



KNOXVILLE DIVISION
 505 EAST BROADWAY AVE.
 MARYVILLE, TN 37804
 (865) 977-1200 FAX (865) 984-8616
 http://www.microbac.com
 E-Mail: knoxville@microbac.com

STATE CERT ID.
 TN 02017

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
 WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

CERTIFICATE OF ANALYSIS

CITY OF KINGSTON
 CHUCK MOORE
 125 W. CUMBERLAND ST.
 KINGSTON, TN 37763

Date Reported 7/1/2009
 Date Received 6/18/2009
 Cust P.O.
 Invoice No. 69560
 Cust # C120
 Sample Date 6/18/2009
 Permit No.

Work Order Number: 0906-00754

Subject: KINGSTON WTP RAW AND FINISHED WATER SAMPLES

Test	Method	Result	Qual	Date	Time	Tech
001 RAW 6/18/09 0630						
[TAL METALS]				06/29/2009	17:11	JKD
ALUMINUM	EPA 200.7	0.213 MG/L	N	06/22/2009	09:58	JKD
ANTIMONY	EPA 200.8	<0.005 MG/L		06/29/2009	17:11	MCD
ARSENIC	EPA 200.8	<0.005 MG/L		06/29/2009	17:11	MCD
BARIUM	EPA 200.7	0.0199 MG/L		06/22/2009	09:58	JKD
BERYLLIUM	EPA 200.7	<0.0010 MG/L		06/22/2009	09:58	JKD
CADMIUM	EPA 200.7	<0.0010 MG/L		06/22/2009	09:58	JKD
CHROMIUM	EPA 200.7	<0.0010 MG/L		06/22/2009	09:58	JKD
COBALT	EPA 200.7	<0.0010 MG/L		06/22/2009	09:58	JKD
COPPER	EPA 200.7	0.0041 MG/L		06/22/2009	09:58	JKD
IRON	EPA 200.7	0.157 MG/L		06/22/2009	09:58	JKD
LEAD	EPA 200.8	<0.005 MG/L		06/29/2009	17:11	MCD
MAGNESIUM	EPA 200.7	4.23 MG/L	E	06/22/2009	09:17	JKD
MANGANESE	EPA 200.7	0.0208 MG/L		06/22/2009	09:58	JKD
MOLYBDENUM	EPA 200.7	<0.0010 MG/L		06/22/2009	09:58	JKD
MERCURY	EPA 245.1	<0.0002 MG/L		06/22/2009	12:22	JKD
NICKEL	EPA 200.7	<0.0010 MG/L		06/22/2009	09:58	JKD
SELENIUM	EPA 200.8	<0.005 MG/L		06/29/2009	17:11	MCD
SILVER	EPA 200.7	<0.0010 MG/L	N	06/22/2009	09:58	JKD
TIN	EPA 200.7	<0.0010 MG/L		06/22/2009	09:58	JKD
TITANIUM	EPA 200.7	0.0030 MG/L	N	06/22/2009	09:58	JKD
THALLIUM	EPA 200.8	0.0026 MG/L		06/29/2009	17:11	MCD
ZINC	EPA 200.7	0.0111 MG/L		06/22/2009	09:58	JKD
BORON	EPA 200.7	0.0097 MG/L		06/22/2009	09:58	JKD
SOLIDS, TOTAL SUSPENDED	SM 2540,D.	5.60 MG/L		06/18/2009	11:15	KDW
HARDNESS, TOTAL AS CaCO3	EPA 200.7;2340,B.	64.2 MG/L		06/22/2009	09:17	JKD

002 RAW 6/18/09 0630 DISSOLVED METALS





KNOXVILLE DIVISION
505 EAST BROADWAY AVE.
MARYVILLE, TN 37804
(865) 977-1200 FAX (865) 984-8616
http://www.microbac.com
E-Mail: knoxville@microbac.com

STATE CERT ID.
TN 02017

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

CERTIFICATE OF ANALYSIS

CITY OF KINGSTON
CHUCK MOORE
125 W. CUMBERLAND ST.
KINGSTON, TN 37763

Date Reported 7/1/2009
Date Received 6/18/2009
Cust P.O.
Invoice No. 69560
Cust # C120
Sample Date 6/18/2009
Permit No.

