

**The District of Lantzville
Annual Water Report
~ 2017 ~**



District of Lantzville
Water System Annual Report - 2017

Date of Report: March 5th, 2018

Period of Monitoring: January to December 2017

Water Supply Permit Number: 1310847

Location of Water System: Lantzville, BC

Name of Owner: District of Lantzville

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District of Lantzville
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Water System Description

Source:

The District of Lantzville has four wells that produce a combined 1.2 cubic meters of water per minute, (264 imperial gallons per minute). Each of the four wells varies in depth from 70 feet (21m) to 120 feet (36m). Within each well there are pumps that range in horsepower from 5hp to 20 hp. The District has a stand-by generator that can supply power to the pumps during a power outage.

The wells are located in a semi-confined aquifer. A semi-confined aquifer is an aquifer partially confined by soil layers of low permeability through which recharge and discharge can still occur.

The wells, while during the winter months artesian, the overall supply drops during the dry season. In addition to the drop in supply, water demands increase substantially during the summer months, as people tend to irrigate their lawns and gardens. Therefore, The District has necessary water restrictions to ensure conservation during these seasonal demands.

The criteria that sets water restrictions is based on an average hourly use of the well pumps for one week and are as follows:

Water Restriction 1: May 1st

Water Restriction 2: When well pumps reach 15 hours per day

Water Restriction 3: When well pumps reach 18 hours per day

Water Restriction 4: When well pumps reach 21 hours per day

Treatment:

The water from the well field is pumped via an isolated supply line to the existing 1854.8 cubic meter (407,999 imperial gallons) concrete reservoir on Ware Road. Prior to the water supply reaching the reservoir, chlorine is injected in very small doses to eliminate the possibility of bacteria growth.

A small pump that is attached to the supply line injects chlorine into the main line entering into the reservoir. The “chlorine pump” is controlled by the Supervisory Control and Data Acquisitions Systems (SCADA) and is activated at the same time the well pumps start. The District is very aware of the amount of chlorine that is being placed in

the system. Currently, staff maintains a chlorine residual of between 0.1 and 0.3 within the distribution system.

Reservoirs:

The District has two reservoirs: one at Ware Road and one at Aulds Road. The Ware Road reservoir consists of a two-chamber concrete tank (927.4m³ or 203,999 imperial gallons each) that is partially buried in the ground. With the two chambers, the District has the ability to drain on chamber for cleaning/repairs, while keeping the second chamber in operation. Also, at the Ware Road reservoir, there are booster pumps which alternate in pumping water to a higher elevation reservoir, a permanent generator, the SCADA system that controls both the water and sewer systems in the District.

From the Ware Road reservoir, water is distributed in two directions. Firstly, the water is released from the reservoir via gravity to the lower pressure zone; this zone is mainly any part of the water distribution systems that is north of the Island Highway with the exception of a short portion of Lantzville Road. The second direction has the water being pumped from the Ware Road reservoir to a second reservoir, which is at a higher elevation near Aulds Road.

The Aulds Road reservoir, a 262.76 cubic meter (57,800 imperial gallon) pre-cast concrete circular tank supplies the upper pressure zone. The upper pressure zone consists of any part of the water distribution system that is above (south) of the highway with the exception of a few properties on the North side of the highway.

Distribution System:

The Distribution System consists of 11,013 meters of PVC (plastic) pipe. In addition to the PVC there is 13,620m of AC (asbestos cement) pipe for a total of 24,638 meters.

The following table shows the different pipes and lengths of those pipes that are in the District's water distribution system:

200 Millimeter – PVC	7,845 Meters (M)
250 Millimeter – PVC	1,880 M
300 Millimeter – PVC	818 M
150 Millimeter – PVC	470 M
100 Millimeter – Asbestos Cement (AC)	4,968 M
150 Millimeter – AC	7,607 M
200 Millimeter – AC	985 M
250 Millimeter - AC	60 M

With two separate pressure zones within the District's water system there is a need for interconnection to increase fire flow capacity. A pressure-reducing valve (PRV) allows

this interconnection. When the pressure on the lower side drops (only happens when a large main breaks or a when a fire requires an abundance of water), the PRV opens and water is supplied from the upper pressure zone to the lower pressure zone. When the pressure in the lower zone returns to normal, the PRV then closes, separating the two zones once again.

