



***2025 OPERATING CARE & MAINTENANCE  
ANNUAL REPORT  
Denison Mines Inc.***

**Submitted to the  
Canadian Nuclear Safety Commission & Ministry of the  
Environment, Conservation and Parks**

**2026**



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March 31, 2026

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Ms. Lori Jalak  
Ministry of the Environment, Conservation and Parks  
70 Foster Drive, Suite 110  
Sault Ste Marie, ON P6A 6V4

Dear Mr. Brown and Ms. Jalak:

**RE: Denison Mines Inc. 2025 Operating Care and Maintenance Annual Report**

Denison Mines Inc. is pleased to submit the Denison Mines Inc. Operating Care and Maintenance Annual Report for 2025. This document has been completed in accordance with: UMDL-Minemill-Denison.01/indf; and UMDL-Minemill-Stanrock.02/indf; and Certificate of Approval (C of A) No. 4-0067-74-766; ECA 9801-DGZTNK; and C of A No. 4-034-76-006.

Yours truly,  
Denison Mines Inc.

Dave Bronkhorst

A handwritten signature in black ink, appearing to read 'Dave Bronkhorst'.

Acting Vice President, Operations  
Enclosure

**Elliot Lake Joint Review Group for Denison Mines Closed Sites**

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## 1. ORGANIZATIONAL INFORMATION

### 1.2 Licencee

DENISON MINES INC.  
1100-40 University Avenue  
Toronto, Ontario  
M5G 1T1

### 1.3 Board of Directors

Table 1.1 contains the list of names and titles of the Directors of Denison Mines Inc. (Denison) as of December 31, 2025. All persons listed below may be contacted via the licensee address.

**Table 1.1 Denison Mines Inc. Directors as of December 31, 2025**

<u>Name</u>	<u>Office</u>
David Cates	Director, President and Chief Executive Officer
Amanda Willett	Director, Corporate Secretary

### 1.4 List of Officers

Table 1.2 contains the list of names and titles of the Officers of Denison as of December 31, 2025. All persons listed below may be contacted via the licensee address.

**Table 1.2 Denison Mines Inc. Officers as of December 31, 2025**

<u>Name</u>	<u>Office</u>
David Cates	Director, President and Chief Executive Officer
Elizabeth Sidle	Chief Financial Officer
Amanda Willett	Director, Corporate Secretary

## 2. FINANCIAL GUARANTEES

Federal and Provincial regulations which apply to the care and maintenance programs of Denison in Elliot Lake require mine operators to provide adequate and secure resources to meet current and future responsibilities with respect to mine closure and long-term care and maintenance.

All expenditures are funded through a reclamation trust fund. Denison currently maintains a balance in the trust equivalent to costs to maintain interim suspension status for the period of 2025 to 2030.

### 3. LICENCE AND MONITORING PROGRAM MODIFICATIONS

Denison's closed mine sites in Elliot Lake are currently managed within the scope of work outlined within a licence regulated by the Federal Canadian Nuclear Safety Commission (CNSC). Currently Denison is the licensee for two Uranium Mine Decommissioning Licences:

- 1) Denison Sites (Tailings Management Area (TMA)-1 and TMA-2) UMDL-Minemill-Denison.01/indf; and
- 2) Stanrock Site UMDL-Minemill-Stanrock.02/indf.

Compliance sample stations that require monitoring under the licences include:

- 1) Stollery Lake Settling Pond Outlet (D-2) for Denison TMA-1;
- 2) Lower Williams Lake (LWL) Settling Pond Outlet (D-3) for Denison TMA-2; and,
- 3) Orient Lake Polishing Pond Outlet (DS-4) for Stanrock TMA.

Provincially, Denison is the permittee for two Certificates of Approvals (C of A) and one Environmental Compliance Approval (ECA) regulated by the Ministry of Environment, Conservation and Parks (MECP):

- 1) Denison Site TMA-1: ECA No. 9801-DGZTNK (September 22, 2025);
- 2) Denison Site TMA-2 (Lower Williams): C of A No. 4-034-76-006; and
- 3) Stanrock Site: C of A No. 4-0067-74-766.

An amended ECA (above) was issued for Denison TMA-1 on September 22, 2025. Changes to monitoring and reporting requirements specific to the ECA are reflected in this annual report as appropriate and in the appendices (Appendix VI).

As part of the closure and decommissioning process Denison and Rio Algom (RAL) developed a focused and integrated performance monitoring framework. This comprehensive monitoring and management strategy clearly defined and delineated the purpose for all monitoring activities through three integrated programs the Serpent River Watershed Monitoring Program (SRWMP), Source Area Monitoring Program (SAMP) and the Tailings Management Area (TMA) Operational Monitoring Program (TOMP). These three monitoring programs allow the effective management of the TMAs and the downstream receivers. An integrated assessment of the results from these programs is included in a State of the Environment Report (SOE). The SOE report includes comprehensive and longer-term monitoring results and analysis compared to the annual operating care and maintenance reporting.

A central tenet of the monitoring framework for the Elliot Lake mines is that the monitoring programs (i.e., TOMP, SAMP, and SRWMP) should evolve in response to observed changes in watershed and TMA conditions (Beak 1999a,b; Minnow 2002a,b). The design for each of these programs is reviewed on a five-year cycle, such that these programs may be modified over time in response to previous findings. Accordingly, the most recent changes were made in the Cycle 6 Study design (Minnow 2024). The Cycle 6 Study Design outlined that the SRWMP demonstrates improving water quality at all monitoring locations over the past 20 years. Based on environmental performance and continuing monitoring and annual reporting for the Serpent River watershed, the Canadian Nuclear Safety Commission (CNSC) and Ontario Ministry of

Environment, Conservation, and Parks (MECP) agreed to transition SOE reporting to a 10-year reporting cycle (email D. Brown to H. Heffner, November 6, 2024). The modified schedule includes a Cycle 7 study design, inclusive of benthos/sediment monitoring and reporting requirements in 2029, and a combined Cycle 6/7 SOE Report in March 2030, beginning the 10-year reporting frequency.

A summary of changes made in the Cycle Study Design over the years, and the current requirements are included in Appendix I. Where requirements of other approvals differ from the SWRMP, SAMP and TOMP, these were noted in Appendix VI.

## **4. HEALTH AND SAFETY**

### **4.2 Methodology**

#### **4.2.9 Health and Safety Injury Statistics**

Health and safety in the workplace continue to be of great importance to Denison. In 2025, monthly company-wide safety meetings and daily line-up safety meetings were completed. These meetings provide Denison personnel with information regarding safety awareness, updates to the safety program and a forum to raise issues or concerns. Training for job responsibilities were tracked utilizing a training matrix to ensure comprehensive and timely qualifications for work. All field work is assessed for risk and documented through a Hazard Assessment process identifying mitigations to identified hazards.

#### **4.2.10 Radon Progeny Monitoring**

Radon progeny monitoring at all Denison Effluent Treatment Plants (ETPs) is conducted on a quarterly basis, as part of the quarterly health and safety inspections. Radon results are reported in Working Level (WL) units.

Radon level is measured by calculating alpha radiation from radon decay products. The sample is first collected on membrane filters with an air-sampling pump by walking through the entire ETP over a 5-minute period, simulating a normal work routine. The ETP is ventilated as per routine work practice and according to signage on the building before the walkthrough. Alpha radiation is measured with an alpha counter between forty and ninety minutes after the sample has been collected. WL is then calculated based on the counts, count duration, sampling duration, sampling flow rate, decay factor, filter self-absorption value, background count and efficiency factor.

The reportable action limit for radon exposure at all ETPs is 0.1 WL. To ensure radon levels stay below the reportable action limit, an internal investigation limit of 0.05 WL has been established to trigger a response whereby mitigating measures are implemented to ensure worker exposure to radon gas is reduced and controlled. Mitigating measures include, but are not limited to, the operation of a ventilation fan and/or posting signage to instruct longer ventilation time before entering an enclosed ETP.

### **4.3 Results and Discussion**

#### **4.3.9 Health and Safety Injury Statistics**

In 2025, health and safety-related training and education continued to be an integral part of monthly safety meetings and daily line-ups for all personnel working at the Denison Elliot Lake Operations. All personnel continued to hold the following certifications and/or had completed the

following training: Workplace Hazardous Materials Information System (WHMIS), Cardiopulmonary Resuscitation (CPR) and First Aid certification. Many workers also completed additional training and certifications to ensure their qualifications for specialty or specific tasks and jobs related to care and maintenance activities were current. There were no medical aid or lost time accidents reported in 2025 for employees at the Elliot Lake sites (Table 4.1.1). Additionally, no medical aids or lost time accidents were reported for contractors on site in 2025.

**Table 4.2.1 Health & Safety Injury Statistics**

Category	2025		2024		2023	
	Number	Frequency	Number	Frequency	Number	Frequency
Medical Aid	0	0.0	0	0.0	1	5.04
Lost Time	0	0.0	0	0.0	0	0.0
<b>Total</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>1</b>	<b>5.04</b>
<b>Person-Hours Worked - Denison Employees</b>	<b>11316</b>		<b>13204</b>		<b>39484</b>	

Frequency is Calculated as: Number/Person-hours worked \*200,000.

#### **4.3.10 Radon Progeny Monitoring**

There was one radon progeny action level exceedance in Q1 of 2025 at Denison LWL ETP. An investigation was conducted and multiple samples were taken to understand the causation of the exceedance. After the investigation it was determined that a longer ventilation time before entering the ETP would reduce the Working Levels (WL's) below the action level. A sign was posted on the door of the treatment plant to ventilate the area for a minimum of five minutes prior to commencing work or sampling in the ETP. The action level criteria are specific to the Elliot Lake area as indicated in the Control Limit Registry companion document. After the investigation working Levels (WLs) of radon progeny continued to test at levels far below the action level criteria of 0.10 WL for Denison TMA-1 ETP (Table 4.1.3.1), Denison LWL ETP (TMA-2) (Table 4.1.3.2) and for Stanrock ETP (Table 4.1.3.3). Quarterly values for individual ETPs are provided in their respective tables.

**Table 4.2.2 Denison TMA-1 ETP Radon Progeny Monitoring Results 2025**

Quarter	Radon (WL)
1	0.0134
2	0.0019
3	0.0021
4	0.0011

**Table 4.2.3 Denison LWL ETP Radon Progeny Monitoring Results 2025**

Quarter	Radon (WL)
1	0.1925
2	0.0143
3	0.0274
4	0.0023

**Table 4.2.4 Stanrock ETP Radon Progeny Monitoring Results 2025**

Quarter	Radon (WL)
1	0.0067
2	0.0141
3	0.0107
4	0.0055

## 5. WATER QUALITY MONITORING PROGRAM

### 5.2 Methodology

#### 5.2.9 TOMP, SAMP and SRWMP

As part of the closure and decommissioning process, an integrated performance monitoring framework was developed for Denison and RAL sites for water quality monitoring activities through three integrated programs: TOMP, SAMP and SRWMP. These programs have been described in the Cycle 6 Study Design (Minnow 2024). The Cycle 6 Study Design presented data for sampling locations over a longer period than annual reporting (2003-2023).

#### 5.2.10 TMA Operational Monitoring Program (TOMP)

The TOMP was designed to track the performance of the TMAs and to generate data used to make management decisions to maintain performance compliance of the TMAs. The program included water quality monitoring within the TMA basins and groundwater quality, to reflect the operational and treatment performance. The data collected in the program is used as references for water quality trends for the Serpent River Watershed receiving environment, however the water quality from Denison and Stanrock TMA sites must comply with the regulatory criteria for the effluents from the treatment plants specified in the licences and C of A and ECA (Sample points: D-2, D-3 and DS-4).

#### 5.2.11 Source Area Monitoring Program (SAMP)

The SAMP was designed to monitor the nature and quantity of potential contaminants being discharged from the TMAs to the Serpent River Watershed. Some monitoring stations for the SAMP program were also the TOMP effluent stations, and requirements have been harmonized to serve both programs. The data collected in the program could be used as references for water quality trends and performance for the Serpent River Watershed receiving environment. Requirements for monitoring in the TMA-1 ECA that differ from the SAMP are included in Appendix VI.

#### 5.2.12 Serpent River Watershed Monitoring Program (SRWMP) State of the Environment Report (SOE)

The SRWMP SOE, most recently produced in 2021, was designed to provide an integrated monitoring approach to assess the cumulative effects and watershed-level changes over time, to evaluate the recovery of the receiving environment following the implementation of the decommissioning plans. The SRWMP SOE assessed water and sediment chemistry, as well as benthic invertebrate communities inhabiting downstream and reference lakes within the watershed. Water quality data collected in the program is compared to the benchmarks (Table 5.1.1) established for the SRWMP. These benchmarks were based on water quality criteria for the protection of aquatic life or on the upper range of background concentrations (except pH, for which the lower background range was relevant). The most recent federal and provincial (Ontario) guidelines were used to determine these benchmarks, or, if none existed, British Columbia Ministry of Environment (BCMOE) water quality guidelines were used. A dose-based site-specific benchmark for radium-226 was also developed, as per CNSC request (Minnow, 2019 Appendix C).

The objectives of the SRWMP are:

- Evaluation of the cumulative effects of mine discharges on the Serpent River Watershed

- Evaluation of the effectiveness of mine decommissioning plans
- Assessment of long-term trends in environmental quality within the watershed.

An additional SRWMP Water Quality Report is prepared annually to review water quality downstream of the SAMP and TOMP and provides water quality data from watershed monitoring locations from January 1, 2025 through December 31, 2025. The objectives of the SRWMP annual data review are to identify anomalous data and to evaluate short-term data trends at key locations. Step changes and anomalies are identified in this report by reviewing and compiling the last five years of annual average data for all SRWMP monitoring locations, then reviewing the information for any noticeable changes. The 2025 SRWMP report was prepared and submitted under a separate cover (RAL, Denison, 2026). Most of the SRWMP results are not presented in this annual report, but it is recommended the report be read in conjunction with the Denison 2025 Annual OCM report. The 2025 SRWMP annual report indicates consistently good water quality in the receiving environment with all parameters below benchmark assessment values.

**Table 5.1.1 Water Quality Benchmarks for SRWMP and Data Quality Objectives for TOMP, SAMP and SRWMP**

		Assessment Criteria <sup>1</sup>		Data Quality Objectives <sup>2</sup>						
Parameter	Units	Receiving Environment Criteria	Targeted Detection Limit	Minimum Detectable Difference	Field Blank Criteria	Laboratory Blank Criteria	Field Precision	Laboratory Precision	Laboratory Spikes	Laboratory Accuracy (CRM) <sup>b</sup>
<b>Field Parameters</b>										
Conductivity	µs/cm	-	0.1	0.05	-	-	10%	-	-	-
Flow	L/s	-	method <sup>a</sup>	method <sup>a</sup>	-	-	30%	-	-	-
pH	pH units	-	0.1	0.01 or 0.02	-	-	10%	-	-	-
	Lake	6.5								
	Wetland/Stream	5.3								
<b>Laboratory Parameters</b>										
Acidity	mg/L	-	1.0	-	2.0	2.0	20%	10%	-	-
Barium	mg/L	1	0.005	-	0.01	0.01	20%	10%	20%	20%
Cobalt	mg/L	0.0025	0.0005	-	0.001	0.001	20%	10%	20%	20%
Iron	mg/L	-	-	-	0.04	0.04	20%	10%	20%	20%
	Lake	0.755	0.02							
	Wetland/Stream	2.49	0.02							
Manganese <sup>3</sup>	mg/L	0.841	0.002	-	0.004	0.004	20%	10%	20%	20%
Radium	Bq/L	0.469	0.005	-	0.01	0.01	20%	10%	20%	-
Sulphate <sup>3</sup>	mg/L	128-429	0.1	-	0.2	0.2	20%	10%	20%	20%
TSS	mg/L	-	1.0	-	2.0	2.0	20%	10%	-	-
Uranium	mg/L	0.015	0.0005	-	0.001	0.001	20%	10%	20%	20%

**Notes:**

1. Assessment criteria as per Table S.1, Appendix S, Cycle 5 State of the Environment Report for the SRWMP, SAMP and TOMP (Minnow, 2021)
  2. Table 6.2 Cycle 5 Study Design for the SRWMP, SAMP and TOMP (Minnow, 2019)
  3. Sulphate and manganese criteria taken from Table S.2, Appendix S, Cycle 5 State of the Environment Report for the SRWMP, SAMP and TOMP (Minnow, 2021). Parameters are hardness dependent.
- a. Reporting Limit varies by method  
b. CRM (Certified Reference Material)

### 5.2.13 Program Requirements

Water quality monitoring requirements and criteria as per the licences were fulfilled through the approved TOMP, SAMP and SRWMP and any additional requirements through the TMA-1 ECA. The water quality monitoring locations in this report comprise part of the Serpent River Watershed (SRW), which as outlined above, is a shared watershed with RAL sites and their monitoring locations.

The 2025 TOMP and SAMP followed program requirements specific to the following: sampling locations, frequencies, parameters and analytical protocols. These requirements have been recommended and approved in the Cycle 6 Study Design. Appendix II in this report provides maps of the sampling stations within the water quality program. Tables in Appendix II provide a brief

description of each location, the sampling frequency and parameters monitored as required by TOMP and SAMP, as well as the C of As and ECA and decommissioning licenses as identified in Section 3.

Surface water quality monitoring results, including effluent and seepages, are compared to SRWMP assessment criteria for the receiving environment (Table 5.1.1). However, it must be noted that the water quality is not required to meet these benchmarks. This comparison is completed as a reference point for system changes and recovery since decommissioning. Water quality at the final points of discharge (D-2, D-3 and DS-4) are required to meet effluent limits included in the licenses and permits.

Additional monitoring and comparisons of results to other benchmarks were carried out as required by the changes included in the September 2025 ECA amendment for TMA-1 and are included in Appendix VI.

#### **5.2.14 Data Quality Objectives**

Data quality objectives, analytical method changes and data screening methods and results are included in Appendix III.

Targeted Detection Limits (TDL) and Data Quality Objectives (DQOs) for TOMP and SAMP requirements were derived from the Cycle 5 SOE and are provided in Appendix III and Table 5.1.1.

Laboratory data quality assessment is provided in Appendix IV of this report.

## 6. RESULTS AND DISCUSSION

### 6.2 Water Quality Monitoring Program

The objective of the annual water quality data review was to identify atypical data and to provide evaluation and short-term annual averages at select locations. Changes and anomalies were identified by reviewing and compiling the last five years of annual average data for all TOMP and SAMP locations. Unusual results were routinely investigated in accordance with the *Water Quality Assessment and Response Plan*, which is included in Appendix A of the most recent SOE Report (Minnow, 2021). Longer term performance reporting and comparison to Environmental Assessment predictions is completed in the State of the Environment Reports with some updated trends presented in the Cycle 6 Study Design (Minnow 2024). As per the Cycle 6 Study Design the next SOE report will be submitted in 2030 (Minnow 2024).

#### 6.2.9 Denison TMA-1

Site-specific water quality monitoring at the Denison TMA-1 facility was completed in accordance with TOMP and SAMP design requirements, with additional monitoring completed as part of the September 2025 TMA-1 ECA update (Appendix VI). Water quality data from all the sites of the monitoring programs were compared to SRWMP benchmarks to demonstrate changing water quality and to identify potential variables or sources of concern relative to the downstream receiving environment, as well as to monitor compliance discharge criteria relative to treatment performance. Mine sources (effluent and seepage) were not expected to meet receiving water benchmarks, nor are they required to, as assessed in the 1995 Decommissioning Environmental Assessment (DML 1995). Detailed water quality results are provided in Appendix V and VI. As presented in the SOE (Minnow 2021), seepage water quality has improved since decommissioning and parameter values measured in 2025 are consistent with this trend.

Performance of TMA-1 was monitored at the ETP influent station D-1 as part of the TOMP program (Table 6.1.1). Acidity and cobalt levels were consistently low during the past five years, and pH has remained consistent at near neutral to slightly alkaline between 2021 and 2023; 2025 saw a slight decrease in pH to 7.64 compared with 8.1 the year prior. Most metal concentrations over the last five years remained below SRWMP benchmarks (Appendix III, Table 1). The 2025 mean uranium concentration was slightly higher than during the previous five years, lower than in 2023 and still within the historical data range. Sulphate concentrations have been declining as predicted in the 1995 Environmental Impact Statement (DML 1995). In 2025 there was a slight increase in sulphate, with the values generally stable to declining over the past four years. Annual average radium-226 levels have remained stable over the five-year reporting period. Denison continues to evaluate radium-226 in TMA-1 and downstream and seeks continuous improvement opportunities for effluent treatment efficiencies.

**Table 6.1.1 – Annual Average Concentrations ETP Influent (D-1)**

Year	Parameter Units	FLOW (L/s)	ACID (mg/L)	HARD (mg/L as CaCO <sub>3</sub> )	pHF (PH)	SO <sub>4</sub> (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
2021		29.85	<1	99.3	7.6	52.2	1.511	0.101	<0.0005	0.07	0.022	0.0075
2022		19.13	<1	98.5	7.6	43	1.584	0.063	<0.0005	0.09	0.03	0.0077
2023		23.86	<1	116	7.4	58	1.75	0.0820	<0.0005	0.060	0.01200	0.0116
2024		17.11	<2	85.3	8.1	39	1.60	0.106	0.000100	0.070	0.01100	0.00760
2025		46.53	5	104	7.64	57	1.66	0.08	0.0002	0.21	0.018	0.009
<i>Annual Summary Statistics</i>												
<i>Average</i>		27.30	5	101	7.7	50	1.62	0.0862	0.000158	0.099	0.01863	0.0086
<i>Maximum</i>		46.53	5	116	8.1	58	1.75	0.1060	0.000217	0.205	0.03000	0.0116
<i>Minimum</i>		17.11	5	85	7.4	39	1.51	0.0630	0.000100	0.060	0.01100	0.0075

Note: Five Year annual average, maximum and minimum statistics. pHF is a pH value taken in the field.

The final point of control at the TMA-1 facility was monitored at the Stollery Settling Pond Outlet (station D-2). Review of the annual average concentrations for TOMP and SAMP parameters for the last five years indicated consistently low TSS levels, stable radium-226 concentrations and neutral pH values, with all compliance parameters meeting their grab sample and monthly mean discharge limits (Table 6.1.2, Figures 6.1.1, 6.1.2 and 6.1.3). The radium-226 concentration observed in 2025 was comparable with previous years.

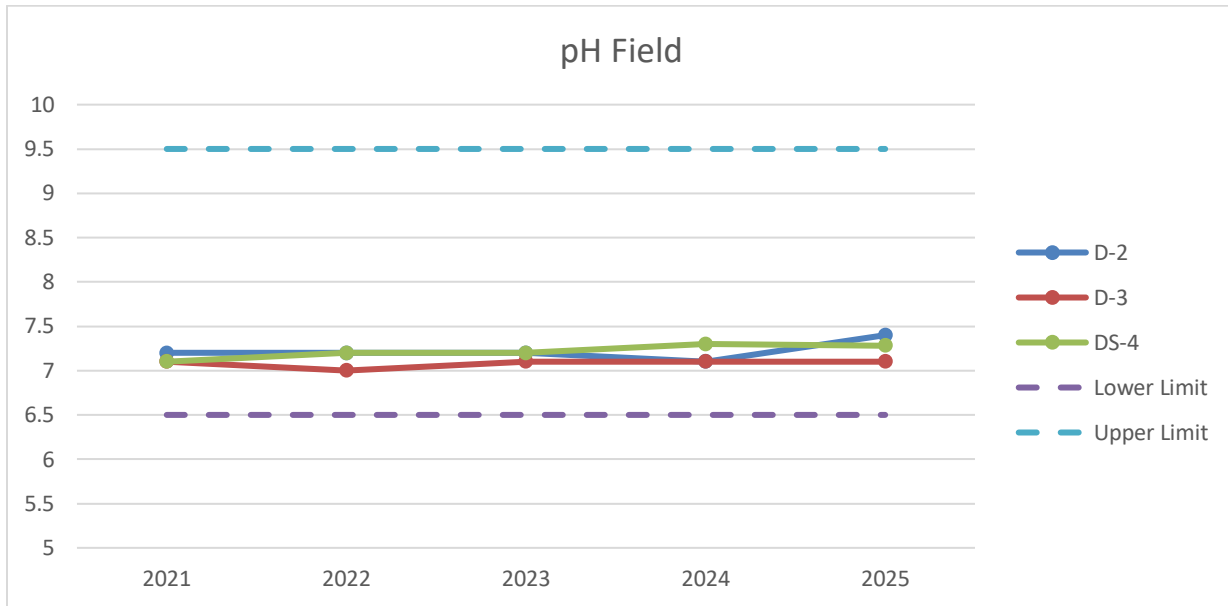
Uranium levels are lower in 2025 compared with the previous four years. Sulphate shows consistency between 2025 and previous years. All parameters remained below the SRWMP benchmarks (Appendix III, Table 1), and cobalt remained close to the method detection limit (MDL).

**Table 6.1.2 – Final Discharge at Stollery Settling Pond Outlet (D-2)**

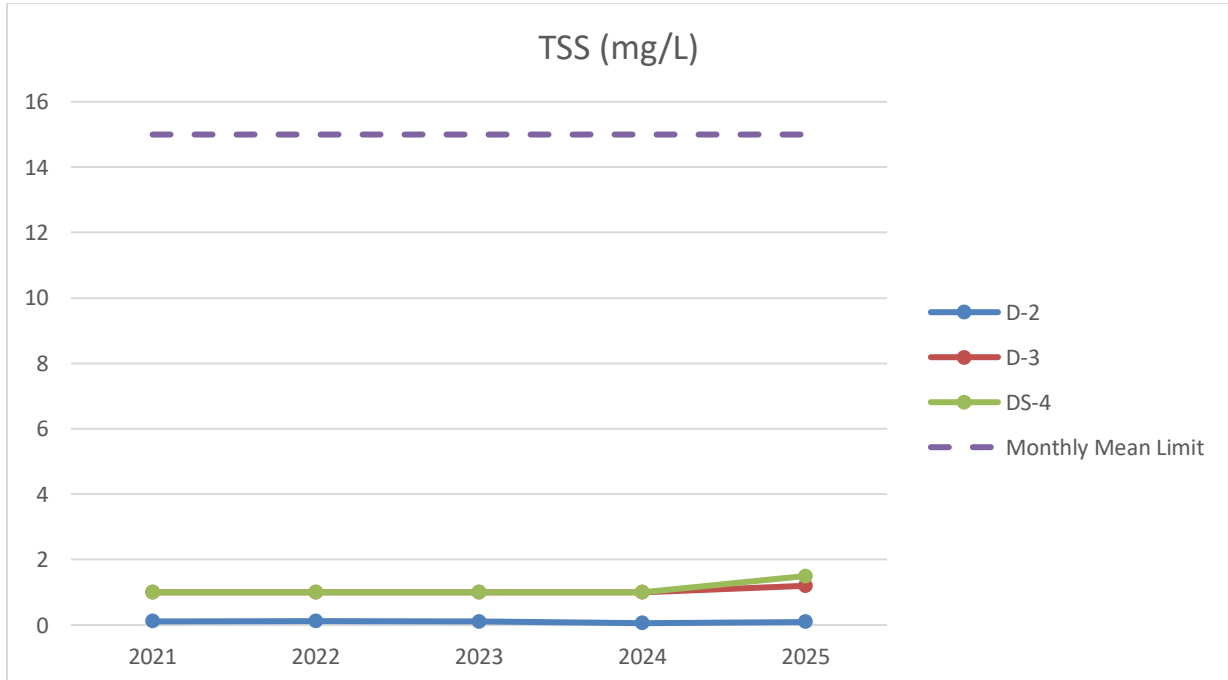
Year	Parameter Units	FLOW (L/s)	HARD (mg/L as CaCO <sub>3</sub> )	pHF (PH)	SO <sub>4</sub> (mg/L)	TSS (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
2021		39.19	237.4	7.2	163.3	1	0.115	0.284	0.0005	0.28	0.148	0.0281
2022		41.17	259.8	7.2	200.3	1	0.12	0.2720	0.0005	0.35	0.1700	0.0326
2023		53.42	261	7.2	171	1	0.109	0.4160	0.0004	0.420	0.142	0.032
2024		37.75	286	7.1	240	1	0.058	0.202	0.000400	0.410	0.132	0.0338
2025		42.41	226	7.40	182	1.4	0.095	0.484	0.0005	0.532	0.116	0.0217
<i>Annual Summary Statistics</i>												
<i>Average</i>		42.79	254	7.2	191	1	0.099	0.3316	0.0005	0.398	0.1416	0.030
<i>Maximum</i>		53.42	286	7.4	240	1	0.120	0.4839	0.0005	0.532	0.1700	0.034
<i>Minimum</i>		37.75	226	7.1	163	1	0.058	0.2020	0.0004	0.280	0.1161	0.022

Note: Five Year annual average, maximum and minimum statistics. pHF is a pH value taken in the Field

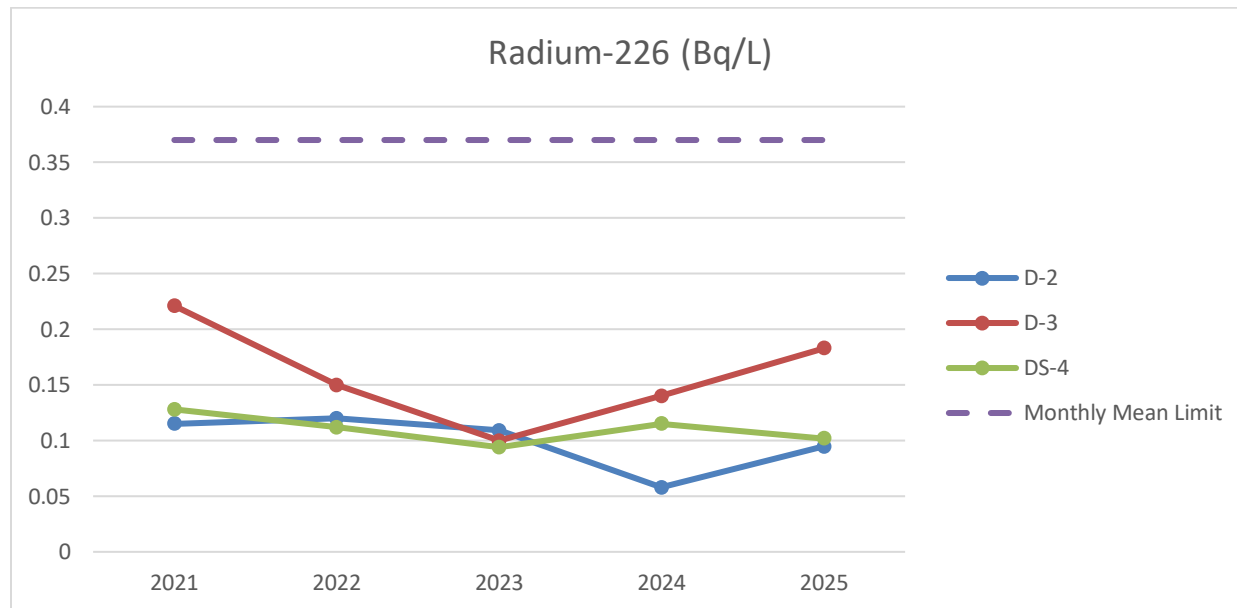
**Figure 6.1.1 – Final Discharge Locations (D-2, D-3 and DS-4) Annual Average pH**



**Figure 6.1.2 – Final Discharge Locations (D-2, D-3 and DS-4) Annual Average TSS**



**Figure 6.1.3 – Final Discharge Locations (D-2, D-3 and DS-4) Annual Average Radium-226**



Toxicity was monitored for Denison TMA-1 at the final discharge station D-2 (Stollery Settling Pond Outlet) to estimate the potential effects of effluent on aquatic biota. Toxicity sampling was completed semi-annually in 2025 as per SAMP requirements and included the following tests: acute *Daphnia magna* and rainbow trout toxicity and sub lethal *Ceriodaphnia dubia* toxicity. In 2025, no mortality was observed in the acute lethality tests. *Ceriodaphnia dubia* IC<sub>25</sub> reproduction results were >100% effluent in the June sampling event. The September sub lethal test was invalid, and D-2 was resampled in October 2025. The results of the October test were valid and the IC<sub>25</sub> reproduction results were >100% effluent (Appendix VII). The D-2 discharge remains not acutely lethal and did not cause sub lethal effects. Toxicity testing will continue in 2026. In 2025, TMA-1 effluent quality at the final point of control, D-2, complied with the discharge limits established in the decommissioning licence (Table 6.1.3).

**Table 6.1.3 – 2025 TMA-1 Compliance with Discharge Limits at Final Point of Control (D-2)**

Month	Samples Required	Number of Times Discharge Limits Were Exceeded					
		pH (Field) PH		Total Suspended Solids mg/L		Radium-226 Bq/L	
		Grab Sample Limit	Monthly Arithmetic Mean	Grab Sample Limit	Monthly Arithmetic Mean	Grab Sample Limit	Monthly Arithmetic Mean
		Upper 9.5 lower 5.5	Upper 9.5 lower 6.5	Upper 50 lower NA	Upper 25 lower NA	Upper 1.11 lower NA	Upper 0.37 lower NA
Jan-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Feb-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Mar-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Apr-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
May-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Jun-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Jul-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
Aug-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Sep-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Oct-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
Nov-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Dec-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
Total	52	0 of 52	0 of 12	0 of 52	0 of 12	0 of 52	0 of 12

Limits established in the Licence UMDL-MINEMILL-DENISON.01/indf issued December 15, 2004.

### 6.2.10 Denison Lower Williams Lake (TMA-2)

Site-specific water quality monitoring at the Denison LWL ETP was completed in accordance with TOMP and SAMP requirements. Detailed monthly average results are provided in Appendix V.

LWL influent station (D-22) is used to monitor seepage from Dam 1 and is in a natural wetland area. Review of annual average concentrations for TOMP parameters at this station indicates variability for some parameters. Water quality at D-22 shows near neutral pH values (Table 6.1.4) that are within the SRWMP benchmark (Appendix III, Table 1) pH range. Annual concentrations of uranium, barium and cobalt have been generally stable over the past four to five years, and all remained below SRWMP benchmarks (Table 6.1.4, Appendix III, Table 1). Iron and manganese had slightly higher numbers than 2024 but remain lower than the five-year average and remain below the SRWMP water quality benchmarks and historical values. Radium-226 concentrations demonstrate variability over the five-year period, with 2025 representing a below average concentration. The 2025 annual radium-226 concentration in the influent (D-22) remains below the criteria applied to the final point of discharge (D-3). Denison will continue to monitor this trend; if it continues, treatment for radium-226 removal may not be necessary. Sulphate concentrations at D-22 are decreasing compared to 2022-2024 and remain within historical ranges, well below the 50 and 100-year post decommissioning porewater concentration predictions (i.e., 1,600 mg/L sulphate) made in the 1995 EA (DML 1995).

**Table 6.1.4 – Denison Lower Williams Lake ETP Influent (D-22)**

Year	Parameter Units	pHF (PH)	SO4 (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
2021		6.8	67	0.436	0.0670	0.0010	6.780	0.733	0.0011
2022		6.7	129	0.689	0.0570	0.0008	7.680	0.924	0.0017
2023		6.7	125	0.262	0.0460	0.0012	5.740	1.154	0.0013
2024		6.6	124	0.369	0.0380	0.00090	1.87	0.468	0.000500
2025		6.60	96.7	0.362	0.037	0.0006	2.919	0.515	0.001
<i>Annual Summary Statistics</i>									
	<i>Average</i>	6.7	108	0.424	0.0490	0.0009	4.998	0.759	0.0011
	<i>Maximum</i>	6.8	129	0.689	0.0670	0.0012	7.680	1.154	0.0017
	<i>Minimum</i>	6.6	67	0.262	0.0370	0.0006	1.870	0.468	0.0005

Note: Five Year annual average, maximum and minimum statistics. pHF is a pH value taken in the field.

The final discharge from LWL is monitored near the Denison Access Road at Station D-3. Review of annual average concentrations for TOMP and SAMP parameters demonstrate stable pH values and consistently low TSS concentrations (Table 6.1.5, Figure 6.1.1, 6.1.2). Similar to the influent, the annual average D-3 radium-226 concentration has been stable since 2022 and remains well below discharge criteria (Figure 6.1.3). Sulphate concentrations have been decreasing during the last two years and are in line with the five-year average (Table 6.1.5).

Radium-226 concentrations remain well below the grab sample (1.1 Bq/L) and monthly mean (0.37 Bq/L) discharge limits. It is suspected that beaver activity at the inlet and outlet of the settling pond play a role in some elevated radium values at D-3 (Appendix V), but these values remained well within compliance limits. Denison continues to manage beaver activity at the site and will continue to investigate outlier radium-226 levels in the coming term.

Uranium concentrations at D-3 (Table 6.1.5) are higher than the influent uranium concentrations at D-22 (Table 6.1.4), however, these concentrations are likely attributable to a 1959 operational spill that impacted the Lower Williams Lake area (DML 1995).

Uranium concentrations at D-3 are consistently below the Canadian water quality guideline for the protection of aquatic life (0.0150 mg/L; CCME 2020) as well as the guideline for Canadian drinking water quality (0.02 mg/L; Health Canada 2019). Despite some variability, all parameter annual average concentrations consistently met downstream receiving environment water quality criteria (Appendix V).

**Table 6.1.5 – Lower Williams Final Discharge at Denison Access Road (D-3)**

Year	Parameter	FLOW	HARD	pHF	SO4	TSS	Ra226	Ba	Co	Fe	Mn	U
	Units	(L/s)	(mg/L as CaCO3)	(PH)	(mg/L)	(mg/L)	(Bq/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
2021		4.72	101	7.1	57	1	0.221	0.388	0.0005	0.210	0.040	0.0033
2022		6.02	134	7.0	85	1	0.15	0.348	0.000500	0.130	0.04000	0.0076
2023		6.90	118	7.1	80	1	0.10	0.316	0.000400	0.110	0.01900	0.0063
2024		10.70	106	7.1	66	1	0.14	0.384	0.000300	0.250	0.05300	0.0060
2025		12.73	104	7.10	66	1.2	0.183	0.42	0.0006	0.641	0.119	0.0045
<i>Annual Summary Statistics</i>												
<i>Average</i>		8.21	113	7.1	71	1	0.161	0.371	0.0005	0.268	0.054	0.0055
<i>Maximum</i>		12.73	134	7.1	85	1	0.221	0.421	0.0006	0.641	0.119	0.0076
<i>Minimum</i>		4.72	101	7.0	57	1	0.103	0.316	0.0003	0.110	0.019	0.0033

Note: Five Year annual average, maximum and minimum statistics. pHF is a pH value taken in the field.

In 2025, LWL effluent quality at the final point of control, D-3, complied with the discharge limits established in the decommissioning licence (Table 6.1.6, Figures 6.1.1, 6.1.2, 6.1.3).

**Table 6.1.6 – 2025 Lower Williams Compliance with Discharge Limits at Final Point of Control (D-3)**

Month	Samples Required	Number of Times Discharge Limits Were Exceeded					
		pH (Field)		Total Suspended Solids		Radium-226	
		PH		mg/L		Bq/L	
		Grab Sample Limit	Monthly Arithmetic Mean	Grab Sample Limit	Monthly Arithmetic Mean	Grab Sample Limit	Monthly Arithmetic Mean
		Upper 9.5 lower 5.5	Upper 9.5 lower 6.5	Upper 50 lower NA	Upper 25 lower NA	Upper 1.11 lower NA	Upper 0.37 lower NA
Jan-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Feb-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Mar-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Apr-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
May-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Jun-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Jul-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
Aug-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Sep-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Oct-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
Nov-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Dec-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
Total	52	0 of 52	0 of 12	0 of 52	0 of 12	0 of 52	0 of 12

Limits established in the Licence UMDL-MINEMILL-DENISON.01/indf issued December 15, 2004.

