

Part III Form 2
Section 11. ANNUAL REPORT.

Drinking-Water System Number:	220003467
Drinking-Water System Name:	Levack Well Supply
Drinking-Water System Owner:	Vale Inco
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2009 to December 1, 2009

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [<input checked="" type="checkbox"/>]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [<input checked="" type="checkbox"/>] No []</p> <p>The report is provided to the city of Greater Sudbury (www.city.greatersudbury.on.ca/) / news release.</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <p>The office of Wendy Wisniewski Inco General Engineering Building 337 Power Street Copper Cliff, Ontario POM 1NO (705) 682-8247</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input type="text" value="0"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No [N/A]</p> <p>Number of Interested Authorities you report to: <input type="text" value="0"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No [N/A]</p>
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List Drinking-Water Systems, which receive all of their drinking water from your system:

Town of Levack Ontario. (POM 2CO) Owned and Operated by the City of Greater Sudbury

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?

Yes [] No []

Indicate how you notified system users that your annual report is available, and is free of charge.

[] Public access/notice via the web

- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method. **A copy of the report is provided to the owners who are connected to our water system. The owners make the report available to the public. (City of Greater Sudbury, Xstrata mine & mill).**

Describe your Drinking-Water System

The Levack Potable Water System gets its water from three wells situated in the Town of Levack on High Street. These wells draw water from an underground aquifer. The wells are situated in the aquifer composed of sand and gravel laid down in a bedrock trough approximately 1500 feet wide and a depth of 112 feet. The #1 and #2 wells were installed in 1952 and are 68 and 71 feet deep respectively. The #3 well was installed in 1957 and is 74 feet deep. Artificial recharging of the aquifer through the use of recharge pits began in 1969 and continues. Artificial recharging of the aquifer is a means of increasing the amount and rate of natural infiltration through the use of water filled recharge pits approximately seven feet deep. Water for these pits is drawn from the Onaping River. The raw water drawn from the wells is treated at the #3 Pumphouse. Treatment consists of adding sodium hexametaphosphate, which is used for iron and manganese sequestering. Sodium hypochlorite is added for chlorination. Sodium hydroxide is then added to raise the pH in order to meet the Ontario Drinking Water Standards. Our licensed operators ensure clean safe drinking water is then delivered to Vale Inco and Xstrata Mines and to the City of Greater Sudbury, which operates a distribution system that supplies the Town of Levack. These wells are able to supply 2.1 million US gallons of treated water per day to the Mines and Municipality. Once water has been treated it is routinely tested to ensure its quality and safety before it is pumped through miles of water mains to your faucets.

List all water treatment chemicals used over this reporting period

15946 liters of Sodium Hypochlorite
 1,851 liters of Sodium Hexametaphosphate
 20803 Kilograms of Sodium Hydroxide 25%

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Describe

No significant expense incurred.

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

4 incidents during the reported period of January 1, 2009 to December 1, 2009

<u>Date</u>	<u>Date Notified</u>	<u>Date Reported</u> <u>AWQI Notification #</u>	<u>Location</u>	<u>Adverse Indicator</u>	<u>Actions Taken</u>	<u>Comments</u>
Jan.5, 09	Jan. 6,09 3:24 pm	Jan. 6, 2009 4:00pm AWQI #86047	Vale Inco Levack well system	Total Coliform = 3	Re-sample.	Re-sample result was not-detectable
Apr.23, 09	April 23, 09 10:20 am	April 23, 2009 3:25 pm AWQI #87750	Vale Inco Levack well system	Turbidity levels > 1.0 NTU	Continuous monitoring conducted.	Vipond Fire Protection flushing lines at the Levack sewage plant hydrant location. Pressure and flow fluctuations created the Turbidity spikes to the analyzer located across the road from the hydrant
Sept. 23,09	Sept.24,09 9:00 am	Sept. 24,2009 9:12am AWQI# 91415	Vale Inco Levack well system	Turbidity levels > 1.0 NTU	Continuous monitoring conducted.	Grab sample indicated turbidity was 0.56 NTU. Turbidimeter flushed and cleaned. Dirty sensor.
Oct. 2,09	Oct. 2,09 10:39 am	Oct. 2, 2010 10:53am AWQI# 91624	Vale Inco Levack well system	Vandalism to water intake. Fire Retardant observed at plant intake.	Shut down water system	Rushed samples for analysis. Re-started water system as per Ministry of Health and Ministry of Environment. Sample results were not-detectable.