There are currently 29 dead ends in the water system. There are no areas where the water goes stagnant within the water system. This is due to the Districts Annual Uni-Directional Flushing Program.

Improvement Action and Plans:

The District of Lantzville continues to update and upgrade the water infrastructure.

Scheduled for the 2018 construction season is:

- Replacement of Watermains on Metro, Mart, and Peterson Roads.
- Replace 50 Residential Meters;
- Design and Construct a New 1,000,000 liter Reservoir with a top water level of 158 meters.

Water System Maintenance

Source:

Maintenance on the Wells and Kiosks is as follows:

- Back flush every 7 to 10 years
- Remove brush every 1 to 2 years
- Wire brush and re-paint piping every 2 to 5 years
- Visual check daily
- Annual water sample testing

Treatment:

Maintenance on the Chlorinator is as follows:

- Equipment taken apart and cleaned twice per year
- Hypochlorite solution is added once a week or as needed
- Chlorine levels are adjusted as needed

Reservoirs:

Maintenance on the Reservoirs is as follows:

- Drained and cleaned every five years or as needed
- Daily/Weekly/Monthly inspections of hatches and venting
- Concrete integrity
- Landscape

Distribution System:

Maintenance of the Distribution System is as follows:

- Entire system flush twice per year
- Hydrant disassemble and re-assemble once per year
- Meter replacement
- Brush around hydrants as necessary
- Weekly water sample collecting
- Leak Detection Program

Water Sampling and Testing Program

As per the requirements of the Vancouver Island Health Authority, the District of Lantzville collects samples from the treated side of the water system on a weekly basis for testing. The following tables show the results from the testing completed in 2017 on a weekly and quarterly basis.

Monitoring for coliform/E-coli, as per Section 11 of the Act and Section 8 of the Water Regulations

DISTRICT OF LANTZVILLE

Facility Location:

7192 Lantzville Road
Lantzville

Facility Information:

Facility Type: 301-10000 (DWT)

Facility Sampling History:

6898 Harwood Dr, 6898 Harwood Dr, Lantzville	18-Dec-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	18-Dec-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	18-Dec-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	18-Dec-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	11-Dec-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	11-Dec-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	11-Dec-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	11-Dec-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	11-Dec-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	27-Nov-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	27-Nov-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	20-Nov-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	20-Nov-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	20-Nov-2017 L1 L1

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7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	14-Nov-2017 T
7430 Aulds Road, 7430 Aulds Road, Lantzville	14-Nov-2017 T
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	6-Nov-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	6-Nov-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	23-Oct-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	23-Oct-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	23-Oct-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	16-Oct-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	16-Oct-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	10-Oct-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	10-Oct-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	2-Oct-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	2-Oct-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	26-Sep-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	26-Sep-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	18-Sep-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	18-Sep-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	18-Sep-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	11-Sep-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	11-Sep-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	5-Sep-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	5-Sep-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	23-Aug-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	21-Aug-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	21-Aug-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	21-Aug-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	14-Aug-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	14-Aug-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	8-Aug-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	8-Aug-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	31-Jul-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	31-Jul-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	24-Jul-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	24-Jul-2017 L1 L1

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7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	24-Jul-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	17-Jul-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	10-Jul-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	10-Jul-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	4-Jul-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	4-Jul-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	26-Jun-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	26-Jun-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	26-Jun-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	19-Jun-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	19-Jun-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	19-Jun-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	12-Jun-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	12-Jun-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	12-Jun-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	23-May-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	23-May-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	15-May-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	15-May-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	15-May-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	8-May-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	8-May-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	1-May-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	1-May-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	24-Apr-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	24-Apr-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	18-Apr-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	18-Apr-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	10-Apr-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	10-Apr-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	10-Apr-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	3-Apr-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	3-Apr-2017 L1 L1

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7329 Millard Dr, 7329 Millard Drive, Lantzville	27-Mar-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	27-Mar-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	21-Mar-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	21-Mar-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	21-Mar-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	13-Mar-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	13-Mar-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	13-Mar-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	13-Mar-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	27-Feb-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	27-Feb-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	20-Feb-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	20-Feb-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	14-Feb-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	14-Feb-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	14-Feb-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	7-Feb-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	7-Feb-2017 L1 L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	30-Jan-2017 L1 L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	23-Jan-2017 L1 L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	23-Jan-2017 L1 L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	16-Jan-2017 L1 L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	16-Jan-2017 L1 L1
6966 Seaside Terrace Lantzville, Lantzville	9-Jan-2017 L1 L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	9-Jan-2017 L1 L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	3-Jan-2017 L1 L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	3-Jan-2017 L1 L1

Annual Untreated Water Testing

The District, on a yearly basis, carries out a broader range of testing than is required on a weekly or quarterly basis.

