



February 23, 2010

The Lucknow Water System – 2009 Compliance Summary

System Description

The Lucknow water system is characterized as a "secure ground water" system and is classified as a large municipally owned water system. The plant and its equipment have a daily maximum capacity to deliver 2115 cubic metres of potable water to the Lucknow community the sub system supplying the Lucknow South subsystem in Ashfield Colborne Wawanosh.

The water sources are 2 secure deep bed rock wells. Well #5 is located on the north east corner of Bob and Delhi Streets and well #4 is located on Havelock Street both within the village of Lucknow. Each well house is equipped with a well pump, chlorinators, a chlorine contact main and online monitoring.

The well houses, well # 5 constructed in 1967 and well # 4 constructed in 1957, were upgraded in 2006 with chlorine contact facilities being added. Installation of a SCADA control system was begun in 2007 and was completed in 2008.

The attached distribution system is a combination of PVC, ductile iron and cast iron water mains. In addition to the water mains and associated valves and hydrants the distribution system equipment includes a storage facility at the end of Ross St. consisting of a standpipe containing approximately 1128 cubic metres of water. This structure also maintains distribution system pressure. The well pumps cycle on and off to maintain the operating level of this structure.

5 well was taken out of service in November 2009. The vertical turbine pump was removed and replaced with a submersible pump of similar capacity.

While the well was out of service an inspection was conducted using a submersible camera. The casing was examined and found to be intact and in fair condition. The overall condition of the well was good but was showing signs of deterioration. The well drillers recommended examining the well again in 5 years .

Chemicals Fed

Disinfectant

Disinfection was achieved on the Lucknow well supply through the use of 12% sodium hypochlorite.

This chemical was added prior to the water entering the chlorine contact chambers at dosages high enough to achieve both primary and secondary disinfection objectives.

In 2009 the chlorine dosages ranged from 2.5 mg/l to 4.1 mg/l depending on the demand of the raw water. The free chlorine residual was monitored at the point of entry to the distribution system with a target residual of > 1.00 mg/l and < 1.30 mg/l

Flows

The Lucknow water system has 1 permit to take water # 78-P-1052, which allows 865 cubic metres per day from well #4 and 2275 cubic metres per day from well #5. These limits were not exceeded in 2009.

The average daily flow from well #5 was 577 cubic meters or 25 % of capacity. The maximum daily flow was 1393 cubic meters or 61 %.

The average daily flow from well #4 was 76 cubic meters or 9 % of capacity. The maximum daily flow was 820 cubic meters or 95 %.

The permit to take water for each well also limits the number of hours per day that they may be pumped.

Well # 4 can be pumped for 18 hours each day.

This was exceeded on 2 dates in 2009.

May 6 the #4 well pump was mistakenly put on as lead pump and ran 24 hours to meet the system demand.

December 20 well #4 was on as lead pump as well #5 was out of service. There was a system leak due to a main break. The well ran 20.7 hours to meet system demand.

Well #5 can be pumped for 11 hours each day. This was not exceeded in 2009.

The 2 well houses each have a maximum flow as specified in C of A # 9904-6FKPKH. These are based on the CT calculations for each site and the minimum free chlorine residuals used in those calculations.

The maximum flow allowed by the C of A at Well 4 is 9.5 litres per second and at Well 5 37.92 litres per second.

The limiting factor regarding flow is chlorine contact time in the chlorine contact mains. In order to meet the regulatory CT requirements the maximum allowed flow must correspond with a free chlorine residual of 0.20 mg/l.

The maximum flows through the contact mains at each well house did not exceed the C of A limitations in 2009 as recorded by the flow meters.

Precautionary Boil Water Notices

There were no precautionary boil water notices issued by the operating authority on the entire Lucknow well supply in 2009.

There were several localized notices issued as the result of a low pressure incidents on a limited portions of the distribution system. These were put in place as an act of due diligence. It was not due to any known contamination of the system or any failure of the system to meet regulatory requirements.

