

Village of Pemberton Water System

Annual Report - 2022

INTRODUCTION

This report has been prepared for the consumers of the Drinking Water System of the Village of Pemberton to provide basic information on water quality and compliance with health standards. Public feedback and comments are always welcomed and should be directed to Village staff or Vancouver Coastal Health (Squamish) officials.

CONSUMPTION (CUBIC METERS/DAY):

Daily flow is recorded at the Wellhouse located in Pioneer Park. Table 1 displays the maximum, minimum, average, and total water flows for 2022 and includes the previous two years for comparison. The volumes have been consistent over the past three years. Variations can be attributed to population growth, climatic factors, conservation efforts and leak detection and repairs. For daily results, please refer to **Appendix I**.

Table 1 - Overall Water Consumption Summary

	2020 Consumption	2021 Consumption	2022 Consumption
Average Flow/day:	1,855 m ³	1,915 m ³	2,057 m ³
High Flow/day:	3,774 m ³ <i>(July 29, 2020)</i>	4,264 m ³ <i>(August 13, 2021)</i>	4,295 m ³ <i>(July 28, 2022)</i>
Low Flow/day:	1,038 m ³ <i>(December 17, 2020)</i>	843 m ³ <i>(December 4, 2021)</i>	1129 m ³ <i>(December 9, 2022)</i>
Total Annual	676,900 m ³	700,987m ³	748,663 m ³

CHLORINATION:

Chlorination is a condition of the Village of Pemberton’s operating permit and has been in effect since March 2009. The objective is to have a positive residual chlorine reading throughout the water distribution system. The Fire Hall chlorine analyzer serves as the central measuring point, where a minimum residual of 0.20 mg/L is desired.

The chlorine residual is monitored continuously by a dedicated computer and alarm set points ensure consistent dosing. Daily readings of the previous 24 hour minimum residuals are recorded. The annual numbers are shown in Table 2.

Table 2 - 2022 Chlorine Residual Summary

	Residual (mg/L)
Average:	0.32
High:	0.48
Low:	0.18

To ensure that target chlorine residuals are achieved within the distribution system, the Village also carries out manual sampling at 7 sites throughout the distribution system each week.

For daily results, please refer to **Appendix I** and for weekly sample results **Appendix III**.

WATER CHEMISTRY:

The Annual Total Metals, Volatile Organic Compounds and Trihalomethane sampling was performed February 17, 2022. Sampling was conducted on production Wells #2 & #3, Oak St. Sample Station, Ridge Booster Pump and Rechlorination Station and the Industrial Park Sample Station. The test results indicate that all of the items tested, with the exception of Manganese in Backup Well 2, are within Health Canada Maximum Acceptable Concentration (MAC) limits. It has been observed that Manganese levels in Wells 2 fluctuate throughout year with the average of 0.10 mg/L. Recently, the guidelines for manganese were changed to a MAC of 0.12 mg/L (120 µg/L) and an AO of 0.02 mg/L (20 µg/L) for total manganese in drinking water. In 2021, the Village commissioned Kerr Wood Leidal to carry out a preliminary design for a water treatment facility. Early 2022, application was made to Federal and Provincial funding sources for financial support for a water treatment facility. For full water quality test results from 2022, please refer to **Appendix II**.

CORROSION CONTROL:

In June of 2016, the Village of Pemberton undertook a water sampling program to determine the best course of action to mitigate the corrosion of metallic plumbing systems and fixtures. The results indicated a need to adjust the pH and alkalinity of the well water which is considered slightly acidic. A water conditioning plant was designed and constructed in 2016 – 2017 and utilizes Sodium Carbonate (Soda Ash) to increase the pH and Alkalinity of Pemberton’s well water, prior to distribution. In October 2017, the Village established a target

pH of 7 and an (alkalinity) between 40 and 80mg/L as measured as CaCO₃ (Calcium Carbonate). In addition to the automated control system, water samples are tested weekly from 7 sample stations throughout the distribution system, and pH and alkalinity are recorded. For results, please refer to **Appendix III**.

Flush Message

In 2015 Vancouver Coastal Health Authority requested that the following message be communicated to residents:

Anytime the water in a particular faucet has not been used for six hours or longer, “flush” your cold-water pipes by running the water until cold and you notice a change in temperature. (This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer.) The more time water has been sitting in your home’s pipes, the more lead it may contain. Use only water from the cold-tap for drinking, cooking, and especially making baby formula. Hot water is likely to contain higher levels of lead. The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply. Conserving water is still important. Rather than just running the water down the drain you could use the water for things such as watering your plants (Zubel,2014). If residents have any questions, they are encouraged to contact the Vancouver Coastal Health Authorities Drinking Water Officer at 604-892-2293.

CROSS CONNECTION CONTROL

To maintain safe drinking water and remain in compliance with the Vancouver Coastal Health Authority (VCH), the Village of Pemberton has begun a utility-wide Cross Connection Control / Backflow Prevention Program. A cross connection is any actual or potential connection between drinking water and a non-potable substance (contaminant). Backflow is the reverse flow from normal within a piping system. When a cross connection and backflow are combined, often the result is a contaminant entering our drinking water.

In 2018, the Cross Connection Control Bylaw was passed by council and an initial assessment and database was completed for Village infrastructure. The Cross Connection Control program is ongoing.



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BACTERIOLOGICAL ANALYSIS:

Water samples are collected and submitted weekly to the laboratory at Vancouver Coastal Health for Bacteriological analysis. These samples are taken directly from both active sources (Well #2 and #3), as well as the following locations:

- Oak St
- Ridge Pump Station
- Pemberton Farm Rd (West)
- Village Office
- Industrial Park (Mount Currie water source)
- Health Centre
- Pemberton Meadows Rd.
- Treatment Plant

All results for the 2022 period were negative for Escherichia coli.

The individual results are on file at Vancouver Coastal Health (Squamish) and the Village Office, and are posted regularly online at:

www.healthspace.ca/Clients/VCHA/CoastGaribaldi/CoastGaribaldi_Website.nsf

For Sample Range Reports, please refer to **Appendix IV**.



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APPENDIX I

2022 Daily Total Consumption and Chlorine Residual

APPENDIX I

2019 Daily Total Consumption and Chlorine Residual			2020 Daily Total Consumption and Chlorine		2021 Daily Total Consumption and Chlorine		2022 Daily Total Consumption and Chlorine	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
January								
1	1,317	0.28	1,313	0.3	1317	0.14	1303	0.30
2	1,286	0.29	1,238	0.34	1286	0.13	1285	0.30
3	1,266	0.27	1,194	0.34	1266	0.15	1199	0.31
4	1,433	0.25	1,321	0.3	1433	0.16	1230	0.30
5	2,470	0.24	1,287	0.3	2470	0.18	1149	0.31
6	2,498	0.28	1,297	0.3	1198	0.16	1281	0.30
7	2,497	0.31	1,139	0.3	2497	0.22	1174	0.30
8	1,698	0.29	1,238	0.3	1698	0.24	1346	0.30
9	1,276	0.28	1,241	0.31	1276	0.25	1286	0.24
10	1,300	0.27	1,121	0.33	1300	0.27	1310	0.18
11	1,087	0.28	1,249	0.33	1087	0.26	1180	0.20
12	1,265	0.28	1,263	0.31	1265	0.26	1192	0.24
13	1,245	0.29	1,142	0.32	1245	0.26	1243	0.28
14	1,264	0.29	1,365	0.32	1264	0.28	1087	0.34
15	1,194	0.28	1,331	0.32	1194	0.28	1435	0.35
16	1,172	0.28	1,287	0.32	1172	0.29	1664	0.34
17	1,238	0.29	1,280	0.32	1238	0.27	1697	0.34
18	1,221	0.30	1,295	0.32	1221	0.26	1629	0.33
19	1,067	0.29	1,306	0.32	1067	0.29	1637	0.35
20	1,245	0.28	1,336	0.32	1245	0.29	1607	0.34
21	1,251	0.30	1,316	0.32	1251	0.27	1573	0.36
22	1,121	0.29	1,202	0.24	1121	0.27	1640	0.34
23	1,143	0.29	1,342	0.26	1143	0.25	1657	0.35
24	1,150	0.30	1,198	0.29	1150	0.24	1706	0.36
25	1,231	0.31	1,211	0.29	1231	0.24	1670	0.36
26	1,250	0.31	1,308	0.29	1250	0.25	1673	0.31
27	1,239	0.31	1,325	0.29	1239	0.24	1725	0.33
28	1,195	0.31	1,337	0.35	1195	0.22	1662	0.33
29	1,211	0.30	1,257	0.29	1211	0.27	1644	0.34
30	1,263	0.30	1,236	0.29	1263	0.22	1626	0.33
31	1,181	0.30	1,308	0.31	1181	0.22	1661	0.34
Monthly Total	42,274		39,284		40,974		45,172	0.31

2019 Daily Total Consumption and Chlorine Residual

2020 Daily Total Consumption and Chlorine

2021 Daily Total Consumption and Chlorine

2022 Daily Total Consumption and Chlorine

Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
February								
1	1,244	0.31	1,319	0.31	1091	0.22	1651	0.33
2	1,128	0.31	1,291	0.31	1149	0.21	1608	0.29
3	1,284	0.29	1,292	0.37	1093	0.19	1584	0.31
4	1,293	0.31	1,270	0.37	1050	0.19	1597	0.33
5	1,243	0.30	1,193	0.34	1280	0.20	1701	0.32
6	1,196	0.29	1,220	0.32	1208	0.21	1670	0.31
7	1,291	0.27	1,287	0.35	1354	0.22	1697	0.31
8	1,254	0.30	1,280	0.35	1310	0.24	1603	0.31
9	1,247	0.30	1,284	0.35	1290	0.24	1673	0.30
10	1,199	0.31	1,310	0.37	1225	0.23	1589	0.33
11	1,266	0.31	1,312	0.37	1372	0.26	1653	0.31
12	1,309	0.30	1,271	0.37	1547	0.24	1677	0.32
13	1,247	0.29	1,517	0.35	1511	0.28	1650	0.32
14	1,152	0.28	1,201	0.3	1704	0.27	1568	0.31
15	1,152	0.27	1,254	0.29	1468	0.27	1744	0.30
16	1,310	0.26	1,299	0.29	1619	0.29	1516	0.30
17	1,310	0.25	1,308	0.29	1592	0.29	1690	0.29
18	1,335	0.27	1,301	0.29	1410	0.29	1542	0.29
19	1,364	0.28	1,319	0.29	1336	0.32	1626	0.30
20	1,330	0.24	1,118	0.29	1436	0.30	1700	0.31
21	1,285	0.27	1,272	0.28	1436	0.30	1678	0.31
22	1,163	0.28	1,328	0.28	1502	0.29	1809	0.31
23	1,312	0.28	1,164	0.28	1458	0.27	1678	0.28
24	1,304	0.29	1,230	0.31	1685	0.30	1681	0.29
25	1,138	0.29	1,253	0.32	1378	0.33	1667	0.29
26	1,284	0.28	1,124	0.33	1889	0.34	1782	0.29
27	1,280	0.28	1,132	0.3	1450	0.35	1656	0.30
28	1,164	0.18	1,074	0.29	1309	0.33	1652	0.31
29			1,237	0.29				
Monthly Total	35,084		36,457		37,792		46,343	0.31

2019 Daily Total Consumption and Chlorine Residual

2020 Daily Total Consumption and Chlorine

2021 Daily Total Consumption and Chlorine

2022 Daily Total Consumption and Chlorine

Date	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)
March								
1	1,273	0.28	1,129	0.29	965	0.32	1730	0.32
2	1,135	0.28	1,235	0.28	1373	0.34	1712	0.26
3	1,320	0.28	1,089	0.29	1730	0.35	1632	0.37
4	1,345	0.27	1,241	0.28	1483	0.32	1668	0.33
5	1,349	0.28	1,285	0.29	1384	0.33	1673	0.37
6	1,338	0.28	1,312	0.29	1259	0.27	1698	0.47
7	1,267	0.27	1,100	0.29	1172	0.28	1609	0.48
8	1,201	0.27	1,271	0.29	1284	0.27	1629	0.29
9	1,203	0.26	1,287	0.29	1285	0.27	1132	0.28
10	1,369	0.26	1,137	0.27	1136	0.26	1611	0.27
11	1,376	0.27	1,200	0.27	1278	0.27	1615	0.33
12	1,431	0.26	1,195	0.27	1212	0.31	1597	0.33
13	1,386	0.26	1,284	0.27	1233	0.32	1941	0.32
14	1,404	0.26	1,207	0.27	1262	0.35	1330	0.30
15	1,364	0.25	1,348	0.28	1327	0.33	1579	0.35
16	1,384	0.25	1,308	0.27	1180	0.37	1677	0.36
17	1,343	0.25	1,212	0.27	1387	0.37	1554	0.36
18	1,420	0.26	1,318	0.27	1368	0.38	1492	0.36
19	1,262	0.24	1,174	0.28	1336	0.33	1648	0.37
20	1,346	0.25	1,291	0.3	1284	0.35	1451	0.40
21	1,314	0.25	1,327	0.3	1177	0.35	1655	0.39
22	1,317	0.26	1,143	0.3	1255	0.34	2075	0.33
23	1,334	0.24	1,314	0.3	1300	0.35	1522	0.32
24	1,323	0.24	1,161	0.26	1274	0.33	1653	0.33
25	1,385	0.22	1,349	0.26	1340	0.33	1652	0.34
26	1,315	0.25	1,234	0.26	1482	0.33	1469	0.32
27	1,192	0.25	1,243	0.27	1302	0.31	1629	0.34
28	1,205	0.25	1,300	0.27	1227	0.25	1761	0.35
29	1,318	0.25	1,315	0.27	1317	0.31	1651	0.33
30	1,281	0.25	1,242	0.27	1235	0.31	1921	0.34
31	1,297	0.25	1,344	0.29	1232	0.29	1581	0.35
Monthly Total	40,797		38,593		40,078		50,547	0.34

2019 Daily Total Consumption and Chlorine Residual			2020 Daily Total Consumption and Chlorine		2021 Daily Total Consumption and Chlorine		2022 Daily Total Consumption and Chlorine	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
April								
1	1,303	0.26	1,330	0.28	1202	0.32	1962	0.36
2	1,187	0.25	1,155	0.25	1338	0.32	1761	0.36
3	1,351	0.25	1,297	0.26	1342	0.31	1672	0.36
4	1,314	0.24	1,307	0.26	1318	0.30	1687	0.37
5	1,279	0.24	1,131	0.26	1320	0.29	1680	0.37
6	1,302	0.25	1,301	0.26	1374	0.32	1693	0.36
7	2,046	0.25	1,141	0.28	1280	0.29	1929	0.36
8	2,992	0.26	1,381	0.28	1311	0.28	1905	0.36
9	1,860	0.26	1,339	0.3	1275	0.28	1976	0.35
10	1,285	0.25	1,272	0.3	1502	0.24	1612	0.34
11	1,312	0.25	1,351	0.3	1342	0.28	1507	0.34
12	1,274	0.25	1,417	0.3	1384	0.26	2159	0.33
13	1,324	0.26	1,398	0.3	1249	0.23	1811	0.32
14	1,297	0.24	1,430	0.34	1477	0.25	1688	0.31
15	1,317	0.25	1,420	0.34	1340	0.22	1595	0.32
16	1,325	0.23	1,249	0.34	1483	0.36	1616	0.31
17	1,367	0.24	1,357	0.34	1508	0.33	1631	0.31
18	1,378	0.24	1,787	0.34	1416	0.32	1616	0.30
19	1,394	0.24	1,506	0.34	1742	0.31	1664	0.31
20	1,322	0.23	1,647	0.34	1598	0.31	1701	0.30
21	1,301	0.23	1,756	0.31	1569	0.31	1799	0.33
22	1,292	0.23	1,621	0.31	1674	0.30	1768	0.33
23	1,296	0.26	1,560	0.31	1671	0.31	1782	0.33
24	1,326	0.23	1,554	0.31	1588	0.31	1674	0.35
25	1,209	0.26	2,117	0.28	1602	0.31	1891	0.33
26	1,376	0.26	1,840	0.28	1677	0.32	1692	0.34
27	1,455	0.25	1,846	0.3	1731	0.32	1790	0.33
28	1,386	0.27	1,561	0.32	1822	0.33	1872	0.33
29	1,658	0.26	1,685	0.3	1589	0.32	1976	0.35
30	1,407	0.27	1,580	0.29	1648	0.33	1888	0.35
Monthly Total	42,935		44,335		44,374		52,994	0.34