During the annual sampling, water is collected directly from the well prior to any treatment. These samples are then sent off to a lab that has the capability to carry out the full range of testing required.

The following report from Maxxam Labs is for the untreated water testing the District does on an annual basis. In 2017 Wells 4 and 12 were sampled and tested and the results are as follows:

Maxxam Job Number: B778643
 Report Date: 2017/09/22

DISTRICT OF LANTZVILLE
 Client Project #: VIHA LIST

Well 4

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Maxxam ID					RY4381		
Sampling Date					2017/09/12 13:00		
COC Number					08444414		
	UNITS	MAC	AO	OG	WELL #4	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	8759265
Calculated Parameters							
Nitrate (N)	mg/L	10	-	-	1.78	0.020	8756321
Misc. Inorganics							
Fluoride (F)	mg/L	1.5	-	-	0.027	0.020	8759530
Alkalinity (Total as CaCO3)	mg/L	-	-	-	69.7	1.0	8759968
Total Organic Carbon (C)	mg/L	-	-	-	0.51	0.50	8762074
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	8759968
Bicarbonate (HCO3)	mg/L	-	-	-	85.1	1.0	8759968
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	8759968
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	8759968
Anions							
Dissolved Sulphate (SO4)	mg/L	-	500	-	7.5	1.0	8759140

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Dissolved Chloride (Cl)	mg/L	-	250	-	24	1.0	8759134
MISCELLANEOUS							
Apparent Colour	Col. Unit	-	-	-	5.0	5.0	8759218
Nutrients							
Total Organic Nitrogen (N)	mg/L	-	-	-	<0.020	0.020	8756633
Total Ammonia (N)	mg/L	-	-	-	<0.020	0.020	8762201
Nitrate plus Nitrite (N)	mg/L	-	-	-	1.78	0.020	8759264
Total Nitrogen (N)	mg/L	-	-	-	1.67	0.020	8762248
Physical Properties							
Conductivity	uS/cm	-	-	-	240	2.0	8759971
pH	pH	-	7.0:10.5	-	7.71		8759970
Physical Properties							
Total Dissolved Solids	mg/L	-	500	-	152	10	8761161

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

Maxxam Job Number: B778643
Report Date:
2017/09/22

DISTRICT OF LANTZVILLE
Client Project #: VIHA LIST

Well 4

MICROBIOLOGY (DRINKING WATER)

Maxxam ID			RY4381		
Sampling Date			2017/09/12 13:00		
COC Number			08444414		
	UNITS	MAC	WELL #4	RDL	QC Batch
Microbiological Param.					
Heterotrophic Plate Count	CFU/mL	-	15	1.0	8756723
Iron Bacteria	CFU/mL	-	2200	25	8756726
Sulphate reducing bacteria	CFU/mL	-	<75	75	8756725
Total Coliforms	CFU/100mL	0	0	N/A	8756724
E. coli	CFU/100mL	0	0	N/A	8756724

No Fill No Exceedance

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Maxxam Job Number: B778643
Report Date: 2017/09/22

DISTRICT OF LANTZVILLE
Client Project #: VIHA LIST

Well 4

MISCELLANEOUS (DRINKING WATER)

Maxxam ID			RY4381		
Sampling Date			2017/09/12 13:00		
COC Number			08444414		
	UNITS	AO	WELL #4	RDL	QC Batch
MISCELLANEOUS					
Total Sulphide	mg/L	0.05	0.0081	0.0050	8756278

No Fill

Grey

Black

No Exceedance

Exceeds 1 criteria policy/level

Exceeds both criteria/levels

DISTRICT OF LANTZVILLE
Client Project #: VIHA LIST

Report Date: 2017/09/22

Well 4

TOT. METALS W/ CV HG FOR DRINKING WATER (DRINKING WATER)

Maxxam ID					RY4381		
Sampling Date					2017/09/12 13:00		
COC Number					08444414		
	UNITS	MAC	AO	OG	WELL #4	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	84.0	0.50	8756230
Elements							
Total Mercury (Hg)	ug/L	1	-	-	<0.010	0.010	8758816

