



## MWH Laboratories

A Division of MWH Americas, Inc.

750 Royal Oaks Drive, Suite 100  
Menlo Park, California 94025-6229  
Tel: 626 386 1100  
Fax: 626 386 1101  
1 800 566 LABS (1 800 566 5227)

### Laboratory Report

for

City of Tracy  
Public Works Laboratory

3900 Holly Drive

Tracy, CA 95304

Attention: Erich Delmas  
Fax: (209) 831-4484

DATE OF ISSUE  
Oct 08 2008  
MWH LABORATORIES

JAU Joseph A Ureno  
Project Manager



Report#: 251171  
Project: DRINKING

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Comments, QC Report, QC Summary, Data Report, Hits Report, totaling 51 page[s].

**MWH Laboratories**  
750 Royal Oaks Drive, Monrovia, CA 91016  
PHONE: 626-386-1100/FAX: 626-386-1101

ACKNOWLEDGMENT OF SAMPLES RECEIVED

City of Tracy  
Public Works Laboratory  
3900 Holly Drive  
Tracy, CA 95304  
Attn: Erich Delmas  
Phone: (209) 831-4488

Customer Code: TRACY  
Group#: 251171  
Project#: DRINKING  
Proj Mgr: Joseph A. Ureno  
Phone: 626-386-1116

The following samples were received from you on **08/19/08**. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
2808190175	R-001	AG-MS AGRES B BA-MS CD-MS CL EC F K LANGI25 NI-MS NO2-N P PB-MS SE-MS SO4	Water AL-MS ALK BE-MS CA CO2 CO3 FE HARD2 MBAS MG NO2NO3-N NO3 PH PH_SAT25 T TDS	18-aug-2008 09:09:00 ANION AS-MS CATANDIF CATION1 CR-MS CU-MS HCO3 HG MN-MS NA NO3A OH PH_SAT60 SB-MS TL-MS ZN-MS
2808190176	R-002	AG-MS AGRES B BA-MS CD-MS CL EC F K LANGI25 NI-MS NO2-N P PB-MS SE-MS SO4	Water AL-MS ALK BE-MS CA CO2 CO3 FE HARD2 MBAS MG NO2NO3-N NO3 PH PH_SAT25 T TDS	18-aug-2008 08:47:00 ANION AS-MS CATANDIF CATION1 CR-MS CU-MS HCO3 HG MN-MS NA NO3A OH PH_SAT60 SB-MS TL-MS ZN-MS
2808190177	R-003	AG-MS AGRES B BA-MS CD-MS CL EC F K LANGI25 NI-MS NO2-N P PB-MS SE-MS SO4	Water AL-MS ALK BE-MS CA CO2 CO3 FE HARD2 MBAS MG NO2NO3-N NO3 PH PH_SAT25 T TDS	18-aug-2008 08:37:00 ANION AS-MS CATANDIF CATION1 CR-MS CU-MS HCO3 HG MN-MS NA NO3A OH PH_SAT60 SB-MS TL-MS ZN-MS
2808190178	R-005	AG-MS AGRES B BA-MS CD-MS CL EC F	Water AL-MS ALK BE-MS CA CO2 CO3 FE HARD2	18-aug-2008 08:02:00 ANION AS-MS CATANDIF CATION1 CR-MS CU-MS HCO3 HG

City of Tracy  
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Project#: DRINKING  
Proj Mgr: Joseph A. Ureno  
Phone: 626-386-1116

Sample#	Sample Id	Tests Scheduled		Matrix	Sample Date		
2808190178	R-005 (con't)	K	LANGI25	MBAS	MG	MN-MS	NA
		NI-MS	NO2-N	NO2NO3-N	NO3	NO3A	OH
		P	PB-MS	PH	PH_SAT25	PH_SAT60	SB-MS
		SE-MS	SO4	T	TDS	TL-MS	ZN-MS
2808190179	R-006			Water		18-aug-2008 08:23:00	
		AG-MS	AGRES	AL-MS	ALK	ANION	AS-MS
		B	BA-MS	BE-MS	CA	CATANDIF	CATION1
		CD-MS	CL	CO2	CO3	CR-MS	CU-MS
		EC	F	FE	HARD2	HCO3	HG
		K	LANGI25	MBAS	MG	MN-MS	NA
		NI-MS	NO2-N	NO2NO3-N	NO3	NO3A	OH
		P	PB-MS	PH	PH_SAT25	PH_SAT60	SB-MS
		SE-MS	SO4	T	TDS	TL-MS	ZN-MS

#### Test Acronym Description

Test Acronym	Description
AG-MS	Silver, Total, ICAP/MS
AGRES	Agressiveness Index-Calculated
AL-MS	Aluminum, Total, ICAP/MS
ALK	Alkalinity in CaCO3 units
ANION	Anion Sum - Calculated
AS-MS	Arsenic, Total, ICAP/MS
B	Boron, Total, ICAP
BA-MS	Barium, Total, ICAP/MS
BE-MS	Beryllium, Total, ICAP/MS
CA	Calcium, Total, ICAP
CATANDIF	(CatSum-AnSum)/(CatSum+AnSum)
CATION1	Cation Sum - Calculated
CD-MS	Cadmium, Total, ICAP/MS
CL	Chloride
CO2	Carbon Dioxide, Free(25C)-Calc.
CO3	Carbonate as CO3, Calculated
CR-MS	Chromium, Total, ICAP/MS
CU-MS	Copper, Total, ICAP/MS
EC	Specific Conductance
F	Fluoride
FE	Iron, Total, ICAP
HARD2	Total Hardness as CaCO3 by ICP
HCO3	Bicarb.Alkalinity as HCO3, calc
HG	Mercury
K	Potassium, Total, ICAP

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Test Acronym Description

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Test Acronym	Description
LANGI25	Langelier Index - 25 degree
MBAS	Surfactants
MG	Magnesium, Total, ICAP
MN-MS	Manganese, Total, ICAP/MS
NA	Sodium, Total, ICAP
NI-MS	Nickel, Total, ICAP/MS
NO2-N	Nitrite, Nitrogen by IC
NO2NO3-N	Total Nitrate, Nitrite-N, CALC
NO3	Nitrate as Nitrogen by IC
NO3A	Nitrate as NO3 (calc)
OH	Hydroxide as OH, Calculated
P	Metals sample pH
PB-MS	Lead, Total, ICAP/MS
PH	PH (H3=past HT, not compliant)
PH_SAT25	pH of CaCO3 saturation(25C)
PH_SAT60	pH of CaCO3 saturation(60C)
SB-MS	Antimony, Total, ICAP/MS
SE-MS	Selenium, Total, ICAP/MS
SO4	Sulfate
T	Metals Turbidity
TDS	Total Dissolved Solid (TDS)
TL-MS	Thallium, Total, ICAP/MS
ZN-MS	Zinc, Total, ICAP/MS

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# MWH Laboratories

A Division of MWH Americas, Inc.

7501 Hayes Oaks Drive, Suite 100  
Merced, California 91016-0629  
Tel: 520-386-1100  
Fax: 520-386-1101  
1-800-566-1AQS (1-800-566-5227)

## CHAIN OF CUSTODY RECORD

251171

MWH LABS USE ONLY:

LOGIN COMMENTS:

SAMPLES CHECKED AGAINST COC BY: FC

SAMPLES LOGGED IN BY: JS

SAMPLE TEMP WHEN REC'D AT LAB: 5 (Compliance: 4 +/- 2°C)

SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

CONDITION OF BLUE ICE: FROZEN 5 PARTIALLY FROZEN THAWED

TO BE COMPLETED BY SAMPLER:

COMPANY, UTILITY or PROJECT:				SYSTEM #:		COMPLIANCE SAMPLES <input type="checkbox"/> - Requires state forms <input type="checkbox"/>		NON-COMPLIANCE SAMPLES <input type="checkbox"/>	
City of Tracy						Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION		(check for yes) <input type="checkbox"/>	
MWH LABS CLIENT CODE: TRACY				P.O.# / PROJECT JOB #:		SEE ATTACHED BOTTLE ORDER FOR ANALYSES <input checked="" type="checkbox"/> (check for yes) <u>OR</u>		REGULATION INVOLVED: (eg. SDWA, Phase V, NPDES, FDA, ...)	
SAMPLER-PRINTED NAME AND SIGNATURE: <u>R. Segura</u>				TAT requested: rush by adv notice only STD <u>1</u> wk <u>3</u> day <u>2</u> day <u>1</u> day		list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)			
SAMPLE DATE	SAMPLE TIME	STATION # or LOCATION	SITE NAME OR SAMPLE I.D.	MATRIX	GRAB	COMIP	GMMST22, B		SAMPLER COMMENTS
7/10/09	0847		R-001				X		
0847			R-002				X		
0837			R-003				X		
0802			R-005				X		
0823			R-006				X		

\* MATRIX TYPES:

RSW = Raw Surface Water  
RGW = Raw Ground Water

CFW = Chlor(am)inated Finished Water  
FW = Other Finished Water

CWW = Chlorinated Waste Water  
WW = Other Waste Water

BW = Bottled Water  
SW = Storm Water

SO = Soil  
SL = Sludge

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
<u>R. Segura</u>	<u>R. Segura</u>	<u>City of Tracy</u>	<u>8/13/08</u>	<u>1115</u>
<u>[Signature]</u>	<u>[Signature]</u>	<u>MWH</u>	<u>8/15/08</u>	<u>1030</u>



MWH Laboratories, a Division of MWH Americas, Inc. **Bottle Order for** City of Tracy - Public Works Laboratory  
750 Royal Oaks Drive Suite 100  
Monrovia CA 91016 (626) 386-1100 FAX (626) 386-1124

Page 1

Joseph Ureno..... Your MWL Project Manager  
626-386-1116..... Direct Phone/Voice Mail

Client Code TRACY.....  
Project Code DRINKING.....  
PO# / Job# .....

ProjectName

Group #

Date Sampled

Date Received

BO# 48434

**Sampler: please return this paper with your samples**

Created by

Ship Sample Kits to

Send Report to

Billing Address

Order Date

08/12/08

Date Needed  
by Client

Date Samples  
to Arrive at MWL

City of Tracy.....  
Public Works Laboratory.....  
3900 Holly Drive.....  
Tracy, CA 95304.....

ATTN: Erich Delmas.....  
PHONE: (209) 831-4488.....

City of Tracy.....  
Public Works Laboratory.....  
3900 Holly Drive.....  
Tracy, CA 95304.....

ATTN: Erich Delmas.....  
PHONE: (209) 831-4488.....  
FAX: (209) 831-4484.....

City of Tracy.....  
325 E. 10th Street.....  
Tracy, CA 95376.....  
.....  
.....

# of Samples	Tests	Qteline#	Bottles-Qty for each sample, type & preservative if any	UN DOT #	Comments
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5	#GMMST22, B		4: 2 500ml poly +1 1 25ml poly no pres& 1 250ml acid rinsed+1ml HNO3	UN 2031	Label as follows:
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R-001

R-002

R-003

R-005

R-006

ide Status Date Shipped Via

Tracking #

# of Coolers

Prepared By

From: Origin ID: SCKA (209) 831-4480  
BOB SAGASER  
WASTE WATER TREATMENT PLANT  
CITY OF TRACY  
3900 HOLLY DRIVE  
TRACY, CA 95304



Ship Date: 18AUG08  
ActWgt: 32.0 LB  
System #: 8513127/NET8001  
Account #: S \*\*\*\*\*

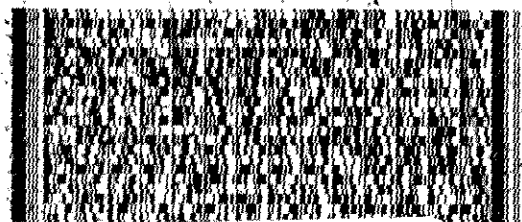
Delivery Address Bar Code



Ref #  
Invoice #  
PO #  
Dept #

SHIP TO: (826) 568-8400 BILL SENDER  
MONTGOMERY WATSON LABS  
MONTGOMERY WATSON LABS  
750 ROYAL OAKS DRIVE, STE. 100

MONROVIA, CA 91016

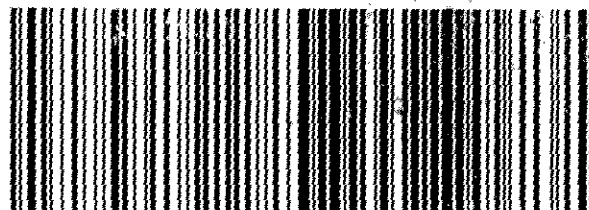


MPS# 7960-5855 2377  
0263  
Mstr# 7960-5855 2344 0201

2 of 2  
TUE - 19AUG  
PRIORITY OVERNIGHT

91 WHPA

91016  
CA-US  
BUR



RT

654 B

FZ

0

2377  
08.19

**MWH Laboratories**

A Division of MWH Americas, Inc.

750 Royal Oaks Drive, Suite 100  
 Menlo Park, California 94025-3629  
 Tel: 650 386 1100  
 Fax: 650 386 1101  
 1-800-566-1435 (1-800-566-5227)

Laboratory  
 Hits Report  
 #251171

City of Tracy  
 Erich Delmas  
 Public Works Laboratory  
 3900 Holly Drive  
 Tracy, CA 95304

Samples Received  
 19-aug-2008 10:30:00

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	2808190175	R-001				
08/27/08		Agressiveness Index-Calculated	13.		None	0.10
08/26/08		Alkalinity in CaCO3 units	151		mg/l	2.0
09/12/08		Aluminum, Total, ICAP/MS	770	200	ug/l	20
08/27/08		Anion Sum - Calculated	7.5		meq/l	0.0010
08/29/08		Arsenic, Total, ICAP/MS	3.3	10	ug/l	1.0
08/29/08		Barium, Total, ICAP/MS	65	2000	ug/l	2.0
08/27/08		Bicarb.Alkalinity as HCO3,calc	183.		mg/l	2.0
08/22/08		Boron, Total, ICAP	0.30		mg/l	0.050
08/22/08		Calcium, Total, ICAP	37		mg/l	1.0
08/27/08		Carbonate as CO3, Calculated	3.0		mg/l	2.0
08/27/08		Cation Sum - Calculated	6.8		meq/l	0.0010
08/20/08		Chloride	100	250	mg/l	5.0
08/21/08		Fluoride	0.09	4	mg/l	0.050
08/22/08		Iron, Total, ICAP	0.38	0.3	mg/l	0.020
08/27/08		Langelier Index - 25 degree	0.80		None	
08/22/08		Magnesium, Total, ICAP	20		mg/l	0.10
08/29/08		Manganese, Total, ICAP/MS	170	50	ug/l	2.0
08/22/08		Metals digestion performed.	Y		Yes/No	
08/20/08		Nitrate as NO3 (calc)	5.2	45	mg/l	2.2
08/20/08		Nitrate as Nitrogen by IC	1.2	10	mg/l	0.50
08/19/08		PH (H3=past HT, not compliant)	8.4	6.5-8.5	Units	0.010
08/22/08		Potassium, Total, ICAP	3.1		mg/l	1.0
08/22/08		Sodium, Total, ICAP	74		mg/l	1.0
08/22/08		Specific Conductance	721		umho/cm	2.0
08/20/08		Sulfate	74	250	mg/l	2.5
08/25/08		Total Dissolved Solid (TDS)	444	500	mg/l	10
08/27/08		Total Hardness as CaCO3 by ICP	175.		mg/l	3.0
08/20/08		Total Nitrate, Nitrite-N, CALC	1.2	10	mg/l	0.10
08/27/08		pH of CaCO3 saturation(25C)	7.6		Units	0.10

SUMMARY OF POSITIVE DATA ONLY.