2019 Daily Total Consumption and Chlorine Residual

2020 Daily Total Consumption and Chlorine

2021 Daily Total Consumption and Chlorine

2022 Daily Total Consumption and Chlorine

Date	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)
May								
1	1,556	0.31	1,541	0.25	1764	0.32	1944	0.37
2	1,366	0.30	1,812	0.25	2008	0.33	2108	0.38
3	2,370	0.27	1,623	0.25	1922	0.32	2068	0.33
4	2,143	0.25	1,571	0.25	1907	0.34	1931	0.33
5	2,236	0.25	1,529	0.29	2191	0.35	1969	0.32
6	2,077	0.28	1,956	0.29	1976	0.34	1769	0.33
7	2,077	0.27	2,018	0.28	1991	0.27	2360	0.33
8	2,053	0.26	1,973	0.27	2269	0.26	2098	0.32
9	2,264	0.35	2,275	0.25	1959	0.25	2037	0.33
10	2,501	0.28	2,441	0.28	2370	0.26	1748	0.33
11	2,266	0.28	2,493	0.28	2237	0.27	2031	0.31
12	2,468	0.27	2,409	0.28	2398	0.28	2013	0.31
13	2,644	0.28	2,527	0.3	2078	0.28	1884	0.32
14	2,464	0.26	2,368	0.35	2444	0.29	1772	0.31
15	2,137	0.30	2,470	0.33	2406	0.30	1683	0.31
16	2,423	0.30	2,511	0.4	2540	0.29	1961	0.32
17	2,569	0.34	2,365	0.25	2778	0.29	1594	0.31
18	2,067	0.30	2,343	0.22	2102	0.30	1583	0.31
19	2,368	0.30	2,510	0.25	2087	0.29	1615	0.31
20	2,449	0.28	2,795	0.33	2005	0.28	1573	0.33
21	2,428	0.28	2,452	0.28	2270	0.28	1719	0.32
22	2,426	0.34	2,245	0.28	2610	0.28	1750	0.32
23	2,224	0.32	2,344	0.27	2682	0.29	2006	0.32
24	2,568	0.30	2,440	0.27	2547	0.30	2136	0.34
25	2,477	0.30	2,548	0.27	2579	0.29	1900	0.34
26	2,409	0.28	2,392	0.27	2588	0.31	1868	0.32
27	2,408	0.28	2,573	0.27	2819	0.25	1855	0.32
28	2,547	0.30	2,806	0.32	2291	0.26	1722	0.31
29	2,853	0.27	2,841	0.35	2162	0.26	1881	0.31
30	2,741	0.28	2,911	0.36	2644	0.27	2190	0.31
31	3,006	0.26	2,664	0.33	2711	0.29	2018	0.31
Monthly Total	72,585		71,745		71,333		58,787	0.32

2019 Daily Total Consumption and Chlorine Residual

2020 Daily Total Consumption and Chlorine

2021 Daily Total Consumption and Chlorine

2022 Daily Total Consumption and Chlorine

Date	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)
June								
1	3,025	0.30	2,254	0.44	1743	0.29	1944	0.30
2	3,199	0.30	2,431	0.36	3183	0.29	2135	0.31
3	3,136	0.30	2,376	0.36	3963	0.14	2229	0.33
4	2,774	0.28	2,352	0.39	3043	0.26	2008	0.33
5	2,741	0.28	2,440	0.3	2602	0.27	2000	0.32
6	2,434	0.27	2,163	0.31	2628	0.28	2191	0.31
7	2,584	0.27	2,962	0.34	2444	0.27	2019	0.31
8	2,280	0.26	2,898	0.34	2474	0.27	2233	0.32
9	2,388	0.26	2,483	0.34	2483	0.28	2084	0.33
10	2,980	0.25	2,452	0.34	2464	0.29	2166	0.32
11	2,515	0.25	2,472	0.35	2463	0.30	1988	0.30
12	2,827	0.24	2,364	0.35	2603	0.32	2103	0.32
13	3,028	0.30	2,127	0.35	2589	0.33	2636	0.33
14	3,375	0.31	2,288	0.5	2284	0.32	2314	0.33
15	3,129	0.31	2,388	0.5	2036	0.32	2344	0.32
16	3,130	0.31	2,328	0.32	2135	0.33	2300	0.31
17	3,527	0.33	2,574	0.27	2237	0.31	2319	0.30
18	3,129	0.30	3,096	0.34	2979	0.33	2271	0.29
19	2,911	0.30	2,990	0.36	2803	0.33	2149	0.27
20	2,831	0.27	3,220	0.37	2741	0.34	2314	0.27
21	2,555	0.27	2,573	0.35	3006	0.32	2401	0.35
22	2,745	0.27	2,879	0.3	3464	0.29	2132	0.37
23	2,745	0.27	2,720	0.37	3441	0.33	2098	0.34
24	2,745	0.27	2,944	0.37	3825	0.33	2673	0.37
25	2,935	0.27	2,323	0.35	3543	0.31	2868	0.37
26	2,778	0.28	2,646	0.3	3603	0.32	2898	0.36
27	2,766	0.30	2,836	0.32	3633	0.34	3393	0.37
28	2,620	0.30	2,650	0.32	3846	0.28	3094	0.37
29	2,664	0.30	2,518	0.32	4246	0.28	2655	0.35
30	2,664	0.30	2,700	0.31	3911	0.26	2679	0.33
Monthly Total	85,160		77,450		88,414		70,638	0.33

2019 Daily Total Consumption and Chlorine Residual

2020 Daily Total Consumption and Chlorine

2021 Daily Total Consumption and Chlorine

2022 Daily Total Consumption and Chlorine

Date	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)
July								
1	2,664	0.30	2,254	0.31	4253	0.40	3066	0.35
2	2,664	0.31	2,402	0.31	4208	0.40	3135	0.34
3	2,708	0.31	2,200	0.31	3611	0.37	3007	0.30
4	2,908	0.33	2,262	0.31	3629	0.39	2794	0.31
5	2,792	0.29	2,402	0.31	3768	0.41	2121	0.19
6	2,553	0.29	2,349	0.31	3954	0.41	2185	0.20
7	2,553	0.29	2,718	0.29	3991	0.41	2620	0.24
8	2,314	0.30	2,906	0.31	3747	0.41	2377	0.28
9	2,490	0.27	2,695	0.33	3708	0.41	2428	0.28
10	2,370	0.28	2,585	0.34	3822	0.40	2455	0.29
11	2,303	0.28	2,475	0.34	3757	0.42	2886	0.29
12	2,212	0.27	2,803	0.34	3948	0.44	2717	0.30
13	2,575	0.28	2,354	0.34	3866	0.37	2755	0.30
14	2,444	0.28	2,462	0.24	4111	0.37	3010	0.29
15	2,641	0.27	2,717	0.25	4070	0.35	3265	0.30
16	2,670	0.27	2,730	0.29	4255	0.35	2732	0.31
17	2,402	0.29	2,792	0.3	3920	0.34	2607	0.32
18	2,375	0.26	2,735	0.3	3570	0.30	2727	0.31
19	2,272	0.29	2,889	0.3	3522	0.33	2846	0.30
20	2,577	0.24	2,981	0.33	3748	0.30	2900	0.31
21	2,726	0.28	3,308	0.31	3724	0.34	3277	0.31
22	2,973	0.28	3,485	0.29	3827	0.33	3460	0.38
23	3,104	0.30	3,215	0.27	3797	0.35	3322	0.37
24	2,876	0.27	3,107	0.3	1814	0.31	3181	0.34
25	2,728	0.31	3,406	0.3	3566	0.32	3346	0.34
26	2,916	0.29	2,903	0.3	3509	0.32	3298	0.33
27	2,076	0.25	3,189	0.3	3717	0.34	4111	0.35
28	2,556	0.28	3,731	0.29	3778	0.33	4295	0.37
29	2,920	0.27	3,774	0.32	4127	0.34	4064	0.34
30	3,017	0.30	3,356	0.26	3984	0.34	3952	0.34
31	2,671	0.31	3,360	0.33	3872	0.34	3811	0.35
Monthly Total	81,050		88,547		117,172		94,751	0.31

2019 Daily Total Consumption and Chlorine Residual

2020 Daily Total Consumption and Chlorine

2021 Daily Total Consumption and Chlorine

2022 Daily Total Consumption and Chlorine

Date	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)
August								
1	2,699	0.30	3,127	0.33	3359	0.34	3871	0.35
2	2,671	0.30	3,318	0.33	3087	0.32	3602	0.34
3	2,404	0.27	3,467	0.33	3403	0.33	3643	0.33
4	2,714	0.27	3,473	0.36	3653	0.36	3085	0.33
5	2,998	0.27	3,181	0.34	3917	0.35	2348	0.34
6	3,033	0.30	3,441	0.34	3994	0.36	2621	0.33
7	3,007	0.30	2,659	0.36	3314	0.30	3102	0.33
8	3,119	0.32	2,585	0.36	2785	0.33	3427	0.33
9	3,412	0.32	3,015	0.31	2629	0.35	3477	0.34
10	3,137	0.30	2,769	0.33	2931	0.36	3032	0.34
11	2,928	0.30	3,464	0.33	3125	0.36	3241	0.33
12	2,599	0.28	3,068	0.32	3862	0.37	3350	0.35
13	2,540	0.25	3,045	0.34	4264	0.37	3524	0.34
14	2,702	0.21	3,350	0.37	3753	0.37	3207	0.32
15	2,759	0.26	3,332	0.28	3523	0.37	3723	0.32
16	3,226	0.23	3,688	0.36	3101	0.37	3257	0.31
17	2,973	0.20	3,622	0.39	3061	0.37	3415	0.30
18	2,745	0.24	3,012	0.32	2599	0.35	3538	0.28
19	2,945	0.26	3,290	0.35	2858	0.35	3425	0.33
20	3,033	0.23	3,241	0.34	3460	0.35	3313	0.30
21	2,701	0.21	2,813	0.29	2574	0.35	3325	0.32
22	2,623	0.23	2,660	0.29	2131	0.34	3567	0.35
23	2,972	0.20	2,402	0.29	2455	0.34	3374	0.34
24	2,657	0.19	2,422	0.34	2196	0.32	3287	0.34
25	2,637	0.18	2,598	0.29	2525	0.31	3455	0.32
26	2,965	0.21	2,514	0.34	2741	0.35	3371	0.34
27	2,993	0.22	2,899	0.34	2748	0.34	3377	0.29
28	2,785	0.36	2,780	0.31	2497	0.35	3020	0.28
29	2,782	0.30	2,906	0.31	2644	0.35	3331	0.29
30	3,136	0.30	2,728	0.31	2788	0.34	3125	0.27
31	3,003	0.29	2,586	0.31	2595	0.34	3000	0.27
Monthly Total	88,898		93,457		94,573		102,434	0.32

2019 Daily Total Consumption and Chlorine Residual

2020 Daily Total Consumption and Chlorine

2021 Daily Total Consumption and Chlorine

2022 Daily Total Consumption and Chlorine

Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
September								
1	2,698	0.27	2,500	0.33	2420	0.33	3393	0.27
2	2,837	0.30	2,504	0.33	2502	0.33	3353	0.25
3	3,062	0.30	2,954	0.28	2682	0.33	3505	0.26
4	2,628	0.32	3,031	0.27	2686	0.34	3155	0.24
5	2,480	0.31	2,926	0.27	2317	0.33	3001	0.25
6	2,895	0.28	2,629	0.27	2227	0.33	2657	0.24
7	2,733	0.25	2,642	0.22	2479	0.33	2281	0.28
8	2,609	0.25	2,629	0.25	2499	0.34	3629	0.32
9	2,509	0.29	2,695	0.27	2253	0.34	3358	0.33
10	2,270	0.29	2,737	0.28	2418	0.40	2869	0.32
11	2,262	0.28	2,945	0.28	2302	0.34	3121	0.32
12	2,262	0.27	2,794	0.28	2133	0.33	3011	0.30
13	2,333	0.26	2,566	0.28	2317	0.32	3049	0.32
14	1,877	0.26	2,473	0.28	2222	0.33	2806	0.32
15	1,928	0.26	2,378	0.26	2079	0.32	2826	0.29
16	1,848	0.26	2,062	0.27	1893	0.30	2826	0.30
17	1,782	0.28	2,397	0.28	1863	0.30	2601	0.30
18	1,860	0.27	2,388	0.28	1764	0.30	2387	0.28
19	1,887	0.26	2,447	0.29	1622	0.30	2649	0.29
20	1,868	0.27	1,849	0.27	1474	0.28	2461	0.28
21	1,816	0.27	1,892	0.27	1462	0.28	2614	0.28
22	1,778	0.27	1,816	0.26	1543	0.28	2590	0.30
23	1,649	0.28	1,901	0.29	1589	0.28	2453	0.32
24	1,639	0.27	1,820	0.28	1630	0.27	2362	0.33
25	1,751	0.25	1,799	0.28	1474	0.27	2443	0.33
26	1,637	0.27	1,856	0.28	1600	0.27	2403	0.33
27	1,522	0.28	1,705	0.28	1444	0.26	2380	0.34
28	1,597	0.28	1,509	0.28	1202	0.26	2310	0.33
29	1,555	0.28	1,578	0.26	1324	0.26	2532	0.35
30	1,476	0.34	1,706	0.25	1590	0.27	2083	0.32
Monthly Total	63,048		69,129		59,010		83,111	0.30

2019 Daily Total Consumption and
Chlorine Residual

2020 Daily Total
Consumption and Chlorine

2021 Daily Total
Consumption and Chlorine

2022 Daily Total
Consumption and Chlorine

Date	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)
October								
1	1,396	0.31	1,565	0.23	2301	0.29	2279	0.33
2	1,535	0.32	1,653	0.24	1356	0.29	2086	0.32
3	1,492	0.35	1,614	0.25	1320	0.28	2390	0.32
4	1,452	0.33	1,612	0.25	1356	0.27	2160	0.30
5	1,359	0.33	1,628	0.25	1265	0.27	2244	0.30
6	1,324	0.33	1,479	0.25	1301	0.27	2162	0.33
7	1,541	0.33	1,475	0.25	1301	0.26	2171	0.31
8	1,318	0.31	1,462	0.25	1230	0.26	2122	0.31
9	1,334	0.30	1,470	0.25	1382	0.25	2160	0.31
10	1,349	0.30	1,452	0.25	1244	0.26	2133	0.31
11	1,452	0.31	1,444	0.25	1228	0.26	2011	0.32
12	1,398	0.31	1,299	0.25	1279	0.25	2050	0.32
13	1,329	0.29	1,460	0.25	1354	0.33	2093	0.31
14	1,352	0.29	1,488	0.25	1235	0.40	1843	0.31
15	1,374	0.31	1,285	0.22	1163	0.39	1928	0.30
16	1,393	0.34	1,604	0.2	1165	0.37	2135	0.30
17	1,366	0.29	1,429	0.22	1178	0.34	2479	0.29
18	1,349	0.29	1,338	0.23	1170	0.31	1764	0.29
19	1,351	0.29	1,386	0.23	1201	0.31	1677	0.29
20	1,321	0.29	1,368	0.26	1270	0.31	1734	0.29
21	1,321	0.31	1,364	0.28	1226	0.32	1539	0.28
22	1,207	0.30	1,390	0.28	1278	0.31	1541	0.27
23	1,342	0.30	1,619	0.26	1223	0.34	1446	0.22
24	1,378	0.31	1,419	0.26	1130	0.32	1559	0.24
25	1,296	0.33	1,388	0.26	1100	0.32	1507	0.24
26	1,329	0.32	1,288	0.26	1156	0.31	1488	0.27
27	1,301	0.32	1,284	0.22	1434	0.33	1368	0.28
28	1,328	0.32	1,408	0.25	1370	0.31	1338	0.29
29	1,215	0.35	1,174	0.25	1152	0.29	1301	0.30
30	1,284	0.30	1,280	0.25	1231	0.31	1372	0.29
31	1,332	0.30	1,290	0.25	1197	0.27	1258	0.30
Monthly Total	42,118		44,413		39,797.9		57,333	0.30