Microbiological testing done under section 8-2 during this reporting period

	Number of Samples	Range of E.Coli Or Fecal Results (#-#)	Range of Total Coliform Results (#-#)	Number of HPC Samples Or Background Colony Counts	Range of HPC Results (#-#) Or Background Colony Counts
Raw	147	(ND) CFU/100mL	(ND to 24) CFU/100mL		
Treated	49	(ND) CFU/100/mL	(ND) CFU/100mL	49	(ND to 10) CFU/100mL HPC
Distribution (Plumbing)	49	(ND) CFU/100/mL	(ND) CFU/100mL	49	(ND to 10) CFU/100mL HPC

ND = Not Detected

Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (#-#)
Turbidity	8760	(0.06 to 0.58) NTU
Chlorine	8760	(0.65 to 1.52) mg/L
Chlorine Residual Distribution System	8760	(0.65 to 1.52) mg/L
Fluoride (If the DWS provides fluoridation)		N/A

NOTE: For continuous monitors use 8760 as the number of samples.

*NOTE: Record the unit of measure if it is **not** milligrams per litre.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval or order.

Date of order or C of A	Parameter	Date Sampled	Result	Unit of Measure
Certificate of Approval No.7231-6MBKK3 Levack Water Treatment Plant Proposal to Condition 5.5 submitted to the ministry September 26, 2003	SEE APPENDIX A FOR DATE, LIST OF PARAMETERS AND RESULTS OF TESTING.			

Summary of Inorganic parameters tested during this reporting period or most recent

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	February 18, 09	0.00002	mg/L	No
Arsenic	February 18, 09	< 0.0002	mg/L	No
Barium	February 18, 09	0.00105	mg/L	No
Boron	February 18, 09	0.0065	mg/L	No
Cadmium	February 18, 09	0.000003	mg/L	No
Chromium	February 18, 09	< 0.0005	mg/L	No
Lead	February 18, 09	< 0.00002	mg/L	No
Mercury	February 18, 09	< 0.001	mg/L	No
Selenium	February 18, 09	< 0.001	mg/L	No
Sodium	February 18, 09	10.3	mg/L	No
Uranium	February 18, 09	0.000219	mg/L	No
Fluoride	February 18, 09	0.06	mg/L	No
Nitrite	February 18, 09	< 0.005	mg/L	No
Nitrate	February 18, 09	0.324	mg/L	No

Summary of Organic parameters sampled during this reporting period or most recent

