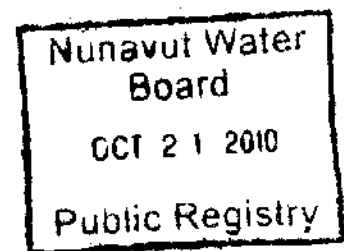


**APPENDIX D**  
**(WATER ANALYSIS REPORT 2010)**





## Taiga Environmental Laboratory

4601-52nd Ave., Box 1500, Yellowknife, NT.

X1A 2R3 Tel: (867)-669-2788 Fax: (867)-669-2718

### - FINAL REPORT

**Prepared For:** Environment Canada Eureka Weather Station

**Address:** 123 Main Street Suite 150 Winnipeg, MB R3C 4W2

**Attn:** Harvey Pukin

**Final report has been reviewed and approved by:**

A handwritten signature in cursive script, appearing to read "Harvey Pukin".

#### NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) as a testing laboratory for specific tests registered with CALA.
-  Routine methods are based on recognized procedures from sources such as
  - o Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
  - o Environment Canada
  - o USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.



Taiga Environmental Laboratory 100186  
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788 Fax: (867)-669-2718

## -CERTIFICATE OF ANALYSIS

Client Sample ID: EULAG0510 Taiga Sample ID: 001

Client Project:

Sample Type: Lagoon

Received Date: 06-May-10

Sampling Date: 06-May-10 Sampling Time: 6:30

Location: Lagoon/ReverseOsmosis/Tap

Report Status: Final

### Detection Analysis Analytical

| Test Parameter                | Result  | Units | Qualifier | Limit Date | Method * |
|-------------------------------|---------|-------|-----------|------------|----------|
| <u>Inorganics - Physicals</u> |         |       |           |            |          |
| Solids, Total Dissolved       | 482     | 10    | mg/L      | 11-May-10  | SM2540:C |
| <u>Inorganics - Nutrients</u> |         |       |           |            |          |
| Organic Carbon, Total         | < 0.5   | 0.5   | mg/L      | 08-May-10  | SM5310:B |
| <u>Major Ions</u>             |         |       |           |            |          |
| Hardness                      | 292     | 0.7   | mg/L      | 07-May-10  | SM2340:B |
| <u>Microbiology</u>           |         |       |           |            |          |
| Coliforms, Total              | < 1.0   | 1.0   | MPN/100mL | 06-May-10  | SM9223:B |
| Escherichia coli              | < 1.0   | 1.0   | MPN/100mL | 06-May-10  | SM9223:B |
| <u>Organics</u>               |         |       |           |            |          |
| Bromodichloromethane          | < 0.005 | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Bromoform                     | < 0.005 | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Chloroform                    | < 0.005 | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Dibromochloromethane          | < 0.005 | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Trihalomethanes, Total        | < 0.005 | 0.005 | mg/L      | 13-May-10  | EPA8260B |



Taiga Batch No.:  
100186

- CERTIFICATE OF  
ANALYSIS -

| Client Sample ID:   | EULAG0510 | Result | Units | Taiga Sample ID: 001 |            |          |
|---------------------|-----------|--------|-------|----------------------|------------|----------|
|                     |           |        |       | Qualifier            | Limit Date | Method * |
| Trace Metals, Total |           |        |       |                      |            |          |
| Aluminum            |           | 4.4    | 0.6   | µg/L                 | 07-May-10  | EPA200.8 |
| Antimony            |           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Arsenic             |           | < 0.2  | 0.2   | µg/L                 | 07-May-10  | EPA200.8 |
| Barium              |           | 19.0   | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Beryllium           |           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Cadmium             |           | < 0.05 | 0.05  | µg/L                 | 07-May-10  | EPA200.8 |
| Cesium              |           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Chromium            |           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Cobalt              |           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Copper              |           | 28.2   | 0.2   | µg/L                 | 07-May-10  | EPA200.8 |
| Iron                |           | < 5    | 5     | µg/L                 | 07-May-10  | EPA200.8 |
| Lead                |           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Lithium             |           | 9.4    | 0.2   | µg/L                 | 07-May-10  | EPA200.8 |
| Manganese           |           | 7.1    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Molybdenum          |           | 0.1    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Nickel              |           | 0.7    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Rubidium            |           | 0.9    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Selenium            |           | 0.6    | 0.3   | µg/L                 | 07-May-10  | EPA200.8 |
| Silver              |           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Strontium           |           | 288    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Thallium            |           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Titanium            |           | 0.1    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Uranium             |           | 0.3    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |

