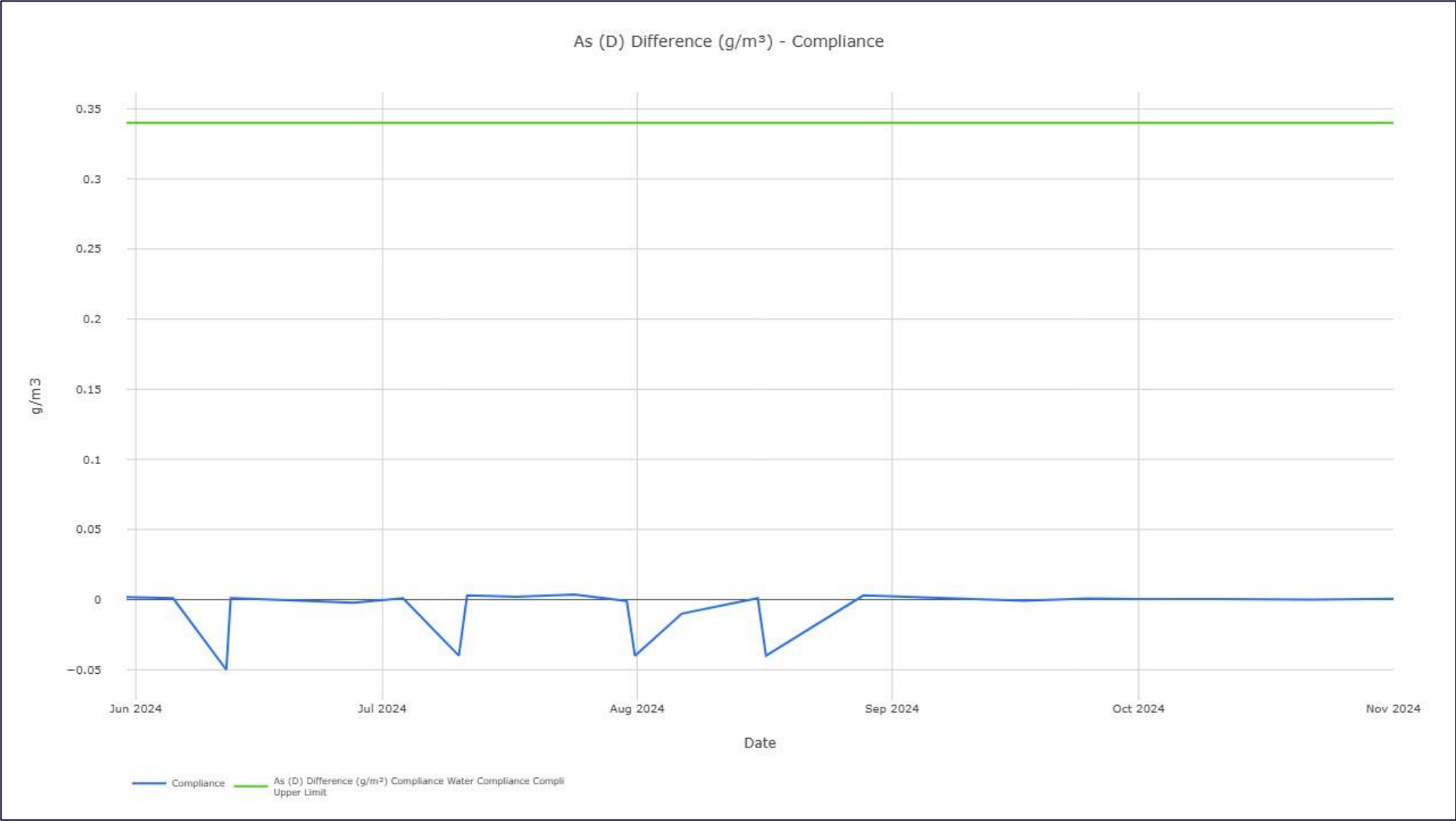
# Environmental Monitoring – Snowy River