2019 Daily Total Consumption and
Chlorine Residual

2020 Daily Total
Consumption and Chlorine

2021 Daily Total
Consumption and Chlorine

2022 Daily Total
Consumption and Chlorine

Date	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)
November								
1	1,269	0.30	1,324	0.25	1195	0.28	1354	0.29
2	1,312	0.30	1,201	0.26	1381	0.28	1452	0.30
4	1,336	0.31	1,397	0.27	1498	0.29	1366	0.30
5	1,338	0.30	1,212	0.25	1085	0.28	1310	0.30
6	1,712	0.28	1,284	0.22	1049	0.27	1195	0.30
7	1,316	0.33	1,187	0.23	1195	0.27	1358	0.29
8	1,297	0.29	1,374	0.23	1084	0.26	1195	0.29
9	1,265	0.29	1,130	0.23	1212	0.27	1310	0.29
10	1,125	0.29	1,369	0.21	1031	0.34	1666	0.29
11	1,289	0.29	1,264	0.23	1288	0.35	1461	0.29
12	1,201	0.28	1,195	0.26	1090	0.34	1282	0.31
13	1,284	0.29	1,444	0.26	1048	0.35	1352	0.32
14	1,129	0.29	1,154	0.3	1069	0.35	1331	0.32
15	1,131	0.29	1,342	0.3	1109	0.34	1461	0.33
16	1,271	0.29	1,306	0.3	1016	0.32	1370	0.34
17	1,267	0.29	1,213	0.3	1193	0.33	1524	0.34
18	1,116	0.29	1,300	0.3	1072	0.35	1499	0.31
19	1,301	0.30	1,209	0.29	1121	0.33	1338	0.31
20	1,290	0.30	1,230	0.28	1021	0.34	1517	0.31
21	1,178	0.29	1,170	0.31	1051	0.34	1397	0.29
22	1,319	0.30	1,323	0.28	1186	0.32	1415	0.29
23	1,281	0.30	1,292	0.28	1039	0.30	1334	0.38
24	1,303	0.30	1,204	0.29	1084	0.32	1402	0.36
25	1,203	0.32	1,199	0.28	1043	0.31	1436	0.35
26	1,250	0.29	1,253	0.28	963	0.31	1402	0.33
27	1,156	0.29	1,296	0.27	1068	0.31	1571	0.34
28	1,253	0.30	1,145	0.27	995	0.31	1391	0.33
29	1,275	0.27	1,179	0.27	1173	0.32	1439	0.34
30			1,297	0.27	1078	0.32	1402	0.33
Monthly Total	35,467		36,495		33,496		40,529	0.32

2019 Daily Total Consumption and Chlorine Residual

2020 Daily Total Consumption and Chlorine

2021 Daily Total Consumption and Chlorine

2022 Daily Total Consumption and Chlorine

Date	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)	Daily Cubic metre	Daily Cl2 Residual (ppm)
December								
1	1,318	0.26	1,291	0.27	920	0.33	1449	0.34
2	1,319	0.28	1,191	0.27	1051	0.35	1414	0.32
3	1,286	0.28	1,214	0.26	1054	0.34	1402	0.33
4	1,371	0.30	1,144	0.26	843	0.35	1364	0.31
5	1,135	0.30	1,200	0.26	972	0.33	1311	0.29
6	1,253	0.28	1,224	0.26	1032	0.33	1544	0.27
7	1,136	0.29	1,244	0.26	995	0.37	1411	0.29
8	1,279	0.30	1,319	0.24	1148	0.38	1443	0.32
9	1,281	0.30	1,244	0.25	969	0.43	1129	0.31
10	1,113	0.30	1,200	0.25	1042	0.34	1511	0.29
11	1,266	0.33	1,204	0.24	1050	0.35	1394	0.28
12	1,163	0.31	1,342	0.25	1022	0.35	1452	0.29
13	1,250	0.31	1,119	0.25	1015	0.34	1360	0.32
14	1,130	0.30	1,317	0.25	1163	0.39	1539	0.32
15	1,264	0.32	1,069	0.23	1015	0.32	1292	0.31
16	1,220	0.32	1,535	0.21	1046	0.35	1431	0.29
17	1,159	0.33	1,038	0.19	1134	0.34	1462	0.28
18	1,288	0.32	1,063	0.18	1063	0.33	1410	0.27
19	1,126	0.32	1,163	0.19	1054	0.32	1586	0.26
20	1,256	0.31	1,170	0.19	1200	0.32	1435	0.26
21	1,282	0.32	1,048	0.19	1140	0.33	1616	0.27
22	1,121	0.35	1,429	0.19	1145	0.34	1478	0.26
23	1,284	0.34	1,187	0.18	1137	0.35	1505	0.29
24	1,261	0.33	1,071	0.18	1086	0.34	1594	0.29
25	1,178	0.34	1,174	0.18	1287	0.34	1639	0.31
26	1,251	0.34	1,074	0.18	1189	0.32	1526	0.31
27	1,131	0.34	1,074	0.18	1192	0.31	1718	0.31
28	1,264	0.29	1,111	0.14	1250	0.30	1773	0.30
29	1,302	0.16	1,203	0.19	1253	0.30	1572	0.30
30	1,308	0.08	1,172	0.19	1271	0.29	1641	0.31
31	1,316	0.14	1,163	0.14	1235	0.30	1624	0.29
Monthly Total	38,311		36,995		33,972		46,024	0.30

2019 Daily Total Consumption and Chlorine Residual

2020 Daily Total Consumption and Chlorine

2021 Daily Total Consumption and Chlorine

2022 Daily Total Consumption and Chlorine

	2019 Daily Total Consumption and Chlorine Residual		2020 Daily Total Consumption and Chlorine		2021 Daily Total Consumption and Chlorine		2022 Daily Total Consumption and Chlorine	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
2019 Total m3	667,727		676,900		700,987		748,663	
Daily Average	1,838	0.28	1,855	0.29	1,915	0.31	2057	0.32
Max Day	3,527	0.36	3,774	0.5	4,264	0.44	4295	0.48
Min Day	1,067	0.08	1,038	0.14	843	0.13	1129	0.18



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APPENDIX II

2022 Annual Chemical Analysis of Drinking Water



Your Project #: Annual Water Sample
Your C.O.C. #: 685113-01-01

Attention: Jeff Westlake

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA VON 2L0

Report Date: 2023/01/27
Report #: R3293219
Version: 1 - Final

CERTIFICATE OF ANALYSIS**BUREAU VERITAS JOB #: C304398**

Received: 2023/01/20, 08:00

Sample Matrix: Drinking Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO ₃ ,HCO ₃ ,OH	5	N/A	2023/01/21	BBY6SOP-00026	SM 23 2320 B m
Chloride/Sulphate by Auto Colourimetry	5	N/A	2023/01/23	BBY6SOP-00011 / BBY6SOP-00017	SM23-4500-Cl/SO4-E m
Colour (True) by Kone Lab	5	N/A	2023/01/20	BBY6SOP-00057	SM 23 2120 C m
Conductivity @25C	5	N/A	2023/01/21	BBY6SOP-00026	SM 23 2510 B m
Fluoride	5	N/A	2023/01/20	BBY6SOP-00048	SM 23 4500-F C m
Hardness Total (calculated as CaCO ₃) (1)	5	N/A	2023/01/23	BBY WI-00033	Auto Calc
Mercury (Total) by CV	5	2023/01/24	2023/01/24	AB SOP-00084	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	N/A	2023/01/23	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	5	N/A	2023/01/21	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	5	N/A	2023/01/21	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) by CFA	5	N/A	2023/01/21	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N)	5	N/A	2023/01/21	BBY WI-00033	Auto Calc
pH @25°C (2)	5	N/A	2023/01/21	BBY6SOP-00026	SM 23 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	5	2023/01/25	2023/01/26	BBY6SOP-00033	SM 23 2540 C m
Total Trihalomethanes Calculation	3	N/A	2023/01/23	BBY WI-00033	Auto Calc
Turbidity	5	N/A	2023/01/21	BBY6SOP-00027	SM 23 2130 B m
VOCs, VH, F1, LH in Water by HS GC/MS	5	N/A	2023/01/23	BBY8SOP-00009 / BBY8SOP-00011 / BBY8SOP-00012	BCMOE BCLM Jul2017 m
Volatile HC-BTEX (3)	3	N/A	2023/01/23	BBY WI-00033	Auto Calc

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.



Your Project #: Annual Water Sample
Your C.O.C. #: 685113-01-01

Attention: Jeff Westlake

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA VON 2L0

Report Date: 2023/01/27
Report #: R3293219
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C304398

Received: 2023/01/20, 08:00

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

(3) VPH = VH - (Benzene + Toluene + Ethylbenzene + m & p-Xylene + o-Xylene + Styrene)

Encryption Key



Bureau Veritas
27 Jan 2023 09:37:02

Please direct all questions regarding this Certificate of Analysis to:
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bureauveritas.com
Phone# (604) 734 7276

=====
This report has been generated and distributed using a secure automated process.

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.



RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					BKN739	BKN740	BKN741		
Sampling Date					2023/01/18 08:30	2023/01/18 08:40	2023/01/18 09:00		
COC Number					685113-01-01	685113-01-01	685113-01-01		
	UNITS	MAC	AO	OG	WELL #2	WELL #3	FARM RO	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050	<0.0050	0.0050	A860499
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	65.0	29.2	30.2	0.50	A859320
Nitrate (N)	mg/L	10	-	-	0.241	0.112	0.107	0.020	A859358
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	240	100	170	2.0	A861518
pH	pH	-	-	7.0:10.5	6.70	6.58	7.16	N/A	A861515
Total Dissolved Solids	mg/L	-	500	-	150	60	92	10	A863326
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	A861517
Alkalinity (Total as CaCO3)	mg/L	-	-	-	34	16	56	1.0	A861517
Bicarbonate (HCO3)	mg/L	-	-	-	42	20	69	1.0	A861517
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	A861517
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	<0.050	0.050	A859880
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	A861517
Chloride (Cl)	mg/L	-	250	-	36	11	12	1.0	A860087
Sulphate (SO4)	mg/L	-	500	-	20	10	11	1.0	A860087
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<5.0	<5.0	<5.0	5.0	A859949
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.241	0.112	0.107	0.020	A860498
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.51	0.31	0.36	0.10	A860474
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									



BUREAU
VERITAS

Bureau Veritas Job #: C304398
Report Date: 2023/01/27

VILLAGE OF PEMBERTON
Client Project #: Annual Water Sample

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					BKN742		BKN743		
Sampling Date					2023/01/18 09:30		2023/01/18 10:00		
COC Number					685113-01-01		685113-01-01		
	UNITS	MAC	AO	OG	RIDGE PIS	QC Batch	INDUSTRIAL PARK	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	A860499	<0.0050	0.0050	A860499
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	30.4	A859320	29.6	0.50	A859320
Nitrate (N)	mg/L	10	-	-	0.105	A859358	0.100	0.020	A859358
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	170	A861518	77	2.0	A861518
pH	pH	-	-	7.0:10.5	7.22	A861515	6.85	N/A	A861515
Total Dissolved Solids	mg/L	-	500	-	96	A863326	60	10	A863326
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	A861517	<1.0	1.0	A861517
Alkalinity (Total as CaCO3)	mg/L	-	-	-	57	A861517	25	1.0	A861517
Bicarbonate (HCO3)	mg/L	-	-	-	70	A861517	30	1.0	A861517
Carbonate (CO3)	mg/L	-	-	-	<1.0	A861517	<1.0	1.0	A861517
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	A859880	<0.050	0.050	A859880
Hydroxide (OH)	mg/L	-	-	-	<1.0	A861517	<1.0	1.0	A861517
Chloride (Cl)	mg/L	-	250	-	12	A860091	1.3	1.0	A860091
Sulphate (SO4)	mg/L	-	500	-	11	A860091	10	1.0	A860091
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<5.0	A859949	<5.0	5.0	A859957
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.105	A860498	0.100	0.020	A860498
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.18	A860474	0.18	0.10	A860474
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									



MERCURY BY COLD VAPOR (DRINKING WATER)

Bureau Veritas ID			BKN739	BKN740	BKN741	BKN742	BKN743		
Sampling Date			2023/01/18 08:30	2023/01/18 08:40	2023/01/18 09:00	2023/01/18 09:30	2023/01/18 10:00		
COC Number			685113-01-01	685113-01-01	685113-01-01	685113-01-01	685113-01-01		
	UNITS	MAC	WELL #2	WELL #3	FARM RO	RIDGE PIS	INDUSTRIAL PARK	RDL	QC Batch

Elements									
Total Mercury (Hg)	ug/L	1	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019	0.0019	A861894
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									



ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					BKN739	BKN740	BKN741	BKN742		
Sampling Date					2023/01/18 08:30	2023/01/18 08:40	2023/01/18 09:00	2023/01/18 09:30		
COC Number					685113-01-01	685113-01-01	685113-01-01	685113-01-01		
	UNITS	MAC	AO	OG	WELL #2	WELL #3	FARM RO	RIDGE PIS	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	5.5	7.6	<3.0	<3.0	3.0	A860022
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	A860022
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	A860022
Total Barium (Ba)	ug/L	2000	-	-	40.0	17.9	18.3	18.2	1.0	A860022
Total Boron (B)	ug/L	5000	-	-	118	<50	<50	<50	50	A860022
Total Cadmium (Cd)	ug/L	7	-	-	0.010	0.025	<0.010	<0.010	0.010	A860022
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	A860022
Total Cobalt (Co)	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	A860022
Total Copper (Cu)	ug/L	2000	1000	-	3.11	7.89	6.11	4.19	0.20	A860022
Total Iron (Fe)	ug/L	-	300	-	65.7	8.6	6.9	10.6	5.0	A860022
Total Lead (Pb)	ug/L	5	-	-	0.29	<0.20	<0.20	<0.20	0.20	A860022
Total Manganese (Mn)	ug/L	120	20	-	64.9	33.5	2.6	2.5	1.0	A860022
Total Molybdenum (Mo)	ug/L	-	-	-	2.1	<1.0	<1.0	<1.0	1.0	A860022
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	A860022
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	A860022
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	A860022
Total Strontium (Sr)	ug/L	7000	-	-	140	59.5	60.2	60.9	1.0	A860022
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	A860022
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	A860022
Total Zinc (Zn)	ug/L	-	5000	-	19.2	<5.0	<5.0	5.6	5.0	A860022
Total Calcium (Ca)	mg/L	-	-	-	23.7	10.6	11.0	11.1	0.050	A859363
Total Magnesium (Mg)	mg/L	-	-	-	1.42	0.631	0.643	0.662	0.050	A859363
Total Potassium (K)	mg/L	-	-	-	2.37	1.00	1.02	1.02	0.050	A859363
Total Sodium (Na)	mg/L	-	200	-	13.7	4.66	21.3	21.0	0.050	A859363
Total Sulphur (S)	mg/L	-	-	-	5.0	<3.0	<3.0	<3.0	3.0	A859363
No Fill	No Exceedance									
Grey	Exceeds 1 criteria policy/level									
Black	Exceeds both criteria/levels									
RDL = Reportable Detection Limit										



ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					BKN743		
Sampling Date					2023/01/18 10:00		
COC Number					685113-01-01		
	UNITS	MAC	AO	OG	INDUSTRIAL PARK	RDL	QC Batch
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	2900	-	100	<3.0	3.0	A860022
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50	A860022
Total Arsenic (As)	ug/L	10	-	-	0.11	0.10	A860022
Total Barium (Ba)	ug/L	2000	-	-	5.8	1.0	A860022
Total Boron (B)	ug/L	5000	-	-	<50	50	A860022
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.010	A860022
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0	A860022
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20	A860022
Total Copper (Cu)	ug/L	2000	1000	-	4.35	0.20	A860022
Total Iron (Fe)	ug/L	-	300	-	10.2	5.0	A860022
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.20	A860022
Total Manganese (Mn)	ug/L	120	20	-	<1.0	1.0	A860022
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0	A860022
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0	A860022
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10	A860022
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020	A860022
Total Strontium (Sr)	ug/L	7000	-	-	30.9	1.0	A860022
Total Uranium (U)	ug/L	20	-	-	<0.10	0.10	A860022
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0	A860022
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	5.0	A860022
Total Calcium (Ca)	mg/L	-	-	-	10.3	0.050	A859363
Total Magnesium (Mg)	mg/L	-	-	-	0.930	0.050	A859363
Total Potassium (K)	mg/L	-	-	-	0.494	0.050	A859363
Total Sodium (Na)	mg/L	-	200	-	1.60	0.050	A859363
Total Sulphur (S)	mg/L	-	-	-	<3.0	3.0	A859363
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							



TRIHALOMETHANES (THM) IN WATER

Bureau Veritas ID			BKN741	BKN742			BKN743		
Sampling Date			2023/01/18 09:00	2023/01/18 09:30			2023/01/18 10:00		
COC Number			685113-01-01	685113-01-01			685113-01-01		
	UNITS	MAC	FARM RO	RIDGE PIS	RDL	QC Batch	INDUSTRIAL PARK	RDL	QC Batch
Volatiles									
Total Trihalomethanes	ug/L	100	3.6	4.0	1.0	A859364	2.1	1.0	A859364
Bromodichloromethane	ug/L	-	<1.0	<1.0	1.0	A859861			
Bromoform	ug/L	-	1.3	1.3	1.0	A859861			
Dibromochloromethane	ug/L	-	2.3	2.7	1.0	A859861			
Chloroform	ug/L	-	<1.0	<1.0	1.0	A859861			
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	-	115	100		A859861			
4-Bromofluorobenzene (sur.)	%	-	84	85		A859861			
D4-1,2-Dichloroethane (sur.)	%	-	127	103		A859861			
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									



CSR VOC + VPH IN WATER (DRINKING WATER)

Bureau Veritas ID				BKN739	BKN740	BKN743		
Sampling Date				2023/01/18 08:30	2023/01/18 08:40	2023/01/18 10:00		
COC Number				685113-01-01	685113-01-01	685113-01-01		
	UNITS	MAC	AO	WELL #2	WELL #3	INDUSTRIAL PARK	RDL	QC Batch
Calculated Parameters								
VPH (VH6 to 10 - BTEX)	ug/L	-	-	<300	<300	<300	300	A859310
Volatiles								
VH C6-C10	ug/L	-	-	<300	<300	<300	300	A859861
1,1,1,2-tetrachloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	A859861
1,1,1-trichloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	A859861
1,1,2-tetrachloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	A859861
1,1,2Trichloro-1,2,2Trifluoroethane	ug/L	-	-	<2.0	<2.0	<2.0	2.0	A859861
1,1,2-trichloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	A859861
1,1-dichloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	A859861
1,1-dichloroethene	ug/L	14	-	<0.50	<0.50	<0.50	0.50	A859861
1,2-dichlorobenzene	ug/L	200	3	<0.50	<0.50	<0.50	0.50	A859861
1,2-dichloroethane	ug/L	5	-	<0.50	<0.50	<0.50	0.50	A859861
1,2-dichloropropane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	A859861
1,3-Butadiene	ug/L	-	-	<0.50	<0.50	<0.50	0.50	A859861
1,3-dichlorobenzene	ug/L	-	-	<0.50	<0.50	<0.50	0.50	A859861
1,4-dichlorobenzene	ug/L	5	1	<0.50	<0.50	<0.50	0.50	A859861
Benzene	ug/L	5	-	<0.40	<0.40	<0.40	0.40	A859861
Bromobenzene	ug/L	-	-	<2.0	<2.0	<2.0	2.0	A859861
Bromodichloromethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
Bromoform	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
Bromomethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
Carbon tetrachloride	ug/L	2	-	<0.50	<0.50	<0.50	0.50	A859861
Chlorobenzene	ug/L	80	30	<0.50	<0.50	<0.50	0.50	A859861
Dibromochloromethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
Chloroethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
Chloroform	ug/L	-	-	<1.0	<1.0	2.1	1.0	A859861
Chloromethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
cis-1,2-dichloroethene	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
cis-1,3-dichloropropene	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
Dibromomethane	ug/L	-	-	<0.90	<0.90	<0.90	0.90	A859861
Dichlorodifluoromethane	ug/L	-	-	<2.0	<2.0	<2.0	2.0	A859861
Dichloromethane	ug/L	50	-	<2.0	<2.0	<2.0	2.0	A859861
Ethylbenzene	ug/L	140	1.6	<0.40	<0.40	<0.40	0.40	A859861
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								



CSR VOC + VPH IN WATER (DRINKING WATER)

Bureau Veritas ID				BKN739	BKN740	BKN743		
Sampling Date				2023/01/18 08:30	2023/01/18 08:40	2023/01/18 10:00		
COC Number				685113-01-01	685113-01-01	685113-01-01		
	UNITS	MAC	AO	WELL #2	WELL #3	INDUSTRIAL PARK	RDL	QC Batch
Methyl-tert-butylether (MTBE)	ug/L	-	15	<4.0	<4.0	<4.0	4.0	A859861
Styrene	ug/L	-	-	<0.50	<0.50	<0.50	0.50	A859861
Tetrachloroethene	ug/L	10	-	<0.50	<0.50	<0.50	0.50	A859861
Toluene	ug/L	60	24	<0.40	<0.40	<0.40	0.40	A859861
trans-1,2-dichloroethene	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
trans-1,3-dichloropropene	ug/L	-	-	<1.0	<1.0	<1.0	1.0	A859861
Trichloroethene	ug/L	5	-	<0.50	<0.50	<0.50	0.50	A859861
Trichlorofluoromethane	ug/L	-	-	<4.0	<4.0	<4.0	4.0	A859861
Vinyl chloride	ug/L	2	-	<0.50	<0.50	<0.50	0.50	A859861
m & p-Xylene	ug/L	-	-	<0.40	<0.40	<0.40	0.40	A859861
o-Xylene	ug/L	-	-	<0.40	<0.40	<0.40	0.40	A859861
Xylenes (Total)	ug/L	90	20	<0.40	<0.40	<0.40	0.40	A859861
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	-	-	100	115	115		A859861
4-Bromofluorobenzene (sur.)	%	-	-	85	84	84		A859861
D4-1,2-Dichloroethane (sur.)	%	-	-	129	102	102		A859861
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								



GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2020.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:

1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.

Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C304398

Report Date: 2023/01/27

QUALITY ASSURANCE REPORT

VILLAGE OF PEMBERTON

Client Project #: Annual Water Sample

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
A859861	1,4-Difluorobenzene (sur.)	2023/01/23	98	50 - 140	97	50 - 140	99	%		
A859861	4-Bromofluorobenzene (sur.)	2023/01/23	101	50 - 140	97	50 - 140	83	%		
A859861	D4-1,2-Dichloroethane (sur.)	2023/01/23	102	50 - 140	96	50 - 140	94	%		
A859861	1,1,1,2-tetrachloroethane	2023/01/23	98	50 - 140	90	60 - 130	<0.50	ug/L	NC	30
A859861	1,1,1-trichloroethane	2023/01/23	101	50 - 140	94	60 - 130	<0.50	ug/L	NC	30
A859861	1,1,2,2-tetrachloroethane	2023/01/23	93	50 - 140	88	60 - 130	<0.50	ug/L	NC	30
A859861	1,1,2Trichloro-1,2,2Trifluoroethane	2023/01/23	104	50 - 140	100	60 - 130	<2.0	ug/L	NC	30
A859861	1,1,2-trichloroethane	2023/01/23	97	50 - 140	88	60 - 130	<0.50	ug/L	NC	30
A859861	1,1-dichloroethane	2023/01/23	119	50 - 140	94	60 - 130	<0.50	ug/L	NC	30
A859861	1,1-dichloroethene	2023/01/23	107	50 - 140	102	60 - 130	<0.50	ug/L	NC	30
A859861	1,2-dichlorobenzene	2023/01/23	101	50 - 140	98	60 - 130	<0.50	ug/L	NC	30
A859861	1,2-dichloroethane	2023/01/23	104	50 - 140	96	60 - 130	<0.50	ug/L	NC	30
A859861	1,2-dichloropropane	2023/01/23	103	50 - 140	96	60 - 130	<0.50	ug/L	NC	30
A859861	1,3-Butadiene	2023/01/23	100	50 - 140	96	50 - 140	<0.50	ug/L	NC	30
A859861	1,3-dichlorobenzene	2023/01/23	104	50 - 140	102	60 - 130	<0.50	ug/L	NC	30
A859861	1,4-dichlorobenzene	2023/01/23	101	50 - 140	99	60 - 130	<0.50	ug/L	NC	30
A859861	Benzene	2023/01/23	128	50 - 140	99	60 - 130	<0.40	ug/L	NC	30
A859861	Bromobenzene	2023/01/23	94	50 - 140	90	60 - 130	<2.0	ug/L	NC	30
A859861	Bromodichloromethane	2023/01/23	110	50 - 140	105	60 - 130	<1.0	ug/L	NC	30
A859861	Bromoform	2023/01/23	86	50 - 140	79	60 - 130	<1.0	ug/L	NC	30
A859861	Bromomethane	2023/01/23	113	50 - 140	92	50 - 140	<1.0	ug/L	NC	30
A859861	Carbon tetrachloride	2023/01/23	104	50 - 140	96	60 - 130	<0.50	ug/L	NC	30
A859861	Chlorobenzene	2023/01/23	94	50 - 140	89	60 - 130	<0.50	ug/L	NC	30
A859861	Chloroethane	2023/01/23	108	50 - 140	106	50 - 140	<1.0	ug/L	NC	30
A859861	Chloroform	2023/01/23	94	50 - 140	87	60 - 130	<1.0	ug/L	NC	30
A859861	Chloromethane	2023/01/23	96	50 - 140	87	50 - 140	<1.0	ug/L	NC	30
A859861	cis-1,2-dichloroethene	2023/01/23	104	50 - 140	96	60 - 130	<1.0	ug/L	NC	30
A859861	cis-1,3-dichloropropene	2023/01/23	98	50 - 140	77	50 - 140	<1.0	ug/L	NC	30
A859861	Dibromochloromethane	2023/01/23	98	50 - 140	89	60 - 130	<1.0	ug/L	NC	30
A859861	Dibromomethane	2023/01/23	100	50 - 140	91	60 - 130	<0.90	ug/L		
A859861	Dichlorodifluoromethane	2023/01/23	95	50 - 140	90	50 - 140	<2.0	ug/L	NC	30
A859861	Dichloromethane	2023/01/23	99	50 - 140	92	60 - 130	<2.0	ug/L	NC	30
A859861	Ethylbenzene	2023/01/23	112	50 - 140	107	60 - 130	<0.40	ug/L	NC	30



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Bureau Veritas Job #: C304398

Report Date: 2023/01/27

QUALITY ASSURANCE REPORT(CONT'D)

VILLAGE OF PEMBERTON

Client Project #: Annual Water Sample

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
A859861	m & p-Xylene	2023/01/23	92	50 - 140	88	60 - 130	<0.40	ug/L	NC	30
A859861	Methyl-tert-butylether (MTBE)	2023/01/23	101	50 - 140	94	60 - 130	<4.0	ug/L	NC	30
A859861	o-Xylene	2023/01/23	87	50 - 140	83	60 - 130	<0.40	ug/L	NC	30
A859861	Styrene	2023/01/23	89	50 - 140	85	60 - 130	<0.50	ug/L	NC	30
A859861	Tetrachloroethene	2023/01/23	96	50 - 140	92	60 - 130	<0.50	ug/L	1.1	30
A859861	Toluene	2023/01/23	92	50 - 140	94	60 - 130	<0.40	ug/L	2.9	30
A859861	trans-1,2-dichloroethene	2023/01/23	104	50 - 140	99	60 - 130	<1.0	ug/L	NC	30
A859861	trans-1,3-dichloropropene	2023/01/23	99	50 - 140	73	50 - 140	<1.0	ug/L	NC	30
A859861	Trichloroethene	2023/01/23	109	50 - 140	113	60 - 130	<0.50	ug/L	NC	30
A859861	Trichlorofluoromethane	2023/01/23	193 (1)	50 - 140	85	60 - 130	<4.0	ug/L	NC	30
A859861	VH C6-C10	2023/01/23			100	70 - 130	<300	ug/L	NC	30 >
A859861	Vinyl chloride	2023/01/23	84	50 - 140	79	50 - 140	<0.50	ug/L	NC	30
A859861	Xylenes (Total)	2023/01/23					<0.40	ug/L	NC	30
A859880	Dissolved Fluoride (F)	2023/01/20	NC	80 - 120	96	80 - 120	<0.050	mg/L	4.4	20
A859949	True Colour	2023/01/20			98	80 - 120	<5.0	Col. Unit	NC	20
A859957	True Colour	2023/01/20			110	80 - 120	<5.0	Col. Unit	NC	20
A860022	Total Aluminum (Al)	2023/01/21	100	80 - 120	104	80 - 120	<3.0	ug/L	1.1	20
A860022	Total Antimony (Sb)	2023/01/21	101	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
A860022	Total Arsenic (As)	2023/01/21	101	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
A860022	Total Barium (Ba)	2023/01/21	96	80 - 120	101	80 - 120	<1.0	ug/L	1.7	20
A860022	Total Boron (B)	2023/01/21	96	80 - 120	102	80 - 120	<50	ug/L	1.6	20
A860022	Total Cadmium (Cd)	2023/01/21	101	80 - 120	105	80 - 120	<0.010	ug/L	0.76	20
A860022	Total Chromium (Cr)	2023/01/21	99	80 - 120	104	80 - 120	<1.0	ug/L	NC	20
A860022	Total Cobalt (Co)	2023/01/21	98	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
A860022	Total Copper (Cu)	2023/01/21	95	80 - 120	100	80 - 120	<0.20	ug/L	1.9	20
A860022	Total Iron (Fe)	2023/01/21	95	80 - 120	105	80 - 120	<5.0	ug/L	0.76	20
A860022	Total Lead (Pb)	2023/01/21	99	80 - 120	104	80 - 120	<0.20	ug/L	0.49	20
A860022	Total Manganese (Mn)	2023/01/21	NC	80 - 120	103	80 - 120	<1.0	ug/L	1.1	20
A860022	Total Molybdenum (Mo)	2023/01/21	103	80 - 120	103	80 - 120	<1.0	ug/L	3.8	20
A860022	Total Nickel (Ni)	2023/01/21	97	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
A860022	Total Selenium (Se)	2023/01/21	97	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
A860022	Total Silver (Ag)	2023/01/21	101	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
A860022	Total Strontium (Sr)	2023/01/21	NC	80 - 120	102	80 - 120	<1.0	ug/L	0.0021	20



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QUALITY ASSURANCE REPORT(CONT'D)

