

Site Location: RIVER WELLS
 Your C.O.C. #: G023236, G023229, G023231

Attention: Bob Weir
 Town of Qualicum Beach
 201-660 Primrose St
 P.O. Box 130
 Qualicum Beach, BC
 Canada V9K 1S7

Report Date: 2011/10/27

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B195706
Received: 2011/10/06, 09:10

Sample Matrix: DRINKING WATER
 # Samples Received: 30

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Colour (True)	5	N/A	2011/10/08	BBY6SOP-00021	SM-2120B
Hardness Total (calculated as CaCO3)	5	N/A	2011/10/20		
ICP-AES Total Metals in Water	5	2011/10/20	2011/10/20	65-S-060	EPA 200.7
Nitrogen (Total)	5	2011/10/14	2011/10/14	BBY6SOP-00022	SM-4500N C
Ammonia-N	5	N/A	2011/10/13	BBY6SOP-00009	SM-4500NH3G
Nitrate + Nitrite (N)	5	N/A	2011/10/09	BBY6SOP-00010	USEPA 353.2
Nitrate + Nitrite (N)	4	N/A	2011/10/26	BBY6SOP-00010	USEPA 353.2
Nitrate + Nitrite (N)	1	N/A	2011/10/27	BBY6SOP-00010	USEPA 353.2
Nitrite (N) by CFA	5	N/A	2011/10/09	BBY6SOP-00010	EPA 353.2
Nitrogen - Nitrate (as N)	5	N/A	2011/10/13	BBY6SOP-00010	Based on EPA 353.2
pH Water	5	N/A	2011/10/11	BBY6SOP-00026	SM-4500H+B
Total Dissolved Solids (Filt. Residue)	5	2011/10/19	2011/10/19	BBY6SOP-00033	SM 2540C
TKN (Calc. TN, N/N) total	5	N/A	2011/10/27		
Carbon (Total Organic)	5	N/A	2011/10/13	BBY6SOP-00003	SM-5310C
Total Phosphorus	5	N/A	2011/10/12	BBY6SOP-00013	SM 4500
Turbidity	5	N/A	2011/10/11	BBY6SOP-00027	SM - 2130B

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LANOY LUANGKHAMDENG, Burnaby Customer Service
 Email: LLuangkhamdeng@maxxam.ca
 Phone# (604) 638-2636

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 This report has been generated and distributed using a secure automated process.
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B195706
 Report Date: 2011/10/27

Town of Qualicum Beach

Site Location: RIVER WELLS

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Maxxam ID		BT0698	BT0699	BT0700	BT0701	BT0702	BT0703	BT0704	BT0705	BT0706	BT0707	
Sampling Date		2011/10/05 08:55	2011/10/05 08:25	2011/10/05 09:15	2011/10/05 10:50	2011/10/05 11:10	2011/10/05 08:56	2011/10/05 08:26	2011/10/05 09:16	2011/10/05 10:51	2011/10/05 11:11	
COC#		G023236	G023236	G023236	G023236	G023236	G023236	G023236	G023236	G023236	G023236	
	Units	RIVER WELL #1A	RIVER WELL #3	RIVER WELL #6	RIVER WELL #5	RIVER WELL #7	RIVER WELL #1A	RIVER WELL #3	RIVER WELL #6	RIVER WELL #5	RIVER WELL #7	RDL
Calculated Parameters												
Total Hardness (CaCO3)	mg/L						31.2	43.9	40.9	38.8	59.6	0.5
MISCELLANEOUS												
True Colour	Col. Unit	<5	<5	<5	<5	<5						5
Physical Properties												
pH	pH Units	7.64	7.82	7.62	7.49	7.54						
Physical Properties												
Total Dissolved Solids	mg/L	58 ⁽¹⁾	66 ⁽¹⁾	62 ⁽¹⁾	50 ⁽¹⁾	72 ⁽¹⁾						10
Turbidity	NTU	<0.1	<0.1	<0.1	<0.1	<0.1						0.1