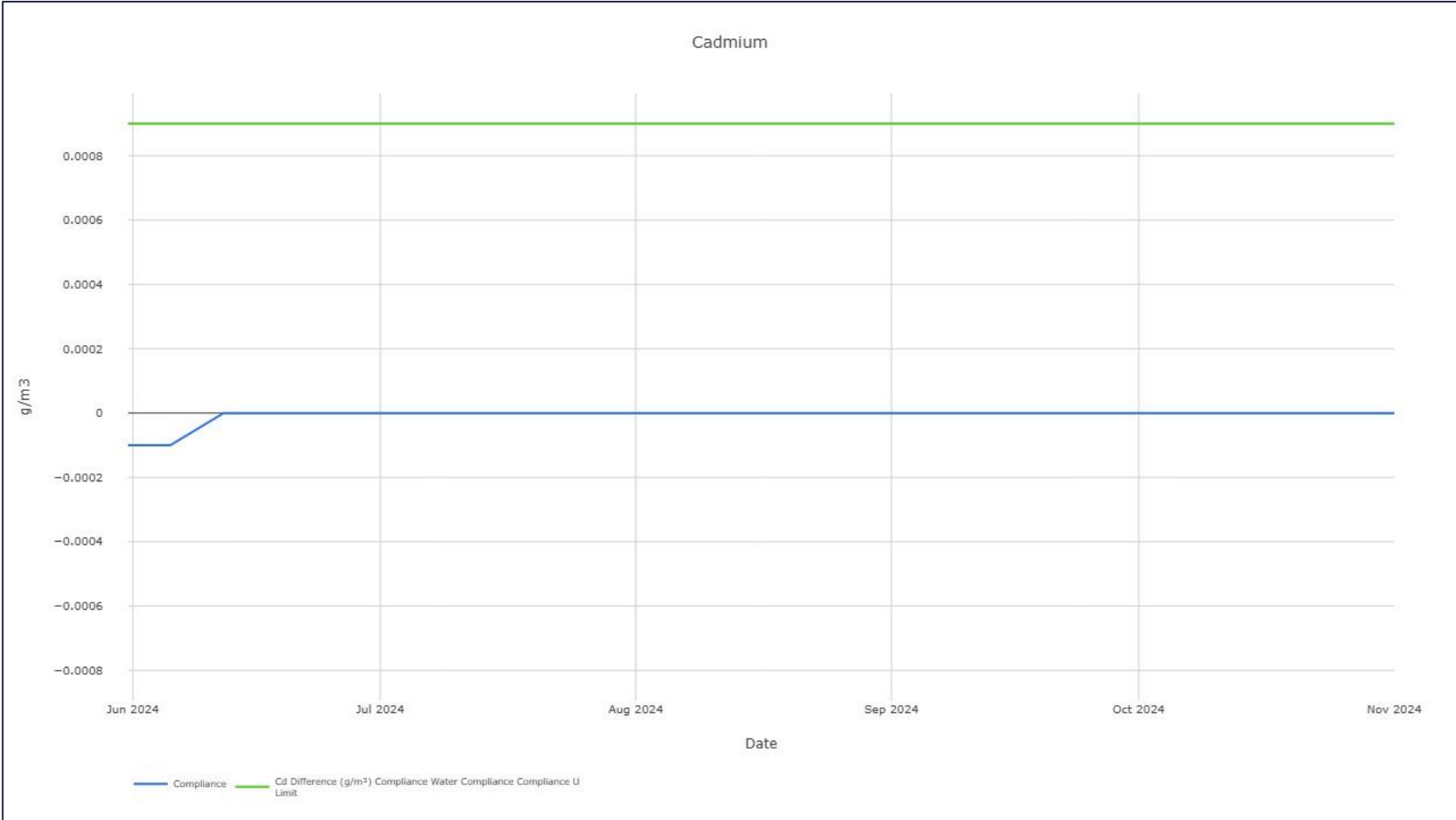
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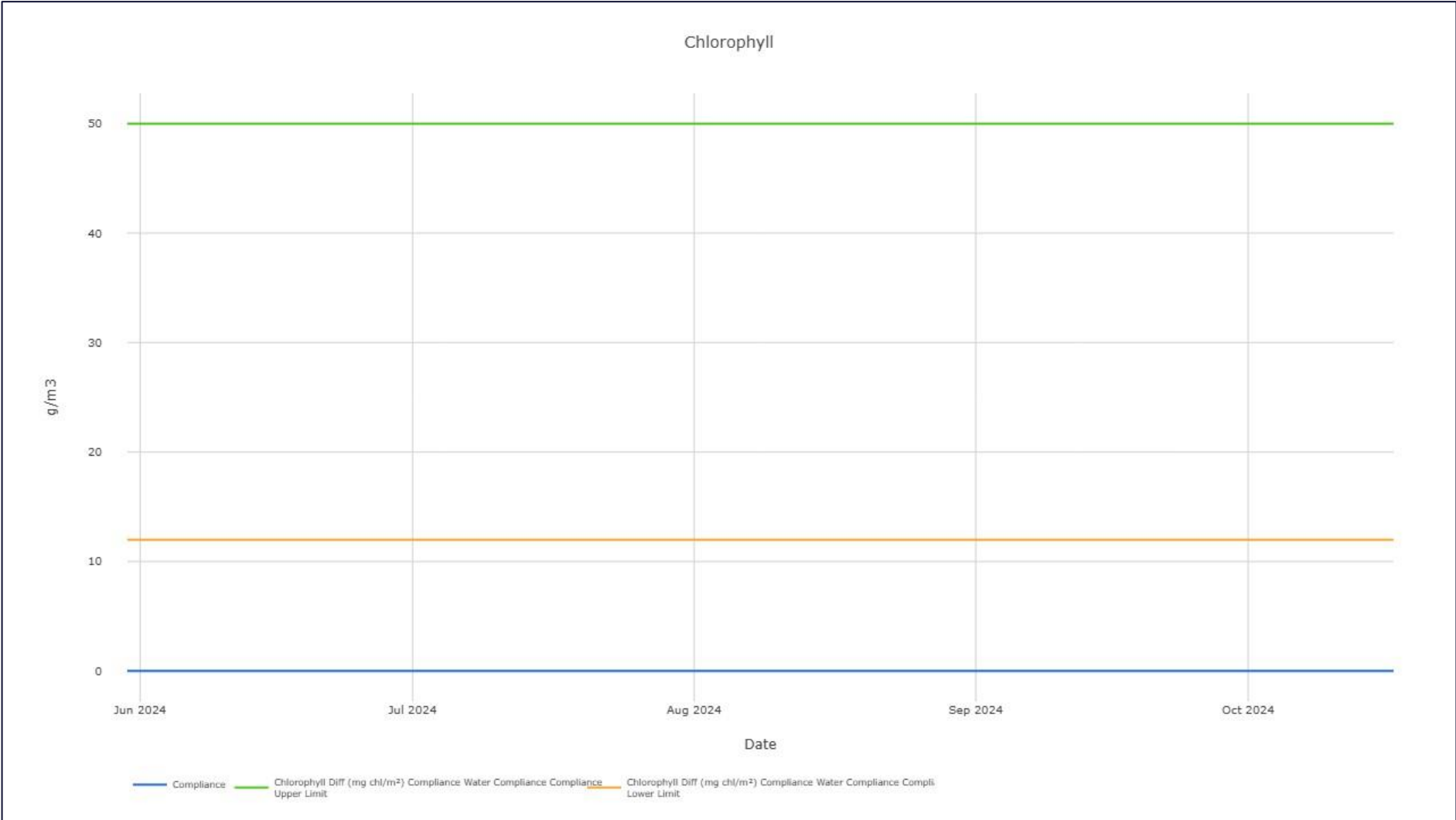
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