

P.O. Box 4300 - 185 Concession St. Lakefield - Ontario - KOL 2HO

Phone: 705-652-2000 FAX: 705-652-6365

Veolia Water (Lucknow)

Attn: Steve Walmsley

Box 185 Goderich, ON N0G 2R0, Canada

Phone: 519-524-6583

Fax:pdf

17-May-2024

Works #:

Date Rec.: 07 May 2024

LR Report: CA30148-MAY24

220002663

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Analysis	1:	2:	3:	4:	5:	6:	7:	8:	9:	10:	11:	12:
	Analysis Start Date	Analysis Start Time	Analysis Completed Date	Analysis Completed Time	MAC	Half MAC	MDL	TW Lucknow #4 - Treated	DW 484 Ludgard	TW Lucknow #5 - Treated	DW Firehall	DW South Lucknow
Sample Date & Time								06-May-24 15:30	06-May-24 16:10	06-May-24 15:45	06-May-24 14:55	06-May-24 15:10
Temperature Upon Receipt [at London Lab °C]								12.8	12.8	12.8	12.8	12.8
Temperature Upon Receipt [at Lakefield Lab °C]								10.0	10.0	10.0	10.0	10.0
Field Free Chlorine [mg/L]									1.52		1.31	1.31
Arsenic [ug/L]	13-May-24	10:30	13-May-24	12:51	10	5	0.2	4.0		3.3		
Nitrite (as N) [mg/L]	10-May-24	02:46	10-May-24	15:41	1.0		0.003	0.003 <mdl< td=""><td></td><td>0.003 <mdl< td=""><td></td><td></td></mdl<></td></mdl<>		0.003 <mdl< td=""><td></td><td></td></mdl<>		
Nitrate (as N) [mg/L]	10-May-24	02:46	10-May-24	15:41	10		0.006	0.053		1.79		
Nitrate + Nitrite (as N) [mg/L]	10-May-24	02:46	10-May-24	15:41			0.006	0.053		1.79		
Trihalomethanes (total) [ug/L]	09-May-24	15:34	10-May-24	09:45	100 (RAA)		0.37		4.9		4.1	12
Bromodichloromethane [ug/L]	09-May-24	15:34	10-May-24	09:45			0.26		0.88		0.64	2.1
Bromoform [ug/L]	09-May-24	15:34	10-May-24	09:45			0.34		0.34 <mdl< td=""><td></td><td>0.34 <mdl< td=""><td>0.34 <mdl< td=""></mdl<></td></mdl<></td></mdl<>		0.34 <mdl< td=""><td>0.34 <mdl< td=""></mdl<></td></mdl<>	0.34 <mdl< td=""></mdl<>
Chloroform [ug/L]	09-May-24	15:34	10-May-24	09:45			0.29		4.0		3.5	9.2
Dibromochloromethane [ug/L]	09-May-24	15:34	10-May-24	09:45			0.37		0.37 <mdl< td=""><td></td><td>0.37 <mdl< td=""><td>0.56</td></mdl<></td></mdl<>		0.37 <mdl< td=""><td>0.56</td></mdl<>	0.56
Total Haloacetic Acids (HAA5) [ug/L]	15-May-24	08:17	16-May-24	17:25	80 (RAA)		5.3		5.3 <mdl< td=""><td></td><td>5.3 <mdl< td=""><td></td></mdl<></td></mdl<>		5.3 <mdl< td=""><td></td></mdl<>	
Chloroacetic Acid [ug/L]	15-May-24	08:17	16-May-24	17:25			4.7		4.7 <mdl< td=""><td></td><td>4.7 < MDL</td><td></td></mdl<>		4.7 < MDL	
Bromoacetic Acid [ug/L]	15-May-24	08:17	16-May-24	17:25			2.9		2.9 <mdl< td=""><td></td><td>2.9 <mdl< td=""><td></td></mdl<></td></mdl<>		2.9 <mdl< td=""><td></td></mdl<>	
Dichloroacetic Acid [ug/L]	15-May-24	08:17	16-May-24	17:25			2.6		2.6 <mdl< td=""><td></td><td>2.6 <mdl< td=""><td></td></mdl<></td></mdl<>		2.6 <mdl< td=""><td></td></mdl<>	
Dibromoacetic Acid [ug/L]	15-May-24	08:17	16-May-24	17:25			2.0		2.0 <mdl< td=""><td></td><td>2.0 <mdl< td=""><td></td></mdl<></td></mdl<>		2.0 <mdl< td=""><td></td></mdl<>	
Trichloroacetic Acid [ug/L]	15-May-24	08:17	16-May-24	17:25			5.3		5.3 <mdl< td=""><td></td><td>5.3 <mdl< td=""><td></td></mdl<></td></mdl<>		5.3 <mdl< td=""><td></td></mdl<>	