VILLAGE OF PEMBERTON

Client Project #: Annual Water Sample

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
A860022	Total Uranium (U)	2023/01/21	102	80 - 120	106	80 - 120	<0.10	ug/L	NC	20
A860022	Total Vanadium (V)	2023/01/21	101	80 - 120	104	80 - 120	<5.0	ug/L	NC	20
A860022	Total Zinc (Zn)	2023/01/21	101	80 - 120	106	80 - 120	<5.0	ug/L	0.25	20
A860087	Chloride (Cl)	2023/01/23	103	80 - 120	102	80 - 120	<1.0	mg/L	NC	20
A860087	Sulphate (SO4)	2023/01/23	NC	80 - 120	102	80 - 120	<1.0	mg/L		
A860091	Chloride (Cl)	2023/01/23	102	80 - 120	104	80 - 120	<1.0	mg/L	7.2	20
A860091	Sulphate (SO4)	2023/01/23	96	80 - 120	101	80 - 120	<1.0	mg/L	NC	20
A860474	Turbidity	2023/01/21			103	80 - 120	<0.10	NTU	3.7	20
A860498	Nitrate plus Nitrite (N)	2023/01/21	108	80 - 120	106	80 - 120	<0.020	mg/L	1.4	25
A860499	Nitrite (N)	2023/01/21	106	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20
A861515	pH	2023/01/21			101	97 - 103			0.89	N/A
A861517	Alkalinity (PP as CaCO3)	2023/01/21					<1.0	mg/L		
A861517	Alkalinity (Total as CaCO3)	2023/01/21			97	80 - 120	<1.0	mg/L		
A861517	Bicarbonate (HCO3)	2023/01/21					<1.0	mg/L		
A861517	Carbonate (CO3)	2023/01/21					<1.0	mg/L		
A861517	Hydroxide (OH)	2023/01/21					<1.0	mg/L		
A861518	Conductivity	2023/01/21			102	80 - 120	<2.0	uS/cm	0	10
A861894	Total Mercury (Hg)	2023/01/24	100	80 - 120	116	80 - 120	<0.0019	ug/L	NC	20
A863326	Total Dissolved Solids	2023/01/26	102	80 - 120	95	80 - 120	<10	mg/L	4.1	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



Bureau Veritas
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C304398_COC

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INVOICE TO:		Report Information		Project Information	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C21923
Contact Name	Accounts Payable	Contact Name	Jeff Westlake	P.O. #	
Address	Box 100 7400 Prospect St Pemberton BC V0N 2L0	Address		Project #	Annual Water Sample
Phone	(604) 894-6811 Fax: (604) 894-6855	Phone	(604) 894-6125 Fax: [REDACTED]	Project Name	
Email	accountspayable@pemberton.ca	Email	jwestlake@pemberton.ca	Site #	
				Sampled By	

Regulatory Criteria: <input type="checkbox"/> CSR <input type="checkbox"/> CCME <input type="checkbox"/> BC Water Quality <input type="checkbox"/> Other _____	Special Instructions 	ANALYSIS REQUESTED (PLEASE BE SPECIFIC) <table border="1"> <tr> <td>Metals Field Filtered T (Y/N)</td> <td>Drinking Water Package w/o Microbiology</td> <td>Trihalomethanes (THM) in Water</td> <td>CSR VOC + VPH in Water</td> </tr> </table>	Metals Field Filtered T (Y/N)	Drinking Water Package w/o Microbiology	Trihalomethanes (THM) in Water	CSR VOC + VPH in Water	Turnaround Time (TAT) Required: Please provide advance notice for rush projects. Regular (Standard) TAT: (will be applied if Rush TAT is not specified) Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dissolved Phosphorus are > 5 days - contact your Project Manager for details. Job Specific Rush TAT (if applies to entire submission) 1 DAY <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> Date Required: _____ Rush Confirmation Number: _____ (not used for #)
Metals Field Filtered T (Y/N)	Drinking Water Package w/o Microbiology	Trihalomethanes (THM) in Water	CSR VOC + VPH in Water				

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Notes	Metals Field Filtered T (Y/N)	Drinking Water Package w/o Microbiology	Trihalomethanes (THM) in Water	CSR VOC + VPH in Water
1	WALL # 2	23/01/18	0830		✓	✓		
2	WALL # 3	23/01/18	0840		✓	✓		
3	FARM RD	23/01/18	0900		✓	✓		
4	RIDGE PLS	23/01/18	0930		✓	✓		
5	INDUSTRIAL PARK	23/01/18	1000		✓	✓	✓	
6								
7								
8								
9								
10								

RELINQUISHED BY: (Signature/Print) [REDACTED]	Date: (YYMMDD) 23/01/18	Time 1030	RECEIVED BY: (Signature/Print) Edeline Coelli	Date: (YYMMDD) 23/01/20	Time 1500	# Jars used and not submitted <input type="checkbox"/>	Lab Use Only Time (minutes) <input type="checkbox"/>	Temperature (°C) on Receipt 7.7.8	Custody Seal Intact on Cooler? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	----------------------------	--------------	--	----------------------------	--------------	---	--	--------------------------------------	---

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.
 * IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

ice pack: jes



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APPENDIX III

2022 Weekly Water Quality Sampling Results

APPENDIX III

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
4-Jan-22	0.25	7.01	8.37	61.33
12-Jan-22				
Pemberton				
Health Centre	0.33	7.00	8.80	67.00
Oak St	0.39	6.96	9.00	66.00
Plateau/Ridge	0.33	6.98	8.40	73.00
Village Office	0.39	7.01	7.40	68.00
WWTP	0.08	7.02	8.50	70.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.30	6.99	8.42	68.80
Industrial Park **	0.00	7.10	8.10	24.00
17-Jan-22				
Pemberton				
Health Centre	0.43	7.01	9.50	77.00
Oak St	0.47	6.87	13.40	58.00
Plateau/Ridge	0.36	6.99	12.20	56.00
Village Office	0.37	7.01	10.70	71.00
WWTP	0.05	6.87	10.50	78.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.34	6.95	11.26	68.00
Industrial Park **	0.16	7.11	8.80	22.00
24-Jan-22				
Pemberton				
Health Centre	0.40	6.97	10.70	63.00
Oak St	0.45	7.05	8.70	66.00
Plateau/Ridge	0.39	7.04	7.60	74.00
Village Office	0.34	7.04	8.70	74.00
WWTP	0.05	7.04	8.20	61.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *	0.41	7.03	9.10	72.00
Pemberton Total	0.34	7.03	8.83	68.33
Industrial Park **	0.00	7.05	7.60	20.00
1-Feb-22				
Pemberton				
Health Centre	0.39	7.10	9.80	65.00
Oak St	0.38	7.08	9.20	77.00
Plateau/Ridge	0.40	7.21	8.10	75.00
Village Office	0.36	7.16	7.70	73.00
WWTP	0.05	7.14	7.30	74.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.32	7.14	8.42	72.80

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lilloet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.10	7.14	6.70	21.00
7-Feb-22				
Pemberton				
Health Centre	0.26	7.06	11.20	68.00
Oak St	0.32	7.05	10.90	69.00
Plateau/Ridge	0.31	7.05	9.40	79.00
Village Office	0.33	7.08	8.30	72.00
WWTP	0.05	7.08	9.40	80.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *	0.33	7.05	10.40	68.00
Pemberton Total	0.27	7.06	9.93	72.67
Industrial Park **	0.28	7.05	7.40	23.00
15-Feb-22				
Pemberton				
Health Centre	0.38	6.99	11.30	69.00
Oak St	0.37	7.06	10.70	73.00
Plateau/Ridge	0.29	7.03	8.90	69.00
Village Office	0.27	7.00	9.00	68.00
WWTP	0.08	7.01	8.70	68.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *	0.36	6.99	8.90	63.00
Pemberton Total	0.29	7.01	9.58	68.33
Industrial Park **	0.10	6.97	7.30	24.00
22-Feb-22				
Pemberton				
Health Centre	0.37	7.09	9.70	76.00
Oak St	0.33	7.10	8.70	78.00
Plateau/Ridge	0.33	7.20	7.50	70.00
Village Office	0.39	7.16	7.60	78.00
WWTP	0.23	7.13	7.20	70.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.33	7.14	8.14	74.40
Industrial Park **	0.11	7.07	5.60	25.00
28-Feb-22				
Pemberton				
Health Centre	0.38	9.95	9.20	67.00
Oak St	0.28	7.05	9.40	66.00
Plateau/Ridge	0.33	7.10	9.30	64.00
Village Office	0.32	7.08	8.90	66.00
WWTP	0.02	7.10	9.00	62.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *	0.38	7.04	87.00	60.00
Pemberton Total	0.29	7.55	22.13	64.17

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.12	7.06	7.80	24.00
7-Mar-22				
Pemberton				
Health Centre	0.36	6.63	10.60	55.00
Oak St	0.39	6.70	8.10	46.00
Plateau/Ridge	0.32	6.92	8.60	50.00
Village Office	0.38	6.70	8.40	51.00
WWTP	0.26	7.00	8.00	71.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *	0.34	6.70	7.70	55.00
Pemberton Total	0.34	6.78	8.57	54.67
Industrial Park **	0.19	6.97	6.70	24.00
14-Mar-22				
Pemberton				
Health Centre	0.36	7.04	10.80	56.00
Oak St	0.25	7.05	8.40	62.00
Plateau/Ridge	0.25	7.13	10.30	60.00
Village Office	0.28	7.07	8.30	56.00
WWTP	0.05	6.96	9.90	66.00
PNWS - Meadows Rd *	0.30	7.06	8.60	69.00
PNWS - Farm Rd *	0.35	7.06	8.40	66.00
Pemberton Total	0.26	7.05	9.24	62.14
Industrial Park **	0.12	6.98	8.30	25.00
21-Mar-22				
Pemberton				
Health Centre	0.44	7.01	12.10	56.00
Oak St	0.43	7.02	10.90	56.00
Plateau/Ridge	0.34	7.04	7.60	66.00
Village Office	0.37	7.04	8.20	57.00
WWTP	0.27	7.13	8.10	59.00
PNWS - Meadows Rd *	0.44	7.07	7.40	60.00
PNWS - Farm Rd *	0.38	7.00	7.50	56.00
Pemberton Total	0.38	7.04	8.83	58.57
Industrial Park **	0.05	7.07	7.40	22.00
28-Mar-22				
Pemberton				
Health Centre	0.32	7.00	10.40	60.00
Oak St	0.29	7.00	10.80	56.00
Plateau/Ridge	0.29	7.07	11.10	69.00
Village Office	0.26	7.01	9.00	58.00
WWTP	0.08	7.06	10.00	58.00
PNWS - Meadows Rd *	0.29	7.00	10.20	63.00
PNWS - Farm Rd *	0.35	7.05	9.50	61.00
Pemberton Total	0.27	7.03	10.14	60.71

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.03	7.05	8.90	28.00
4-Apr-22				
Pemberton				
Health Centre	0.36	6.98	12.60	51.00
Oak St	0.29	7.04	9.70	66.00
Plateau/Ridge	0.20	7.11	10.10	64.00
Village Office	0.29	7.07	10.10	52.00
WWTP	0.10	7.05	8.80	58.00
PNWS - Meadows Rd *	0.32	7.01	10.40	57.00
PNWS - Farm Rd *	0.31	7.03	10.80	53.00
Pemberton Total	0.27	7.04	10.36	57.29
Industrial Park **	0.00	7.06	8.40	25.00
11-Apr-22				
Pemberton				
Health Centre	0.38	7.11	9.70	59.00
Oak St	0.35	7.11	7.80	57.00
Plateau/Ridge	0.44	7.11	5.70	71.00
Village Office	0.37	6.98	7.50	59.00
WWTP	0.09	6.98	8.10	57.00
PNWS - Meadows Rd *	0.34	7.04	6.30	54.00
PNWS - Farm Rd *	0.39	7.15	6.00	56.00
Pemberton Total	0.34	7.07	7.30	59.00
Industrial Park **	0.12	6.91	7.90	26.00
19-Apr-22				
Pemberton				
Health Centre	0.29	6.90	10.10	60.00
Oak St	0.26	6.99	9.00	53.00
Plateau/Ridge	0.23	7.01	8.90	58.00
Village Office	0.31	7.02	8.50	57.00
WWTP	0.11	7.04	10.00	57.00
PNWS - Meadows Rd *	0.30	6.95	10.50	55.00
PNWS - Farm Rd *	0.29	7.01	9.60	62.00
Pemberton Total	0.26	6.99	9.51	57.43
Industrial Park **	0.18	7.02	7.70	28.00
25-Apr-22				
Pemberton				
Health Centre	0.41	7.07	12.50	59.00
Oak St	0.36	7.10	8.80	56.00
Plateau/Ridge	0.27	7.80	10.10	58.00
Village Office	0.28	7.09	10.10	59.00
WWTP	0.16	7.10	10.20	56.00
PNWS - Meadows Rd *	0.30	7.10	9.30	58.00
PNWS - Farm Rd *	0.30	7.09	9.90	63.00
Pemberton Total	0.30	7.19	10.13	58.43

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.06	7.09	8.80	25.00
3-May-22				
Pemberton				
Health Centre	0.36	6.94	13.50	57.00
Oak St	0.31	6.95	10.30	56.00
Plateau/Ridge	0.28	6.92	10.60	53.00
Village Office	0.29	6.97	10.40	50.00
WWTP	0.05	6.95	11.90	55.00
PNWS - Meadows Rd *	0.22	6.95	10.70	55.00
PNWS - Farm Rd *	0.27	6.95	9.70	58.00
Pemberton Total	0.25	6.95	11.01	54.86
Industrial Park **	0.16	6.91	10.60	29.00
9-May-22				
Pemberton				
Health Centre	0.36	6.95	17.50	45.00
Oak St	0.35	7.00	13.30	50.00
Plateau/Ridge	0.37	7.03	10.60	66.00
Village Office	0.36	7.07	11.70	58.00
WWTP	0.14	7.02	10.40	54.00
PNWS - Meadows Rd *	0.34	7.02	10.80	59.00
PNWS - Farm Rd *	0.34	7.00	11.60	58.00
Pemberton Total	0.32	7.01	12.27	55.71
Industrial Park **	0.18	6.98	10.10	26.00
18-May-22				
Pemberton				
Health Centre	0.35	7.00	12.40	52.00
Oak St	0.32	7.00	10.00	61.00
Plateau/Ridge	0.30	6.96	10.00	51.00
Village Office	0.34	6.98	9.00	55.00
WWTP	0.11	7.00	10.20	66.00
PNWS - Meadows Rd *	0.26	6.98	9.20	55.00
PNWS - Farm Rd *	0.26	6.99	10.20	51.00
Pemberton Total	0.28	6.99	10.14	55.86
Industrial Park **	0.12	6.97	10.10	27.00
24-May-22				
Pemberton				
Health Centre	0.39	7.01	13.90	50.00
Oak St	0.35	7.06	11.40	55.00
Plateau/Ridge	0.28	7.05	11.30	55.00
Village Office	0.34	7.06	12.60	56.00
WWTP	0.08	7.08	10.30	56.00
PNWS - Meadows Rd *	0.34	7.06	11.10	56.00
PNWS - Farm Rd *	0.34	7.06	11.60	52.00
Pemberton Total	0.30	7.05	11.74	54.29

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.12	7.07	10.10	24.00
30-May-22				
Pemberton				
Health Centre	0.28	7.09	15.00	52.00
Oak St	0.27	7.12	10.40	50.00
Plateau/Ridge	0.25	7.06	11.30	54.00
Village Office	0.27	7.09	10.00	54.00
WWTP	0.08	7.12	9.60	56.00
PNWS - Meadows Rd *	0.28	7.10	12.60	50.00
PNWS - Farm Rd *	0.26	7.08	9.60	54.00
Pemberton Total	0.24	7.09	11.21	52.86
Industrial Park **	0.09	7.08	11.00	25.00
6-Jun-22				
Pemberton				
Health Centre	0.32	6.97	14.50	58.00
Oak St	0.35	7.09	10.80	57.00
Plateau/Ridge	0.30	7.08	11.90	58.00
Village Office	0.28	7.10	11.40	51.00
WWTP	0.19	7.12	11.40	51.00
PNWS - Meadows Rd *	0.27	7.04	12.20	51.00
PNWS - Farm Rd *	0.33	7.08	10.70	58.00
Pemberton Total	0.29	7.07	11.84	54.86
Industrial Park **	0.15	7.10	10.60	19.00
13-Jun-22				
Pemberton				
Health Centre	0.29	6.77	14.20	52.00
Oak St	0.32	6.89	11.40	51.00
Plateau/Ridge	0.31	6.86	13.30	52.00
Village Office	0.35	6.85	12.50	52.00
WWTP	0.19	6.88	11.40	41.00
PNWS - Meadows Rd *	0.34	6.89	11.10	47.00
PNWS - Farm Rd *	0.32	6.88	10.90	47.00
Pemberton Total	0.30	6.86	12.11	48.86
Industrial Park **	0.06	6.90	11.10	25.00
20-Jun-22				
Pemberton				
Health Centre	0.26	7.15	14.70	72.00
Oak St	0.22	7.20	14.00	64.00
Plateau/Ridge	0.29	7.25	11.40	57.00
Village Office	0.25	7.22	13.20	57.00
WWTP	0.07	7.19	12.10	58.00
PNWS - Meadows Rd *	0.25	7.24	12.20	62.00
PNWS - Farm Rd *	0.24	7.18	14.00	58.00
Pemberton Total	0.23	7.20	13.09	61.14