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Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	-	-	100	<3.0	3.0	8757695
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50	8757695
Total Arsenic (As)	ug/L	10	-	-	<0.10	0.10	8757695
Total Barium (Ba)	ug/L	1000	-	-	9.4	1.0	8757695
Total Beryllium (Be)	ug/L	-	-	-	<0.10	0.10	8757695
Total Bismuth (Bi)	ug/L	-	-	-	<1.0	1.0	8757695
Total Boron (B)	ug/L	5000	-	-	102	50	8757695
Total Cadmium (Cd)	ug/L	5	-	-	<0.010	0.010	8757695
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0	8757695
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20	8757695
Total Copper (Cu)	ug/L	-	1000	-	1.76	0.20	8757695
Total Iron (Fe)	ug/L	-	300	-	<5.0	5.0	8757695
Total Lead (Pb)	ug/L	10	-	-	0.37	0.20	8757695
Total Manganese (Mn)	ug/L	-	50	-	<1.0	1.0	8757695
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0	8757695
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0	8757695
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10	8757695
Total Silicon (Si)	ug/L	-	-	-	11700	100	8757695
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020	8757695
Total Strontium (Sr)	ug/L	-	-	-	78.5	1.0	8757695
Total Thallium (Tl)	ug/L	-	-	-	<0.010	0.010	8757695
Total Tin (Sn)	ug/L	-	-	-	<5.0	5.0	8757695
Total Titanium (Ti)	ug/L	-	-	-	<5.0	5.0	8757695
Total Uranium (U)	ug/L	20	-	-	<0.10	0.10	8757695
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0	8757695
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	5.0	8757695
Total Zirconium (Zr)	ug/L	-	-	-	<0.10	0.10	8757695
Total Calcium (Ca)	mg/L	-	-	-	21.8	0.050	8756419
Total Magnesium (Mg)	mg/L	-	-	-	7.17	0.050	8756419
Total Potassium (K)	mg/L	-	-	-	0.386	0.050	8756419
Total Sodium (Na)	mg/L	-	200	-	12.2	0.050	8756419
Total Sulphur (S)	mg/L	-	-	-	<3.0	3.0	8756419

No Fill

No Exceedance

Grey

Exceeds 1 criteria policy/level

Black

Exceeds both criteria/levels

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Maxxam Job Number: B778639
Report Date: 2017/09/22

DISTRICT OF LANTZVILLE
Client Project #: VIHA LIST

Well 12
Sampler Initials: JG

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Maxxam ID					RY4359		
Sampling Date					2017/09/12 13:00		
COC Number					08444413		
	UNITS	MAC	AO	OG	WELL #12	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	8759233
Calculated Parameters							
Nitrate (N)	mg/L	10	-	-	0.988	0.020	8756321
Misc. Inorganics							
Fluoride (F)	mg/L	1.5	-	-	0.030	0.020	8759530
Alkalinity (Total as CaCO3)	mg/L	-	-	-	49.4	1.0	8758575
Total Organic Carbon (C)	mg/L	-	-	-	0.71	0.50	8762074
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	8758575
Bicarbonate (HCO3)	mg/L	-	-	-	60.3	1.0	8758575
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	8758575
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	8758575
Anions							
Dissolved Sulphate (SO4)	mg/L	-	500	-	6.3	1.0	8759144
Dissolved Chloride (Cl)	mg/L	-	250	-	22	1.0	8759143
MISCELLANEOUS							
Apparent Colour	Col. Unit	-	-	-	5.0	5.0	8759218
Nutrients							
Total Organic Nitrogen (N)	mg/L	-	-	-	<0.020	0.020	8756633
Total Ammonia (N)	mg/L	-	-	-	<0.020	0.020	8762201
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.988	0.020	8759228
Total Nitrogen (N)	mg/L	-	-	-	0.920	0.020	8762248
Physical Properties							
Conductivity	uS/cm	-	-	-	196	2.0	8758577
pH	pH	-	7.0:10.5	-	7.74		8758576
Physical Properties							
Total Dissolved Solids	mg/L	-	500	-	120	10	8757931

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No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

Maxxam Job Number: B778639
 Report Date:
 2017/09/22

DISTRICT OF LANTZVILLE
 Client Project #: VIHA LIST

Well 12
 Sampler Initials: JG

MICROBIOLOGY (DRINKING WATER)