Subsequent microbiologic analysis of samples collected from the affected sites were found to be free of all bacteria.

The notices were put in place after main breaks that could not be repaired under pressure or connections that required sections of main to be shut down.

Boil Water Advisory

There were no Boil Water Advisories issued by the Grey Bruce MOH on the Lucknow water system in 2009.

Annual Ontario Ministry of the Environment Inspection

Shayne Finlay, MOE Drinking Water Inspector, inspected the water system and examined the water quality and operational records on June 18, 2009. He issued a report of his findings in August of 2009. He outlined several non compliant issues that were resolved in 2008.

He also noted the maintenance of the on site turbidimeters was not up to date. These instruments are obsolete and no longer required in well houses that have secure ground water as their source.



A turbidimeter was not included with the well house equipment listed in the system description submitted as part of the application for licensing under the SDWA. Once this license is in place the turbidimeter will be removed .

Exceedences

Fluoride

O. Reg. 169/03 (the Ontario Drinking Water Standard) has a MAC (maximum allowable concentration) of 1.5 mg/l for fluoride.

The water from the Lucknow wells is monitored monthly for this chemical. They have naturally occurring levels that exceed 1.5 mg/l. An annual report is filed with the Grey Bruce Health unit regarding this exceedence.

As required by O. Reg. 170/03 schedule 1 section 13-9 an AWQI (adverse water quality indicator) report is filed with the MOE and the MOH every 60 months. This was done in October of 2007.

The results reported were as follows :

Well # 5	1.90 mg/l
Well # 4	1.94 mg/l

Laurie Cox – Project Manager VWC



Lucknow Well Supply
 Chemical Usage
 2009

Month	Well #4		Well #5	
	Sodium Hypochlorite Usage Kg.	Sodium Hypochlorite Dosage mg/L	Sodium Hypochlorite Usage Kg.	Sodium Hypochlorite Dosage mg/L
Jan '09	2.62	4.78	66.79	3.87
Feb '09	5.11	4.72	58.24	3.30
Mar '09	5.24	4.95	75.35	3.31
Apr '09	8.69	31.61	96.60	3.81
May '09	11.87	4.87	73.55	3.60
Jun '09	4.69	4.81	72.04	4.05
Jul '09	3.31	7.72	83.21	4.21
Aug '09	8.00	4.46	73.83	3.99
Sep '09	4.14	4.06	61.00	3.21
Oct '09	7.18	4.42	51.06	3.39
Nov '09	16.15	4.30	40.85	3.32
Dec '09	51.61	4.14	15.67	3.38
Total	128.62	4.68	768.38	3.65

Notes:

1) The sodium hypochlorite is used as a source of chlorine.
 Density: 1.15 at 12%

All quantities of chemicals are listed as the available chemical in the solutions and not the total physical quantities.

Water Works Name: Lucknow Well Supply
Well No. (if applicable): Well 4
Year: 2009
Serviced Population: 1100
Laboratories Which Performed Analyses: SGS Lakefield Research
Water Works Number: 220002636

Month	Total Coliform			Fecal Coliform / Escherichia Coli			Raw Water Turbidity		
	No. of Samples Collected	No. of Samples 0-100	No. of Samples 101-9000	No. of Samples Collected	No. of Samples 0-10	No. of Samples 11-900	No. of Samples >900	No. of Samples >1 NTU	Average NTU
Jan '09	4	4	0	4	4	0	0	0	0.36
Feb '09	4	4	0	4	4	0	0	0	0.40
Mar '09	5	5	0	5	5	0	0	0	0.28
Apr '09	4	4	0	4	4	0	0	0	0.32
May '09	4	4	0	4	4	0	0	0	0.33
Jun '09	5	5	0	5	5	0	0	0	0.41
Jul '09	4	4	0	4	4	0	0	0	0.34
Aug '09	4	4	0	4	4	0	0	0	0.45
Sep '09	5	5	0	5	5	0	0	0	0.40
Oct '09	4	4	0	4	4	0	0	0	0.31
Nov '09	4	4	0	4	4	0	0	0	0.29
Dec '09	5	5	0	5	5	0	0	0	0.11
Total	52	52	0	52	52	0	0	0	0.32