### 6.2.11 Stanrock ETP

**Discharge, runoff and seepage from the Stanrock TMA collects in a holding pond where the ETP influent station is monitored. Samples were analysed within the holding pond prior to treatment (DS-2) to closely monitor and make treatment adjustments as required to ensure compliant water quality at the final discharge station (DS-4).**

A five-year review of the annual averages at DS-2 confirms this station has a low pH with a high acid concentration. The annual average concentrations for most parameters at DS-2 appeared to be relatively stable (Table 6.1.7). Radium-226 decreased slightly in 2025 compared to the previous year. Acidity, sulphate, cobalt and uranium concentrations all decreased in 2025 compared with 2024. Iron was the only parameter that marginally increased at DS-2, but remained within the SRWMP water quality benchmark. The 2025 annual average of radium-226 was below the SRWMP benchmark. Flows at DS-2 increased in 2025 compared with the previous four years due to high precipitation levels. Detailed results for 2025 are provided in Appendix V of this report and previous results are provided in their respective Annual OCM Reports (Denison 2019-2024).

**Table 6.1.7 – Stanrock ETP Influent (DS-2)**

Year	Parameter Units	FLOW (L/S)	ACID (mg/L)	pHF (PH)	SO4 (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
2021		32.09	175	2.9	468	0.27	0.0170	0.0551	26.7	1.36	0.0120
2022		27.36	160	2.9	458	0.24	0.0180	0.0411	24.7	1.41	0.0098
2023		31.75	177	2.8	483	0.19	0.0270	0.0538	28.7	1.44	0.0149
2024		36.10	212	2.80	506	0.378	0.0190	0.0956	35.8	1.39	0.0448
2025		43.77	182	2.75	459	0.266	0.018	0.0758	36.1	1.18	0.0346
<i>Annual Summary Statistics</i>											
<i>Average</i>		34.21	181	2.8	475	0.27	0.0199	0.0643	30.4	1.36	0.0232
<i>Maximum</i>		43.77	212	2.9	506	0.38	0.0270	0.0956	36.1	1.44	0.0448
<i>Minimum</i>		27.36	160	2.7	458	0.19	0.0170	0.0411	24.7	1.18	0.0098

Note: Five Year annual average, maximum and minimum statistics. pHF is a pH value taken in the field.

Water quality at the Stanrock final point of control is monitored at Orient Lake Outlet (DS-4). A review of water quality data at DS-4 (Table 6.1.8) for the last five years indicated stable pH and TSS values (Figure 6.1.1, 6.1.2). All metal concentrations consistently meet environment benchmarks for SRWMP (Appendix III, Table 1). Iron increased in 2025 compared with 2024, while uranium and manganese decreased. Radium-226 annual averages remained well below the monthly mean discharge criteria of 0.37 Bq/L and below the grab sample limit of 1.1 Bq/L as set out in the decommissioning licence (Figure 6.1.3). Barium and sulphate concentrations show little variability over the last five years.

**Table 6.1.8 – Orient Lake Outlet Stanrock Final Point of Control (DS-4)**

Year	Parameter Units	FLOW (L/s)	HARD (mg/L as CaCO3)	pHF (PH)	SO4 (mg/L)	TSS (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
2021		20.42	245.7	7.1	222.5	1	0.128	0.077	0.0005	0.09	0.032	0.0050
2022		22.96	283.3	7.2	236.7	1	0.112	0.059	0.0006	0.11	0.047	0.0064
2023		30.77	312	7.2	261	1	0.094	0.0500	0.0004	0.120	0.047	0.0093
2024		32.06	293	7.3	262	1	0.115	0.0440	0.000300	0.015	0.0440	0.0072
2025		31.64	289	7.28	269	1.5	0.102	0.044	0.0005	0.213	0.031	0.006
<i>Annual Summary Statistics</i>												
<i>Average</i>		27.57	284	7.2	250	1	0.110	0.0547	0.0005	0.110	0.040	0.0067
<i>Maximum</i>		32.06	312	7.3	269	1	0.128	0.0770	0.0006	0.213	0.047	0.0093
<i>Minimum</i>		20.42	246	7.1	223	1	0.094	0.0435	0.0003	0.015	0.031	0.0050

Note: Five Year annual average, maximum and minimum statistics. pHF is a pH value taken in the field.

Toxicity was monitored for the Stanrock site at the final discharge (DS-4) as per SAMP requirements. In 2025, toxicity testing was conducted in spring and fall and included the same tests that were completed for the Denison TMA-1 final effluent discharge (D-2). The June and September *Daphnia magna* and rainbow trout acute lethality tests resulted in 0% mortality. The June and October IC25 *Ceriodaphnia dubia* reproduction test results were >100% and 36.8% effluent, respectively, indicating some variability and potential sub-lethal issues with reproduction in the fall test. Results of the October 2025 sub-lethal test show variable inhibition across the test concentrations with large scatter of the data and a broad 95% confidence limit (2.40-83.1%) suggesting high uncertainty associated with the results (Appendix VII). Parameter concentrations in the sample effluent between the June and October samples were compared and no major differences were noted (Appendix V). Hardness, iron and uranium were higher in the October sample compared with the June sample, but iron and uranium remained within both the SRWMP benchmark and historical concentrations (Appendix V). Controls in the October laboratory test were satisfactory indicating a valid test. The final discharge remains not acutely toxic and sublethal toxicity at DS-4 will continue to be monitored in 2026. In 2025, Stanrock TMA effluent quality at the final point of control (DS-4) met the discharge criteria established in the decommissioning licence (Table 6.1.9).

### **6.3 Annual Loadings at Final Point of Control**

Annual loadings from the TMA final discharge were calculated using monthly monitoring results (volume and average concentration) aligning with the Metal and Diamond Mining Effluent Regulations (MDMER) loadings methodology. Daily flow at each ETP was used to calculate monthly discharge volumes (Litres), except in the case of Williams Lake where flow is measured weekly at the final discharge. Monthly average concentrations were multiplied by monthly volumes to produce monthly loads, which were summed to estimate annual loadings. Annual loadings at the final discharge point were calculated for radium-226 (million becquerels) and TSS (kilograms per year) for each effluent treatment plant and are presented in Appendix V.

**Table 6.1.9 – 2025 Stanrock TMA Compliance with Discharge Limits at Final Point of Control (DS-4)**

Month	Samples Required	Number of Times Discharge Limits Were Exceeded					
		pH (Field) PH		Total Suspended Solids mg/L		Radium-226 Bq/L	
		Grab Sample Limit	Monthly Arithmetic Mean	Grab Sample Limit	Monthly Arithmetic Mean	Grab Sample Limit	Monthly Arithmetic Mean
		Upper 9.5 lower 5.5	Upper 9.5 lower 6.5	Upper 50 lower NA	Upper 25 lower NA	Upper 1.11 lower NA	Upper 0.37 lower NA
Jan-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Feb-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Mar-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Apr-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
May-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Jun-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Jul-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
Aug-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Sep-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Oct-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
Nov-25	4	0 of 4	0 of 1	0 of 4	0 of 1	0 of 4	0 of 1
Dec-25	5	0 of 5	0 of 1	0 of 5	0 of 1	0 of 5	0 of 1
Total	52	0 of 52	0 of 12	0 of 52	0 of 12	0 of 52	0 of 12

Limits established in the Licence UMDL-Minemill-Stanrock.02/indf issued September 2010.

## 6.4 Groundwater Monitoring

Groundwater quality is monitored annually at select monitoring well locations at the Denison and Stanrock sites (Appendix II). Data is evaluated for general trends in pH, acidity, sulphate and iron during the last five-year period.

### 6.4.9 Denison TMA-1

Groundwater quality east of TMA-1 is monitored downstream of Dam 17 at nested monitoring well locations 91-D1A, 91-D1B, 91-D3A, and 91-D3B.

Samples have not been able to be collected at stations 91-D1A and 91-D1B since 2021, therefore, the lack of sample collection in 2025 is not unexpected. Alternative methods to sample this location will be investigated in 2026.

At both 91-D3A (Table 6.2.1) and 91-D3B (Table 6.2.2), pH decreased in 2025 relative to previous years but remains near neutral. Iron, sulphate and acidity concentrations show some variability and are generally stable. In general, both 91-D3A and 91-D3B exhibit relatively stable trends in line with historical values.

**Table 6.2.1 Ground Water Quality at Station 91-D3A**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
91-D3A	41.8	Year				
		2021	6.6	1500	129	161
		2022	6.6	1500	48	88.6
		2023	7.4	1600	109	157
		2024	6.5	1500	94	167
2025	6.28	1640	90	112		

**Table 6.2.2 Ground Water Quality at Station 91-D3B**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
91-D3B	18.9	Year				
		2021	6.5	1500	160	145
		2022	6.3	1400	185	126
		2023	6.2	1500	128	146
		2024	6.2	1500	154	144
2025	5.91	1460	213	151		

Groundwater quality west of TMA-1 is monitored downstream of Dam 10 at monitoring well 91-DG4B (Table 6.2.3). Groundwater is historically characterized as having a neutral pH, a decreasing sulphate trend and low acidity. Acidity, historically less than detection limits, was elevated in 2025; continued monitoring will identify whether this change is an emerging trend or an anomalous result. Iron remains stable at low concentrations relative to the east end of TMA-1.

**Table 6.2.3 Ground Water Quality at Station 91-DG4B**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
91-DG4B	12.5	Year				
		2021	3.6	730	<1	18.8
		2022	6.3	700	<1	22.1
		2023	6.6	560	<1	14.3
		2024	6.5	550	<2	11
2025	5.82	347	30	16.2		

#### 6.4.10 Denison Lower Williams Lake (TMA-2)

Groundwater quality west of TMA-2 is monitored downstream of Dam 1 at monitoring well 91-D9A (Table 6.2.4). The last five years of groundwater monitoring results indicate near neutral pH levels, slightly elevated acidity, stable sulphate and decreasing iron concentrations. Groundwater quality at this location has remained stable over the last five years, with decreasing iron concentrations.

**Table 6.2.4 Ground Water Quality at Station 91-D9A**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
91-D9A	21.8	Year				
		2021	6.5	1600	181	202
		2022	6.5	1400	147	159
		2023	6.5	1400	179	170
		2024	6.2	1300	138	163
2025	6.28	1480	226	140		

#### 6.4.11 Stanrock TMA

Groundwater quality proximal to the Stanrock TMA is monitored east of Dam A at 91-SG1A, west of Dam B at 98-16A, south of Dam C at 98-15A and within the underlying bedrock of the TMA at 91-SG2A. West of Dam D, monitoring wells 91-SG3A and 91-SG3B have not produced groundwater at a suitable volume to obtain a sample in the last five years. Alternative options to obtain groundwater samples at these locations will be investigated in 2026.

Groundwater quality downstream of Dam A indicates lower than neutral pH and stable sulphate and iron concentrations within the shallow horizon at 91-SG1A (Table 6.2.5). Trends remain stable over the five-year period. We were unable to collect samples to measure acidity in 2024. In 2025 acidity declined compared with historical trends.

**Table 6.2.5 Ground Water Quality at Station 91-SG1A**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
91-SG1A	5.9	Year				
		2021	4.2	2800	1990	839
		2022	4.4	3300	2410	703
		2023	3.6	2200	1550	635
		2024	4.4	2600	*	859
2025	4.12	1940	801	597		

\*Denotes insufficient volume for sampling.

Groundwater quality in the bedrock underlying the tailings, north of Dam D at 91-SG2A, indicates a slight decrease in pH and exhibits relatively stable sulphate, acidity and iron concentrations (Table 6.2.6).

**Table 6.2.6 Ground Water Quality at Station 91-SG2A**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
91-SG2A	32.9	Year				
		2021	6.5	4500	2659	1540
		2022	6.1	4500	2442	1220
		2023	6.2	4600	2900	1390
		2024	5.9	4600	*	1560
2025	5.76	4640	2080	1540		

\*Denotes insufficient volume for sampling.

Groundwater quality downstream of Dam B at station 98-16A exhibits stable, lower than neutral pH and stable but elevated sulphate, acidity and iron concentrations (Table 6.2.7) over the last five years.

**Table 6.2.7 Ground Water Quality at Station 98-16A**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
98-16A	5.3	Year				
		2021	5.8	3700	1960	980
		2022	5.6	3800	2570	1340
		2023	5.7	3400	1930	996
		2024	5.7	3500	*	1090
2025	5.55	3540	1830	1460		

\*Denotes insufficient volume for sampling.

Groundwater quality downstream of Dam C at station 98-15A (Table 6.2.8) indicates a trend of declining pH and acidity during the last five years. Sulphate and iron have remained generally stable over the that time.

**Table 6.2.8 Ground Water Quality at Station 98-15A**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
98-15A	8.4	Year				
		2021	6.1	2600	1040	718
		2022	5.9	2700	1278	489
		2023	5.9	2300	1000	656
		2024	5.7	2200	829	496
		2025	5.49	2380	771	554

#### 6.4.12 Stanrock TMA Porewater Quality

Porewater quality within the tailings at the Stanrock TMA is monitored west of Dam A at multi-level monitoring well station ST3 and north of Dam D at monitoring well 91-SG2D. Location ST3 is monitored at four elevation intervals: ST3-P3 (Table 6.2.9), ST3-P5 (Table 6.2.10), ST3-P6 (Table 6.2.11) and ST3-P8 (Table 6.2.12). Historical monitoring records for 91-SG2D indicate this is a dry well that has not produced porewater at a suitable volume to obtain a sample since 1998.

Assessment of the porewater quality data at ST3 show generally depressed pH levels with the lowest value observed in the shallowest interval at ST3-P5, ranging from 3.19 to 3.5 during the last five years. The other stations have pH levels ranging from 4.3 to 6. High sulphate was monitored at all stations in 2025, typical of observations over the last five years. There was a marked decrease in acidity observed in the deeper wells (ST3-P6 and ST3-P8) in 2025; continued monitoring will confirm whether these values are anomalous or an emerging trend. Concentrations of acidity were generally higher in the shallower wells (ST3-P3 and ST3-P5). In 2025, iron concentrations at ST3-P3, ST3-P6 and ST3-P8 are slightly elevated relative to historical trends and generally increase with depth.

**Table 6.2.9 Tailings Porewater Quality at Station ST3-P3**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
ST3-P3	6.4	Year				
		2021	5.7	160	1960	1100
		2022	5.6	3600	2090	1030
		2023	5.2	3700	2540	1120
		2024	4.3	4800	2140	1268
		2025	4.96	4230	1910	1560

**Table 6.2.10 Tailings Porewater Quality at Station ST3-P5**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
ST3-P5	3.1	Year				
		2021	3.4	3000	1770	716
		2022	3.3	2700	1770	422
		2023	3.5	2800	200	746
		2024	3.3	3100	*	*
2025	3.19	3050	1030	886		

\*Denotes insufficient volume for sampling.

**Table 6.2.11 Tailings Porewater Quality at Station ST3-P6**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
ST3-P6	11.7	Year				
		2021	6	6200	4570	2550
		2022	5.8	5800	4270	2470
		2023	5.9	5700	5000	2230
		2024	5.4	6400	4060	2440
2025	5.54	7480	< 5	2870		

**Table 6.2.12 Tailings Porewater Quality at Station ST3-P8**

Location	Depth of Well (m)	Parameter Units	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Fe, diss (mg/L)
ST3-P8	21.4	Year				
		2021	5.5	14000	7180	4210
		2022	4.9	8300	6502	3290
		2023	4.6	7800	700	3160
		2024	3.8	7900	5560	3260
2025	4.84	7650	< 5	3460		

## **6.5 Site-Specific Maintenance and Operations Program**

Site-specific program reports are provided in the following sections in accordance with the TOMP and SAMP Annual Reporting Requirements. Each section provides the following information:

- Summary of Tailings Management Area (TMA) Maintenance
- Summary of Effluent Treatment Plant (ETP) Operations

### **6.5.9 Denison TMA-1**

#### **6.5.9.1 TMA Maintenance**

Routine facility, shaft cap, culvert and sign inspections were performed at the Denison TMA-1 as required. All routine seasonal maintenance items were completed, including but not limited to, applying herbicide on all dams and roads to control vegetation, grading site roads to prevent erosion, removing snow and sanding as required, brushing sampling locations, flushing dam instrumentation wells, inspecting site heaters, fire extinguishers, eye wash stations and defibrillators. Monitoring equipment was calibrated on a consistent basis and results recorded accordingly. An annual dam safety inspection (DSI) with the Engineer of Record (WSP) was performed for all dams/berms on the Denison site; the resulting report will be submitted under separate cover. The report concludes that dams are operated and maintained in accordance with appropriate practices and meet the safety requirements of current guidelines. All recommended maintenance was completed to ensure continued efficient and safe operations.

Some non-routine maintenance activities for Denison TMA-1 site completed in 2025 are as follows:

Effluent Treatment Plant maintenance:

- A second reagent addition pump was installed to meet flow capacity and reagent addition requirements.
- TMA-1 ETP was prepped with a backup generator in preparation for a potential ice storm. Though the ice storm did not materialize, it was a good exercise for potential similar scenarios.
- A faulty ground fault circuit interrupter (GFCI) receptacle was replaced.
- A faulty pump actuator on a barium dosage pump was replaced.
- A culvert on the access road to Dam 17 that had heaved during the winter was replaced.
- A new culvert was installed at the mill gate access road.
- Small trees on the shore of TMA-1 along Dam 17 were removed as per DSI recommendation.

- Boulders were re-installed on a small road approximately 800 m northeast of Highway 108 off Denison Mine Road to deter public vehicle access.

### **6.5.9.2 ETP Operations**

The ETP located at the Denison TMA-1 spillway (D-1) operated for 248 days in 2025 (Table 6.3.1). The ETP treated approximately 1,467,600,000 L of water, with a monthly average daily plant flow of 68.49 L/s. A total of 18,492 kg of barium chloride was used for radium-226 removal, much more than the approximately 6,910 kg used in 2024. The increased barium consumption can be attributed to the increased flow through the treatment plant because of higher precipitation in 2025 and corresponding increased barium chloride addition at the ETP (Table 6.3.1). Sodium hydroxide (NaOH) was not utilized for pH neutralization in 2025 because the TMA-1 influent is already neutral to slightly alkaline, ranging from pH 7.4 to 9.1 and within compliance criteria at D-2 (Table 6.1.1). An estimated 1,845,100,000 L was discharged from the final point of control at the Stollery Lake Settling Pond Outlet (D-2). Although the ETP operated for only 248 days, discharge at D-2 occurred for 365 days in 2025 (Table 6.3.1). Average daily discharge flow at D-2 was 58.5 L/s.

In 2025, the TMA-1 ETP operated continually for 144 days from January through the end of May. The ETP was restarted in June for eight days and operated from July 17 to August 9, excluding weekends, to treat additional precipitation and reduce pond water levels to summer minimum targets. The ETP resumed continual operation in September and operated into November. Higher than normal precipitation in 2025 resulted in the ETP operating for more days.

**Table 6.3.1 2025 TMA-1 Effluent Treatment Plant Flow Rates, Operating Days, and Discharge Days**

			2025												YTD	YTD
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2025	2024
<b>Plant Operations</b>																
	Operating Days		26	28	31	30	29	8	11	4	29	31	21	0	248	87
	Maximum Daily Plant Flow	(D-1) L/s	60.00	88.00	108.00	114.00	149.00	108.10	32.00	30.10	53.00	47.20	39.10		149.00	120.00
	Minimum Daily Plant Flow	(D-1) L/s	54.00	53.00	86.00	104.00	27.94	102.00	24.00	21.50	42.00	38.59	28.80		21.50	0.00
	Total Volume Treated	(D-1) ML	126.4	139.0	273.6	280.6	237.7	72.7	27.5	9.0	124.4	111.7	64.9	0.0	1467.6	551.0
	Average Daily Plant Flow	(D-1) L/s	56.27	57.46	102.16	108.25	94.88	105.23	28.91	25.98	49.66	41.72	35.76		68.49	73.00
	<i>Barium Chloride Consumption</i>															
	Total Consumption	kg/month	1609.31	1767.40	3424.66	3491.25	2974.03	812.67	282.59	102.48	1651.32	1543.21	833.35	0.00	18492.27	6910.00
	Monthly Average	mg/L	12.73	12.71	12.52	12.44	12.51	11.17	10.29	11.42	13.27	13.81	12.84		12.60	12.53
<b>Effluent</b>																
	Discharge Days		31	28	31	30	31	30	31	31	30	31	30	31	365	366
	Maximum Daily Discharge	(D-2) L/s	71.62	59.87	122.04	114.77	97.31	93.94	29.50	38.76	90.62	133.24	90.62	54.29	133.24	196.00
	Minimum Daily Discharge	(D-2) L/s	38.76	57.05	84.11	111.19	38.76	10.72	17.42	15.63	15.63	38.76	34.02	27.33	10.72	10.00
	Total Volume Discharged	(D-2) ML	158.0	143.1	277.6	294.4	182.2	98.5	61.6	59.7	127.4	180.6	165.8	96.1	1845.1	1180.0
	Average Daily Discharge	(D-2) L/s	58.98	59.17	103.66	113.58	68.04	38.01	23.01	22.31	49.15	67.42	63.99	35.88	58.51	37.00

## **6.5.10 Denison Lower Williams Lake and TMA-2**

### **6.5.10.1 TMA Maintenance**

Routine facility, shaft cap, culvert and sign inspections were performed at Denison LWL and TMA-2, as required. All routine seasonal maintenance items were completed, including but not limited to, applying herbicide on all dams and roads to control vegetation, grading site roads to prevent erosion, removing snow and sanding as required, brushing sampling locations, flushing dam instrumentation wells, inspecting site heaters, fire extinguishers, eye wash stations and defibrillators. Proper calibration of monitoring equipment was conducted on a consistent basis and recorded accordingly. An annual dam safety inspection with the Engineer of Record (WSP) was performed for all dams/berms at TMA-2 and LWL; the resulting report will be submitted under separate cover. The report concludes that dams at both sites are operated and maintained in accordance with appropriate practices and meet the safety requirements of current guidelines. All recommended maintenance was completed to ensure continued efficient and safe operations.

Non-routine maintenance activities for Denison TMA-2 and the Lower Williams Lake site completed in 2025 were as follows:

- A wall in the treatment plant was resealed to prevent rodents from entering ETP.
- A sign was added to the outside of the ETP building indicating that a five-minute ventilation period is needed before entering.
- We removed beaver dams on the inlet to the settling pond as well as the outlet of the beaver deceiver at the LWL settling pond berm.
- We removed several beavers from the LWL settling pond.

### **6.5.10.2 Summary of ETP Operations**

The Denison Lower Williams Lake ETP at station D-22 operated for 365 days in 2025 (Table 6.3.2). The ETP treated approximately 506,000,000 L of water, discharged through the final discharge point at D-3, with a daily average discharge flow of 16 L/s. The total amount of barium chloride used for radium-226 removal was 2,715 kg, an increase from 2024 due to greater precipitation in 2025 than in 2024. Although annual radium-226 concentrations had indicated a gradually increasing trend between 2019 and 2021, concentrations decreased between 2021 and 2023, then rose again slightly in 2024 and 2025 (Figure 6.1.3). Influent (D-22) radium-226 concentrations in 2025 were just below discharge criteria (0.37 Bq/L monthly mean). Radium-226 concentrations remain well below effluent limits at the final discharge point at D-3 (Figure 6.1.3).

#### **6.5.10.2.1 Operating Summary**

In 2025, the LWL ETP operated for the entire year to treat influent. Treatment conditions at LWL are for the sole purpose of controlling radium-226 levels in the effluent. Neutralization treatment has not been required at this site since 2002.

**Table 6.3.2 2025 Lower Williams Lake ETP Flow Rates, Operating Days, and Discharge Days**

		Unit	Jan	Feb	Mar	Apr	May	2025						YTD	YTD	
								Jun	Jul	Aug	Sep	Oct	Nov	Dec	2025	2024
<b>Plant Operations</b>																
	Operating Days		31	28	31	30	31	30	31	31	30	31	30	31	365	359
	<i>Barium Chloride Consumption</i>															
	Total Consumption	kg/month	206.46	186.48	206.46	199.80	206.46	199.80	250.86	344.10	301.92	206.46	199.80	206.46	2715.06	2391.00
	Monthly Average	mg/L	7.02	21.00	1.36	1.48	5.51	18.07	11.61	86.81	22.92	5.89	8.35	6.11	5.36	6.00
<b>Effluent</b>																
	Discharge Days		31	28	31	30	31	30	31	31	30	31	30	31	365	275
	Maximum Daily Discharge	(D-3) L/s	30.25	3.94	197.30	122.00	33.60	8.33	13.73	1.98	6.96	39.44	9.78	19.05	197.30	136.00
	Minimum Daily Discharge	(D-3) L/s	3.40	3.40	3.94	13.73	6.31	0.84	1.56	1.19	1.98	0.29	8.33	9.04	0.29	0.00
	Total Volume Discharged	(D-3) ML	29.4	8.9	152.3	135.4	37.5	11.1	21.6	4.0	13.2	35.1	23.9	33.8	506.1	335.0
	Average Daily Discharge	(D-3) L/s	10.98	3.67	56.87	52.25	14.00	4.27	8.06	1.48	5.08	13.09	9.23	12.62	16.05	14.00

## **6.5.11 Stanrock TMA**

### **6.5.11.1 TMA Maintenance**

Routine facility, shaft cap, culvert and sign inspections were performed at the Denison Stanrock TMA as required. All routine seasonal maintenance items were completed, including but not limited to, applying herbicide on all dams and roads to control vegetation, grading site roads to prevent erosion, removing snow and sanding as required, brushing sampling locations, flushing dam instrumentation wells, and inspecting site heaters, fire extinguishers, eye wash stations and defibrillators. Proper calibrations of monitoring equipment were conducted on a consistent basis and recorded accordingly. A dam safety inspection with the Engineer of Record (WSP) was performed for all dams/berms on the Stanrock site; the resulting report will be submitted under separate cover. The report concludes that dams are operated and maintained in accordance with appropriate practices and meet the safety requirements of current guidelines. All recommended maintenance was completed to ensure continued efficient and safe operations.

Non-routine maintenance activities for Stanrock TMA site completed in 2025 are as follows:

- ETP maintenance:
  - Replaced faulty photocell on outside light at ETP to allow outside lighting to function properly
  - The pH transmitter was replaced at the Stanrock ETP
  - Prepped ETP with backup generator in preparation for potential ice storm. The ice storm did not materialize but it was a good exercise for similar future scenarios.
  - Installed a new long- range WIFI antenna on ETP to improve communication abilities in the area
  - Replaced diphoterine safety shower at ETP
  - Installed a new junction box for lime pump control valves and future automation.
- Dam M and G maintenance:
  - A new platform was fabricated and installed at the Dam G pumphouse.
  - A diesel pump was staged at Dam G to ensure the level in the pond could be maintained during the heaviest water influx of freshet.
  - Inspected wooden pipe/catwalk trestle from Dam G to Beaver Lake for deteriorated boards and began replacing boards as required.
  - Repaired door at Dam M Pumphouse.
  - Improved installation of discharge piping from Dam G where it passes under the road to Beaver Lake; placed piping into a culvert sleeve and re-buried it under the road.
  - Cleaned diversion ditches around Dam M.
  - Replaced a faulty pump at Dam M.
  - Troubleshoot and repaired siphon line from Beaver Lake.

- Replaced heater at the Dam M pumphouse.
- TMA maintenance:
  - Flagged the perimeter of the Nelson Lake Quarry and Canmet Pit as per MNR Requirements.
  - An erosion hole was discovered on the toe of Dam L and reported to Engineer of Record (EOR). EOR provided direction for remediation as follows:
    - A sump pump discharge from the concrete tile that houses the influent flowmeter directly discharges into the hole. A new weeping tile was buried from discharge to seepage ditch below Dam L and sump discharge was plumbed into weeper.
    - The hole was excavated to a depth of one metre to further evaluate the source. Nothing of concern was discovered.
    - The sample line that passes through Dam L (DS-2) was inspected and found to be in deteriorating condition. No further evidence of erosion was observed. As a precaution, the sample line will be fully grouted in place in 2026 to eliminate the erosion potential and the sample will be collected directly from the pond at the existing DS-2 location.
  - Installed a new culvert on the TMA surface access road to Dam A to improve road conditions.
  - Installed more gravel on the access road to Dam A to improve road elevation relative to tailings surface.
  - Installed more gravel on the access road to Beaver Lake and the turnaround on top of riprap to prevent wear on vehicles.
  - Brushed and cleaned culverts at site as per DSI recommendations.

### **6.5.11.2 Summary of ETP Operations**

The Stanrock ETP operated periodically throughout the year for the purpose of pH neutralization and radium-226 removal. The ETP operated for a total of 161 days with an average daily plant flow of 99.84 L/s. In 2025, an estimated 1,388,800,000 L of water were treated with barium chloride for radium-226 removal and lime addition for neutralization. In 2025, 687 kg of barium chloride and 176.87 dry tonnes of lime were used at the Stanrock ETP. In total, 1,173,600,000 L were discharged from the final point of control (DS-4), over a total of 365 days. Average daily discharge flow at DS-4 was 37.21 L/s in 2025 (Table 6.3.3).

**Table 6.3.3 2025 Stanrock ETP Flow Rates, Operating Days and Discharge Days**

			2025												YTD	YTD
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2025	2024
<b>Plant Operations</b>																
	Operating Days		13	8	22	30	18	13	16	3	0	12	12	14	161	132
	Maximum Daily Plant Flow	(DS-2) L/s	130.00	124.00	122.00	155.00	135.00	137.00	125.00	118.00		134.00	120.00	121.00	155.00	147.00
	Minimum Daily Plant Flow	(DS-2) L/s	84.00	90.00	57.00	58.00	75.00	30.00	53.00	62.00		87.00	88.00	90.50	30.00	0.00
	Total Volume Treated	(DS-2) ML	115.9	73.4	184.6	292.0	164.1	61.4	126.8	23.2	0.0	112.9	107.2	127.4	1388.8	1157.0
	Average Daily Plant Flow	(DS-2) L/s	103.15	106.13	97.09	112.65	105.50	54.67	91.75	89.33		108.92	103.42	105.37	99.84	101.00
	<i>Barium Chloride Consumption</i>															
	Total Consumption	kg/month	38.41	20.84	102.40	182.15	89.60	38.73	75.72	13.63	0.00	42.17	39.36	44.09	687.10	741.00
	Monthly Average	mg/L	0.33	0.28	0.55	0.62	0.55	0.63	0.60	0.59		0.37	0.37	0.35	0.49	0.61
	<i>Lime Consumption</i>															
	Total Consumption	dry tonnes/month	9.76	5.92	31.52	39.71	17.88	10.33	20.25	4.11	0.00	13.86	10.18	13.35	176.87	157.69
	Monthly Average	g/litre	0.08	0.08	0.17	0.14	0.11	0.17	0.16	0.18		0.12	0.09	0.10	0.13	0.14
<b>Neutralization</b>																
	Lime Consumption															
	Site Total Including ETP Operations	dry tonnes/month	9.76	5.92	31.52	39.71	17.88	10.33	20.25	4.11	0	13.86	10.18	13.35	176.87	157.69
<b>Effluent</b>																
	Discharge Days		31	28	31	30	31	30	31	31	30	31	30	31	365	366
	Maximum Daily Discharge	(DS-4) L/s	25.45	30.34	153.45	348.09	90.88	20.85	78.28	9.04	5.88	50.53	25.45	78.28	348.09	254.00
	Minimum Daily Discharge	(DS-4) L/s	9.04	9.04	16.56	46.56	12.61	3.20	9.04	3.20	3.20	3.20	20.85	16.56	3.20	1.00
	Total Volume Discharged	(DS-4) ML	48.6	39.3	176.3	437.4	91.7	28.6	96.2	12.5	11.8	52.7	63.0	115.6	1173.6	999.0
	Average Daily Discharge	(DS-4) L/s	18.14	16.25	65.82	168.76	34.24	11.03	35.92	4.66	4.54	19.66	24.30	43.15	37.21	32.00

### **6.5.11.2.1 Operating Summary**

The Stanrock ETP operated as required throughout the year to maintain discharge compliance and control of the holding pond water levels. It was also operated for an extended time from the end of May into June to empty the holding pond and to facilitate investigative works associated with the minor erosion discovered at Dam L.

Operating days are variable at Stanrock due to the smaller capacity of the holding ponds. The result was a monthly operating range of three to 30 days, operating during 11 months of the reporting year. As expected, most of the operating days occurred during spring freshet in April (Table 6.3.3). No water entered the Moose Lake Settling Pond from Beaver Lake overflow through the DS-5 flume in 2025.

## **6.6 Summary**

All Denison Elliot Lake sites were operated in compliance with regulatory requirements and current guidelines with no significant exceedances or concerns of note in 2025.

## 7. REFERENCES

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- Minnow Environmental Inc., 2022. Investigation into the Surface Water Quality of Unnamed Pond, Stanrock TMA Site, Elliot Lake, ON. February 2022.
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- Denison Mines Inc. and Rio Algom Limited. Serpent River Watershed Monitoring Program 2025 Annual Water Quality Report. (Rio Algom Limited and Denison Mines Inc.) March 2026.
- Denison Mining Limited (DML). 1995. Environmental Impact Statement (EIS) Decommissioning of the Denison and Stanrock Tailings Management Areas. February 1995.

## **Appendix I – Summary of Cycle 6**

## Summary of Changes to the Elliot Lake Monitoring Programs (IBMP, TOMP, SAMP, and SRWMP) and Associated Documents

Cycle	Report Title	Year	Descriptions of Changes to the Monitoring Programs Within Each Cycle
Cycle 1	Serpent River Watershed Monitoring Program Framework Document	1999	<p><b>IBMP, TOMP, SAMP, and SRWMP</b> were developed based on program objectives and existing monitoring data collected over the period of operations and decommissioning.</p>
	In-Basin Monitoring Program Report	1999	
	Serpent River Watershed and In-Basin Monitoring Program – Implementation Document	1999	
	Serpent River Watershed Monitoring Program - 1999 Study	2001	
	In-Basin Monitoring Program for the Uranium Tailings Areas – 1999 Study	2001	
Cycle 2	Overview of Elliot Lake Monitoring Programs and Source Area Monitoring Program Design	2002	<p><b>Changes only SRWMP</b> most associated with optimization after first cycle of program was complete:</p> <ul style="list-style-type: none"> <li>• monitoring substances reduced to mine indicator parameters (barium, cobalt, DOC, iron, manganese, radium-226, selenium, silver, sulphate and uranium);</li> <li>• addition of two lake reference stations (Summers and Semiwite lakes) and 3 stream reference areas (SR-16, SR-17 and SR-18);</li> <li>• removal of shallow lakes for sediment and benthic sampling (Westner, Grassy, Halfmoon, Upper Cinder and Horne lakes);</li> <li>• removal of some stream sediment and benthic stations (D-15, SC-03 and SR-07);</li> <li>• removal of Depot Lake and Serpent Harbour; addition of May Lake;</li> <li>• the transfer of some SRWMP stations to SAMP or TOMP (N-12, ECA-131, P-11, MPE and Q-23); and</li> <li>• fish health assessment eliminated based on performance, fish community assessment added for McCabe Lake and fish tissue monitoring reduced in scope based on performance.</li> </ul>
	TMA Operational Monitoring Program Design (TOMP)	2002	
	Cycle 2 Study Design – Serpent River Watershed and In-Basin Monitoring Programs	2004	
	Serpent River Watershed Monitoring Program: Cycle 2 Interpretive Report	2005	
	Serpent River In-Basin Monitoring Program: Cycle 2 Interpretive Report - 2004 Study	2005	
	Serpent River Watershed State of the Environment	2009	
Cycle 3	Monitoring Framework For Closed Uranium Mines Near Elliot Lake	2009	<p><b>IBMP</b> eliminated based on objectives of program being achieved.  <b>TOMP and SAMP:</b></p> <ul style="list-style-type: none"> <li>• removal of silver, selenium based on performance and removal of conductivity based on redundancy with sulphate; and DOC, hardness and flow added at selected stations.</li> </ul> <p><b>SRWMP:</b></p> <ul style="list-style-type: none"> <li>• removal of selenium and silver based on performance;</li> <li>• removal of station SR-12, ELO, SR-09, SR-15, SR-02, SR-03, SR-11, P-01, QL-01 and SR-16 and SR-17 based on performance;</li> <li>• monthly monitoring frequency reduced to quarterly;</li> <li>• sediment and benthic monitoring removed from Whiskey, Evans and Cinder lakes based on redundancy;</li> <li>• depositional streams (Q-20, D-6, SR-06, M-01 and SR-08) based on very high natural variability masking results; and</li> <li>• fishing in McCabe Lake and fish tissue monitoring eliminated based on performance.</li> </ul>
	In Basin Monitoring Program, Cycle 3 Study Design	2009	
	Serpent River Watershed Monitoring Program: Cycle 3 Study Design	2009	
	Source Area Monitoring Program Revised Study Design	2009	
	Tailing Management Area Monitoring Program (TOMP) Revised Study Design	2009	

	Serpent River Watershed State of the Environment Report	2011	
Cycle 4	Cycle 4 Study Design For the SRWMP, SAMP and TOMP	2014a	Minor changes to <b>TOMP</b> and <b>SAMP</b> . <b>SRWMP:</b> <ul style="list-style-type: none"> <li>• elimination of reference stations SR-05, P-222 and SR-14;</li> <li>• removal of cobalt as substance for monitoring, addition of DOC;</li> <li>• far-field lakes removed from the program (Hough, Pecors, and McCarthy);</li> <li>• removal of Rochester Lake as a sediment and benthic reference area; and</li> <li>• reduction in benthic and sediment sampling to 1/10 years based on measured deposition rates.</li> </ul>
	Serpent River Watershed Cycle 4 State of the Environment	2016	
Cycle 5	Cycle 5 Study Design for the SRWMP, SAMP and TOMP	2019	<b>TOMP, SAMP, and SRWMP:</b> <ul style="list-style-type: none"> <li>• improved approach to trend analysis of surface water quality using the nonparametric seasonal Kendall test.</li> </ul> <b>SRWMP:</b> <ul style="list-style-type: none"> <li>• improved approach to calculate benchmark upper limit of background water quality values have previously been calculated based on the upper 95<sup>th</sup> percentile of values collect across all five years (rather than annual means);</li> <li>• use of a Serpent River Watershed site-specific dose-based radium-226 benchmark for assessment of water quality;</li> <li>• addition of a lake-specific dose-based radium-226 benchmark for assessment of sediment quality; and</li> <li>• sediment and benthic monitoring removed from Elliot Lake based on improvements in water quality, negligible mine-related sediment toxicity, and gradual improvement in benthic invertebrate communities.</li> </ul>
	Serpent River Watershed Cycle 5 State of the Environment	2021	
Cycle 6	Cycle 6 Study Design for the SRWMP, SAMP and TOMP	2024	<b>SRWMP:</b> <ul style="list-style-type: none"> <li>• station D-6 will be assessed based on comparison to wetland benchmarks.</li> <li>• station SR-15 was removed from the program.</li> <li>• the SRWMP water quality benchmarks, hardness-based benchmarks will be calculated for each individual sample using the hardness of that sample rather than using the average hardness for that station over the study period. If hardness values are unavailable for a given sample, the lower 25th percentile of hardness value will be used to calculate a conservative estimate of the true hardness-based guideline.</li> <li>• transition the SOE water quality reporting to a 10-year cycle. The proposed modified schedule includes a Cycle 7 study design, inclusive of benthos/sediment monitoring and reporting requirements in 2029, and a combined Cycle 6/7 SOE Report in 2030.</li> </ul>

<sup>a</sup> Study Design was submitted to CNSC and JRG in 2014 but reissued with agency comments in 2016.

Notes: IBMP = In Basin Monitoring Program. TOMP = Tailings Management Area Monitoring Program. SAMP = Source Area Monitoring Program. SRWMP = Serpent River Watershed Monitoring Program.