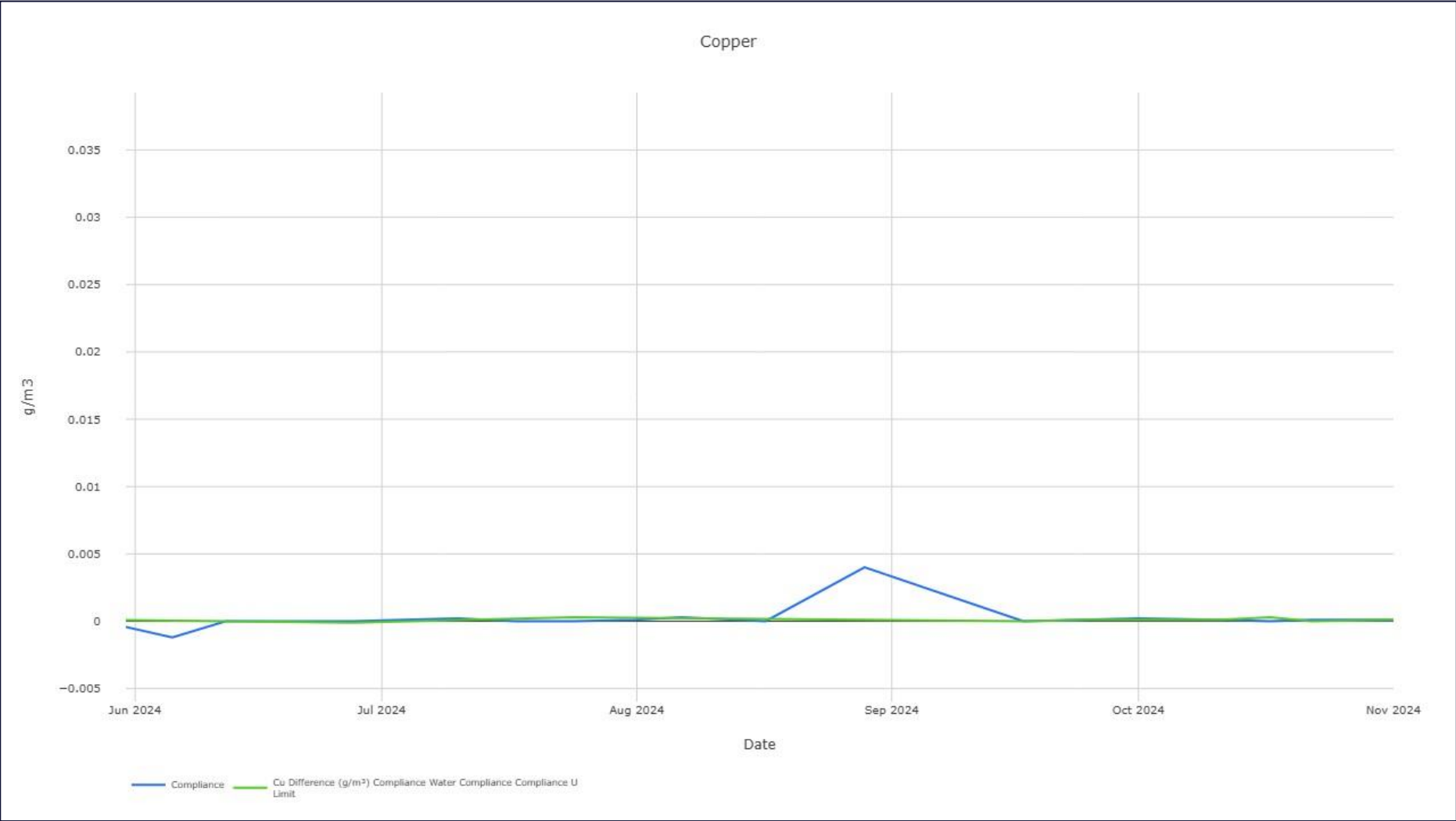
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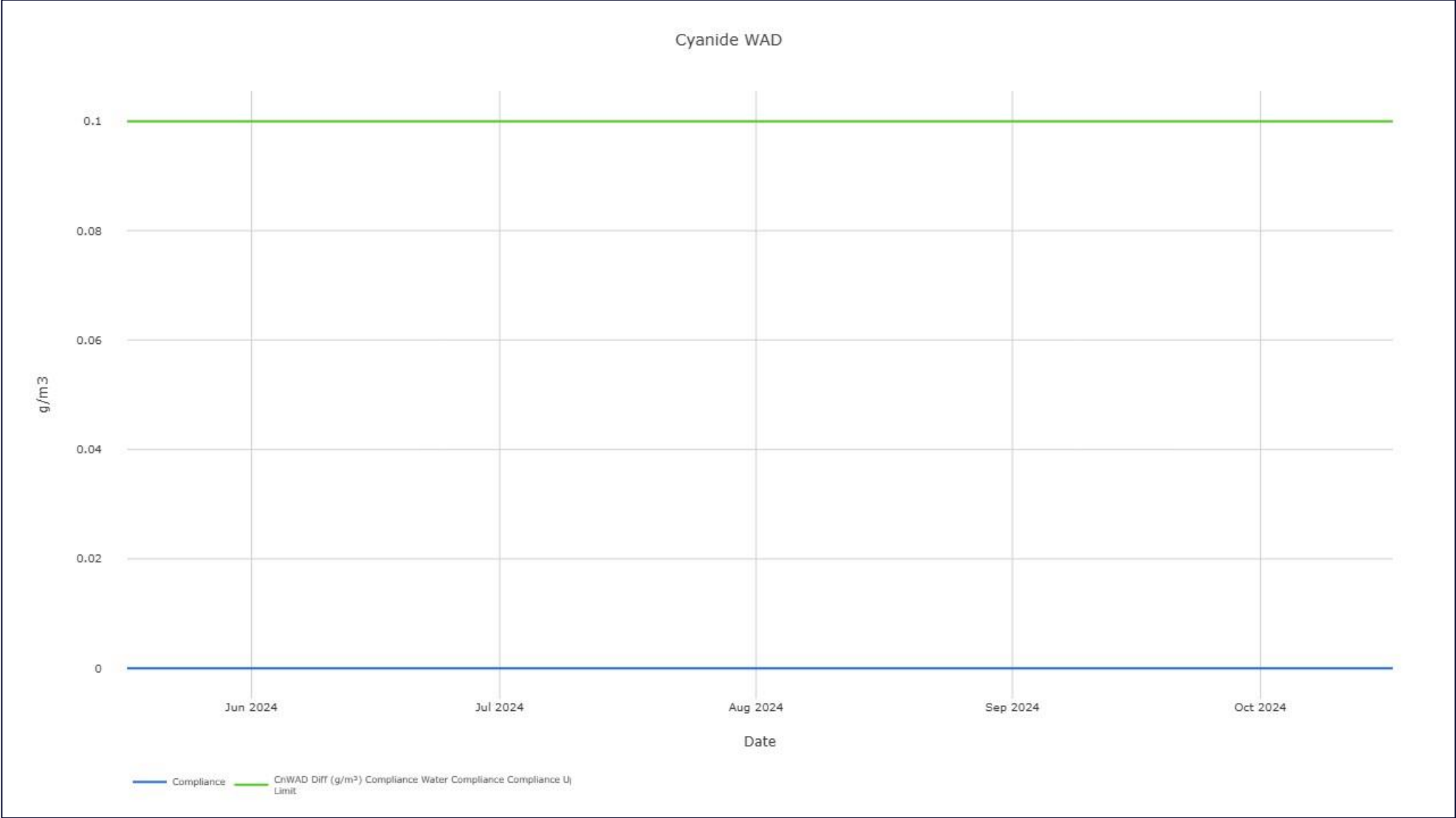
# Environmental Monitoring – Snowy River