Water Works Name: Lucknow Well Supply

Well No. (if applicable): Well 5

Year: 2009

Serviced Population: 1100

Laboratories Which Performed Analyses: SGS Lakefield Research

Water Works Number: 220002636

Raw Water

Month	Total Coliform			Fecal Coliform / Escherichia Coli			Raw Turbidity		
	No. of Samples Collected	No. of Samples 0-100	No. of Samples 101-9000	No. of Samples Collected	No. of Samples 0-10	No. of Samples 11-900	No. of Samples >900	No. of Samples >1 NTU	Average NTU
Jan '09	4	4	0	0	4	4	0	0	0.33
Feb '09	4	4	0	0	4	4	0	0	0.31
Mar '09	5	5	0	0	5	5	0	0	0.20
Apr '09	4	4	0	0	4	4	0	0	0.19
May '09	4	4	0	0	4	4	0	0	0.37
Jun '09	5	5	0	0	5	5	0	0	0.44
Jul '09	4	4	0	0	4	4	0	0	0.29
Aug '09	4	4	0	0	4	4	0	0	0.26
Sep '09	5	5	0	0	5	5	0	0	0.54
Oct '09	4	4	0	0	4	4	0	0	0.30
Nov '09	4	4	0	0	4	4	0	0	0.41
Dec '09	3	3	0	0	3	3	0	0	0.24
Total	50	50	0	0	50	50	0	0	0.33

Water Works Name: **Lucknow Well Supply**
 Year: 2009
 Serviced Population: 1100
 Laboratories which Performed Analyses: SGS Lakefield Research

Month	Total Coliform			Fecal Coliform / Escherichia Coli			HPC or MF			BKG		
	No. of Samples Collected	No. of Samples "Unsafe"	No. of Samples Deteriorating	No. of Samples Collected	No. of Samples "Unsafe"	No. of Samples "Safe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples Deteriorating	No. of Samples Collected	No. of Samples "Safe"	No. of Samples Deteriorating
Jan '09	12	0	0	12	0	12	9	9	0	0	0	0
Feb '09	12	0	0	12	0	12	8	8	0	0	0	0
Mar '09	15	0	0	15	0	15	10	10	0	0	0	0
Apr '09	11	0	0	11	0	11	7	7	0	0	0	0
May '09	18	0	0	18	0	18	11	11	0	0	0	0
Jun '09	23	0	0	23	0	23	17	17	0	0	0	0
Jul '09	12	0	0	12	0	12	8	8	0	0	0	0
Aug '09	18	0	0	18	0	18	14	14	0	0	0	0
Sep '09	15	0	0	15	0	15	10	10	0	0	0	0
Oct '09	12	0	0	12	0	12	8	8	0	0	0	0
Nov '09	12	0	0	12	0	12	8	8	0	0	0	0
Dec '09	21	0	0	21	0	21	10	10	0	0	0	0
Total	181	181	0	181	0	181	120	120	0	0	0	0

INDICATORS OF UNSAFE DRINKING WATER QUALITY:

If any of the following conditions exist, the drinking water is judged unsafe:

1. Escherichia coli and/or fecal coliforms are detected in any distribution sample by any analytical method;
2. Total coliforms are detected in consecutive samples from the same site or in multiple samples taken as a single submission from a distribution system.

If the water contains any indicators of unsafe water quality for any of the reasons outlined above, the laboratory will immediately notify the MOEE District Officer who will immediately notify the Medical Officer of Health and the operating authority to initiate collection of special samples and/or take corrective action.

INDICATORS OF DETERIORATING DRINKING WATER QUALITY

Any of the following conditions indicate a deterioration in drinking water quality:

- a) total coliforms detected as a single occurrence (but not Escherichia coli or other fecal coliforms);
- b) samples contain more than 500 colonies per ml on a heterotrophic plate count analysis;
- c) samples contain more than 200 background colonies on a total coliform membrane filter analysis;
- d) Aeromonas spp., Pseudomonas aeruginosa, Staphylococcus aureus, Clostridium spp. Or members of the Fecal Streptococcus (Enterococcus) group are detected.

