The District of Lantzville Annual Water Report ~ 2014 ~



Date of Report:	April 29 th , 2015
Period of Monitoring:	January to December 2014
Water Supply Permit Number:	1310847
Location of Water System:	Lantzville, BC
Name of Owner:	District of Lantzville
Contact Person(s):	Fred Spears Director of Public Works District of Lantzville Phone: 250.390.4006 Fax: 250.390.5188 Email: <u>spears@lantzville.ca</u>
	Jason Gosling Maintenance Technician II District of Lantzville Phone: 250.390.4006 Fax: 250.390.5188

Email: publicworks@lantzville.ca

Water System Description

Source:

The District of Lantzville has four wells that produce a combined 1.2 cubic meters of water per minute, (260 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 portable generator that can supply power to the pumps during a power outage on an intermittent basis.

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 double during the summer months, as people tend to irrigate their properties. 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 10,637 meters of PVC (plastic) pipe. In addition to the PVC there is 13,965m 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	7,505 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	7,952 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 2015 construction season is:

- Replacement of the AC water main that runs along Fernmar Road;
- Replace 75 Residential Meters;
- An update to the Well Field Management Plan;
- Begin Design of a New Upper Pressure Zone Reservoir.

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
- Chlorine levels are adjusted as needed

Reservoirs:

Maintenance on the Reservoirs is as follows:

- Drained and cleaned every five years
- 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 2014 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: DWT

Facility Sampling History:

Location	Date	Total Coliform	<u>E. Coli</u>
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	9-Dec-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	9-Dec-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	9-Dec-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	2-Dec-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	2-Dec-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	2-Dec-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	1-Dec-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	1-Dec-2014	L1	L1

8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	1-Dec-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	24-Nov-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	24-Nov-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	17-Nov-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	17-Nov-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	17-Nov-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	3-Nov-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	3-Nov-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	27-Oct-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	27-Oct-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	21-Oct-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	21-Oct-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	14-Oct-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	14-Oct-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	6-Oct-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	6-Oct-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	30-Sep-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	30-Sep-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	30-Sep-2014	L1	L1

6966 Seaside Terrace Lantzville, Lantzville	22-Sep-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	22-Sep-2014	L1	L1
AUDIT - any available community tap, District of Lantzville	18-Sep-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	15-Sep-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	15-Sep-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	15-Sep-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	9-Sep-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	9-Sep-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	2-Sep-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	2-Sep-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	25-Aug-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	25-Aug-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	18-Aug-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	18-Aug-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	18-Aug-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	11-Aug-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	11-Aug-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	5-Aug-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	5-Aug-2014	L1	L1

7329 Millard Dr, 7329 Millard Drive, Lantzville	28-Jul-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	22-Jul-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	21-Jul-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	21-Jul-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	14-Jul-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	14-Jul-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	14-Jul-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	7-Jul-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	7-Jul-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	23-Jun-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	23-Jun-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	16-Jun-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	16-Jun-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	16-Jun-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	9-Jun-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	9-Jun-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	2-Jun-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	2-Jun-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	26-May-2014	L1	L]

7329 Millard Dr, 7329 Millard Drive, Lantzville	26-May-2014	L1	L1
6898 HARWOOD DR, 6898 Harwood Dr, Lantzville	20-May-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	20-May-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	12-May-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	12-May-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	5-May-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	5-May-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	5-May-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	28-Apr-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	28-Apr-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	22-Apr-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	14-Apr-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	14-Apr-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	8-Apr-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	8-Apr-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	2-Apr-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	2-Apr-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	24-Mar-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	24-Mar-2014	L1	L1

7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	24-Mar-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	19-Mar-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	19-Mar-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	10-Mar-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	10-Mar-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	3-Mar-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	3-Mar-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	25-Feb-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	25-Feb-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	17-Feb-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	17-Feb-2014	L1	L1
7052 Caillet Rd, 7052 Caillet Rd, Lantzville	11-Feb-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	11-Feb-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	3-Feb-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	3-Feb-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	3-Feb-2014	L1	L1
7345 Venture Rd, 7345 Venture Rd, Lantzville Bc	27-Jan-2014	L1	L1
7430 Aulds Road, 7430 Aulds Road, Lantzville	27-Jan-2014	L1	L1
7536 Superior Rd, 7536 Superior Rd, Lantzville Bc	27-Jan-2014	L1	L1