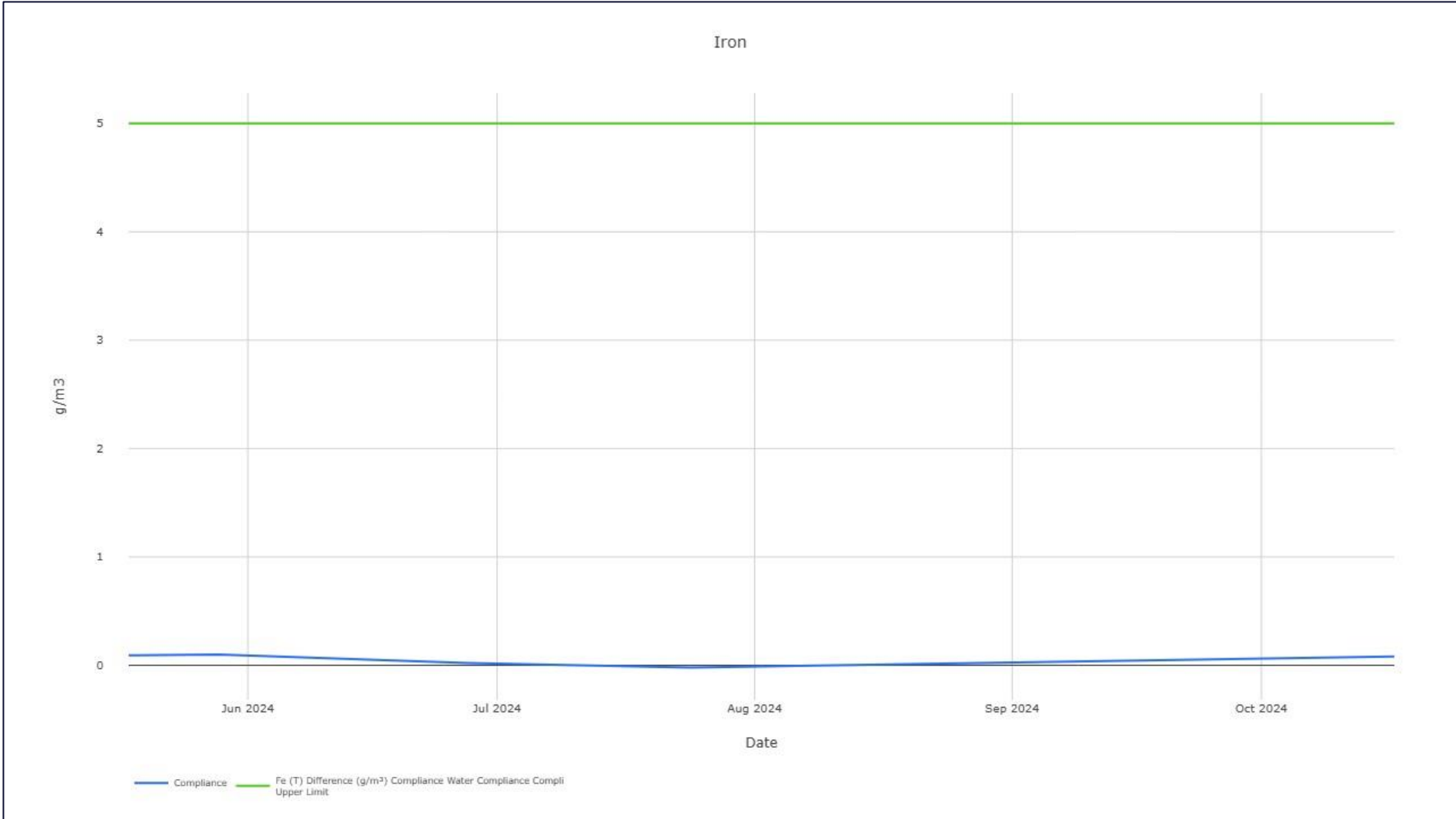
# Environmental Monitoring – Snowy River