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Feb.18, 09	< 0.00011	mg/L	No
Aldicarb	Feb.18, 09	< 0.0003	mg/L	No
Aldrin + Dieldrin	Feb.18, 09	< 0.000067	mg/L	No
Atrazine + N-dealkylated metabolites	Feb.18, 09	< 0.00012	mg/L	No
Azinphos-methyl	Feb.18, 09	< 0.00021	mg/L	No
Bendiocarb	Feb.18, 09	< 0.00013	mg/L	No
Benzene	Feb.18, 09	< 0.00037	mg/L	No
Benzo(a)pyrene	Feb.18, 09	< 0.000004	mg/L	No
Bromoxynil	Feb.18, 09	< 0.00033	mg/L	No
Carbaryl	Feb.18, 09	< 0.00016	mg/L	No
Carbofuran	Feb.18, 09	< 0.00037	mg/L	No
Carbon Tetrachloride	Feb.18, 09	< 0.00041	mg/L	No
Chlordane (Total)	Feb.18, 09	< 0.00011	mg/L	No
Chlorpyrifos	Feb.18, 09	< 0.00018	mg/L	No
Cyanazine	Feb.18, 09	< 0.00018	mg/L	No
Diazinon	Feb.18, 09	< 0.000081	mg/L	No
Dicamba	Feb.18, 09	< 0.0002	mg/L	No
1,2-Dichlorobenzene	Feb.18, 09	< 0.0005	mg/L	No
1,4-Dichlorobenzene	Feb.18, 09	< 0.00021	mg/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Feb.18, 09	< 0.00014	mg/L	No
1,2-Dichloroethane	Feb.18, 09	< 0.00043	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Feb.18, 09	< 0.00041	mg/L	No
Dichloromethane	Feb.18, 09	< 0.00034	mg/L	No
2-4 Dichlorophenol	Feb.18, 09	< 0.00015	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Feb.18, 09	< 0.00019	mg/L	No
Diclofop-methyl	Feb.18, 09	< 0.0004	mg/L	No
Dimethoate	Feb.18, 09	< 0.00012	mg/L	No
Dinoseb	Feb.18, 09	< 0.00036	mg/L	No
Diquat	Feb.18, 09	< 0.001	mg/L	No
Diuron	Feb.18, 09	< 0.000087	mg/L	No
Glyphosate	Feb.18, 09	< 0.006	mg/L	No
Heptachlor + Heptachlor Epoxide	Feb.18, 09	< 0.00011	mg/L	No
Linadane (Total)	Feb.18, 09	< 0.000056	mg/L	No
Malathion	Feb.18, 09	< 0.000091	mg/L	No
Methoxychlor	Feb.18, 09	< 0.00014	mg/L	No
Metolachlor	Feb.18, 09	< 0.000092	mg/L	No
Metribuzin	Feb.18, 09	< 0.00012	mg/L	No
Monochlorobenzene	Feb.18, 09	< 0.00058	mg/L	No
Paraquat	Feb.18, 09	< 0.001	mg/L	No
Parathion	Feb.18, 09	< 0.00018	mg/L	No
Pentachlorophenol	Feb.18, 09	< 0.00015	mg/L	No
Phorate	Feb.18, 09	< 0.00011	mg/L	No
Picloram	Feb.18, 09	< 0.00025	mg/L	No
Polychlorinated Biphenyls(PCB)	Feb.18, 09	< 0.00004	mg/L	No
Prometryne	Feb.18, 09	< 0.00023	mg/L	No
Simazine	Feb.18, 09	< 0.00015	mg/L	No

THM (NOTE: show latest annual average)	Feb.18, 09	0.044	mg/L	No
Temephos	Feb.18, 09	< 0.00031	mg/L	No
Terbufos	Feb.18, 09	< 0.00012	mg/L	No
Tetrachloroethylene	Feb.18, 09	< 0.00045	mg/L	No
2,3,4,6-Tetrachlorophenol	Feb.18, 09	< 0.00014	mg/L	No
Triallate	Feb.18, 09	< 0.0001	mg/L	No
Trichloroethylene	Feb.18, 09	< 0.00038	mg/L	No
2,4,6-Trichlorophenol	Feb.18, 09	<0.00025	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Feb.18, 09	< 0.00022	mg/L	No
Trifluralin	Feb.18, 09	< 0.00012	mg/L	No
Vinyl Chloride	Feb.18, 09	< 0.00017	mg/L	No

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

No half of standards exceeded.