# MWH Laboratories

A Division of MWH Americas, Inc.

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3229  
Tel: 626 386 1100  
Fax: 626 386 1101  
1-800-566-LABS (1-800-566-5277)

Laboratory  
Hits Report  
#251171

City of Tracy  
Erich Delmas  
Public Works Laboratory  
3900 Holly Drive  
Tracy, CA 95304

Samples Received  
19-aug-2008 10:30:00

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	2808190175	R-001				
08/27/08	pH of CaCO3 saturation(60C)		7.2		Units	0.10
	2808190176	R-002				
08/27/08	Agressiveness Index-Calculated		12.		None	0.10
08/26/08	Alkalinity in CaCO3 units		162		mg/l	2.0
09/03/08	Aluminum, Total, ICAP/MS		800	200	ug/l	20
08/27/08	Anion Sum - Calculated		8.0		meq/l	0.0010
08/29/08	Arsenic, Total, ICAP/MS		3.5	10	ug/l	1.0
08/29/08	Barium, Total, ICAP/MS		70	2000	ug/l	2.0
08/27/08	Bicarb.Alkalinity as HCO3,calc		197.		mg/l	2.0
08/22/08	Boron, Total, ICAP		0.29		mg/l	0.050
08/22/08	Calcium, Total, ICAP		37		mg/l	1.0
08/27/08	Carbon Dioxide,Free(25C)-Calc.		2.0		mg/l	2.0
<del>08/27/08</del>	<del>Carbonate as CO3, Calculated</del>		<del>2.0</del>		<del>mg/l</del>	<del>2.0</del>
08/27/08	Cation Sum - Calculated		6.9		meq/l	0.0010
08/20/08	Chloride		110	250	mg/l	5.0
08/28/08	Chromium, Total, ICAP/MS		2.3	100	ug/l	1.0
08/26/08	Copper, Total, ICAP/MS		2.4	1300	ug/l	2.0
08/21/08	Fluoride		0.10	4	mg/l	0.050
08/22/08	Iron, Total, ICAP		0.32	0.3	mg/l	0.020
08/27/08	Langelier Index - 25 degree		0.60		None	
08/22/08	Magnesium, Total, ICAP		20		mg/l	0.10
08/29/08	Manganese, Total, ICAP/MS		190	50	ug/l	2.0
08/22/08	Metals digestion performed.		Y		Yes/No	
08/20/08	Nitrate as NO3 (calc)		4.8	45	mg/l	2.2
08/20/08	Nitrate as Nitrogen by IC		1.1	10	mg/l	0.50
08/19/08	PH (H3=past HT, not compliant)		8.2	6.5-8.5	Units	0.010
08/22/08	Potassium, Total, ICAP		3.2		mg/l	1.0

SUMMARY OF POSITIVE DATA ONLY.

**MWH Laboratories**

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750 Foothill Oaks Drive, Suite 100  
 Monrovia, California 91016-3629  
 Tel: 626 366 1100  
 Fax: 626 366 1101  
 1 800 566 1433 / 1 800 566 5277

Laboratory  
 Hits Report  
 #251171

City of Tracy  
 Erich Delmas  
 Public Works Laboratory  
 3900 Holly Drive  
 Tracy, CA 95304

Samples Received  
 19-aug-2008 10:30:00

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	2808190176	R-002				
08/22/08	Sodium, Total, ICAP		76		mg/l	1.0
08/22/08	Specific Conductance		741		umho/cm	2.0
08/20/08	Sulfate		75	250	mg/l	2.5
08/25/08	Total Dissolved Solid (TDS)		432	500	mg/l	10
08/27/08	Total Hardness as CaCO3 by ICP		175.		mg/l	3.0
08/20/08	Total Nitrate, Nitrite-N, CALC		1.1	10	mg/l	0.10
08/27/08	pH of CaCO3 saturation(25C)		7.6		Units	0.10
08/27/08	pH of CaCO3 saturation(60C)		7.1		Units	0.10
	2808190177	R-003				
08/27/08	Agressiveness Index-Calculated		12.		None	0.10
08/26/08	Alkalinity in CaCO3 units		154		mg/l	2.0
09/11/08	Aluminum, Total, ICAP/MS		680	200	ug/l	40
08/27/08	Anion Sum - Calculated		7.9		meq/l	0.0010
09/11/08	Arsenic, Total, ICAP/MS		3.3	10	ug/l	2.0
09/11/08	Barium, Total, ICAP/MS		62	2000	ug/l	4.0
08/27/08	Bicarb.Alkalinity as HCO3,calc		187.		mg/l	2.0
08/22/08	Boron, Total, ICAP		0.33		mg/l	0.050
08/22/08	Calcium, Total, ICAP		38		mg/l	1.0
08/27/08	Carbon Dioxide,Free(25C)-Calc.		2.4		mg/l	2.0
08/27/08	Cation Sum - Calculated		7.2		meq/l	0.0010
08/20/08	Chloride		110	250	mg/l	5.0
09/11/08	Chromium, Total, ICAP/MS		2.1	100	ug/l	2.0
08/21/08	Fluoride		0.10	4	mg/l	0.050
08/22/08	Iron, Total, ICAP		0.61	0.3	mg/l	0.020
08/27/08	Langelier Index - 25 degree		0.50		None	
08/22/08	Magnesium, Total, ICAP		21		mg/l	0.10
09/11/08	Manganese, Total, ICAP/MS		190	50	ug/l	4.0

SUMMARY OF POSITIVE DATA ONLY.



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1 800 560 LABS / 1 800 566 5227

Laboratory  
Hits Report  
#251171

City of Tracy  
Erich Delmas  
Public Works Laboratory  
3900 Holly Drive  
Tracy, CA 95304

Samples Received  
19-aug-2008 10:30:00

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
<hr/>						
	2808190177	R-003				
08/22/08	Metals digestion performed.	Y			Yes/No	
08/20/08	Nitrate as NO3 (calc)	5.4	45	mg/l	2.2	
08/20/08	Nitrate as Nitrogen by IC	1.2	10	mg/l	0.50	
08/19/08	PH (H3=past HT, not compliant)	8.1	6.5-8.5	Units	0.010	
08/22/08	Potassium, Total, ICAP	3.5		mg/l	1.0	
08/22/08	Sodium, Total, ICAP	79		mg/l	1.0	
08/22/08	Specific Conductance	753		umho/cm	2.0	
08/20/08	Sulfate	78	250	mg/l	2.5	
08/25/08	Total Dissolved Solid (TDS)	456	500	mg/l	10	
08/27/08	Total Hardness as CaCO3 by ICP	181.		mg/l	3.0	
08/20/08	Total Nitrate, Nitrite-N, CALC	1.2	10	mg/l	0.10	
08/27/08	pH of CaCO3 saturation(25C)	7.6		Units	0.10	
08/27/08	pH of CaCO3 saturation(60C)	7.1		Units	0.10	
<hr/>						
	2808190178	R-005				
09/02/08	Agressiveness Index-Calculated	12.			None	0.10
08/27/08	Alkalinity in CaCO3 units	128		mg/l	2.0	
09/11/08	Aluminum, Total, ICAP/MS	820	200	ug/l	40	
09/05/08	Anion Sum - Calculated	7.9		meq/l	0.0010	
09/11/08	Arsenic, Total, ICAP/MS	4	10	ug/l	2.0	
09/11/08	Barium, Total, ICAP/MS	70	2000	ug/l	4.0	
09/02/08	Bicarb.Alkalinity as HCO3,calc	156.		mg/l	2.0	
08/22/08	Boron, Total, ICAP	0.38		mg/l	0.050	
08/22/08	Calcium, Total, ICAP	41		mg/l	1.0	
09/02/08	Carbon Dioxide,Free(25C)-Calc.	2.6		mg/l	2.0	
08/27/08	Cation Sum - Calculated	7.6		meq/l	0.0010	
08/20/08	Chloride	120	250	mg/l	5.0	
09/11/08	Chromium, Total, ICAP/MS	2.2	100	ug/l	2.0	

SUMMARY OF POSITIVE DATA ONLY.



# MWH Laboratories

A Division of MWH Americas, Inc.

750 Royal Oaks Drive, Suite 100  
Menlo Park, California 94025-3629  
Tel: 650 386 1100  
Fax: 650 386 1101  
1 800 566 4444 (1 800 566 5227)

Laboratory  
Hits Report  
#251171

City of Tracy  
Erich Delmas  
Public Works Laboratory  
3900 Holly Drive  
Tracy, CA 95304

Samples Received  
19-aug-2008 10:30:00

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	2808190178	R-005				
08/21/08	Fluoride		0.11	4	mg/l	0.050
08/22/08	Iron, Total, ICAP		1.2	0.3	mg/l	0.020
09/02/08	Langelier Index - 25 degree		0.40		None	
08/22/08	Magnesium, Total, ICAP		22		mg/l	0.10
09/11/08	Manganese, Total, ICAP/MS		260	50	ug/l	4.0
08/22/08	Metals digestion performed.		Y		Yes/No	
08/20/08	Nitrate as NO3 (calc)		4.0	45	mg/l	2.2
08/20/08	Nitrate as Nitrogen by IC		0.91	10	mg/l	0.50
08/19/08	PH (H3=past HT, not compliant)		8.0	6.5-8.5	Units	0.010
08/22/08	Potassium, Total, ICAP		3.6		mg/l	1.0
08/22/08	Sodium, Total, ICAP		83		mg/l	1.0
08/22/08	Specific Conductance		811		umho/cm	2.0
08/20/08	Sulfate		89	250	mg/l	2.5
08/25/08	Total Dissolved Solid (TDS)		486	500	mg/l	10
08/27/08	Total Hardness as CaCO3 by ICP		193		mg/l	3.0
08/20/08	Total Nitrate, Nitrite-N, CALC		0.91	10	mg/l	0.10
09/02/08	pH of CaCO3 saturation(25C)		7.6		Units	0.10
09/02/08	pH of CaCO3 saturation(60C)		7.2		Units	0.10
	2808190179	R-006				
09/02/08	Agressiveness Index-Calculated		12.		None	0.10
08/27/08	Alkalinity in CaCO3 units		121		mg/l	2.0
09/11/08	Aluminum, Total, ICAP/MS		210	200	ug/l	40
09/05/08	Anion Sum - Calculated		7.3		meq/l	0.0010
09/11/08	Arsenic, Total, ICAP/MS		3.3	10	ug/l	2.0
09/11/08	Barium, Total, ICAP/MS		63	2000	ug/l	4.0
09/02/08	Bicarb.Alkalinity as HCO3,calc		147.		mg/l	2.0
08/22/08	Boron, Total, ICAP		0.34		mg/l	0.050

SUMMARY OF POSITIVE DATA ONLY.



# MWH Laboratories

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Laboratory  
Hits Report  
#251171

City of Tracy  
Erich Delmas  
Public Works Laboratory  
3900 Holly Drive  
Tracy, CA 95304

Samples Received  
19-aug-2008 10:30:00

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	2808190179	R-006				
08/22/08	Calcium, Total, ICAP		38		mg/l	1.0
09/02/08	Carbon Dioxide, Free (25C) - Calc.		2.4		mg/l	2.0
08/27/08	Cation Sum - Calculated		7.1		meq/l	0.0010
08/20/08	Chloride		110	250	mg/l	5.0
08/21/08	Fluoride		0.10	4	mg/l	0.050
08/22/08	Iron, Total, ICAP		0.89	0.3	mg/l	0.020
09/02/08	Langelier Index - 25 degree		0.30		None	
08/22/08	Magnesium, Total, ICAP		21		mg/l	0.10
09/11/08	Manganese, Total, ICAP/MS		150	50	ug/l	4.0
08/22/08	Metals digestion performed.		Y		Yes/No	
08/20/08	Nitrate as NO3 (calc)		4.9	45	mg/l	2.2
08/20/08	Nitrate as Nitrogen by IC		1.1	10	mg/l	0.50
08/19/08	PH (H3=past HT, not compliant)		8.0	6.5-8.5	Units	0.010
08/22/08	Potassium, Total, ICAP		3.5		mg/l	1.0
08/22/08	Sodium, Total, ICAP		78		mg/l	1.0
08/22/08	Specific Conductance		755		umho/cm	2.0
08/20/08	Sulfate		83	250	mg/l	2.5
08/25/08	Total Dissolved Solid (TDS)		444	500	mg/l	10
08/27/08	Total Hardness as CaCO3 by ICP		181.		mg/l	3.0
08/20/08	Total Nitrate, Nitrite-N, CALC		1.1	10	mg/l	0.10
09/02/08	pH of CaCO3 saturation(25C)		7.7		Units	0.10
09/02/08	pH of CaCO3 saturation(60C)		7.3		Units	0.10

SUMMARY OF POSITIVE DATA ONLY.