# Environmental Monitoring – Snowy River

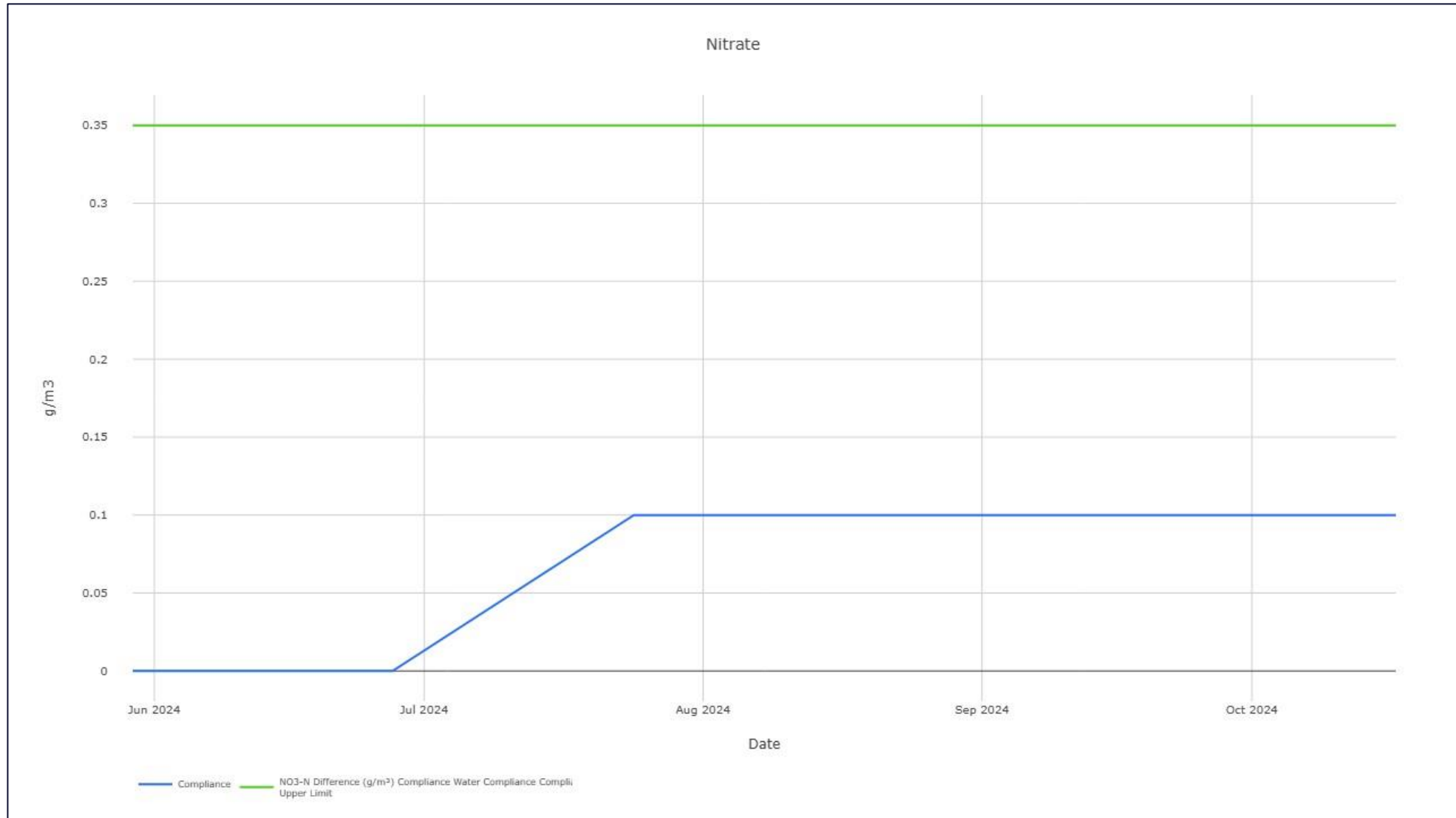


# Environmental Monitoring – Snowy River

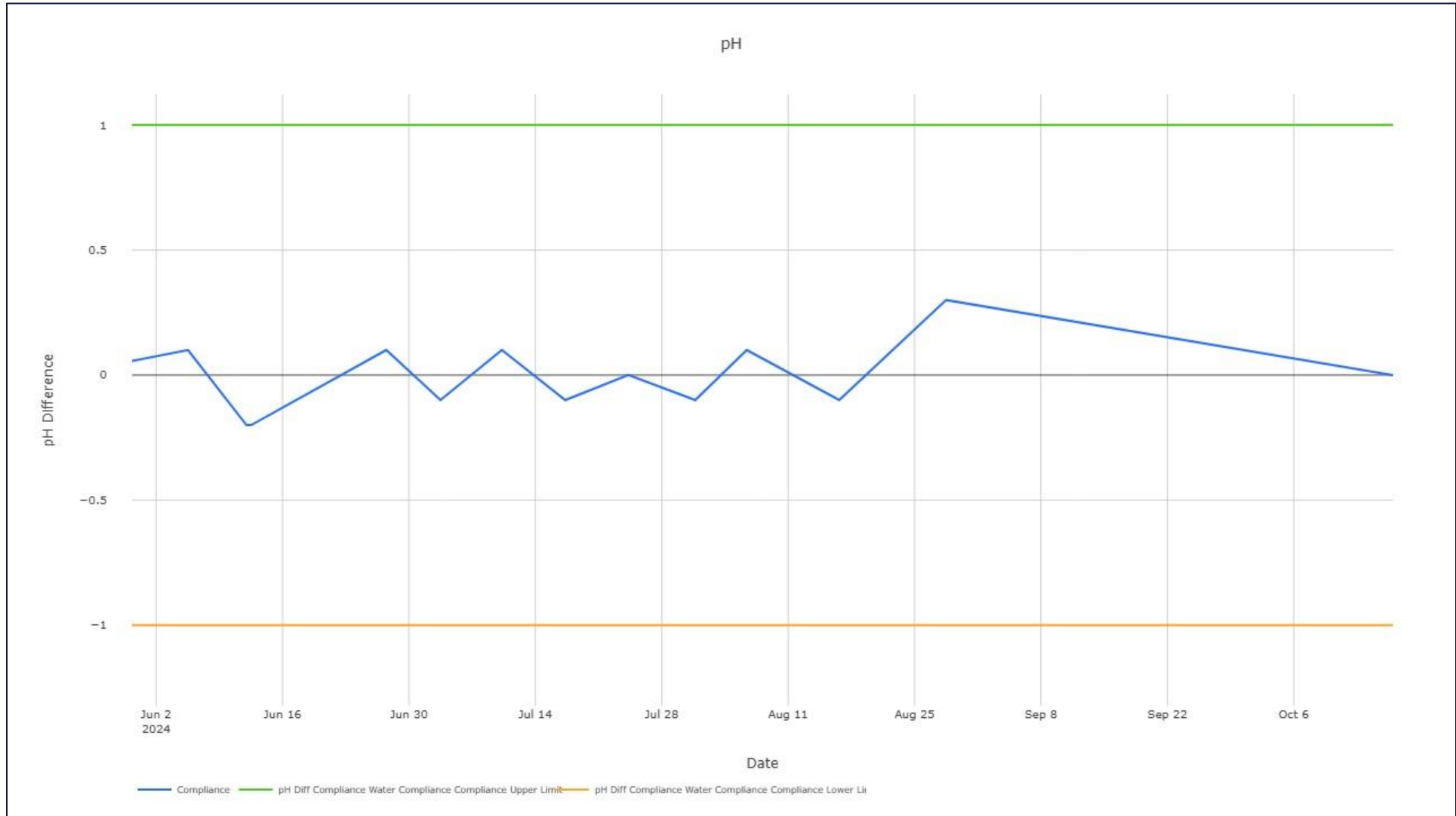




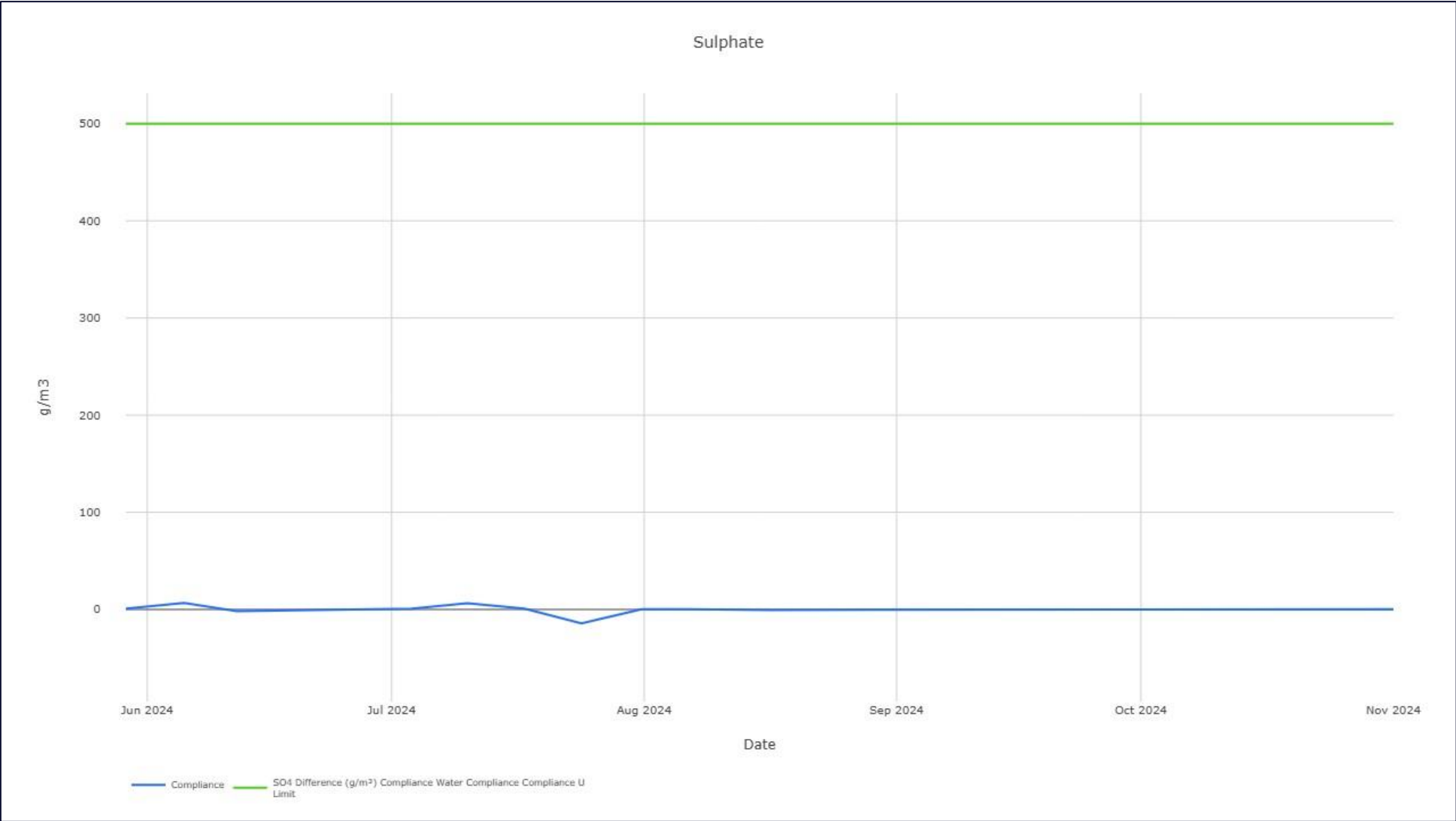
# Environmental Monitoring – Snowy River