## **Appendix II- Site Maps and Sampling Requirements**



# Denison Mines Inc. Denison SAMPLE LOCATION MAP

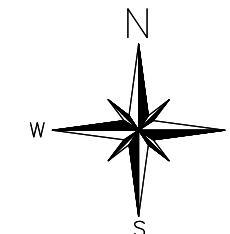
Rev. 2015-01  
November 2015

### Legend

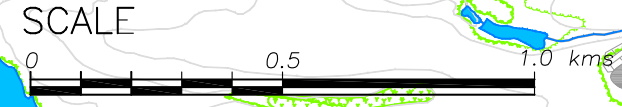
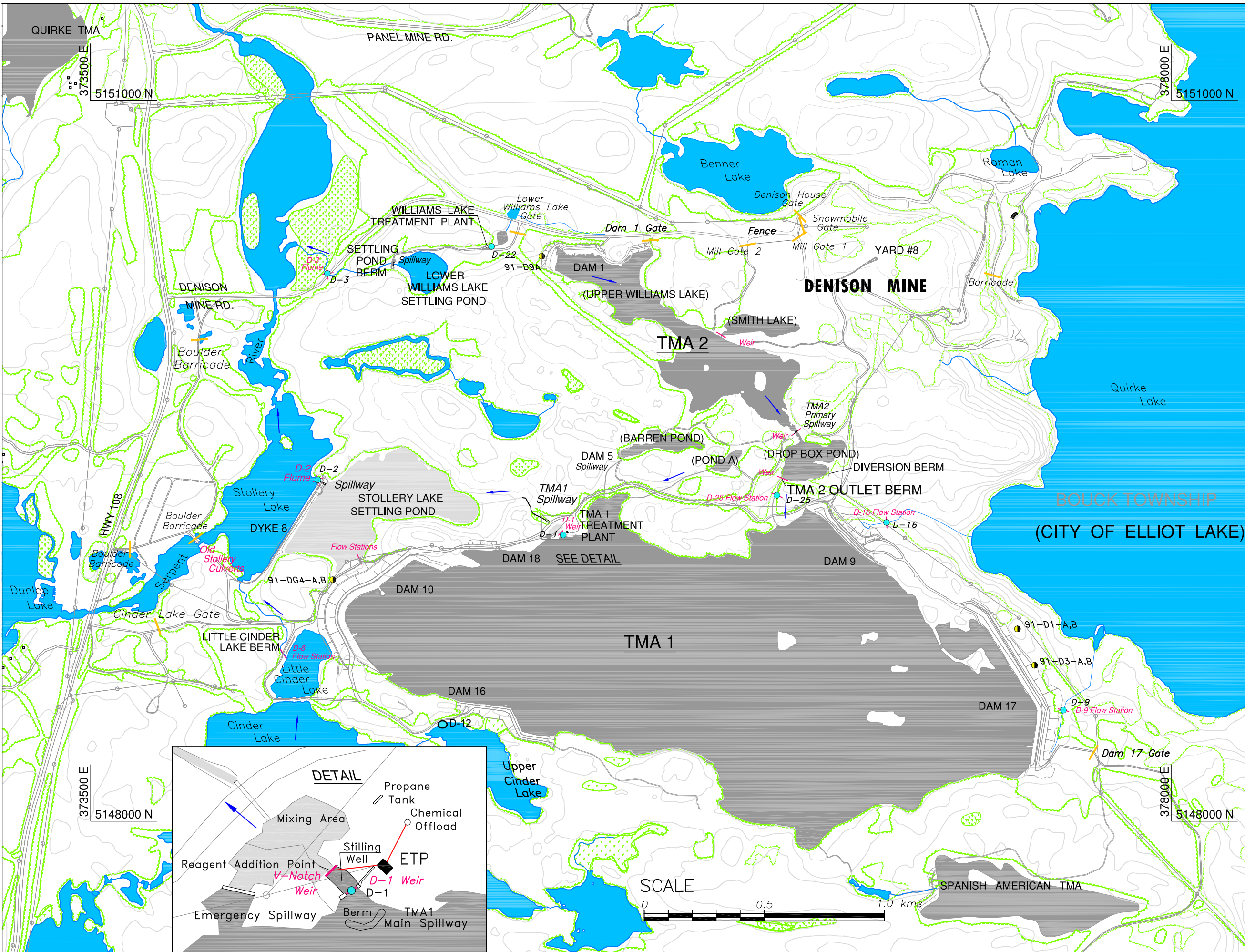
- water covered tailings.
- settling ponds.
- surface water sample location.
- groundwater sample location.
- flow direction.
- roads or trails.
- power line.
- flow station or weir.
- pipeline.
- gate.
- wetlands.

### Notes

- OBM© Queens Printer for Ontario, 2008.
- Mine structures and property limits were derived from Denison Mines records.
- Mapping export parameters = NAD83 WGS\_1984\_UTM Zone\_17N (Central Meridian = 81°W).
- Contour Interval = 10 metres.
- File 9.3.2 (Sample Location Map).

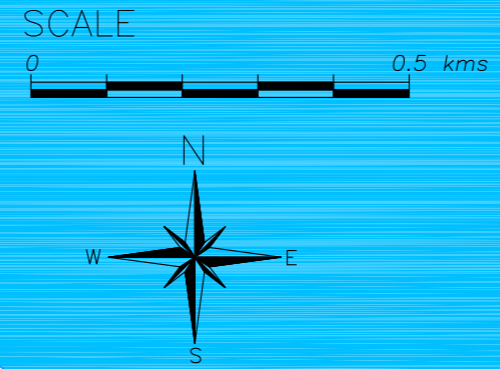


Issued on: \_\_\_\_\_  
 Issued by: \_\_\_\_\_  
 Denison Responsible Authority














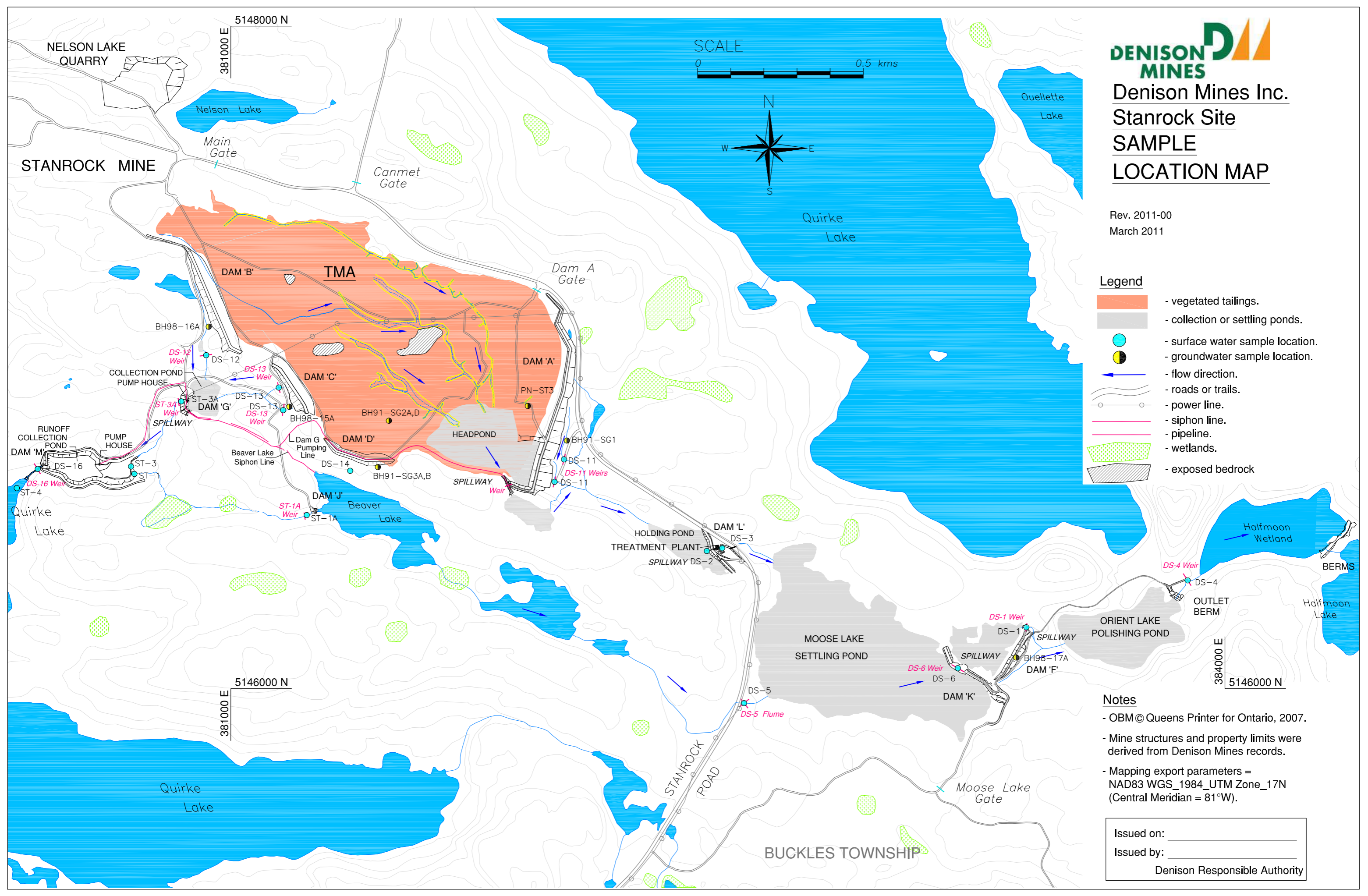
**Denison Mines Inc.**  
**Stanrock Site**  
**SAMPLE**  
**LOCATION MAP**

Rev. 2011-00  
 March 2011



**Legend**

-  - vegetated tailings.
-  - collection or settling ponds.
-  - surface water sample location.
-  - groundwater sample location.
-  - flow direction.
-  - roads or trails.
-  - power line.
-  - siphon line.
-  - pipeline.
-  - wetlands.
-  - exposed bedrock.



**Notes**

- OBM© Queens Printer for Ontario, 2007.
- Mine structures and property limits were derived from Denison Mines records.
- Mapping export parameters = NAD83 WGS\_1984\_UTM Zone\_17N (Central Meridian = 81°W).

Issued on: \_\_\_\_\_  
 Issued by: \_\_\_\_\_  
 Denison Responsible Authority

**Denison TOMP/SAMP Surface Water Performance Monitoring**

Sampling Location	Location Description	Coordinates	Purpose	Elevation	Flow	pH	Conductivity	Sulphate	Red226 (T)	TSS	Acidity	Hardness	DOC	Iron	SAMP METALS				TOXICITY		
															Barium	Cobalt	Manganese	Uranium	Acute <i>Daphnia magna</i>	Acute Rainbow trout	Chronic <i>Ceriodaphnia dubia</i>
D-1 <sup>1,2</sup>	TMA-1 Overflow	N 5149191 E 375468	TOMP	W	D	D		Q	M		Q			Q	Q	Q	Q	Q			
D-22	TMA-1 Stollery Lake Overflow	N 5149421 E 374446	TOMP		D	W			W	W											
D-3 <sup>2</sup>	TMA-2 Effluent	N 5150280 E 374485	TOMP		D	W			W	W											
D-22	TMA-2 ETP Influent	N 5150391 E 375169	TOMP			W		Q	M					Q	Q	Q	Q	Q			
D-25	TMA-2 Overflow into TMA-1	N 5149357 E 376357	TOMP			S		S	S		S			S							
DS-1	Stanrock Moose Lake Outlet to Orient Lake	N 5146185 E 383401	TOMP		W	W			Q												
DS-2	Stanrock ETP Influent	N 5146416 E 382437	TOMP		D	D		Q	M		W			Q	Q	Q	Q	Q			
DS-3	Stanrock ETP Effluent	N 5146424 E 382483	TOMP			D			M												
DS-4	Stanrock Final Discharge @ Orient Lake Outlet	N 5146327 E 383888	TOMP		W	W			W	W											
DS-5	Orient Creek Discharge into Moose Lake	N 5145956 E 382549	TOMP		Q	Q	Q														
DS-6	Moose Lake Narrows upstream of Dam K	N 5146062 E 383194	TOMP		W	W															
D-2 <sup>2,3</sup>	TMA-1 Stollery Lake Overflow	N 5149421 E 374446	SAMP		W	W		M	M			M	M	M	M	M	M	M	S	S	S
D-3 <sup>2,3</sup>	TMA-2 Effluent	N 5150280 E 374485	SAMP		W	W		M	M			M	M	M	M	M	M	M			
D-9	Denison TMA-1; Dam 9 Seepage	N 5148462 E 377550	SAMP		Q	Q		Q	Q			Q	Q	Q	Q	Q	Q	Q			
D-16	Denison TMA-1; Dam 17 Seepage	N 5149244 E 376814	SAMP		Q	Q		Q	Q			Q	Q	Q	Q	Q	Q	Q			
DS-4	Stanrock Final Discharge @ Orient Lake Outlet	N 5146327 E 383888	SAMP		W	W		M	M			M	M	M	M	M	M	M	S	S	S
DS-16	Stanrock TMA; Quirke Lake Delta	N 5146663 E 380417	SAMP		Q	Q		Q	Q			Q	Q	Q	Q	Q	Q	Q			

FB	Field Blank			
FD	Blind Sample			

M	M	M		Q	Q	M	M	M	M	M
M	M	M		Q	Q	M	M	M	M	M

Field QA/QC sampled at frequency that will generate data to meet 10% of total number of sample requirements.

Note: "-" indicates monitoring not required

D = daily, W = weekly, M = monthly, Q = quarterly, S = semi-annually (twice per year).

SAMP metals = barium, cobalt, iron, manganese, uranium.

<sup>1</sup> Sampling required when ETP is operating.

<sup>2</sup> This station is also a Tailings Management Area (TMA) Operational Monitoring Program (TOMP) effluent station and requirements have been harmonized to serve both programs.

<sup>3</sup> Sampled when flowing.

Toxicity includes: acute (*Daphnia magna* and *Rainbow trout*) and Sub-lethal (*Ceriodaphnia dubia*) testing following Environment Canada (2000a,b and 2007) methods.

### Stanrock C of A Performance Monitoring

Sampling Station	Location / Description	Coordinates	Purpose	Flow	pH	Conductivity	Sulphate	Rad226 (T)	Acidity	Alkalinity	Hardness	DOC	Iron	SAMP METALS				
														Barium	Cobalt	Manganese	Uranium	
DS-11	Seepages of Dam A	N 5146624 E 381977	MOE	Q	Q	Q												
		N 5146692 E 382006	MOE	Q	Q	Q												
DS-12	Seepage of Dam B	N 5147007 E 380926	MOE	Q	Q	Q												
DS-13	Seepage of Dam C	N 5146909 E 381145	MOE	Q	Q	Q												
		N 5146841 E 381158	MOE	Q	Q	Q												
DS-18	Halfmoon Lake Outlet	N 5145050 E 383761	MOE	Q	Q		Q	Q					Q	Q	Q	Q	Q	Q
ST-1	Downstream of Dam G	N 5146648 E 380709	MOE		Q	Q												
ST-1A	Dam J at Toe of Dam	N 5146524 E 381229	MOE		Q	Q												
ST-3	Downstream of Dam G	N 5146671 E 380699	MOE		Q	Q												
ST-3A	Dam G at Toe of Dam	N 5146867 E 380850	MOE		Q	Q												
ST-4	Within Quirke Lake Delta	N 5146606 E 380354	MOE		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

Q-Quarterly

**Denison TMA-1 September 2025 ECA Surface Water Monitoring Requirements**

Sampling Location	Location Description	Coordinates	Purpose	Flow	pH	Conductivity	Sulphate	Rad226 (T)	TSS	Hardness	DOC	Iron	SAMP METALS						TOXICITY			
													Barium	Cobalt	Manganese	Selenium	Silver	Uranium	Acute <i>Daphnia magna</i>	Acute Rainbow trout	Chronic <i>Ceriodaphnia dubia</i>	Chronic Rainbow Trout
D-1 <sup>1</sup>	TMA-1 Overflow <sup>1</sup>	N 5149191 E 375468	ECA	D	M	M	M	M	M	M	M	M	M	M	M	M	M					
D-2 <sup>2</sup>	TMA-1 Stollery Lake Overflow	N 5149421 E 374446	ECA	W	W	M	M	W	W	M	M	M	M	M	M	M	M	S	S	S	S	
D-4 <sup>3</sup>	Dunlop Lake Outlet	N 5148783 E 374006	ECA	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					
D-6 <sup>3</sup>	Cinder Lake Outlet	N 5148998 E 374126	ECA	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					
D-5 <sup>3</sup>	Serpent River between Denison & Quirke TMAs	N 5151294 E 373383	ECA	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					
D-9 <sup>2</sup>	Denison TMA-1; Dam 9 Seepage	N 5148462 E 377550	ECA	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					
D-12 <sup>2</sup>	Denison TMA-1; Seepage at Dam 16	N 5148425 E 375030	ECA	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					
D-16 <sup>2</sup>	Denison TMA-1; Dam 17 Seepage	N 5149244 E 376814	ECA	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					

D = daily, W = weekly, M = monthly, Q = quarterly, S = semi-annually (twice per year).

Many ECA requirements are the same as SAMP/TOMP requirements.

<sup>1</sup> Sampling required when ETP is operating.

<sup>2</sup> Sampled when flowing.

<sup>3</sup> Sample locations also part of SRWMP and reported under separate cover in the SRWMP Annual Water Quality Report.

### Denison Groundwater Performance Monitoring

Sampling Station	Location Description	Coordinates	Type	Purpose	Elevation	Conductivity	pH	Acidity	Iron
91-D1	Dam 17 North Abutment	N 5148801 E 377359	Groundwater (2 wells)	TOMP <sup>1</sup>	A	A	A	A	A
91-D3	Dam 17 North Valley, Toe	N 5148649 E 377430	Groundwater (2 wells)	TOMP <sup>1</sup>	A	A	A	A	A
91-D9	Dam 1 North Ridge, Toe	N 5150352 E 375379	Groundwater (1 well)	TOMP <sup>1</sup>	A	A	A	A	A
91-DG4	Below Dam 10	N 5149006 E 374508	Groundwater (1 well)	TOMP <sup>1</sup>	A	A	A	A	A
91-SG2	Upstream of Dam D	N 5146809 E 381477	Porewater (2 wells)	TOMP	A	A	A	A	A
PN-ST3	Upstream of Dam A	N 5146853 E 381897	Porewater (4 wells)	TOMP	A	A	A	A	A
91-SG1	Downstream of Dam A	N 5146749 E 382014	Groundwater (1 well)	TOMP	A	A	A	A	A
91-SG3	Downstream of Dam D	N 5146669 E 381444	Groundwater (2 wells)	TOMP	A	A	A	A	A
98-15	Downstream of Dam C	N 5146851 E 381177	Groundwater (1 well)	TOMP	A	A	A	A	A
98-16	Downstream of Dam B	N 5147093 E 380933	Groundwater (1 well)	TOMP	A	A	A	A	A

A = Annual

<sup>1</sup>TMA-1 ECA September 2025 update: monitoring for dissolved organic carbon, hardness, manganese, cobalt, silver, and selenium at Denison TMA-1 wells is also included.

## **Appendix III- Flagged Data & QAQC Results**

## 1. Data Quality Objectives

Data quality objectives, analytical method changes and data screening methods and results are discussed in this appendix.

Targeted Detection Limits (TDL) and Data Quality Objectives (DQOs) for TOMP and SAMP requirements are provided in Table 1 which were derived from the Cycle 5 Study Design. Laboratory data quality assessment.

## 2. Changes in Analytical Methods

There were no changes to analytical methods in 2025. In October 2024, Denison switched to Testmark Laboratories, but analytical methods remained the same. Method detection limits for uranium and sulphate were higher than SAMP and TOMP DQO. Denison continues to work with Testmark to lower these detection limits.

## 3. Data Screening and Assessment Conventions

Data validation was conducted on TOMP and SAMP water quality data throughout the year. The data validation assessment screening process within the electronic database flagged all data points entered or imported that had values outside a rolling minimum 12 value mean  $\pm 3$  standard deviations. Prior to being accepted in the database, all flagged data was reviewed and validated through a quality assurance process (Minnow 2021). Flagged data and comments are included at the end of this appendix.

As part of the TOMP, field quality assurance and quality control sampling were extended to the groundwater monitoring program in 2006. Data quality assessment involved monthly screening of field duplicate and field blank sample data against TOMP and SAMP DQOs found in Table 1. Detailed surface water and groundwater quality assurance and quality control (QA/QC) results are included at the end of this appendix.

Laboratory analyses were contracted to Canadian Association of Laboratory Accreditation (CALA) certified laboratories. Laboratory QA/QC reports are provided in Appendix IV of the 2025 Annual Report.

Annual water quality reporting was designed to be concise and focused on the presentation of data in a standardized format with limited interpretation. Detailed statistical evaluation of water quality trends are included in the *Serpent River Watershed Cycle 5 (2015-2019) State of the Environment Report (SOE)* with some updated trends presented in the Cycle 6 Study Design. Data validation, as documented in Data Validation Procedures, ensured prompt response to upset conditions or unusual results. Appendix V includes all 2025 monthly average year to date (YTD) results and detailed raw data water quality monitoring results for surface water results. Groundwater (annual frequency) data, including the previous four years of data, are included in the main body of the annual report.

Surface water stations within the TMAs, as well as effluent, seepages, and downstream surface water stations were compared to SRWMP benchmarks for receiving water quality. Mine sources (i.e. TOMP and SAMP stations) were not expected to achieve the benchmarks that were set for the receiving environment, but these comparisons were made to identify potential variables or sources of concern relative to the downstream receiving environment. Therefore, water quality data in this report is compared to benchmarks established for the SRWMP. These benchmarks were based on water quality criteria for the protection of aquatic life or the upper range of background concentrations (except for pH for which the lower background range was relevant).

The most recent federal and provincial (Ontario) guideline was used to determine these benchmarks or British Columbia Ministry of Environment (BCMOE) water quality guidelines were applied if none existed. A dose-base site-specific benchmark for radium-226 was also developed, as per CNSC request (Minnow, 2019 Appendix C). In this report, benchmarks are presented in Table 1. SRWMP benchmarks were developed in the Cycle 5 SOE and remained consistent in the Cycle 6 Study Design for TOMP, SAMP, and SRWMP (Minnow 2024, Table 7.2)

**Table 1 Water Quality Benchmarks for SRWMP and Data Quality Objectives for TOMP, SAMP and SRWMP**

		Assessment Criteria <sup>1</sup>	Data Quality Objectives <sup>2</sup>							
Parameter	Units	Receiving Environment Criteria	Targeted Detection Limit	Minimum Detectable Difference	Field Blank Criteria	Laboratory Blank Criteria	Field Precision	Laboratory Precision	Laboratory Spikes	Laboratory Accuracy (CRM) <sup>b</sup>
<b>Field Parameters</b>										
Conductivity	µs/cm	-	0.1	0.05	-	-	10%	-	-	-
Flow	L/s	-	method <sup>a</sup>	method <sup>a</sup>	-	-	30%	-	-	-
pH	pH units		0.1	0.01 or 0.02	-	-	10%	-	-	-
	<i>Lake</i>	6.5								
	<i>Wetland/Stream</i>	5.3								
<b>Laboratory Parameters</b>										
Acidity	mg/L	-	1.0	-	2.0	2.0	20%	10%	-	-
Barium	mg/L	1	0.005	-	0.01	0.01	20%	10%	20%	20%
Cobalt	mg/L	0.0025	0.0005	-	0.001	0.001	20%	10%	20%	20%
Iron	mg/L			-	0.04	0.04	20%	10%	20%	20%
	<i>Lake</i>	0.755	0.02							
	<i>Wetland/Stream</i>	2.49	0.02							
Manganese <sup>3</sup>	mg/L	0.841	0.002	-	0.004	0.004	20%	10%	20%	20%
Radium	Bq/L	0.469	0.005	-	0.01	0.01	20%	10%	20%	-
Sulphate <sup>3</sup>	mg/L	128-429	0.1	-	0.2	0.2	20%	10%	20%	20%
TSS	mg/L	-	1.0	-	2.0	2.0	20%	10%	-	-
Uranium	mg/L	0.015	0.0005	-	0.001	0.001	20%	10%	20%	20%

**Notes:**

1. Assessment criteria as per Table S.1, Appendix S, Cycle 5 State of the Environment Report for the SRWMP, SAMP and TOMP (Minnow, 2021)
  2. Table 6.2 Cycle 5 Study Design for the SRWMP, SAMP and TOMP (Minnow, 2019)
  3. Sulphate and manganese criteria taken from Table S.2, Appendix S, Cycle 5 State of the Environment Report for the SRWMP, SAMP and TOMP (Minnow, 2021). Parameters are hardness dependent.
- a. Reporting Limit varies by method  
b. CRM (Certified Reference Material)

## a. Surface Water Quality

Appendix III contains detailed QA/QC results compared against DQOs while Appendix V contains surface water station-specific data including annual statistics and comparisons to SRWMP assessment criteria for the receiving environment (Table 1).

There were eighteen field blank DQO exceedances in 2025 (Table 2). Parameters with field blank exceedances included acidity (4), sulphate (12), hardness (1), and iron (1). The sulphate exceedances are explained by the higher MDL utilized at Testmark laboratory. The iron sample result was 0.05 mg/L compared to the DQO of 0.04 mg/L. Parameter concentrations are all typically higher than field blank DQOs at the sample location and therefore, the exceedances did not impact surface water quality result interpretation. Field sampling procedures will be reviewed to determine if changes should be made as part of the annual review and update of the quality management system (QMS).

**Table 2 2025 Surface Water Field Blank and Field Precision Data Summary**

Denison Mines Inc. Field Blank and Field Duplicate Summary 2025				
	pH (Field) (PH)	ACID (mg/L as CaCO <sub>3</sub> )	SO <sub>4</sub> (mg/L)	Fe (d) (mg/L)
Field Blank Statistics				
Count	3	<b>3</b>	<b>3</b>	3
Average	6.86	<b>5</b>	<b>0.5</b>	0.020
Max	7.55	<b>&lt; 5</b>	<b>&lt; 0.5</b>	0.021
Min	6.48	< 5	< 0.5	< 0.02
Field Blank Exceedances				
<i>DQO Criteria</i> <sup>1</sup>		2	0.2	0.04
# Exceedances	0	<b>3</b>	<b>3</b>	0
	pH (Field) (PH)	ACID (mg/L as CaCO <sub>3</sub> )	SO <sub>4</sub> (mg/L)	Fe (d) (mg/L)
Field Duplicate Statistics				
Count	3	3	3	3
Average	4%	8%	27%	12%
Max	7%	11%	63%	27%
Min	2%	2%	6%	4%
Field Precision Exceedances				
<i>DQO Criteria</i> <sup>1</sup>	20%	20%	20%	20%
# Exceedances	0	0	1	1

**Bold** Indicates Exceedance of the Criteria

<sup>1</sup>SAMP and TOMP field blank criteria taken from Table 7.2 of the Cycle 6 Study Design for TOMP, SAMP, and SRWMP (Minnow 2024).

There were 18 out of 140 field precision exceedance results which did not meet DQOs in 2025 (Table 2).

The radium-226 field precision DQO of 20% was exceeded in 2 out of 12 samples with a maximum result of 35% in March. With the exception of the March result, the exceedances remained consistent with the variability observed in low radium-226 concentrations and did not affect the interpretation of radium-226 water quality results. Barium exceeded 4 of 12 samples, with a maximum 45% in February. Results were within values typically observed at this location (D-2).

Iron, cobalt, manganese, and total suspended solids field precision exceeded the DQO; 1 in 12 samples for iron, 3 in 12 samples for cobalt, and 3 of 12 samples for manganese, 4 of 12 samples for total suspended solids. Precision exceedances for cobalt were at 40% in January, June, and August. The maximum precision exceedance for iron was in June at 21% and is considered a minor exceedance. The maximum manganese exceedance was 54% in June. This could be due to laboratory error as there were four samples that had exceedances. Concentrations of total suspended solid maximum was 40% in January, June, December. Concentrations of parameters were within values typically observed at these locations (D-2 and DS-2) and the annual precision averages met the DQO criteria for acidity, hardness, TSS, sulphate, uranium, barium, cobalt, iron and manganese (Table 2)

## **b. Groundwater Quality**

The 2025 groundwater field blank and field precision data summary is presented in Table 3 with detailed results at the end of the appendix.

The field precision DQO of 20% for pH, acidity and iron was not exceeded in 2025 (Table 3). The precision DQO for sulphate was exceeded once.

The sulphate field blank DQO was exceeded in 3 of 3 samples due to the high MDL and the acidity field blank DQO was exceeded in 3 of 3 samples. The acidity field blank exceedances may indicate contamination of field or laboratory equipment and/or lack of adequate rinsing of field or laboratory equipment. Sampling procedures will be reviewed, updated if warranted, and implemented before the 2026 sampling campaign.

**Table 3 2025 Groundwater Field Blank and Field Precision Data Summary**

Denison Mines Inc.  
 Field Blank and Field Duplicate Summary  
 2025



	pH (Field) (PH)	ACID (mg/L as CaCO3)	SO4 (mg/L)	Fe (d) (mg/L)
Field Blank Statistics				
Count	3	<b>3</b>	<b>3</b>	3
Average	6.86	<b>5</b>	<b>0.5</b>	0.020
Max	7.55	< <b>5</b>	< <b>0.5</b>	0.021
Min	6.48	< 5	< 0.5	< 0.02
Field Blank Exceedances				
DQO Criteria <sup>1</sup>		2	0.2	0.04
# Exceedances	0	<b>3</b>	<b>3</b>	0
	pH (Field) (PH)	ACID (mg/L as CaCO3)	SO4 (mg/L)	Fe (d) (mg/L)
Field Duplicate Statistics				
Count	3	3	3	3
Average	4%	8%	27%	12%
Max	7%	11%	63%	27%
Min	2%	2%	6%	4%
Field Precision Exceedances				
DQO Criteria <sup>1</sup>	20%	20%	20%	20%
# Exceedances	0	0	1	1

**Bold** Indicates Exceedance of the Criteria

<sup>1</sup>SAMP and TOMP field blank criteria taken from Table 7.2 of the Cycle 6 Study Design for TOMP, SAMP, and SRWMP (Minnow 2024).

Denison Mines Inc.  
SAMP/TOMP Flagged Data 2025



Location	Analyte	Low	High	Exceedance	Sample Date	Result	Units	Comments
91-DG4B	pH (Field)	<b>6.22</b>	6.85	Low	2025-08-11	5.82	PH	Accept. low count. Need more data. Will continue to monitor.
91-SG2A	Sulphate	4600	<b>4600</b>	High	2025-08-14	4640	mg/L	Accept. low count. Need more data. Will continue to monitor.
98-16A	pH (Field)	<b>5.74</b>	5.74	Low	2025-08-26	5.55	PH	Accept. Continue to monitor.
D-1	Iron	0	<b>0.18</b>	High	2025-10-01	0.283	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-1	Iron	0	<b>0.18</b>	High	2025-11-10	0.328	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-16	Cobalt	0	<b>0.0042</b>	High	2025-10-06	0.0042	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-2	Barium	0	<b>1.23</b>	High	2025-04-22	1.33	mg/L	High Barium results are due to the amount of melt/effluent that was being treated at the ETP. Will continue to monitor.
D-2	Barium	0	<b>1.23</b>	High	2025-04-01	1.43	mg/L	High Barium results are due to the amount of melt/effluent that was being treated at the ETP. Will continue to monitor.
D-2	Barium	0	<b>1.2</b>	High	2025-03-25	1.4	mg/L	High Barium results are due to the amount of melt/effluent that was being treated at the ETP. Will continue to monitor.
D-2	Cobalt	0	<b>0.0009</b>	High	2025-11-10	0.0009	mg/L	Accept. result is at high limit. Will continue to monitor
D-2	Copper	0.00002	<b>0.002</b>	High	2025-06-17	0.004	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-2	Copper	0.000019	<b>0.002</b>	High	2025-10-21	0.015	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-2	Dissolved organic carbon	2.7	<b>5.7</b>	High	2025-03-04	6.2	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-2	Dissolved organic carbon	2.7	<b>5.7</b>	High	2025-04-01	5.9	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-22	Acidity	0	<b>36.6</b>	High	2025-01-07	425	MG/L AS CaCO3	Accept. low count. Need more data. Will continue to monitor.
D-22	pH (Field)	<b>6.04</b>	7.31	Low	2025-12-09	5.88	PH	pH is low. This is pre-treatment. Will continue to monitor.
D-22	pH (Field)	<b>6.04</b>	7.31	Low	2025-04-22	5.96	PH	pH is low. This is pre-treatment. Will continue to monitor.
D-25	Iron	0	<b>0.978</b>	High	2025-04-30	1.42	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-25	Acidity	0	<b>7</b>	High	2025-04-30	10	mg/L AS CaCO3	Accept. low count. Need more data. Will continue to monitor.
D-25	pH (Field)	<b>6.5</b>	8.2	Low	2025-12-03	6.4	PH	Low ph can be caused by snow fall, Snow has low pH. Will continue to monitor.
D-3	Radium-226	0	<b>0.3</b>	High	2025-08-05	0.393	Bq/L	Accept. High levels of Ra226, we increased our barium dose to 50 to see if there is any change with results. Will monitor.
D-3	Iron	0	<b>1.26</b>	High	2025-08-05	5.06	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-3	Manganese	0	<b>0.33</b>	High	2025-08-05	1.06	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-3	Silver	0.0001	<b>0.0001</b>	High	2025-09-04	0.0006	mg/L	Accept. low count. Need more data. Will continue to monitor.

Denison Mines Inc.  
SAMP/TOMP Flagged Data 2025



Location	Analyte	Low	High	Exceedance	Sample Date	Result	Units	Comments
D-3	Boron	0.0049	<b>0.012</b>	High	2025-07-02	0.021	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-3	Boron	<b>0.005</b>	0.01	Low	2025-08-05	0.002	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-3	Boron	0.0049	<b>0.012</b>	High	2025-09-04	0.017	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-3	Cobalt	0	<b>0.0015</b>	High	2025-08-05	0.0048	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-3	Copper	0.001	<b>0.001</b>	High	2025-09-04	0.004	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-3	Selenium	0.0002	<b>0.0002</b>	High	2025-12-02	0.0004	mg/L	Accept. low count. Need more data. Will continue to monitor.
D-3	pH (Field)	<b>6.52</b>	7.72	Low	2025-04-22	6.32	PH	Accept. pH is low will continue to monitor.
D-3	Total Suspended Solids	0	<b>2.1</b>	High	2025-03-25	2.3	mg/L	Williams seetling pond was dealing with beavers that were stiring up the mud and sticks in the pond. Still well below the exceedance limit Will continue to monitor.
D-3	Total Suspended Solids	0	<b>2.1</b>	High	2025-04-01	2.7	mg/L	Williams seetling pond was dealing with beavers that were stiring up the mud and sticks in the pond. Will continue to monitor.
D-3	Total Suspended Solids	0	<b>2.1</b>	High	2025-08-12	2.7	mg/L	Williams seetling pond was dealing with beavers that were stiring up the mud and sticks in the pond. Will continue to monitor.
D-3	Total Suspended Solids	0	<b>2.1</b>	High	2025-08-05	3.7	mg/L	Williams seetling pond was dealing with beavers that were stiring up the mud and sticks in the pond. Will continue to monitor.
D-3	Total Suspended Solids	0	<b>2.1</b>	High	2025-06-24	2.7	mg/L	Williams seetling pond was dealing with beavers that were stiring up the mud and sticks in the pond. Will continue to monitor.
D-3	Total Suspended Solids	0	<b>2.1</b>	High	2025-06-17	5.3	mg/L	Williams seetling pond was dealing with beavers that were stiring up the mud and sticks in the pond. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-05-06	8.55	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-05-05	8.66	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-05-01	8.67	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.

Denison Mines Inc.  
SAMP/TOMP Flagged Data 2025



Location	Analyte	Low	High	Exceedance	Sample Date	Result	Units	Comments
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-05-02	8.72	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-17	8.94	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-21	9.25	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-24	8.66	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-25	9.17	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-23	9.36	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-04	8.66	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-01	8.52	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-03	8.57	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-16	8.72	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.

Denison Mines Inc.  
SAMP/TOMP Flagged Data 2025



Location	Analyte	Low	High	Exceedance	Sample Date	Result	Units	Comments
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-04-09	8.52	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.4	<b>8.5</b>	High	2025-04-11	8.6	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-1	pH (Field)	6.43	<b>8.49</b>	High	2025-03-26	8.65	PH	Accept. The pH at Ds-1 can be high in the mid to early months due to the amount of water/melt the plant it working very hard to treat effluent. This leads to over dosing of lime which increases pH. Will continue to monitor.
DS-13L	Flow	0	<b>0.098</b>	High	2025-09-26	0.19	L/s	Accept. low count. Need more data. Will continue to monitor.
DS-13L	Flow	0	<b>0.098</b>	High	2025-09-26	0.19	L/s	Accept. low count. Need more data. Will continue to monitor.
DS-2	pH (Field)	2.37	<b>3.16</b>	High	2025-06-02	3.26	PH	ETP plant Ph is very low due to acidity/seepages. Continue to monitor.
DS-2	pH (Field)	<b>2.37</b>	3.16	Low	2025-06-12	2.19	PH	ETP plant Ph is very low due to acidity/seepages. Continue to monitor.
DS-2	pH (Field)	<b>2.37</b>	3.16	Low	2025-03-14	2.36	PH	ETP plant Ph is very low due to acidity/seepages. Continue to monitor.
DS-2	pH (Field)	2.37	<b>3.16</b>	High	2025-05-05	3.19	PH	ETP plant Ph is very low due to acidity/seepages. Continue to monitor.
DS-2	pH (Field)	<b>2.37</b>	3.16	Low	2025-10-01	2.31	PH	ETP plant Ph is very low due to acidity/seepages. Continue to monitor.
DS-2	pH (Field)	<b>2.37</b>	3.16	Low	2025-03-12	2.33	PH	ETP plant Ph is very low due to acidity/seepages. Continue to monitor.
DS-2	pH (Field)	<b>2.37</b>	3.16	Low	2025-03-13	2.35	PH	ETP plant Ph is very low due to acidity/seepages. Continue to monitor.
DS-4	Selenium	0.00009	<b>0.0004</b>	High	2025-10-21	0.0005	mg/L	Accept. low count. Need more data. Will continue to monitor.
DS-4	Selenium	0.00009	<b>0.0004</b>	High	2025-06-17	0.0005	mg/L	Accept. low count. Need more data. Will continue to monitor.
DS-4	Dissolved organic carbon	<b>0.6</b>	3	Low	2025-06-17	< 0.4	mg/L	Sample result is lower than normal. This is good. Will continue to monitor.
DS-4	pH (Field)	6.63	<b>7.85</b>	High	2025-04-22	7.94	PH	pH is slightly higher. Should be fine. Will continue to monitor.
DS-4	Total Suspended Solids	0	<b>3</b>	High	2025-06-17	8	mg/L	TSS is High could be a lab sample error or a bad grab sample. will continue to monitor.
DS-4	Total Suspended Solids	0	<b>3</b>	High	2025-02-25	4	mg/L	TSS is high due to melt most likely will continue to monitor.
DS-4	Total Suspended Solids	0	<b>3</b>	High	2025-03-25	4	mg/L	TSS is high due to melt most likely will continue to monitor.
ST-1	pH (Field)	2.77	<b>6.01</b>	High	2025-10-27	6.13	PH	Accept. low count. Need more data. Will continue to monitor.

Denison Mines Inc.  
SAMP/TOMP Flagged Data 2025



Location	Analyte	Low	High	Exceedance	Sample Date	Result	Units	Comments
ST-4	Uranium	0.0006	<b>0.001</b>	High	2025-05-20	0.002	mg/L	Accept. low count. Need more data. Will continue to monitor.
ST-4	Acidity	0	<b>9</b>	High	2025-05-20	10	mg/L AS CaCO3	Accept. low count. Need more data. Will continue to monitor.
ST-4	Acidity	0	<b>9.3</b>	High	2025-03-11	11	MG/L AS CACO3	Accept. low count. Need more data. Will continue to monitor.
ST3-P6	Acidity	<b>3000</b>	7000	Low	2025-08-19	< 5	mg/L AS CaCO3	Accept. low count. Need more data. Will continue to monitor.
ST3-P8	Acidity	<b>3000</b>	9000	Low	2025-08-19	< 5	mg/L AS CaCO3	Accept. low count. Need more data. Will continue to monitor.