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lilloet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.05	7.22	11.10	17.00
27-Jun-22				
Pemberton				
Health Centre	0.29	6.88	17.50	64.00
Oak St	0.29	6.99	12.70	59.00
Plateau/Ridge	0.25	6.97	13.10	59.00
Village Office	0.31	6.97	13.50	58.00
WWTP	0.13	7.02	13.00	62.00
PNWS - Meadows Rd *	0.35	6.94	14.80	60.00
PNWS - Farm Rd *	0.35	7.00	13.00	58.00
Pemberton Total	0.28	6.97	13.94	60.00
Industrial Park **	0.25	7.03	12.70	19.00
4-Jul-22				
Pemberton				
Health Centre	0.19	6.95	14.20	48.00
Oak St	0.24	6.92	11.50	45.00
Plateau/Ridge	0.17	6.85	14.80	52.00
Village Office	0.18	6.87	13.10	49.00
WWTP	0.19	6.88	13.30	51.00
PNWS - Meadows Rd *	0.21	6.83	12.20	50.00
PNWS - Farm Rd *	0.20	6.86	13.60	50.00
Pemberton Total	0.20	6.88	13.24	49.29
Industrial Park **	0.16	6.89	15.40	21.00
12-Jul-22				
Pemberton				
Health Centre	0.31	6.90	14.10	42.00
Oak St	0.32	6.77	13.60	36.00
Plateau/Ridge	0.29	6.81	14.30	47.00
Village Office	0.29	6.79	14.00	41.00
WWTP	0.11	6.91	15.00	48.00
PNWS - Meadows Rd *	0.28	6.80	13.90	49.00
PNWS - Farm Rd *	0.30	6.79	13.70	48.00
Pemberton Total	0.27	6.82	14.09	44.43
Industrial Park **	0.14	6.88	14.00	26.00
18-Jul-22				
Pemberton				
Health Centre	0.23	6.90	15.50	41.00
Oak St	0.34	6.80	11.60	47.00
Plateau/Ridge	0.24	6.87	12.20	47.00
Village Office	0.20	6.90	13.20	54.00
WWTP	0.14	6.94	14.10	48.00
PNWS - Meadows Rd *	0.25	6.83	11.80	51.00
PNWS - Farm Rd *	0.28	6.90	12.20	47.00
Pemberton Total	0.24	6.88	12.94	47.86

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lilloet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.10	6.98	11.80	24.00
26-Jul-22				
Pemberton				
Health Centre	0.26	7.18	19.70	56.00
Oak St	0.27	7.19	15.50	63.00
Plateau/Ridge	0.29	7.14	15.60	58.00
Village Office	0.20	7.18	16.80	66.00
WWTP	0.16	7.22	16.10	53.00
PNWS - Meadows Rd *	0.29	7.16	15.00	62.00
PNWS - Farm Rd *	0.35	7.14	15.00	58.00
Pemberton Total	0.26	7.17	16.24	59.43
Industrial Park **	0.00	7.21	15.70	14.00
2-Aug-22				
Pemberton				
Health Centre	0.25	7.10	15.50	55.00
Oak St	0.27	7.05	16.30	61.00
Plateau/Ridge	0.34	7.08	16.00	59.00
Village Office	0.25	7.00	17.00	62.00
WWTP	0.13	7.12	15.90	56.00
PNWS - Meadows Rd *	0.26	7.07	15.10	54.00
PNWS - Farm Rd *	0.35	7.08	15.80	61.00
Pemberton Total	0.26	7.07	15.94	58.29
Industrial Park **	0.00	7.22	15.90	20.00
8-Aug-22				
Pemberton				
Health Centre	0.36	7.07	16.20	59.00
Oak St	0.37	7.20	13.70	56.00
Plateau/Ridge	0.36	7.16	15.30	58.00
Village Office	0.33	7.16	14.50	58.00
WWTP	0.15	7.24	13.90	55.00
PNWS - Meadows Rd *	0.41	7.19	13.80	56.00
PNWS - Farm Rd *	0.38	7.18	13.90	54.00
Pemberton Total	0.34	7.17	14.47	56.57
Industrial Park **	0.37	7.14	14.40	15.00
15-Aug-22				
Pemberton				
Health Centre	0.31	7.07	15.90	57.00
Oak St	0.29	7.10	15.20	62.00
Plateau/Ridge	0.31	7.15	13.90	66.00
Village Office	0.28	7.17	14.90	62.00
WWTP	0.11	7.22	13.40	59.00
PNWS - Meadows Rd *	0.28	7.05	14.50	63.00
PNWS - Farm Rd *	0.31	7.20	13.00	65.00
Pemberton Total	0.27	7.14	14.40	62.00

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.21	7.29	13.50	15.00
24-Aug-22				
Pemberton				
Health Centre	0.30	7.14	15.90	59.00
Oak St	0.31	7.07	16.10	59.00
Plateau/Ridge	0.29	7.09	16.00	58.00
Village Office	0.29	7.12	17.00	57.00
WWTP	0.26	7.18	16.40	59.00
PNWS - Meadows Rd *	0.32	7.07	15.60	63.00
PNWS - Farm Rd *	0.30	7.06	16.10	66.00
Pemberton Total	0.30	7.10	16.16	60.14
Industrial Park **	0.08	7.09	16.00	14.00
29-Aug-22				
Pemberton				
Health Centre	0.26	7.11	16.30	56.00
Oak St	0.29	7.09	13.90	59.00
Plateau/Ridge	0.31	7.11	14.10	68.00
Village Office	0.25	7.14	15.90	63.00
WWTP	0.09	7.15	13.90	61.00
PNWS - Meadows Rd *	0.29	7.08	14.10	66.00
PNWS - Farm Rd *	0.26	7.12	15.40	66.00
Pemberton Total	0.25	7.11	14.80	62.71
Industrial Park **	0.06	7.14	13.60	14.00
6-Sep-22				
Pemberton				
Health Centre	0.29	7.15	15.30	59.00
Oak St	0.29	7.17	13.20	68.00
Plateau/Ridge	0.24	7.14	11.20	62.00
Village Office	0.28	7.12	12.40	64.00
WWTP	0.18	7.16	12.10	68.00
PNWS - Meadows Rd *	0.34	7.13	10.90	63.00
PNWS - Farm Rd *	0.27	7.16	11.30	64.00
Pemberton Total	0.27	7.15	12.34	64.00
Industrial Park **	0.00	7.17	9.90	17.00
12-Sep-22				
Pemberton				
Health Centre	0.29	7.06	15.20	63.00
Oak St	0.32	7.08	13.30	62.00
Plateau/Ridge	0.32	7.09	12.50	66.00
Village Office	0.35	7.14	11.30	58.00
WWTP	0.05	7.18	11.40	65.00
PNWS - Meadows Rd *	0.33	7.05	12.10	60.00
PNWS - Farm Rd *	0.35	7.06	11.20	60.00
Pemberton Total	0.29	7.09	12.43	62.00

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.00	7.03	12.10	12.00
20-Sep-22				
Pemberton				
Health Centre	0.29	7.12	15.60	70.00
Oak St	0.36	7.09	11.60	67.00
Plateau/Ridge	0.28	7.14	10.70	71.00
Village Office	0.25	7.14	12.50	71.00
WWTP	0.12	7.11	12.10	72.00
PNWS - Meadows Rd *	0.36	7.10	13.60	71.00
PNWS - Farm Rd *	0.34	7.12	12.20	59.00
Pemberton Total	0.29	7.12	12.61	68.71
Industrial Park **	0.23	7.16	12.20	15.00
26-Sep-22				
Pemberton				
Health Centre	0.28	7.05	15.50	65.00
Oak St	0.27	7.05	11.40	63.00
Plateau/Ridge	0.33	7.06	10.90	64.00
Village Office	0.36	7.04	11.90	59.00
WWTP	0.15	7.06	12.00	62.00
PNWS - Meadows Rd *	0.32	7.09	12.80	63.00
PNWS - Farm Rd *	0.32	7.06	12.20	59.00
Pemberton Total	0.29	7.06	12.39	62.14
Industrial Park **	0.10	7.14	13.30	13.00
4-Oct-22				
Pemberton				
Health Centre	0.36	7.10	14.20	57.00
Oak St	0.39	7.08	12.60	62.00
Plateau/Ridge	0.36	7.01	13.30	66.00
Village Office	0.29	7.08	12.90	64.00
WWTP	0.15	7.07	13.10	66.00
PNWS - Meadows Rd *	0.35	7.05	11.70	60.00
PNWS - Farm Rd *	0.34	7.05	12.30	70.00
Pemberton Total	0.32	7.06	12.87	63.57
Industrial Park **	0.12	7.10	11.80	15.00
12-Oct-22				
Pemberton				
Health Centre	0.34	6.79	17.20	54.00
Oak St	0.36	6.87	11.60	41.00
Plateau/Ridge	0.32	6.84	14.00	52.00
Village Office	0.27	6.86	12.70	41.00
WWTP	0.18	6.79	14.60	50.00
PNWS - Meadows Rd *	0.35	6.88	12.30	53.00
PNWS - Farm Rd *	0.34	6.93	11.90	55.00
Pemberton Total	0.31	6.85	13.47	49.43

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.00	7.04	12.20	14.00
18-Oct-22				
Pemberton				
Health Centre	0.32	6.98	15.20	66.00
Oak St	0.32	7.00	12.80	54.00
Plateau/Ridge	0.32	6.98	11.90	64.00
Village Office	0.31	7.00	11.40	58.00
WWTP	0.12	6.96	12.30	62.00
PNWS - Meadows Rd *	0.26	6.97	12.70	60.00
PNWS - Farm Rd *	0.28	7.00	12.20	57.00
Pemberton Total	0.28	6.98	12.64	60.14
Industrial Park **	0.24	7.00	11.80	14.00
24-Oct-22				
Pemberton				
Health Centre	0.26	7.17	13.70	75.00
Oak St	0.30	7.16	13.70	71.00
Plateau/Ridge	0.25	7.14	11.80	68.00
Village Office	0.22	7.17	11.80	72.00
WWTP	0.08	7.18	11.00	70.00
PNWS - Meadows Rd *	0.22	7.17	12.40	73.00
PNWS - Farm Rd *	0.22	7.12	11.70	70.00
Pemberton Total	0.22	7.16	12.30	71.29
Industrial Park **	0.10	7.25	11.30	21.00
31-Oct-22				
Pemberton				
Health Centre	0.27	7.09	14.70	67.00
Oak St	0.33	7.09	11.40	62.00
Plateau/Ridge	0.34	7.06	11.90	68.00
Village Office	0.31	7.09	13.80	60.00
WWTP	0.08	7.06	11.60	65.00
PNWS - Meadows Rd *	0.32	7.06	11.80	63.00
PNWS - Farm Rd *	0.27	7.07	13.20	71.00
Pemberton Total	0.27	7.07	12.63	65.14
Industrial Park **	0.23	7.10	11.80	12.00
8-Nov-22				
Pemberton				
Health Centre	0.29	7.16	13.70	57.00
Oak St	0.34	7.16	11.40	77.00
Plateau/Ridge	0.20	7.16	12.40	62.00
Village Office	0.22	7.16	10.90	69.00
WWTP	0.08	7.18	10.70	80.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.23	7.16	11.82	69.00

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

A Type text At here

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.12	7.20	11.00	7.23
14-Nov-22				
Pemberton				
Health Centre	0.25	7.15	14.20	68.00
Oak St	0.40	7.15	11.10	67.00
Plateau/Ridge	0.41	7.15	11.00	74.00
Village Office	0.33	7.20	11.40	72.00
WWTP	0.12	7.15	10.50	78.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.30	7.16	11.64	71.80
Industrial Park **	0.19	7.13	9.50	20.00
21-Nov-22				
Pemberton				
Health Centre	0.27	7.04	11.80	67.00
Oak St	0.40	7.09	9.30	66.00
Plateau/Ridge	0.41	7.08	10.80	65.00
Village Office	0.35	7.14	8.90	80.00
WWTP	0.29	7.14	8.00	75.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.34	7.10	9.76	70.60
Industrial Park **	0.00	7.13	7.50	15.00
5-Dec-22				
Pemberton				
Health Centre	0.22	7.08	12.00	74.00
Oak St	0.25	7.05	10.50	72.00
Plateau/Ridge	0.34	7.14	10.10	66.00
Village Office	0.28	7.10	9.00	78.00
WWTP	0.20	7.18	9.80	71.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.26	7.11	10.28	72.20
Industrial Park **	0.00	7.19	8.70	12.00
12-Dec-22				
Pemberton				
Health Centre	0.31	7.14	11.30	74.00
Oak St	0.37	7.14	7.70	65.00
Plateau/Ridge	0.51	7.13	9.60	61.00
Village Office	0.34	7.17	8.30	69.00
WWTP	0.20	7.14	7.90	75.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.35	7.14	8.96	68.80

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

Source	Chlorine Residual	pH	Temperature (C)	Alkalinity
Industrial Park **	0.13	7.16	8.00	20.00
20-Dec-22				
Pemberton				
Health Centre	0.25	7.16	9.90	65.00
Oak St	0.30	7.17	8.60	66.00
Plateau/Ridge	0.40	7.14	7.90	60.00
Village Office	0.29	7.19	8.60	61.00
WWTP	0.08	7.17	7.30	68.00
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	0.26	7.17	8.46	64.00
Industrial Park **	0.19	7.14	6.90	10.00

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lillooet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement



Box 100 | 7400 Prospect Street
Pemberton, BC V0N 2L0
P: 604.894.6135 | F: 604.894.6136
Email: admin@pemberton.ca
Website: www.pemberton.ca

APPENDIX IV

2022 Weekly VCH Bacteriological Results

APPENDIX IV

Sample Range Report

Vancouver Coastal Health

Facility Name: Village of Pemberton
Date Range: Jan 1 2022 to Dec 31 2022
Operator: Jeff Westlake
P.O. Box 100
Pemberton, BC V0N 2L0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Treatment</u>				
<u>Plant/Airport Rd.,</u>				
<u>Pemberton</u>				
	1/4/2022 8:30:00 AM	LT1	LT1	
	1/12/2022 8:30:00 AM	LT1	LT1	
	1/17/2022 8:30:00 AM	LT1	LT1	
	1/24/2022 8:30:00 AM	LT1	LT1	
	2/1/2022 8:30:00 AM	LT1	LT1	
	2/7/2022 8:30:00 AM	LT1	LT1	
	2/15/2022 8:30:00 AM	LT1	LT1	
	2/23/2022 8:00:00 AM	LT1	LT1	
	2/28/2022 8:30:00 AM	LT1	LT1	
	3/7/2022 8:31:00 AM	LT1	LT1	
	3/14/2022 8:30:00 AM	LT1	LT1	
	3/21/2022 8:30:00 AM	LT1	LT1	
	3/28/2022 8:30:00 AM	LT1	LT1	
	4/4/2022 8:30:00 AM	LT1	LT1	
	4/11/2022 8:30:00 AM	LT1	LT1	
	4/19/2022 8:30:00 AM	LT1	LT1	
	4/25/2022 8:30:00 AM	LT1	LT1	
	5/3/2022 8:30:00 AM	LT1	LT1	
	5/9/2022 8:30:00 AM	LT1	LT1	
	5/18/2022 8:30:00 AM	LT1	LT1	
	5/24/2022 8:31:00 AM	LT1	LT1	
	5/30/2022 8:30:00 AM	LT1	LT1	
	6/6/2022 8:30:00 AM	LT1	LT1	