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Laboratory  
Data Report  
#251171

City of Tracy  
Erich Delmas  
Public Works Laboratory  
3900 Holly Drive  
Tracy, CA 95304

Samples Received  
08/19/08

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
R-001 (2808190175)      Sampled on 08/18/08 09:09								
	08/29/08 21:12	451206	( ML/EPA 200.8 )	Silver, Total, ICAP/MS	ND	ug/l	0.50	1
	08/27/08 10:07		( SM 2330 )	Agressiveness Index-Calculated	13.	None	0.10	1
	09/12/08 14:40	450233	( ML/EPA 200.8 )	Aluminum, Total, ICAP/MS	770	ug/l	20	1
	08/26/08 12:15	447167	( SM 2320B )	Alkalinity in CaCO3 units	151	mg/l	2.0	1
	08/27/08 15:05		( SM 1030E )	Anion Sum - Calculated	7.5	meq/l	0.0010	1
	08/29/08 21:12	451196	( ML/EPA 200.8 )	Arsenic, Total, ICAP/MS	3.3	ug/l	1.0	1
	08/22/08 23:12	446381	( ML/EPA 200.7 )	Boron, Total, ICAP	0.30	mg/l	0.050	1
	08/29/08 21:12	451216	( ML/EPA 200.8 )	Barium, Total, ICAP/MS	65	ug/l	2.0	1
	09/05/08 15:27	449141	( ML/EPA 200.8 )	Beryllium, Total, ICAP/MS	ND	ug/l	1.0	1
	08/22/08 23:12	446408	( ML/EPA 200.7 )	Calcium, Total, ICAP	37	mg/l	1.0	1
	08/27/08 15:01		( SM 1030E )	Cation Sum - Calculated	6.8	meq/l	0.0010	1
	08/29/08 21:12	451209	( ML/EPA 200.8 )	Cadmium, Total, ICAP/MS	ND	ug/l	0.50	1
	08/20/08 06:43	445864	( ML/EPA 300.0 )	Chloride	100	mg/l	5.0	5
	08/27/08 08:21		( SM 4500-CO2-D )	Carbon Dioxide,Free(25C)-Calc.	ND	mg/l	2.0	1
	08/27/08 08:38		( SM 2330B )	Carbonate as CO3, Calculated	3.0	mg/l	2.0	1
	08/28/08 16:53	447681	( ML/EPA 200.8 )	Chromium, Total, ICAP/MS	ND	ug/l	1.0	1
	08/26/08 09:54	447071	( ML/EPA 200.8 )	Copper, Total, ICAP/MS	ND	ug/l	2.0	1
	08/22/08 15:57		( EPA 200 Prep )	Metals digestion performed.	Y	Yes/No	0	1
	08/22/08 17:35	446514	( SM 2510B )	Specific Conductance	721	umho/cm	2.0	1
	08/21/08 18:00	446141	( SM 4500F-C )	Fluoride	0.09	mg/l	0.050	1
	08/22/08 23:12	446378	( ML/EPA 200.7 )	Iron, Total, ICAP	0.38	mg/l	0.020	1
	08/27/08 10:10		( SM 2340B )	Total Hardness as CaCO3 by ICP	175.	mg/l	3.0	1
	08/27/08 08:14		( SM 2330B )	Bicarb.Alkalinity as HCO3,calc	183.	mg/l	2.0	1
	09/04/08 13:04	448757	( EPA 245.1 )	Mercury	ND	ug/l	0.20	1
	08/22/08 23:12	446384	( ML/EPA 200.7 )	Potassium, Total, ICAP	3.1	mg/l	1.0	1
	08/27/08 09:57		( SM 2330E )	Langelier Index - 25 degree	0.80	None	0	1
	08/19/08 12:40	445797	( S 5540C/E425.1 )	Surfactants	ND	mg/l	0.050	1
	08/22/08 23:12	446389	( ML/EPA 200.7 )	Magnesium, Total, ICAP	20	mg/l	0.10	1
	08/29/08 21:12	448275	( ML/EPA 200.8 )	Manganese, Total, ICAP/MS	170	ug/l	2.0	1
	08/22/08 23:12	446400	( ML/EPA 200.7 )	Sodium, Total, ICAP	74	mg/l	1.0	1
	09/05/08 15:27	449123	( ML/EPA 200.8 )	Nickel, Total, ICAP/MS	ND	ug/l	5.0	1



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Laboratory  
Data Report  
#251171

City of Tracy  
(continued)

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MPL	Dilution
	08/20/08 06:43	445867	( ML/EPA 300.0 )	Nitrite, Nitrogen by IC	ND	mg/l	0.50	5
	08/20/08 15:51		( ML/EPA 300.0 )	Total Nitrate, Nitrite-N, CALC	1.2	mg/l	0.10	1
	08/20/08 06:43	445871	( ML/EPA 300.0 )	Nitrate as Nitrogen by IC	1.2	mg/l	0.50	5
	08/20/08 06:43	445877	( ML/EPA 300.0 )	Nitrate as NO3 (calc)	5.2	mg/l	2.2	5
	09/05/08 08:02		( SM 2330S )	Hydroxide as OH, Calculated	ND	mg/l	2.0	1
	08/29/08 21:12	451222	( ML/EPA 200.8 )	Lead, Total, ICAP/MS	ND	ug/l	0.50	1
	08/19/08 00:00	446206	( SM 4500-HB )	PH (HB-past HT, not compliant)	6.4	Units	0.010	1
	08/27/08 09:01		( SM 2330B )	pH of CaCO3 saturation(25C)	7.6	Units	0.10	1
	08/27/08 09:18		( SM 2330B )	pH of CaCO3 saturation(60C)	7.2	Units	0.10	1
	08/29/08 21:12	451213	( ML/EPA 200.8 )	Antimony, Total, ICAP/MS	ND	ug/l	1.0	1
	08/29/08 21:12	451199	( ML/EPA 200.8 )	Selenium, Total, ICAP/MS	ND	ug/l	5.0	1
	08/20/08 06:43	445874	( ML/EPA 300.0 )	Sulfate	74	mg/l	2.5	5
08/25/08	08/26/08 15:05	449520	( E100.1/SM2540C )	Total Dissolved Solid (TDS)	444(L1)	mg/l	10	1
	08/26/08 21:12	451219	( ML/EPA 200.8 )	Thallium, Total, ICAP/MS	ND	ug/l	1.0	1
	09/05/08 15:27	449127	( ML/EPA 200.8 )	Zinc, Total, ICAP/MS	ND	ug/l	20	1

R-002 (2808190176)

Sampled on 08/18/08 08:47

	08/29/08 22:27	451207	( ML/EPA 200.8 )	Silver, Total, ICAP/MS	ND	ug/l	0.50	1
	08/27/08 10:07		( SM 2330 )	Agressiveness Index-Calculated	12.	None	0.10	1
	09/03/08 21:59	449116	( ML/EPA 200.8 )	Aluminum, Total, ICAP/MS	800	ug/l	20	1
	08/26/08 12:15	447167	( SM 2320B )	Alkalinity in CaCO3 units	162	mg/l	2.0	1
	08/27/08 15:05		( SM 1030E )	Anion Sum - Calculated	8.0	meq/l	0.0010	1
	08/29/08 22:27	451197	( ML/EPA 200.8 )	Arsenic, Total, ICAP/MS	3.5	ug/l	1.0	1
	08/22/08 22:39	446381	( ML/EPA 200.7 )	Boron, Total, ICAP	0.29	mg/l	0.050	1
	08/29/08 22:27	451217	( ML/EPA 200.8 )	Barium, Total, ICAP/MS	70	ug/l	2.0	1
	09/03/08 21:59	449114	( ML/EPA 200.8 )	Beryllium, Total, ICAP/MS	ND	ug/l	1.0	1
	08/22/08 22:39	446408	( ML/EPA 200.7 )	Calcium, Total, ICAP	37	mg/l	1.0	1
	08/27/08 15:01		( SM 1030E )	Cation Sum - Calculated	6.9	meq/l	0.0010	1
	08/29/08 22:27	451210	( ML/EPA 200.8 )	Cadmium, Total, ICAP/MS	ND	ug/l	0.50	1
	08/20/08 07:24	445864	( ML/EPA 300.0 )	Chloride	110	mg/l	5.0	5
	08/27/08 08:21		( SM 4500-CO2-D )	Carbon Dioxide,Free(25C)-Calc.	2.0	mg/l	2.0	1
	08/27/08 08:38		( SM 2330B )	Carbonate as CO3, Calculated	2.0	mg/l	2.0	1
	08/28/08 17:12	447681	( ML/EPA 200.8 )	Chromium, Total, ICAP/MS	2.3	ug/l	1.0	1
	08/26/08 01:21	447071	( ML/EPA 200.8 )	Copper, Total, ICAP/MS	2.4	ug/l	2.0	1
	08/22/08 15:57		( EPA 200 Prep )	Metals digestion performed.	Y	Yes/No	0	1
	08/22/08 17:35	446514	( SM 2510B )	Specific Conductance	741	umho/cm	2.0	1



# MWH Laboratories

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Laboratory  
Data Report  
#251171

City of Tracy  
(continued)

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
	08/21/08 18:00	446141	( SM 4500F-C )	Fluoride	0.10	mg/l	0.050	1
	08/22/08 22:39	446378	( ML/EPA 200.7 )	Iron, Total, ICAP	0.32	mg/l	0.020	1
	08/27/08 10:10		( SM 2340B )	Total Hardness as CaCO3 by ICP	175.	mg/l	3.0	1
	08/27/08 08:14		( SM 2330B )	Bicarb. Alkalinity as HCO3, calc	197.	mg/l	2.0	1
	09/04/08 13:04	448757	( EPA 245.1 )	Mercury	ND	ug/l	0.20	1
	08/22/08 22:39	446384	( ML/EPA 200.7 )	Potassium, Total, ICAP	3.2	mg/l	1.0	1
	08/27/08 09:57		( SM 2330B )	Langelier Index - 25 degree	0.60	None	0	1
	08/19/08 12:40	445797	( S 5540C-E125.1 )	Surfactants	ND	mg/l	0.050	1
	08/22/08 22:39	446389	( ML/EPA 200.7 )	Magnesium, Total, ICAP	20	mg/l	0.10	1
	08/29/08 22:27	451230	( ML/EPA 200.8 )	Manganese, Total, ICAP/MS	190	ug/l	2.0	1
	08/22/08 22:39	446400	( ML/EPA 200.7 )	Sodium, Total, ICAP	76	mg/l	1.0	1
	09/02/08 19:25	448498	( ML/EPA 200.8 )	Nickel, Total, ICAP/MS	ND	ug/l	5.0	1
	08/20/08 07:24	445867	( ML/EPA 300.0 )	Nitrite, Nitrogen by IC	ND	mg/l	0.50	5
	08/20/08 15:51		( ML/EPA 300.0 )	Total Nitrate, Nitrite N, CALC	1.1	mg/l	0.10	1
	08/20/08 07:24	445871	( ML/EPA 300.0 )	Nitrate as Nitrogen by IC	1.1	mg/l	0.50	5
	08/20/08 07:24	445877	( ML/EPA 300.0 )	Nitrate as NO3 (calc)	4.8	mg/l	2.2	5
	09/05/08 08:02		( SM 2330B )	Hydroxide as OH, Calculated	ND	mg/l	2.0	1
	08/29/08 22:27	451224	( ML/EPA 200.8 )	Lead, Total, ICAP/MS	ND	ug/l	0.50	1
	08/19/08 00:00	446206	( SM 4500-HF )	PH (HS-past HT, not compliant)	8.2	Units	0.010	1
	08/27/08 09:01		( SM 2330B )	pH of CaCO3 saturation(25C)	7.6	Units	0.10	1
	08/27/08 09:18		( SM 2330B )	pH of CaCO3 saturation(60C)	7.1	Units	0.10	1
	08/29/08 22:27	451214	( ML/EPA 200.8 )	Antimony, Total, ICAP/MS	ND	ug/l	1.0	1
	08/29/08 22:27	451200	( ML/EPA 200.8 )	Selenium, Total, ICAP/MS	ND	ug/l	5.0	1
	08/20/08 07:24	445874	( ML/EPA 300.0 )	Sulfate	75	mg/l	2.5	5
08/25/08	08/25/08 15:05	448520	( E160.1/SM2540C )	Total Dissolved Solid (TDS)	432(LL)	mg/l	10	1
	08/29/08 22:27	451220	( ML/EPA 200.8 )	Thallium, Total, ICAP/MS	ND	ug/l	1.0	1
	08/02/08 19:25	448500	( ML/EPA 200.8 )	Zinc, Total, ICAP/MS	ND	ug/l	20	1

R-003 (2808190177)

Sampled on 08/18/08 08:37

09/11/08 11:14	450077	( ML/EPA 200.8 )	Silver, Total, ICAP/MS	ND	ug/l	1.0	2
08/27/08 10:07		( SM 2330 )	Agressiveness Index-Calculated	12.	None	0.10	1
09/11/08 11:14	450085	( ML/EPA 200.8 )	Aluminum, Total, ICAP/MS	680	ug/l	40	2
08/26/08 12:15	447167	( SM 2320B )	Alkalinity in CaCO3 units	154	mg/l	2.0	1
08/27/08 15:05		( SM 1030E )	Anion Sum - Calculated	7.9	meq/l	0.0010	1
09/11/08 11:14	450074	( ML/EPA 200.8 )	Arsenic, Total, ICAP/MS	3.3	ug/l	2.5	2
08/22/08 23:15	446381	( ML/EPA 200.7 )	Boron, Total, ICAP	0.33	mg/l	0.050	1



# MWH Laboratories

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Laboratory  
Data Report  
#251171

City of Tracy  
(continued)