7052 Caillet Rd, 7052 Caillet Rd, Lantzville	20-Jan-2014	L1	L1
8020 Lantzville Rd, 8020 Lantzville Road, Lantzville Bc	20-Jan-2014	L1	L1
6898 Harwood Dr, 6898 Harwood Dr, Lantzville	13-Jan-2014	L1	L1
7329 Millard Dr, 7329 Millard Drive, Lantzville	13-Jan-2014	L1	L1
6966 Seaside Terrace Lantzville, Lantzville	6-Jan-2014	L1	L1
7192 Lantzville Rd/Village Off, 7192 Lantzville Rd - Office, Lantzville, B.C.	6-Jan-2014	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 North Island Labs is for the untreated water testing the District does on an annual basis. In 2014 Wells 9 and 12 were sampled and tested and the results are as follows:



Certificate of Analysis

Report To:	District of Lantzville	Lab Number:	114092
	Fred Spears PO Box 100	Date Reported:18 Sep 14Date Completed:18 Sep 14	1
	Lantzville, BC V0R 2H0	Date Received:	8 Sep 14 11:01

Well Water

114092-01 Well #9 Sampled By:

Sampling Date: 8 Sep 14 10:20

Test	Result	Units	Drinking Water Guideline
Chloride	43.2	mg/L	250 AO
Fluoride	0.06	mg/L	1.5 MAC
Nitrate (N)	0.94	mg/L	10 MAC
Nitrite (N)	< 0.05	mg/L	1 MAC
Sulphate	10.9	mg/L	500 AO
Colour - True	<5	Colour Units	15
pH at 25 C	7.2	pH Units	6.5-8.5
Alkalinity	100	mg/L (CaCO3)	
Turbidity	<0.5	NTU's	5 AO
Total Dissolved Solids (conductivity ca	240	mg/L	500 AO
Total Cyanide	< 0.002	mg/L	
d-Aluminium	< 0.005	mg/L	
d-Antimony	< 0.0002	mg/L	
d-Arsenic	< 0.0002	mg/L	
d-Barium	0.008	mg/L	
d-Beryllium	< 0.00004	mg/L	
d-Bismuth	< 0.001	mg/L	
d-Boron	0.145	mg/L	
d-Cadmium	< 0.00001	mg/L	
d-Calcium	33.2	mg/L	
d-Chromium	0.0010	mg/L	
d-Cobalt	0.00006	mg/L	
d-Copper	0.001	mg/L	
d-Iron	< 0.005	mg/L	
d-Lead	0.0004	mg/L	
d-Lithium	0.002	mg/L	

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC > = Greater than; < = Less than Results relate only to samples as submitted. This certificate must not be reproduced, except in its entirety, without written consent from the laboratory. Canadian Drinking Water Guidelines as listed on Dec. 5th, 2005 and are subject to change. Method uncertainties for specified analyses are available upon request.

9/18/2014 17:00 Page 1 of 4 District of Lantzville Water System Annual Report - 2014



114092-01 Well #9 Sampled By: Sampling Date: 8 Sep 14 10:20	Well Water		
Test	Result	Units	Drinking Water Guideline
d-Magnesium	9.42	mg/L	
d-Manganese	0.003	mg/L	
d-Molybdenum	< 0.00010	mg/L	
d-Nickel	< 0.001	mg/L	
d-Potassium	0.6	mg/L	
d-Selenium	<0.0006	mg/L	
d-Silicon	10.8	mg/L	
d-Silver	< 0.00001	mg/L	
d-Sodium	23.4	mg/L	
d-Strontium	0.129	mg/L	
d-Thallium	< 0.00001	mg/L	
d-Tin	< 0.0001	mg/L	
d-Titanium	< 0.010	mg/L	
d-Uranium	< 0.0004	mg/L	
d-Vanadium	0.00167	mg/L	
d-Zinc	< 0.001	mg/L	
Hardness (CaCO3)	122	mg/L	
Total Coliforms (DES)	<1.0	MPN/100mL	<1
E. coli (DES)	<1.0	MPN/100mL	<1
Total Plate Count	3	CFU/ml	

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC > = Greater than; < = Less than Results relate only to samples as submitted. This certificate must not be reproduced, except in its entirety, without written consent from the laboratory. Canadian Drinking Water Guidelines as listed on Dec. 5th, 2005 and are subject to change. Method uncertainties for specified analyses are available upon request.