Denison Mines Inc.  
Data Quality Reporting  
Field Blank 2025



		pH (Field) (PH)	ACID (mg/L as CaCO3)	TSS (mg/L)	HARD (mg/L as CaCO3)	S04 (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
	<i>DQO Criteria<sup>1</sup></i>		2	2	1	0.2	0.01	0.01	0.001	0.04	0.004	0.001
FBDST2	06 Jan 2025	4.94	<b>7</b>									
FBDST	07 Jan 2025	4.85		< 0.67	<b>1.3</b>	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.001
FBDST	04 Feb 2025	4.5		< 0.67	< 0.1	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005
FBDST	04 Mar 2025	5.52		0.8	0.2	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005
FBDST	01 Apr 2025	4.65		1.3	0.1	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005
FBDST2	01 Apr 2025	6.75	<b>10</b>									
FBDST	06 May 2025	5.89		< 0.67	0.3	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005
FBDST	17 Jun 2025	5.46		< 0.67	< 0.1	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005
FBDST2	02 Jul 2025	5.4	< 5									
FBDST	08 Jul 2025	5.55		< 0.67	0.1	<b>2.1</b>	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005
FBDST	05 Aug 2025	5.12		< 0.67	< 0.1	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005
FBDST	09 Sep 2025	4.51		< 0.67	< 0.1	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005
FBDST2	01 Oct 2025	5.34	< 5									
FBDST	21 Oct 2025	8.9		< 0.67	0.4	< 0.5	< 0.007	< 0.001	< 0.0001	<b>0.071</b>	< 0.001	< 0.0005
FBDST	10 Nov 2025	5.24		< 0.67	0.2	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005
FBDST	02 Dec 2025	5.04		< 0.67	< 0.1	< 0.5	< 0.007	< 0.001	< 0.0001	0.031	< 0.001	< 0.0005
Count		16	4	12	12	12	12	12	12	12	12	12
# Exceedances		0	<b>4</b>	0	<b>1</b>	<b>12</b>	0	0	0	1	0	0
Average		5.48	<b>7</b>	0.73	<b>0.3</b>	<b>0.6</b>	0.007	0.001	0.0001	0.025	0.001	0.001
Max		8.9	<b>10</b>	1.3	<b>1.3</b>	<b>2.1</b>	< 0.007	< 0.001	< 0.0001	0.071	< 0.001	< 0.001
Min		4.5	< 5	< 0.67	< 0.1	< 0.5	< 0.007	< 0.001	< 0.0001	< 0.02	< 0.001	< 0.0005

**Bold** Indicates Exceedance of the Criteria

<sup>1</sup>SAMP and TOMP field blank criteria taken from Table 7.2 of the Cycle 6 Study Design for TOMP, SAMP, and SRWMP (Minnow 2024).

Denison Mines Inc.  
SAMP and TOMP DATA QUALITY REPORTING  
Field Precision 2025



Location	Date		pH (Field) (PH)	ACID (mg/L as CaCO3)	TSS (mg/L)	HARD (mg/L as CaCO3)	SO4 (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
DS-2	06 Jan 2025	Primary	2.56	162									
		Duplicate	2.96	167									
		Variance	14%	3%									
D-2	07 Jan 2025	Primary	7.4		1	310	265	0.024	0.09	0.0006	0.524	0.177	0.034
		Duplicate	7.26		0.67	324	265	0.028	0.067	0.0004	0.528	0.119	0.035
		Variance	2%		<b>40%</b>	4%	0%	15%	<b>29%</b>	<b>40%</b>	1%	39%	<b>3%</b>
D-2	04 Feb 2025	Primary	7.14		2	239	146	0.129	0.728	0.0007	0.882	0.146	0.0183
		Duplicate	7.14		2.3	225	146	0.134	0.462	0.0007	0.845	0.141	0.0177
		Variance	0%		14%	6%	0%	4%	<b>45%</b>	0%	4%	3%	3%
D-2	04 Mar 2025	Primary	7.29		2.7	197	145	0.156	0.683	0.0007	0.734	0.137	0.0148
		Duplicate	7.28		2.7	196	148	0.109	0.698	0.0006	0.766	0.139	0.0151
		Variance	0%		0%	1%	2%	<b>35%</b>	2%	15%	4%	1%	2%
DS-2	01 Apr 2025	Primary	2.79	196									
		Duplicate	2.79	206									
		Variance	0%	5%									
D-2	01 Apr 2025	Primary	7.37		3.3	149	100	0.232	1.43	0.0004	0.538	0.093	0.0096
		Duplicate	7.32		4	126	103	0.217	1.15	0.0004	0.544	0.09	0.0093
		Variance	1%		19%	17%	3%	7%	<b>22%</b>	0%	1%	3%	3%
D-2	06 May 2025	Primary	7.38		1.7	209	171	0.127	0.669	0.0003	0.481	0.069	0.0227
		Duplicate	7.26		2.3	199	169	0.123	0.626	0.0003	0.444	0.066	0.0219
		Variance	2%		<b>30%</b>	5%	1%	3%	7%	0%	8%	4%	4%
D-2	17 Jun 2025	Primary	7.63		< 0.67	209	160	0.062	0.41	0.0002	0.37	0.047	0.0178
		Duplicate	7.67		< 1	207	159	0.063	0.458	0.0003	0.459	0.082	0.0181
		Variance	1%		<b>40%</b>	1%	1%	2%	11%	<b>40%</b>	<b>21%</b>	<b>54%</b>	<b>2%</b>
DS-2	02 Jul 2025	Primary	2.65	172									
		Duplicate	2.63	165									
		Variance	1%	4%									
D-2	08 Jul 2025	Primary	7.47		< 0.67	216	170	0.028	0.275	0.0003	0.262	0.067	0.0185
		Duplicate	7.37		< 0.67	220	171	0.036	0.279	0.0003	0.284	0.084	0.0182
		Variance	1%		0%	2%	1%	<b>25%</b>	1%	0%	8%	23%	<b>2%</b>

Location	Date		pH (Field) (PH)	ACID (mg/L as CaCO3)	TSS (mg/L)	HARD (mg/L as CaCO3)	SO4 (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
D-2	05 Aug 2025	Primary	7.24		2	221	196	0.036	0.229	0.0003	0.358	0.056	0.0202
		Duplicate	7.48		2.3	223	195	0.033	0.176	0.0002	0.365	0.06	0.0203
		Variance	3%		14%	1%	1%	9%	<b>26%</b>	<b>40%</b>	2%	7%	0%
D-2	09 Sep 2025	Primary	7.61		1	242	207	0.065	0.221	0.0003	0.624	0.081	0.0258
		Duplicate	7.56		1	247	211	0.061	0.217	0.0003	0.641	0.076	0.0251
		Variance	1%		0%	2%	2%	6%	2%	0%	3%	6%	3%
DS-2	01 Oct 2025	Primary	2.31	198									
		Duplicate	2.92	202									
		Variance	<b>23%</b>	2%									
D-2	21 Oct 2025	Primary	7.56		< 0.67	244	204	0.089	0.374	0.0004	0.38	0.079	0.0243
		Duplicate	7.58		< 0.67	248	212	0.103	0.379	0.0004	0.444	0.07	0.0221
		Variance	0%		0%	2%	4%	15%	1%	0%	16%	12%	9%
D-2	10 Nov 2025	Primary	7.33		< 0.67	201	194	0.086	0.273	0.0009	0.64	0.249	0.027
		Duplicate	7.36		< 0.67	203	193	0.102	0.28	0.0008	0.646	0.247	0.0266
		Variance	0%		0%	1%	1%	17%	3%	12%	1%	1%	1%
D-2	02 Dec 2025	Primary	7.49		1	270	223	0.046	0.242	0.0006	0.592	0.192	0.0279
		Duplicate	7.51		0.67	252	223	0.048	0.239	0.0006	0.59	0.193	0.0279
		Variance	0%		<b>40%</b>	7%	0%	4%	1%	0%	0%	1%	0%
	Count		16	4	12	12	12	12	12	12	12	12	12
	Average		3	4	16	4	1	12	13	12	6	13	3
	Max		23	5	40	17	4	35	45	40	21	54	9
	Min		0	2	0	1	0	2	1	0	0	1	0
	Criteria		20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	# Exceedances		1	0	4	0	0	2	4	3	1	3	0

**Bold** Indicates Exceedance of the Criteria

<sup>1</sup>SAMP and TOMP field blank criteria taken from Table 7.2 of the Cycle 6 Study Design for TOMP, SAMP, and SRWMP (Minnow 2024).

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SAMP and TOMP DATA QUALITY REPORTING



Field Blank

Location	Date	pH (Field) (PH)	ACID (mg/L as CaCO3)	SO4 (mg/L)	Fe (d) (mg/L)
	<i>DQO Criteria<sup>1</sup></i>		2	0.2	0.04
FBD-GW3	11 Aug 2025	7.55	<b>&lt; 5</b>	<b>&lt; 0.5</b>	< 0.02
FBD-GW4	14 Aug 2025	6.48	<b>&lt; 5</b>	<b>&lt; 0.5</b>	< 0.02
FBD-GW2	26 Aug 2025	6.55	<b>&lt; 5</b>	<b>&lt; 0.5</b>	0.021
Count		3	<b>3</b>	<b>3</b>	3
# Exceedances		0	<b>3</b>	<b>3</b>	0
Average		6.86	<b>5</b>	<b>0.5</b>	0.020
Max		7.55	<b>&lt; 5</b>	<b>&lt; 0.5</b>	0.021
Min		6.48	<b>&lt; 5</b>	<b>&lt; 0.5</b>	< 0.02

**Bold** Indicates Exceedance of the Criteria

<sup>1</sup>SAMP and TOMP field blank criteria taken from Table 7.2 of the Cycle 6 Study Design for TOMP, SAMP, and SRWMP (Minnow 2024).

Denison Mines Inc.  
 SAMP and TOMP DATA QUALITY REPORTING  
 Groundwater Field Precision



Location	Date		pH (Field) (PH)	ACID (mg/L as CaCO3)	SO4 (mg/L)	Fe (d) (mg/L)
91-DG4B	11 Aug 2025	Primary	5.82	30	347	16.2
		Duplicate	6.27	27	669	15.6
		Variance	7%	11%	<b>63%</b>	4%
91-SG2A	14 Aug 2025	Primary	5.76	2080	4640	1540
		Duplicate	5.55	2120	5290	1450
		Variance	4%	2%	13%	6%
98-15A	26 Aug 2025	Primary	5.49	771	2380	554
		Duplicate	5.37	701	2240	422
		Variance	2%	10%	6%	<b>27%</b>
	Count		3	3	3	3
	Average		4	8	27	12
	Max		7	11	63	27
	Min		2	2	6	4
	Criteria <sup>1</sup>		20%	20%	20%	20%
	# Exceedances		0	0	1	1

**Bold** Indicates Exceedance of the Criteria

<sup>1</sup>SAMP and TOMP field blank criteria taken from Table 7.2 of the Cycle 6 Study Design for TOMP, SAMP, and SRWMP (Minnow 2024).

## **Appendix IV - Laboratory QA/QC Results**



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**REPORT TITLE:** *Annual 2025 Data Quality Report - Denison*

**REVISION:** *1.1*

**ISSUED BY:**  
***Brad Woodward***  
*QAQC Director*  
*Testmark Laboratories Ltd.*

**AUTHORIZED BY:**  
***Brad Woodward***  
*QAQC Director*  
*Testmark Laboratories Ltd.*

**DATE:** *24 Feb. 2026*



***TESTMARK Laboratories Ltd.***

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## **1. MANAGEMENT SYSTEM**

Testmark Laboratories Ltd. is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation (CALA), for specific tests listed in the scope of accreditation; and licensed by the MECP. ISO/IEC 17025 addresses the management system and the technical aspects of operating a testing laboratory.

The management system at Testmark Laboratories Ltd. consists of a documented quality system, which is directed by the QAQC Director, who is independent of the production area. All appropriate documentation (quality manual, methods, written instructions, standard operating procedures, and data approval criteria) is in place with the Distributed Lab Information Management System (DLIMS) and includes general and method-specific quality controls.

Quality control procedures include duplicate samples, spiked blanks, spiked replicates, reagent/instrument blanks, preparation control samples, certified reference material analysis, and instrument control samples appropriate for individual testing methods. Reference materials are matched to samples matrices whenever possible. Control sample frequency is method-specific and follows or exceeds legislated guidelines.

## **2. QUALITY CONTROL PARAMETERS**

Quality Control (QC) parameters are read from Testmark Laboratories Ltd. DLIMS. Client samples are processed in batches with associated method-specific quality assurance controls attached to all batches. This data reflects all QC done for the parameters tested for the client within the date range.

## **3. NOTABLE OCCURANCES/ACTIONS**

- Data compiled from January 1<sup>st</sup>, 2025 to December 31<sup>st</sup>, 2025
- Performed 10,276 analyses with 13,616 QC checks, which represents 132.5% QC for sample analysis. Two customer inquiries were received regarding data quality during this period.
  - CI 24960 08/13/2025 and 25267 10/15/2025. Both concerning elevated Ra226 results.  
**Corrective Action:** N/A
- 99.7% of all blank data results were within the data quality objectives, 100% within expected range of uncertainty. **Corrective Action:** N/A
- 99.2% of all reference material/spike blank data results were within the data quality objectives, 100% within expected range of uncertainty. **Corrective Action:** N/A
- 99.9% of all duplicate data results were within the data quality objectives, 100% within expected range of uncertainty. **Corrective Action:** N/A
- 100% of all spike duplicate data results were within the data quality objectives. **Corrective Action:** N/A



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## 4. QC DATA SUMMARY

### 4.1. Blank Data

Parameter	Unit	Required Limit	Number Of Blanks	Mean Blank Result
Acidity	mg/L as CaCO <sub>3</sub>	15	36	<5
Bromide	mg/L	0.15	81	<0.05
Chloride	mg/L	0.6	81	<0.2
Conductivity	µS/cm	5	8	1.6
Dissolved Aluminum	ug/L	3	51	<1
Dissolved Antimony	ug/L	3	51	<1
Dissolved Arsenic	ug/L	3	51	<1
Dissolved Barium	ug/L	3	63	<1
Dissolved Beryllium	ug/L	3	51	<1
Dissolved Bismuth	ug/L	3	50	<1
Dissolved Boron	ug/L	5	52	<2
Dissolved Cadmium	ug/L	3	52	<1
Dissolved Calcium	ug/L	150	51	<50
Dissolved Cerium	ug/L	3	50	<1
Dissolved Cesium	ug/L	3	50	<1
Dissolved Chromium	ug/L	3	52	<1
Dissolved Cobalt	ug/L	3	51	<1
Dissolved Copper	ug/L	3	52	<1
Dissolved Europium	ug/L	3	50	<1
Dissolved Gallium	ug/L	3	50	<1
Dissolved Iron	ug/L	60	52	<20
Dissolved Lanthanum	ug/L	3	50	<1
Dissolved Lead	ug/L	3	51	<1
Dissolved Lithium	ug/L	15	50	<5
Dissolved Magnesium	ug/L	12	51	<4
Dissolved Manganese	ug/L	3	53	<1
Dissolved Mercury	ug/L	0.3	51	<0.1
Dissolved Molybdenum	ug/L	3	52	<1
Dissolved Nickel	ug/L	3	52	<1
Dissolved Niobium	ug/L	3	50	<1
Dissolved Organic Carbon	mg/L	1.2	39	<0.4



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Parameter	Unit	Required Limit	Number Of Blanks	Mean Blank Result
Dissolved Phosphorus	ug/L	150	50	<50
Dissolved Potassium	ug/L	300	51	<100
Dissolved Radium-226	Bq/L	0.007	51	<0.007
Dissolved Rubidium	ug/L	3	50	<1
Dissolved Scandium	ug/L	3	50	<1
Dissolved Selenium	ug/L	0.6	51	<0.2
Dissolved Silicon	ug/L	1800	51	<600
Dissolved Silver	ug/L	0.3	51	<0.1
Dissolved Sodium	ug/L	300	51	<100
Dissolved Strontium	ug/L	3	50	<1
Dissolved Sulfur	ug/L	2400	51	<800
Dissolved Tellurium	ug/L	3	50	<1
Dissolved Thallium	ug/L	3	51	<1
Dissolved Thorium	ug/L	3	50	<1
Dissolved Tin	ug/L	3	51	<1
Dissolved Titanium	ug/L	3	50	<1
Dissolved Tungsten	ug/L	3	51	<1
Dissolved Uranium	ug/L	3	51	<1
Dissolved Vanadium	ug/L	3	51	<1
Dissolved Yttrium	ug/L	3	50	<1
Dissolved Zinc	ug/L	3	53	<1
Dissolved Zirconium	ug/L	3	50	<1
Fluoride	mg/L	0.15	81	<0.05
M-Alkalinity (pH 4.5)	mg/L as CaCO <sub>3</sub>	6	15	2.224
Nitrate (as N)	mg/L	0.15	81	<0.05
Nitrite (as N)	mg/L	0.15	81	<0.05
Radium-226	Bq/L	0.007	51	<0.007
Sulphate	mg/L	1.5	81	<0.5
Total Aluminum	ug/L	3	62	1.733
Total Antimony	ug/L	1.5	58	<0.5
Total Arsenic	ug/L	3	59	<1
Total Barium	ug/L	3	68	<1
Total Beryllium	ug/L	3	58	<1
Total Bismuth	ug/L	3	59	<1
Total Boron	ug/L	5	61	<1



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Parameter	Unit	Required Limit	Number Of Blanks	Mean Blank Result
Total Cadmium	ug/L	0.3	58	<0.1
Total Calcium	ug/L	150	60	<50
Total Cerium	ug/L	3	58	<1
Total Cesium	ug/L	3	58	<1
Total Chromium	ug/L	3	60	<1
Total Cobalt	ug/L	3	58	<1
Total Copper	ug/L	3	60	<1
Total Dissolved Solids	mg/L	50	7	<10
Total Europium	ug/L	3	58	<1
Total Gallium	ug/L	3	59	<1
Total Iron	ug/L	60	61	<20
Total Lanthanum	ug/L	3	58	<1
Total Lead	ug/L	1	59	<0.5
Total Lithium	ug/L	10	58	<5
Total Magnesium	ug/L	12	58	<4
Total Manganese	ug/L	3	58	<1
Total Mercury	ug/L	0.3	58	<0.1
Total Molybdenum	ug/L	3	59	<1
Total Nickel	ug/L	3	58	<1
Total Niobium	ug/L	3	58	<1
Total Organic Carbon	mg/L	1.2	2	<0.4
Total Phosphorus	ug/L	150	58	<50
Total Potassium	ug/L	300	58	<100
Total Rubidium	ug/L	3	58	<1
Total Scandium	ug/L	3	58	<1
Total Selenium	ug/L	0.6	60	<0.2
Total Silicon	ug/L	1800	59	<600
Total Silver	ug/L	0.3	59	<0.1
Total Sodium	ug/L	300	58	<100
Total Strontium	ug/L	3	58	<1
Total Sulphur	ug/L	2400	60	<800
Total Suspended Solids	mg/L	10	66	<0.67
Total Tellurium	ug/L	3	58	<1
Total Thallium	ug/L	3	58	<1
Total Thorium	ug/L	3	58	<1



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Parameter	Unit	Required Limit	Number Of Blanks	Mean Blank Result
Total Tin	ug/L	3	58	<1
Total Titanium	ug/L	3	58	<1
Total Tungsten	ug/L	3	58	<1
Total Uranium	ug/L	3	59	<1
Total Vanadium	ug/L	3	59	<1
Total Yttrium	ug/L	3	58	<1
Total Zinc	ug/L	3	59	<1
Total Zirconium	ug/L	3	58	<1

### **4.2. Reference Material/Spiked Blank Data**

This subset represents QC checks that report in % Recovery.

Parameter	Unit	Number of RM or SB	% Recovery
Bromide	%	81	97.38
Chloride	%	81	104.10
Fluoride	%	81	99.02
Nitrate (as N)	%	81	105.76
Nitrite (as N)	%	81	112.40
Sulphate	%	81	105.41
Bromide	%	81	101.42
Chloride	%	81	107.60
Fluoride	%	81	101.04
Nitrate (as N)	%	81	103.76
Nitrite (as N)	%	81	99.86
Sulphate	%	81	105.29
Aluminum	%	15	101.62
Antimony	%	11	102.83
Arsenic	%	15	101.69
Barium	%	14	99.46
Beryllium	%	10	100.61
Boron	%	15	97.83
Cadmium	%	13	99.38
Calcium	%	42	97.49
Chromium	%	14	98.59
Cobalt	%	14	99.49
Copper	%	16	97.79



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Dissolved Aluminum	%	51	101.44
Dissolved Antimony	%	50	105.73
Dissolved Arsenic	%	50	101.77
Dissolved Barium	%	62	100.72
Dissolved Beryllium	%	50	98.68
Dissolved Boron	%	51	99.26
Dissolved Cadmium	%	51	99.48
Dissolved Calcium	%	50	97.08
Dissolved Chromium	%	51	99.41
Dissolved Cobalt	%	50	100.08
Dissolved Copper	%	51	98.69
Dissolved Iron	%	51	105.47
Dissolved Lead	%	50	100.82
Dissolved Magnesium	%	50	97.36
Dissolved Manganese	%	52	98.54
Dissolved Mercury	%	50	93.44
Dissolved Molybdenum	%	51	98.09
Dissolved Nickel	%	51	98.04
Dissolved Phosphorus	%	49	95.17
Dissolved Potassium	%	50	97.57
Dissolved Selenium	%	50	98.76
Dissolved Silicon	%	50	100.04
Dissolved Sodium	%	50	97.07
Dissolved Sulfur	%	50	100.41
Dissolved Thallium	%	50	100.48
Dissolved Uranium	%	50	104.95
Dissolved Vanadium	%	50	100.66
Dissolved Zinc	%	52	99.65
Iron	%	15	104.15
Lead	%	16	101.32
Magnesium	%	42	99.05
Manganese	%	12	93.02
Mercury	%	11	91.94
Molybdenum	%	15	97.78
Nickel	%	16	97.71
Phosphorus	%	10	95.54
Potassium	%	19	96.86



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Selenium	%	11	99.31
Silicon	%	10	102.02
Sodium	%	20	98.00
Sulfur	%	11	97.74
Thallium	%	10	102.08
Uranium	%	11	104.33
Vanadium	%	13	100.33
Zinc	%	16	98.86
Total Aluminum	%	62	105.79
Total Antimony	%	58	102.55
Total Arsenic	%	59	94.73
Total Barium	%	68	102.08
Total Beryllium	%	58	94.38
Total Boron	%	60	98.61
Total Cadmium	%	58	95.20
Total Calcium	%	59	99.86
Total Chromium	%	60	101.64
Total Cobalt	%	58	102.71
Total Copper	%	60	99.00
Total Iron	%	61	112.40
Total Lead	%	59	101.93
Total Magnesium	%	58	99.14
Total Manganese	%	58	102.64
Total Mercury	%	58	82.27
Total Molybdenum	%	59	102.65
Total Nickel	%	58	99.22
Total Phosphorus	%	58	90.84
Total Potassium	%	58	98.99
Total Selenium	%	60	86.22
Total Silicon	%	59	102.14
Total Sodium	%	57	99.49
Total Sulphur	%	60	96.78
Total Thallium	%	58	100.52
Total Uranium	%	59	108.08
Total Vanadium	%	59	103.64
Total Zinc	%	59	89.44
Barium-133	%	76	102.79



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Barium-133	%	76	103.53
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This subset represents QC checks that report in Specified Units.

<b>Parameter</b>	<b>Unit</b>	<b>Number of RM or SB</b>	<b>Mean Result</b>
Acidity	mg/L as CaCO <sub>3</sub>	34	102.34
Conductivity	µS/cm	8	500.88
Dissolved Aluminum	ug/L	52	102.32
Dissolved Antimony	ug/L	51	12.30
Dissolved Arsenic	ug/L	51	9.99
Dissolved Barium	ug/L	63	7.96
Dissolved Beryllium	ug/L	51	2.06
Dissolved Boron	ug/L	52	97.84
Dissolved Cadmium	ug/L	52	2.00
Dissolved Calcium	ug/L	51	551.88
Dissolved Chromium	ug/L	52	13.13
Dissolved Cobalt	ug/L	51	11.00
Dissolved Copper	ug/L	52	16.28
Dissolved Iron	ug/L	7	40.54
Dissolved Lead	ug/L	51	4.15
Dissolved Magnesium	ug/L	51	58.01
Dissolved Manganese	ug/L	53	5.81
Dissolved Molybdenum	ug/L	52	21.62
Dissolved Nickel	ug/L	52	19.73
Dissolved Organic Carbon	mg/L	39	14.9
Dissolved Potassium	ug/L	51	405.29
Dissolved Radium-226	Bq/L	51	0.049
Dissolved Selenium	ug/L	51	58.75
Dissolved Sodium	ug/L	51	264.78
Dissolved Strontium	ug/L	50	141.70
Dissolved Thallium	ug/L	51	6.11
Dissolved Uranium	ug/L	51	4.91
Dissolved Vanadium	ug/L	51	14.02
Dissolved Zinc	ug/L	53	44.98
M-Alkalinity (pH 4.5)	mg/L as CaCO <sub>3</sub>	15	90.87
pH	pH	8	8.04
Radium-226	Bq/L	51	0.049
Total Aluminum	ug/L	62	106.22



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Parameter	Unit	Number of RM or SB	Mean Result
Total Antimony	ug/L	58	11.95
Total Arsenic	ug/L	59	9.28
Total Barium	ug/L	68	8.16
Total Beryllium	ug/L	58	1.92
Total Boron	ug/L	61	96.54
Total Cadmium	ug/L	58	1.89
Total Calcium	ug/L	60	554.17
Total Chromium	ug/L	60	13.54
Total Cobalt	ug/L	58	11.29
Total Copper	ug/L	60	16.32
Total Dissolved Solids	mg/L	7	239.29
Total Iron	ug/L	6	43.87
Total Lead	ug/L	59	4.18
Total Magnesium	ug/L	58	56.23
Total Manganese	ug/L	58	6.33
Total Molybdenum	ug/L	59	22.86
Total Nickel	ug/L	58	19.63
Total Organic Carbon	mg/L	2	14.90
Total Potassium	ug/L	58	397.02
Total Selenium	ug/L	60	49.62
Total Sodium	ug/L	58	254.91
Total Strontium	ug/L	58	147.10
Total Suspended Solids	mg/L	66	234.91
Total Thallium	ug/L	58	6.20
Total Uranium	ug/L	59	5.14
Total Vanadium	ug/L	59	14.40
Total Zinc	ug/L	59	38.48

### **4.3. Duplicate Data**

Parameter	Unit	Relative Percent Difference Limit	Number Of Duplicates	Relative Percent Difference
Aluminum	%	20	13	3.69
Arsenic	%	20	2	2.30
Barium	%	20	11	1.73
Boron	%	20	8	2.29



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Calcium	%	20	38	2.52
Cobalt	%	20	1	3.80
Copper	%	20	3	6.50
Dissolved Radium-226	%	20	50	5.99
Gallium	%	20	1	3.80
Iron	%	20	8	4.04
Magnesium	%	20	38	2.06
Manganese	%	20	8	2.53
Molybdenum	%	20	3	6.30
Potassium	%	20	14	2.19
Radium-226	%	20	50	5.99
Rubidium	%	20	1	4.70
Selenium	%	20	1	12.50
Sodium	%	20	19	2.43
Strontium	%	20	10	1.33
Sulfur	%	20	5	2.98
Zinc	%	20	5	3.92
Chloride	%	20	62	1.43
Dissolved Aluminum	%	20	30	3.20
Dissolved Antimony	%	20	1	2.20
Dissolved Arsenic	%	20	2	4.75
Dissolved Barium	%	20	51	2.46
Dissolved Boron	%	20	26	7.88
Dissolved Calcium	%	20	51	2.19
Dissolved Cerium	%	20	1	0.00
Dissolved Chromium	%	20	2	0.00
Dissolved Cobalt	%	20	16	3.31
Dissolved Copper	%	20	8	5.58
Dissolved Gallium	%	20	8	2.54
Dissolved Iron	%	20	15	3.57
Dissolved Lanthanum	%	20	1	0.00
Dissolved Magnesium	%	20	51	2.05
Dissolved Manganese	%	20	36	2.13
Dissolved Molybdenum	%	20	8	3.83
Dissolved Nickel	%	20	9	4.70
Dissolved Organic Carbon	%	15	19	2.15



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Dissolved Potassium	%	20	37	2.17
Dissolved Rubidium	%	20	16	1.31
Dissolved Selenium	%	20	7	4.94
Dissolved Silicon	%	20	9	4.83
Dissolved Sodium	%	20	49	2.12
Dissolved Strontium	%	20	50	2.36
Dissolved Sulfur	%	20	30	2.90
Dissolved Titanium	%	20	1	9.50
Dissolved Tungsten	%	20	5	0.82
Dissolved Uranium	%	20	11	3.45
Dissolved Vanadium	%	20	1	1.60
Dissolved Zinc	%	20	12	4.21
Fluoride	%	20	6	7.73
Nitrate (as N)	%	20	12	2.01
Nitrite (as N)	%	20	2	2.40
Sulphate	%	20	65	1.78
Total Aluminum	%	20	52	5.08
Total Antimony	%	20	1	2.00
Total Arsenic	%	20	1	0.00
Total Barium	%	20	52	3.19
Total Boron	%	20	29	4.88
Total Cadmium	%	20	9	5.24
Total Calcium	%	20	59	3.28
Total Cerium	%	20	7	3.41
Total Chromium	%	20	1	9.90
Total Cobalt	%	20	22	2.65
Total Copper	%	20	15	6.28
Total Dissolved Solids	%	20	7	3.37
Total Gallium	%	20	9	2.78
Total Iron	%	20	37	3.63
Total Lanthanum	%	20	6	1.38
Total Lead	%	20	4	1.45
Total Magnesium	%	20	57	2.69
Total Manganese	%	20	49	2.90
Total Molybdenum	%	20	11	2.07
Total Nickel	%	20	19	3.34
Total Organic Carbon	%	15	2	2.90



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Total Phosphorus	%	20	1	3.60
Total Potassium	%	20	42	2.51
Total Rubidium	%	20	20	2.23
Total Scandium	%	20	1	2.50
Total Selenium	%	20	10	4.60
Total Silicon	%	20	6	4.00
Total Silver	%	20	2	6.95
Total Sodium	%	20	52	2.77
Total Strontium	%	20	55	2.59
Total Sulphur	%	20	38	3.52
Total Suspended Solids	%	20	16	6.45
Total Thorium	%	20	2	1.55
Total Titanium	%	20	2	14.25
Total Tungsten	%	20	8	2.48
Total Uranium	%	20	14	1.56
Total Vanadium	%	20	3	7.87
Total Yttrium	%	20	5	2.56
Total Zinc	%	20	14	2.20
Total Zirconium	%	20	1	9.50
Conductivity	%	20	6	0.42
M-Alkalinity (pH 4.5)	%	20	8	3.56
pH	%	0.2	8	0.06

## **4.4. Spike Duplicate Data**

Parameter	Unit	Number Of Spike Duplicates	Mean % Recovery
Barium-133	%	38	98.29
Barium-133	%	38	98.29
Dissolved Radium-226	%	38	99.93
Dissolved Radium-226	%	13	97.18
Radium-226	%	51	99.23
Dissolved Organic Carbon	%	39	100.24
Aluminum	%	15	104.69
Antimony	%	11	105.51
Arsenic	%	15	106.45
Barium	%	14	100.31



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Beryllium	%	10	106.76
Boron	%	15	100.99
Cadmium	%	13	101.68
Chromium	%	14	99.43
Cobalt	%	14	101.20
Copper	%	16	97.65
Iron	%	15	102.95
Lead	%	16	96.61
Manganese	%	12	99.83
Molybdenum	%	15	88.19
Nickel	%	16	98.60
Selenium	%	11	107.15
Thallium	%	10	102.13
Vanadium	%	13	101.02
Zinc	%	16	104.52
Bromide	%	81	102.40
Chloride	%	81	101.53
Fluoride	%	81	101.53
Nitrate (as N)	%	81	103.56
Nitrite (as N)	%	81	100.03
Sulphate	%	81	101.94
Total Organic Carbon	%	2	96.00
Dissolved Aluminum	%	52	100.22
Dissolved Antimony	%	51	104.11
Dissolved Arsenic	%	51	102.69
Dissolved Barium	%	63	100.61
Dissolved Beryllium	%	51	100.93
Dissolved Cadmium	%	52	100.30
Dissolved Chromium	%	52	97.62
Dissolved Cobalt	%	51	98.61
Dissolved Copper	%	52	96.35
Dissolved Iron	%	52	95.81
Dissolved Lead	%	51	96.34
Dissolved Manganese	%	53	96.74
Dissolved Molybdenum	%	52	90.23
Dissolved Nickel	%	52	97.08
Dissolved Selenium	%	51	103.12



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Dissolved Thallium	%	51	98.07
Dissolved Vanadium	%	51	98.15
Dissolved Zinc	%	53	101.64
Total Aluminum	%	61	105.76
Total Antimony	%	57	101.56
Total Arsenic	%	58	96.87
Total Barium	%	67	101.29
Total Beryllium	%	57	97.33
Total Cadmium	%	57	96.21
Total Chromium	%	59	101.41
Total Cobalt	%	57	101.85
Total Copper	%	59	97.47
Total Iron	%	60	104.82
Total Lead	%	58	99.45
Total Manganese	%	57	100.23
Total Molybdenum	%	58	99.66
Total Nickel	%	57	99.38
Total Selenium	%	59	89.93
Total Thallium	%	57	99.60
Total Vanadium	%	58	102.99
Total Zinc	%	58	93.67

## QC Frequency

QC Type	Total Number
Blank Data	5930
Duplicate Data	1762
Reference Material / Spiked Blank Data	2963
Spike Duplicate Data	2961
<b>Total QC Data Points</b>	<b>13616</b>
<b>Total Sample Parameters Analyzed</b>	<b>10276</b>
<b>Percentage of QC to Analyzed Parameters</b>	<b>132.5%</b>

Revised March 30th 2026 to v1.1 to correct issue date from Feb 24 2025 to Feb 24 2026. BW

## **Appendix V - Water Quality Results**

**Performance Monitoring Results 2025**

**D-1: TMA-1 Outlet**

	COND (Field) (µS/cm)	pH (Field) (PH)	HARD (mg/L as CaCO3)	SO4 (mg/L)	TSS (mg/L)	ACID (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
07 Jan 2025	137.3	8.24	97.9	66.2		5		<b>1.58</b>	0.07	< 0.0001	0.1	0.005	0.007
04 Feb 2025	147.7	7.53		60.8				<b>1.56</b>					
04 Mar 2025	130.6	7.73		65				<b>1.87</b>					
01 Apr 2025	160.7	7.58	105	62.2		6		<b>1.73</b>	0.092	0.0002	0.15	0.013	0.0071
06 May 2025	177.9	7.51		45.8				<b>1.66</b>					
09 Jun 2025	175.1	8.28		51.4				<b>1.43</b>					
22 Jul 2025	174.8	7.75	83.7	57.6		< 5		<b>1.3</b>	0.068	0.0003	0.2	0.037	0.0053
05 Aug 2025	196.1	7.8		54.2				<b>1.21</b>					
02 Sep 2025	152.6	8.03		55.5				<b>1.57</b>					
01 Oct 2025	222.9	7.74	109	53.6	1.3	< 5	6.8	<b>2.16</b>	0.099	0.0003	0.283	0.031	0.0075
10 Nov 2025	141.3	6.87	109	51.1	< 0.67		6.5	<b>2.13</b>	0.07	0.0002	0.328	0.009	0.0114
02 Dec 2025	142.4	6.64	121	63.6	< 0.67		6.1	<b>1.76</b>	0.075	0.0002	0.17	0.014	0.0128
Count	12	12	6	12	3	4	3	12	6	6	6	6	6
High	222.9	8.28	121	66.2	1.3	6	6.8	2.16	0.099	0.0003	0.328	0.037	0.0128
Low	130.6	6.64	83.7	45.8	< 0.67	< 5	6.1	1.21	0.068	< 0.0001	0.1	0.005	0.0053
Mean	163.3	7.64	104.3	57.3	0.88	5	6.5	1.66	0.079	0.0002	0.205	0.018	0.0085
<b>SRWMP_WQ</b>													
High Criteria*		9.00		(128.0 - 309.0 )	15.0			0.47	1.00	(0.0009 - 0.0011 )	0.8	(0.973 - 1.137 )	0.015
Low Criteria		6.5											
Criteria Exceedance	0	0	0	0	0	0	0	12	0	0	0	0	0
Frequency	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

Performance Monitoring Results 2025

D-2: Stollery Lake Outlet Final Discharge

	COND (Field) (µS/cm)	pH (Field) (PH)	HARD (mg/L as CaCO3)	SO4 (mg/L)	TSS (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)	C.dubia IC25 Reproduction (%_Effluent)	C.dubia LC50 (%_Effluent)	D.magna (%_Mortality)	R.trout (%_Mortality)
07 Jan 2025		7.4	310	265	1	3.7	0.024	0.09	0.0006	0.524	0.177	<b>0.034</b>				
14 Jan 2025		7.16			< 1.3		0.117	0.624								
21 Jan 2025		7.29			2.7		0.109	0.616								
28 Jan 2025		7.19			2		0.122	0.793								
04 Feb 2025		7.14	239	146	2	5.3	0.129	0.728	0.0007	<b>0.882</b>	0.146	<b>0.0183</b>				
11 Feb 2025		7.34			1.3		0.118	0.588								
18 Feb 2025		7.17			2.7		0.123	0.589								
25 Feb 2025		7.29			3		0.11	0.567								
04 Mar 2025		7.29	197	145	2.7	6.2	0.156	0.683	0.0007	0.734	0.137	0.0148				
11 Mar 2025		7.12			< 0.67		0.157	0.893								
18 Mar 2025		7.22			1		0.208	<b>1.07</b>								
25 Mar 2025		7.17			3.3		0.278	<b>1.4</b>								
01 Apr 2025		7.37	149	100	3.3	5.9	0.232	<b>1.43</b>	0.0004	0.538	0.093	0.0096				
08 Apr 2025		7.2			< 0.67		0.246	<b>1.21</b>								
15 Apr 2025		7.28			1		0.27	<b>1.08</b>								
22 Apr 2025		6.85			< 0.67		0.265	<b>1.33</b>								
30 Apr 2025		7.09			1.7		0.085	0.613								
06 May 2025		7.38	209	171	1.7	4.3	0.127	0.669	0.0003	0.481	0.069	<b>0.0227</b>				
13 May 2025		7.4			2.3		0.145	0.761								
20 May 2025		7.3			2		0.099	0.627								
27 May 2025		7.38			< 1.3		0.082	0.374								
03 Jun 2025		7.29			2		0.054	0.264								
10 Jun 2025		7.79			< 0.67		0.098	0.479								
17 Jun 2025		7.63	209	160	< 0.67	4.2	0.062	0.41	0.0002	0.37	0.047	<b>0.0178</b>	>100	>100	< 0	< 0
24 Jun 2025		7.52			2.7		0.054	0.35								
02 Jul 2025		7.5			< 0.67		0.047	0.295								
08 Jul 2025		7.47	216	170	< 0.67	4.8	0.028	0.275	0.0003	0.262	0.067	<b>0.0185</b>				
15 Jul 2025		7.53			< 0.67		0.034	0.207								
22 Jul 2025		7.55			< 0.67		0.037	0.241								
29 Jul 2025		7.58			< 0.67		0.041	0.204								
05 Aug 2025		7.24	221	196	2	4.9	0.036	0.229	0.0003	0.358	0.056	<b>0.0202</b>				
12 Aug 2025		7.71			< 0.67		0.026	0.23								
20 Aug 2025		7.63			1.7		0.031	0.185								
26 Aug 2025		7.49			1.3		0.041	0.187								
02 Sep 2025		7.52			< 0.67		0.021	0.15								
09 Sep 2025		7.61	242	207	1	5.2	0.065	0.221	0.0003	0.624	0.081	<b>0.0258</b>			< 0	< 0
16 Sep 2025		7.74			< 0.67		0.051	0.282								
23 Sep 2025		7.58			1.3		0.051	0.376								
01 Oct 2025		7.63			1		0.073	0.306								
07 Oct 2025		7.79			< 0.67		0.065	0.361								
14 Oct 2025		7.73			2		0.074	0.278								
21 Oct 2025		7.56	244	204	< 0.67	5.3	0.089	0.374	0.0004	0.38	0.079	<b>0.0243</b>	>100	>100		
28 Oct 2025		7.51			1.3		0.088	0.327								
05 Nov 2025		7.51			1		0.085	0.256								
10 Nov 2025	359.20	7.33	201	194	< 0.67	5.1	0.086	0.273	0.0009	0.64	0.249	<b>0.027</b>				
18 Nov 2025		7.65			2		0.066	0.275								
25 Nov 2025		7.35			< 0.67		0.057	0.274								
02 Dec 2025	321.5	7.49	270	223	1	4.7	0.046	0.242	0.0006	0.592	0.192	<b>0.0279</b>				