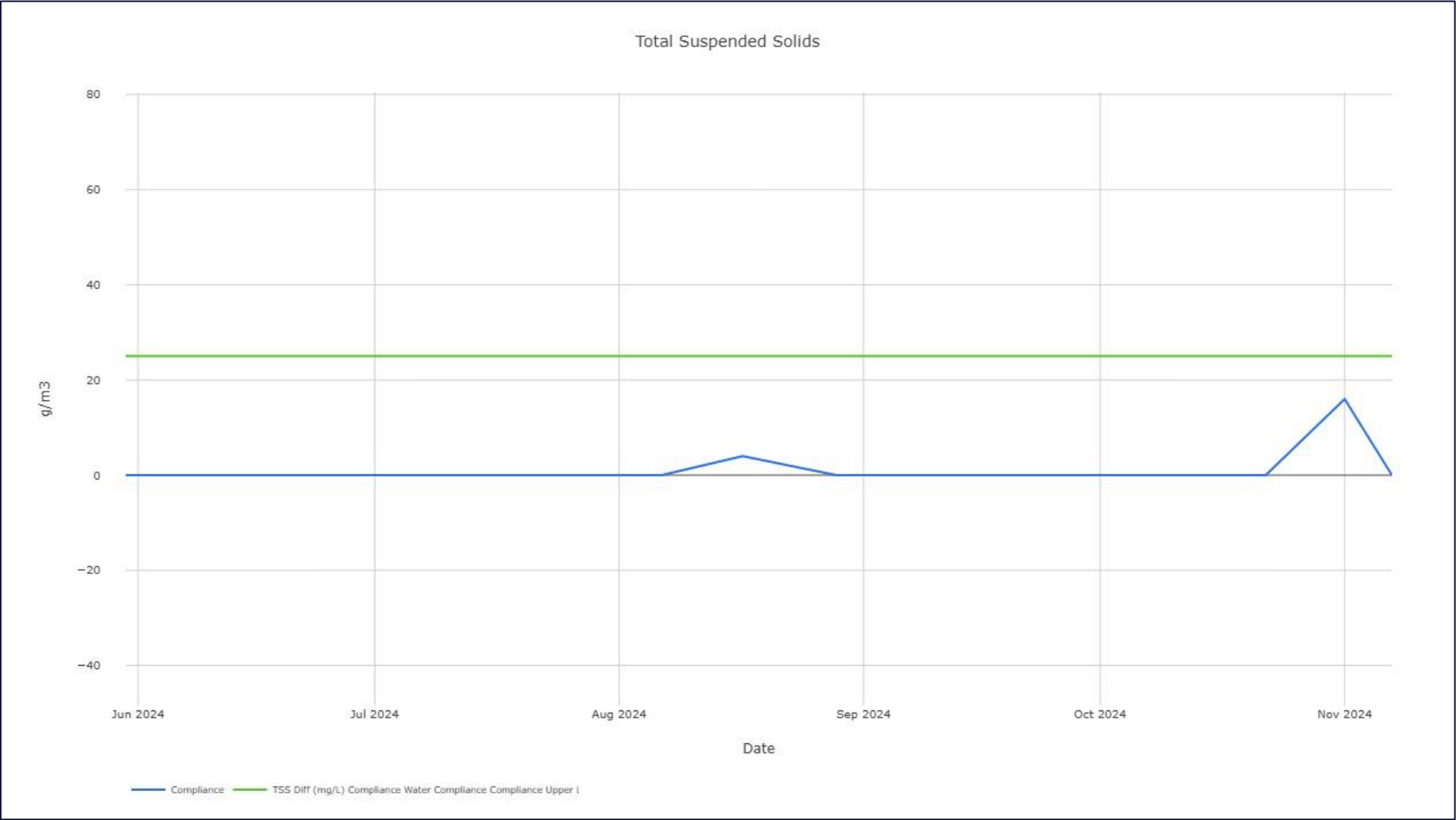
# Environmental Monitoring – Snowy River



# Environmental Monitoring – Snowy River



# Environmental Monitoring – Snowy River



# Mine Waste Management Advisory Report



## Snowy River Mine

- Advisory Group Update – December 2024

- J-NZ0300-007-PPT-RevA
- 4 December 2024



# AGENDA



- MWM has been engaged by Federation to provide the following services:
- Column leach testing of materials (waste rock and tailings).
- Development of management processes for geochemistry data (Sample and Analysis Plan: SAP)
- Performance monitoring of groundwater (Review)

