Wastewater Monitoring for the Covid-19 Virus in Newfoundland and Labrador

Latest Wastewater Monitoring Results

Status: ● Anticipated detection  ○ Trace detection

NE Avalon

Corner Brook

Lab West

Latest update: November 7, 2022
## Wastewater Monitoring for the Covid-19 Virus in Newfoundland and Labrador

### Community Monitoring Data

<table>
<thead>
<tr>
<th>Community</th>
<th>Most Recent Sample Date</th>
<th>Status</th>
<th># of Samples Analyzed</th>
<th>Testing Frequency</th>
<th>Allele/Gene Detected</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVGB</td>
<td>31-Oct-22</td>
<td>Anticipated detection</td>
<td>54</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>St. John's</td>
<td>31-Oct-22</td>
<td>Anticipated detection</td>
<td>171</td>
<td>2 x week</td>
<td>Sdel, SN501Y_VO</td>
</tr>
<tr>
<td>St. John's-Clark Pl-MH</td>
<td>27-Oct-22</td>
<td>Anticipated detection</td>
<td>54</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>CBS</td>
<td>26-Oct-22</td>
<td>Anticipated detection</td>
<td>64</td>
<td>1 x week</td>
<td>Sdel, SN501Y_VO</td>
</tr>
<tr>
<td>Clarenville</td>
<td>26-Oct-22</td>
<td>Anticipated detection</td>
<td>46</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>Gander</td>
<td>26-Oct-22</td>
<td>Anticipated detection</td>
<td>71</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>Goulds</td>
<td>26-Oct-22</td>
<td>Anticipated detection</td>
<td>18</td>
<td>1x week</td>
<td>Sdel, SN501Y_VO</td>
</tr>
<tr>
<td>Paradise</td>
<td>26-Oct-22</td>
<td>Anticipated detection</td>
<td>69</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>Portugal Cove-St. Philip's</td>
<td>26-Oct-22</td>
<td>Anticipated detection</td>
<td>22</td>
<td>1x week</td>
<td>Sdel, SN501Y_VO</td>
</tr>
<tr>
<td>Corner Brook East- Basin G</td>
<td>24-Oct-22</td>
<td>Anticipated detection</td>
<td>51</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>Corner Brook West- Basin F</td>
<td>24-Oct-22</td>
<td>Anticipated detection</td>
<td>51</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>Corner Brook-University Dr-MH</td>
<td>24-Oct-22</td>
<td>Anticipated detection</td>
<td>50</td>
<td>1 x week</td>
<td>Sdel, SN501Y_VO</td>
</tr>
<tr>
<td>Deer Lake</td>
<td>24-Oct-22</td>
<td>Anticipated detection</td>
<td>55</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>GFW</td>
<td>24-Oct-22</td>
<td>Anticipated detection</td>
<td>39</td>
<td>1x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>Pasadena</td>
<td>24-Oct-22</td>
<td>Anticipated detection</td>
<td>45</td>
<td>1x week</td>
<td>Sdel, SN501Y_VO</td>
</tr>
<tr>
<td>St. Anthony</td>
<td>24-Oct-22</td>
<td>Trace detection</td>
<td>1</td>
<td>1 x week</td>
<td>SN501Y_VO</td>
</tr>
<tr>
<td>Stephenville</td>
<td>24-Oct-22</td>
<td>Anticipated detection</td>
<td>46</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>Wabush</td>
<td>24-Oct-22</td>
<td>Anticipated detection</td>
<td>51</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
<tr>
<td>Torbay</td>
<td>20-Oct-22</td>
<td>Trace detection</td>
<td>13</td>
<td>1 x month</td>
<td>Sdel, SN501Y_VO</td>
</tr>
<tr>
<td>Labrador City</td>
<td>06-Sep-22</td>
<td>Anticipated detection</td>
<td>43</td>
<td>1 x week</td>
<td>Sdel, Sdel_VO, SN501Y_VO</td>
</tr>
</tbody>
</table>

### Allele/Gene Detected in Wastewater

- **Sdel**
- **SN501Y**
- **D377Y**
- **Sdel_VO**
- **SN501Y_VO**

### Summary of Samples Collected

- **1014** Total Samples Collected
- **685** Positive Detections
- **119** Trace Detections

### Notes

1. Change in lab and analysis method after Apr 20, 2021
2. St. John’s Regional WWTP services most of St. John’s, Mount Pearl, and Paradise east of Paradise Rd.
3. Variants in the wastewater can be identified through assays to detect specific alleles of the virus gene:
   - Sdel is associated with B.1.1.7 (alpha), BA.4 and BA.5 (Omicron).
   - SN501Y is associated with B.1.1.7, B.1.351, and P.1. (alpha, beta and gamma)
   - D377Y is associated with the delta variants
   - Sdel_VO is associated with Omicron BA.1 + SN501Y_VO is associated with the Omicron BA.1, BA.2, BA.4, BA.5 and XE.
4. Change in how lab calculates cp/mL for filter samples after Jan 14, 2022.
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- **St. John’s Regional WWTP (GU/mg) by Date**
- **St. John’s Regional WWTP (cp/mL) by Date**
- **St. John’s-Clark Pl-MH (cp/mL) by Date**

### St. John’s Regional WWTP (GU/mg) by Date
- Dates range from 15/02/2021 to 29/04/2021.

### St. John’s Regional WWTP (cp/mL) by Date
- Dates range from Jul 2021 to Oct 2022.
- Positive detection ≥ 16 cp/mL
- Low confidence detection 3 ≤ cp/mL < 16

### St. John’s-Clark Pl-MH (cp/mL) by Date
- Dates range from Nov 2021 to Sep 2022.
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Paradise WWTP (cp/mL) by Date

CBS WWTP (cp/mL) by Date

Gander WWTP (cp/mL) by Date
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Torbay Outfall (cp/mL) by Date

Happy Valley-Goose Bay WWTP (cp/mL) by Date

Deer Lake WWTP (cp/mL) by Date

Positive detection ≥ 16 cp/mL
Low confidence detection 3 ≤ cp/mL < 16
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Corner Brook Outfall - Basin F (cp/mL) by Date

Corner Brook Outfall - Basin G (cp/mL) by Date

Corner Brook - University Ave. Manhole (cp/mL) by Date

Positive detection ≥ 16 cp/mL
Low confidence detection 3 ≤ cp/mL < 16
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Stephenville WWTP (cp/mL) by Date

Clarenville-Brook Cove Outfall (cp/mL) by Date

Labrador City Outfall 1 (cp/mL) by Date

Positive detection ≥ 16 cp/mL
Low confidence detection 3 ≤ cp/mL < 16
Notes:
1  Change in lab and analysis method after Apr 20, 2021
2  No detection - no virus detected (0 cp/mL)
3  Unexpected detection - virus detected (≥ 16 cp/mL), but no positive cases in the sewershed
4  Anticipated detection - virus detected (≥ 16 cp/mL), and positive cases in the sewershed
5  Trace detection - low level of virus detected (≥ 3 cp/mL and < 16 cp/mL)
6  No result - no data back from the lab yet
7  Results reported in gene copies per mL or gene units per mg
8  Positive detection - sum of unexpected and anticipated detections (≥ 16 cp/mL)
9  WWTP - wastewater treatment plant
10 MH - manhole