Parameter	Result Value	Unit of Measure	Date of Sample

(Only if DWS category is large municipal residential, small municipal residential, large municipal non-residential, non municipal year round residential, large non municipal non residential)

Drinking-Water Systems Regulation O. Reg. 170/03

APPENDIX A

1 DEEPWELL DAILY GROUND WATER TESTS. RECHARGE PIT LINER CHANGE 2009

PARAMETERS	Aluminum	Arsenic	Barium	Boron	Cadmium	Calcium	Chromium	Cobalt	Colour	Copper	Hardness	Iron	Lead	Magnesium
UNITS	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	ug/L	TCU	mg/L	mg/L	mg/L	mg/L	ug/L
MAC			1		0.005	n/a	0.05	n/a					0.01	n/a
IMAC		0.025		5		n/a		n/a						n/a
OG	0.1					n/a		n/a			80-100			n/a
AO						n/a		n/a	5	1		0.3		n/a
MDL	0.001	0.001	0.001	0.002	0.0001	50	0.001	0.1	4	0.001	0.1	0.02	0.001	4
June 18,09	0.0026	<0.001	0.0069	0.0089	0.00016	6,950	<0.001	0.28	<4	0.0075	24.7	0.022	<0.001	1,780
June 19,09	0.0026	<0.001	0.0090	0.0047	0.00019	8,870	<0.001	0.14	<4	0.0063	31.1	<0.02	<0.001	2,180
June 20,09	0.0138	<0.001	0.0123	0.0081	0.00037	10,700	0.0015	0.94	<4	0.0122	37.9	0.863	0.0016	2,710
June 21,09	0.0116	<0.001	0.0124	0.0063	0.00021	11,200	<0.001	0.75	<4	0.0094	39.2	0.478	<0.001	2,750
June 22,09	0.0129	<0.001	0.0123	0.0076	0.0017	10,400	<0.001	0.64	<4	0.0108	37.4	0.476	<0.001	2,760
June 23,09	0.0194	<0.001	0.0149	0.0072	<0.0001	16,700	<0.001	0.1	<4	0.0071	56.3	<0.02	<0.001	3,520
June 24,09	0.0144	<0.001	0.0162	0.0089	<0.0001	17,700	<0.001	<0.1	<4	0.0056	60	<0.02	<0.001	3,820
June 25,09	0.0132	<0.001	0.0164	0.0110	<0.0001	17,600	<0.001	<0.1	<4	0.0052	61.6	<0.02	<0.001	4,300
June 26,09	0.0152	<0.001	0.0172	0.0110	<0.0001	18,000	<0.001	0.11	<4	0.0073	62	<0.02	<0.001	4,130
June 27,09	0.0143	<0.001	0.0160	0.0073	<0.0001	14,500	<0.001	0.58	<4	0.0185	49.2	0.324	<0.001	3,130
June 28,09	0.016	<0.001	0.0145	0.0072	<0.0001	13,400	<0.001	0.48	<4	0.0081	46.5	0.238	<0.001	3,190
June 29,09	0.0159	<0.001	0.0132	0.0067	<0.0001	10,800	<0.001	0.39	<4	0.0079	38.3	0.204	<0.001	2,750
June 30,09	0.0258	<0.001	0.0118	0.0089	<0.0001	12,200	<0.001	<0.1	5.5	0.0087	46.1	<0.02	<0.001	3,800
July 01,09	0.0218	<0.001	0.0135	0.0080	<0.0001	13,400	<0.001	0.13	<4	0.0066	50	<0.02	<0.001	4,000
July 02,09	0.0215	<0.001	0.0119	0.0064	<0.0001	10,700	<0.001	0.1	<4	0.0069	39.9	<0.02	<0.001	3,180
July 03,09	0.0293	<0.001	0.0104	0.0087	<0.0001	9,030	<0.001	<0.1	<4	0.0063	35.3	0.023	<0.001	3,100
July 04,09	0.0227	<0.001	0.0154	0.0075	<0.0001	11,900	<0.001	<0.1	<4	0.0093	40.8	<0.02	<0.001	2,720
July 05,09	0.0247	<0.001	0.0115	0.0065	<0.0001	7,720	<0.001	<0.1	6.5	0.0089	27	<0.02	<0.001	1,880
July 06,09	0.029	<0.001	0.0095	0.0074	<0.0001	7,030	<0.001	<0.1	11	0.007	24.7	<0.02	<0.001	1,750
July 07,09	0.021	<0.001	0.0128	0.0061	<0.0001	9,620	<0.001	<0.1	7.5	0.0114	33.6	<0.02	<0.001	2,330