If these conditions occur, the MOEE Dist. Mang. Should be notified.

Water Works Name:
Well No. (if applicable):
Year:

Lucknow
Well 4
2009
1100

Serviced Population:
Laboratories which Performed Analyses:

SGS Lakefield Research

Treated Water

Month	Total Coliform				Fecal Coliform / Escherichia Coli				HPC or MF			BKG				
	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Deteriorating	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples Deteriorating	No. of Samples Collected	No. of Samples "Safe"	No. of Samples Deteriorating	No. of Samples Collected	No. of Samples "Safe"	No. of Samples Deteriorating
Jan '09	4	4	0	0	4	4	0	4	4	0	0	0	0	0	0	0
Feb '09	4	4	0	0	4	4	0	4	4	0	0	0	0	0	0	0
Mar '09	5	5	0	0	5	5	0	5	5	0	0	0	0	0	0	0
Apr '09	4	4	0	0	4	4	0	4	4	0	0	0	0	0	0	0
May '09	4	4	0	0	4	4	0	4	4	0	0	0	0	0	0	0
Jun '09	5	5	0	0	5	5	0	5	5	0	0	0	0	0	0	0
Jul '09	4	4	0	0	4	4	0	4	4	0	0	0	0	0	0	0
Aug '09	4	4	0	0	4	4	0	4	4	0	0	0	0	0	0	0
Sep '09	5	5	0	0	5	5	0	5	5	0	0	0	0	0	0	0
Oct '09	4	4	0	0	4	4	0	4	4	0	0	0	0	0	0	0
Nov '09	4	4	0	0	4	4	0	4	4	0	0	0	0	0	0	0
Dec '09	5	5	0	0	5	5	0	5	5	0	0	0	0	0	0	0
Total	52	52	0	0	52	52	0	52	52	0	0	0	0	0	0	0

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If any of the following conditions exist, the drinking water is judged unsafe:

1. Escherichia coli and/or fecal coliforms are detected in any distribution sample by any analytical method;
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- b) samples contain more than 500 colonies per ml on a heterotrophic plate count analysis;
- c) samples contain more than 200 background colonies on a total coliform membrane filter analysis;
- d) Aeromonas spp., Pseudomonas aeruginosa, Staphylococcus aureus, Clostridium spp. Or members of the Fecal Streptococcus (Enterococcus) group are detected.

If these conditions occur, the MOEE Dist. Mang. Should be notified.

Water Works Name: **Lucknow Well Supply**
 Well No. (if applicable): **Well 5**
 Year: **2009**
 Serviced Population: **1100**
 Laboratories which Performed Analyses: **SGS Lakefield Research**

Treated Water

Month	Total Coliform			Fecal Coliform / Escherichia Coli			HPC or MF			BKG		
	No. of Samples Collected	No. of Samples "Unsafe"	No. of Samples Deteriorating	No. of Samples Collected	No. of Samples "Unsafe"	No. of Samples "Safe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples Deteriorating	No. of Samples Collected	No. of Samples "Safe"	No. of Samples Deteriorating
Jan '09	4	0	0	4	0	4	4	0	0	0	0	0
Feb '09	4	0	0	4	0	4	4	0	0	0	0	0
Mar '09	5	0	0	5	0	5	5	0	0	0	0	0
Apr '09	4	0	0	4	0	4	4	0	0	0	0	0
May '09	4	0	0	4	0	4	4	0	0	0	0	0
Jun '09	5	0	0	5	0	5	5	0	0	0	0	0
Jul '09	4	0	0	4	0	4	4	0	0	0	0	0
Aug '09	4	0	0	4	0	4	4	0	0	0	0	0
Sep '09	5	0	0	5	0	5	5	0	0	0	0	0
Oct '09	4	0	0	4	0	4	4	0	0	0	0	0
Nov '09	4	0	0	4	0	4	4	0	0	0	0	0
Dec '09	2	0	0	2	0	2	2	0	0	0	0	0
Total	49	0	0	49	0	49	49	0	0	0	0	0

