

ANALYTICAL REPORT

District of Port Edward
770 Pacific Avenue
Port Edward, BC V0V 1G0
sduffus@portedward.ca

Work Order: N606182

RECEIVED: 23-Jun-16

Project: Drinking Water

Project Number: -

Project Manager: Scott Duffus

REPORTED: 05-Jul-16

All analyses were performed in accordance with standard procedures published by BC MoE, Health Canada, Environment Canada, the American Public Health Association, or the US EPA.

Northern Laboratories (2010) Ltd.



Jesse Newton
Laboratory Manager

ANALYTICAL REPORT

District of Port Edward

Work Order: N606182

| | | |
|---------------------|-------------------|--|
| LAB # | N606182-01 | N606182-02 |
| SAMPLED DATE | 23-Jun-16 | 23-Jun-16 |
| SAMPLED TIME | 11:10 | 11:35 |
| SAMPLE ID | WTP - Raw | Port Edward Public Works Sink (Treated) |

| | MRL Units | CDWG | | |
|--|------------------|-------------|--|--|
|--|------------------|-------------|--|--|

Anions (Water)

| | | | | |
|--------------------------|-----------|-----------|------------|-------------|
| Chloride | 1.0 mg/L | AO <= 250 | 2.3 | 14.3 |
| Fluoride | 0.05 mg/L | MAC = 1.5 | <0.10 | <0.10 |
| Nitrite (as N) | 0.01 mg/L | MAC = 1 | <0.01 | <0.01 |
| Nitrate + Nitrite (as N) | 0.10 mg/L | MAC = 10 | <0.10 | <0.10 |
| Sulfate | 1.0 mg/L | AO <= 500 | 1.1 | 1.4 |

General Parameters (Water)

| | | | | |
|-------------------------------|--------------|-----------|-------------|-------------|
| pH | 1.0 pH units | 6.5-8.5 | 6.8 | 7.0 |
| Alkalinity (total, as CaCO3) | 1 mg/L | - | 9 | 13 |
| Conductivity | 1.0 uS/cm | - | 27.1 | 76.0 |
| Colour | 1 PtCo units | AO <= 15 | 86 | 3 |
| Turbidity | 0.05 NTU | MAC = 1 | 0.79 | 0.45 |
| Solids, Total Dissolved / TDS | 1.0 mg/L | AO <= 500 | 31 | 47 |
| Carbon, Total Organic | 0.5 mg/L | - | 8.1 | 1.9 |
| Ammonia (total as N) | 0.03 mg/L | - | <0.03 | <0.03 |
| Nitrogen, Total Kjeldahl | 0.05 mg/L | - | 0.09 | <0.05 |

Calculated Parameters (Water)

| | | | | |
|-------------------------------|------------|------------|-------------|--------------|
| Total Haloacetic Acids (HAA5) | 0.002 mg/L | MAC = 0.08 | <0.002 | 0.061 |
| Total Trihalomethanes | 0.004 mg/L | MAC = 0.1 | <0.004 | 0.063 |
| Nitrate (as N) | 0.10 mg/L | MAC = 10 | <0.10 | <0.10 |
| Nitrogen, organic | 0.05 mg/L | - | 0.09 | <0.05 |
| Hardness, Total (as CaCO3) | 0.50 mg/L | - | 10.6 | 15.0 |

Total Metals (Water)

| | | | | |
|------------------|--------------|-------------|---------------|--------------|
| Aluminum, total | 0.005 mg/L | OG < 0.1 | 0.180 | 0.148 |
| Antimony, total | 0.0001 mg/L | MAC = 0.006 | 0.0001 | <0.0001 |
| Arsenic, total | 0.0005 mg/L | MAC = 0.01 | <0.0005 | <0.0005 |
| Barium, total | 0.005 mg/L | MAC = 1 | 0.014 | 0.015 |
| Beryllium, total | 0.0001 mg/L | - | <0.0001 | <0.0001 |
| Bismuth, total | 0.0001 mg/L | - | <0.0001 | <0.0001 |
| Boron, total | 0.004 mg/L | MAC = 5 | <0.004 | <0.004 |
| Cadmium, total | 0.00001 mg/L | MAC = 0.005 | <0.00001 | <0.00001 |
| Calcium, total | 0.2 mg/L | - | 3.7 | 5.4 |
| Chromium, total | 0.0005 mg/L | MAC = 0.05 | <0.0005 | <0.0005 |

Northern Laboratories (2010) Ltd.

Mailing Address: P.O. Box 1035 Prince Rupert, BC V8J 4B7 • Shipping Address: 251 Kaien Rd. Prince Rupert, BC
Phone: 250.627.1906 • Fax: 250.627.8214 • www.norlabsltd.com • info@norlabsltd.com