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MPL	Dilution
	08/11/08 11:14	450080	( ML/EPA 200.8 )	Barium, Total, ICAP/MS	62	ug/l	4.0	2
	09/11/08 11:14	450084	( ML/EPA 200.8 )	Beryllium, Total, ICAP/MS	ND	ug/l	2.0	2
	08/22/08 23:15	446408	( ML/EPA 200.7 )	Calcium, Total, ICAP	38	mg/l	1.0	1
	08/27/08 15:01		( SM 1030E )	Cation Sum Calculated	7.2	meq/l	0.0010	1
	09/11/08 11:14	450078	( ML/EPA 200.8 )	Cadmium, Total, ICAP/MS	ND	ug/l	1.0	2
	08/20/08 06:57	445864	( ML/EPA 300.0 )	Chloride	110	mg/l	5.0	5
	08/27/08 08:21		( SM 4500-CO2-D )	Carbon Dioxide, Free (25°C) - Calc.	2.4	mg/l	2.0	1
	08/27/08 08:38		( SM 2330B )	Carbonate as CO3, Calculated	ND	mg/l	2.0	1
	09/11/08 11:14	450083	( ML/EPA 200.8 )	Chromium, Total, ICAP/MS	2.1	ug/l	2.0	2
	09/11/08 11:14	450090	( ML/EPA 200.8 )	Copper, Total, ICAP/MS	ND	ug/l	4.0	2
	08/22/08 15:57		( EPA 200 Prep )	Metals digestion performed.	Y	Yes/No	0	1
	08/22/08 17:35	446514	( SM 2510B )	Specific Conductance	753	umho/cm	2.0	1
	08/21/08 16:00	446141	( SM 4500F-C )	Fluoride	0.10	mg/l	0.050	1
	08/22/08 23:15	446378	( ML/EPA 200.7 )	Iron, Total, ICAP	0.61	mg/l	0.020	1
	08/27/08 10:10		( SM 2340B )	Total Hardness as CaCO3 by ICP	181.	mg/l	3.0	1
	08/27/08 08:14		( SM 2330B )	Bicarb. Alkalinity as HCO3, calc	187.	mg/l	2.0	1
	09/04/08 13:04	448757	( EPA 245.1 )	Mercury	ND	ug/l	0.20	1
	08/22/08 21:15	446384	( ML/EPA 200.7 )	Potassium, Total, ICAP	3.5	mg/l	1.0	1
	08/27/08 09:57		( SM 2330B )	Langelier Index - 25 degree	0.56	None	0	1
	08/19/08 12:40	445797	( S 5540C/E425.1 )	Surfactants	ND	mg/l	0.050	1
	08/22/08 23:15	446389	( ML/EPA 200.7 )	Magnesium, Total, ICAP	21	mg/l	0.10	1
	09/11/08 11:14	450082	( ML/EPA 200.8 )	Manganese, Total, ICAP/MS	190	ug/l	4.0	2
	08/22/08 23:15	446406	( ML/EPA 200.7 )	Sodium, Total, ICAP	79	mg/l	1.0	1
	09/11/08 11:14	450085	( ML/EPA 200.8 )	Nickel, Total, ICAP/MS	ND	ug/l	10	2
	08/20/08 06:57	445867	( ML/EPA 300.0 )	Nitrite, Nitrogen by IC	ND	mg/l	0.50	5
	08/20/08 15:51		( ML/EPA 300.0 )	Total Nitrate, Nitrite-N, CALC	1.2	mg/l	0.10	1
	08/20/08 06:57	445871	( ML/EPA 300.0 )	Nitrate as Nitrogen by IC	1.2	mg/l	0.50	5
	08/20/08 06:57	445877	( ML/EPA 300.0 )	Nitrate as NO3 (calc)	5.4	mg/l	2.2	5
	09/05/08 08:02		( SM 2330B )	Hydroxide as OH, Calculated	ND	mg/l	2.0	1
	09/11/08 11:14	450082	( ML/EPA 200.8 )	Lead, Total, ICAP/MS	ND	ug/l	1.0	2
	08/19/08 00:00	446206	( SM 4500-HB )	PH (H3-past ET, not compliant)	8.1	Units	0.10	1
	08/27/08 09:01		( SM 2330B )	pH of CaCO3 saturation(25C)	7.6	Units	0.10	1
	08/27/08 09:19		( SM 2330B )	pH of CaCO3 saturation(60C)	7.1	Units	0.10	1
	09/11/08 11:14	450079	( ML/EPA 200.8 )	Antimony, Total, ICAP/MS	ND	ug/l	2.0	2
	09/11/08 11:14	450075	( ML/EPA 200.8 )	Selenium, Total, ICAP/MS	ND	ug/l	10	2
	08/20/08 06:57	445874	( ML/EPA 300.0 )	Sulfate	78	mg/l	2.0	5



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Laboratory  
Data Report  
#251171

City of Tracy  
(continued)

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MPL	Dilution
08/25/08	08/25/08 15:01	448520	( EL60.1/SM2540C)	Total Dissolved Solid (TDS)	456.11	mg/l	10	1
	09/11/08 11:14	450081	( ML/EPA 200.8 )	Thallium, Total, ICAP/MS	ND	ug/l	2.0	2
	09/11/08 11:14	450091	( ML/EPA 200.8 )	Zinc, Total, ICAP/MS	ND	ug/l	40	2
<b>R-005 (2808190178)      Sampled on 08/18/08 08:02</b>								
	09/11/08 11:19	450077	( ML/EPA 200.8 )	Silver, Total, ICAP/MS	ND	ug/l	1.0	2
	09/02/08 08:47		( SM 2330 )	Agressiveness Index-Calculated	12.	None	0.10	1
	09/11/08 11:19	450085	( ML/EPA 200.8 )	Aluminum, Total, ICAP/MS	820	ug/l	40	2
	08/27/08 12:18	447553	( SM 2320B )	Alkalinity in CaCO3 units	128	mg/l	2.0	1
	09/05/08 09:45		( SM 1030E )	Anion Sum - Calculated	7.9	meq/l	0.0010	1
	09/11/08 11:19	450074	( ML/EPA 200.8 )	Arsenic, Total, ICAP/MS	4	ug/l	2.0	2
	08/22/08 23:19	446381	( ML/EPA 200.7 )	Boron, Total, ICAP	0.38	mg/l	0.050	1
	09/11/08 11:19	450083	( ML/EPA 200.8 )	Barium, Total, ICAP/MS	70	ug/l	4.0	2
	09/11/08 11:19	450084	( ML/EPA 200.8 )	Beryllium, Total, ICAP/MS	ND	ug/l	2.0	2
	08/22/08 23:19	446403	( ML/EPA 200.7 )	Calcium, Total, ICAP	41	mg/l	1.0	1
	08/27/08 15:01		( SM 1030E )	Cation Sum - Calculated	7.6	meq/l	0.0010	1
	09/11/08 11:19	450078	( ML/EPA 200.8 )	Cadmium, Total, ICAP/MS	ND	ug/l	1.0	2
	08/20/08 07:11	445364	( ML/EPA 300.0 )	Chloride	120	mg/l	5.0	5
	09/02/08 07:49		( SM 4500-CO2-D )	Carbon Dioxide,Free(25C)-Calc.	2.6	mg/l	2.0	1
	09/02/08 07:51		( SM 2330B )	Carbonate as CO3, Calculated	ND	mg/l	2.0	1
	09/11/08 11:19	450083	( ML/EPA 200.8 )	Chromium, Total, ICAP/MS	2.2	ug/l	2.0	2
	09/11/08 11:19	450090	( ML/EPA 200.8 )	Copper, Total, ICAP/MS	ND	ug/l	4.0	2
	08/22/08 15:57		( EPA 200 Prep )	Metals digestion performed.	Y	Yes/No	0	1
	08/22/08 17:35	446514	( SM 2510B )	Specific Conductance	811	umho/cm	2.0	1
	08/21/08 18:00	446141	( SM 4500F-C )	Fluoride	0.11	mg/l	0.050	1
	08/22/08 23:19	446378	( ML/EPA 200.7 )	Iron, Total, ICAP	1.2	mg/l	0.020	1
	08/27/08 10:10		( SM 2340B )	Total Hardness as CaCO3 by ICP	193.	mg/l	3.0	1
	09/02/08 07:33		( SM 2330B )	Bicarb.Alkalinity as HCO3,calc	156.	mg/l	2.0	1
	09/04/08 13:04	448757	( EPA 245.1 )	Mercury	ND	ug/l	0.20	1
	08/22/08 23:19	446384	( ML/EPA 200.7 )	Potassium, Total, ICAP	3.6	mg/l	1.0	1
	09/02/08 08:44		( SM 2330B )	Langelier Index - 25 degree	0.40	None	0	1
	08/19/08 12:40	445797	( S 5540C/EA25.1)	Surfactants	ND	mg/l	0.050	1
	08/22/08 23:19	446389	( ML/EPA 200.7 )	Magnesium, Total, ICAP	22	mg/l	0.10	1
	09/11/08 11:19	450087	( ML/EPA 200.8 )	Manganese, Total, ICAP/MS	260	ug/l	4.0	2
	08/22/08 23:19	446400	( ML/EPA 200.7 )	Sodium, Total, ICAP	83	mg/l	1.0	1
	09/11/08 11:19	450089	( ML/EPA 200.8 )	Nickel, Total, ICAP/MS	ND	ug/l	10	2



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Laboratory  
Data Report  
#251171

City of Tracy  
(continued)

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
	08/20/08 07:11	445867	( ML/EPA 300.0 )	Nitrite, Nitrogen by IC	ND	mg/l	0.50	5
	08/20/08 13:51		( ML/EPA 300.0 )	Total Nitrate, Nitrite-N, CALC	0.91	mg/l	0.10	1
	08/20/08 07:11	445871	( ML/EPA 300.0 )	Nitrate as Nitrogen by IC	0.91	mg/l	0.50	5
	08/20/08 07:11	445877	( ML/EPA 300.0 )	Nitrate as NO3 (calc)	4.0	mg/l	2.0	5
	09/05/08 08:02		( SM 2330B )	Hydroxide as OH, Calculated	ND	mg/l	2.0	1
	09/11/08 11:19	450082	( ML/EPA 200.8 )	Lead, Total, ICAP/MS	ND	ug/l	1.0	2
	08/19/08 00:00	446206	( SM 4500-HB )	PH (H3-past HT, not compliant)	8.0	Units	0.010	1
	09/02/08 08:27		( SM 2330B )	pH of CaCO3 saturation(25C)	7.6	Units	0.10	1
	09/02/08 08:40		( SM 2330B )	pH of CaCO3 saturation(60C)	7.2	Units	0.10	1
	09/11/08 11:19	450079	( ML/EPA 200.8 )	Antimony, Total, ICAP/MS	ND	ug/l	2.0	2
	09/11/08 11:19	450079	( ML/EPA 200.8 )	Selenium, Total, ICAP/MS	ND	ug/l	10	2
	08/20/08 07:11	445874	( ML/EPA 300.0 )	Sulfate	89	mg/l	2.0	5
08/26/08	08/26/08 15:05	448570	( E16C.1/SM2540C )	Total Dissolved Solid (TDS)	486(L1)	mg/l	10	1
	09/11/08 11:19	450081	( ML/EPA 200.8 )	Thallium, Total, ICAP/MS	ND	ug/l	2.0	2
	09/11/08 11:19	450091	( ML/EPA 200.8 )	Zinc, Total, ICAP/MS	ND	ug/l	40	2
<b>R-006 (2808190179) Sampled on 08/18/08 08:23</b>								
	09/11/08 10:56	450077	( ML/EPA 200.8 )	Silver, Total, ICAP/MS	ND(M2)	ug/l	1.0	2
	09/02/08 08:47		( SM 2330 )	Agressiveness Index-Calculated	12.	None	0.10	1
	09/11/08 10:56	450085	( ML/EPA 200.8 )	Aluminum, Total, ICAP/MS	210(M1)	ug/l	40	2
	08/27/08 12:18	447553	( SM 2320B )	Alkalinity in CaCO3 units	121	mg/l	2.0	1
	09/05/08 09:45		( SM 1030E )	Anion Sum - Calculated	7.3	meq/l	0.0010	1
	09/11/08 10:56	450074	( ML/EPA 200.8 )	Arsenic, Total, ICAP/MS	3.3	ug/l	2.0	2
	08/22/08 23:23	446381	( ML/EPA 200.7 )	Boron, Total, ICAP	0.34	mg/l	0.050	1
	09/11/08 10:56	450080	( ML/EPA 200.8 )	Barium, Total, ICAP/MS	63	ug/l	4.0	2
	09/11/08 10:56	450084	( ML/EPA 200.8 )	Beryllium, Total, ICAP/MS	ND	ug/l	2.0	2
	08/22/08 23:23	446408	( ML/EPA 200.7 )	Calcium, Total, ICAP	38	mg/l	1.0	1
	08/27/08 15:01		( SM 1030E )	Cation Sum - Calculated	7.1	meq/l	0.0010	1
	09/11/08 10:56	450078	( ML/EPA 200.8 )	Cadmium, Total, ICAP/MS	ND	ug/l	1.0	2
	08/20/08 06:30	445864	( ML/EPA 300.0 )	Chloride	110	mg/l	5.0	5
	09/02/08 07:49		( SM 4500-CO2-D )	Carbon Dioxide,Free(25C)-Calc.	2.4	mg/l	2.0	1
	09/02/08 07:51		( SM 2330B )	Carbonate as CO3, Calculated	ND	mg/l	2.0	1
	09/11/08 10:56	450083	( ML/EPA 200.8 )	Chromium, Total, ICAP/MS	ND	ug/l	2.0	2
	09/11/08 10:56	450090	( ML/EPA 200.8 )	Copper, Total, ICAP/MS	ND	ug/l	4.0	2
	08/22/08 15:57		( EPA 200 Prep )	Metals digestion performed.	Y	Yes/No	0	1
	08/22/08 17:35	446514	( SM 2510B )	Specific Conductance	755	umho/cm	2.0	1



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Laboratory  
Data Report  
#251171

City of Tracy  
(continued)

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
	08/21/08 16:00	446141	( SM 4500F-C )	Fluoride	0.10	mg/l	0.050	1
	08/22/08 23:23	446376	( ML/EPA 200.7 )	Iron, Total, ICAP	0.89	mg/l	0.020	1
	08/27/08 10:10		( SM 2340B )	Total Hardness as CaCO3 by ICF	181.	mg/l	3.0	1
	09/02/08 07:33		( SM 2330B )	Bicarb. Alkalinity as HCO3, calc	147.	mg/l	2.0	1
	09/04/08 13:04	448757	( EPA 245.1 )	Mercury	ND	ug/l	0.20	1
	08/22/08 23:23	446384	( ML/EPA 200.7 )	Potassium, Total, ICAP	3.5	mg/l	1.0	1
	09/02/08 08:44		( SM 2330B )	Langelier Index - 25 degree	0.30	None	0	1
	08/19/08 12:40	445797	( S 5540C/E425.1 )	Surfactants	ND	mg/l	0.050	1
	08/22/08 23:23	446389	( ML/EPA 200.7 )	Magnesium, Total, ICAP	21	mg/l	0.10	1
	09/11/08 10:56	450087	( ML/EPA 200.8 )	Manganese, Total, ICAP/MS	150	ug/l	4.0	2
	08/22/08 23:23	446400	( ML/EPA 200.7 )	Sodium, Total, ICAP	78	mg/l	1.0	1
	09/11/08 10:56	450089	( ML/EPA 200.8 )	Nickel, Total, ICAP/MS	ND	ug/l	10	2
	08/20/08 06:30	445967	( ML/EPA 300.0 )	Nitrite, Nitrogen by IC	ND	mg/l	0.50	5
	08/20/08 15:51		( ML/EPA 300.0 )	Total Nitrate, Nitrite-N, CALC	1.1	mg/l	0.10	1
	08/20/08 06:30	445871	( ML/EPA 300.0 )	Nitrate as Nitrogen by IC	1.1	mg/l	0.50	5
	08/20/08 06:30	445877	( ML/EPA 300.0 )	Nitrate as NO3 (calc)	4.9	mg/l	2.2	5
	09/05/08 08:02		( SM 2330B )	Hydroxide as OH, Calculated	ND	mg/l	2.0	1
	09/11/08 10:56	450092	( ML/EPA 200.8 )	Lead, Total, ICAP/MS	ND	ug/l	1.0	2
	08/19/08 00:00	446206	( SM 4500 HB )	PH (H3-part HT, not compliant)	8.0	Units	0.010	1
	09/02/08 08:27		( SM 2330B )	pH of CaCO3 saturation(25C)	7.7	Units	0.10	1
	09/02/08 08:40		( SM 2330B )	pH of CaCO3 saturation(50C)	7.3	Units	0.10	1
	09/11/08 10:56	450079	( ML/EPA 200.8 )	Antimony, Total, ICAP/MS	ND	ug/l	2.0	2
	09/11/08 10:56	450075	( ML/EPA 200.8 )	Selenium, Total, ICAP/MS	ND	ug/l	10	2
	08/20/08 06:30	445874	( ML/EPA 300.0 )	Sulfate	83	mg/l	2.5	5
08/25/08	08/25/08 15:05	448520	( R160.1/SM2540C )	Total Dissolved Solid (TDS)	444(L1)	mg/l	10	1
	09/11/08 10:56	450081	( ML/EPA 200.8 )	Thallium, Total, ICAP/MS	ND	ug/l	2.0	2
	09/11/08 10:56	450091	( ML/EPA 200.8 )	Zinc, Total, ICAP/MS	ND	ug/l	46	2



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Report  
Comments  
#251171

(QC Ref#: 2808190175)

Test: Total Dissolved Solid (TDS) (E160.1/SM2540C)

L1 - The associated blank spike recovery was above lab acceptance limits.