Work Order Number: 0906-00754

Subject: KINGSTON WTP RAW AND FINISHED WATER SAMPLES

Test Method Result Qual Date Time Tech

002 RAW 6/18/09 0630 DISSOLVED METALS
.....continued

Table with 7 columns: Test, Method, Result, Qual, Date, Time, Tech. Rows include various metals like ALUMINUM, ANTIMONY, ARSENIC, etc., with their respective test methods and results.

003 FINISHED 6/18/09 0630





KNOXVILLE DIVISION
505 EAST BROADWAY AVE.
MARYVILLE, TN 37804
(865) 977-1200 FAX (865) 984-8616
http://www.microbac.com
E-Mail: knoxville@microbac.com

STATE CERT ID.
TN 02017

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

CERTIFICATE OF ANALYSIS

CITY OF KINGSTON
CHUCK MOORE
125 W. CUMBERLAND ST.
KINGSTON, TN 37763

Date Reported 7/1/2009
Date Received 6/18/2009
Cust P.O.
Invoice No. 69560
Cust # C120
Sample Date 6/18/2009
Permit No.

Work Order Number: 0906-00754

Subject: KINGSTON WTP RAW AND FINISHED WATER SAMPLES

Test Method Result Qual Date Time Tech

003 FINISHED 6/18/09 0630

.....continued

[TAL METALS]

Table with 7 columns: Test, Method, Result, Qual, Date, Time, Tech. Rows include ALUMINUM, ANTIMONY, ARSENIC, BARIUM, BERYLLIUM, CADMIUM, CHROMIUM, COBALT, COPPER, IRON, LEAD, MAGNESIUM, MANGANESE, MOLYBDENUM, MERCURY, NICKEL, SELENIUM, SILVER, TIN, TITANIUM, THALLIUM, ZINC, BORON, SOLIDS, TOTAL SUSPENDED, and HARDNESS, TOTAL AS CaCO3.

004 FINISHED 6/18/09 0630 DISSOLVED METALS





KNOXVILLE DIVISION
505 EAST BROADWAY AVE.
MARYVILLE, TN 37804
(865) 977-1200 FAX (865) 984-8616
http://www.microbac.com
E-Mail: knoxville@microbac.com

STATE CERT ID.
TN 02017

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

CERTIFICATE OF ANALYSIS

CITY OF KINGSTON
CHUCK MOORE
125 W. CUMBERLAND ST.
KINGSTON, TN 37763

Date Reported 7/1/2009
Date Received 6/18/2009
Cust P.O.
Invoice No. 69560
Cust # C120
Sample Date 6/18/2009
Permit No.

Work Order Number: 0906-00754

Subject: KINGSTON WTP RAW AND FINISHED WATER SAMPLES

Test Method Result Qual Date Time Tech

004 FINISHED 6/18/09 0630 DISSOLVED METALS

Table with 7 columns: Test, Method, Result, Qual, Date, Time, Tech. Rows include various metals like ALUMINUM, ANTIMONY, ARSENIC, etc., with their respective test methods and results.

REVISED REPORT TO CONTAIN BACK-UP STATE CERTIFIED DATA FOR SB, AS, PB, SE AND
TL. ANALYSIS SUBCONTRACTED TO MICROBAC LABORATORIES CHICAGOLAND DIVISION (TN
LAB ID#04017). JN 6-30-09.





® **Microbac Laboratories, Inc.**

KNOXVILLE DIVISION
505 EAST BROADWAY AVE.
MARYVILLE, TN 37804
(865) 977-1200 FAX (865) 984-8616
http://www.microbac.com
E-Mail: knoxville@microbac.com

STATE CERT ID.
TN 02017

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

CERTIFICATE OF ANALYSIS

CITY OF KINGSTON
CHUCK MOORE
125 W. CUMBERLAND ST.
KINGSTON, TN 37763

Date Reported 7/1/2009
Date Received 6/18/2009
Cust P.O.
Invoice No. 69560
Cust # C120
Sample Date 6/18/2009
Permit No.