6/13/2022 8:30:00 AM	LT1	LT1
6/20/2022 8:40:00 AM	LT1	LT1
6/27/2022 8:30:00 AM	LT1	LT1
7/4/2022 8:00:00 AM	LT1	LT1
7/12/2022 8:00:00 AM	LT1	LT1
7/18/2022 8:30:00 AM	LT1	LT1
7/26/2022 8:32:00 AM	LT1	LT1
8/2/2022 8:30:00 AM	LT1	LT1
8/8/2022 8:30:00 AM	LT1	LT1
8/15/2022 8:35:00 AM	LT1	LT1
8/24/2022 8:30:00 AM	LT1	LT1
8/30/2022 8:30:00 AM	LT1	LT1
9/6/2022 8:31:00 AM	LT1	LT1
9/12/2022 8:30:00 AM	LT1	LT1
9/20/2022 8:30:00 AM	LT1	LT1
9/26/2022 8:30:00 AM	LT1	LT1
10/3/2022 8:30:00 AM	LT1	LT1
10/12/2022 8:30:00 AM	LT1	LT1
10/18/2022 8:30:00 AM	LT1	LT1
10/24/2022 8:30:00 AM	LT1	LT1
10/31/2022 8:30:00 AM	LT1	LT1
11/8/2022 8:30:00 AM	LT1	LT1
11/14/2022 8:30:00 AM	LT1	LT1
11/21/2022 8:30:00 AM	LT1	LT1
11/29/2022 8:30:00 AM	LT1	LT1
12/5/2022 8:30:00 AM	LT1	LT1
12/12/2022 8:30:00 AM	LT1	LT1
12/20/2022 8:30:00 AM	<u>LT1</u>	<u>LT1</u>
Total Positive:	0	0

Oak Street At High
School, Pemberton

1/4/2022 9:30:00 AM	LT1	LT1
1/12/2022 7:30:00 AM	LT1	LT1
1/17/2022 9:30:00 AM	LT1	LT1
1/24/2022 9:50:00 AM	LT1	LT1
2/1/2022 7:30:00 AM	LT1	LT1
2/7/2022 9:40:00 AM	LT1	LT1
2/15/2022 9:40:00 AM	LT1	LT1
2/23/2022 8:30:00 AM	LT1	LT1
2/28/2022 9:50:00 AM	LT1	LT1
3/7/2022 9:40:00 AM	LT1	LT1
3/14/2022 9:50:00 AM	LT1	LT1
3/21/2022 10:00:00 AM	LT1	LT1
3/28/2022 9:50:00 AM	LT1	LT1
4/4/2022 9:00:00 AM	LT1	LT1
4/11/2022 9:50:00 AM	LT1	LT1
4/19/2022 9:50:00 AM	LT1	LT1
4/25/2022 9:50:00 AM	LT1	LT1
5/3/2022 9:50:00 AM	LT1	LT1
5/9/2022 9:50:00 AM	LT1	LT1
5/18/2022 9:50:00 AM	LT1	LT1
5/24/2022 9:00:00 AM	LT1	LT1
5/30/2022 9:50:00 AM	LT1	LT1
6/6/2022 9:50:00 AM	LT1	LT1
6/13/2022 9:40:00 AM	LT1	LT1
6/20/2022 9:00:00 AM	LT1	LT1
6/27/2022 9:40:00 AM	LT1	LT1
7/4/2022 8:50:00 AM	LT1	LT1
7/12/2022 8:50:00 AM	LT1	LT1
7/18/2022 9:50:00 AM	LT1	LT1
7/26/2022 9:50:00 AM	LT1	LT1
8/2/2022 9:50:00 AM	LT1	LT1
8/8/2022 9:50:00 AM	LT1	LT1

8/15/2022 9:50:00 AM	LT1	LT1
8/24/2022 9:50:00 AM	LT1	LT1
8/30/2022 9:50:00 AM	LT1	LT1
9/6/2022 9:50:00 AM	LT1	LT1
9/12/2022 9:50:00 AM	LT1	LT1
9/20/2022 9:00:00 AM	LT1	LT1
9/26/2022 7:50:00 AM	LT1	LT1
10/3/2022 9:50:00 AM	LT1	LT1
10/12/2022 9:50:00 AM	LT1	LT1
10/18/2022 8:30:00 AM	LT1	LT1
10/24/2022 9:50:00 AM	LT1	LT1
10/31/2022 9:50:00 AM	LT1	LT1
11/8/2022 9:30:00 AM	LT1	LT1
11/14/2022 9:30:00 AM	LT1	LT1
11/21/2022 9:30:00 AM	LT1	LT1
12/5/2022 7:30:00 AM	LT1	LT1
12/12/2022 9:20:00 AM	LT1	LT1
12/20/2022 9:30:00 AM	<u>LT1</u>	<u>LT1</u>
Total Positive:	0	0

Ad hoc /
miscellaneous site,
Pemberton

1/4/2022 9:20:00 AM	LT1	LT1
12/12/2022 9:40:00 AM	<u>LT1</u>	<u>LT1</u>
Total Positive:	0	0

Pemberton Health
Center, 1403
Portage Road,
Pemberton, B.C.

1/4/2022 9:40:00 AM	LT1	LT1
1/12/2022 9:40:00 AM	LT1	LT1
1/17/2022 9:40:00	LT1	LT1

AM		
1/24/2022 10:00:00	REJCT LKS2	REJCT LKS2
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2/1/2022 9:40:00 AM	LT1	LT1
2/7/2022 9:50:00 AM	LT1	LT1
2/15/2022 9:50:00	LT1	LT1
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2/23/2022 9:10:00	LT1	LT1
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3/7/2022 9:50:00 AM	LT1	LT1
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9/12/2022 10:50:00 AM	LT1	LT1
9/20/2022 10:00:00 AM	LT1	LT1
9/26/2022 10:00:00 AM	LT1	LT1
10/3/2022 10:00:00 AM	LT1	LT1
10/12/2022 10:00:00 AM	LT1	LT1
10/18/2022 10:00:00 AM	LT1	LT1
10/24/2022 10:00:00 AM	LT1	LT1
10/31/2022 10:00:00 AM	LT1	LT1
11/8/2022 9:40:00 AM	LT1	LT1
11/14/2022 9:40:00 AM	LT1	LT1
11/21/2022 9:40:00 AM	LT1	LT1
11/29/2022 9:20:00 AM	LT1	LT1
12/5/2022 9:40:00 AM	LT1	LT1
12/12/2022 9:30:00 AM	LT1	LT1
12/20/2022 9:40:00 AM	<u>LT1</u>	<u>LT1</u>
Total Positive:	0	0

Village Office, 7410 Prospect

1/4/2022 8:50:00 AM	LT1	LT1
1/12/2022 8:50:00 AM	LT1	LT1
1/17/2022 9:00:00 AM	LT1	LT1
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2/7/2022 9:00:00 AM	LT1	LT1
2/15/2022 9:00:00 AM	LT1	LT1
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11/21/2022 9:00:00	LT1	LT1
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12/5/2022 9:00:00	LT1	LT1
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12/12/2022 8:50:00	LT1	LT1
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12/20/2022 9:00:00	<u>LT1</u>	<u>LT1</u>
AM		
Total Positive:	0	0

Pemberton Ridge
Pumphouse.
Pemberton

1/4/2022 8:40:00 AM	LT1	LT1
1/12/2022 8:40:00	LT1	LT1
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1/17/2022 8:40:00	LT1	LT1
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4/19/2022 8:40:00	LT1	LT1
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4/25/2022 8:40:00	LT1	LT1

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5/30/2022 8:40:00 AM	LT1	LT1
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6/6/2022 8:40:00 AM	LT1	LT1
6/13/2022 8:40:00 AM	LT1	LT1
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7/4/2022 8:20:00 AM	LT1	LT1
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8/30/2022 8:50:00 AM	LT1	LT1
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9/6/2022 8:50:00 AM	LT1	LT1
9/12/2022 8:50:00 AM	LT1	LT1
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9/20/2022 8:50:00 AM	LT1	LT1
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9/26/2022 8:50:00 AM	LT1	LT1
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10/3/2022 8:50:00 AM	LT1	LT1
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10/12/2022 8:50:00 AM	LT1	LT1
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10/18/2022 8:50:00 AM	LT1	LT1
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10/24/2022 8:50:00 AM	LT1	LT1
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10/31/2022 8:50:00 AM	LT1	LT1
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11/8/2022 8:50:00 AM	LT1	LT1
AM		
11/14/2022 8:50:00 AM	LT1	LT1
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11/21/2022 8:50:00 AM	LT1	LT1
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11/29/2022 8:50:00 AM	LT1	LT1

AM		
12/5/2022 8:50:00	LT1	LT1
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12/12/2022 8:40:00	LT1	LT1
AM		
12/20/2022 8:50:00	<u>LT1</u>	<u>LT1</u>
AM		
Total Positive:	0	0

Result Values: **E - estimated** **L - less than** **G - greater than**

Samples that contain total coliform:	0		0.00% of total
Samples that contain e. coli:	0		0.00% of total
Samples that contain fecal coliform:	0		0.00% of total
Number of consecutive samples that contain total coliform:	0		
Number of samples that contain total coliform in last 30 days:	0/0		
Total number of samples:	255		

Comments:

Environmental Health Officer
Feb 9 2023

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Pemberton Industrial Park Water System

Date Range: Jan 1 2022 to Dec 31 2022

Operator Jeff Westlake
 Attn: Jeff Westlake Box 100
 Pemberton, BC V0N 2L0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Yard Hydrant,</u>				
<u>Pemberton Industrial</u>				
<u>Park</u>				
	1/12/2022 9:50:00 AM	LT1	LT1	
	1/17/2022 8:50:00 AM	LT1	LT1	
	1/24/2022 8:50:00 AM	LT1	LT1	
	2/1/2022 8:50:00 AM	LT1	LT1	
	2/7/2022 8:50:00 AM	LT1	LT1	
	5/9/2022 6:50:00 AM	LT1	LT1	
	5/18/2022 8:50:00 AM	LT1	LT1	
	5/24/2022 8:50:00 AM	LT1	LT1	
	5/30/2022 8:50:00 AM	LT1	LT1	
	6/6/2022 8:50:00 AM	LT1	LT1	
	6/15/2022 8:30:00 AM	QRWRT	QRWRT	
	6/20/2022 8:30:00 AM	LT1	LT1	
	6/27/2022 8:40:00 AM	LT1	LT1	
	7/18/2022 8:40:00 AM	LT1	LT1	
	7/26/2022 8:40:00 AM	LT1	LT1	
	8/2/2022 8:40:00 AM	LT1	LT1	
	8/8/2022 8:40:00 AM	LT1	LT1	
	8/15/2022 8:40:00 AM	LT1	LT1	
	8/24/2022 8:40:00 AM	LT1	LT1	
	8/30/2022 8:40:00 AM	LT1	LT1	
	9/6/2022 8:20:00 AM	LT1	LT1	
	9/12/2022 8:40:00 AM	LT1	LT1	
	9/20/2022 8:40:00	LT1	LT1	

AM		
12/20/2022 8:40:00	<u>LT1</u>	<u>LT1</u>
AM		
Total Positive:	0	0

Sample Station at
Meter Chamber,
Pemberton Industrial
Park

2/15/2022 8:50:00	LT1	LT1
AM		
2/23/2022 8:10:00	LT1	LT1
AM		
2/28/2022 8:50:00	LT1	LT1
AM		
3/7/2022 8:50:00 AM	LT1	LT1
3/14/2022 8:50:00	LT1	LT1
AM		
3/21/2022 8:50:00	LT1	LT1
AM		
3/28/2022 8:50:00	LT1	LT1
AM		
4/4/2022 8:50:00 AM	LT1	LT1
4/11/2022 8:52:00	LT1	LT1
AM		
4/19/2022 8:50:00	LT1	LT1
AM		
4/25/2022 8:50:00	LT1	LT1
AM		
5/3/2022 8:50:00 AM	LT1	LT1
7/4/2022 8:10:00 AM	LT1	LT1
7/12/2022 8:10:00	LT1	LT1
AM		
9/26/2022 8:40:00	LT1	LT1
AM		
10/3/2022 8:40:00	LT1	LT1
AM		
10/12/2022 8:40:00	LT1	LT1
AM		
10/18/2022 8:40:00	LT1	LT1
AM		
10/24/2022 8:40:00	LT1	LT1
AM		
10/31/2022 8:40:00	LT1	LT1
AM		
11/8/2022 8:40:00	LT1	LT1
AM		
11/14/2022 8:40:00	LT1	LT1
AM		
11/21/2022 8:40:00	LT1	LT1
AM		
11/29/2022 8:40:00	LT1	LT1
AM		
12/5/2022 8:40:00	<u>LT1</u>	<u>LT1</u>

AM
Total Positive: 0 0

Result Values: **E - estimated L - less than G - greater than**

Samples that contain total coliform:	0		0.00% of total
Samples that contain e. coli:	0		0.00% of total
Samples that contain fecal coliform:	0		0.00% of total
Number of consecutive samples that contain total coliform:	0		
Number of samples that contain total coliform in last 30 days:	0/0		
Total number of samples:	49		

Comments:

Environmental Health Officer
Feb 9 2023

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Pemberton North Water System

Date Range: Jan 1 2022 to Dec 31 2022

Operator Utilities Department-SLRD
P.O. Box 219
Pemberton, BC V0N 2L0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>1428 Pemberton</u> <u>Farm Road,</u> <u>Adjacent to 1428</u> <u>Pemberton Farm</u> <u>Road</u>	1/24/2022 9:40:00 AM	LT1	LT1	
	2/7/2022 9:30:00 AM	LT1	LT1	
	2/15/2022 9:30:00 AM	LT1	LT1	
	2/28/2022 9:40:00 AM	LT1	LT1	
	3/7/2022 9:30:00 AM	LT1	LT1	
	3/14/2022 9:40:00 AM	LT1	LT1	
	3/21/2022 9:30:00 AM	LT1	LT1	
	3/28/2022 9:30:00 AM	LT1	LT1	
	4/4/2022 9:40:00 AM	LT1	LT1	
	4/11/2022 9:40:00 AM	LT1	LT1	
	4/19/2022 9:40:00 AM	LT1	LT1	
	4/25/2022 9:40:00 AM	LT1	LT1	
	5/3/2022 9:40:00 AM	LT1	LT1	
	5/9/2022 9:40:00 AM	LT1	LT1	
	5/18/2022 9:40:00 AM	LT1	LT1	
	5/24/2022 9:40:00 AM	LT1	LT1	
	5/30/2022 9:40:00 AM	LT1	LT1	
	6/6/2022 9:40:00 AM	LT1	LT1	
	6/13/2022 9:30:00 AM	LT1	LT1	
	6/20/2022 9:40:00 AM	LT1	LT1	
	7/4/2022 8:40:00 AM	LT1	LT1	
	7/12/2022 8:40:00	LT1	LT1	

AM		
7/18/2022 9:40:00	LT1	LT1
AM		
7/26/2022 9:40:00	LT1	LT1
AM		
8/2/2022 9:40:00 AM	LT1	LT1
8/8/2022 9:40:00 AM	LT1	LT1
8/15/2022 9:40:00	LT1	LT1
AM		
8/24/2022 9:40:00	LT1	LT1
AM		
8/30/2022 9:40:00	LT1	LT1
AM		
9/6/2022 9:40:00 AM	LT1	LT1
9/12/2022 9:40:00	LT1	LT1
AM		
9/20/2022 9:40:00	LT1	LT1
AM		
9/26/2022 9:30:00	LT1	LT1
AM		
10/3/2022 9:30:00	LT1	LT1
AM		
10/12/2022 9:30:00	LT1	LT1
AM		
10/18/2022 9:30:00	LT1	LT1
AM		
10/24/2022 9:30:00	LT1	LT1
AM		
10/31/2022 7:30:00	<u>LT1</u>	<u>LT1</u>
AM		
Total Positive:	0	0