(QC Ref#: 2808190176)

Test: Total Dissolved Solid (TDS) (E160.1/SM2540C)

L1 - The associated blank spike recovery was above lab acceptance limits.

(QC Ref#: 2808190177)

Test: Total Dissolved Solid (TDS) (E160.1/SM2540C)

L1 - The associated blank spike recovery was above lab acceptance limits.

(QC Ref#: 2808190178)

Test: Total Dissolved Solid (TDS) (E160.1/SM2540C)

L1 - The associated blank spike recovery was above lab acceptance limits.

(QC Ref#: 2808190179)

Test: Silver, Total, ICAP/MS (ML/EPA 200.8)

M2 - Matrix spike recovery was low; the associated blank spike recovery was acceptable.

Test: Aluminum, Total, ICAP/MS (ML/EPA 200.8)

M1 - Matrix spike recovery was high; the associated blank spike recovery was acceptable.

Test: Total Dissolved Solid (TDS) (E160.1/SM2540C)

L1 - The associated blank spike recovery was above lab acceptance limits.



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Laboratory  
QC Summary  
#251171

City of Tracy

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QC Ref #0

- Metals Turbidity

Analysis Date: 08/19/2008

2808190175	R-001	Analyzed by: jrf
2808190175	R-001	Analyzed by: jrf
2808190176	R-002	Analyzed by: jrf
2808190176	R-002	Analyzed by: jrf
2808190177	R-003	Analyzed by: jrf
2808190177	R-003	Analyzed by: jrf
2808190178	R-005	Analyzed by: jrf
2808190178	R-005	Analyzed by: jrf
2808190179	R-006	Analyzed by: jrf
2808190179	R-006	Analyzed by: jrf

QC Ref #445797 - Surfactants

Analysis Date: 08/19/2008

2808190175	R-001	Analyzed by: anh
2808190176	R-002	Analyzed by: anh
2808190177	R-003	Analyzed by: anh
2808190178	R-005	Analyzed by: anh
2808190179	R-006	Analyzed by: anh

QC Ref #445864 - Chloride

Analysis Date: 08/20/2008

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2808190175	R-001	Analyzed by: sxk
2808190176	R-002	Analyzed by: sxk
2808190177	R-003	Analyzed by: sxk
2808190178	R-005	Analyzed by: sxk
2808190179	R-006	Analyzed by: sxk

QC Ref #445867 - Nitrite, Nitrogen by IC

Analysis Date: 08/20/2008

2808190175	R-001	Analyzed by: sxk
2808190176	R-002	Analyzed by: sxk
2808190177	R-003	Analyzed by: sxk
2808190178	R-005	Analyzed by: sxk
2808190179	R-006	Analyzed by: sxk



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Laboratory  
QC Summary  
#251171

City of Tracy  
(continued)

QC Ref #445871 - Nitrate as Nitrogen by IC Analysis Date: 08/20/2008

2808190175	R-001	Analyzed by: sxx
2808190176	R-002	Analyzed by: sxx
2808190177	R-003	Analyzed by: sxx
2808190178	R-005	Analyzed by: sxx
2808190179	R-006	Analyzed by: sxx

QC Ref #445874 - Sulfate Analysis Date: 08/20/2008

2808190175	R-001	Analyzed by: sxx
2808190176	R-002	Analyzed by: sxx
2808190177	R-003	Analyzed by: sxx
2808190178	R-005	Analyzed by: sxx
2808190179	R-006	Analyzed by: sxx

QC Ref #445877 - Nitrate as NO3 (calc) Analysis Date: 08/20/2008

2808190175	R-001	Analyzed by: sxx
2808190176	R-002	Analyzed by: sxx
2808190177	R-003	Analyzed by: sxx
2808190178	R-005	Analyzed by: sxx
2808190179	R-006	Analyzed by: sxx

QC Ref #446141 - Fluoride Analysis Date: 08/21/2008

2808190175	R-001	Analyzed by: axd
2808190176	R-002	Analyzed by: axd
2808190177	R-003	Analyzed by: axd
2808190178	R-005	Analyzed by: axd
2808190179	R-006	Analyzed by: axd

QC Ref #446206 - PH (H3=past HT, not compliant) Analysis Date: 08/19/2008

2808190175	R-001	Analyzed by: sar
2808190176	R-002	Analyzed by: sar
2808190177	R-003	Analyzed by: sar
2808190178	R-005	Analyzed by: sar



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Laboratory  
QC Summary  
#251171

City of Tracy  
(continued)

2808190179

R-006

Analyzed by: sar

QC Ref #446378 - Iron, Total, ICAP

Analysis Date: 08/22/2008

2808190175

R-001

Analyzed by: csk

2808190176

R-002

Analyzed by: csk

2808190177

R-003

Analyzed by: csk

2808190178

R-005

Analyzed by: csk

2808190179

R-006

Analyzed by: csk

QC Ref #446381 - Boron, Total, ICAP

Analysis Date: 08/22/2008

2808190175

R-001

Analyzed by: csk

2808190176

R-002

Analyzed by: csk

2808190177

R-003

Analyzed by: csk

2808190178

R-005

Analyzed by: csk

2808190179

R-006

Analyzed by: csk

QC Ref #446384 - Potassium, Total, ICAP

Analysis Date: 08/22/2008

2808190175

R-001

Analyzed by: csk

2808190176

R-002

Analyzed by: csk

2808190177

R-003

Analyzed by: csk

2808190178

R-005

Analyzed by: csk

2808190179

R-006

Analyzed by: csk

QC Ref #446389 - Magnesium, Total, ICAP

Analysis Date: 08/22/2008

2808190175

R-001

Analyzed by: csk

2808190176

R-002

Analyzed by: csk

2808190177

R-003

Analyzed by: csk

2808190178

R-005

Analyzed by: csk

2808190179

R-006

Analyzed by: csk



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Laboratory  
QC Summary  
#251171

City of Tracy  
(continued)

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QC Ref #446400 - Sodium, Total, ICAP

Analysis Date: 08/22/2008

2808190175	R-001	Analyzed by: csk
2808190176	R-002	Analyzed by: csk
2808190177	R-003	Analyzed by: csk
2808190178	R-005	Analyzed by: csk
2808190179	R-006	Analyzed by: csk

QC Ref #446408 - Calcium, Total, ICAP

Analysis Date: 08/22/2008

2808190175	R-001	Analyzed by: csk
2808190176	R-002	Analyzed by: csk
2808190177	R-003	Analyzed by: csk
2808190178	R-005	Analyzed by: csk
2808190179	R-006	Analyzed by: csk

QC Ref #446514 - Specific Conductance

Analysis Date: 08/22/2008

2808190175	R-001	Analyzed by: sar
2808190176	R-002	Analyzed by: sar
2808190177	R-003	Analyzed by: sar
2808190178	R-005	Analyzed by: sar
2808190179	R-006	Analyzed by: sar

QC Ref #447071 - Copper, Total, ICAP/MS

Analysis Date: 08/26/2008

2808190175	R-001	Analyzed by: blr
2808190176	R-002	Analyzed by: blr

QC Ref #447167 - Alkalinity in CaCO3 units

Analysis Date: 08/26/2008

2808190175	R-001	Analyzed by: anh
2808190176	R-002	Analyzed by: anh
2808190177	R-003	Analyzed by: anh



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Laboratory  
QC Summary  
#251171

City of Tracy  
(continued)

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QC Ref #447553 - Alkalinity in CaCO3 units      Analysis Date: 08/27/2008

2808190178	R-005	Analyzed by: anh
2808190179	R-006	Analyzed by: anh

QC Ref #447681 - Chromium, Total, ICAP/MS      Analysis Date: 08/28/2008

2808190175	R-001	Analyzed by: blr
2808190176	R-002	Analyzed by: blr

QC Ref #448275 - Manganese, Total, ICAP/MS      Analysis Date: 08/29/2008

2808190175	R-001	Analyzed by: blr
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QC Ref #448498 - Nickel, Total, ICAP/MS      Analysis Date: 09/02/2008

2808190176	R-002	Analyzed by: blr
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QC Ref #448500 - Zinc, Total, ICAP/MS      Analysis Date: 09/02/2008

2808190176	R-002	Analyzed by: blr
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QC Ref #448520 - Total Dissolved Solid (TDS)      Analysis Date: 08/25/2008

2808190175	R-001	Analyzed by: axa
2808190176	R-002	Analyzed by: axa
2808190177	R-003	Analyzed by: axa
2808190178	R-005	Analyzed by: axa
2808190179	R-006	Analyzed by: axa

QC Ref #448757 - Mercury      Analysis Date: 09/04/2008

2808190175	R-001	Analyzed by: azs
2808190176	R-002	Analyzed by: azs
2808190177	R-003	Analyzed by: azs
2808190178	R-005	Analyzed by: azs



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2808190179

R-006

Analyzed by: azs

QC Ref #449114 - Beryllium, Total, ICAP/MS

Analysis Date: 09/03/2008

2808190176

R-002

Analyzed by: blr

QC Ref #449116 - Aluminum, Total, ICAP/MS

Analysis Date: 09/03/2008

2808190176

R-002

Analyzed by: blr

QC Ref #449123 - Nickel, Total, ICAP/MS

Analysis Date: 09/05/2008

2808190175

R-001

Analyzed by: blr

QC Ref #449127 - Zinc, Total, ICAP/MS

Analysis Date: 09/05/2008

2808190175

R-001

Analyzed by: blr

~~QC Ref #449141 - Beryllium, Total, ICAP/MS~~

~~Analysis Date: 09/05/2008~~

~~2808190175~~

~~R-001~~

~~Analyzed by: blr~~

QC Ref #450074 - Arsenic, Total, ICAP/MS

Analysis Date: 09/11/2008

2808190177

R-003

Analyzed by: blr

2808190178

R-005

Analyzed by: blr

2808190179

R-006

Analyzed by: blr

QC Ref #450075 - Selenium, Total, ICAP/MS

Analysis Date: 09/11/2008

2808190177

R-003

Analyzed by: blr

2808190178

R-005

Analyzed by: blr

2808190179

R-006

Analyzed by: blr



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QC Ref #450077 - Silver, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450078 - Cadmium, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450079 - Antimony, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450080 - Barium, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450081 - Thallium, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450082 - Lead, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr



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QC Ref #450083 - Chromium, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450084 - Beryllium, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450085 - Aluminum, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

~~QC Ref #450087 - Manganese, Total, ICAP/MS Analysis Date: 09/11/2008~~

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450089 - Nickel, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450090 - Copper, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr



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QC Ref #450091 - Zinc, Total, ICAP/MS Analysis Date: 09/11/2008

2808190177	R-003	Analyzed by: blr
2808190178	R-005	Analyzed by: blr
2808190179	R-006	Analyzed by: blr

QC Ref #450233 - Aluminum, Total, ICAP/MS Analysis Date: 09/12/2008

2808190175	R-001	Analyzed by: nina
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QC Ref #451196 - Arsenic, Total, ICAP/MS Analysis Date: 08/29/2008

2808190175	R-001	Analyzed by: blr
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QC Ref #451197 - Arsenic, Total, ICAP/MS Analysis Date: 08/29/2008

2808190176	R-002	Analyzed by: blr
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QC Ref #451199 - Selenium, Total, ICAP/MS Analysis Date: 08/29/2008

2808190175	R-001	Analyzed by: blr
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QC Ref #451200 - Selenium, Total, ICAP/MS Analysis Date: 08/29/2008

2808190176	R-002	Analyzed by: blr
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QC Ref #451206 - Silver, Total, ICAP/MS Analysis Date: 08/29/2008

2808190175	R-001	Analyzed by: blr
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QC Ref #451207 - Silver, Total, ICAP/MS	Analysis Date: 08/29/2008
2808190176 R-002	Analyzed by: blr
QC Ref #451209 - Cadmium, Total, ICAP/MS	Analysis Date: 08/29/2008
2808190175 R-001	Analyzed by: blr
QC Ref #451210 - Cadmium, Total, ICAP/MS	Analysis Date: 08/29/2008
2808190176 R-002	Analyzed by: blr
QC Ref #451213 - Antimony, Total, ICAP/MS	Analysis Date: 08/29/2008
2808190175 R-001	Analyzed by: blr
QC Ref #451214 - Antimony, Total, ICAP/MS	Analysis Date: 08/29/2008
2808190176 R-002	Analyzed by: blr
QC Ref #451216 - Barium, Total, ICAP/MS	Analysis Date: 08/29/2008
2808190175 R-001	Analyzed by: blr
QC Ref #451217 - Barium, Total, ICAP/MS	Analysis Date: 08/29/2008
2808190176 R-002	Analyzed by: blr
QC Ref #451219 - Thallium, Total, ICAP/MS	Analysis Date: 08/29/2008
2808190175 R-001	Analyzed by: blr



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QC Ref #451220 - Thallium, Total, ICAP/MS