RDL = Reportable Detection Limit

(1) - Sample analyzed after hold time expired

Maxxam Job #: B195706
 Report Date: 2011/10/27

Town of Qualicum Beach

Site Location: RIVER WELLS

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Maxxam ID		BT0727	BT0728	BT0729	BT0730	BT0731	BT0732	BT0733	BT0734	BT0735	BT0736	
Sampling Date		2011/10/05 08:58	2011/10/05 08:31	2011/10/05 09:20	2011/10/05 10:52	2011/10/05 11:14	2011/10/05 08:57	2011/10/05 08:27	2011/10/05 09:18	2011/10/05 10:53	2011/10/05 11:12	
COC#		G023229	G023229	G023229	G023229	G023229	G023229	G023229	G023229	G023229	G023229	
	Units	RIVER WELL #1A	RIVER WELL #3	RIVER WELL #6	RIVER WELL #5	RIVER WELL #7	RIVER WELL #1A	RIVER WELL #3	RIVER WELL #6	RIVER WELL #5	RIVER WELL #7	RDL
ANIONS												
Nitrite (N)	mg/L						<0.005 ⁽¹⁾	<0.005 ⁽¹⁾	<0.005 ⁽¹⁾	<0.005 ⁽¹⁾	<0.005 ⁽¹⁾	0.005
Calculated Parameters												
Nitrate (N)	mg/L						0.10	0.10	0.16	0.13	0.11	0.02
Nutrients												
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.03	0.02	<0.02	0.04	0.03						0.02
Nitrate plus Nitrite (N)	mg/L	0.09 ⁽¹⁾	0.09 ⁽¹⁾	0.15 ⁽¹⁾	0.12 ⁽¹⁾	0.11 ⁽¹⁾	0.10 ⁽¹⁾	0.10 ⁽¹⁾	0.16 ⁽¹⁾	0.13 ⁽¹⁾	0.11 ⁽¹⁾	0.02
Total Nitrogen (N)	mg/L	0.11	0.12	0.15	0.16	0.14						0.02
Total Phosphorus (P)	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005						0.005

RDL = Reportable Detection Limit

(1) - Sample analysed past recommended hold time

Maxxam Job #: B195706
 Report Date: 2011/10/27

Town of Qualicum Beach

Site Location: RIVER WELLS

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Maxxam ID		BT0754	BT0755	BT0756	BT0757	BT0758	BT0759	BT0760	BT0761	BT0762	BT0763	
Sampling Date		2011/10/05 08:59	2011/10/05 08:30	2011/10/05 09:19	2011/10/05 10:54	2011/10/05 11:13	2011/10/05 09:00	2011/10/05 08:29	2011/10/05 09:17	2011/10/05 10:55	2011/10/05 11:15	
COC#		G023231	G023231	G023231	G023231	G023231	G023231	G023231	G023231	G023231	G023231	
	Units	RIVER WELL #1A	RIVER WELL #3	RIVER WELL #6	RIVER WELL #5	RIVER WELL #7	RIVER WELL #1A	RIVER WELL #3	RIVER WELL #6	RIVER WELL #5	RIVER WELL #7	RDL
Misc. Inorganics												
Total Organic Carbon (C)	mg/L						0.9	1.0	<0.5	<0.5	<0.5	0.5
Nutrients												
Ammonia (N)	mg/L	0.060	0.014	0.013	0.018	0.010						0.005

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Maxxam ID		BT0703	BT0704	BT0705	BT0706	BT0707	
Sampling Date		2011/10/05 08:56	2011/10/05 08:26	2011/10/05 09:16	2011/10/05 10:51	2011/10/05 11:11	
COC#		G023236	G023236	G023236	G023236	G023236	
	Units	RIVER WELL #1A	RIVER WELL #3	RIVER WELL #6	RIVER WELL #5	RIVER WELL #7	RDL
Total Metals by ICP							
Total Iron (Fe)	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	0.01
Total Calcium (Ca)	mg/L	10.0	13.9	12.9	12.0	17.7	0.05
Total Magnesium (Mg)	mg/L	1.50	2.21	2.14	2.12	3.74	0.05

RDL = Reportable Detection Limit

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Report Date: 2011/10/27

Town of Qualicum Beach

Site Location: RIVER WELLS

Package 1	3.3°C
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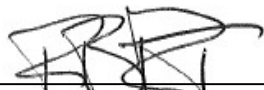
Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Validation Signature Page

Maxxam Job #: B195706

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



ROB REINERT, Data Validation Coordinator

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G 023236

Maxxam Job#: B195706

Invoice To: Require Report? Yes No

Report To:

Company Name: TOWN OF QUALICUM BEACH
Contact Name:
Address:
PC:
Phone / Fax#: Ph: Fax:
E-mail:

Company Name: TOWN OF QUALICUM BEACH
Contact Name: BOB WEIR
Address: #201-660 PRINCE ST. P.O. Box 130 PC: V9K 1S7
Phone / Fax#: Ph: 752-6921 Fax: 752-1243
E-mail: BOBWEIR@QUALICUMBEACH.COM