 \mbox{MAC} - $\mbox{Maximum}$ Acceptable Concentration Half MAC - Half of the Maximum Acceptable Concentration MDL - SGS Method Detection Limit

Method Descriptions



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LR Report : CA30148-MAY24

Parameter	Description	SGS Method Code
Arsenic	Arsenic by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
Bromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Bromodichloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Bromoform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Chloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Chloroform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dibromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Dibromochloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Nitrate (as N)	Nitrate by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Nitrate + Nitrite (as N)	Total Nitrate/Nitrite by Ion Chromatograph	ME-CA-[ENV]IC-LAK-AN-001
Nitrite (as N)	Nitrite by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Total Haloacetic Acids (HAA5)	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trihalomethanes (total)	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004

Hawley Anderson, Hon.B.Sc Project Specialist,

Environment, Health & Safety



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Veolia Water (Lucknow)

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Box 185 Goderich, ON N0G 2R0, Canada

Phone: 519-524-6583

Fax:pdf

Works #: 220002663

22-February-2024

Date Rec. : 13 February 2024 LR Report: CA30259-FEB24

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CERTIFICATE OF ANALYSIS Final Report

Analysis	1:	2:	3:	4:	5:	6:	8:	9:	10:
	Analysis Start A Date	Analysis Start Time	Analysis Completed Date	Analysis Completed Time	MAC	Half MAC	MDL	TW Lucknow #4 - Treated	DW On The Run
Sample Date & Time								12-Feb-24 15:20	12-Feb-24 16:15
Temperature Upon Receipt [at London Lab °C]								5.0	5.0
Temperature Upon Receipt [at Lakefield Lab °C]								8.0	8.0
Field Free Chlorine [mg/L]								1.85	1.23
Arsenic [ug/L]	20-Feb-24	09:30	20-Feb-24	13:03	10	5	0.2	4.5	
Nitrite (as N) [mg/L]	17-Feb-24	10:28	22-Feb-24	11:40	1.0		0.003	0.003 <mdl< td=""><td></td></mdl<>	
Nitrate (as N) [mg/L]	17-Feb-24	10:28	22-Feb-24	11:40	10		0.006	0.009	
Nitrate + Nitrite (as N) [mg/L]	17-Feb-24	10:28	22-Feb-24	11:40			0.006	0.009	
Trihalomethanes (total) [ug/L]	16-Feb-24	13:26	20-Feb-24	11:06	100 (RAA)		0.37		2.2
Bromodichloromethane [ug/L]	16-Feb-24	13:26	20-Feb-24	11:06			0.26		0.30
Bromoform [ug/L]	16-Feb-24	13:26	20-Feb-24	11:06			0.34		0.34 <mdl< td=""></mdl<>
Chloroform [ug/L]	16-Feb-24	13:26	20-Feb-24	11:06			0.29		1.9
Dibromochloromethane [ug/L]	16-Feb-24	13:26	20-Feb-24	11:06			0.37		0.37 <mdl< td=""></mdl<>
Total Haloacetic Acids (HAA5) [ug/L]	21-Feb-24	09:09	22-Feb-24	10:49	80 (RAA)		5.3		
Chloroacetic Acid [ug/L]	21-Feb-24	09:09	22-Feb-24	10:49			4.7		
Bromoacetic Acid [ug/L]	21-Feb-24	09:09	22-Feb-24	10:49			2.9		
Dichloroacetic Acid [ug/L]	21-Feb-24	09:09	22-Feb-24	10:49			2.6		
Dibromoacetic Acid [ug/L]	21-Feb-24	09:09	22-Feb-24	10:49			2.0		
Trichloroacetic Acid [ug/L]	21-Feb-24	09:09	22-Feb-24	10:49			5.3		



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Phone: 705-652-2000 FAX: 705-652-6365

Works #: 220002663

LR Report :