9/18/2014 17:00 Page 2 of 4



Certificate of Analysis

Report To:	District of Lantzville Fred Spears PO Box 100 Lantzville, BC VOR 2H0		Lab Number: Date Reported: Date Completed: Date Received:	114094 18 Sep 14 18 Sep 14 8 Sep 14 11:10
114094-01 W Sampled By: Sampling Date:	ell #12 8 Sep 14 10:15	Well Water		
Test		Result	Units	Drinking Water Guideline
Chloride		21.2	mg/L	250 AO
Fluoride		< 0.05	mg/L	1.5 MAC
Nitrate (N)		0.72	mg/L	10 MAC
Nitrite (N)		< 0.05	mg/L	1 MAC
Sulphate		7.4	mg/L	500 AO
Colour - True		<5	Colour Units	15
pH at 25 C		6.7	pH Units	6.5-8.5
Alkalinity		50	mg/L (CaCO3)	
Turbidity		< 0.5	NTU's	5 AO
Total Dissolved	Solids (conductivity ca	130	mg/L	500 AO
Total Cyanide		< 0.002	mg/L	
d-Antimony		< 0.0002	mg/L	
d-Arsenic		< 0.0002	mg/L	
d-Barium		0.008	mg/L	
d-Beryllium		< 0.00004	mg/L	
d-Bismuth		< 0.001	mg/L	
d-Boron		0.057	mg/L	
d-Cadmium		< 0.00001	mg/L	
d-Calcium		20.8	mg/L	
d-Chromium		0.0007	mg/L	
d-Cobalt		0.00002	mg/L	
d-Copper		< 0.001	mg/L	
d-Iron		< 0.005	mg/L	
d-Lead		0.0004	mg/L	
d-Lithium		0.002	mg/L	
d-Magnesium		5.81	mg/L	

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC > = Greater than; <= Less than

> = Greater than; < = Less than Results relate only to samples as submitted. This certificate must not be reproduced, except in its entirety, without written consent from the laboratory. Canadian Drinking Water Guidelines as listed on Dec. 5th, 2005 and are subject to change. Method uncertainties for specified analyses are available upon request.

9/18/2014 17:00 Page 1 of 4

North Island Laboratories 1:4 • 2755 B Moray Avenue, Courtenay, B.C. V9N 8M9 Tel: (250) 338-7786 Fax: (250) 338-7553

114094-01 Well #12 Sampled By:	Well Water		
Sampling Date: 8 Sep 14 10:15			
Test	Result	Units	Drinking Water Guideline
d-Manganese	< 0.001	mg/L	
d-Molybdenum	<0.00010	mg/L	
d-Nickel	< 0.001	mg/L	
d-Potassium	0.3	mg/L	
d-Selenium	<0.0006	mg/L	
d-Silicon	11.8	mg/L	
d-Silver	< 0.00001	mg/L	
d-Sodium	7.6	mg/L	
d-Strontium	0.064	mg/L	
d-Thallium	< 0.00001	mg/L	
d-Tin	< 0.0001	mg/L	
d-Titanium	<0.010	mg/L	
d-Uranium	< 0.0004	mg/L	
d-Vanadium	0.00141	mg/L	
d-Zinc	0.002	mg/L	
Hardness (CaCO3)	76	mg/L	
Total Coliforms (DES)	<1.0	MPN/100mL	<1
E. coli (DES)	<1.0	MPN/100mL	<1
Total Plate Count	<3	CFU/ml	

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC > = Greater than; < = Less than Results relate only to samples as submitted. This certificate must not be reproduced, except in its

entirety, without written consent from the laboratory. Canadian Drinking Water Guidelines as listed on Dec. 5th, 2005 and are subject to change. Method

uncertainties for specified analyses are available upon request.

9/18/2014 17:00 Page 2 of 4 District of Lantzville Water System Annual Report - 2014