INDICATORS OF UNSAFE DRINKING WATER QUALITY:

If any of the following conditions exist, the drinking water is judged unsafe:

1. Escherichia coli and/or fecal coliforms are detected in any distribution sample by any analytical method;
2. Total coliforms are detected in consecutive samples from the same site or in multiple samples taken as a single submission from a distribution system.

If the water contains any indicators of unsafe water quality for any of the reasons outlined above, the laboratory will immediately notify the MOEE District Officer who will immediately notify the Medical Officer of Health and the operating authority to initiate collection of special samples and/or take corrective action.

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- b) samples contain more than 500 colonies per ml on a heterotrophic plate count analysis;
- c) samples contain more than 200 background colonies on a total coliform membrane filter analysis;
- d) Aeromonas spp., Pseudomonas aeruginosa, Staphylococcus aureus, Clostridium spp. Or members of the Fecal Streptococcus (Enterococcus) group are detected.

If these conditions occur, the MOEE Dist. Mang. Should be notified.

Water Works Name: **Lucknow Well Supply**
 Well No. (if applicable): **Well 4**
 Year: **2009**
 Serviced Population: **1100**
 Laboratories Which Performed Analyses: **Veolia Water Canada**
 Water Works Number: **220002636**

Month	Treated Water Flow			Process Wastewater Monthly Total (1000 m3)	Treated Water Turbidity			Treated Disinfectant			Treated Disinfectant- SCADA			Dist. System Disinfectant	
	Average Daily (1000 m3)	Maximum Daily (1000 m3)	Monthly Total (1000 m3)		No. of Samples Collected	No. of Samples > 1NTU	Average Turbidity NTU	No. of Treated Samples Collected	Average Residual (mg/L)	Minimum Online Residual (mg/L)	Maximum Online Residual (mg/L)	No. of Dist. Samp. Collected	No. of Samples < 0.05		
Jan '09	0.018	0.311	0.549	23	0	0.16	31	1.50	0.83	3.15	31	0			
Feb '09	0.039	0.532	1.081	28	0	0.15	28	1.43	1.17	1.68	28	0			
Mar '09	0.034	0.570	1.060	31	0	0.16	31	1.39	0.08	5.00	31	0			
Apr '09	0.009	0.139	0.275	30	0	0.21	30	1.36	0.35	3.94	30	0			
May '09	0.079	0.822	2.438	31	0	0.11	31	1.43	0.01	2.40	31	0			
Jun '09	0.033	0.341	0.976	30	0	0.12	30	1.44	1.01	2.57	30	0			
Jul '09	0.014	0.313	0.429	30	0	0.16	31	1.26	0.57	1.73	31	0			
Aug '09	0.058	0.694	1.794	31	0	0.14	31	1.31	0.63	3.20	31	0			
Sep '09	0.034	0.274	1.020	30	0	0.16	30	1.34	0.82	5.00	30	0			
Oct '09	0.052	0.567	1.622	31	0	0.13	31	1.45	0.02	2.78	31	0			
Nov '09	0.125	0.686	3.753	30	0	0.13	30	1.53	1.23	3.81	30	0			
Dec '09	0.402	0.712	12.471	31	0	0.13	31	1.56	0.03	3.68	31	0			
Total			27.468	356	0		365				365	0			
Average	0.075					0.15		1.42							
Maximum		0.822													

Disinfectant Compound Used: **Sodium Hypochlorite**
 (EG. Chlorine Gas, NaOCl, etc.)