ANALYTICAL REPORT

District of Port Edward

Work Order: N606182

| | | |
|---------------------|-------------------|--|
| LAB # | N606182-01 | N606182-02 |
| SAMPLED DATE | 23-Jun-16 | 23-Jun-16 |
| SAMPLED TIME | 11:10 | 11:35 |
| SAMPLE ID | WTP - Raw | Port Edward Public Works Sink (Treated) |

| | MRL Units | CDWG | | |
|---------------------------------|------------------|-------------|----------------|---------------|
| Total Metals (continued) | | | | |
| Cobalt, total | 0.00005 mg/L | - | 0.00008 | <0.00005 |
| Copper, total | 0.0002 mg/L | AO <= 1 | 0.0015 | 0.0139 |
| Iron, total | 0.01 mg/L | AO <= 0.3 | 0.38 | 0.02 |
| Lead, total | 0.0001 mg/L | MAC = 0.01 | <0.0001 | <0.0001 |
| Lithium, total | 0.0001 mg/L | - | 0.0002 | 0.0002 |
| Magnesium, total | 0.01 mg/L | - | 0.34 | 0.35 |
| Manganese, total | 0.0002 mg/L | AO <= 0.05 | 0.0101 | 0.0044 |
| Mercury, total | 0.00002 mg/L | MAC = 0.001 | <0.00002 | <0.00002 |
| Molybdenum, total | 0.0001 mg/L | - | 0.0001 | <0.0001 |
| Nickel, total | 0.0002 mg/L | - | 0.0005 | 0.0003 |
| Phosphorus, total | 0.02 mg/L | - | 0.03 | <0.02 |
| Potassium, total | 0.02 mg/L | - | 0.23 | 0.30 |
| Selenium, total | 0.0005 mg/L | MAC = 0.05 | <0.0005 | <0.0005 |
| Silicon, total | 0.5 mg/L | - | 1.1 | 1.2 |
| Silver, total | 0.00005 mg/L | - | <0.00005 | <0.00005 |
| Sodium, total | 0.02 mg/L | AO <= 200 | 1.37 | 7.98 |
| Strontium, total | 0.001 mg/L | - | 0.008 | 0.010 |
| Sulfur, total | 1 mg/L | - | <1 | <1 |
| Tellurium, total | 0.0002 mg/L | - | <0.0002 | <0.0002 |
| Thallium, total | 0.00002 mg/L | - | <0.00002 | <0.00002 |
| Thorium, total | 0.0001 mg/L | - | <0.0001 | <0.0001 |
| Tin, total | 0.0002 mg/L | - | <0.0002 | <0.0002 |
| Titanium, total | 0.005 mg/L | - | <0.005 | <0.005 |
| Uranium, total | 0.00002 mg/L | MAC = 0.02 | <0.00002 | <0.00002 |
| Vanadium, total | 0.001 mg/L | - | <0.001 | <0.001 |
| Zinc, total | 0.004 mg/L | AO <= 5 | 0.005 | <0.004 |
| Zirconium, total | 0.0001 mg/L | - | <0.0001 | <0.0001 |

Haloacetic Acids (Water)

| | | | | |
|-----------------------|------------|---|--------|--------------|
| Monochloroacetic Acid | 0.002 mg/L | - | <0.002 | <0.002 |
| Monobromoacetic Acid | 0.002 mg/L | - | <0.002 | <0.002 |
| Dichloroacetic Acid | 0.002 mg/L | - | <0.002 | 0.029 |
| Trichloroacetic Acid | 0.002 mg/L | - | <0.002 | 0.031 |
| Dibromoacetic Acid | 0.002 mg/L | - | <0.002 | <0.002 |

Volatile Organic Compounds (VOC) (Water)

Northern Laboratories (2010) Ltd.

Mailing Address: P.O. Box 1035 Prince Rupert, BC V8J 4B7 • Shipping Address: 251 Kaien Rd. Prince Rupert, BC
 Phone: 250.627.1906 • Fax: 250.627.8214 • www.norlabsltd.com • info@norlabsltd.com

ANALYTICAL REPORT

District of Port Edward

Work Order: N606182

| LAB # | N606182-01 | N606182-02 |
|--------------|------------------|---|
| SAMPLED DATE | 23-Jun-16 | 23-Jun-16 |
| SAMPLED TIME | 11:10 | 11:35 |
| SAMPLE ID | WTP - Raw | Port Edward Public Works Sink (Treated) |
| | <i>MRL Units</i> | <i>CDWG</i> |

Volatile Organic Compounds (VOC) (continued)

| | | | | |
|----------------------|------------|---|--------|--------------|
| Bromodichloromethane | 0.001 mg/L | - | <0.001 | 0.002 |
| Bromoform | 0.001 mg/L | - | <0.001 | <0.001 |
| Chloroform | 0.001 mg/L | - | <0.001 | 0.061 |
| Dibromochloromethane | 0.001 mg/L | - | <0.001 | <0.001 |

Glossary of Terms

| | |
|------------|---|
| MRL | Method Reporting Limit |
| < | Less than the reported detection limit (RDL) |
| mg/L | Milligrams per Litre |
| NTU | Nephelometric Turbidity Units |
| pH units | pH units |
| PtCo units | Platinum Colbalt colour units |
| uS/cm | Micro Seimens per centimeter |
| MAC | Maximum Acceptable Concentration (health related guideline) |
| AO | Aesthetic Objective (not health related) |
| OG | Operational guideline (for treated water) |

Standards / Guidelines Referenced

| | |
|-------------|--|
| CDWG | Canadian Drinking Water Quality Guidelines (2014) http://www.hc-sc.gc.ca/ewh-semt/alt_formats/pdf/pubs/water-eau/sum_guide-res_recom/sum_guide-res_recom-eng.pdf |
|-------------|--|