**Performance Monitoring Results 2025**

**D-2: Stollery Lake Outlet Final Discharge**

	COND (Field) (µS/cm)	pH (Field) (PH)	HARD (mg/L as CaCO3)	SO4 (mg/L)	TSS (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)	C.dubia IC25 Reproduction (%_Effluent)	C.dubia LC50 (%_Effluent)	D.magna (%_Mortality)	R.trout (%_Mortality)
09 Dec 2025		7.32			< 0.67		0.06	0.246								
16 Dec 2025		7.15			2.3		0.06	0.236								
22 Dec 2025		7.03			< 0.67		0.045	0.199								
29 Dec 2025		7.31			1		0.043	0.197								
Count	2	52	12	12	52	12	52	52	12	12	12	12	2	2	2	2
High	359.20	7.79	310	265	3.3	6.2	0.278	1.43	0.0009	0.882	0.249	0.034	>100	>100	< 0	< 0
Low	321.5	6.85	149	100	< 0.67	3.7	0.021	0.09	0.0002	0.262	0.047	0.0096	>100	>100	< 0	< 0
Mean	340.4	7.40	226	182	1.40	5.0	0.095	0.484	0.0005	0.532	0.116	0.0217	100	100	< 0	< 0
<b>SRWMP_WQ</b>																
High Criteria*		9.0		(309 - 429 )	15		0.469	1.00	(0.0012 - 0.0016 )	0.755	(1.261 - 1.900 )	0.015				
Low Criteria		6.5														
Criteria Exceedance	0	0	0	0	0	0	0	6	0	1	0	10	0	0	0	0
Frequency	0%	0%	0%	0%	0%	0%	0%	12%	0%	8%	0%	83%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**D-3: TMA-2 Final Discharge**

	pH (Field) (PH)	HARD (mg/L as CaCO3)	SO4 (mg/L)	TSS (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
07 Jan 2025	6.74	104	73.2	< 0.67	4.6	0.139	0.468	0.0001	0.237	0.024	0.003
14 Jan 2025	6.8			< 0.67		0.145					
21 Jan 2025	7.05			< 0.67		0.093					
28 Jan 2025	7.05			1		0.136					
04 Feb 2025	6.97	168	92.1	< 1.3	4.3	0.136	0.348	0.0001	0.12	0.003	0.0094
11 Feb 2025	7.3			1		0.134					
18 Feb 2025	7.16			1		0.131					
25 Feb 2025	7.22			1		0.133					
04 Mar 2025	7.05	156	100	1.7	4.7	0.128	0.29	< 0.0001	0.075	0.003	0.0144
11 Mar 2025	7.03			< 0.67		0.111					
18 Mar 2025	6.93			1.3		0.221					
25 Mar 2025	6.87			2.3		0.122					
01 Apr 2025	6.95	93	72	2.7	4.6	0.107	0.445	0.0002	0.296	0.058	0.0016
08 Apr 2025	6.8			< 0.67		0.094					
15 Apr 2025	6.8			< 0.67		0.096					
22 Apr 2025	<b>6.32</b>			< 0.67		0.07					
30 Apr 2025	7			< 0.67		0.109					
06 May 2025	6.8	50	35.7	< 0.67	4.9	0.119	0.349	< 0.0001	0.18	0.011	0.0013
13 May 2025	6.97			1.3		0.21					
20 May 2025	7.01			2		0.146					
27 May 2025	6.91			< 0.67		0.181					
03 Jun 2025	6.86	97.5	59.9	1.3	3.6	0.142	0.324	0.0002	0.15	0.043	0.0016
10 Jun 2025	7.1			< 0.67		0.158					
17 Jun 2025	7			5.3		0.195					
24 Jun 2025	7.15			2.7		0.209					
02 Jul 2025	7.71	107	78.1	< 0.67	4.7	0.216	0.436	0.0002	0.235	0.052	0.0031
08 Jul 2025	7.26			< 0.67		0.222					
15 Jul 2025	7.35			< 0.67		0.247					
22 Jul 2025	7.22			< 0.67		0.251					
29 Jul 2025	7.08			< 0.67		0.283					
05 Aug 2025	6.81	33.2	9.3	3.7	9.2	0.393	0.206	<b>0.0048</b>	<b>5.06</b>	<b>1.06</b>	0.0017
12 Aug 2025	7.22			2.7		0.294					
19 Aug 2025	7.16			1		0.253					

**Performance Monitoring Results 2025**

**D-3: TMA-2 Final Discharge**

	pH (Field) (PH)	HARD (mg/L as CaCO3)	SO4 (mg/L)	TSS (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
26 Aug 2025	7.1			< 0.67		0.217					
04 Sep 2025	7.27	123	64.2	< 1.3	4.7	0.205	0.431	0.0002	0.237	0.021	0.0054
09 Sep 2025	7.27			< 0.67		0.235					
16 Sep 2025	7.49			< 0.67		0.273					
23 Sep 2025	7.28			1		0.183					
21 Oct 2025	7.23			< 0.67		0.272					
28 Oct 2025	7.41			< 0.67		0.214					
05 Nov 2025	7.48	109	64.1	< 0.67	5.9	0.235	0.616	0.0002	0.19	0.017	0.0047
10 Nov 2025	7.38			< 0.67		0.247					
18 Nov 2025	7.42			1.7		0.221					
25 Nov 2025	7.2			< 0.67		0.208					
02 Dec 2025	7.34	106	73.1	< 0.67	4.5	0.194	0.713	0.0001	0.269	0.021	0.0028
22 Dec 2025	6.9			2		0.144					
29 Dec 2025	7.18			1		0.146					
Count	47	11	11	47	11	47	11	11	11	11	11
High	7.71	168	100	5.3	9.2	0.393	0.713	0.0048	5.06	1.06	0.0144
Low	6.32	33.2	9.3	< 0.67	3.6	0.07	0.206	< 0.0001	0.075	0.003	0.0013
Mean	7.10	104.2	65.6	1.21	5.1	0.183	0.421	0.0006	0.641	0.119	0.0045
<b>SRWMP_WQ</b>											
High Criteria*	9.00		(218.0 - 309.0 )	15.00		0.469	1.000	(0.0008 - 0.0013 )	0.755	(0.751 - 1.344 )	0.015
Low Criteria	6.5										
Criteria Exceedance	1	0	0	0	0	0	0	1	1	1	0
Frequency	2%	0%	0%	0%	0%	0%	0%	9%	9%	9%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**D-25: TMA-2 Overflow into TMA-1**

	pH (Field) (PH)	SO4 (mg/L)	ACID (mg/L)	Ra226 (Bq/L)	Fe (mg/L)
14 Jan 2025	7.24				
19 Feb 2025	7.52				
18 Mar 2025	7.56				
30 Apr 2025	7.35	73.5	10	<b>0.715</b>	<b>1.42</b>
26 May 2025	7.11				
18 Jun 2025	7.5				
09 Jul 2025	7.57				
08 Aug 2025	6.54				
17 Sep 2025	7.44				
07 Oct 2025	7.23	105	< 5	<b>0.525</b>	0.462
06 Nov 2025	7.01				
03 Dec 2025	<b>6.4</b>				
Count	12	2	2	2	2
High	7.57	105	10	0.715	1.42
Low	6.4	73.5	< 5	0.525	0.462
Mean	7.21	89.3	8	0.620	0.941
<b>SRWMP_WQ</b>					
High Criteria*	9.00	128.0		0.469	0.76
Low Criteria	6.5				
Criteria Exceedance	1	0	0	2	1
Frequency	8%	0%	0%	100%	50%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**D-9: Seepage at Dam 17**

	COND (Field) (µS/cm)	pH (Field) (PH)	FLOW (L/s)	HARD (mg/L as CaCO3)	SO4 (mg/L)	TSS (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
14 Jan 2025		6.91	0.5	595	<b>638</b>		3.8	0.008	0.022	<b>0.0027</b>	<b>1.03</b>	1.79	<b>0.0451</b>
05 May 2025	661	7	5.02	377	295			< 0.007	0.017	0.0007	0.273	0.38	<b>0.0166</b>
22 Jul 2025	1005	6.79	1.83	665	<b>587</b>		4.2	< 0.007	0.02	<b>0.0019</b>	0.582	1.42	<b>0.0271</b>
06 Oct 2025	1215	6.8	1.35	842	<b>739</b>	3.7	4.1	0.013	0.025	<b>0.0025</b>	0.644	<b>2.11</b>	<b>0.0496</b>
Count	3	4	4	4	4	1	3	4	4	4	4	4	4
High	1215	7	5.02	842	739	3.7	4.2	0.013	0.025	0.0027	1.03	2.11	0.0496
Low		6.79	0.5	377	295		3.8	< 0.007	0.017	0.0007	0.273	0.38	0.0166
Mean	960	7	2	620	565		4	0.011	0.021	0.0020	0.632	1.43	0.0346
<b>SRWMP_WQ</b>													
High Criteria*		9.00			429	15.0		0.469	1.000	(0.0018 - 0.0018 )	0.76	1.90	0.0150
Low Criteria		6.5											
Criteria Exceedance	0	0	0	0	3	0	0	0	0	3	1	1	4
Frequency	0%	0%	0%	0%	75%	0%	0%	0%	0%	75%	25%	25%	100%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**D-16: Seepage at Dam 9**

	COND (Field) (µS/cm)	pH (Field) (PH)	FLOW (L/s)	HARD (mg/L as CaCO3)	SO4 (mg/L)	TSS (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
14 Jan 2025		<b>6.03</b>	1.1	189	229		1.6	0.01	0.023	0.0005	0.482	0.35	< 0.0005
05 May 2025	221.4	<b>6.46</b>	3.29	103	105		2.9	<0.007	0.017	0.0002	0.2	0.08	< 0.0005
22 Jul 2025	371.9	6.55	1.1	196	172		4.5	0.016	0.02	<b>0.0014</b>	<b>2.45</b>	<b>2.41</b>	< 0.0005
06 Oct 2025	448	6.64	0.38	307	190	<b>17</b>	4.2	0.041	0.035	<b>0.0042</b>	<b>10.8</b>	<b>5.47</b>	< 0.0005
Count	3	4	4	4	4	1	4	4	4	4	4	4	4
High	448	6.64	3.29	307	229	17	4.5	0.041	0.035	0.0042	10.8	5.47	< 0.0005
Low		6.03	0.37	103	105		1.6	< 0.007	0.017	0.0002	0.2	0.08	< 0.0005
Mean	347.1	6.4	1.5	198.8	174.0		3.3	0.022	0.024	0.002	3.5	2.1	< 0.0005
<b>SRWMP_WQ</b>													
High Criteria*		9.00			(309 - 429 )	15		0.47	1.000	(0.0010 - 0.0016 )	0.755	(1.06 - 1.90 )	0.0150
Low Criteria		6.5											
Criteria	0	3	0	0	0	1	0	0	0	2	2	2	0
Exceedance													
Frequency	0%	50%	0%	0%	0%	100%	0%	0%	0%	50%	50%	50%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**D-1  
FLOW  
(L/S)**

<i>Day/Month</i>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>1</b>	0	53	87	105	111	0	0	0	0	47.2	39.1	0
<b>2</b>	0	53	87	105	146	0	0	0	52	47	38.8	0
<b>3</b>	0	56	88	106	146	0	0	0	51	46.2	37.8	0
<b>4</b>	0	56	87	105	147	108.1	0	0	53	43	37	0
<b>5</b>	0	55	88	105	148	108.01	0	30.1	52.7	44	36.7	0
<b>6</b>	54	55	86	106	149	106.18	0	28	49	43	36.8	0
<b>7</b>	54	55	108	106	149	105.94	0	24.3	42	43.4	36.6	0
<b>8</b>	59	56	107	104	146	105.64	0	21.5	52	42.9	36.5	0
<b>9</b>	60	56	108	104	114	103	0	0	51.8	43	36	0
<b>10</b>	56	55	106	104	112	103	0	0	51	42.6	36.7	0
<b>11</b>	56	56	107	108	112	102	0	0	50	42.9	36	0
<b>12</b>	56	55	105	109	112	0	0	0	51	41.9	35.5	0
<b>13</b>	56	55	107	107	112.6	0	0	0	50.9	40.3	35.8	0
<b>14</b>	56	55	106	109	111.2	0	0	0	49.7	40.1	36.6	0
<b>15</b>	56	54	107	109	110.8	0	0	0	50.8	40.5	36	0
<b>16</b>	56	54	107	109	111.54	0	0	0	51.2	40.3	35	0
<b>17</b>	56	55	106	108	109.8	0	29.7	0	50.7	40.5	35.5	0
<b>18</b>	57	55	107	109	110	0	28	0	49.7	41	36.3	0
<b>19</b>	57	55	107	108	110.1	0	0	0	50.2	42	32.1	0
<b>20</b>	57	55	107	105	109.9	0	0	0	50.2	42.2	31.3	0
<b>21</b>	57	55	105	112.5	31	0	32	0	49.2	41	28.8	0
<b>22</b>	57	55	104	109	30.71	0	31.8	0	48.5	41.3	0	0
<b>23</b>	55.95	55	105	110	30.68	0	31	0	48.7	40.9	0	0
<b>24</b>	56.43	56	105	110	31	0	28.8	0	48.3	40	0	0
<b>25</b>	56	56	104	112	31	0	26.4	0	48.2	39.23	0	0
<b>26</b>	56	57	103	112	30.65	0	0	0	47.9	39.23	0	0
<b>27</b>	55.72	88	105	113	30.52	0	0	0	48.5	38.99	0	0
<b>28</b>	56	88	104	113	29.98	0	30	0	48	39.14	0	0
<b>29</b>	56		105	114	27.94	0	29.3	0	47.6	38.8	0	0
<b>30</b>	55		105	111	0	0	27	0	46.4	38.59	0	0
<b>31</b>	56		104		0		24	0		39.8		0

<b>Count</b>	<b>365</b>
<b>High</b>	<b>149</b>
<b>Low</b>	<b>0</b>
<b>Mean</b>	<b>46.53</b>

**D-1  
ELEVATION  
(mASL)**

<i>Day/Month</i>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>1</b>				386.95	387.08		386.97	386.91	386.84	386.77		386.84
<b>2</b>	386.96			386.94	387.11	386.94	386.94		386.84	386.76		386.84
<b>3</b>	386.96	386.94	386.9	386.95		386.93	386.94		386.83	386.76	386.8	386.85
<b>4</b>		386.94	386.9	386.95		386.94	386.94	386.9	386.86		386.79	386.85
<b>5</b>		386.94	386.91		387.09	386.93		386.89	386.87		386.8	386.85
<b>6</b>	386.96	386.94	386.93		387.08	386.92		386.88		386.75	386.8	
<b>7</b>	386.96	386.94	386.92	386.96	387.08		386.95	386.88		386.75	386.81	
<b>8</b>	386.96			386.96	387.07		386.95	386.87	386.86	386.74		386.96
<b>9</b>	386.96			386.95	387.06	386.91	386.96		386.84	386.74		386.86
<b>10</b>	386.95	386.93	386.91	386.95		386.91	386.96		386.85	386.73	386.81	386.86
<b>11</b>		386.93	386.91	386.94		386.9	386.97	386.88	386.84		386.81	386.86
<b>12</b>		386.92	386.9		387.03	386.9		386.88	386.84		386.81	386.86
<b>13</b>	386.96	386.93	386.9		387.03	386.89		386.88			386.81	
<b>14</b>	386.95	386.92	386.89	386.94	387.02		386.98	386.87		386.73	386.81	
<b>15</b>	386.95			386.95	387.01		386.98	386.87	386.83	386.73		386.87
<b>16</b>	386.96			386.95	387.01	386.88	386.98		386.83	386.72		386.87
<b>17</b>	386.95	386.92	386.92	386.95		386.87	386.98		386.82	386.74	386.8	386.87
<b>18</b>		386.92	386.92			386.87	386.97	386.88	386.82		386.8	386.87
<b>19</b>		386.92	386.92		386.99	386.87		386.87	386.81		386.8	386.9
<b>20</b>	386.96	386.91	386.93		386.98	386.87		386.87		386.81	386.8	
<b>21</b>	386.95	386.91	386.93	386.99	386.97		386.86	386.87		386.82	386.8	
<b>22</b>	386.95			387.02	386.96		386.95	386.86	386.8	386.82		386.91
<b>23</b>	386.96			387.02	386.97	386.91	386.95		386.81	386.82		386.91
<b>24</b>	386.95	386.91	386.93	387.04		386.91	386.95		386.81	386.82	386.81	386.91
<b>25</b>		386.91	386.93	387.04		386.9	386.95	386.86	386.8		386.81	386.92
<b>26</b>		386.91	386.92		386.97	386.91		386.85	386.8		386.82	386.93
<b>27</b>	386.95	386.9	386.92		386.97	386.95		386.85		386.81	386.83	
<b>28</b>	386.95	386.9	386.92	387.06	386.96		386.94	386.85		386.81	386.83	
<b>29</b>	386.95			387.08	386.96		386.93	386.85	386.78	386.8		386.95
<b>30</b>	386.95			387.08	386.95	386.95	386.92		386.77	386.8		386.95
<b>31</b>	386.95		386.95				386.92			386.8		386.95

<b>Count</b>	<b>258</b>
<b>High</b>	<b>387.11</b>
<b>Low</b>	<b>386.72</b>
<b>Mean</b>	<b>386.902</b>

**D-2  
FLOW  
(L/s)**

<i>Day/Month</i>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
1				111.19						38.76		
2							17.42		15.63			27.33
3						10.72						
4		59.87	84.11									
5								17.42			65.65	
6												
7	38.76									51.57		
8				114.77			17.42					
9									51.57			29.5
10						93.94					65.65	
11		57.05	97.31									
12								38.76				
13												
14	65.65									51.57		
15				114.77			21.19					
16									38.76			29.5
17						31.73						
18		59.87	122.04								90.62	
20					97.31			17.42				
21	71.62									133.24		
22							29.5					38.76
23									90.62			
24						15.63						
25		59.87	111.19								34.02	
26								15.63				
27					38.76							
28	59.87									90.62		
29							29.5					54.29
30												

<b>Count</b>	<b>49</b>
<b>High</b>	<b>133.24</b>
<b>Low</b>	<b>10.72</b>
<b>Mean</b>	<b>56.26</b>

**D-3  
FLOW  
(L/s)**

<i>Day/Month</i>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1				13.73						0.29		
2							9.78					9.04
3						3.4						
4		3.94	3.94						6.96			
5					6.31			1.19			9.78	
7	30.25									0.54		
8				24.94			11.31					
9									5.08			0
10						4.49					9.04	
11		3.94	9.04									
12					33.6			1.19				
14	6.31									0		
15				65.82			13.73					
16									1.98			
17						0.84						
18		3.4	197.3								8.33	
19								1.56				
20					9.78							
21	3.4									39.44		
22				122			3.94					19.05
23									6.31			
24						8.33						
25		3.4	17.21								9.78	
26								1.98				
27					6.31							
28	3.94									12.1		
29							1.56					9.78
30				34.74								

<b>Count</b>	51
<b>High</b>	197.3
<b>Low</b>	0
<b>Mean</b>	15.96

## Performance Monitoring Results 2025

### DS-1: Moose Lake Outlet

	pH (Field) (PH)	Ra226 (Bq/L)
02 Jan 2025	7.04	
03 Jan 2025	7.3	
06 Jan 2025	6.81	0.021
07 Jan 2025	7.3	
09 Jan 2025	7.21	
10 Jan 2025	6.91	
13 Jan 2025	7.43	
17 Jan 2025	7.08	
20 Jan 2025	6.95	
21 Jan 2025	6.95	
28 Jan 2025	7.26	
29 Jan 2025	6.88	
31 Jan 2025	6.97	
05 Feb 2025	6.97	
06 Feb 2025	6.95	
13 Feb 2025	6.98	
14 Feb 2025	6.77	
21 Feb 2025	6.75	
26 Feb 2025	7	
27 Feb 2025	7.01	
28 Feb 2025	6.98	
03 Mar 2025	7.07	
04 Mar 2025	6.86	
07 Mar 2025	6.91	
11 Mar 2025	6.86	
12 Mar 2025	6.78	
13 Mar 2025	6.6	
14 Mar 2025	6.53	
17 Mar 2025	7.56	
18 Mar 2025	7.24	
19 Mar 2025	6.93	
20 Mar 2025	6.93	
21 Mar 2025	8.2	
24 Mar 2025	7.81	
25 Mar 2025	6.7	
26 Mar 2025	8.65	
27 Mar 2025	8.26	
28 Mar 2025	8.32	
01 Apr 2025	8.52	0.041
02 Apr 2025	7.96	
03 Apr 2025	8.57	
04 Apr 2025	8.66	

## Performance Monitoring Results 2025

### DS-1: Moose Lake Outlet

	pH (Field) (PH)	Ra226 (Bq/L)
07 Apr 2025	8.35	
08 Apr 2025	8.39	
09 Apr 2025	8.52	
10 Apr 2025	7.38	
11 Apr 2025	8.6	
14 Apr 2025	8.41	
15 Apr 2025	8.3	
16 Apr 2025	8.72	
17 Apr 2025	8.94	
21 Apr 2025	<b>9.25</b>	
23 Apr 2025	<b>9.36</b>	
24 Apr 2025	8.66	
25 Apr 2025	<b>9.17</b>	
28 Apr 2025	8.25	
29 Apr 2025	8.48	
30 Apr 2025	8.46	
01 May 2025	8.67	
02 May 2025	8.72	
05 May 2025	8.66	
06 May 2025	8.55	
07 May 2025	8.41	
08 May 2025	8.14	
09 May 2025	7.77	
12 May 2025	7.64	
13 May 2025	7.67	
14 May 2025	7.43	
15 May 2025	7.33	
16 May 2025	7.45	
20 May 2025	7.58	
22 May 2025	7.74	
23 May 2025	7.34	
29 May 2025	7.32	
30 May 2025	7.68	
02 Jun 2025	7.41	
03 Jun 2025	7.63	
04 Jun 2025	7.36	
05 Jun 2025	7.14	
06 Jun 2025	7.12	
09 Jun 2025	6.86	
10 Jun 2025	6.75	
11 Jun 2025	6.93	
12 Jun 2025	7.12	

## Performance Monitoring Results 2025

### DS-1: Moose Lake Outlet

	pH (Field) (PH)	Ra226 (Bq/L)
13 Jun 2025	6.95	
16 Jun 2025	7.13	
17 Jun 2025	7.35	
24 Jun 2025	7.12	
02 Jul 2025	7.73	0.019
03 Jul 2025	7.57	
04 Jul 2025	7.4	
07 Jul 2025	7.15	
08 Jul 2025	7.29	
09 Jul 2025	7.02	
11 Jul 2025	7.18	
14 Jul 2025	7.68	
15 Jul 2025	7.8	
16 Jul 2025	7.98	
17 Jul 2025	7.76	
18 Jul 2025	7.63	
24 Jul 2025	7.86	
25 Jul 2025	7.79	
30 Jul 2025	7.66	
31 Jul 2025	7.9	
05 Aug 2025	7.45	
12 Aug 2025	7.67	
18 Aug 2025	7.81	
19 Aug 2025	7.64	
20 Aug 2025	7.67	
26 Aug 2025	7.58	
02 Sep 2025	7.3	
09 Sep 2025	7.51	
16 Sep 2025	7.61	
23 Sep 2025	7.33	
01 Oct 2025	7.49	
02 Oct 2025	7.76	
07 Oct 2025	7.65	0.03
14 Oct 2025	7.72	
20 Oct 2025	7.61	
21 Oct 2025	7.66	
22 Oct 2025	7.49	
23 Oct 2025	7.59	
24 Oct 2025	7.6	
27 Oct 2025	7.35	
28 Oct 2025	7.39	
30 Oct 2025	7.61	

**Performance Monitoring Results 2025**

**DS-1: Moose Lake Outlet**

	pH (Field) (PH)	Ra226 (Bq/L)
31 Oct 2025	7.19	
05 Nov 2025	7.45	
06 Nov 2025	7.44	
07 Nov 2025	7.63	
10 Nov 2025	7.37	
13 Nov 2025	7.35	
14 Nov 2025	7.35	
17 Nov 2025	7.46	
18 Nov 2025	7.42	
24 Nov 2025	7.38	
25 Nov 2025	7.05	
27 Nov 2025	7.39	
28 Nov 2025	7.42	
01 Dec 2025	7.37	
02 Dec 2025	7.24	
04 Dec 2025	7.39	
05 Dec 2025	7.37	
09 Dec 2025	7.57	
11 Dec 2025	7	
12 Dec 2025	7.03	
16 Dec 2025	7.02	
17 Dec 2025	7.1	
18 Dec 2025	7.5	
22 Dec 2025	7.35	
29 Dec 2025	7.19	
31 Dec 2025	7.31	
Count	160	4
High	9.36	0.041
Low	6.53	0.019
Mean	7.53	0.028
<b>SRWMP_WQ</b>		
High Criteria*	9.00	0.469
Low Criteria	6.5	
Criteria Exceedance	3	0
Frequency	2%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters









**Performance Monitoring Results 2025**

**DS-2: Feed to Stanrock Treatment Plant**

	pH (Field) (PH)	HARD (mg/L as CaCO3)	SO4 (mg/L)	ACID (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
14 Nov 2025	<b>3.08</b>									
17 Nov 2025	<b>2.97</b>									
25 Nov 2025	<b>3.12</b>									
09 Dec 2025	<b>3</b>				0.264					
Count	126	4	4	4	12	4	4	4	4	4
High	3.26	331	518	198	0.52	0.022	0.0882	50.9	1.61	0.0527
Low	2.19	223	405	162	0.131	0.015	0.0616	23.1	0.946	0.0156
Mean	2.75	264	459	182	0.266	0.018	0.0758	36.1	1.184	0.0346
<b>SRWMP_WQ</b>										
High Criteria*	9.00		429		0.469	1.000	(0.0014 - 0.0017 )	0.8	(1.586 - 1.900 )	0.015
Low Criteria	6.5									
Criteria Exceedance	126	0	2	0	1	0	4	4	0	4
Frequency	100%	0%	50%	0%	8%	0%	100%	100%	0%	100%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

## Performance Monitoring Results 2025

### DS-3: Stanrock Treatment Plant Discharge

	pH (Field) (PH)
02 Jan 2025	<b>10.3</b>
03 Jan 2025	<b>10.98</b>
07 Jan 2025	<b>10.98</b>
09 Jan 2025	<b>10.95</b>
10 Jan 2025	<b>10.5</b>
17 Jan 2025	<b>11.08</b>
20 Jan 2025	<b>10.77</b>
21 Jan 2025	<b>10.95</b>
28 Jan 2025	<b>10.61</b>
29 Jan 2025	<b>10.52</b>
31 Jan 2025	<b>10.73</b>
05 Feb 2025	<b>9.94</b>
06 Feb 2025	<b>10.43</b>
13 Feb 2025	<b>10.82</b>
14 Feb 2025	<b>10.34</b>
21 Feb 2025	<b>11.44</b>
26 Feb 2025	<b>11.03</b>
27 Feb 2025	<b>11</b>
28 Feb 2025	<b>10.93</b>
03 Mar 2025	<b>11.15</b>
04 Mar 2025	<b>11.06</b>
07 Mar 2025	<b>10.46</b>
11 Mar 2025	<b>11.21</b>
12 Mar 2025	<b>10.96</b>
13 Mar 2025	<b>10.44</b>
14 Mar 2025	<b>10.28</b>
16 Mar 2025	<b>10.56</b>
17 Mar 2025	<b>10.76</b>
18 Mar 2025	<b>10.68</b>
19 Mar 2025	<b>10.63</b>
20 Mar 2025	<b>10.74</b>
21 Mar 2025	<b>10.64</b>
22 Mar 2025	<b>10.76</b>
23 Mar 2025	<b>10.77</b>
24 Mar 2025	<b>10.77</b>
25 Mar 2025	<b>11.18</b>
26 Mar 2025	<b>10.31</b>
27 Mar 2025	<b>10.78</b>
28 Mar 2025	<b>10.72</b>
29 Mar 2025	<b>10.82</b>
30 Mar 2025	<b>10.78</b>
01 Apr 2025	<b>10.8</b>

## Performance Monitoring Results 2025

### DS-3: Stanrock Treatment Plant Discharge

	pH (Field) (PH)
02 Apr 2025	10.71
03 Apr 2025	10.86
04 Apr 2025	10.17
05 Apr 2025	10.83
06 Apr 2025	10.82
07 Apr 2025	10.84
08 Apr 2025	11.13
09 Apr 2025	10.75
10 Apr 2025	10.41
11 Apr 2025	11.2
12 Apr 2025	10.79
13 Apr 2025	10.86
14 Apr 2025	10.9
15 Apr 2025	10.92
16 Apr 2025	10.89
17 Apr 2025	10.69
19 Apr 2025	10.86
20 Apr 2025	10.94
21 Apr 2025	10.86
22 Apr 2025	10.92
23 Apr 2025	10.87
24 Apr 2025	10.87
25 Apr 2025	9.79
26 Apr 2025	9.91
27 Apr 2025	10.44
28 Apr 2025	10.67
29 Apr 2025	10.55
30 Apr 2025	10.6
01 May 2025	10.51
02 May 2025	10.67
03 May 2025	10.79
04 May 2025	10.76
05 May 2025	10.63
06 May 2025	10.55
07 May 2025	10.68
08 May 2025	10.66
09 May 2025	10.68
15 May 2025	10.61
16 May 2025	10.59
17 May 2025	10.8
18 May 2025	10.8
22 May 2025	10.83

## Performance Monitoring Results 2025

### DS-3: Stanrock Treatment Plant Discharge

	pH (Field) (PH)
23 May 2025	<b>10.73</b>
29 May 2025	<b>10.57</b>
30 May 2025	<b>10.61</b>
31 May 2025	<b>10.8</b>
01 Jun 2025	<b>10.81</b>
02 Jun 2025	<b>10.5</b>
03 Jun 2025	<b>10.64</b>
04 Jun 2025	<b>10.78</b>
05 Jun 2025	<b>11.31</b>
06 Jun 2025	<b>10.37</b>
09 Jun 2025	<b>10.68</b>
10 Jun 2025	<b>10.55</b>
11 Jun 2025	<b>11.01</b>
12 Jun 2025	<b>10.81</b>
13 Jun 2025	<b>11.28</b>
29 Jun 2025	<b>11.11</b>
30 Jun 2025	<b>10.81</b>
01 Jul 2025	<b>10.8</b>
02 Jul 2025	<b>10.58</b>
03 Jul 2025	<b>10.77</b>
04 Jul 2025	<b>10.68</b>
07 Jul 2025	<b>10.84</b>
08 Jul 2025	<b>10.82</b>
09 Jul 2025	<b>10.84</b>
14 Jul 2025	<b>10.72</b>
15 Jul 2025	<b>10.78</b>
16 Jul 2025	<b>10.68</b>
17 Jul 2025	<b>10.95</b>
18 Jul 2025	<b>10.8</b>
24 Jul 2025	<b>10.95</b>
25 Jul 2025	<b>10.83</b>
30 Jul 2025	<b>10.74</b>
31 Jul 2025	<b>10.66</b>
18 Aug 2025	<b>10.49</b>
19 Aug 2025	<b>10.66</b>
20 Aug 2025	<b>10.69</b>
01 Oct 2025	<b>11.07</b>
02 Oct 2025	<b>10.85</b>
19 Oct 2025	<b>10.88</b>
20 Oct 2025	<b>10.9</b>
21 Oct 2025	<b>10.91</b>
22 Oct 2025	<b>10.82</b>

## Performance Monitoring Results 2025

### DS-3: Stanrock Treatment Plant Discharge

	pH (Field) (PH)
23 Oct 2025	<b>10.93</b>
24 Oct 2025	<b>11.25</b>
27 Oct 2025	<b>10.69</b>
28 Oct 2025	<b>10.81</b>
30 Oct 2025	<b>10.8</b>
31 Oct 2025	<b>10.62</b>
06 Nov 2025	<b>10.6</b>
07 Nov 2025	<b>10.79</b>
10 Nov 2025	<b>11.36</b>
13 Nov 2025	<b>10.75</b>
14 Nov 2025	<b>10.7</b>
17 Nov 2025	<b>10.86</b>
18 Nov 2025	<b>10.71</b>
24 Nov 2025	<b>10.76</b>
25 Nov 2025	<b>10.62</b>
27 Nov 2025	<b>10.88</b>
28 Nov 2025	<b>10.69</b>
01 Dec 2025	<b>11.07</b>
02 Dec 2025	<b>10.78</b>
04 Dec 2025	<b>10.68</b>
05 Dec 2025	<b>10.78</b>
11 Dec 2025	<b>10.91</b>
12 Dec 2025	<b>10.73</b>
17 Dec 2025	<b>10.8</b>
18 Dec 2025	<b>10.83</b>
19 Dec 2025	<b>10.9</b>
20 Dec 2025	<b>10.87</b>
21 Dec 2025	<b>10.85</b>
26 Dec 2025	<b>10.75</b>
27 Dec 2025	<b>10.55</b>
31 Dec 2025	<b>10.62</b>
<hr/>	
Count	157
High	11.44
Low	9.79
Mean	10.76
<hr/>	
<b>SRWMP_WQ</b>	
High Criteria*	9.0
<hr/>	
Low Criteria	6.5
Criteria Exceedance	157
Frequency	100%

**Performance Monitoring Results 2025**

***DS-3: Stanrock Treatment Plant Discharge***

pH (Field)  
(PH)

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters



**Performance Monitoring Results 2025**

**DS-4: Orient Lake Outlet - Final Discharge**

	pH (Field) (PH)	HARD (mg/L as CaCO3)	SO4 (mg/L)	TSS (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)	C.dubia IC25 Reproduction (%_Effluent)	C.dubia LC50 (%_Effluent)	D.magna (%_Mortality)	R.trout (%_Mortality)
05 Nov 2025	7.6	286	269	< 0.67	2.4	0.118	0.031	0.0005	0.19	0.019	0.0097				
10 Nov 2025	7.42			< 0.67		0.134									
18 Nov 2025	7.55			1.5		0.122									
25 Nov 2025	7.16			< 1.3		0.117									
02 Dec 2025	7.38			< 0.67		0.11									
09 Dec 2025	7.47	293	264	1.3	2.1	0.102	0.039	0.0003	0.217	0.023	0.008				
16 Dec 2025	7.14			2.7		0.099									
22 Dec 2025	7.04			< 0.67		0.059									
29 Dec 2025	7.23			2		0.063									
Count	52	12	12	52	12	52	12	12	12	12	12	2	2	2	2
High	7.94	357	330	8	2.9	0.176	0.087	0.0008	0.426	0.058	0.0133	>100	>100	< 0	< 0
Low	6.76	179	173	< 0.67	< 0.4	0.038	0.027	0.0002	0.089	0.017	0.0015	36.8	>100	< 0	< 0
Mean	7.28	289	269	1.46	2.2	0.102	0.044	0.0005	0.213	0.031	0.0056	68.4	100	< 0	< 0
<b>SRWMP_WQ</b>															
High Criteria*	9.00		(309 - 429 )	15.0		0.469	1.000	(0.0013 - 0.0017 )	0.755	(1.393 - 1.921 )	0.015				
Low Criteria	6.5														
Criteria Exceedance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frequency	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

***DS-5: Orient Creek Discharge into Moose Lake***

	COND (Field) ( $\mu$ S/cm)	pH (Field) (PH)
26 May 2025	95.2	<b>3.89</b>
02 Jul 2025	120.4	<b>3.56</b>
27 Oct 2025	111.5	<b>3.52</b>
<hr/>		
Count	3	3
High	120.4	3.89
Low	95.2	3.52
Mean	109.0	3.66
<hr/>		
<b>SRWMP_WQ</b>		
High Criteria*		9.00
<hr/>		
Low Criteria		6.5
Criteria Exceedance	0	3
Frequency	0%	100%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

## Performance Monitoring Results 2025

### DS-6: Moose Lake Narrows

	pH (Field) (PH)
02 Jan 2025	7.04
03 Jan 2025	7.28
06 Jan 2025	6.98
07 Jan 2025	7.48
09 Jan 2025	7.42
10 Jan 2025	7.32
13 Jan 2025	7.56
17 Jan 2025	7.36
20 Jan 2025	7.21
21 Jan 2025	7.12
28 Jan 2025	7.19
29 Jan 2025	7
31 Jan 2025	7.36
05 Feb 2025	6.91
06 Feb 2025	7
13 Feb 2025	6.88
14 Feb 2025	6.95
27 Feb 2025	6.98
03 Mar 2025	6.83
04 Mar 2025	6.73
07 Mar 2025	6.91
11 Mar 2025	6.6
12 Mar 2025	6.82
13 Mar 2025	6.61
14 Mar 2025	6.8
17 Mar 2025	7.56
18 Mar 2025	7.29
19 Mar 2025	7.04
20 Mar 2025	8
21 Mar 2025	8.18
24 Mar 2025	7.39
25 Mar 2025	7.3
26 Mar 2025	8.38
27 Mar 2025	7.82
28 Mar 2025	7.05
01 Apr 2025	7.26
02 Apr 2025	7.66
03 Apr 2025	8.18
04 Apr 2025	8.05
07 Apr 2025	8.71
08 Apr 2025	8.42
09 Apr 2025	8.2

## Performance Monitoring Results 2025

### DS-6: Moose Lake Narrows

	pH (Field) (PH)
10 Apr 2025	8.37
11 Apr 2025	8.52
14 Apr 2025	7.12
16 Apr 2025	8.9
17 Apr 2025	8.41
21 Apr 2025	<b>9.11</b>
23 Apr 2025	8.72
24 Apr 2025	8.13
25 Apr 2025	8.41
28 Apr 2025	8.78
29 Apr 2025	<b>9.15</b>
30 Apr 2025	<b>9.12</b>
01 May 2025	8.58
02 May 2025	<b>9.07</b>
05 May 2025	8.95
06 May 2025	8.85
07 May 2025	8.79
08 May 2025	8.75
09 May 2025	8.61
12 May 2025	8.35
13 May 2025	8.15
14 May 2025	7.92
15 May 2025	7.74
16 May 2025	7.71
20 May 2025	7.7
22 May 2025	7.99
23 May 2025	7.55
29 May 2025	6.83
30 May 2025	7.85
02 Jun 2025	7.68
03 Jun 2025	7.79
04 Jun 2025	7.57
05 Jun 2025	7.79
06 Jun 2025	7.79
09 Jun 2025	7.63
10 Jun 2025	7.55
11 Jun 2025	7.67
12 Jun 2025	7.62
13 Jun 2025	7.46
02 Jul 2025	8.21
03 Jul 2025	8.3
04 Jul 2025	8.26

## Performance Monitoring Results 2025

### DS-6: Moose Lake Narrows

	pH (Field) (PH)
07 Jul 2025	8.18
08 Jul 2025	8.36
09 Jul 2025	8.16
11 Jul 2025	8.33
14 Jul 2025	8.37
15 Jul 2025	8.5
16 Jul 2025	8.83
17 Jul 2025	8.87
18 Jul 2025	8.72
24 Jul 2025	8.85
25 Jul 2025	8.81
31 Jul 2025	8.71
20 Aug 2025	8.35
20 Oct 2025	7.78
21 Oct 2025	7.89
22 Oct 2025	7.74
23 Oct 2025	7.72
24 Oct 2025	7.96
27 Oct 2025	7.79
28 Oct 2025	7.76
30 Oct 2025	8.11
31 Oct 2025	7.55
05 Nov 2025	7.71
06 Nov 2025	7.55
07 Nov 2025	7.48
10 Nov 2025	7.44
13 Nov 2025	7.56
14 Nov 2025	7.47
17 Nov 2025	7.45
18 Nov 2025	7.47
24 Nov 2025	7.63
25 Nov 2025	7.24
27 Nov 2025	7.41
28 Nov 2025	7.58

## Performance Monitoring Results 2025

### DS-6: Moose Lake Narrows

	pH (Field) (PH)
01 Dec 2025	7.44
02 Dec 2025	7.52
04 Dec 2025	7.56
05 Dec 2025	7.41
09 Dec 2025	7.7
11 Dec 2025	7.01
12 Dec 2025	7.12
16 Dec 2025	7.12
17 Dec 2025	7.14
18 Dec 2025	7.37
22 Dec 2025	8.65
29 Dec 2025	7.21
31 Dec 2025	7.26
<hr/>	
Count	131
High	9.15
Low	6.6
Mean	7.79
<hr/>	
<b>SRWMP_WQ</b>	
High Criteria*	9.00
<hr/>	
Low Criteria	6.5
Criteria Exceedance	4
Frequency	3%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

***DS-11: Dam A seepage station***

	COND (Field) ( $\mu$ S/cm)	pH (Field) (PH)	FLOW (L/s)
12 Mar 2025	910	4.92	0.39
26 May 2025	915	5.01	0.49
21 Jul 2025	1507	4.53	0.353
02 Oct 2025	1171	4.91	0.293
Count	4	4	4
High	1507	4.7	0.353
Low	910	3.88	0.39
Mean	1,126	5	0.382

***SRWMP\_WQ***

High Criteria*		9.00	
Low Criteria		6.5	
Criteria Exceedance	0	4	0
Frequency	0%	100%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**DS-12: Seepage at Dam B**

	COND (Field) ( $\mu$ S/cm)	pH (Field) (PH)	FLOW (L/s)
12 Mar 2025	425.3	<b>3.52</b>	0.586
26 May 2025	492.4	<b>3.74</b>	0.508
21 Jul 2025	566	<b>4.04</b>	0.3
02 Oct 2025	622	<b>5.61</b>	0.019
Count	4	4	4
High	622	5.61	0.586
Low	425.3	3.52	0.019
Mean	526.4	4.23	0.353

**SRWMP\_WQ**

High Criteria*		9.00	
Low Criteria		6.5	
Criteria Exceedance	0	4	0
Frequency	0%	100%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**DS-13: Seepage at Dam C**

	COND (Field) ( $\mu$ S/cm)	pH (Field) (PH)	FLOW (L/s)
12 Mar 2025	431	<b>6.12</b>	0.044
26 May 2025	829	<b>6.30</b>	0.061
21 Jul 2025	1655	<b>3.44</b>	0.216
02 Oct 2025	1129	<b>5.23</b>	0.031
Count	4	4	4
High	1655	6.3	0.216
Low	341	3.44	0.031
Mean	1011	6.44	0.088

**SRWMP\_WQ**

High Criteria*		9.0	
Low Criteria		6.5	
Criteria Exceedance	0	4	0
Frequency	0%	100%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**DS-16: Quirke Lake Delta Drainage/Seepage Dam M**

	COND (Field) (µS/cm)	pH (Field) (PH)	HARD (mg/L as CaCO3)	SO4 (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
18 Mar 2025	31.2	7.4	18.3	10.7	3.2	< 0.007	0.009	0.0003	0.18	0.021	< 0.0005
25 Mar 2025	39.9	7.45									
01 Apr 2025	56.1	7.21	26.2	19.5	2.4	0.009	0.01	0.0001	0.077	0.009	< 0.0005
08 Apr 2025	43.5	7.33									
15 Apr 2025	29.6	7.91									
22 Apr 2025	29.1	7.37									
30 Apr 2025	39.3	7.5									
06 May 2025	47.7	7.21									
Count	8	8	2	2	2	2	2	2	2	2	2
High	56.1	7.91	26.2	19.5	3.2	0.009	0.01	0.0003	0.18	0.021	< 0.0005
Low	29.1	7.21	18.3	10.7	2.4	< 0.007	0.009	0.0001	0.077	0.009	< 0.0005
Mean	39.6	7.42	22.3	15.1	2.8	0.008	0.010	0.0002	0.129	0.015	< 0.0005
<b>SRWMP_WQ</b>											
High Criteria*		9.0		128.0		0.469	1.000	0.0008	0.76	(0.686 - 0.720 )	0.0150
Low Criteria		6.5									
Criteria Exceedance	0	0	0	0	0	0	0	0	0	0	0
Frequency	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**ST-1: ST-1 (Area downstream of Dam J)**

	COND (Field) ( $\mu$ S/cm)	pH (Field) (PH)
12 Mar 2025	68.9	<b>4.61</b>
26 May 2025	100.6	<b>4.05</b>
21 Jul 2025	89	<b>4.99</b>
27 Oct 2025	64.9	<b>6.13</b>
Count	4	4
High	100.6	6.13
Low	64.9	4.05
Mean	80.9	4.95

**SRWMP\_WQ**

High Criteria*		9.00
Low Criteria		6.5
Criteria Exceedance	0	4
Frequency	0%	100%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**ST-1A: ST-1A Stanrock Seepage from Dam J at Toe of Dam**

	COND (Field) ( $\mu$ S/cm)	pH (Field) (PH)
12 Mar 2025	-	-
26 May 2025	-	-
21 Jul 2025	-	-
27 Oct 2025	-	-
Count	4	4
High	-	-
Low	-	-
Mean	-	-
<b>SRWMP_WQ</b>		
High Criteria*		9.00
Low Criteria		6.5
Criteria Exceedance	0	0
Frequency	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

This location did not flow in 2025 and no samples were taken.