PO #:
Quotation #:
Project #:
Proj. Name:
Location: BRAWLEY RIVER WELLS
Sampled By:

REGULATORY REQUIREMENTS SERVICE REQUESTED:

- CSR Regular Turn Around Time (TAT) (5 days for most tests)
- CCME RUSH (Please contact the lab)
- BC Water Quality 1 Day 2 Day 3 Day
- Other 1 Day 2 Day 3 Day
- DRINKING WATER Date Required:

Special Instructions:

Return Cooler Ship Sample Bottles (please specify)

SHIP BACK SAME AS RECEIVED AND ADDITIVES

* ALL SAMPLES ARE RAW WATER

ANALYSIS REQUESTED

Sample ID	Lab ID	Sample Type	Date/Time	BTEX/VPH	VOC/VPH	EPH	PAH	CCME-PHC	CCME-PHC	CCME-BTEX	PCB	Phenols	TOG	Dissolved Metals	Total Metals	Nitrate	Chloride	Total Solids	pH	BOD	COD	Coliform	Fecal	Turbidity	Hardness	Iron	Colour	T.K.N.	TOTAL PHOS.	Hold	YES	NO		
1 RIVER WELL # 1A	BT0698	H ₂ O	05/08/11 8:15																															
2 RIVER WELL # 3	BT0699	"	05/10/11 8:25																															
3 RIVER WELL # 6	BT0700	"	05/10/11 9:15																															
4 RIVER WELL # 5	BT0701	"	05/10/11 10:50																															
5 RIVER WELL # 7	BT0702	"	05/10/11 11:10																															
6 RIVER WELL # 1A	BT0703	"	05/10/11 8:26																															
7 RIVER WELL # 3	BT0704	"	05/10/11 9:16																															
8 RIVER WELL # 6	BT0705	"	05/10/11 10:51																															
9 RIVER WELL # 5	BT0706	"	05/10/11 11:11																															
10 RIVER WELL # 7	BT0707	"																																

Sample ID	Lab ID	Sample Type	Date/Time
1 RIVER WELL # 1A	BT0698	H ₂ O	05/08/11 8:15
2 RIVER WELL # 3	BT0699	"	05/10/11 8:25
3 RIVER WELL # 6	BT0700	"	05/10/11 9:15
4 RIVER WELL # 5	BT0701	"	05/10/11 10:50
5 RIVER WELL # 7	BT0702	"	05/10/11 11:10
6 RIVER WELL # 1A	BT0703	"	05/10/11 8:26
7 RIVER WELL # 3	BT0704	"	05/10/11 9:16
8 RIVER WELL # 6	BT0705	"	05/10/11 10:51
9 RIVER WELL # 5	BT0706	"	05/10/11 11:11
10 RIVER WELL # 7	BT0707	"	

*Relinquished by:	Date (YY/MM/DD):	Time:	Received by:	Date (YY/MM/DD):	Time:
C. PARDON	11/10/05	11:55am	NICOLE LACKY/C	11/10/06	09:10

Time Sensitive	Temperature on Receipt (°C)	Custody Seal Intact on Cooler?
<input type="checkbox"/>	3,3,4	MA
		Yes No



Maxxam Job#: B195706

G 023231

Invoice To: Require Report? Yes No

Company Name: T.Q.B.
Contact Name:
Address:
Phone / Fax#:
E-mail:

Company Name: Town of Quicum Beach
Contact Name:
Address:
Phone / Fax#:
E-mail:

PO #:
Quotation #:
Project #:
Proj. Name:
Location: RIVER WELLS
Sampled By:

REGULATORY REQUIREMENTS SERVICE REQUESTED:

- CSR
CCME
BC Water Quality
Other
DRINKING WATER
Regular Turn Around Time (TAT)
RUSH (Please contact the lab)
Date Required:

Special Instructions:

Return Cooler
Ship Sample Bottles (please specify)
SEE PG #1

* ALL SAMPLES ARE RAW WATER

ANALYSIS REQUESTED

Table with columns: Sample Identification, Lab Identification, Sample Type, Date/Time Sampled, and various analysis parameters (BTEX, PCB, Metals, etc.). Includes handwritten entries for 10 samples and a barcode.

Vertical bar with YES/NO checkboxes for 'Samples are from a Drinking Water Source?' and 'Does source supply multiple households?'.

Relinquished by: C. Purdon, Date: 11/10/05, Time: 11:55am, Received by: NICOLE LOCKYER, Date: 11/10/06, Time: 08:30, Temperature on Receipt: 3, 3, 4.