Work Order Number: 0906-00754

Subject: KINGSTON WTP RAW AND FINISHED WATER SAMPLES

Test	Method	Result	Qual	Date	Time	Tech
------	--------	--------	------	------	------	------

RESPECTFULLY SUBMITTED: _____
MICROBAC LABORATORIES, INC.

Thank you for your business. We invite your feedback on our level of service to you. Please contact the Laboratory Director, James Nokes, at 865-977-1200, the COO, Robert Morgan, at rmorgan@microbac.com or the CEO, Trevor Boyce, at tboyce@microbac.com with any comments or suggestions.





KNOXVILLE DIVISION
505 EAST BROADWAY AVE.
MARYVILLE, TN 37804
(865) 977-1200 FAX (865) 984-8616
http://www.microbac.com
E-Mail: knoxville@microbac.com

STATE CERT ID.
TN 02017

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · CONSUMER PRODUCTS
WATER · AIR · WASTES · FOOD · PHARMACEUTICALS · NUTRACEUTICALS

CERTIFICATE OF ANALYSIS

CITY OF KINGSTON
CHUCK MOORE
125 W. CUMBERLAND ST.
KINGSTON, TN 37763

Date Reported 7/1/2009
Date Received 6/18/2009
Cust P.O.
Invoice No. 69560
Cust # C120
Sample Date 6/18/2009
Permit No.

Work Order Number: 0906-00754

Subject: KINGSTON WTP RAW AND FINISHED WATER SAMPLES

Table with 7 columns: Test, Method, Result, Qual, Date, Time, Tech

As regulatory limits change frequently, Microbac advises the recipient of this report to confirm such limits with the appropriate Federal, state, or local authorities before acting in reliance on the regulatory limits provided.

Microbac Laboratories, Inc. cannot guarantee the confidentiality of any facsimile or e-mail transmittal. The information in this communication is intended for the exclusive use of the addressee. If you are not the intended recipient, you are notified that any disclosure, copying, distributing, or the taking of any action in reliance on the contents of this information is strictly prohibited.

QUALIFIER DEFINITIONS:

- B = Detected in the associated Method Blank
C = As Tons CaCO3, equivalent per 1,000 tons material
D = Surrogate recoveries not calculated due to matrix interference and resulting sample dilution
E1 = Elevated detection limits due to sample matrix interference
E2 = Elevated detection limits due to high analyte concentration
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Spike recovery outside control limits due to sample matrix interference or high analyte concentration
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample
J+ = The result is an estimated quantity, but the result may be biased high
J- = The result is an estimated quantity, but the result may be biased low
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise
K = Inter-element correction applied due to high concentration of non-target analyte
L1 = Liquid portion of dual phase sample analyzed only
L2 = Solid portion of dual phase sample analyzed only
M = Miscellaneous (see entry below analytical results)
N = Analyte acceptable but matrix spike/matrix spike duplicate outside accepted recovery criteria
* = Matrix Spike/Matrix Spike Duplicate RPD is outside acceptable limits
P = Sample received improperly preserved
R = Relative Percent Duplicate (RPD) outside accepted recovery limits
S1 = Spike recovery outside recovery limits
S2 = Surrogate recovery outside of control limits. The data was accepted based on the valid recovery of remaining surrogate.
U = Undetected
V = Elevated reporting limits due to insufficient sample volume
W = Results reports on dry weight basis

ABBREVIATIONS:

- TNTC = Too Numerous To Count
UG/L = Micrograms per Liter (PPB)
UG/KG = Micrograms per Kilogram (PPB)
MG/L = Milligrams per Liter (PPM)
MG/KG = Milligrams per Kilogram (PPM)
CFU = Colony Forming Unit
ND = Not Detected at or below the reporting limit
TIC = Tentatively Identified Compound