**Performance Monitoring Results 2025**

**ST-3: ST-3 (Area downstream of Dam G)**

	COND (Field) ( $\mu$ S/cm)	pH (Field) (PH)
12 Mar 2025	657	<b>3.11</b>
26 May 2025	630	<b>3.19</b>
21 Jul 2025	1042	<b>2.92</b>
27 Oct 2025	959	<b>2.74</b>
Count	4	4
High	1042	3.19
Low	630	2.74
Mean	822	2.99

**SRWMP\_WQ**

High Criteria*		9.00
Low Criteria		6.5
Criteria Exceedance	0	4
Frequency	0%	100%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**ST-3A: Flow Station (Dam G)**

	COND (Field) (µS/cm)	pH (Field) (PH)	FLOW (L/s)
12 Mar 2025	853	<b>4.97</b>	0.119
26 May 2025	547	<b>3.67</b>	0.096
21 Jul 2025	2184	<b>3.33</b>	0.076
02 Oct 2025	1817	<b>4.63</b>	0.063
Count	4	4	4
High	2184	4.97	0.119
Low	547	3.33	0.063
Mean	1,350	4.15	0.089

**SRWMP\_WQ**

High Criteria*		9.00	
Low Criteria		6.5	
Criteria Exceedance	0	4	0
Frequency	0%	100%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**ST-4: ST-4 (Downstream of ST-2 in Quirke Lake)**

	COND (Field) (µS/cm)	pH (Field) (PH)	HARD (mg/L as CaCO3)	SO4 (mg/L)	ACID (mg/L)	ALK (mg/L)	DOC (mg/L)	Ra226 (Bq/L)	Ba (mg/L)	Co (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
11 Mar 2025	44.8	7.33	30	22.3	11	11	5	0.02	0.042	< 0.0001	0.11	0.008	0.001
20 May 2025	63.1	7.7	38.2	24.7	10	15	4.4	0.026	0.042	< 0.0001	0.073	0.006	0.002
12 Aug 2025	102.4	7.9	35.9	26.5	< 5	8	3.9	0.027	0.05	< 0.0001	0.17	0.011	0.001
07 Oct 2025	74.4	<b>6.06</b>	32.5	28.8	< 5	7	3.4	0.034	0.044	< 0.0001	0.049	0.005	0.001
Count	4	4	4	4	4	4	4	4	4	4	4	4	4
High	102.4	7.9	38.2	28.8	11	15	5	0.034	0.05	< 0.0001	0.17	0.011	0.002
Low	44.8	6.06	30	22.3	< 5	7	3.4	0.02	0.042	< 0.0001	0.049	0.005	0.001
Mean	71.2	7.25	34.2	25.6	8	10	4.2	0.027	0.045	< 0.0001	0.101	0.008	0.001
<b>SRWMP_WQ</b>													
High Criteria*		9.00		(128.0 - 218.0 )				0.47	1.000	0.0008	0.76	(0.737 - 0.773 )	0.015
Low Criteria		6.5											
Criteria Exceedance Frequency	0	1	0	0	0	0	0	0	0	0	0	0	0
	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**DS-1  
FLOW  
(L/s)**

Day/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1				37.99	180.596					15.78		26.1
2	115.56			73.4	212.093	31.87	97.97		11.3	11.3		73.4
3	58.35		11.3	89.53		15.78	73.4					
4			58.35			26.1	51.25					26.1
5		11.3			169.455	11.3		11.3			20.73	73.4
6	26.1	37.99			115.56	11.3					20.73	
7	58.35		31.87	169.455	106.65		124.69				89.53	
8				115.56	81.33		37.99					
9	26.1			106.65	44.46	11.3	58.35		7.35			15.78
10	51.25			58.35		15.78					26.1	
11			15.78	89.53		11.3	26.1					11.3
12			65.73		11.3	11.3		4				37.99
13	26.1	7.35	37.99		15.78	7.35					31.87	
14		11.3	37.99	180.596	11.3		31.87			20.73	58.35	
15				212.093	11.3		58.35					
16				195.019	44.46	7.35	73.4		11.3			15.78
17	15.78		169.455	180.596		7.35	73.4				17.71	15.78
18			180.596				58.35	7.35			58.35	44.46
19			169.455					7.35				44.46
20	7.35		180.596		15.78			11.3		15.78		
21	20.73	4	180.596	301.089						81.33		
22				231.453	7.35					124.69		73.4
23				212.093	26.1				11.3	115.56		
24			106.65	212.093		11.3	11.3			44.46	15.78	
25			65.73	231.453			31.87				31.87	
26		4	89.53					7.35				
27		11.3	89.53							15.78	37.99	
28	11.3	11.3	51.25	195.019						58.35	73.4	
29	58.35			195.019								58.35
30				195.019	37.99		7.35			20.73		
31	20.73						15.78			58.35		20.73

<b>Count</b>	<b>152</b>
<b>High</b>	<b>301.089</b>
<b>Low</b>	<b>4</b>
<b>Mean</b>	<b>61.02</b>

**DS-2  
ELEVATION  
(mASL)**

<i>Day/Month</i>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>1</b>	372.89		373.85	373.68				373.37	373.45	374.19	373.42	374.07
<b>2</b>			374.05			372.69		373.37	373.45	373.38	373.46	373.66
<b>3</b>	373.76	373.95	374.23	372.96		372.62		373.37	373.46	373.38	373.51	373.85
<b>4</b>	373.87	374.02	373.47	373.4		372.62	372.78	373.37	373.54	373.42	373.59	374.04
<b>5</b>	374.1	374.15	373.57				372.82	373.37	373.59	373.39	373.75	373.53
<b>6</b>	373.29	373.52	373.71				372.88	373.36	373.74	373.49	374.01	373.66
<b>7</b>	373.67	373.62	373.59				372.97	373.39	373.81	373.56	373.52	373.75
<b>8</b>	373.83	373.66	373.67		372.84	372.53		373.47	373.85	373.57	373.79	373.8
<b>9</b>	373.99	373.8	373.7	372.95	373.08	372.53	372.74	373.53	373.87	373.59	373.99	373.86
<b>10</b>	373.41	373.82	373.81	373.34	373.06		372.96	373.56	373.89	373.6	374.12	373.91
<b>11</b>	373.57	373.87	374.08		373.24		373.19	373.58	373.9	373.63	373.59	374
<b>12</b>	373.64	374.03	373.44		373.51		373.24	373.66	373.91	373.65	373.79	373.53
<b>13</b>	373.68	374.13	373.7		373.73		373.58	373.78	373.92	373.68	374	373.73
<b>14</b>	373.84	373.53	373.34		373.9		373.85	373.81	373.92	373.77	373.5	373.83
<b>15</b>	373.92	373.61	373.63		373			373.82	373.93	373.83	373.67	373.88
<b>16</b>	373.97	373.66	374.19					373.83	373.93	373.85	373.89	373.93
<b>17</b>	374.02	373.81					373.33	373.95	373.93	373.91	374.05	374.02
<b>18</b>	374.02	373.84			372.95		372.96	373.99	373.93	374.01	373.39	373.49
<b>19</b>	374.21	373.87			373.65		373.13		373.93	374.42	373.48	374.18
<b>20</b>	374.28	373.98			373.35		373.61	372.89	373.93	373.07	373.65	373
<b>21</b>	373.63	374.01			373.51		373.47	372.98	373.93	373.01	373.77	373.63
<b>22</b>	373.72	373.82			373.71	372.55	373.59	373.02	373.93	372.93	373.88	373.8
<b>23</b>	373.79	373.95			373.33	372.64	373.05	373.06	373.95	373.46	373.96	373.96
<b>24</b>	373.91	374.01	373.21		373.52	372.67	373.89	373.21	373.97	373.71	374.02	374.1
<b>25</b>	373.98	373.84	373.85		373.64	372.67	373.41	373.27	373.98	373.79	373.45	374.19
<b>26</b>	374.03	374.27			373.72	372.72	373.57	373.36	374.06	373.8	373.54	374.28
<b>27</b>	374.11	373.61	373.22		373.77	372.94	373.71	373.4	374.13	374.18	373.79	373.53
<b>28</b>	374.17	373.82	373.56		373.79	374.05	373.81	373.42	374.18	373.55	373.45	373.64
<b>29</b>	373.55				373.85	374.43	373.94	373.43	374.17	373.72	373.66	373.75
<b>30</b>	373.79		372.85				374.03	373.44	374.19	373.84	373.86	373.84
<b>31</b>	373.86		373.3				373.35	373.45		373.36		373.93

<b>Count</b>	<b>294</b>
<b>High</b>	<b>374.43</b>
<b>Low</b>	<b>372.53</b>
<b>Mean</b>	<b>373.63</b>

DS-4  
FLOW  
(L/s)

Day/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1				46.56						3.2		
2							78.28		3.2			46.56
3						20.85						
4			35.49									
5								3.2			20.85	
6	25.45	30.34			90.88							
7										5.88		
8				104.8			25.45					
9									5.88			16.56
10						12.61					25.45	
11		9.04	16.56									
12								9.04				
13	25.45				12.61							
14										3.2		
15				190.91			57.78					
16									3.2			16.56
17						3.2						
18		16.56	153.45								25.45	
20					20.85			3.2				
21	9.04									50.53		
22				348.09			9.04					78.28
23									5.88			
24						7.46						
25		9.04	57.78								25.45	
26								3.2				
27					12.61							
28	12.61									35.49		
29							9.04					57.78
30				153.45								

<b>Count</b>	<b>52</b>
<b>High</b>	<b>348.09</b>
<b>Low</b>	<b>3.2</b>
<b>Mean</b>	<b>39.49</b>

**DS-5  
FLOW  
(L/s)**

<b>Day/Month</b>	<b>Jan</b>	<b>May</b>	<b>Jul</b>	<b>Oct</b>
<b>2</b>			2.18	
<b>6</b>	16.69			
<b>26</b>		2.57		
<b>27</b>				2.57

<b>Count</b>	<b>4</b>
<b>High</b>	<b>16.69</b>
<b>Low</b>	<b>2.18</b>
<b>Mean</b>	<b>6.00</b>

**DS-6  
FLOW  
(L/s)**

<i>Day/Month</i>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>1</b>				29.01	150.53					0		29.01
<b>2</b>	126.18			81.99	261.1	44.65	103.3		0	0		103.3
<b>3</b>	62.39		15.79	81.99		29.01	81.99					
<b>4</b>			81.99	81.99		29.01	62.39					29.01
<b>5</b>		5.58			150.53	15.79		0			15.79	81.99
<b>6</b>	29.01	81.99			176.27	5.58					15.79	
<b>7</b>	126.18		29.01	150.53	126.18		44.65			0	126.18	
<b>8</b>				126.18	81.99		62.39					
<b>9</b>	29.01			103.3	62.39	5.58	81.99		0			5.58
<b>10</b>	62.39			44.65		5.58					15.79	
<b>11</b>			15.79	81.99			29.01					5.58
<b>12</b>			81.99		44.65			0				81.99
<b>13</b>	29.01	5.58	44.65		5.58						29.01	
<b>14</b>		81.99	62.39	176.27	5.58		44.65			0	81.99	
<b>15</b>				231.61	15.79		62.39					
<b>16</b>				231.61	103.3	0	103.3		0			15.79
<b>17</b>	15.79		176.27	203.32		0	103.3				5.58	15.79
<b>18</b>			203.32				81.99	0			62.39	62.39
<b>19</b>			176.27					0				62.39
<b>20</b>	15.79		176.27		15.79					29.01		
<b>21</b>		0	150.53	356.29						81.99		
<b>22</b>				424.96	1.41					176.27		81.99
<b>23</b>				323.48	44.65				0	126.18		
<b>24</b>			126.18	291.74		0				44.65	5.58	
<b>25</b>			44.65	291.74			44.65				81.99	
<b>26</b>		0	103.3					0				
<b>27</b>		5.58	126.18							5.58	15.79	
<b>28</b>	5.58	0	62.39	203.32						81.99	81.99	
<b>29</b>	81.99			231.61	1.86							44.65
<b>30</b>				150.53	44.65		0			15.79		
<b>31</b>	15.79						29.01			81.99		15.79

<b>Count</b>	<b>148</b>
<b>High</b>	<b>424.96</b>
<b>Low</b>	<b>0</b>
<b>Mean</b>	<b>71.18</b>

DS-16  
FLOW  
(L/s)

Day/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1				0.3532						0		
2							0		0			0
3						0						
4			0									
5								0			0	
6	0	0			0.617							
7										0		
8				1.2665			0					
9									0			0
10						0					0	
11		0	0									
12								0				
13	0				0							
14										0		
15				4.9953			0					
16									0			0
17						0						
18			1.4154					0			0	
19		0										
20					0							
21	0									0		
22				4.9953			0					0
23									0			
24						0						
25		0	0.8436								0	
26								0				
27					0							
28	0									0		
29							0					0
30				1.4154								

<b>Count</b>	52
<b>High</b>	4.9953
<b>Low</b>	0
<b>Mean</b>	0.31

Denison TMA-1 Final Discharge (D-2) Monthly Loadings

Location	Date	Volume	Flow	Total Suspended Solids		Radium-226	
		ML	(L/s)	Monthly Average (mg/L)	Mass Loading (kg)	Monthly Average (Bq/L)	Mass Loading (MBq)
D-2	Jan-25	158.0	58.98	1.6	252.734	0.0830	13.111
	Feb-25	143.1	59.17	2.3	329.204	0.120	17.176
	Mar-25	277.6	103.66	1.9	527.522	0.200	55.529
	Apr-25	294.4	113.58	1.5	441.599	0.220	64.768
	May-25	182.2	68.04	1.8	328.005	0.113	20.591
	Jun-25	98.5	38.01	1.5	147.763	0.0670	6.600
	Jul-25	61.6	23.01	0.67	41.285	0.0374	2.305
	Aug-25	59.7	22.31	1.4	83.650	0.0335	2.002
	Sep-25	127.4	49.15	0.91	115.919	0.0470	5.987
	Oct-25	180.6	67.42	1.1	198.636	0.0778	14.049
	Nov-25	165.8	63.99	1.1	182.434	0.0735	12.190
	Dec-25	96.1	35.88	1.2	115.308	0.0527	5.064
	<b>Total</b>	<b>1845.1</b>			<b>2764.058</b>		<b>219.370</b>

Denison TMA-2 Final Discharge (D-3) Monthly Loadings

Location	Date	Volume	Flow	Total Suspended Solids		Radium-226	
		ML	(L/s)	Monthly Average (mg/L)	Mass Loading (kg)	Monthly Average (Bq/L)	Mass Loading (MBq)
D-3	Jan-25	29.4	10.98	0.75	22.047	0.128	3.763
	Feb-25	8.9	3.67	1.1	9.766	0.134	1.190
	Mar-25	152.3	56.87	1.5	228.493	0.146	22.240
	Apr-25	135.4	52.25	1.1	148.964	0.0952	12.892
	May-25	37.5	14.00	1.2	44.997	0.164	6.150
	Jun-25	11.1	4.27	2.5	27.637	0.176	1.946
	Jul-25	21.6	8.06	0.67	14.471	0.244	5.270
	Aug-25	4.0	1.48	2.0	7.928	0.289	1.146
	Sep-25	13.2	5.08	0.91	11.988	0.224	2.951
	Oct-25	35.1	13.09	0.67	23.496	0.243	8.522
	Nov-25	23.9	9.23	0.93	22.255	0.228	5.456
	Dec-25	33.8	12.62	1.2	40.571	0.161	5.443
	<b>Total</b>	<b>506.1</b>			<b>602.614</b>		<b>76.967</b>

Stanrock Final Discharge (DS-4) Monthly Loadings

Location	Date	Volume	Flow	Total Suspended Solids		Radium-226	
		ML	(L/s)	Monthly Average (mg/L)	Mass Loading (kg)	Monthly Average (Bq/L)	Mass Loading (MBq)
DS-4	Jan-25	48.6	18.14	1.3	63.155	0.0823	3.998
	Feb-25	39.3	16.25	1.9	74.670	0.0763	2.999
	Mar-25	176.3	65.82	2.3	405.472	0.0643	11.336
	Apr-25	437.4	168.76	1.3	568.654	0.0440	19.247
	May-25	91.7	34.24	1.8	165.066	0.0745	6.832
	Jun-25	28.6	11.03	3.3	94.346	0.103	2.945
	Jul-25	96.2	35.92	0.80	76.962	0.122	11.737
	Aug-25	12.5	4.66	0.83	10.360	0.148	1.847
	Sep-25	11.8	4.54	0.83	9.767	0.146	1.718
	Oct-25	52.7	19.66	0.92	48.445	0.151	7.951
	Nov-25	63.0	24.30	1.0	62.986	0.123	7.747
	Dec-25	115.6	43.15	1.5	173.351	0.0866	10.008
	<b>Total</b>	<b>1173.6</b>			<b>1753.233</b>		<b>88.364</b>

## **Appendix VI - TMA-1 ECA**

**Performance Monitoring Results**

**Performance Monitoring Results 2025**

**D-1: TMA-1 Outlet**

	Conductance (Field) (µS/CM)	pH (Field) (PH)	Hardness as CaCO3 (mg/L AS CaCO3)	Sulphate (mg/L)	Total Suspended Solids (mg/L)	Acidity (mg/L)	Dissolved organic carbon (mg/L)	Radium-226 (Bq/L)	Barium (mg/L)	Cobalt (mg/L)	Iron (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)
07 Jan 2025	137.3	8.24	97.9	66.2		5		<b>1.58</b>	0.07	< 0.0001	0.1	0.005	< 0.0002	< 0.0001	0.007
04 Feb 2025	147.7	7.53		60.8				<b>1.56</b>							
04 Mar 2025	130.6	7.73		65				<b>1.87</b>							
01 Apr 2025	160.7	7.58	105	62.2		6		<b>1.73</b>	0.092	0.0002	0.15	0.013	< 0.0002	< 0.0001	0.0071
06 May 2025	177.9	7.51		45.8				<b>1.66</b>							
09 Jun 2025	175.1	8.28		51.4				<b>1.43</b>							
22 Jul 2025	174.8	7.75	83.7	57.6		< 5		<b>1.3</b>	0.068	0.0003	0.2	0.037	< 0.0002	< 0.0001	0.0053
05 Aug 2025	196.1	7.8		54.2				<b>1.21</b>							
02 Sep 2025	152.6	8.03		55.5				<b>1.57</b>							
01 Oct 2025	222.9	7.74	109	53.6	1.3	< 5	6.8	<b>2.16</b>	0.099	0.0003	0.283	0.031	< 0.0002	< 0.0001	0.0075
10 Nov 2025	141.3	6.87	109	51.1	< 0.67		6.5	<b>2.13</b>	0.07	0.0002	0.328	0.009	< 0.0002	< 0.0001	0.0114
02 Dec 2025	142.4	6.64	121	63.6	< 0.67		6.1	<b>1.76</b>	0.075	0.0002	0.17	0.014	< 0.0002	< 0.0001	0.0128
Count	12	12	6	12	3	4	3	12	6	6	6	6	6	6	6
High	222.9	8.28	121	66.2	1.3	6	6.8	2.16	0.099	0.0003	0.328	0.037	< 0.0002	< 0.0001	0.0128
Low	130.6	6.64	83.7	45.8	< 0.67	< 5	6.1	1.21	0.068	< 0.0001	0.1	0.005	< 0.0002	< 0.0001	0.0053
Mean	163.3	7.64	104.3	57.3	0.88	5	6.5	1.66	0.079	0.0002	0.205	0.018	< 0.0002	< 0.0001	0.0085
<b>SRWMP_W</b>															
<b>Q</b>															
High Criteria*		9.00		(128.0 - 309.0)	15.0			0.47	1.00	(0.0009 - 0.0011)	0.8	(0.973 - 1.137)	0.0020	0.0003	0.015
Low Criteria		6.5													
Criteria Exceedance	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0
Frequency	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters



D-2: Stollery Lake Outlet Final Discharge

	Conductance (Field) (µS/CM)	pH (Field) (PH)	Hardness as CaCO3 (mg/L AS CaCO3)	Sulphate (mg/L)	Total Suspended Solids (mg/L)	Dissolved organic carbon (mg/L)	Radium-226 (Bq/L)	Barium (mg/L)	Cobalt (mg/L)	Iron (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Ceriodaphnia dubia LC25 Reproduction (%_Effluent)	Ceriodaphnia dubia LC50 (Mortality) (%_Effluent)	Toxicity; acute Daphnia magna (%_Mortality)	Toxicity; acute Rainbow Trout (%_Mortality)
25 Nov 2025		7.35			< 0.67		0.057	0.274										
02 Dec 2025	321.5	7.49	270	223	1	4.7	0.046	0.242	0.0006	0.592	0.192	< 0.0002	< 0.0001	<b>0.0279</b>				
09 Dec 2025		7.32			< 0.67		0.06	0.246										
16 Dec 2025		7.15			2.3		0.06	0.236										
22 Dec 2025		7.03			< 0.67		0.045	0.199										
Count	2	52	12	12	52	12	52	52	12	12	12	12	12	12	2	2	2	2
High	359.20	7.79	310	265	3.3	6.2	0.278	1.43	0.0009	0.882	0.249	0.0004	0.0002	0.034	>100	>100	< 0	< 0
Low	321.5	6.85	149	100	< 0.67	3.7	0.021	0.09	0.0002	0.262	0.047	< 0.0002	< 0.0001	0.0096	>100	>100	< 0	< 0
Mean	340.4	7.40	226	182	1.40	5.0	0.095	0.484	0.0005	0.532	0.116	0.0003	0.0001	0.0217	100	100	< 0	< 0
<b>SRWMP_WQ</b>																		
High Criteria*		9.0		(309 - 429 )	15		0.469	1.00	(0.0012 - 0.0016 )	0.755	(1.261 - 1.900 )	0.0020	0.0003	0.015				
Low Criteria		6.5																
Criteria Exceedance Frequency	0	0	0	0	0	0	0	6	0	1	0	0	0	10	0	0	0	0
	0%	0%	0%	0%	0%	0%	0%	12%	0%	8%	0%	0%	0%	83%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**D-4: Dunlop Lake Outlet**

	pH (Field) (PH)	Hardness as CaCO3 (mg/L AS CaCO3)	Sulphate (mg/L)	Total Suspended Solids (mg/L)	Dissolved organic carbon (mg/L)	Radium-226 (Bq/L)	Barium (mg/L)	Cobalt (mg/L)	Iron (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)
07 May 2025	6.18	8.8	2.8	<1	3.3	<0.005	0.0111	0.000047	0.05	0.0101	0.00007	<0.00005	0.000016
04 Nov 2025	7.18	9.4	3.1	<2	3.2	<0.005	0.0109	0.000025	0.019	0.00838	0.00005	<0.00005	0.000011
Count	2	2	2	2	2	2	2	2	2	2	2	2	2
High	7.18	9.4	3.1	<2	3.3	<0.005	0.0111	0.000047	0.05	0.0101	0.00007	<0.00005	0.000016
Low	6.18	8.8	2.8	<1	3.2	<0.005	0.0109	0.000025	0.019	0.00838	0.00005	<0.00005	0.000011
Mean	6.68	9.1	2.95	<1.5	3.25	<0.005	0.0110	0.000036	0.035	0.0092	0.00006	<0.00005	0.0000
<b>SRWMP_WQ</b>													
High Criteria*	9		429	15		0.469	1	(0.0018 - 0.0018 )	0.76	1.9	0.002	0.0003	0.015
Low Criteria	6.5												
Criteria	1	0	0	0	0	0	0	0	0	0	0	0	0
Exceedance													
Frequency	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**D-5**

	pH (Field) (PH)	Flow (L/s)	Hardness as CaCO3 (mg/L AS CaCO3)	Sulphate (mg/L)	Total Suspended Solids (mg/L)	Dissolved organic carbon (mg/L)	Radium-226 (Bq/L)	Barium (mg/L)	Cobalt (mg/L)	Iron (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)
15 Jan 2025	6.51	2725	19.2	9.7	<1	3.2	0.03	0.0298	0.000041	0.035	0.0167	0.00007	<0.00005	0.000739
07 May 2025	<b>6.12</b>	8625	14.2	6.7	1	3.3	0.024	0.0344	0.000044	0.047	0.0118	0.00007	<0.00005	0.000539
08 Sep 2025	7.3	846	24.4	13	1	3.2	0.07	0.107	0.000065	0.079	0.0296	0.00008	<0.00005	0.000872
04 Nov 2025	7.31	2180	22.2	13	<2	3.5	0.037	0.049	0.00004	0.047	0.0144	0.00005	<0.00005	0.000912
Count	4	4	4	4	4	4	4	4	4	4	4	4	4	4
High	7.31	8625	24.4	13	1	3.5	0.07	0.107	0.00007	0.079	0.0296	0.00008	<0.00005	0.000912
Low	6.12	846	14.2	6.7	1	3.2	0.024	0.0298	0.00004	0.035	0.0118	0.00005	<0.00005	0.000539
Mean	6.81	3594	20.0	10.6	1.25	3.3	0.0403	0.0551	0.00005	0.0520	0.0181	0.0001	<0.00005	0.0008
<b>SRWMP_WQ</b>														
High Criteria*	9			429	15		0.469	1	(0.0018 - 0.0018 )	0.76	1.9	0.002	0.0003	0.015
Low Criteria	6.5													
Criteria Exceedance	1		0	0	0	0	0	0	0	0	0	0	0	0
Frequency	20%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

Performance Monitoring Results 2025

D-6

	Conductance (Field) (µS/CM)	pH (Field) (PH)	Flow (L/s)	Hardness as CaCO3 (mg/L AS CaCO3)	Sulphate (mg/L)	Total Suspended Solids (mg/L)	Dissolved organic carbon (mg/L)	Radium-226 (Bq/L)	Barium (mg/L)	Cobalt (mg/L)	Iron (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)
15 Jan 2025	-	6.58	149	20.4	12	<1	4.6	<0.005	0.0131	0.000123	0.089	0.034	0.00005	<0.00005	0.000031
07 May 2025	-	6.21	555	17.7	11	<1	4.2	<0.005	0.0107	0.000165	0.103	0.0376	0.00006	<0.00005	0.00004
08 Sep 2025	-	7.72	4.4	141	<b>120</b>	2	3.2	<0.005	0.0244	0.000641	0.45	0.563	<0.00005	<0.00005	0.000104
04 Nov 2025	123.6	7.24	95.2	43.8	36	<2	4.8	<0.005	0.0133	0.000127	0.156	0.0781	<0.00005	<0.00005	0.000053
Count	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4
High	123.6	7.72	555	141	120	1	4.8	<0.005	0.0244	0.000641	0.45	0.563	0.00005	<0.00005	0.000104
Low	123.6	6.21	4.4	17.7	11	2	3.2	<0.005	0.0107	0.000123	0.089	0.034	<0.00005	<0.00005	0.000031
Mean	123.6	6.94	200.9	55.7	45	1.50	4.2	<0.005	0.0154	0.000264	0.1995	0.1782	0.00005	<0.00005	0.000057
<b>SRWMP_WQ</b>															
High Criteria*		9			429	15		0.469	1	(0.0018 - 0.0018 )	0.76	1.9	0.002	0.0003	0.015
Low Criteria		6.5													
Criteria Exceedance	0	0		0	1	0	0	0	0	0	0	0	0	0	0
Frequency	0%	0%		0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

**Performance Monitoring Results 2025**

**D-9: Seepage at Dam 17**

	Conductance (Field) (µS/CM)	pH (Field) (PH)	Hardness as CaCO3 (mg/L AS CaCO3)	Sulphate (mg/L)	Total Suspended Solids (mg/L)	Dissolved organic carbon (mg/L)	Radium-226 (Bq/L)	Barium (mg/L)	Cobalt (mg/L)	Iron (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)
14 Jan 2025		6.91	595	<b>638</b>		3.8	0.008	0.022	<b>0.0027</b>	<b>1.03</b>	<u>1.79</u>	0.0004	< 0.0001	<b>0.0451</b>
05 May 2025	661	7	377	295			< 0.007	0.017	0.0007	0.273	0.38	0.0005	< 0.0001	<b>0.0166</b>
22 Jul 2025	1005	6.79	665	<b>587</b>		4.2	< 0.007	0.02	<b>0.0019</b>	<u>0.582</u>	<u>1.42</u>	0.0007	< 0.0001	<b>0.0271</b>
06 Oct 2025	1215	6.8	842	<b>739</b>	3.7	4.1	0.013	0.025	<b>0.0025</b>	<u>0.644</u>	<b>2.11</b>	0.001	< 0.0001	<b>0.0496</b>
03 Dec 2025	647	<b>6.43</b>	582	<b>520</b>	2	4.1	< 0.007	0.015	0.0016	<u>0.732</u>	1.08	0.0007	< 0.0001	<b>0.0292</b>
Count	5	5	5	5	2	4	5	5	5	5	5	5	5	5
High	1215	7	842	739	3.7	4.2	0.013	0.025	0.0027	1.03	2.11	0.001	< 0.0001	0.0496
Low		6.43	377	295	2	3.8	< 0.007	0.015	0.0007	0.273	0.38	0.0004	< 0.0001	0.0166
Mean	882	6.79	612	556	2.9	4.1	0.008	0.020	0.0019	0.652	1.36	0.0007	< 0.0001	0.0335
<b>SRWMP_WQ</b>														
High Criteria*		9.00		429	15.0		0.469	1.000	(0.0018 - 0.0018 )	0.76	1.90	0.0020	0.0003	0.0150
Low Criteria		6.5												
Criteria Exceedance	0	1	0	4	0	0	0	0	3	1	1	0	0	5
Frequency	0%	20%	0%	80%	0%	0%	0%	0%	60%	20%	20%	0%	0%	100%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

Bold values exceed the SRWMP benchmark

Underlined values exceed the applicable surface water quality guideline listed below as per TMA-1 ECA (September 2025)

SEQG- Saskatchewan Environmental Quality Guidelines

CCME- Canadian Council of Ministers of the Environment

BC MOE- British Columbia Ministry of Environment Water Quality Guidelines

FEQG- Federal Environmental Quality Guideline (ECCC)

MDMER- Metal and Diamond Mining Effluent Regulations

**Performance Monitoring Results 2025**

**D-12: Seepage at Dam 16**

	Conductance (Field) (µS/CM)	pH (Field) (PH)	Hardness as CaCO3 (mg/L AS CaCO3)	Sulphate (mg/L)	Total Suspended Solids (mg/L)	Dissolved organic carbon (mg/L)	Radium-226 (Bq/L)	Barium (mg/L)	Cobalt (mg/L)	Iron (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)
02 Jul 2025	317.4	7.42	169	121		5	0.014	0.063	0.0002	0.394	0.066	< 0.0002	< 0.0001	0.0007
06 Oct 2025	406.5	7.57	297	168	1.3	3.9	0.015	0.085	0.0003	<b>1.21</b>	0.084	0.0013	< 0.0001	0.0009
03 Dec 2025	252	6.68	211	163	< 0.67	3.8	0.008	0.054	0.0002	<u>0.44</u>	0.045	0.0003	< 0.0001	0.0011
Count	3	3	3	3	2	3	3	3	3	3	3	3	3	3
High	406.5	7.57	297	168	1.3	5	0.015	0.085	0.0003	1.21	0.084	0.0013	< 0.0001	0.0011
Low	252	6.68	169	121	< 0.67	3.8	0.008	0.054	0.0002	0.394	0.045	< 0.0002	< 0.0001	0.0007
Mean	325.3	7.22	226	151	0.99	4.2	0.012	0.067	0.0002	0.681	0.065	0.0006	< 0.0001	0.0009

**SRWMP\_WQ**

High Criteria*		9.00		(309 - 429 )	15.0		0.469	1.000	(0.0013 - 0.0016 )	0.755	(1.349 - 1.912 )	0.0020	0.0003	0.0150
Low Criteria		6.5												
Criteria Exceedance	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Frequency	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	0%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

Bold values exceed the SRWMP benchmark

Underlined values exceed the applicable surface water quality guideline listed below as per TMA-1 ECA (September 2025)

SEQG- Saskatchewan Environmental Quality Guidelines

CCME- Canadian Council of Ministers of the Environment

BC MOE- British Columbia Ministry of Environment Water Quality Guidelines

FEQG- Federal Environmental Quality Guideline (ECCC)

MDMER- Metal and Diamond Mining Effluent Regulations

**Performance Monitoring Results 2025**

**D-16: Seepage at Dam 9**

	Conductance (Field) (µS/CM)	pH (Field) (PH)	Hardness as CaCO3 (mg/L AS CaCO3)	Sulphate (mg/L)	Total Suspended Solids (mg/L)	Dissolved organic carbon (mg/L)	Radium-226 (Bq/L)	Barium (mg/L)	Cobalt (mg/L)	Iron (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)
14 Jan 2025		<b>6.03</b>	189	229		1.6	0.01	0.023	0.0005	<u>0.482</u>	0.35	< 0.0002	< 0.0001	< 0.0005
05 May 2025	221.4	<b>6.46</b>	103	105		2.9	< 0.007	0.017	0.0002	0.2	0.08	< 0.0002	< 0.0001	< 0.0005
22 Jul 2025	371.9	6.55	196	172		4.5	0.016	0.02	<b>0.0014</b>	<b>2.45</b>	<b>2.41</b>	< 0.0002	< 0.0001	< 0.0005
06 Oct 2025	448	6.64	307	190	<b>17</b>	4.2	0.041	0.035	<b>0.0042</b>	<b>10.8</b>	<b>5.47</b>	0.0006	< 0.0001	< 0.0005
03 Dec 2025	236.2	<b>6.21</b>	199	188	1	2	0.008	0.018	0.0006	0.621	0.474	< 0.0002	< 0.0001	< 0.0005
Count	5	5	5	5	2	5	5	5	5	5	5	5	5	5
High	448	6.64	307	229	17	4.5	0.041	0.035	0.0042	10.8	5.47	0.0006	< 0.0001	< 0.0005
Low		6.03	103	105	1	1.6	< 0.007	0.017	0.0002	0.2	0.08	< 0.0002	< 0.0001	< 0.0005
Mean	319.4	6.38	199	177	9	3.0	0.016	0.023	0.0014	2.911	1.757	0.0003	< 0.0001	< 0.0005
<b>SRWMP_WQ</b>														
High Criteria*		9.00		(309 - 429 )	15		0.47	1.000	(0.0010 - 0.0016 )	0.755	(1.06 - 1.90 )	0.0020	0.0003	0.0150
Low Criteria		6.5												
Criteria Exceedance	0	3	0	0	1	0	0	0	2	2	2	0	0	0
Frequency	0%	60%	0%	0%	50%	0%	0%	0%	40%	40%	40%	0%	0%	0%