MDL = Method Detection Limit or Minimum Reporting Limit

Drinking-Water Systems Regulation O. Reg. 170/03

APPENDIX A (continued)

1 DEEPWELL DAILY GROUND WATER TESTS. RECHARGE PIT LINER CHANGE 2009

PARAMETERS	Manganese	Mercury	Nickel	Organic Nitrogen	pH	Silicon	Sodium	Turbidity	Zinc	Moose Creek Hardness	Moose Creek Turbidity	Moose Creek pH	Work Order #
UNITS	mg/L	mg/L	ug/L	mg/L	pH	mg/L	mg/L	NTU	mg/L	mg/L	NTU	pH	
MAC		0.001	n/a			n/a		1					
IMAC			n/a			n/a							
OG			n/a	0.15	6.5 - 8.5	n/a				80-100	1 ntu	6.5 - 8.5	
AO	0.05		n/a			n/a	200		5		5 ntu		
MDL	0.001	0.00001	1	1	n/a	0.1	0.05	0.2	0.001			n/a	
June 18,09	0.0172	<0.00001	26.5	1.10	7.27	4.22	4.94	0.68	0.0082	28	0.22	6.9	82539
June 19,09	0.0148	<0.00001	21.8	1.10	7.17	4.16	6.00	0.35	0.0062	28	0.22	6.9	82538
June 20,09	0.0191	<0.00001	245	1.20	6.51	4.55	7.84	0.39	0.0492	32	0.21	6.8	82778
June 21,09	0.0159	<0.00001	164	1.30	6.44	4.63	8.16	0.20	0.0337	28	0.22	6.9	82784
June 22,09	0.0169	<0.00001	165	1.20	6.50	4.80	7.90	0.18	<0.001	32	0.21	6.8	82783
June 23,09	0.0151	<0.00001	13.7	1.40	6.40	5.31	9.01	0.46	0.0060	32	0.23	6.7	83029
June 24,09	0.0144	<0.00001	6	<1	6.34	5.33	9.69	0.62	0.0017	37	0.22	6.7	83032
June 25,09	0.0145	<0.00001	6.4	1.10	6.41	2.66	8.15	0.40	0.0033	44	0.17	6.7	83082
June 26,09	0.0156	<0.00001	1.1	<1	6.33	5.89	9.11	0.38	0.0045	44	0.16	6.8	83077
June 27,09	0.0202	<0.00001	108	<1	6.24	4.00	7.56	0.72	0.0255	36	0.19	6.8	83300
June 28,09	0.0213	<0.00001	91.5	1.10	6.27	4.02	7.06	0.16	0.0179	36	0.19	6.8	83296
June 29,09	0.0225	<0.00001	77.6	1.20	6.25	3.58	6.22	0.29	0.0167	36	0.19	6.8	83273
June 30,09	0.0195	0.00002	4.9	<1	6.16	8.47	7.05	0.21	0.0095	36	0.21	6.8	83501
July 01,09	0.0189	0.000062	4.5	<1	6.09	7.82	7.65	0.27	0.0084	34	0.21	6.8	83502
July 02,09	0.0199	0.000131	4	<1	6.16	7.26	6.08	0.40	0.0080	34	0.21	6.8	83503
July 03,09	0.0219	0.000027	.4.4	<1	5.77	7.63	5.63	0.16	0.0103	34	0.24	6.8	83498
July 04,09	0.0262	0.000027	4.3	<1	5.95	5.84	6.68	0.18	0.0089	30	0.28	7.1	83746
July 05,09	0.0260	0.000027	8.9	1.30	6.16	5.23	5.29	0.23	0.0147	30	0.28	7.1	83745
July 06,09	0.0283	<0.0001	3.8	<1	5.98	5.07	4.75	0.65	0.0094	30	0.28	7.1	83743
July 07,09	0.0327	<0.0001	10.9	<1	5.74	5.52	6.6	0.57	0.0073	30	0.27	6.9	83770