Maxxam ID			RY4359		
Sampling Date			2017/09/12 13:00		
COC Number			08444413		
	UNITS	MAC	WELL #12	RDL	QC Batch
Microbiological Param.					
Heterotrophic Plate Count	CFU/mL	-	1.0	1.0	8756723
Iron Bacteria	CFU/mL	-	2200	25	8756726
Sulphate reducing bacteria	CFU/mL	-	<75	75	8756725
Total Coliforms	CFU/100mL	0	0	N/A	8756724
E. coli	CFU/100mL	0	0	N/A	8756724

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

District of Lantzville
Water System Annual Report - 2017

DISTRICT OF LANTZVILLE

Maxxam Job Number:
B778639

Client Project #: VIHA LIST

Report Date: 2017/09/22

Sampler Initials: JG

MISCELLANEOUS (DRINKING WATER)

Maxxam ID			RY4359		
Sampling Date			2017/09/12 13:00		
COC Number			08444413		
	UNITS	AO	WELL #12	RDL	QC Batch
MISCELLANEOUS					
Total Sulphide	mg/L	0.05	0.0063	0.0050	8756278

No Fill

No Exceedance

Grey

Exceeds 1 criteria policy/level

Black

Exceeds both criteria/levels

RDL = Reportable Detection Limit

DISTRICT OF LANTZVILLE

Maxxam Job Number: B778639

Client Project #: VIHA LIST

Report Date: 2017/09/22

Sampler Initials: JG

TOT. METALS W/ CV HG FOR DRINKING WATER (DRINKING WATER)

Maxxam ID					RY4359		
Sampling Date					2017/09/12 13:00		
COC Number					08444413		
	UNITS	MAC	AO	OG	WELL #12	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	70.1	0.50	8756230
Elements							
Total Mercury (Hg)	ug/L	1	-	-	<0.010	0.010	8758816
Total Metals by ICPMS							

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Total Aluminum (Al)	ug/L	-	-	100	<3.0	3.0	8757695
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50	8757695
Total Arsenic (As)	ug/L	10	-	-	<0.10	0.10	8757695
Total Barium (Ba)	ug/L	1000	-	-	8.4	1.0	8757695
Total Beryllium (Be)	ug/L	-	-	-	<0.10	0.10	8757695
Total Bismuth (Bi)	ug/L	-	-	-	<1.0	1.0	8757695
Total Boron (B)	ug/L	5000	-	-	<50	50	8757695
Total Cadmium (Cd)	ug/L	5	-	-	<0.010	0.010	8757695
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0	8757695
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20	8757695
Total Copper (Cu)	ug/L	-	1000	-	0.92	0.20	8757695
Total Iron (Fe)	ug/L	-	300	-	<5.0	5.0	8757695
Total Lead (Pb)	ug/L	10	-	-	<0.20	0.20	8757695
Total Manganese (Mn)	ug/L	-	50	-	<1.0	1.0	8757695
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0	8757695
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0	8757695
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10	8757695
Total Silicon (Si)	ug/L	-	-	-	12000	100	8757695
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020	8757695
Total Strontium (Sr)	ug/L	-	-	-	58.5	1.0	8757695
Total Thallium (Tl)	ug/L	-	-	-	<0.010	0.010	8757695
Total Tin (Sn)	ug/L	-	-	-	<5.0	5.0	8757695
Total Titanium (Ti)	ug/L	-	-	-	<5.0	5.0	8757695
Total Uranium (U)	ug/L	20	-	-	<0.10	0.10	8757695
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0	8757695
Total Zinc (Zn)	ug/L	-	5000	-	8.1	5.0	8757695
Total Zirconium (Zr)	ug/L	-	-	-	<0.10	0.10	8757695
Total Calcium (Ca)	mg/L	-	-	-	18.1	0.050	8756419
Total Magnesium (Mg)	mg/L	-	-	-	6.02	0.050	8756419
Total Potassium (K)	mg/L	-	-	-	0.302	0.050	8756419
Total Sodium (Na)	mg/L	-	200	-	7.58	0.050	8756419
Total Sulphur (S)	mg/L	-	-	-	<3.0	3.0	8756419

No Fill

No Exceedance

Grey

Exceeds 1 criteria policy/level

Black

Exceeds both criteria/levels