\* High Criteria Values in brackets are the range of values calculated based on sample specific parameters

Bold values exceed the SRWMP benchmark

Underlined values exceed the applicable surface water quality guideline listed below as per TMA-1 ECA (September 2025)

SEQG- Saskatchewan Environmental Quality Guidelines

CCME- Canadian Council of Ministers of the Environment

BC MOE- British Columbia Ministry of Environment Water Quality Guidelines

FEQG- Federal Environmental Quality Guideline (ECCC)

MDMER- Metal and Diamond Mining Effluent Regulations

## **Appendix VII - Toxicity Test Results**

# PRELIMINARY

## ACUTE LETHALITY REPORT SUMMARY

Work Order : 258078

**Analytical Results**  
**Denison Mines Inc.**  
**1 Horne Walk**  
**Elliot Lake ON**  
**P5A 2A5**

### RESULTS

Substance	Date Collected	Date Tested	Species / Test	LC50	Mortality in 100% Concentration (%)
D-2-M-T-2506	2025-06-17	2025-06-19	Dm SC	-	0
	2025-06-17	2025-06-19	RBT SC	-	0
DS-4-M-T-2506	2025-06-17	2025-06-19	Dm SC	-	0
	2025-06-17	2025-06-19	RBT SC	-	0

RBT = rainbow trout  
 Dm = *Daphnia magna*  
 \* = pH Stabilized  
 SC = single concentration

### Test Method(s)

Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna*. Environment Canada EPS 1/RM/14 (Second Edition, December 2000, with February 2016 amendments)

Reference Method for Determining Acute Lethality of Liquid Effluents to Rainbow Trout. Environment Canada, EPS 1/RM/13 (2nd Edition, December 2000, with May 2007 and February 2016 amendments)

***Although test results are generated under strict QA/QC protocols, the results provided herein, along with any unsigned test reports, faxes, or emails are considered preliminary.***



### CHAIN OF CUSTODY RECORD

Nautilus Work Order No:  
258078

Shipping Address: Nautilus Environmental Guelph.  
B-11 Nicholas Beaver Road  
Puslinch, Ontario Canada N0B 2J0

Voice: (519) 763-4412

Fax: (519) 763-4419

P.O. Number: 2230

Field Sampler Name (print): Laura Grant, Tyler Lafontaine

Signature: *Laura Grant Tyler Lafontaine*

Affiliation: Denison Mines

Sample Storage (prior to shipping):

Custody Relinquished by: *Laura Grant*

Date/Time Shipped: 06-17-2025

Client: Denison Mines Inc  
1 Home Walk, Suite 200  
Elliot Lake, ON  
P5A 2A5

Phone:

Fax: (705) 848-5814

Contact: analytical.results@denisonmines.com

Sample Identification				Analyses Requested										Sample Method and Volume		
Date Collected (yyyy-mm-dd)	Time Collected (e.g. 14:30, 24 hr clock)	Sample Name	Nautilus Sample Number	Temp. on arrival	Rainbow Trout Single Concentration	Rainbow Trout LC50	Daphnia magna Single Concentration	Daphnia magna LC50	Fathead Minnow Survival & Growth	Ceriodaphnia dubia Survival & Reproduction	Lemna minor Growth	Pseudokirchneriella subcapitata Growth	Other (please specify below)	Grab	Composite	# of Containers and Volume (eg. 2 x 1L, 3 x 10L, etc.)
2025-06-17	10:45	D-2-M-T-2506	87300	25	✓		✓			✓				✓		1x20L, 3x4L
2025-06-17	10:00	DS-4-M-T-2506	87301	25	✓		✓			✓				✓		1x20L, 3x4L

**For Lab Use Only**

Received By: *Y. M. P.*

Date: 2025-06-18

Time: 14:00

Storage Location:

Storage Temp.(°C):

Please list any special requests or instructions:

✓ Grab as per pool label

Work Order : 258078

Sample Number : 87300

**SAMPLE IDENTIFICATION**

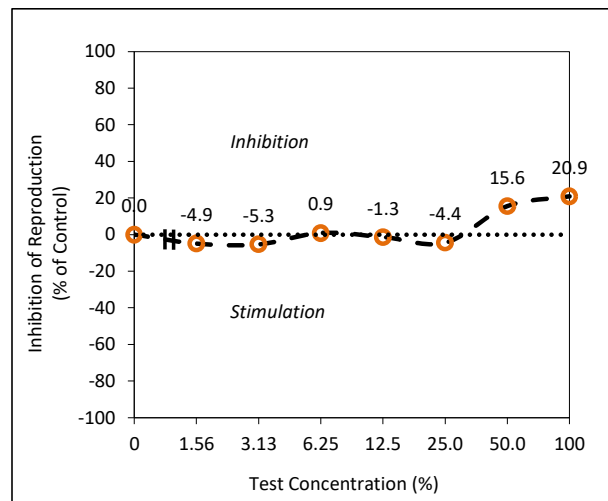
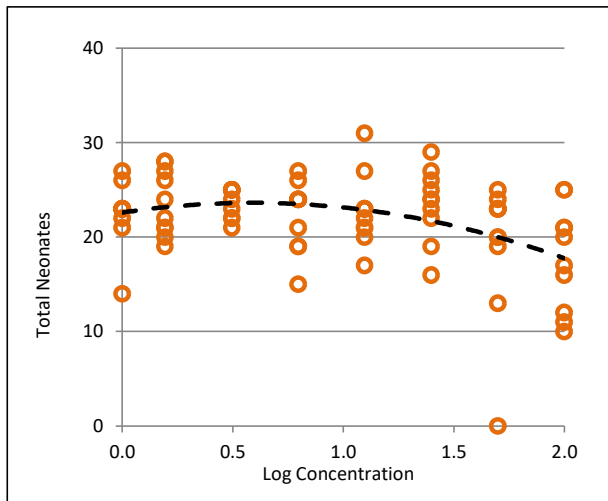
Company :	Denison Mines Inc.	Sampling Date :	2025-06-17
Location :	Elliot Lake ON	Sampling Time :	10:45
Substance :	D-2-M-T-2506	Date Received :	2025-06-19
Sampling Method :	Grab	Time Received :	11:30
Sampled By :	L. Grant, T. Lafontaine	Temperature at Receipt :	13 °C
Sample Description :	Clear, colourless	Date Tested :	2025-06-19

Test Method : Test of Reproduction and Survival using the Cladoceran *Ceriodaphnia dubia*. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/21, 2nd ed. (February 2007).

**7-DAY TEST RESULTS**

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Reproduction)	>100%	—	Linear Interpolation (CETIS) <sup>a</sup>
LC50	>100%	—	—

The results reported relate only to the sample tested and as received.



**COMMENTS**

- All test validity criteria as specified in the test method cited above were satisfied.
- Statistical analysis for the IC25 (Reproduction) endpoint could not be conducted using Non-Linear Regression, because a suitable model could not be identified. Therefore, test results were calculated using Linear Interpolation (CETIS)<sup>a</sup>.



Emma Kunert  
I am approving  
this document  
2025-08-12  
12:46-04:00

Approved By : \_\_\_\_\_

Project Manager

Work Order : 258078  
 Sample Number : 87300

**TEST ORGANISM**

Test Organism :	<i>Ceriodaphnia dubia</i>	Range of Age (at start of test) :	<24 h; within 12 h of one another
Organism Origin :	Single in-house mass culture	Mean Brood Organism Mortality :	0% (previous 7 days)
Test Organism Origin :	Individual in-house cultures	Average Total Neonates :	20.6 (first three broods)
Ephippia in Culture :	None	Average Neonates :	14.7 (3rd or subsequent brood)

No organisms exhibiting unusual appearance, behaviour, or undergoing unusual treatment were used in the test.

**TEST CONDITIONS**

Test Type :	Static renewal	Control/Dilution Water :	CD25101 <sup>2</sup>
Renewal Method :	Transferred to fresh solutions	Test Volume per Replicate :	15 mL
Renewal Frequency :	≤ 24 hours	Test Vessel :	20 mL borosilicate glass cylinder
Sample Filtration :	None	Depth of Test Solution :	3.7 cm
Test Aeration :	None	Organisms per Replicate :	1
pH Adjustment :	None	Number of Replicates :	10
Hardness Adjustment :	None	Test Method Deviation(s) :	None

<sup>2</sup>Reconstituted/Dechlorinated Municipal Drinking Water, and Distilled Water with Selenium and B12 added.

**REFERENCE TOXICANT DATA**

Toxicant :	Zinc	Test Duration :	8 days
Date Tested :	2025-07-03	LC50 :	2.2 g/L
IC25 (Reproduction):	0.18 g/L	95% Confidence Limits :	1.98 - 2.43 g/L
95% Confidence Limits:	0.11 - 0.81 g/L	Historical Mean LC50 :	1.83 g/L
Historical Mean IC25:	0.39 g/L	Warning Limits (± 2SD) :	1.53 - 2.2 g/L
Warning Limits (± 2SD):	0.12 - 1.3 g/L	Statistical Method:	Spearman Kärber (CETIS) <sup>b</sup>
Statistical Method :	Linear Interpolation (CETIS) <sup>b</sup>		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

**CUMULATIVE DAILY MORTALITY DATA**

Date	Test Day	Test Concentration (%)							
		Control	1.56	3.13	6.25	12.5	25	50	100
2025-06-20	1	0	0	0	0	0	0	10	0
2025-06-21	2	0	0	0	0	0	0	10	0
2025-06-22	3	0	0	0	0	0	0	10	0
2025-06-23	4	0	0	0	0	0	0	10	0
2025-06-24	5	0	0	0	0	0	0	10	0
2025-06-25	6	0	0	0	0	0	0	10	0
2025-06-26	7	0	0	0	0	0	0	10	0
Total Mortality (%) :		0	0	0	0	0	0	10	0

**REFERENCES**

<sup>a</sup> CETIS™, © 2000-2022. V.2.1.3.5. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

<sup>b</sup> CETIS™, © 2000-2022. V.2.1.3.5. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

<sup>c</sup> Grubbs, F.E., 1969. Procedures for detecting outlying observations in samples. *Technometrics*, 11 :1-21.

Work Order : 258078  
 Sample Number : 87300

**SURVIVAL AND REPRODUCTION**

Test Initiation Date : 2025-06-19  
 Initiated By : MB  
 Initiation Time : 17:00  
 Test Completion Date : 2025-06-26

Control	Day	Replicate										Mean Young (±SD)	Analyst(s)	
		1	2	3	4	5	6	7	8	9	10			
2025-06-20	1	0	0	0	0	0	0	0	0	0	0	0	0	CD
2025-06-21	2	0	0	0	0	0	0	0	0	0	0	0	0	KK
2025-06-22	3	0	0	0	0	0	0	0	0	0	0	0	0	DS
2025-06-23	4	4	5	3	3	0	4	2	3	4	4	3.2	DS	
2025-06-24	5	10	10	0	0	0	0	0	9	7	3.6	DS		
2025-06-25	6	0	0	8	8	7	7	8	8	0	4.6	DS		
2025-06-26	7	13	11	12	12	7	12	11	12	10	11.1	DS		
Total		27	26	23	23	14 <sup>3</sup>	23	21	23	23	22	22.5 (±3.5)		

12.5%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-06-20	1	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-21	2	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-22	3	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-23	4	3	3	2	3	4	2	5	3	5	4	3.4	
2025-06-24	5	0	8	0	8	6	0	0	0	0	8	3	
2025-06-25	6	7	0	10	0	0	7	9	11	5	0	4.9	
2025-06-26	7	11	10	8	11	7	14	13	17	13	11	11.5	
Total		21	21	20	22	17	23	27	31	23	23	22.8 (±3.9)	

1.56%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-06-20	1	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-21	2	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-22	3	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-23	4	5	5	3	2	4	3	4	4	4	6	4	4
2025-06-24	5	0	0	9	0	6	0	0	0	9	0	2.4	4
2025-06-25	6	9	9	0	8	0	7	6	9	0	8	5.6	4
2025-06-26	7	14	12	9	9	11	10	12	14	11	14	11.6	4
Total		28	26	21	19	21	20	22	27	24	28	23.6 (±3.4)	4

25%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-06-20	1	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-21	2	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-22	3	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-23	4	5	2	2	3	3	3	5	3	5	3	3.4	0
2025-06-24	5	9	0	13	0	0	10	7	7	0	0	4.6	0
2025-06-25	6	0	7	0	7	8	11	0	0	10	8	5.1	0
2025-06-26	7	13	10	1	12	15	—	12	13	14	14	10.4	0
Total		27	19	16	22	26	24	24	23	29	25	23.5 (±3.8)	0

3.13%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-06-20	1	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-21	2	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-22	3	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-23	4	3	4	3	4	5	3	3	4	4	3	3.6	0
2025-06-24	5	0	0	0	0	7	0	7	0	0	8	2.2	0
2025-06-25	6	12	9	9	8	0	9	0	6	9	0	6.2	0
2025-06-26	7	10	11	13	13	13	10	12	13	12	10	11.7	0
Total		25	24	25	25	25	22	22	23	25	21	23.7 (±1.6)	0

50%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-06-20	1	0	x	0	0	0	0	0	0	0	0	0	0
2025-06-21	2	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-22	3	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-23	4	0	4	2	3	3	2	3	3	0	4	2.4	0
2025-06-24	5	0	0	0	0	6	0	8	0	0	0	1.4	0
2025-06-25	6	0	8	11	12	0	11	0	5	7	9	6.3	0
2025-06-26	7	0	11	0	10	11	10	9	11	16	11	8.9	0
Total		0 <sup>3</sup>	23	13	25	20	23	20	19	23	24	19.0 (±7.5)	0

6.25%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-06-20	1	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-21	2	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-22	3	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-23	4	5	4	4	5	4	4	2	4	3	3	3.8	0
2025-06-24	5	0	0	8	0	0	0	0	8	0	0	1.6	0
2025-06-25	6	6	8	0	8	8	7	6	0	10	6	5.9	0
2025-06-26	7	10	14	12	11	12	8	7	12	14	10	11	0
Total		21	26	24	24	24	19	15	24	27	19	22.3 (±3.7)	0

100%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-06-20	1	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-21	2	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-22	3	0	0	0	0	0	0	0	0	0	0	0	0
2025-06-23	4	4	3	4	2	2	3	3	3	3	3	3	0
2025-06-24	5	0	0	7	0	0	0	0	0	10	0	1.7	0
2025-06-25	6	9	5	0	8	7	8	7	8	0	6	5.8	0
2025-06-26	7	12	4	9	7	2	10	0	5	12	12	7.3	0
Total		25	12	20	17	11	21	10	16	25	21	17.8 (±5.5)	0

NOTES : •All young produced by a test organism during its fourth and subsequent broods were discarded and not included in the above counts. The presence of two or more neonates in any test chamber, during any given day of the test, constitutes a brood.

•<sup>3</sup> Outlier according to Grubbs Test<sup>c</sup>. Outlying data points were not excluded from statistical analysis, since they could not be attributed to error.

x = test organism mortality

\* = accidental test organism mortality

– =4th brood (see 'NOTES')

Test Data Reviewed By : JJ

Date : 2025-08-12

Work Order : 258078

Sample Number : 87300

**WATER CHEMISTRY DATA**

			Day 0 - 1	Day 1 - 2	Day 2 - 3	Day 3 - 4	Day 4 - 5	Day 5 - 6	Day 6 - 7
			2025-06-19	2025-06-20	2025-06-21	2025-06-22	2025-06-23	2025-06-24	2025-06-25
<b>Initial Chemistry (100 %)</b>	Date :								
	Sub-sample Used		1	1	1	2	2	3	3
	Temperature (°C)		24	25	24	25	26	26	26
	Dissolved O <sub>2</sub> (mg/L)		9.1	7.9	9.0	8.5	8.4	8.9	8.9
	pH		7.9	8.0	7.9	7.7	7.8	7.7	7.8
	Conductivity (µmhos/cm)		443	459	477	467	458	463	467
	Pre-aeration Time (min) <sup>5</sup>		≤20	0	≤20	≤20	≤20	≤20	≤20
	Analyst(s)	Initial	SP	MB	KK	SP	JW	JW	JW
	Final	MB	KK	SP	DS	JW	JW	DS	
<b>Control</b>	Temperature (°C)	Initial	24	24	24	24	24	24	24
		Final	24	25	25	24	24	24	24
	Dissolved O <sub>2</sub> (mg/L)	Initial	8.2	7.8	8.2	8.1	8.1	8.4	8.2
		Final	7.9	8.0	7.8	8.0	8.1	8.1	8.0
	pH	Initial	8.4	8.5	8.4	8.3	8.3	8.2	8.4
		Final	8.4	8.5	8.2	8.4	8.4	8.4	8.2
Conductivity (µmhos/cm)	Initial	408	392	391	404	402	408	412	
Hardness (mg/L as CaCO <sub>3</sub> )		124	-	-	-	-	-	-	
<b>1.56 %</b>	Temperature (°C)	Initial	24	24	24	25	25	24	25
		Final	24	25	25	24	24	24	24
	Dissolved O <sub>2</sub> (mg/L)	Initial	8.1	7.6	8.3	8.0	8.0	8.0	8.0
		Final	8.0	8.0	7.7	7.9	8.2	8.1	8.0
	pH	Initial	8.4	8.4	8.4	8.2	8.4	8.3	8.5
		Final	8.4	8.4	8.1	8.4	8.1	8.3	8.2
Conductivity (µmhos/cm)	Initial	402	398	403	409	412	418	429	
<b>12.5 %</b>	Temperature (°C)	Initial	24	24	24	24	25	24	25
		Final	24	25	25	24	24	24	24
	Dissolved O <sub>2</sub> (mg/L)	Initial	8.1	7.7	8.4	8.2	8.1	8.2	8.0
		Final	8.0	8.0	7.9	7.8	8.0	8.1	7.9
	pH	Initial	8.4	8.4	8.3	8.2	8.3	8.3	8.4
		Final	8.4	8.4	8.1	8.3	8.3	8.3	8.2
Cond. (µmhos/cm)	Initial	406	403	413	415	413	422	424	
<b>100 %</b>	Temperature (°C)	Initial	24	24	24	25	25	24	25
		Final	24	25	25	24	24	24	24
	Dissolved O <sub>2</sub> (mg/L)	Initial	8.2	7.6	8.4	8.2	7.9	8.0	8.1
		Final	8.1	8.0	7.8	8.0	8.1	8.0	7.9
	pH	Initial	8.1	8.1	8.4	7.8	8.0	8.0	8.1
		Final	8.3	8.2	7.9	8.1	8.1	8.1	7.9
Conductivity (µmhos/cm)	Initial	451	451	484	465	467	468	469	
Hardness (mg/L as CaCO <sub>3</sub> )		200	-	-	-	-	-	-	

"-" = not measured/not required

<sup>5</sup> ≤100 bubbles/minute

Test Data Reviewed By : JJ

Date : 2025-08-12

Work Order : 258078  
 Sample Number : 87301

**SAMPLE IDENTIFICATION**

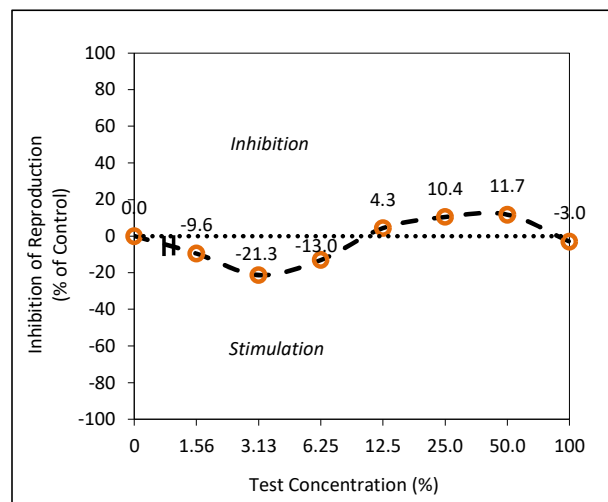
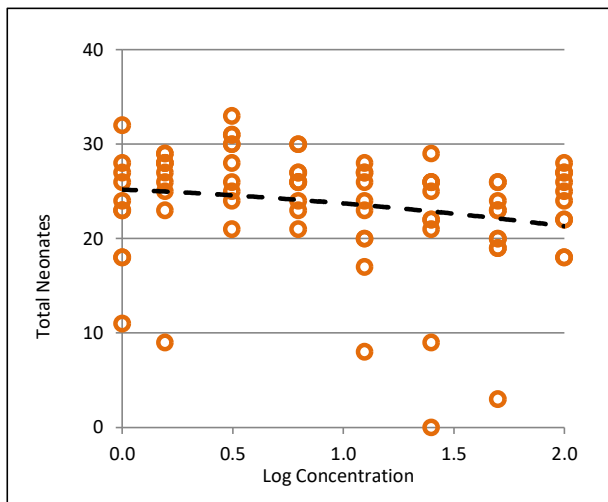
Company :	Denison Mines Inc.	Sampling Date :	2025-06-17
Location :	Elliot Lake ON	Sampling Time :	10:00
Substance :	DS-4-M-T-2506	Date Received :	2025-06-19
Sampling Method :	Grab	Time Received :	11:30
Sampled By :	L. Grant, T. Lafontaine	Temperature at Receipt :	14 °C
Sample Description :	Clear, colourless	Date Tested :	2025-06-19

Test Method : Test of Reproduction and Survival using the Cladoceran *Ceriodaphnia dubia*. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/21, 2nd ed. (February 2007).

**7-DAY TEST RESULTS**

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Reproduction)	>100%	—	—
LC50	>100%	—	—

The results reported relate only to the sample tested and as received.



**COMMENTS**

- All test validity criteria as specified in the test method cited above were satisfied.



Emma Kunert  
 I am approving  
 this document  
 2025-08-12  
 12:48-04:00

Approved By : \_\_\_\_\_

Project Manager

Work Order : 258078

Sample Number : 87301

**TEST ORGANISM**

Test Organism :	<i>Ceriodaphnia dubia</i>	Range of Age (at start of test) :	<24 h; within 12 h of one another
Organism Origin :	Single in-house mass culture	Mean Brood Organism Mortality :	0% (previous 7 days)
Test Organism Origin :	Individual in-house cultures	Average Total Neonates :	24.7 (first three broods)
Ephippia in Culture :	None	Average Neonates :	12.9 (3rd or subsequent brood)

No organisms exhibiting unusual appearance, behaviour, or undergoing unusual treatment were used in the test.

**TEST CONDITIONS**

Test Type :	Static renewal	Control/Dilution Water :	CD25101 <sup>2</sup>
Renewal Method :	Transferred to fresh solutions	Test Volume per Replicate :	15 mL
Renewal Frequency :	≤ 24 hours	Test Vessel :	20 mL borosilicate glass cylinder
Sample Filtration :	None	Depth of Test Solution :	3.7 cm
Test Aeration :	None	Organisms per Replicate :	1
pH Adjustment :	None	Number of Replicates :	10
Hardness Adjustment :	None	Test Method Deviation(s) :	None

<sup>2</sup> Reconstituted/Dechlorinated Municipal Drinking Water, and Distilled Water with Selenium and B12 added.

**REFERENCE TOXICANT DATA**

Toxicant :	Zinc	Test Duration :	8 days
Date Tested :	2025-07-03	LC50 :	2.2 g/L
IC25 (Reproduction):	0.18 g/L	95% Confidence Limits :	1.98 - 2.43 g/L
95% Confidence Limits:	0.11 - 0.81 g/L	Historical Mean LC50 :	1.83 g/L
Historical Mean IC25:	0.39 g/L	Warning Limits (± 2SD) :	1.53 - 2.2 g/L
Warning Limits (± 2SD):	0.12 - 1.3 g/L	Statistical Method:	Spearman Kärber (CETIS) <sup>b</sup>
Statistical Method :	Linear Interpolation (CETIS) <sup>b</sup>		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

**CUMULATIVE DAILY MORTALITY DATA**

Date	Test Day	Test Concentration (%)							
		Control	1.56	3.13	6.25	12.5	25	50	100
2025-06-20	1	0	0	0	0	0	0	0	0
2025-06-21	2	0	0	0	0	0	0	0	0
2025-06-22	3	0	0	0	0	0	0	0	0
2025-06-23	4	0	0	0	0	0	0	0	0
2025-06-24	5	0	10	0	0	0	0	0	0
2025-06-25	6	0	10	0	0	0	0	10	0
2025-06-26	7	10	10	0	0	0	0	10	0
Total Mortality (%) :		10	10	0	0	0	0	10	0

**REFERENCES**

<sup>a</sup> CETIS™, © 2000-2022. V.2.1.3.5. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

<sup>b</sup> CETIS™, © 2000-2022. V.2.1.3.5. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

<sup>c</sup> Grubbs, F.E., 1969. Procedures for detecting outlying observations in samples. *Technometrics*, 11 :1-21.



Work Order : 258078

Sample Number : 87301

**WATER CHEMISTRY DATA**

			Day 0 - 1	Day 1 - 2	Day 2 - 3	Day 3 - 4	Day 4 - 5	Day 5 - 6	Day 6 - 7
Date :			2025-06-19	2025-06-20	2025-06-21	2025-06-22	2025-06-23	2025-06-24	2025-06-25
<b>Initial Chemistry (100 %)</b>	Sub-sample Used		1	1	1	2	2	3	3
	Temperature (°C)		24	25	25	25	25	25	26
	Dissolved O <sub>2</sub> (mg/L)		8.6	8.0	8.8	8.4	8.2	9.2	8.5
	pH		7.5	7.6	7.6	7.3	7.5	7.6	7.7
	Conductivity (µmhos/cm)		570	564	576	586	578	582	597
	Pre-aeration Time (min) <sup>5</sup>		≤20	0	≤20	≤20	0	≤20	≤20
	Analyst(s)	Initial	JW	SP	KK	SP	JW	JW	JW
		Final	MB	KK	SP	DS	JW	JW	DS
<b>Control</b>	Temperature (°C)	Initial	24	24	24	24	24	24	24
		Final	24	24	25	24	24	24	24
	Dissolved O <sub>2</sub> (mg/L)	Initial	8.2	8.3	8.2	8.1	8.1	8.4	8.2
		Final	8.4	8.0	7.7	7.9	8.0	8.0	8.0
	pH	Initial	8.4	8.4	8.4	8.3	8.3	8.2	8.4
		Final	8.5	8.4	8.1	8.4	8.3	8.4	8.2
	Conductivity (µmhos/cm)	Initial	408	392	391	404	402	408	412
	Hardness (mg/L as CaCO <sub>3</sub> )		124	-	-	-	-	-	-
<b>1.56 %</b>	Temperature (°C)	Initial	24	24	24	24	25	25	24
		Final	24	24	25	24	24	24	24
	Dissolved O <sub>2</sub> (mg/L)	Initial	8.1	8.3	8.1	8.0	8.0	8.1	8.1
		Final	8.4	8.1	7.8	7.7	7.9	7.9	7.9
	pH	Initial	8.4	8.4	8.4	8.2	8.3	8.3	8.4
		Final	8.5	8.3	8.1	8.3	8.3	8.3	8.2
	Conductivity (µmhos/cm)	Initial	405	400	413	411	415	420	429
	<b>12.5 %</b>	Temperature (°C)	Initial	24	24	24	24	25	25
Final			24	24	25	24	24	24	24
Dissolved O <sub>2</sub> (mg/L)		Initial	8.2	8.3	8.2	8.0	8.0	8.2	8.1
		Final	8.4	8.1	7.7	7.7	7.9	8.0	8.1
pH		Initial	8.4	8.4	8.4	8.2	8.3	8.2	8.4
		Final	8.4	8.3	8.1	8.3	8.3	8.3	8.1
Cond. (µmhos/cm)		Initial	425	417	435	434	432	438	439
<b>100 %</b>		Temperature (°C)	Initial	24	24	24	24	25	25
	Final		24	24	25	24	24	24	24
	Dissolved O <sub>2</sub> (mg/L)	Initial	8.3	8.3	8.2	8.1	8.0	8.0	8.1
		Final	8.5	8.2	7.8	7.8	7.9	8.0	8.0
	pH	Initial	7.7	7.8	7.8	7.5	7.7	7.7	7.8
		Final	8.2	7.9	7.5	7.8	7.8	7.9	7.7
	Conductivity (µmhos/cm)	Initial	568	575	588	588	583	586	586
	Hardness (mg/L as CaCO <sub>3</sub> )		274	-	-	-	-	-	-

"- " = not measured/not required

<sup>5</sup> ≤100 bubbles/minute

 Test Data Reviewed By :     JJ    

 Date : 2025-08-12



### CHAIN OF CUSTODY RECORD

Nautilus Work Order No:  
258078

Shipping Address: Nautilus Environmental Guelph.  
B-11 Nicholas Beaver Road  
Puslinch, Ontario Canada N0B 2J0

Voice: (519) 763-4412

Fax: (519) 763-4419

P.O. Number: 2230

Field Sampler Name (print): Laura Grant, Tyler Lafontaine

Signature: *Laura Grant Tyler Lafontaine*

Affiliation: Denison Mines

Sample Storage (prior to shipping):

Custody Relinquished by: *Laura Grant*

Date/Time Shipped: 06-17-2025

Client: Denison Mines Inc  
1 Home Walk, Suite 200  
Elliot Lake, ON  
P5A 2A5

Phone:

Fax: (705) 848-5814

Contact: analytical.results@denisonmines.com

Sample Identification				Analyses Requested										Sample Method and Volume		
Date Collected (yyyy-mm-dd)	Time Collected (e.g. 14:30, 24 hr clock)	Sample Name	Nautilus Sample Number	Temp. on arrival	Rainbow Trout Single Concentration	Rainbow Trout LC50	Daphnia magna Single Concentration	Daphnia magna LC50	Fathead Minnow Survival & Growth	Ceriodaphnia dubia Survival & Reproduction	Lemna minor Growth	Pseudokirchneriella subcapitata Growth	Other (please specify below)	Grab	Composite	# of Containers and Volume (eg. 2 x 1L, 3 x 10L, etc.)
2025-06-17	10:45	D-2-M-T-2506	87300	25	✓		✓			✓				✓		1x20L, 3x4L
2025-06-17	10:00	DS-4-M-T-2506	87301	25	✓		✓			✓				✓		1x20L, 3x4L

**For Lab Use Only**

Received By: *Y. M. P.*

Date: 2025-06-18

Time: 14:00

Storage Location:

Storage Temp.(°C):

Please list any special requests or instructions:

✓ Grab as per pool label



Confirmation of sample receipt - Generated

2025-06-19 12:22

Your samples have been received at Nautilus Environmental's sample reception at Point Edward and have now been issued unique sample ID numbers.

**Here are some details of your submission**

Client Name : Nautilus Guelph

Sample Number : PE2425-0364-01

Sample Name : 87300

Sample collection date : 2025-06-17

Sample collection time : 10:45

Sample receipt date : 2025-06-19

Sample receipt time : 11:30

Temperature upon arrival : 13

Container/Volume : 3\*4L bladders

**Analyses requested**

CDD

Entry of your submission is based on information contained on your Chain of Custody. If you have any questions regarding this submission, kindly contact Nautilus Environmental, Point Edward by email using [carol@nautilusenvironmental.ca](mailto:carol@nautilusenvironmental.ca)

704 Mara Street, Suite 122  
Point Edward, Ontario, CA  
N7V 1X4, Phone 519-339-8787

2025-06-19 12:22

Page 1 of 1



Confirmation of sample receipt - Generated

2025-06-19 12:22

Your samples have been received at Nautilus Environmental's sample reception at Point Edward and have now been issued unique sample ID numbers.

**Here are some details of your submission**

Client Name : Nautilus Guelph

Sample Number : PE2425-0364-02

Sample Name : 87301

Sample collection date : 2025-06-17

Sample collection time : 10:00

Sample receipt date : 2025-06-19

Sample receipt time : 11:30

Temperature upon arrival : 13.5

Container/Volume : 3\*4L bladders

**Analyses requested**

CDD

Entry of your submission is based on information contained on your Chain of Custody. If you have any questions regarding this submission, kindly contact Nautilus Environmental, Point Edward by email using [carol@nautilusenvironmental.ca](mailto:carol@nautilusenvironmental.ca)

704 Mara Street, Suite 122  
Point Edward, Ontario, CA  
N7V 1X4, Phone 519-339-8787

2025-06-19 12:22

Page 1 of 1

Work Order : 258816  
 Sample Number : 88307

**SAMPLE IDENTIFICATION**

Company :	Denison Mines Inc.	Sampling Date :	2025-09-09
Location :	Elliot Lake ON	Sampling Time :	11:30
Substance :	D-2-M-T-2509	Date Received :	2025-09-10
Sampling Method :	Grab	Time Received :	14:10
Sampled By :	K. Grant/T. Lafontaine	Temperature at Receipt :	17 °C
Sample Description :	Clear, green	Date Tested :	2025-09-12
Test Method :	Reference Method for Determining Acute Lethality of Effluents to <i>Daphnia magna</i> . Environment Canada EPS 1/RM/14 (Second Edition, December 2000, with February 2016 amendments).		

**48-HOUR TEST RESULTS**

Substance	Effect	Value
Control	Mean Immobility	0.0 %
	Mean Mortality	0.0 %
100%	Mean Immobility	0.0 %
	Mean Mortality	0.0 %

The results reported relate only to the sample tested and as received.

**TEST ORGANISM**

Species :	<i>Daphnia magna</i>	Time to First Brood :	8.0 days
Organism Batch :	Dm25-18	Average Brood Size :	31.6
Culture Mortality :	1.0% (previous 7 days)		

**TEST CONDITIONS**

Sample Treatment :	None	Number of Replicates :	3
pH Adjustment :	None	Organisms per Replicate :	10
Pre-aeration Rate :	~30 mL/min/L	Organisms per Test Level :	30
Duration of Pre-Aeration :	30 minutes	Organism Loading Rate :	15.0 mL/organism
Test Aeration :	None	Impaired Control Organisms :	0.0%
Hardness Adjustment :	None	Test Method Deviation(s) :	None

**REFERENCE TOXICANT DATA**

Toxicant :	Sodium Chloride		
Date Tested :	2025-09-09	LC50 :	6.8 g/L
Organism Batch :	Dm25-18	95% Confidence Limits :	6.4 - 7.2 g/L
Analyst(s) :	ACS, MZG	Historical Mean LC50 :	6.3 g/L
Statistical Method :	Trimmed Spearman-Kärber	Warning Limits (± 2SD) :	5.7 - 6.9 g/L

**COMMENTS**

- All test validity criteria as specified in the test method were satisfied.



Emma Kunert  
 I am approving  
 this document  
 2025-09-25  
 08:59-04:00

Approved By : \_\_\_\_\_

Project Manager

Work Order : 258816

Sample Number : 88307

**TEST DATA**

	pH	Dissolved O <sub>2</sub> (mg/L)	Conductivity (µmhos/cm)	Temperature (°C)	O <sub>2</sub> Saturation (%)*	Hardness (as CaCO <sub>3</sub> )
<b>Initial Chemistry (100%) :</b>	7.7	9.9	484	20	113	250 mg/L

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**0 HOURS**


---

Date &amp; Time : 2025-09-12 13:10

Analyst(s) : SF

Concentration (%)	Replicate	Dead	Immobile	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature	O <sub>2</sub> Saturation*	Hardness
100	A	0	0	7.8	9.0	486	20	103	250
100	B	0	0	7.8	9.0	486	20	103	250
100	C	0	0	7.8	9.0	486	20	103	250
Control	A	0	0	8.3	8.4	457	22	100	150
Control	B	0	0	8.3	8.4	457	22	100	150
Control	C	0	0	8.3	8.4	457	22	100	150

Notes:

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**24 HOURS**


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Date &amp; Time : 2025-09-13 14:10

Analyst(s) : ACS (PG)

Concentration (%)	Replicate	Dead	Immobile	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature
100	A	-	0	-	-	-	21
100	B	-	0	-	-	-	21
100	C	-	0	-	-	-	21
Control	A	-	0	-	-	-	21
Control	B	-	0	-	-	-	21
Control	C	-	0	-	-	-	21

Notes:

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**48 HOURS**


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Date &amp; Time : 2025-09-14 13:35

Analyst(s) : ACS (PG)

Concentration (%)	Replicate	Dead	Immobile	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature
100	A	0	0	7.9	8.2	497	21
100	B	0	0	7.9	8.2	495	21
100	C	0	0	7.9	8.2	496	21
Control	A	0	0	8.2	8.3	466	21
Control	B	0	0	8.2	8.3	465	21
Control	C	0	0	8.2	8.3	464	21

Notes:

Number immobile does not include number dead.

"-" = not measured/not required

\* adjusted for temperature and barometric pressure

 Test Data Reviewed By :         JJ        

 Date :         2025-09-22

Work Order : 258816  
 Sample Number : 88307

**SAMPLE IDENTIFICATION**

Company :	Denison Mines Inc.	Sampling Date :	2025-09-09
Location :	Elliot Lake ON	Sampling Time :	11:30
Substance :	D-2-M-T-2509	Date Received :	2025-09-10
Sampling Method :	Grab	Time Received :	14:10
Sampled By :	K. Grant/T. Lafontaine	Temperature at Receipt :	17 °C
Sample Description :	Clear, green	Date Tested :	2025-09-14

Test Method(s) : Reference Method for Determining Acute Lethality of Liquid Effluents to Rainbow Trout. Environment Canada, EPS 1/RM/13 (2nd Edition, December 2000, with May 2007, February 2016, and December 2023 amendments).

**96-HOUR TEST RESULTS**

Substance	Effect	Value
Control	Mean Impairment	0.0 %
	Mean Mortality	0.0 %
100%	Mean Impairment	0.0 %
	Mean Mortality	0.0 %

The results reported relate only to the sample tested and as received.

**TEST ORGANISM**

Test Organism :	<i>Oncorhynchus mykiss</i>	Mean Fork Length :	40.9 mm
Organism Batch :	T25-23	Range of Fork Lengths :	37 - 47 mm
Control Sample Size :	10	Mean Wet Weight :	0.5 g
Cumulative stock mortality rate :	0% (previous 7 days)	Organism Loading Rate :	0.3 g/L
Control organisms showing stress :	0 (at test completion)		

**TEST CONDITIONS**

Test Type :	Single concentration	Number of Replicates :	1
Sample pH Adjustment :	None	Organisms Per Replicate :	10
Sample Pre-aeration/Aeration Rate :	6.5 ± 1 mL/min/L	Organisms Per Test Level :	10
Duration of Sample Pre-Aeration :	30 minutes	Volume of Sample :	18 L
Control Pre-aeration/Aeration Rate :	6.5 ± 1 mL/min/L	Volume of Control :	18 L
Duration of Control Pre-aeration:	30 minutes	Test Method Deviation(s) :	None

**REFERENCE TOXICANT DATA**

Toxicant :	Potassium Chloride		
Organism Batch :	T25-23	LC50 :	4142 mg/L
Date Tested :	2025-09-16	95% Confidence Limits :	3815 - 4556 mg/L
Analyst(s) :	JGR, JCS, NWP	Historical Mean LC50 :	3689 mg/L
Statistical Method :	Linear Regression (MLE)	Warning Limits (± 2SD) :	2903 - 4688 mg/L

**COMMENTS**

•All test validity criteria as specified in the test method were satisfied.



Emma Kunert  
 I am approving this document  
 2025-09-25  
 09:01-04:00

Approved By :

Project Manager

Work Order : 258816

Sample Number : 88307

**TEST DATA**

	pH	Dissolved O <sub>2</sub> (mg/L)	Conductivity (µmhos/cm)	Temperature (°C)	O <sub>2</sub> Saturation (%) <sup>3</sup>
Initial Water Chemistry (100%) :	7.6	9.9	529	15	101
After 30 min pre-aeration :	7.6	9.6	531	15	100

**0 HOURS**

Date & Time	2025-09-14	9:30					
Analyst(s) :	PG						
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature	O <sub>2</sub> Saturation <sup>3</sup>
100%	0	0	7.6	9.6	531	15	100
Control	0	0	8.0	9.6	705	15	99

Notes:

**24 HOURS**

Date & Time	2025-09-15	10:00					
Analyst(s) :	OHC (JGR)						
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature	
100%	0	0	-	-	-	14	
Control	0	0	-	-	-	14	

Notes:

**48 HOURS**

Date & Time	2025-09-16	8:30					
Analyst(s) :	OHC (JGR)						
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature	
100%	0	0	-	-	-	14	
Control	0	0	-	-	-	14	

Notes:

**72 HOURS**

Date & Time	2025-09-17	8:40					
Analyst(s) :	JCS						
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature	
100%	0	0	-	-	-	14	
Control	0	0	-	-	-	14	

Notes:

**96 HOURS**

Date & Time	2025-09-18	8:45					
Analyst(s) :	JCS						
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature	
100%	0	0	7.8	9.5	532	15	
Control	0	0	8.3	9.2	671	15	

Notes:

"-" = not measured/not required

Number impaired does not include number dead.