Analysis Date: 08/29/2008

2808190176

R-002

Analyzed by: blr

QC Ref #451222 - Lead, Total, ICAP/MS

Analysis Date: 08/29/2008

2808190175

R-001

Analyzed by: blr

QC Ref #451224 - Lead, Total, ICAP/MS

Analysis Date: 08/29/2008

2808190176

R-002

Analyzed by: blr

QC Ref #451230 - Manganese, Total, ICAP/MS

Analysis Date: 08/29/2008

2808190176

R-002

Analyzed by: blr

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## QC Ref #445797

## Surfactants

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08190154	MGL		( 0-0 )	
LCS1	Surfactants	0.20	0.209	MGL	104.5	( 90-110 )	
LCS2	Surfactants	0.20	0.209	MGL	104.5	( 90-110 )	
MBLK	Surfactants	ND	<0.050	MGL			
MRL_CHK	Surfactants	0.050	0.062	MGL	124.0	( 50-150 )	
MS	Surfactants	0.20	0.181	MGL	90.5	( 80-120 )	
MSD	Surfactants	0.20	0.179	MGL	89.5	( 80-120 )	
RPD_LCS	Surfactants	104.500	104.500	MGL	0.0	( 0-20 )	
RPD_MS	Surfactants	90.500	89.500	MGL	1.1	( 0-20 )	

## QC Ref #445864

## Chloride

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08190212	MGL		( 0-0 )	
LCS1	Chloride	25	26.4	MGL	105.6	( 90-110 )	
LCS2	Chloride	25	26.5	MGL	106.0	( 90-110 )	
MBLK	Chloride	ND	<1.0	MGL			
MRL_CHK	Chloride	0.500	0.456	MGL	91.2	( 50-150 )	
MS	Chloride	12.5	12.9	MGL	103.2	( 74-126 )	
MSD	Chloride	12.5	13.2	MGL	105.6	( 74-126 )	
RPD_LCS	Chloride	105.600	106.000	MGL	0.4	( 0-20 )	
RPD_MS	Chloride	103.200	105.600	MGL	2.3	( 0-20 )	

## QC Ref #445867

## Nitrite, Nitrogen by IC

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08190212	MGL		( 0-0 )	
LCS1	Nitrite, Nitrogen by IC	1.0	0.994	MGL	99.4	( 90-110 )	
LCS2	Nitrite, Nitrogen by IC	1.0	0.993	MGL	99.3	( 90-110 )	
MBLK	Nitrite, Nitrogen by IC	ND	<0.10	MGL			
MRL_CHK	Nitrite, Nitrogen by IC	0.050	0.0518	MGL	103.6	( 50-150 )	

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MS	Nitrite, Nitrogen by IC	0.500	0.437	MGL	87.4	( 78-135 )
MSD	Nitrite, Nitrogen by IC	0.500	0.456	MGL	91.2	( 78-135 )
RPD_LCS	Nitrite, Nitrogen by IC	99.400	99.300	MGL	0.1	( 0-20 )
RPD_MS	Nitrite, Nitrogen by IC	87.400	91.200	MGL	4.3	( 0-20 )

## QC Ref #445871 Nitrate as Nitrogen by IC

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08190212	MGL		( 0-0 )	
LCS1	Nitrate as Nitrogen by IC	2.5	2.49	MGL	99.6	( 90-110 )	
LCS2	Nitrate as Nitrogen by IC	2.5	2.51	MGL	100.4	( 90-110 )	
MBLK	Nitrate as Nitrogen by IC	ND	<0.10	MGL			
MRL_CHK	Nitrate as Nitrogen by IC	0.050	0.0527	MGL	105.4	( 50-150 )	
MS	Nitrate as Nitrogen by IC	1.25	1.22	MGL	97.6	( 80-112 )	
MSD	Nitrate as Nitrogen by IC	1.25	1.25	MGL	100.0	( 80-112 )	
RPD_LCS	Nitrate as Nitrogen by IC	99.600	100.400	MGL	0.8	( 0-20 )	
RPD_MS	Nitrate as Nitrogen by IC	97.600	100.000	MGL	2.4	( 0-20 )	

## QC Ref #445874 Sulfate

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08190212	MGL		( 0-0 )	
LCS1	Sulfate	50	52.8	MGL	105.6	( 90-110 )	
LCS2	Sulfate	50	52.9	MGL	105.8	( 90-110 )	
MBLK	Sulfate	ND	<0.50	MGL			
MRL_CHK	Sulfate	1.00	1.04	MGL	104.0	( 50-150 )	
MS	Sulfate	25	25.2	MGL	100.8	( 83-115 )	
MSD	Sulfate	25	25.6	MGL	102.4	( 83-115 )	
RPD_LCS	Sulfate	105.600	105.800	MGL	0.2	( 0-20 )	
RPD_MS	Sulfate	100.800	102.400	MGL	1.6	( 0-20 )	

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## QC Ref #446141 Fluoride

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 28	08200170	MGL		( 0-0 )	
CCC3	Fluoride	10.0	10.2	MGL	102.0	( 81-116 )	
CCCH	Fluoride	10.0	10.4	MGL	104.0	( 81-116 )	
CCCL	Fluoride	0.5	0.522	MGL	104.4	( 81-116 )	
CCCM	Fluoride	0.5	0.531	MGL	106.2	( 81-116 )	
CCCS	Fluoride	0.05	0.053	MGL	106.0	( 50-150 )	
LCS1	Fluoride	1.00	1.04	MGL	104.0	( 81-116 )	
LCS2	Fluoride	1.00	1.05	MGL	105.0	( 81-116 )	
MBLK	Fluoride	ND	<0.050	MGL			
MRL_CHK	Fluoride	0.05	0.053	MGL	106.0	( 50-150 )	
MS	Fluoride	1.00	1.04	MGL	104.0	( 73-124 )	
MS2	Fluoride	1.00	1.06	MGL	106.0	( 73-124 )	
MSD	Fluoride	1.00	1.06	MGL	106.0	( 73-124 )	
RPD_LCS	Fluoride	104.000	105.000	MGL	1.0	( 0-20 )	
RPD_MS	Fluoride	104.000	106.000	MGL	1.9	( 0-20 )	

## QC Ref #446206 PH (H3=past HT, not compliant)

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08190179	UNIT		( 0-0 )	
DUP	PH (H3=past HT, not compliant)	7.98	7.99	UNIT		( 0-20 )	0.1

## QC Ref #446378 Iron, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Iron, Total, ICAP	5.0	4.76	MGL	95.2	( 85-115 )	
LCS2	Iron, Total, ICAP	5.0	4.98	MGL	99.6	( 85-115 )	
MBLK	Iron, Total, ICAP	ND	<0.020	MGL			
MRL_CHK	Iron, Total, ICAP	0.020	0.0240	MGL	120.0	( 50-150 )	

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MS	Iron, Total, ICAP	5.0	4.8	MGL	96.0	( 70-130 )
MS2	Iron, Total, ICAP	5.0	4.85	MGL	97.0	( 70-130 )
MSD	Iron, Total, ICAP	5.0	4.8	MGL	96.0	( 70-130 )
MSD2	Iron, Total, ICAP	5.0	4.98	MGL	99.6	( 70-130 )
RPD_LCS	Iron, Total, ICAP	95.200	99.600	MGL	4.1	( 0-20 )
RPD_MS	Iron, Total, ICAP	96.000	96.000	MGL	0.2	( 0-20 )

## QC Ref #446381 Boron, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Boron, Total, ICAP	0.5	0.457	MGL	91.4	( 85-115 )	
LCS2	Boron, Total, ICAP	0.5	0.481	MGL	96.2	( 85-115 )	
MBLK	Boron, Total, ICAP	ND	<0.050	MGL			
MRL_CHK	Boron, Total, ICAP	0.050	0.050	MGL	100.0	( 50-150 )	
MS	Boron, Total, ICAP	0.5	0.474	MGL	94.8	( 70-130 )	
MS2	Boron, Total, ICAP	0.5	0.474	MGL	94.8	( 70-130 )	
MSD	Boron, Total, ICAP	0.5	0.473	MGL	94.6	( 70-130 )	
MSD2	Boron, Total, ICAP	0.5	0.483	MGL	97.8	( 70-130 )	
RPD_LCS	Boron, Total, ICAP	91.400	96.200	MGL	5.1	( 0-20 )	
RPD_MS	Boron, Total, ICAP	94.800	94.600	MGL	0.2	( 0-20 )	

## QC Ref #446384 Potassium, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Potassium, Total, ICAP	20	18	MGL	90.0	( 85-115 )	
LCS2	Potassium, Total, ICAP	20	18.9	MGL	94.5	( 85-115 )	
MBLK	Potassium, Total, ICAP	ND	<1.0	MGL			
MRL_CHK	Potassium, Total, ICAP	1.000	1.02	MGL	102.0	( 50-150 )	
MS	Potassium, Total, ICAP	20	18	MGL	90.0	( 70-130 )	
MS2	Potassium, Total, ICAP	20	18.2	MGL	91.0	( 70-130 )	
MSD	Potassium, Total, ICAP	20	17.9	MGL	89.5	( 70-130 )	
MSD2	Potassium, Total, ICAP	20	18.9	MGL	94.5	( 70-130 )	
RPD_LCS	Potassium, Total, ICAP	90.000	94.500	MGL	4.9	( 0-20 )	
RPD_MS	Potassium, Total, ICAP	90.000	89.500	MGL	0.6	( 0-20 )	

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## QC Ref #446389 Magnesium, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Magnesium, Total, ICAP	20	19	MGL	95.0	( 85-115 )	
LCS2	Magnesium, Total, ICAP	20	19.8	MGL	99.0	( 85-115 )	
MRLK	Magnesium, Total, ICAP	ND	<0.10	MGL			
MRL_CHK	Magnesium, Total, ICAP	0.100	0.10	MGL	100.0	( 50-150 )	
MS	Magnesium, Total, ICAP	20	18.8	MGL	94.0	( 70-130 )	
MS2	Magnesium, Total, ICAP	20	18.3	MGL	91.5	( 70-130 )	
MSD	Magnesium, Total, ICAP	20	18.8	MGL	94.0	( 70-130 )	
MSD2	Magnesium, Total, ICAP	20	19.1	MGL	95.5	( 70-130 )	
RPD_LCS	Magnesium, Total, ICAP	95.000	93.000	MGL	4.1	( 0-20 )	
RPD_MS	Magnesium, Total, ICAP	94.000	94.000	MGL	0.0	( 0-20 )	

## QC Ref #446400 Sodium, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Sodium, Total, ICAP	50	45.2	MGL	90.4	( 85-115 )	
LCS2	Sodium, Total, ICAP	50	47.4	MGL	94.8	( 85-115 )	
<del>MRLK</del>	<del>Sodium, Total, ICAP</del>	<del>ND</del>	<del>&lt;1.0</del>	<del>MGL</del>			
MRL_CHK	Sodium, Total, ICAP	1.000	0.92	MGL	92.0	( 50-150 )	
MS	Sodium, Total, ICAP	50	45.1	MGL	90.2	( 70-130 )	
MS2	Sodium, Total, ICAP	50	43.9	MGL	87.8	( 70-130 )	
MSD	Sodium, Total, ICAP	50	44.9	MGL	89.8	( 70-130 )	
MSD2	Sodium, Total, ICAP	50	46	MGL	92.0	( 70-130 )	
RPD_LCS	Sodium, Total, ICAP	90.400	94.800	MGL	4.8	( 0-20 )	
RPD_MS	Sodium, Total, ICAP	90.200	89.800	MGL	0.4	( 0-20 )	

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## QC Ref #446408 Calcium, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Calcium, Total, ICAP	50	46.6	MGL	93.2	( 85-115 )	
LCS2	Calcium, Total, ICAP	50	48.9	MGL	97.8	( 85-115 )	
MBLK	Calcium, Total, ICAP	ND	<2.0	MGL			
MRL_CHK	Calcium, Total, ICAP	1.000	0.97	MGL	97.0	( 90-150 )	
MS	Calcium, Total, ICAP	50	45.3	MGL	90.6	( 70-130 )	
MS2	Calcium, Total, ICAP	50	45.9	MGL	91.8	( 70-130 )	
MSD	Calcium, Total, ICAP	50	45.2	MGL	90.4	( 70-130 )	
MSD2	Calcium, Total, ICAP	50	47.3	MGL	94.6	( 70-130 )	
RPD_LCS	Calcium, Total, ICAP	93.200	97.800	MGL	4.3	( 0-20 )	
RPD_MS	Calcium, Total, ICAP	90.600	90.400	MGL	0.2	( 0-20 )	

## QC Ref #446514 Specific Conductance

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
DUP	Specific Conductance	755	757	UMHO		( 0-20 )	0.3
DUP2	Specific Conductance	1140	1150	UMHO		( 0-20 )	0.9
<u>LCS1</u>	<u>Specific Conductance</u>	<u>1000</u>	<u>992</u>	<u>UMHO</u>	<u>99.2</u>	<u>( 90-110 )</u>	
MBLK	Specific Conductance	ND	<2.0	UMHO			
MRL_CHK	Specific Conductance	2.00	2.11	UMHO	115.5	( 50-150 )	

## QC Ref #447071 Copper, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Copper, Total, ICAP/MS	100	93.5	UGL	93.5	( 85-115 )	
LCS2	Copper, Total, ICAP/MS	100	96.5	UGL	96.5	( 85-115 )	
MBLK	Copper, Total, ICAP/MS	ND	<2.0	UGL			
MRL_CHK	Copper, Total, ICAP/MS	2.000	2.24	UGL	112.0	( 50-150 )	

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MS	Copper, Total, ICAP/MS	100	93.3	UGL	93.3	( 70-130 )
MS2	Copper, Total, ICAP/MS	100	90.6	UGL	90.6	( 70-130 )
MSD	Copper, Total, ICAP/MS	100	92.0	UGL	92.0	( 70-130 )
MSD2	Copper, Total, ICAP/MS	100	91.7	UGL	91.7	( 70-130 )
RPD_LCS	Copper, Total, ICAP/MS	93.500	96.500	UGL	3.3	( 0-20 )
RPD_MS	Copper, Total, ICAP/MS	93.200	92.000	UGL	1.3	( 0-20 )

QC Ref #447167

Alkalinity in CaCO3 units

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 28	08190146	MGL		( 0-0 )	
LCS1	Alkalinity in CaCO3 units	100	103	MGL	103.0	( 90-110 )	
LCS2	Alkalinity in CaCO3 units	100	102	MGL	102.0	( 90-110 )	
MBLK	Alkalinity in CaCO3 units	ND	<2.0	MGL			
MRL_CHK	Alkalinity in CaCO3 units	2.00	2.0	MGL	100.0	( 50-150 )	
MS	Alkalinity in CaCO3 units	100	90	MGL	90.0	( 80-120 )	
MS2	Alkalinity in CaCO3 units	100	94	MGL	94.0	( 80-120 )	
MSD	Alkalinity in CaCO3 units	100	107	MGL	107.0	( 80-120 )	
MSD2	Alkalinity in CaCO3 units	100	105	MGL	105.0	( 80-120 )	
RPD_LCS	Alkalinity in CaCO3 units	103.000	102.000	MGL	1.0	( 0-10 )	
RPD_MS	Alkalinity in CaCO3 units	90.000	107.000	MGL	17.3	( 0-20 )	