CA30259-FEB24

Analysis	11: DW LET	12: TW Lucknow #5 - Treated	13: DW Old Firehall	14: DW LLS	15: DW South Lucknow - 86667
Sample Date & Time	12-Feb-24 15:05	12-Feb-24 15:40	12-Feb-24 15:55	12-Feb-24 15:50	12-Feb-24 14:55
Temperature Upon Receipt [at London Lab °C]	5.0	5.0	5.0	5.0	5.0
Temperature Upon Receipt [at Lakefield Lab °C]	8.0	8.0	8.0	8.0	8.0
Field Free Chlorine [mg/L]	1.63	1.60	1.55	1.43	1.55
Arsenic [ug/L]		5.4			
Nitrite (as N) [mg/L]		0.003 <mdl< td=""><td></td><td></td><td></td></mdl<>			
Nitrate (as N) [mg/L]		0.006 <mdl< td=""><td></td><td></td><td></td></mdl<>			
Nitrate + Nitrite (as N) [mg/L]		0.006 <mdl< td=""><td></td><td></td><td></td></mdl<>			
Trihalomethanes (total) [ug/L]			2.0		7.8
Bromodichloromethane [ug/L]			0.30		1.5
Bromoform [ug/L]			0.34 <mdl< td=""><td></td><td>0.34 <mdl< td=""></mdl<></td></mdl<>		0.34 <mdl< td=""></mdl<>
Chloroform [ug/L]			1.8		5.8
Dibromochloromethane [ug/L]			0.37 <mdl< td=""><td></td><td>0.46</td></mdl<>		0.46
Total Haloacetic Acids (HAA5) [ug/L]	5.3 < MDL			5.3 <mdl< td=""><td></td></mdl<>	
Chloroacetic Acid [ug/L]	4.7 <mdl< td=""><td></td><td></td><td>4.7 <mdl< td=""><td></td></mdl<></td></mdl<>			4.7 <mdl< td=""><td></td></mdl<>	
Bromoacetic Acid [ug/L]	2.9 <mdl< td=""><td></td><td></td><td>2.9 <mdl< td=""><td></td></mdl<></td></mdl<>			2.9 <mdl< td=""><td></td></mdl<>	
Dichloroacetic Acid [ug/L]	2.6 <mdl< td=""><td></td><td></td><td>2.6 <mdl< td=""><td></td></mdl<></td></mdl<>			2.6 <mdl< td=""><td></td></mdl<>	
Dibromoacetic Acid [ug/L]	2.0 <mdl< td=""><td></td><td></td><td>2.0 <mdl< td=""><td></td></mdl<></td></mdl<>			2.0 <mdl< td=""><td></td></mdl<>	
Trichloroacetic Acid [ug/L]	5.3 <mdl< td=""><td></td><td></td><td>5.3 <mdl< td=""><td></td></mdl<></td></mdl<>			5.3 <mdl< td=""><td></td></mdl<>	

 \mbox{MAC} - $\mbox{Maximum}$ Acceptable Concentration Half MAC - Half of the Maximum Acceptable Concentration MDL - SGS Method Detection Limit

Method Descriptions

	'	
Parameter	Description	SGS Method Code
Arsenic	Arsenic by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
Bromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Bromodichloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Bromoform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Chloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Chloroform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dibromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Dibromochloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004



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LR Report : CA30259-FEB24

Parameter	Description	SGS Method Code
Dichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Nitrate (as N)	Nitrate by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Nitrate + Nitrite (as N)	Total Nitrate/Nitrite by Ion Chromatograph	ME-CA-[ENV]IC-LAK-AN-001
Nitrite (as N)	Nitrite by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Total Haloacetic Acids (HAA5)	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trihalomethanes (total)	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004

Hawley Anderson, Hon.B.Sc Project Specialist,

Environment, Health & Safety



SGS Canada Inc.

P.O. Box 4300 - 185 Concession St. Lakefield - Ontario - KOL 2HO

Phone: 705-652-2000 FAX: 705-652-6365

16-January-2024

Works #: 220002663

Date Rec.: 09 January 2024 LR Report: CA30212-JAN24

Copy: #1

Veolia Water (Lucknow) Attn: Steve Walmsley

Box 185 Goderich, ON N0G 2R0, Canada

Phone: 519-524-6583

Fax:pdf

CERTIFICATE OF ANALYSIS **Final Report**

Sample ID	Sample Date & Time	Temperature Upon Receipt at London Lab °C	Temperature Upon Receipt at Lakefield Lab °C	Free Chlorine mg/L	Field pH	Alkalinity mg/L as CaCO3	Lead ug/L	pH No unit
1: Analysis Start Date						11-Jan-24	15-Jan-24	11-Jan-24
2: Analysis Start Time						15:12	19:58	15:12
3: Analysis Completed Date						12-Jan-24	16-Jan-24	12-Jan-24
4: Analysis Completed Time						11:59	09:10	12:00
5: MAC							10	
6: AO/OG					6.5-8.5	30-500		6.5-8.5
7: MDL						2	0.01	
8: DW LLS	09-Jan-24 11:30	7.2	8.0	1.47	8.10	220	0.33	7.96
9: DW L5	09-Jan-24 11:45	7.2	8.0	1.56	8.03	227	0.04	7.99
10: DW South Lucknow (ACW) 86667	09-Jan-24 12:00	7.2	8.0	1.45	8.18	228	0.13	7.99

MAC - Maximum Acceptable Concentration AO/OG - Aesthetic Objective / Operational Guideline

MDL - SGS Method Detection Limit

Method Descriptions

Units	Description	SGS Method Code
mg/L as CaCO3	Alkalinity by Titration	ME-CA-[ENV]EWL-LAK-AN-006
ug/L	Lead by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
No unit	pH - solution	ME-CA-[ENV]EWL-LAK-AN-006

Project Specialist,

Environment, Health & Safety