Form of Residual Displayed on above table:
 (EG. Free, Combined, or Total) **Free**

Quantity of Disinfectant used during the year (kg): **128.62**

Distribution system target residual (mg/L) **> 0.20**

Water Works Name:
Well No. (if applicable):
Year:
Serviced Population
Laboratories Which Performed Analyses:
Water Works Number

Lucknow Well Supply
Well 5
2009
1100
Veolia Water Canada
220002636

Month	Treated Water Flow			Process Wastewater		Treated Water Turbidity			Treated Disinfectant		Treated Disinfectant-SCADA		Dist. System Disinfectant	
	Average Daily (1000 m3)	Maximum Daily (1000 m3)	Monthly Total (1000 m3)	Monthly Total (1000 m3)	No. of Samples Collected	No. of Samples > 1NTU	Average Turbidity NTU	No. of Treated Samples Collected	Average Residual (mg/L)	Minimum Online Residual (mg/L)	Maximum Online Residual (mg/L)	No. of Dist. Samp. Collected	No. of Samples < 0.05	
Jan '09	0.556	0.829	17.241		27	0	0.143	26	1.62	0.09	5.01	31	0	
Feb '09	0.630	1.065	17.642		27	0	0.099	28	1.51	1.21	3.40	28	0	
Mar '09	0.734	1.095	22.746		31	0	0.096	31	1.52	1.22	4.35	31	0	
Apr '09	0.846	1.393	25.369		30	0	0.079	30	1.51	0.99	5.00	30	0	
May '09	0.660	1.129	20.455		31	0	0.075	31	1.52	0.49	5.01	31	0	
Jun '09	0.593	0.877	17.798		30	0	0.074	30	1.57	0.33	3.19	30	0	
Jul '09	0.638	0.918	19.783		31	0	0.048	31	1.45	1.21	4.00	31	0	
Aug '09	0.596	0.959	18.489		29	0	0.184	31	1.55	0.24	4.54	31	0	
Sep '09	0.633	1.133	19.004		30	0	0.166	30	1.51	0.03	5.80	30	0	
Oct '09	0.486	0.801	15.076		31	0	0.157	31	1.61	1.02	4.39	31	0	
Nov '09	0.410	0.720	12.308		30	0	0.154	30	1.51	1.31	4.14	30	0	
Dec '09	0.151	0.657	4.696		30	0	0.135	29	1.48	0.81	5.80	31	0	
Total			210.607		357	0		356				365	0	
Average	0.577								1.53					
Maximum		1.393												

Disinfectant Compound Used
(EG. Chlorine Gas, NaOCl, etc.)

Sodium Hypochlorite

Form of Residual Displayed on above table:
(EG. Free, Combined, or Total)

Free

Quantity of Disinfectant used during the year (kg):

768.38

Distribution system target residual (mg/L)

> 0.20

Annual Data Summary - Treated Water Volatile Organic and Inorganic Data
(Complete a separate sheet for each input into the Distribution System)

Water Works Name:

Lucknow Well Supply

Well No. (if applicable):

4 & # 5

Year:

2009

Serviced Population

1100

Laboratories Which Performer Analyses:

SGS Lakefield Research

Water Works #

220002663

Parameter Schedule 23 & 24	Analysis		Analysis DW 86667 (ug/L)	Maximum Allowable Level (ug/L)	Analysis Result # 4 mg/l	Analysis Result # 5 mg/l	Maximum Allowable Level mg/l
	Date (MM/DD/YY)	Well # 4 Result (ug/L)					
Antimony	6/16/2009	0.02		6			
Arsenic	"	5.1	0.02	25			
Barium	"	300	326	1000			
Boron	"	34.2	33.1	5000			
Cadmium	"	<0.003	<0.003	5			
Chromium	"	0.7	0.6	50			
Mercury	"	0.03	<0.02	1			
Sodium	6/6/2006				9.63	9.49	20
Fluoride	12/1/2009				1.63	1.63	1.5
Lead	12/1/2009		0.13	10			
Selenium	6/16/2009	<1	<1	10			
Uranium	"	0.956	0.768	20			
Benzene	"	<0.37	<0.37	5			
Carbon Tetrachloride	"	<0.41	<0.41	5			
1,2-Dichlorobenzene	"	<0.50	<0.50	200			
1,4-Dichlorobenzene	"	<0.21	<0.21	5			
1,1-Dichloroethylene	"	<0.41	<0.41	14			
1,2-Dichloroethane	"	<0.43	<0.43	5			
Dichloromethane	"	<0.34	<0.34	50			
Monochlorobenzene	"	<0.58	<0.58	80			
Tetrachloroethylene	"	<0.45	<0.45	30			
Trichloroethylene	"	<0.38	<0.38	5			
Vinyl Chloride	"	<0.17	<0.17	2			
Diquat	"	<1	<1	70			
Paraquat	"	<1	<1	10			
Glyphosate	"	<6	<6	280			
Polychlorinated Biphenyls	"	<0.04	<0.04	3			
Benzo(a)pyrene	"	<0.004	<0.004	0.01			
2,4-dichlorophenol	"	<0.15	<0.15	900			
2,4,6-trichlorophenol	"	<0.25	<0.25	5			
2,3,4,5-tetrachlorophenol	"	<0.14	<0.14	100			
Pentachlorophenol	"	<0.15	<0.15	60			
Alachlor	"	<0.11	<0.11	5			
Aldicarb	"	<0.30	<0.30	9			
Aldrin+Dieldrin	"	<0.067	<0.067	0.7			
Aldrin	"	<0.060	<0.060				
Dieldrin	"	<0.067	<0.067				

Annual Summary - Fluoride, Nitrite, Nitrate, and Colour
(Complete a separate sheet for each input into the Distribution System)

Water Works Name: Lucknow Well Supply
Well No. (if applicable): # 4
Year: 2009
Serviced Population: 1100
Laboratories Which Performed Analyses: SGS Lakefield Research
Water Works: 220002663

Month	Fluoride		Treated Water Nitrite		Treated Water Nitrate		THM's	
	No. of Samples Collected	Average Residual mg/L	No. of Samples Collected	Average Nitrite mg/L	No. of Samples Collected	Average Nitrate (mg/L)	No. of Samples	Result ug/l
Jan.								
Feb.			1	<0.005	1	<0.013	1	5.2
Mar.								
Apr.								
May			1	<0.005	1	0.018	1	5.8
June								
July								
August			1	<0.005	1	<0.013	1	4.2
Sept								
Oct.								
Nov			1	<0.005	1	<0.013	1	7.3
Dec	1	1.63						
Total	1	1.63	4		4			
Average				#DIV/0!				
Maximum		1.63						
ODWQS						0.018		

Where nitrate and nitrite are present, the total of the two should not exceed 10 mg/L
 The maximum acceptable level for THM's is 100 ug/l
 Fluoride levels above 1.5 mg/L should be reported to the Medical Officer of Health

Water Works Name:
Well No. (if applicable):
Year:

Lucknow Well Supply
 # 5
 2009
 1100

Serviced Population
Laboratories Which Performed Analyses: SGS Lakefield Research
Water Works 220002663

Month	Fluoride		Treated Water Nitrite		Treated Water Nitrate		THM's	
	No. of Samples Collected	Average Residual mg/L	Maximum Residual mg/L	No. of Samples Collected	Average Nitrite mg/L	Maximum Nitrite mg/L	No of Samples	Result ug/l
Jan.								
Feb.				1	<0.005	<0.013	1	5.2
Mar.								
Apr.								
May				1	<0.005	0.013	1	5.8
June								
July								
August				1	<0.005	<0.013	1	4.2
Sept								
Oct.								
Nov				1	<0.005	<0.013	1	7.3
Dec	1	1.63	1.63					
Total	1			4			4	
Average					#DIV/0!			
Maximum			1.63					0.013
ODWQS								

Where nitrate and nitrite are present, the total of the two should not exceed 10 mg/L
 The maximum acceptable level for THM's is 100 ug/l
 Fluoride levels above 1.5 mg/L should be reported to the Medical Officer of Health