QC Ref #447553

Alkalinity in CaCO3 units

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 28	08250031	MGL		( 0-0 )	
LCS1	Alkalinity in CaCO3 units	100	103	MGL	103.0	( 90-110 )	
LCS2	Alkalinity in CaCO3 units	100	103	MGL	103.0	( 90-110 )	
MBLK	Alkalinity in CaCO3 units	ND	<2.0	MGL			
MRL_CHK	Alkalinity in CaCO3 units	2.00	2.02	MGL	101.0	( 50-150 )	
MS	Alkalinity in CaCO3 units	100	94	MGL	94.0	( 80-120 )	
MS2	Alkalinity in CaCO3 units	100	95	MGL	95.0	( 80-120 )	
MSD	Alkalinity in CaCO3 units	100	96	MGL	96.0	( 80-120 )	
MSD2	Alkalinity in CaCO3 units	100	93	MGL	93.0	( 80-120 )	

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RPD_LCS	Alkalinity in CaCO <sub>3</sub> units	193.000	193.000	MGL	0.0	( 0-10 )
RPD_MS	Alkalinity in CaCO <sub>3</sub> units	94.000	96.000	MGL	2.1	( 0-20 )

## QC Ref #447681 Chromium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Chromium, Total, ICAP/MS	100	106	UGL	106.0	( 85-115 )	
LCS2	Chromium, Total, ICAP/MS	100	104	UGL	104.0	( 85-115 )	
MBLK	Chromium, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Chromium, Total, ICAP/MS	1.000	0.92	UGL	92.0	( 50-150 )	
MS	Chromium, Total, ICAP/MS	100	101	UGL	101.0	( 70-130 )	
MS2	Chromium, Total, ICAP/MS	100	103	UGL	103.0	( 70-130 )	
MSD	Chromium, Total, ICAP/MS	100	109	UGL	109.0	( 70-130 )	
MSD2	Chromium, Total, ICAP/MS	100	112	UGL	112.0	( 70-130 )	
RPD_LCS	Chromium, Total, ICAP/MS	106.000	104.000	UGL	1.9	( 0-20 )	
RPD_MS	Chromium, Total, ICAP/MS	101.000	109.000	UGL	7.6	( 0-20 )	

## QC Ref #448275 Manganese, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Manganese, Total, ICAP/MS	50	47.7	UGL	95.4	( 85-115 )	
LCS2	Manganese, Total, ICAP/MS	50	49.1	UGL	98.2	( 85-115 )	
MBLK	Manganese, Total, ICAP/MS	ND	<2.0	UGL			
MRL_CHK	Manganese, Total, ICAP/MS	2.000	1.94	UGL	97.0	( 50-150 )	
MS	Manganese, Total, ICAP/MS	50	46.6	UGL	93.2	( 70-130 )	
MS2	Manganese, Total, ICAP/MS	50	42.4	UGL	84.8	( 70-130 )	
MSD	Manganese, Total, ICAP/MS	50	45.8	UGL	91.6	( 70-130 )	
MSD2	Manganese, Total, ICAP/MS	50	42.8	UGL	85.6	( 70-130 )	
RPD_LCS	Manganese, Total, ICAP/MS	95.400	98.200	UGL	2.9	( 0-20 )	
RPD_MS	Manganese, Total, ICAP/MS	93.200	91.600	UGL	1.7	( 0-20 )	

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## QC Ref #448498

## Nickel, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Nickel, Total, ICAP/MS	50	45.8	UGL	91.6	( 85-115 )	
LCS2	Nickel, Total, ICAP/MS	50	45.7	UGL	91.4	( 85-115 )	
MBLK	Nickel, Total, ICAP/MS	ND	<5.0	UGL			
MRL_CHK	Nickel, Total, ICAP/MS	5.000	5.24	UGL	104.8	( 50-150 )	
MS	Nickel, Total, ICAP/MS	50	47.3	UGL	94.6	( 70-130 )	
MS2	Nickel, Total, ICAP/MS	50	44.1	UGL	88.2	( 70-130 )	
MSD	Nickel, Total, ICAP/MS	50	46.3	UGL	92.6	( 70-130 )	
MSD2	Nickel, Total, ICAP/MS	50	46.2	UGL	92.4	( 70-130 )	
RPD_LCS	Nickel, Total, ICAP/MS	91.600	91.400	UGL	0.2	( 0-20 )	
RPD_MS	Nickel, Total, ICAP/MS	94.600	92.600	UGL	2.1	( 0-20 )	

## QC Ref #448500

## Zinc, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
<del>AASPKSMP</del>	<del>Spiked sample</del>	<del>Lab # 28</del>	<del>08160045</del>	<del>UGL</del>		<del>( 0-0 )</del>	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Zinc, Total, ICAP/MS	100	96.3	UGL	96.3	( 85-115 )	
LCS2	Zinc, Total, ICAP/MS	100	95.9	UGL	95.9	( 85-115 )	
MBLK	Zinc, Total, ICAP/MS	ND	<20	UGL			
MRL_CHK	Zinc, Total, ICAP/MS	20.0	21.1	UGL	105.5	( 50-150 )	
MS	Zinc, Total, ICAP/MS	100	97.1	UGL	97.1	( 70-130 )	
MS2	Zinc, Total, ICAP/MS	100	90.7	UGL	90.7	( 70-130 )	
MSD	Zinc, Total, ICAP/MS	100	94.6	UGL	94.6	( 70-130 )	
MSD2	Zinc, Total, ICAP/MS	100	94.3	UGL	94.3	( 70-130 )	
RPD_LCS	Zinc, Total, ICAP/MS	96.300	95.900	UGL	0.4	( 0-20 )	
RPD_MS	Zinc, Total, ICAP/MS	97.100	94.600	UGL	2.6	( 0-20 )	

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QC Ref #448520

Total Dissolved Solid (TDS)

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08180214	MGL		( 0-0 )	
DUP	Total Dissolved Solid (TDS)	538	524	MGL		( 0-10 )	2.6
LCS1	Total Dissolved Solid (TDS)	175	220	MGL	125.7	( 80-114 )	
LCS2	Total Dissolved Solid (TDS)	700	726	MGL	103.7	( 80-114 )	
MBLK	Total Dissolved Solid (TDS)	ND	<10	MGL			
MRL_CHK	Total Dissolved Solid (TDS)	10.0	9	MGL	90.0	( 50-150 )	
RPD_LCS	Total Dissolved Solid (TDS)	125.714	103.714	MGL	19.2	( 0-20 )	

QC Ref #448757

Mercury

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 28	08130268	UGL		( 0-0 )	
LCS1	Mercury	1.50	1.55	UGL	103.3	( 85-115 )	
LCS2	Mercury	1.50	1.54	UGL	102.7	( 85-115 )	
MBLK	Mercury	ND	<0.20	UGL			
MRL_CHK	Mercury	0.200	0.200	UGL	100.0	( 50-150 )	
MS	Mercury	1.50	1.56	UGL	104.0	( 70-130 )	
MSD	Mercury	1.50	1.57	UGL	104.7	( 70-130 )	
RPD_LCS	Mercury	103.333	102.667	UGL	0.6	( 0-20 )	
RPD_MS	Mercury	104.000	104.667	UGL	0.6	( 0-20 )	

QC Ref #449114

Beryllium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Beryllium, Total, ICAP/MS	5.00	5.13	UGL	103.6	( 85-115 )	
LCS2	Beryllium, Total, ICAP/MS	5.00	5.11	UGL	102.2	( 85-115 )	
MBLK	Beryllium, Total, ICAP/MS	ND	<1.0	UGL			

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MRL_CHK	Beryllium, Total, ICAP/MS	1.000	1.17	UGL	117.0	( 50-150 )
MS	Beryllium, Total, ICAP/MS	5.00	5.13	UGL	102.4	( 70-130 )
MS2	Beryllium, Total, ICAP/MS	5.00	ND	UGL		( 70-130 )
MSD	Beryllium, Total, ICAP/MS	5.00	5.31	UGL	106.2	( 70-130 )
MSD2	Beryllium, Total, ICAP/MS	5.00	4.95	UGL	99.0	( 70-130 )
RPD_LCS	Beryllium, Total, ICAP/MS	103.600	102.200	UGL	1.4	( 0-20 )
RPD_MS	Beryllium, Total, ICAP/MS	102.400	106.200	UGL	3.6	( 0-20 )

**QC Ref #449116 Aluminum, Total, ICAP/MS**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Aluminum, Total, ICAP/MS	200	199	UGL	99.5	( 85-115 )	
LCS2	Aluminum, Total, ICAP/MS	200	201	UGL	100.5	( 85-115 )	
MBLK	Aluminum, Total, ICAP/MS	ND	<20	UGL			
MRL_CHK	Aluminum, Total, ICAP/MS	25.000	26.8	UGL	107.2	( 50-150 )	
MS	Aluminum, Total, ICAP/MS	200	205	UGL	102.5	( 70-130 )	
MSD	Aluminum, Total, ICAP/MS	200	197	UGL	98.5	( 70-130 )	
RPD_LCS	Aluminum, Total, ICAP/MS	99.500	100.500	UGL	1.0	( 0-20 )	
RPD_MS	Aluminum, Total, ICAP/MS	102.500	98.500	UGL	4.0	( 0-20 )	

**QC Ref #449123 Nickel, Total, ICAP/MS**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Nickel, Total, ICAP/MS	50	49.2	UGL	98.4	( 85-115 )	
LCS2	Nickel, Total, ICAP/MS	50	50.9	UGL	101.8	( 85-115 )	
MBLK	Nickel, Total, ICAP/MS	ND	<5.0	UGL			
MRL_CHK	Nickel, Total, ICAP/MS	5.000	5.37	UGL	107.4	( 50-150 )	
MS	Nickel, Total, ICAP/MS	50	48.2	UGL	96.4	( 70-130 )	
MSD	Nickel, Total, ICAP/MS	50	47.2	UGL	94.4	( 70-130 )	
RPD_LCS	Nickel, Total, ICAP/MS	98.400	101.800	UGL	3.4	( 0-20 )	
RPD_MS	Nickel, Total, ICAP/MS	96.400	94.400	UGL	2.1	( 0-20 )	

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## QC Ref #449127 Zinc, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Zinc, Total, ICAP/MS	100	102	UGL	102.0	( 85-115 )	
LCS2	Zinc, Total, ICAP/MS	100	104	UGL	104.0	( 85-115 )	
MBLK	Zinc, Total, ICAP/MS	ND	<20	UGL			
MRL_CHK	Zinc, Total, ICAP/MS	20.0	21.5	UGL	107.5	( 50-150 )	
MS	Zinc, Total, ICAP/MS	100	98.5	UGL	98.5	( 70-130 )	
MSD	Zinc, Total, ICAP/MS	100	97.8	UGL	97.8	( 70-130 )	
RPD_LCS	Zinc, Total, ICAP/MS	102.000	104.000	UGL	1.9	( 0-20 )	
RPD_MS	Zinc, Total, ICAP/MS	98.500	97.800	UGL	0.7	( 0-20 )	

## QC Ref #449141 Beryllium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Beryllium, Total, ICAP/MS	5.00	5.04	UGL	100.8	( 85-115 )	
LCS2	Beryllium, Total, ICAP/MS	5.00	4.72	UGL	94.4	( 85-115 )	
<del>MBLK</del>	<del>Beryllium, Total, ICAP/MS</del>	<del>ND</del>	<del>&lt;1.0</del>	<del>UGL</del>			
MRL_CHK	Beryllium, Total, ICAP/MS	1.000	1.02	UGL	102.0	( 50-150 )	
MS	Beryllium, Total, ICAP/MS	5.00	4.73	UGL	94.6	( 70-130 )	
MSD	Beryllium, Total, ICAP/MS	5.00	4.95	UGL	99.0	( 70-130 )	
RPD_LCS	Beryllium, Total, ICAP/MS	100.800	94.400	UGL	6.6	( 0-20 )	
RPD_MS	Beryllium, Total, ICAP/MS	94.600	99.000	UGL	4.5	( 0-20 )	

## QC Ref #450074 Arsenic, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Arsenic, Total, ICAP/MS	20	20.8	UGL	104.0	( 85-115 )	

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LCS2	Arsenic, Total, ICAP/MS	20	21.5	UGL	107.5	( 85-115 )
MBLK	Arsenic, Total, ICAP/MS	ND	<1.0	UGL		
MRL_CHK	Arsenic, Total, ICAP/MS	1.000	1.30	UGL	130.0	( 50-150 )
MS	Arsenic, Total, ICAP/MS	20	20.8	UGL	104.0	( 70-130 )
MS2	Arsenic, Total, ICAP/MS	20	22	UGL	110.0	( 70-130 )
MSD	Arsenic, Total, ICAP/MS	20	19.9	UGL	99.5	( 70-130 )
MSD2	Arsenic, Total, ICAP/MS	20	21.3	UGL	106.5	( 70-130 )
RPD_LCS	Arsenic, Total, ICAP/MS	104.000	107.500	UGL	3.3	( 0-20 )
RPD_MS	Arsenic, Total, ICAP/MS	104.000	99.500	UGL	4.4	( 0-20 )

QC Ref #450075

Selenium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Selenium, Total, ICAP/MS	20	21.1	UGL	105.5	( 85-115 )	
LCS2	Selenium, Total, ICAP/MS	20	21.6	UGL	108.0	( 85-115 )	
MBLK	Selenium, Total, ICAP/MS	ND	<5.0	UGL			
MRL_CHK	Selenium, Total, ICAP/MS	5.000	5.07	UGL	101.4	( 50-150 )	
MS	Selenium, Total, ICAP/MS	20	21.1	UGL	105.5	( 70-130 )	
MS2	Selenium, Total, ICAP/MS	20	22	UGL	110.0	( 70-130 )	
MSD	Selenium, Total, ICAP/MS	20	20.6	UGL	103.0	( 70-130 )	
MSD2	Selenium, Total, ICAP/MS	20	21.1	UGL	105.5	( 70-130 )	
RPD_LCS	Selenium, Total, ICAP/MS	105.500	108.000	UGL	2.3	( 0-20 )	
RPD_MS	Selenium, Total, ICAP/MS	105.500	103.000	UGL	2.4	( 0-20 )	