1. Geochemistry
2. Management Processes
3. Performance Monitoring

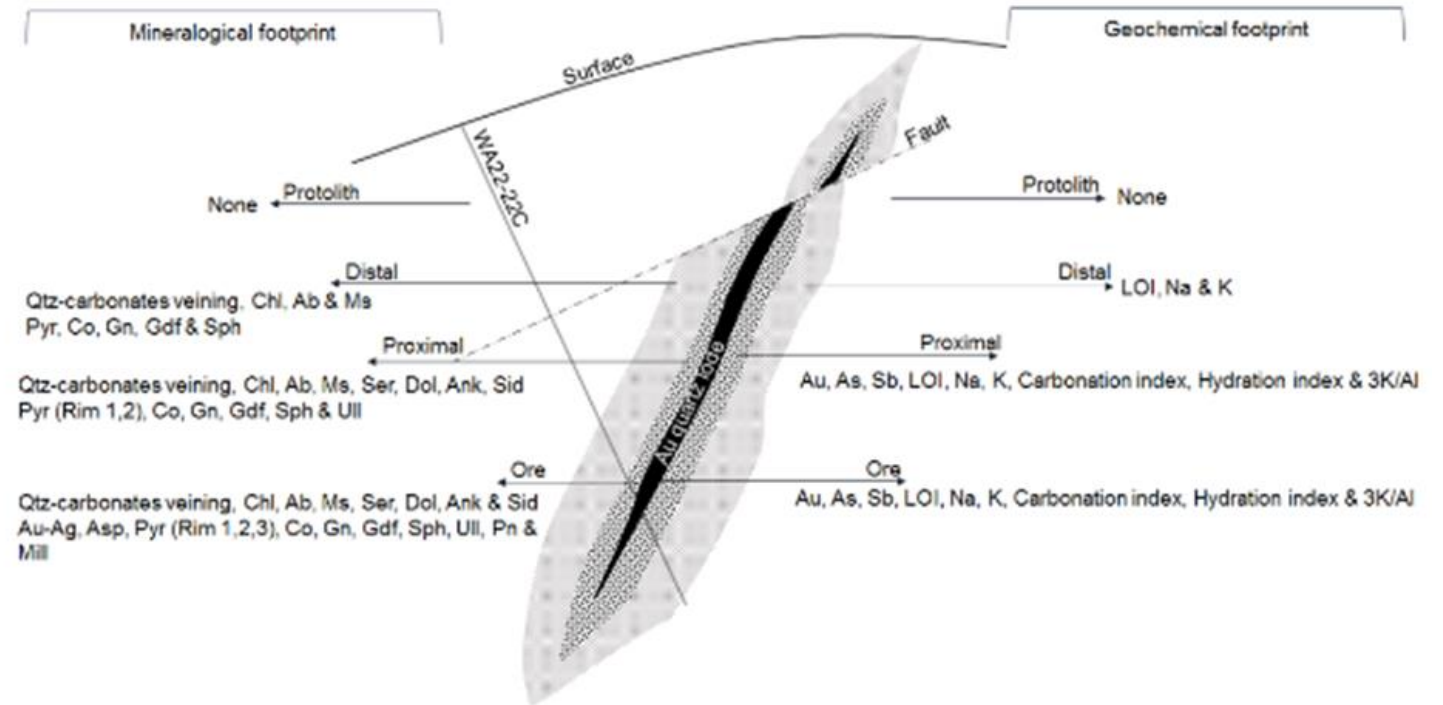


- BACKGROUND: CONSENT REQUIREMENTS:
  - Federation will develop a waste rock block model for the project to determine material quantities, including potentially arsenic generating materials ( $> 100$  ppm As) and proximal materials (20-100 ppm As). Risks need to be understood for the mobility of As by column leach testing.
  - $> 100$  ppm waste rock (using pXRF);
  - 50 – 100 ppm waste rock (using pXRF); and
  - Low As materials  $< 20$  ppm (control sample) and therefore representative of low As waste rock.
- The purpose of this study is to provide additional information on waste rock materials to understand potential geoenvironmental source hazards.



# GEOCHEMISTRY

- COLUMN TESTING:
- Three waste rock columns have been started.
- One tailings column will commence shortly (metallurgical test residues).



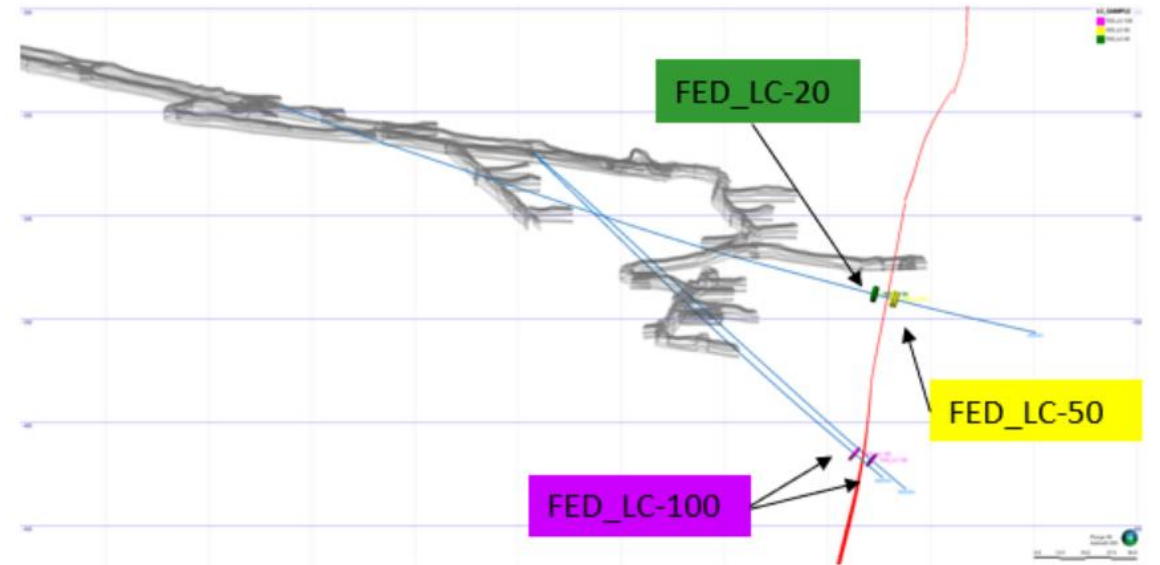
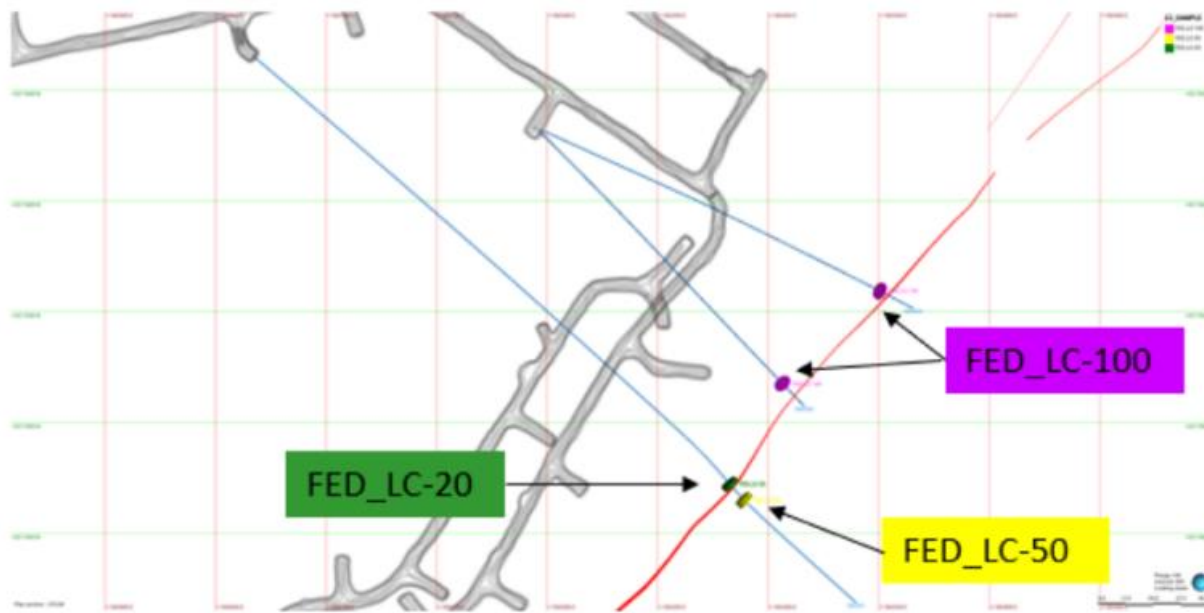
Source: Hamisi (2016)