7620 Pemberton
Meadows Rd,
Opposite 7620
Pemberton
Meadows Rd

3/14/2022 9:30:00	LT1	LT1
AM		
3/21/2022 9:40:00	LT1	LT1
AM		
3/28/2022 9:40:00	LT1	LT1
AM		
4/4/2022 9:30:00 AM	LT1	LT1
4/11/2022 9:30:00	LT1	LT1
AM		
4/19/2022 9:30:00	LT1	LT1
AM		
4/25/2022 9:30:00	LT1	LT1
AM		
5/3/2022 9:30:00 AM	LT1	LT1
5/9/2022 7:30:00 AM	LT1	LT1
5/18/2022 9:30:00	LT1	LT1
AM		

5/24/2022 9:30:00 AM	LT1	LT1
5/30/2022 9:30:00 AM	LT1	LT1
6/6/2022 9:32:00 AM	LT1	LT1
6/13/2022 9:20:00 AM	LT1	LT1
6/20/2022 9:30:00 AM	LT1	LT1
6/27/2022 9:30:00 AM	LT1	LT1
7/4/2022 8:30:00 AM	LT1	LT1
7/12/2022 8:30:00 AM	LT1	LT1
7/18/2022 9:30:00 AM	LT1	LT1
7/26/2022 9:30:00 AM	LT1	LT1
8/2/2022 9:30:00 AM	LT1	LT1
8/8/2022 9:30:00 AM	LT1	LT1
8/15/2022 9:30:00 AM	LT1	LT1
8/24/2022 9:30:00 AM	LT1	LT1
8/30/2022 9:30:00 AM	LT1	LT1
9/6/2022 9:30:00 AM	LT1	LT1
9/12/2022 9:30:00 AM	LT1	LT1
9/20/2022 9:30:00 AM	LT1	LT1
9/26/2022 9:40:00 AM	LT1	LT1
10/3/2022 9:40:00 AM	LT1	LT1
10/12/2022 9:40:00 AM	LT1	LT1
10/18/2022 9:40:00 AM	LT1	LT1
10/24/2022 9:40:00 AM	LT1	LT1
10/31/2022 9:40:00 AM	<u>LT1</u>	<u>LT1</u>
Total Positive:	0	0

Result Values: **E - estimated** **L - less than** **G - greater than**

Samples that contain total coliform:	0	0.00% of total
Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	72	

Comments:

Environmental Health Officer
Feb 9 2023

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Well # 2
Date Range: Jan 1 2022 to Dec 31 2022

Operator

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Well Site #2.</u>				
<u>Pemberton Village</u>				
<u>Water Works,</u>				
<u>Pemberton</u>				
	1/4/2022 9:50:00 AM	LT1	LT1	
	1/12/2022 9:00:00 AM	LT1	LT1	
	1/17/2022 9:10:00 AM	LT1	LT1	
	1/24/2022 9:10:00 AM	LT1	LT1	
	2/1/2022 9:10:00 AM	1	LT1	
	2/7/2022 9:10:00 AM	LT1	LT1	
	2/15/2022 9:10:00 AM	5.2	LT1	
	2/23/2022 8:50:00 AM	LT1	LT1	
	2/28/2022 9:10:00 AM	LT1	LT1	
	3/7/2022 9:10:00 AM	LT1	LT1	
	3/14/2022 9:10:00 AM	LT1	LT1	
	3/21/2022 9:10:00 AM	LT1	LT1	
	3/28/2022 9:10:00 AM	LT1	LT1	
	4/4/2022 9:10:00 AM	LT1	LT1	
	4/11/2022 9:10:00 AM	LT1	LT1	
	4/19/2022 9:10:00 AM	LT1	LT1	
	4/25/2022 9:10:00 AM	LT1	LT1	
	5/3/2022 9:12:00 AM	LT1	LT1	
	5/9/2022 9:10:00 AM	LT1	LT1	
	5/18/2022 9:10:00 AM	LT1	LT1	
	5/24/2022 9:10:00 AM	LT1	LT1	
	5/30/2022 9:10:00 AM	LT1	LT1	

6/6/2022 9:10:00 AM	2.0	LT1
6/13/2022 9:00:00 AM	LT1	LT1
6/20/2022 9:10:00 AM	1.0	LT1
6/27/2022 9:10:00 AM	LT1	LT1
7/4/2022 9:30:00 AM	LT1	LT1
7/12/2022 9:10:00 AM	LT1	LT1
7/18/2022 9:10:00 AM	LT1	LT1
7/26/2022 9:10:00 AM	LT1	LT1
8/2/2022 9:10:00 AM	LT1	LT1
8/8/2022 9:10:00 AM	LT1	LT1
8/15/2022 9:10:00 AM	LT1	LT1
8/24/2022 9:10:00 AM	LT1	LT1
8/30/2022 9:10:00 AM	LT1	LT1
9/6/2022 9:10:00 AM	LT1	LT1
9/12/2022 9:10:00 AM	LT1	LT1
9/20/2022 9:10:00 AM	LT1	LT1
9/26/2022 9:10:00 AM	LT1	LT1
10/3/2022 9:10:00 AM	1.0	LT1
10/12/2022 9:10:00 AM	LT1	LT1
10/18/2022 9:10:00 AM	LT1	LT1
10/24/2022 9:10:00 AM	LT1	LT1
10/31/2022 9:10:00 AM	1.0	LT1
11/8/2022 9:10:00 AM	LT1	LT1
11/14/2022 9:10:00 AM	LT1	LT1
11/21/2022 9:10:00 AM	LT1	LT1
11/29/2022 9:00:00 AM	LT1	LT1
12/5/2022 9:10:00 AM	LT1	LT1
12/12/2022 9:00:00 AM	LT1	LT1
12/20/2022 9:10:00 AM	<u>1.0</u>	<u>LT1</u>
Total Positive:	7	0

Result Values:**E - estimated****L - less than****G - greater than**

Samples that contain total coliform:	7	13.73% of total
Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	51	

Comments:

 Environmental Health Officer
 Feb 9 2023

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Well #3
Date Range: Jan 1 2022 to Dec 31 2022

Operator

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Well Site #3.</u>				
<u>Pemberton</u>				
	1/4/2022 9:10:00 AM	LT1	LT1	
	1/12/2022 9:10:00 AM	LT1	LT1	
	1/17/2022 9:20:00 AM	LT1	LT1	
	1/24/2022 9:20:00 AM	LT1	LT1	
	2/1/2022 9:20:00 AM	LT1	LT1	
	2/7/2022 9:20:00 AM	LT1	LT1	
	2/15/2022 9:20:00 AM	LT1	LT1	
	2/23/2022 9:00:00 AM	LT1	LT1	
	2/28/2022 9:20:00 AM	LT1	LT1	
	3/7/2022 9:20:00 AM	LT1	LT1	
	3/14/2022 9:20:00 AM	LT1	LT1	
	3/21/2022 9:20:00 AM	LT1	LT1	
	3/28/2022 9:20:00 AM	LT1	LT1	
	4/4/2022 9:20:00 AM	LT1	LT1	
	4/11/2022 9:20:00 AM	LT1	LT1	
	4/19/2022 9:20:00 AM	LT1	LT1	
	4/25/2022 9:20:00 AM	LT1	LT1	
	5/3/2022 9:20:00 AM	LT1	LT1	
	5/9/2022 9:20:00 AM	LT1	LT1	
	5/18/2022 9:20:00 AM	LT1	LT1	
	5/24/2022 9:20:00 AM	LT1	LT1	
	5/30/2022 9:20:00 AM	LT1	LT1	
	6/6/2022 9:20:00 AM	LT1	LT1	
	6/13/2022 9:10:00	LT1	LT1	

AM		
6/20/2022 9:20:00	LT1	LT1
AM		
6/27/2022 9:20:00	LT1	LT1
AM		
7/4/2022 9:20:00 AM	LT1	LT1
7/12/2022 9:20:00	LT1	LT1
AM		
7/18/2022 9:20:00	LT1	LT1
AM		
7/26/2022 9:20:00	LT1	LT1
AM		
8/2/2022 9:20:00 AM	LT1	LT1
8/8/2022 9:20:00 AM	LT1	LT1
8/15/2022 9:20:00	LT1	LT1
AM		
8/24/2022 7:20:00	LT1	LT1
AM		
8/30/2022 7:20:00	LT1	LT1
AM		
9/6/2022 9:20:00 AM	LT1	LT1
9/12/2022 9:20:00	LT1	LT1
AM		
9/20/2022 9:20:00	LT1	LT1
AM		
9/26/2022 9:20:00	LT1	LT1
AM		
10/3/2022 9:20:00	LT1	LT1
AM		
10/12/2022 9:20:00	LT1	LT1
AM		
10/18/2022 9:20:00	LT1	LT1
AM		
10/24/2022 9:20:00	LT1	LT1
AM		
10/31/2022 9:20:00	LT1	LT1
AM		
11/8/2022 7:20:00	LT1	LT1
AM		
11/14/2022 9:20:00	LT1	LT1
AM		
11/21/2022 7:20:00	LT1	LT1
AM		
11/29/2022 9:10:00	LT1	LT1
AM		
12/5/2022 9:20:00	LT1	LT1
AM		
12/12/2022 9:10:00	LT1	LT1
AM		
12/20/2022 9:20:00	<u>LT1</u>	<u>LT1</u>
AM		
Total Positive:	0	0

Result Values:

E - estimated

L - less than

G - greater than

--	--	--

Samples that contain total coliform:	0	0.00% of total
Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	51	

Comments:

Environmental Health Officer
Feb 9 2023

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293



Box 100 | 7400 Prospect Street
Pemberton, BC V0N 2L0
P: 604.894.6135 | F: 604.894.6136
Email: admin@pemberton.ca
Website: www.pemberton.ca

APPENDIX V

2022 Water System Evaluation Reports



Water System Report

Inspection Information	
Facility Name:	Village of Pemberton
Facility Number:	1110292
Officer:	Dan Glover
Inspection type:	Routine
Inspection date:	March 28, 2023
Follow-up Inspection Required:	No
Hazard Rating:	Low

Comments
<p><u>Water Quality and Quantity</u></p> <p><i>Excellent bacteriological water sampling frequency in 2022 with 255 treated water samples submitted and 0 with presence of coliform bacteria. Good ongoing operation and maintenance of the water system including consistent chlorine residual in the distribution system and regular water main flushing continue to be effective measures. An additional 102 raw (untreated) water samples were collected from well #2 and well #3 with a total of 7 positive for total coliforms.</i></p> <p><i>A full chemical drinking water analysis was undertaken for both wells and the treated water in 2022; no significant changes in the raw water quality of either of these wells (fluctuating manganese levels in well 2 noted). Well 2 is utilized as a back-up source and used periodically when servicing of well 3 is necessary. Treated water results also indicate very low levels of THM's in the distribution system.</i></p> <p><i>Increased development results in increased water demand; as a result investigations into securing additional high quality water sources continues. Options identified in the KWL Water Treatment Investigation report are under evaluation. We recommend a thorough Water Conservation Plan be completed which would complement a Ground Water and Surface Water Master Supply Strategy and help guide this work.</i></p> <p><i>Source water protection continues to be an important factor in the ongoing provision of safe drinking water. There are challenges given the existing development around the existing wells however it should always be given high priority for these wells and any new water sources brought online.</i></p> <p><i>Operation of the soda ash plant continues to be successful, with chemically stable water being produced on an ongoing basis. VCH is comfortable with the approach taken by the VOP in continuing to advise the public to flush taps before water consumption to minimize lead levels in drinking water.</i></p> <p><u>Infrastructure</u></p> <p><i>Reservoir security improvements have been substantially completed.</i></p>

*Regular exercising of the back-up generator is being implemented.
Upgrades to the SCADA system completed.
Implementation of the cross connection control bylaw continues to provide an increased level of protection as part of the multi-barrier approach in place.*

Administration

*A water system Emergency Response and Contingency Plan (ERCP) is in place; please review periodically to ensure the contact information is accurate.
Thank you for submitting your Annual Report for the 2021 year. The Annual Report for the 2022 year is due June 30, 2023.*

**Dan Glover
DWO**



Water System Report

Inspection Information	
Facility Name:	Pemberton North Water System
Facility Number:	1110293
Officer:	Dan Glover
Inspection type:	Evaluation
Inspection date:	March 28, 2023
Follow-up Inspection Required:	No
Hazard Rating:	Low

Comments
<p><i>This is an evaluation of the Pemberton North Water System as of March 28, 2023.</i></p> <p><i>A total of 72 treated water samples were submitted for bacteriological analysis in 2022 with none showing presence of coliform bacteria. Excellent sampling frequency February to October however winter conditions and design of sample stations makes sampling challenging in Nov to January. It is worth considering options for establishing 1 year-round sample point in the near future. The excellent water quality is likely attributable to good operation and maintenance of the water system including consistent chlorine residual in the distribution system, regular water main flushing. The current Permit to Operate a water System is being adjusted to reflect current operation and sampling requirements. Our records don't indicate an Annual Report for the 2021 year was submitted. Please ensure an Annual Report for the 2022 year is received by June 30, 2023.</i></p> <p><i>As water is supplied by the Village of Pemberton (VoP) water system the following comments from the VoP inspection report apply:</i></p> <p><i>"A full chemical drinking water analysis was undertaken for both wells and the treated water in 2022; no significant changes in the raw water quality of either of these wells (fluctuating manganese levels in well 2 noted). Well 2 is utilized as a back-up source and used periodically when servicing of well 3 is necessary. Treated water results also indicate very low levels of THM's in the distribution system. Increased development results in increased water demand; as a result investigations into securing additional high quality water sources continues. Options identified in the KWL Water Treatment Investigation report are under evaluation. We recommend a thorough Water Conservation Plan be completed which would complement a Ground Water and Surface Water Master Supply Strategy and help guide this work. Operation of the soda ash plant appears to be successful, with chemically stable water being produced on an ongoing basis. VCH is comfortable with the approach taken by the VOP in continuing to advise the public to flush taps before water consumption to</i></p>

minimize lead levels in drinking water.

Infrastructure

Reservoir security improvements within the VoP water system have been substantially completed.

Implementation of the cross connection control bylaw continues to provide an increased level of protection as part of the multi-barrier approach in place.

Upgrades to the SCADA system completed."

**Dan Glover
DWO**

Water System Report

Inspection Information	
Facility Name:	Pemberton Industrial Park Water System
Facility Number:	
Officer:	Dan Glover
Inspection type:	Evaluation
Inspection date:	March 28, 2023
Follow-up Inspection Required:	No
Hazard Rating:	Low

Comments
<p><i>This is an annual evaluation of the water supply within the Pemberton Industrial Park.</i></p> <p><i>A total of 50 bacteriological samples were submitted in 2021 which meets the minimum frequency standard. Due to courier issues one sample was too long in transit to be processed by BCCDC lab. No samples were positive for total coliforms or e. coli.</i></p> <p><i>Improved free chlorine residuals in the supplied water were noted in 2022 by routine monitoring.</i></p> <p><i>The water is supplied from a ground water source located in Mount Currie on Lil'wat lands. Historical water results indicate the water alkalinity is low and the pH is slightly acidic. General advice is that water users should be advised to run the water until cold before consumption.</i></p> <p><i>A water sample from the Industrial Park supply was submitted for full water analysis in 2022 and the results indicate no significant changes in water quality.</i></p> <p><i>We understand improvements to reservoir security and development of a water System Emergency Response Plan and underway, although VCH does not regulate the Mount Currie Water System. VCH sees these improvements as important.</i></p> <p><i>A water system Annual Report for 2021 was submitted in 2022. Thank you. The Annual Report for 2022 is due by June 30, 2023.</i></p> <p><i>Please review and update your Emergency Response and Contingency Plan as needed to ensure the contacts remain accurate.</i></p>

**Dan Glover
DWO**