<sup>3</sup> adjusted for temperature and barometric pressure

Test Data Reviewed By : JJ

Date : 2025-09-22

Work Order : 258816  
 Sample Number : 88308

**SAMPLE IDENTIFICATION**

Company :	Denison Mines Inc.	Sampling Date :	2025-09-09
Location :	Elliot Lake ON	Sampling Time :	10:45
Substance :	DS-4-M-T-2509	Date Received :	2025-09-10
Sampling Method :	Grab	Time Received :	14:10
Sampled By :	K. Grant/T. Lafontaine	Temperature at Receipt :	17 °C
Sample Description :	Clear, colourless	Date Tested :	2025-09-12
Test Method :	Reference Method for Determining Acute Lethality of Effluents to <i>Daphnia magna</i> . Environment Canada EPS 1/RM/14 (Second Edition, December 2000, with February 2016 amendments).		

**48-HOUR TEST RESULTS**

Substance	Effect	Value
Control	Mean Immobility	0.0 %
	Mean Mortality	0.0 %
100%	Mean Immobility	0.0 %
	Mean Mortality	0.0 %

The results reported relate only to the sample tested and as received.

**TEST ORGANISM**

Species :	<i>Daphnia magna</i>	Time to First Brood :	8.0 days
Organism Batch :	Dm25-18	Average Brood Size :	31.6
Culture Mortality :	1.0% (previous 7 days)		

**TEST CONDITIONS**

Sample Treatment :	None	Number of Replicates :	3
pH Adjustment :	None	Organisms per Replicate :	10
Pre-aeration Rate :	~30 mL/min/L	Organisms per Test Level :	30
Duration of Pre-Aeration :	30 minutes	Organism Loading Rate :	15.0 mL/organism
Test Aeration :	None	Impaired Control Organisms :	0.0%
Hardness Adjustment :	None	Test Method Deviation(s) :	None

**REFERENCE TOXICANT DATA**

Toxicant :	Sodium Chloride		
Date Tested :	2025-09-09	LC50 :	6.8 g/L
Organism Batch :	Dm25-18	95% Confidence Limits :	6.4 - 7.2 g/L
Analyst(s) :	ACS, MZG	Historical Mean LC50 :	6.3 g/L
Statistical Method :	Trimmed Spearman-Kärber	Warning Limits (± 2SD) :	5.7 - 6.9 g/L

**COMMENTS**

- All test validity criteria as specified in the test method were satisfied.



Emma Kunert  
 I am approving  
 this document  
 2025-09-25  
 09:01-04:00

Approved By :

Project Manager

Work Order : 258816

Sample Number : 88308

**TEST DATA**

	pH	Dissolved O <sub>2</sub> (mg/L)	Conductivity (µmhos/cm)	Temperature (°C)	O <sub>2</sub> Saturation (%)*	Hardness (as CaCO <sub>3</sub> )
<b>Initial Chemistry (100%) :</b>	7.5	10.0	527	20	111	300 mg/L

---

**0 HOURS**


---

Date &amp; Time : 2025-09-12 13:25

Analyst(s) : SF

Concentration (%)	Replicate	Dead	Immobile	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature	O <sub>2</sub> Saturation*	Hardness
100	A	0	0	7.7	8.7	530	20	99	300
100	B	0	0	7.7	8.7	530	20	99	300
100	C	0	0	7.7	8.7	530	20	99	300
Control	A	0	0	8.3	8.4	457	22	100	150
Control	B	0	0	8.3	8.4	457	22	100	150
Control	C	0	0	8.3	8.4	457	22	100	150

Notes:

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**24 HOURS**


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Date &amp; Time : 2025-09-13 14:10

Analyst(s) : ACS (PG)

Concentration (%)	Replicate	Dead	Immobile	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature
100	A	–	0	–	–	–	21
100	B	–	0	–	–	–	21
100	C	–	0	–	–	–	21
Control	A	–	0	–	–	–	21
Control	B	–	0	–	–	–	21
Control	C	–	0	–	–	–	21

Notes:

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**48 HOURS**


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Date &amp; Time : 2025-09-14 14:05

Analyst(s) : ACS (PG)

Concentration (%)	Replicate	Dead	Immobile	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature
100	A	0	0	7.8	8.3	540	21
100	B	0	0	7.8	8.3	539	21
100	C	0	0	7.9	8.3	539	21
Control	A	0	0	8.2	8.2	466	21
Control	B	0	0	8.2	8.2	464	21
Control	C	0	0	8.2	8.1	462	21

Notes:

Number immobile does not include number dead.

"–" = not measured/not required

\* adjusted for temperature and barometric pressure

 Test Data Reviewed By :         JJ        

 Date :         2025-09-22

Work Order : 258816  
 Sample Number : 88308

**SAMPLE IDENTIFICATION**

Company :	Denison Mines Inc.	Sampling Date :	2025-09-09
Location :	Elliot Lake ON	Sampling Time :	10:45
Substance :	DS-4-M-T-2509	Date Received :	2025-09-10
Sampling Method :	Grab	Time Received :	14:10
Sampled By :	K. Grant/T. Lafontaine	Temperature at Receipt :	17 °C
Sample Description :	Clear, colourless	Date Tested :	2025-09-14

Test Method(s) : Reference Method for Determining Acute Lethality of Liquid Effluents to Rainbow Trout. Environment Canada, EPS 1/RM/13 (2nd Edition, December 2000, with May 2007, February 2016, and December 2023 amendments).

**96-HOUR TEST RESULTS**

Substance	Effect	Value
Control	Mean Impairment	0.0 %
	Mean Mortality	0.0 %
100%	Mean Impairment	0.0 %
	Mean Mortality	0.0 %

The results reported relate only to the sample tested and as received.

**TEST ORGANISM**

Test Organism :	<i>Oncorhynchus mykiss</i>	Mean Fork Length :	40.9 mm
Organism Batch :	T25-23	Range of Fork Lengths :	37 - 47 mm
Control Sample Size :	10	Mean Wet Weight :	0.5 g
Cumulative stock mortality rate :	0% (previous 7 days)	Organism Loading Rate :	0.3 g/L
Control organisms showing stress :	0 (at test completion)		

**TEST CONDITIONS**

Test Type :	Single concentration	Number of Replicates :	1
Sample pH Adjustment :	None	Organisms Per Replicate :	10
Sample Pre-aeration/Aeration Rate :	6.5 ± 1 mL/min/L	Organisms Per Test Level :	10
Duration of Sample Pre-Aeration :	30 minutes	Volume of Sample :	18 L
Control Pre-aeration/Aeration Rate :	6.5 ± 1 mL/min/L	Volume of Control :	18 L
Duration of Control Pre-aeration:	30 minutes	Test Method Deviation(s) :	None

**REFERENCE TOXICANT DATA**

Toxicant :	Potassium Chloride		
Organism Batch :	T25-23	LC50 :	4142 mg/L
Date Tested :	2025-09-16	95% Confidence Limits :	3815 - 4556 mg/L
Analyst(s) :	JGR, JCS, NWP	Historical Mean LC50 :	3689 mg/L
Statistical Method :	Linear Regression (MLE)	Warning Limits (± 2SD) :	2903 - 4688 mg/L

**COMMENTS**

•All test validity criteria as specified in the test method were satisfied.



Emma Kunert  
 I am approving this document  
 2025-09-25  
 09:02-04:00

Approved By :

Project Manager

Work Order : 258816

Sample Number : 88308

**TEST DATA**

	pH	Dissolved O <sub>2</sub> (mg/L)	Conductivity (µmhos/cm)	Temperature (°C)	O <sub>2</sub> Saturation (%) <sup>3</sup>
Initial Water Chemistry (100%) :	7.4	9.7	577	15	100
After 30 min pre-aeration :	7.5	9.7	579	15	100

**0 HOURS**

Date & Time	2025-09-14	9:30					
Analyst(s) :	PG						
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature	O <sub>2</sub> Saturation <sup>3</sup>
100%	0	0	7.5	9.7	579	15	100
Control	0	0	8.0	9.6	705	15	99

Notes:

**24 HOURS**

Date & Time	2025-09-15	10:00				
Analyst(s) :	OHC (JGR)					
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature
100%	0	0	–	–	–	14
Control	0	0	–	–	–	14

Notes:

**48 HOURS**

Date & Time	2025-09-16	8:30				
Analyst(s) :	OHC (JGR)					
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature
100%	0	0	–	–	–	14
Control	0	0	–	–	–	14

Notes:

**72 HOURS**

Date & Time	2025-09-17	8:40				
Analyst(s) :	JCS					
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature
100%	0	0	–	–	–	14
Control	0	0	–	–	–	14

Notes:

**96 HOURS**

Date & Time	2025-09-18	8:45				
Analyst(s) :	JCS					
Concentration	Dead	Impaired	pH	Dissolved O <sub>2</sub>	Conductivity	Temperature
100%	0	0	7.6	9.5	581	15
Control	0	0	8.3	9.2	671	15

Notes:

"-" = not measured/not required

Number impaired does not include number dead.

<sup>3</sup> adjusted for temperature and barometric pressure

Test Data Reviewed By : JJ

Date : 2025-09-22

## CHAIN OF CUSTODY RECORD



Nautilus Work Order No:  
**258816**

Shipping Address: **Nautilus Environmental Guelph,  
B-11 Nicholas Beaver Road  
Puslinch, Ontario Canada N0B 2J0**

Voice: (519) 763-4412

Fax: (519) 763-4419

P.O. Number: <b>2230</b>
Field Sampler Name (print): <b>Keegan Grant, Tyler Lafontaine</b>
Signature: _____
Affiliation: <b>Denison Mines</b>
Sample Storage (prior to shipping): _____
Custody Relinquished by: _____
Date/Time Shipped: <b>09-09-2025</b>

Client: <b>Denison Mines Inc 1 Horne Walk, Suite 200 Elliot Lake, ON P5A 2A5</b>
Phone: _____
Fax: <b>(705) 848-5814</b>
Contact: <b>analytical.results@denisonmines.com</b>

Sample Identification				Analyses Requested									Sample Method and Volume			
Date Collected (yyyy-mm-dd)	Time Collected (e.g. 14:38, 24 hr clock)	Sample Name	Nautilus Sample Number	Temp. on arrival	Rainbow Trout Single Concentration	Rainbow Trout LC50	Daphnia magna Single Concentration	Daphnia magna LC50	Fathead Minnow Survival & Growth	Ceriodaphnia dubia Survival & Reproduction	Lemna minor Growth	Pseudokirchneriella subcapitata Growth	Other (please specify below)	Grab	Composite	# of Containers and Volume (e.g. 2 x 1L, 3 x 10L, etc.)
2025-09-09	11:30	D-2-M-T-2509	88307	17	✓		✓			✓				✓		1x20L, 3x4L * *
2025-09-09	10:45	DS-4-M-T-2509	88308	17	✓		✓			✓				✓		1x20L, 3x4L * *

<b>For Lab Use Only</b>	
Received By: <b>THWP</b>	Date: <b>2025-09-10</b>
Time: <b>14:10</b>	Storage Location: _____
Storage Temp.(°C): _____	

Please list any special requests or instructions: <b>* Grab as per pool label THWP</b> <b>** did not receive 3x4L bladders for either sample. THWP</b> <b>3x4L bladders arrived 2025-09-11 at 20°C. PG</b>

Work Order : 259224  
 Sample Number : 88949

**SAMPLE IDENTIFICATION**

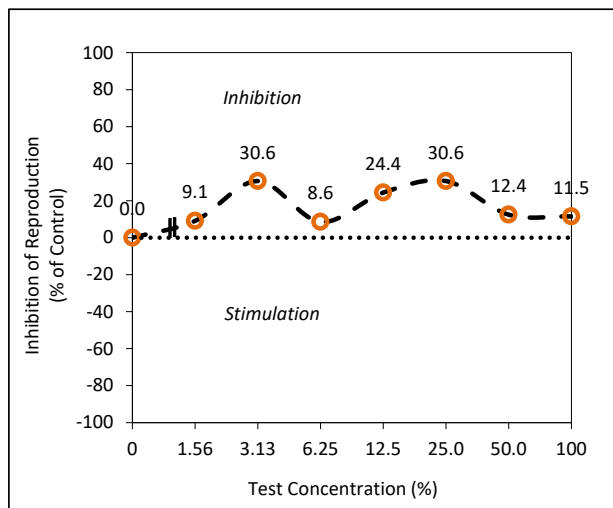
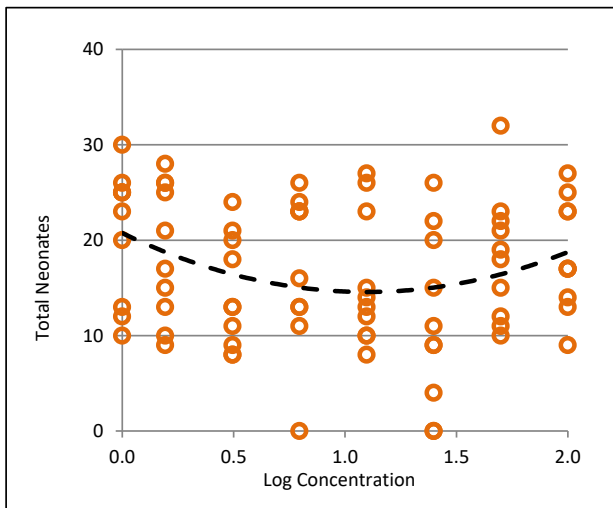
Company :	Denison Mines Inc.	Sampling Date :	2025-10-21
Location :	Elliot Lake, ON	Sampling Time :	10:20
Substance :	D-2-M-T-RESAMPLE-2506	Date Received :	2025-10-22
Sampling Method :	Not provided	Time Received :	12:05
Sampled By :	T. Lafontaine	Temperature at Receipt (°C):	9.3
Sample Description :	Clear, light yellow	Date Tested :	2025-10-22

Test Method : Test of Reproduction and Survival using the Cladoceran *Ceriodaphnia dubia*. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/21, 2nd ed. (February 2007).

**6-DAY TEST RESULTS**

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Reproduction)	>100%	—	Linear Interpolation (CETIS) <sup>a</sup>
LC50	>100%	—	—

The results reported relate only to the sample tested and as received.



**COMMENTS**

- All test validity criteria as specified in the test method cited above were satisfied.
- Statistical analysis for the IC25 (Reproduction) endpoint could not be conducted using Non-Linear Regression, because a suitable model could not be identified. Therefore, test results were calculated using Linear Interpolation (CETIS)<sup>a</sup>.



Emma Kunert  
 I am approving  
 this document  
 2025-12-17  
 10:04-05:00

Approved By :

Project Manager

Work Order : 259224  
 Sample Number : 88949

**TEST ORGANISM**

Test Organism :	<i>Ceriodaphnia dubia</i>	Range of Age (at start of test) :	<24 h; within 12 h of one another
Organism Origin :	Single in-house mass culture	Mean Brood Organism Mortality :	0% (previous 7 days)
Test Organism Origin :	Individual in-house cultures	Average Total Neonates :	19.0 (first three broods)
Ephippia in Culture :	None	Average Neonates :	15.8 (3rd or subsequent brood)

No organisms exhibiting unusual appearance, behaviour, or undergoing unusual treatment were used in the test.

**TEST CONDITIONS**

Test Type :	Static renewal	Control/Dilution Water :	CD25156 <sup>2</sup>
Renewal Method :	Transferred to fresh solutions	Test Volume per Replicate :	15 mL
Renewal Frequency :	≤ 24 hours	Test Vessel :	20 mL borosilicate glass cylinder
Sample Filtration :	None	Depth of Test Solution :	3.7 cm
Test Aeration :	None	Organisms per Replicate :	1
pH Adjustment :	None	Number of Replicates :	10
Hardness Adjustment :	None	Test Method Deviation(s) :	None

<sup>2</sup>Reconstituted/Dechlorinated Municipal Drinking Water, and Distilled Water with Selenium and B12 added.

**REFERENCE TOXICANT DATA**

Toxicant :	Sodium Chloride	Test Duration :	6 days
Date Tested :	2025-10-14	LC50 :	1.54 g/L
IC25 (Reproduction):	0.69 g/L	95% Confidence Limits :	1.36 - 1.76 g/L
95% Confidence Limits:	0.23 - 0.82 g/L	Historical Mean LC50 :	1.81 g/L
Historical Mean IC25:	0.37 g/L	Warning Limits (± 2SD) :	1.43 - 2.29 g/L
Warning Limits (± 2SD):	0.13 - 1.05 g/L	Statistical Method:	Untrimmed Spearman-Kärber (CETIS) <sup>b</sup>
Statistical Method :	ICPIN (CETIS) <sup>b</sup>		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

**CUMULATIVE DAILY MORTALITY DATA**

Date	Test Day	Test Concentration (%)							
		Control	1.56	3.13	6.25	12.5	25	50	100
2025-10-23	1	0	0	0	0	0	0	0	0
2025-10-24	2	0	0	0	0	0	0	0	0
2025-10-25	3	0	0	0	0	0	0	0	0
2025-10-26	4	0	0	0	0	0	0	0	0
2025-10-27	5	0	0	0	0	0	0	0	0
2025-10-28	6	0	0	0	0	0	0	0	0
Total Mortality (%) :		0	0	0	0	0	0	0	0

**REFERENCES**

<sup>a</sup> CETIS™, © 2000-2022. v2.1.4.0 x64. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

<sup>b</sup> CETIS™, © 2000-2022. V.2.1.3.5. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

<sup>c</sup>Grubbs, F.E., 1969. Procedures for detecting outlying observations in samples. *Technometrics*, 11:1-21.

Work Order : 259224

Sample Number : 88949

**SURVIVAL AND REPRODUCTION**

Test Initiation Date : 2025-10-22

Initiated By : KK

Initiation Time : 16:40

Test Completion Date : 2025-10-28

Control	Day	Replicate										Mean Young (±SD)	Analyst(s)	
		1	2	3	4	5	6	7	8	9	10			
2025-10-23	1	0	0	0	0	0	0	0	0	0	0	0	0	KK
2025-10-24	2	0	0	0	0	0	0	0	0	0	0	0	0	KK
2025-10-25	3	6	5	0	4	0	0	0	0	0	0	1.5	DS	
2025-10-26	4	0	0	5	0	5	3	3	5	3	4	2.8	CQ	
2025-10-27	5	9	9	7	8	9	7	7	8	9	9	8.2	CQ	
2025-10-28	6	15	12	0	13	9	10	0	12	13	0	8.4	KK	
Total		30	26	12	25	23	20	10	25	25	13	20.9 (±6.9)		

12.5%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-10-23	1	0	0	0	0	0	0	0	0	0	0	0	0
2025-10-24	2	0	0	0	0	0	0	0	0	0	0	0	0
2025-10-25	3	0	6	6	0	0	0	0	0	0	0	1.2	
2025-10-26	4	4	0	0	4	3	3	5	5	0	0	2.4	
2025-10-27	5	6	8	9	8	7	8	9	10	6	8	7.9	
2025-10-28	6	0	13	11	0	0	12	0	0	7	0	4.3	
Total		10	27	26	12	10	23	14	15	13	8	15.8 (±7.0)	

1.56%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-10-23	1	0	0	0	0	0	0	0	0	0	0	0	
2025-10-24	2	0	0	0	0	0	0	0	0	0	0	0	
2025-10-25	3	0	0	0	0	0	4	0	0	0	0	0.4	
2025-10-26	4	5	6	3	4	4	0	2	5	4	6	3.9	
2025-10-27	5	7	8	7	6	8	11	7	9	9	0	7.2	
2025-10-28	6	14	11	7	0	9	11	0	14	0	9	7.5	
Total		26	25	17	10	21	26	9	28	13	15	19.0 (±7.1)	

25%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-10-23	1	0	0	0	0	0	0	0	0	0	0	0	
2025-10-24	2	0	0	0	0	0	0	0	0	0	0	0	
2025-10-25	3	0	*	0	0	0	0	0	0	0	*	0	
2025-10-26	4	0	4	4	0	0	6	2	4	0	2	2.8	
2025-10-27	5	0	11	11	0	5	6	7	7	0	3	6.3	
2025-10-28	6	0	11	7	4	10	8	0	0	0	4	5.5	
Total		0	26	22	4	15	20	9	11	0	9	14.5 (±7.6)	

3.13%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-10-23	1	0	0	0	0	0	0	0	0	0	0	0	
2025-10-24	2	0	0	0	0	0	0	0	0	0	0	0	
2025-10-25	3	0	0	0	0	0	0	0	0	2	2	0.4	
2025-10-26	4	4	6	4	0	2	3	4	5	0	0	2.8	
2025-10-27	5	9	7	7	2	6	5	6	11	5	6	6.4	
2025-10-28	6	11	0	0	7	0	0	10	5	6	10	4.9	
Total		24	13	11	9	8	8	20	21	13	18	14.5 (±5.8)	

50%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-10-23	1	0	0	0	0	0	0	0	0	0	0	0	
2025-10-24	2	0	0	0	0	0	0	0	0	0	0	0	
2025-10-25	3	0	2	0	4	3	0	0	0	0	0	0.9	
2025-10-26	4	4	0	8	0	0	3	7	6	3	5	3.6	
2025-10-27	5	7	10	0	8	8	0	8	13	7	7	6.8	
2025-10-28	6	0	7	10	11	10	7	0	13	12	0	7	
Total		11	19	18	23	21	10	15	32	22	12	18.3 (±6.7)	

6.25%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-10-23	1	0	0	0	0	0	0	0	0	0	0	0	
2025-10-24	2	0	0	0	0	0	0	0	0	0	0	0	
2025-10-25	3	0	0	0	0	4	3	0	*	0	0	0.8	
2025-10-26	4	5	3	3	6	0	0	0	3	4	6	3.3	
2025-10-27	5	9	8	8	7	7	7	0	8	9	10	8.1	
2025-10-28	6	12	13	0	0	12	13	0	12	0	0	6.9	
Total		26	24	11	13	23	23	0	23	13	16	19.1 (±5.8)	

100%	Day	Replicate										Mean Young (±SD)	
		1	2	3	4	5	6	7	8	9	10		
2025-10-23	1	0	0	0	0	0	0	0	0	0	0	0	
2025-10-24	2	0	0	0	0	0	0	0	0	0	0	0	
2025-10-25	3	0	0	4	0	0	0	0	0	2	0	0.6	
2025-10-26	4	4	6	0	0	4	3	4	4	0	5	3	
2025-10-27	5	6	8	10	11	5	5	6	10	5	8	7.4	
2025-10-28	6	7	0	13	12	0	9	13	11	10	0	7.5	
Total		17	14	27	23	9	17	23	25	17	13	18.5 (±5.8)	

NOTES : •All young produced by a test organism during its fourth and subsequent broods were discarded and not included in the above counts. The presence of two or more neonates in any test chamber, during any given day of the test, constitutes a brood.

•No outlying data points were detected according to Grubbs Test<sup>c</sup>.

2025-12-12: Missing adults from Replicates 6.25-7, 25-1, and 25-9 were excluded from statistical analysis. Percent mortality and mean number of young were calculated using only 9 replicates for the 6.25% concentration, and only eight replicates for the 25% concentration. SF

x = test organism mortality

\* = missing test organism

- =4th brood (see 'NOTES')

Test Data Reviewed By : CD

Date : 2025-11-13

Work Order : 259224

Sample Number : 88949

**WATER CHEMISTRY DATA**

			Day 0 - 1	Day 1 - 2	Day 2 - 3	Day 3 - 4	Day 4 - 5	Day 5 - 6
			2025-10-22	2025-10-23	2025-10-24	2025-10-25	2025-10-26	2025-10-27
<b>Initial Chemistry (100 %)</b>	Date :							
	Sub-sample Used		1	1	1	2	2	3
	Temperature (°C)		26.0	26.0	26.0	26.0	25.0	25.0
	Dissolved O <sub>2</sub> (mg/L)		9.2	8.6	8.1	8.0	9.2	8.5
	Dissolved O <sub>2</sub> (% Sat.) <sup>4</sup>		113	105	99	98	110	103
	pH		7.6	7.8	7.7	7.7	7.6	7.7
	Conductivity (µmhos/cm)		581	546	557	559	568	569
	Pre-aeration Time (min) <sup>5</sup>		≤20	≤20	0	0	≤20	≤20
Analyst(s)	Initial	CB	CB	CB	KK	EP	CB	
	Final	KK	SO	KK	CQ	CB	KK	
<b>Control</b>	Temperature (°C)	Initial	24.0	24.0	24.0	24.0	24.0	25.0
		Final	25.0	25.0	25.0	25.0	25.0	25.0
	Dissolved O <sub>2</sub> (mg/L)	Initial	7.8	8.2	7.9	8.0	8.4	8.0
		Final	7.6	8.1	7.5	7.7	7.6	7.6
	Dissolved O <sub>2</sub> (% Sat.) <sup>4</sup>	Initial	93	98	94	95	99	95
		Final	8.3	8.4	8.3	8.1	8.2	8.3
	pH	Initial	8.3	8.4	8.3	8.1	8.2	8.3
		Final	8.4	8.5	8.4	8.3	8.4	8.2
Conductivity (µmhos/cm)	Initial	427	389	406	413	416	428	
Hardness (mg/L as CaCO <sub>3</sub> )		132	-	-	-	-	-	
<b>1.56 %</b>	Temperature (°C)	Initial	25.0	25.0	25.0	25.0	24.0	25.0
		Final	25.0	25.0	25.0	25.0	24.0	25.0
	Dissolved O <sub>2</sub> (mg/L)	Initial	7.7	7.4	7.4	8.0	8.2	7.6
		Final	7.6	7.9	7.5	7.9	7.5	7.6
	pH	Initial	8.3	8.3	8.3	8.3	8.3	8.3
		Final	8.4	8.4	8.3	8.3	8.4	8.3
	Conductivity (µmhos/cm)	Initial	431	400	427	418	423	438
	<b>12.5 %</b>	Temperature (°C)	Initial	25.0	25.0	25.0	25.0	24.0
Final			25.0	25.0	25.0	25.0	25.0	25.0
Dissolved O <sub>2</sub> (mg/L)		Initial	7.8	7.7	7.7	7.9	8.1	7.9
		Final	7.6	7.9	7.4	7.5	7.4	7.6
pH		Initial	8.2	8.3	8.3	8.3	8.3	8.3
		Final	8.4	8.3	8.2	8.2	8.3	8.2
Cond. (µmhos/cm)		Initial	450	422	442	438	429	456
<b>100 %</b>		Temperature (°C)	Initial	26.0	26.0	26.0	25.0	24.0
	Final		25.0	25.0	25.0	25.0	25.0	25.0
	Dissolved O <sub>2</sub> (mg/L)	Initial	7.8	7.4	7.4	7.9	8.5	7.7
		Final	7.5	8.0	7.6	7.8	7.5	7.6
	pH	Initial	7.8	8.0	7.9	7.9	7.9	7.9
		Final	8.1	8.0	8.1	8.0	8.0	8.0
	Conductivity (µmhos/cm)	Initial	572	546	567	561	571	575
	Hardness (mg/L as CaCO <sub>3</sub> )		260	-	-	-	-	-

"- " = not measured/not required

<sup>4</sup> adjusted for temperature and barometric pressure

<sup>5</sup> ≤100 bubbles/minute

 Test Data Reviewed By : CD

 Date : 2025-11-13





Your samples have been received at Nautilus Environmental's sample reception at Point Edward and have now been issued unique sample ID numbers.

**Here are some details of your submission**

Client Name : Nautilus Guelph  
Sample Number : PE2526-0178  
Sample Name : D-2-M-T-RESAMPLE-2506  
Sample collection date : 2025-10-21  
Sample collection time : 10:20  
Sample receipt date : 2025-10-22  
Sample receipt time : 12:05  
Temperature upon arrival : 9.3  
Container/Volume : 1X 20L pail + 3 X 4L bladders

**Analyses requested**

CDD 7-d C. dubia IC25

Entry of your submission is based on information contained on your Chain of Custody. If you have any questions regarding this submission, kindly contact Nautilus Environmental, Point Edward by email using [carol@nautilusenvironmental.ca](mailto:carol@nautilusenvironmental.ca)

704 Mara Street, Suite 122  
Point Edward, Ontario, CA  
N7V 1X4, Phone 519-339-8787

Work Order : 259224  
Sample Number : 88950

**SAMPLE IDENTIFICATION**

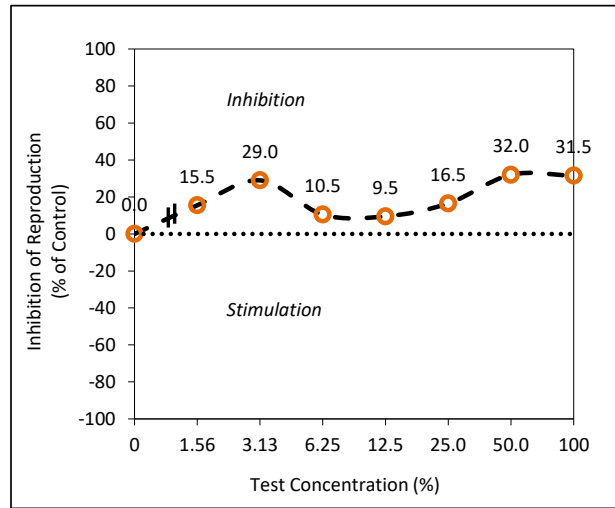
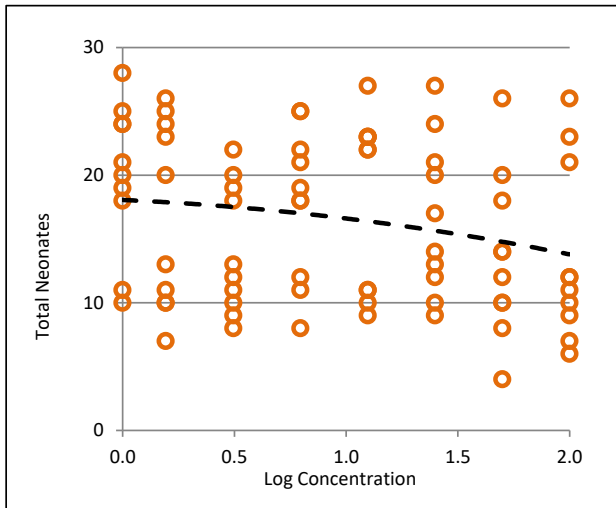
Company :	Denison Mines Inc.	Sampling Date :	2025-10-21
Location :	Elliot Lake, ON	Sampling Time :	10:50
Substance :	DS-4-M-T-RESAMPLE-2510	Date Received :	2025-10-22
Sampling Method :	Not provided	Time Received :	12:05
Sampled By :	T. Lafontaine	Temperature at Receipt (°C):	11.8
Sample Description :	Clear, colourless	Date Tested :	2025-10-22

Test Method : Test of Reproduction and Survival using the Cladoceran *Ceriodaphnia dubia*. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/21, 2nd ed. (February 2007).

**6-DAY TEST RESULTS**

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Reproduction)	36.8%	2.40 – 83.1%	Linear Interpolation (Toxstat) <sup>d</sup>
LC50	>100%	–	–

The results reported relate only to the sample tested and as received.



**COMMENTS**

- All test validity criteria as specified in the test method cited above were satisfied.
- Statistical analysis for the IC25 (Reproduction) endpoint could not be conducted using Non-Linear Regression, because a suitable model could not be identified. Therefore, test results were calculated using Linear Interpolation (Toxstat)<sup>d</sup>.

Approved By :



Emma Kunert  
I am approving this document  
2025-12-17  
09:57-05:00

Project Manager

Work Order : 259224

Sample Number : 88950

**TEST ORGANISM**

Test Organism :	<i>Ceriodaphnia dubia</i>	Range of Age (at start of test) :	<24 h; within 12 h of one another
Organism Origin :	Single in-house mass culture	Mean Brood Organism Mortality :	0% (previous 7 days)
Test Organism Origin :	Individual in-house cultures	Average Total Neonates :	20.6 (first three broods)
Ephippia in Culture :	None	Average Neonates :	16.0 (3rd or subsequent brood)

No organisms exhibiting unusual appearance, behaviour, or undergoing unusual treatment were used in the test.

**TEST CONDITIONS**

Test Type :	Static renewal	Control/Dilution Water :	CD25156 <sup>2</sup>
Renewal Method :	Transferred to fresh solutions	Test Volume per Replicate :	15 mL
Renewal Frequency :	≤ 24 hours	Test Vessel :	20 mL borosilicate glass cylinder
Sample Filtration :	None	Depth of Test Solution :	3.7 cm
Test Aeration :	None	Organisms per Replicate :	1
pH Adjustment :	None	Number of Replicates :	10
Hardness Adjustment :	None	Test Method Deviation(s) :	None

<sup>2</sup>Reconstituted/Dechlorinated Municipal Drinking Water, and Distilled Water with Selenium and B12 added.

**REFERENCE TOXICANT DATA**

Toxicant :	Sodium Chloride	Test Duration :	6 days
Date Tested :	2025-10-14	LC50 :	1.54 g/L
IC25 (Reproduction):	0.69 g/L	95% Confidence Limits :	1.36 - 1.76 g/L
95% Confidence Limits:	0.23 - 0.82 g/L	Historical Mean LC50 :	1.81 g/L
Historical Mean IC25:	0.37 g/L	Warning Limits (± 2SD) :	1.43 - 2.29g/L
Warning Limits (± 2SD):	0.13 - 1.05 g/L	Statistical Method:	Untrimmed Spearman- Karber (CETIS) <sup>a</sup>
Statistical Method :	ICPIN (CETIS) <sup>a</sup>		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

**CUMULATIVE DAILY MORTALITY DATA**

Date	Test Day	Test Concentration (%)							
		Control	1.56	3.13	6.25	12.5	25	50	100
2025-10-23	1	0	0	0	0	0	0	0	0
2025-10-24	2	0	0	0	0	0	0	0	0
2025-10-25	3	0	0	0	0	0	0	0	0
2025-10-26	4	0	0	0	0	0	0	0	0
2025-10-27	5	0	0	0	0	0	0	0	0
2025-10-28	6	0	0	0	0	0	0	0	0
Total Mortality (%) :		0	0	0	0	0	0	0	0

**REFERENCES**

<sup>a</sup> CETIS™, © 2000-2022. V.2.1.3.5. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

<sup>b</sup>Grubbs, F.E., 1969. Procedures for detecting outlying observations in samples. *Technometrics*, 11 :1-21.

<sup>d</sup> West, Inc. and D. Gulley. 1996. Toxstat Release 3.5. Western Ecosystems Technology. Cheyenne, WY, U.S.A.



Work Order : 259224

Sample Number : 88950

**WATER CHEMISTRY DATA**

			Day 0 - 1	Day 1 - 2	Day 2 - 3	Day 3 - 4	Day 4 - 5	Day 5 - 6
			2025-10-22	2025-10-23	2025-10-24	2025-10-25	2025-10-26	2025-10-27
<b>Initial Chemistry (100 %)</b>	Date :							
	Sub-sample Used		1	1	1	2	2	3
	Temperature (°C)		26.0	26.0	26.0	25.0	25.0	25.0
	Dissolved O <sub>2</sub> (mg/L)		9.3	8.6	8.2	8.3	9.3	8.7
	Dissolved O <sub>2</sub> (% Sat.) <sup>4</sup>		114	105	101	101	113	106
	pH		7.7	7.8	7.7	7.6	7.5	7.6
	Conductivity (µmhos/cm)		652	618	630	631	643	644
	Pre-aeration Time (min) <sup>5</sup>		≤20	≤20	≤20	≤20	≤20	≤20
	Analyst(s)	Initial	CB	CB	CB	KK	EP	CB
	Final	KK	SO	KK	CQ	CB	KK	
<b>Control</b>	Temperature (°C)	Initial	24.0	25.0	25.0	24.0	24.0	25.0
		Final	25.0	25.0	25.0	25.0	25.0	25.0
	Dissolved O <sub>2</sub> (mg/L)	Initial	7.8	8.1	7.7	8.0	8.4	8.0
		Final	7.7	8.0	7.2	7.8	7.4	7.8
	Dissolved O <sub>2</sub> (% Sat.) <sup>4</sup>	Initial	93	98	92	95	99	95
	pH	Initial	8.3	8.4	8.3	8.1	8.2	8.3
		Final	8.5	8.5	8.3	8.3	8.4	8.3
	Conductivity (µmhos/cm)	Initial	427	406	401	413	416	428
Hardness (mg/L as CaCO <sub>3</sub> )		132	-	-	-	-	-	
<b>1.56 %</b>	Temperature (°C)	Initial	25.0	25.0	25.0	25.0	25.0	25.0
		Final	25.0	25.0	25.0	25.0	25.0	25.0
	Dissolved O <sub>2</sub> (mg/L)	Initial	7.9	7.7	7.6	8.0	8.0	7.7
		Final	7.7	7.9	7.1	7.8	7.5	7.8
	pH	Initial	8.3	8.4	8.2	8.3	8.3	8.3
		Final	8.5	8.4	8.2	8.3	8.3	8.3
Conductivity (µmhos/cm)	Initial	434	417	418	419	421	437	
<b>12.5 %</b>	Temperature (°C)	Initial	25.0	25.0	25.0	25.0	24.0	25.0
		Final	25.0	25.0	25.0	25.0	25.0	25.0
	Dissolved O <sub>2</sub> (mg/L)	Initial	7.9	7.7	7.6	8.0	8.1	7.9
		Final	7.6	8.0	7.3	7.8	7.6	7.9
	pH	Initial	8.3	8.3	8.2	8.3	8.2	8.3
		Final	8.4	8.3	8.3	8.2	8.3	8.3
Cond. (µmhos/cm)	Initial	460	439	445	443	457	465	
<b>100 %</b>	Temperature (°C)	Initial	26.0	26.0	25.0	25.0	24.0	25.0
		Final	25.0	25.0	25.0	25.0	25.0	25.0
	Dissolved O <sub>2</sub> (mg/L)	Initial	8.1	7.7	7.7	8.0	8.3	7.8
		Final	7.7	8.2	7.4	7.9	7.6	7.9
	pH	Initial	7.8	7.9	7.9	7.9	7.9	7.8
		Final	8.0	8.0	8.0	8.0	8.0	8.0
Conductivity (µmhos/cm)	Initial	645	616	642	635	645	648	
Hardness (mg/L as CaCO <sub>3</sub> )		296	-	-	-	-	-	

"- " = not measured/not required

<sup>4</sup> adjusted for temperature and barometric pressure

<sup>5</sup> ≤100 bubbles/minute

 Test Data Reviewed By : CD

 Date : 2025-11-13





Your samples have been received at Nautilus Environmental's sample reception at Point Edward and have now been issued unique sample ID numbers.

**Here are some details of your submission**

Client Name : Nautilus Guelph  
Sample Number : PE2526-0177  
Sample Name : DS-4-M-T-RESAMPLE-2510  
Sample collection date : 2025-10-21  
Sample collection time : 10:50  
Sample receipt date : 2025-10-22  
Sample receipt time : 12:05  
Temperature upon arrival : 11.8  
Container/Volume : 1X 20L pail + 3 X 4L bladders

**Analyses requested**

CDD 7-d C. dubia IC25

Entry of your submission is based on information contained on your Chain of Custody. If you have any questions regarding this submission, kindly contact Nautilus Environmental, Point Edward by email using [carol@nautilusenvironmental.ca](mailto:carol@nautilusenvironmental.ca)

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