# GEOCHEMISTRY

- SAMPLE SELECTION - WASTE ROCK COLUMNS:



# GEOCHEMISTRY

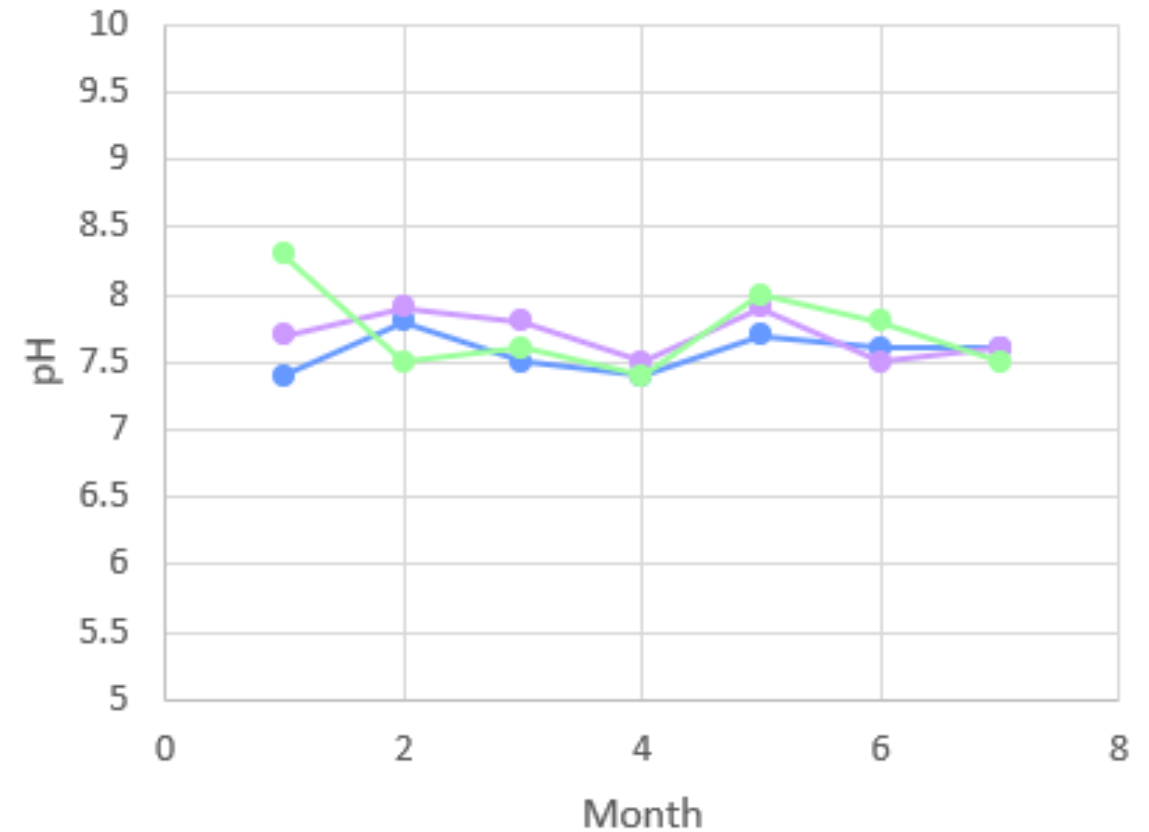
- ABA DATA – COLUMN SAMPLES:

COLUMN SAMPLE ID	As (mg/kg)	S (wt%)	C (wt%)	PASTE pH (1:2)	PASTE EC (1:2)	ANC	MPA	NAPP	NAG pH	NAG 7.0
FED_LC-20	19	0.076	0.57	8.9	240	30	2.3	-28	7	0
FED_LC-50	67.7	0.119	1.38	8.9	260	44	3.6	-41	7	0
FED_LC-100	141.7	0.189	0.73	8.9	270	47	5.8	-41	6.8	1



# GEOCHEMISTRY

- COLUMN TESTING – WASTE ROCK:
  - 7 months of data (columns to be run for 12 months)
  - Report due after 12 months of data (April / May 2025).



# GEOCHEMISTRY

- COLUMN TESTING – TAILINGS (METALLURGICAL WORK STILL IN PROGRESS):
- ABA testing and total metal content testing is proposed for the tailings including:
  - Feed
  - Rougher Tails
  - Detoxed Sulfide Tails
- Shake flask extraction to understand water quality from the materials (for modelling purposes).
- Column leach testing to understand longer term geochemical risks (~6-12 months).
- Review of met test results to understand water quality effects.



# GEOCHEMISTRY

- SAMPLING AND ANALYSIS PLAN:
- Federation have requested that MWM develop a SAP to manage geochemistry data. This will address:
  - Sample collection and analysis for geochem samples (ore drives and WRS samples).
    - ABA, pXRF, Shake Flask
  - Water treatment sludge sampling and analysis.
    - Total digest and Shake flask
  - Database establishment and management process.
  - QAQC requirements
  - Reporting of data



# GROUNDWATER

- GROUNDWATER QUALITY REVIEW:
  - Groundwater is monitored at six monitoring wells, with quarterly sampling events.
  - Standard sampling procedure developed and followed to ensure reliable data is collected.
  - Review initiated to:
    - Better understand spatial and temporal patterns of constituents of interest.
    - Determine level of influence from mine sources (if any).
    - Assess risk of Snowy River non-compliance.



# General Business



- Open forum

# Stay In Touch



## Our Website

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## Follow Federation Mining on LinkedIn & Facebook



Portal construction October 2020