ReportDate

: Friday, May 14, 2010

Print Date: Friday, May 14, 2010



Taiga Batch No.:  
100186

- CERTIFICATE OF  
ANALYSIS -

Client Sample ID: EULAG0510 Taiga Sample ID: 001

| Test Parameter | Result | Units | Qualifier | Limit Date | Method * |
|----------------|--------|-------|-----------|------------|----------|
| Vanadium       | < 0.1  | 0.1   | µg/L      | 07-May-10  | EPA200.8 |
| Zinc           | 1.9    | 0.4   | µg/L      | 07-May-10  | EPA200.8 |



Taiga Batch No.:

Taiga Environmental Laboratory 100186

4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788 Fax: (867)-669-2718

## -CERTIFICATE OF ANALYSIS

Client Sample ID: EURO0510 Taiga Sample ID: 002

Client Project:

Sample Type: Reverse Osmosis

Received Date: 06-May-10

Sampling Date: 06-May-10 Sampling Time: 6:30

Location: Lagoon/ReverseOsmosis/Tap

Report Status: Final

### Detection Analysis Analytical

| Test Parameter                       | Result  | Units | Qualifier | Limit Date | Method * |
|--------------------------------------|---------|-------|-----------|------------|----------|
| <b><u>Inorganics - Physicals</u></b> |         |       |           |            |          |
| Solids, Total Dissolved              | < 10    | 10    | mg/L      | 11-May-10  | SM2540:C |
| <b><u>Inorganics - Nutrients</u></b> |         |       |           |            |          |
| Organic Carbon, Total                | < 0.5   | 0.5   | mg/L      | 08-May-10  | SM5310:B |
| <b><u>Major Ions</u></b>             |         |       |           |            |          |
| Hardness                             | 2.1     | 0.7   | mg/L      | 07-May-10  | SM2340:B |
| <b><u>Microbiology</u></b>           |         |       |           |            |          |
| Coliforms, Total                     | < 1.0   | 1.0   | MPN/100mL | 06-May-10  | SM9223:B |
| Escherichia coli                     | < 1.0   | 1.0   | MPN/100mL | 06-May-10  | SM9223:B |
| <b><u>Organics</u></b>               |         |       |           |            |          |
| Bromodichloromethane                 | < 0.005 | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Bromoform                            | 0.010   | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Chloroform                           | < 0.005 | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Dibromochloromethane                 | 0.008   | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Trihalomethanes, Total               | 0.024   | 0.005 | mg/L      | 13-May-10  | EPA8260B |



Taiga Batch No.:  
100186

- CERTIFICATE OF  
ANALYSIS -

| EURO0510            | Result | Units | Taiga Sample ID: 002 |            |          |
|---------------------|--------|-------|----------------------|------------|----------|
|                     |        |       | Qualifier            | Limit Date | Method * |
| Trace Metals, Total |        |       |                      |            |          |
| Aluminum            | 1.2    | 0.6   | µg/L                 | 07-May-10  | EPA200.8 |
| Antimony            | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Arsenic             | < 0.2  | 0.2   | µg/L                 | 07-May-10  | EPA200.8 |
| Barium              | 0.3    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Beryllium           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Cadmium             | 0.09   | 0.05  | µg/L                 | 07-May-10  | EPA200.8 |
| Cesium              | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Chromium            | 0.1    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Cobalt              | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Copper              | 9.6    | 0.2   | µg/L                 | 07-May-10  | EPA200.8 |
| Iron                | < 5    | 5     | µg/L                 | 07-May-10  | EPA200.8 |
| Lead                | 0.7    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Lithium             | 0.6    | 0.2   | µg/L                 | 07-May-10  | EPA200.8 |
| Manganese           | 0.2    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Molybdenum          | 0.2    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Nickel              | 0.5    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Rubidium            | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Selenium            | < 0.3  | 0.3   | µg/L                 | 07-May-10  | EPA200.8 |
| Silver              | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Strontium           | 2.2    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Thallium            | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Titanium            | 0.1    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Uranium             | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |

ReportDate: Friday, May 14, 2010

Print Date: Friday, May 14, 2010



Taiga Batch No.:  
100186

- CERTIFICATE OF  
ANALYSIS -

Client Sample ID: EURO0510 Taiga Sample ID: 002

Detection Analysis Analytical

| Test Parameter | Result | Units | Qualifier | Limit Date | Method * |
|----------------|--------|-------|-----------|------------|----------|
| Vanadium       | 0.1    | 0.1   | µg/L      | 07-May-10  | EPA200.8 |
| Zinc           | 70.0   | 0.4   | µg/L      | 07-May-10  | EPA200.8 |





Taiga Batch No.:

Taiga Environmental Laboratory <sup>100186</sup>

4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3 Tel: (867)-669-2788 Fax: (867)-669-2718

## -CERTIFICATE OF ANALYSIS

Client Sample ID: EUTAP0510 Taiga Sample ID: 003

Client Project:

Sample Type: Tap

Received Date: 06-May-10

Sampling Date: 06-May-10 Sampling Time: 6:30

Location: Lagoon/ReverseOsmosis/Tap

Report Status: Final

### Detection Analysis Analytical

| Test Parameter                | Result  | Units | Qualifier | Limit Date | Method * |
|-------------------------------|---------|-------|-----------|------------|----------|
| <u>Inorganics - Physicals</u> |         |       |           |            |          |
| Solids, Total Dissolved       | 1510    | 10    | mg/L      | 11-May-10  | SM2540:C |
| <u>Inorganics - Nutrients</u> |         |       |           |            |          |
| Organic Carbon, Total         | 1.8     | 0.5   | mg/L      | 08-May-10  | SM5310:B |
| <u>Major Ions</u>             |         |       |           |            |          |
| Hardness                      | 26.7    | 0.7   | mg/L      | 07-May-10  | SM2340:B |
| <u>Microbiology</u>           |         |       |           |            |          |
| Coliforms, Total              | < 1.0   | 1.0   | MPN/100mL | 06-May-10  | SM9223:B |
| Escherichia coli              | < 1.0   | 1.0   | MPN/100mL | 06-May-10  | SM9223:B |
| <u>Organics</u>               |         |       |           |            |          |
| Bromodichloromethane          | 0.006   | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Bromoform                     | 0.068   | 0.005 | mg/L      | 13-May-10  | EPA8260  |
| BChloroform                   | < 0.005 | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Dibromochloromethane          | 0.026   | 0.005 | mg/L      | 13-May-10  | EPA8260B |
| Trihalomethanes, Total        | 0.101   | 0.005 | mg/L      | 13-May-10  | EPA8260B |



Taiga Batch No.:  
100186

- CERTIFICATE OF  
ANALYSIS -

| EUTAP0510           | Result | Units | Taiga Sample ID: 003 |            |          |
|---------------------|--------|-------|----------------------|------------|----------|
|                     |        |       | Qualifier            | Limit Date | Method * |
| Trace Metals, Total |        |       |                      |            |          |
| Aluminum            | 7.0    | 0.6   | µg/L                 | 07-May-10  | EPA200.8 |
| Antimony            | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Arsenic             | 0.3    | 0.2   | µg/L                 | 07-May-10  | EPA200.8 |
| Barium              | 2.7    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Beryllium           | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Cadmium             | < 0.05 | 0.05  | µg/L                 | 07-May-10  | EPA200.8 |
| Cesium              | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Chromium            | 0.2    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Cobalt              | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Copper              | 371    | 0.2   | µg/L                 | 07-May-10  | EPA200.8 |
| Iron                | 12     | 5     | µg/L                 | 07-May-10  | EPA200.8 |
| Lead                | 0.3    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Lithium             | 31.7   | 0.2   | µg/L                 | 07-May-10  | EPA200.8 |
| Manganese           | 3.7    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Molybdenum          | 0.3    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Nickel              | 2.4    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Rubidium            | 1.9    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Selenium            | 1.2    | 0.3   | µg/L                 | 07-May-10  | EPA200.8 |
| Silver              | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Strontium           | 39.3   | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Thallium            | < 0.1  | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Titanium            | 0.4    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |
| Uranium             | 0.9    | 0.1   | µg/L                 | 07-May-10  | EPA200.8 |

ReportDate: Friday, May 14, 2010

:

Print Date: Friday, May 14, 2010



Taiga Batch No.:  
100186

- **CERTIFICATE OF  
ANALYSIS** -

Client Sample ID: EUTAP0510 Taiga Sample ID: 003

**Detection Analysis Analytical**

| Test Parameter | Result | Units | Qualifier | Limit Date | Method * |
|----------------|--------|-------|-----------|------------|----------|
| Vanadium       | < 0.1  | 0.1   | µg/L      | 07-May-10  | EPA200.8 |
| Zinc           | 65.6   | 0.4   | µg/L      | 07-May-10  | EPA200.8 |



**Taiga Batch No.:**

**Taiga Environmental Laboratory** 100186

4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788 Fax: (867)-669-2718

## **-CERTIFICATE OF ANALYSIS**

**Client Sample ID: EUTAP0510 Taiga Sample ID: 003**

- **Taiga analytical methods are based on the following standard analytical methods SM -Standard Methods for the Examination of Water and Wastewater EPA - United States Environmental Protection Agency**