QC Ref #450077

Silver, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Silver, Total, ICAP/MS	50	53.6	UGL	107.2	( 85-115 )	
LCS2	Silver, Total, ICAP/MS	50	53.4	UGL	106.8	( 85-115 )	
MBLK	Silver, Total, ICAP/MS	ND	<0.50	UGL			

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.  
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MPL_CHK	Silver, Total, ICAP/MS	0.500	0.31	UGL	62.0	( 50-150 )
MS	Silver, Total, ICAP/MS	50	48.9	UGL	97.8	( 70-130 )
MS2	Silver, Total, ICAP/MS	50	38.3	UGL	76.6	( 70-130 )
MSD	Silver, Total, ICAP/MS	50	46.7	UGL	93.4	( 70-130 )
MSD2	Silver, Total, ICAP/MS	50	46.4	UGL	92.8	( 70-130 )
RPD_LCS	Silver, Total, ICAP/MS	107.200	106.800	UGL	0.4	( 0-20 )
RPD_MS	Silver, Total, ICAP/MS	97.500	93.400	UGL	4.6	( 0-20 )

QC Ref #450078

Cadmium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Cadmium, Total, ICAP/MS	20	21.7	UGL	108.5	( 85-115 )	
LCS2	Cadmium, Total, ICAP/MS	20	21.5	UGL	107.5	( 85-115 )	
MBLK	Cadmium, Total, ICAP/MS	ND	<0.50	UGL			
MRL_CHK	Cadmium, Total, ICAP/MS	0.500	0.52	UGL	104.0	( 50-150 )	
MS	Cadmium, Total, ICAP/MS	20	20.1	UGL	100.5	( 70-130 )	
MS2	Cadmium, Total, ICAP/MS	20	20.2	UGL	101.0	( 70-130 )	
MSD	Cadmium, Total, ICAP/MS	20	19.3	UGL	96.5	( 70-130 )	
MSD2	Cadmium, Total, ICAP/MS	20	20.1	UGL	100.5	( 70-130 )	
RPD_LCS	Cadmium, Total, ICAP/MS	108.500	107.500	UGL	0.9	( 0-20 )	
RPD_MS	Cadmium, Total, ICAP/MS	100.500	96.500	UGL	4.1	( 0-20 )	

QC Ref #450079

Antimony, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Antimony, Total, ICAP/MS	50	53.1	UGL	106.2	( 85-115 )	
LCS2	Antimony, Total, ICAP/MS	50	52.9	UGL	105.8	( 85-115 )	
MBLK	Antimony, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Antimony, Total, ICAP/MS	1.000	1.00	UGL	100.0	( 50-150 )	
MS	Antimony, Total, ICAP/MS	50	51.6	UGL	103.2	( 70-130 )	

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MS2	Antimony, Total, ICAP/MS	50	51.9	UGL	103.8	( 70-130 )
MSD	Antimony, Total, ICAP/MS	50	48.9	UGL	97.8	( 70-130 )
MSD2	Antimony, Total, ICAP/MS	50	51.4	UGL	100.8	( 70-130 )
RPD_LCS	Antimony, Total, ICAP/MS	106.000	105.800	UGL	0.4	( 0-20 )
RPD_MS	Antimony, Total, ICAP/MS	103.000	97.800	UGL	5.4	( 0-20 )

QC Ref #450080

Barium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Barium, Total, ICAP/MS	100	101	UGL	101.0	( 85-115 )	
LCS2	Barium, Total, ICAP/MS	100	101	UGL	101.0	( 85-115 )	
MBLK	Barium, Total, ICAP/MS	ND	<2.0	UGL			
MRL_CHK	Barium, Total, ICAP/MS	2.000	2.02	UGL	101.0	( 50-150 )	
MS	Barium, Total, ICAP/MS	100	104	UGL	104.0	( 70-130 )	
MS2	Barium, Total, ICAP/MS	100	102	UGL	102.0	( 70-130 )	
MSD	Barium, Total, ICAP/MS	100	98.4	UGL	98.4	( 70-130 )	
MSD2	Barium, Total, ICAP/MS	100	97.7	UGL	97.7	( 70-130 )	
RPD_LCS	Barium, Total, ICAP/MS	101.000	101.000	UGL	0.0	( 0-20 )	
RPD_MS	Barium, Total, ICAP/MS	104.000	98.400	UGL	5.5	( 0-20 )	

QC Ref #450081

Thallium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Thallium, Total, ICAP/MS	20.0	20.5	UGL	102.5	( 85-115 )	
LCS2	Thallium, Total, ICAP/MS	20.0	20.2	UGL	101.0	( 85-115 )	
MBLK	Thallium, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Thallium, Total, ICAP/MS	1.000	1.02	UGL	102.0	( 50-150 )	
MS	Thallium, Total, ICAP/MS	20.0	20.1	UGL	100.5	( 70-130 )	
MS2	Thallium, Total, ICAP/MS	20.0	20.3	UGL	101.5	( 70-130 )	
MSD	Thallium, Total, ICAP/MS	20.0	19.2	UGL	96.0	( 70-130 )	

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MSD2	Thallium, Total, ICAP/MS	20.0	20.3	UGL	101.0	( 70-130 )
RPD_LCS	Thallium, Total, ICAP/MS	100.500	101.000	UGL	1.5	( 0-20 )
RPD_MS	Thallium, Total, ICAP/MS	100.900	96.000	UGL	4.6	( 0-20 )

## QC Ref #450082 Lead, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Lead, Total, ICAP/MS	20	21	UGL	105.0	( 85-115 )	
LCS2	Lead, Total, ICAP/MS	20	21	UGL	105.0	( 85-115 )	
MBLK	Lead, Total, ICAP/MS	ND	<0.50	UGL			
MRL_CHK	Lead, Total, ICAP/MS	0.500	0.51	UGL	102.0	( 50-150 )	
MS	Lead, Total, ICAP/MS	20	20.3	UGL	101.5	( 70-130 )	
MS2	Lead, Total, ICAP/MS	20	20.6	UGL	103.0	( 70-130 )	
MSD	Lead, Total, ICAP/MS	20	19.3	UGL	96.5	( 70-130 )	
MSD2	Lead, Total, ICAP/MS	20	20.4	UGL	102.0	( 70-130 )	
RPD_LCS	Lead, Total, ICAP/MS	105.000	105.000	UGL	0.0	( 0-20 )	
RPD_MS	Lead, Total, ICAP/MS	101.500	96.500	UGL	5.1	( 0-20 )	

## QC Ref #450083 Chromium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Chromium, Total, ICAP/MS	100	109	UGL	109.0	( 85-115 )	
LCS2	Chromium, Total, ICAP/MS	100	108	UGL	108.0	( 85-115 )	
MBLK	Chromium, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Chromium, Total, ICAP/MS	1.000	1.19	UGL	119.0	( 50-150 )	
MS	Chromium, Total, ICAP/MS	100	102	UGL	102.0	( 70-130 )	
MS2	Chromium, Total, ICAP/MS	100	105	UGL	105.0	( 70-130 )	
MSD	Chromium, Total, ICAP/MS	100	99.3	UGL	99.3	( 70-130 )	
MSD2	Chromium, Total, ICAP/MS	100	104	UGL	104.0	( 70-130 )	
RPD_LCS	Chromium, Total, ICAP/MS	109.000	108.000	UGL	0.9	( 0-20 )	

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RPD\_MS Chromium, Total, ICAP/MS 102.000 99.300 UGL 2.7 ( 0-20 )

## QC Ref #450084 Beryllium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Beryllium, Total, ICAP/MS	5.00	5.62	UGL	112.4	( 85-115 )	
LCS2	Beryllium, Total, ICAP/MS	5.00	5.33	UGL	106.6	( 85-115 )	
MBLK	Beryllium, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Beryllium, Total, ICAP/MS	1.000	1.07	UGL	107.0	( 50-150 )	
MS	Beryllium, Total, ICAP/MS	5.00	5.22	UGL	104.4	( 70-130 )	
MS2	Beryllium, Total, ICAP/MS	5.00	5.33	UGL	106.6	( 70-130 )	
MSD	Beryllium, Total, ICAP/MS	5.00	5.04	UGL	100.8	( 70-130 )	
MSD2	Beryllium, Total, ICAP/MS	5.00	5.47	UGL	109.4	( 70-130 )	
RPD_LCS	Beryllium, Total, ICAP/MS	112.400	106.600	UGL	5.3	( 0-20 )	
RPD_MS	Beryllium, Total, ICAP/MS	104.400	100.800	UGL	3.5	( 0-20 )	

## QC Ref #450085 Aluminum, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Aluminum, Total, ICAP/MS	200	228	UGL	114.0	( 85-115 )	
LCS2	Aluminum, Total, ICAP/MS	200	224	UGL	112.0	( 85-115 )	
MBLK	Aluminum, Total, ICAP/MS	ND	<20	UGL			
MRL_CHK	Aluminum, Total, ICAP/MS	25.000	21.3	UGL	85.2	( 50-150 )	
MS	Aluminum, Total, ICAP/MS	200	207	UGL	103.5	( 70-130 )	
MS2	Aluminum, Total, ICAP/MS	200	263	UGL	<u>131.5</u>	( 70-130 )	
MSD	Aluminum, Total, ICAP/MS	200	200	UGL	100.0	( 70-130 )	
MSD2	Aluminum, Total, ICAP/MS	200	203	UGL	101.5	( 70-130 )	
RPD_LCS	Aluminum, Total, ICAP/MS	114.000	112.000	UGL	1.8	( 0-20 )	
RPD_MS	Aluminum, Total, ICAP/MS	103.500	100.000	UGL	3.4	( 0-20 )	

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## QC Ref #450087

## Manganese, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Manganese, Total, ICAP/MS	50	51.8	UGL	103.6	( 85-115 )	
LCS2	Manganese, Total, ICAP/MS	50	51.5	UGL	103.0	( 85-115 )	
MBLK	Manganese, Total, ICAP/MS	ND	<2.0	UGL			
MRL_CHK	Manganese, Total, ICAP/MS	2.000	1.98	UGL	99.0	( 50-150 )	
MS	Manganese, Total, ICAP/MS	50	50.4	UGL	100.8	( 70-130 )	
MS2	Manganese, Total, ICAP/MS	50	48.9	UGL	97.8	( 70-130 )	
MSD	Manganese, Total, ICAP/MS	50	48.2	UGL	96.4	( 70-130 )	
MSD2	Manganese, Total, ICAP/MS	50	48.5	UGL	97.0	( 70-130 )	
RPD_LCS	Manganese, Total, ICAP/MS	103.600	103.000	UGL	0.6	( 0-20 )	
RPD_MS	Manganese, Total, ICAP/MS	100.800	96.400	UGL	4.5	( 0-20 )	

## QC Ref #450089

## Nickel, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
<del>AASPKSMP</del>	<del>Spiked sample</del>	<del>Lab # 28</del>	<del>08140406</del>	<del>UGL</del>		<del>( 0-0 )</del>	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Nickel, Total, ICAP/MS	50	52	UGL	104.0	( 85-115 )	
LCS2	Nickel, Total, ICAP/MS	50	51.9	UGL	103.8	( 85-115 )	
MBLK	Nickel, Total, ICAP/MS	ND	<5.0	UGL			
MRL_CHK	Nickel, Total, ICAP/MS	5.000	5.08	UGL	101.6	( 50-150 )	
MS	Nickel, Total, ICAP/MS	50	48.4	UGL	96.8	( 70-130 )	
MS2	Nickel, Total, ICAP/MS	50	48.1	UGL	96.2	( 70-130 )	
MSD	Nickel, Total, ICAP/MS	50	46.1	UGL	92.2	( 70-130 )	
MSD2	Nickel, Total, ICAP/MS	50	47.5	UGL	95.0	( 70-130 )	
RPD_LCS	Nickel, Total, ICAP/MS	104.000	103.800	UGL	0.2	( 0-20 )	
RPD_MS	Nickel, Total, ICAP/MS	96.800	92.200	UGL	4.9	( 0-20 )	

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## QC Ref #450090

## Copper, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Copper, Total, ICAP/MS	100	104	UGL	104.0	( 85-115 )	
LCS2	Copper, Total, ICAP/MS	100	103	UGL	103.0	( 85-115 )	
MBLK	Copper, Total, ICAP/MS	ND	<2.0	UGL			
MRL_CHK	Copper, Total, ICAP/MS	2.000	1.83	UGL	91.5	( 50-150 )	
MS	Copper, Total, ICAP/MS	100	96.9	UGL	96.9	( 70-130 )	
MS2	Copper, Total, ICAP/MS	100	95.8	UGL	95.8	( 70-130 )	
MSD	Copper, Total, ICAP/MS	100	93.7	UGL	93.7	( 70-130 )	
MSD2	Copper, Total, ICAP/MS	100	95.7	UGL	95.7	( 70-130 )	
RPD_LCS	Copper, Total, ICAP/MS	104.000	103.000	UGL	1.0	( 0-20 )	
RPD_MS	Copper, Total, ICAP/MS	96.900	93.700	UGL	3.4	( 0-20 )	

## QC Ref #450091

## Zinc, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08140406	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190179	UGL		( 0-0 )	
LCS1	Zinc, Total, ICAP/MS	100	111	UGL	111.0	( 85-115 )	
LCS2	Zinc, Total, ICAP/MS	100	114	UGL	114.0	( 85-115 )	
MBLK	Zinc, Total, ICAP/MS	ND	<20	UGL			
MRL_CHK	Zinc, Total, ICAP/MS	20.0	21.1	UGL	105.5	( 50-150 )	
MS	Zinc, Total, ICAP/MS	100	102	UGL	102.0	( 70-130 )	
MS2	Zinc, Total, ICAP/MS	100	99.1	UGL	99.1	( 70-130 )	
MSD	Zinc, Total, ICAP/MS	100	94.9	UGL	94.9	( 70-130 )	
MSD2	Zinc, Total, ICAP/MS	100	98.9	UGL	98.9	( 70-130 )	
RPD_LCS	Zinc, Total, ICAP/MS	111.000	114.000	UGL	2.7	( 0-20 )	
RPD_MS	Zinc, Total, ICAP/MS	102.000	94.900	UGL	7.2	( 0-20 )	

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## QC Ref #450233

## Aluminum, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	09090144	UGL		( 0-0 )	
LCS1	Aluminum, Total, ICAP/MS	200	211	UGL	105.5	( 85-115 )	
LCS2	Aluminum, Total, ICAP/MS	200	209	UGL	104.5	( 85-115 )	
MBLK	Aluminum, Total, ICAP/MS	ND	<20	UGL			
MRL_CHK	Aluminum, Total, ICAP/MS	25.000	18.8	UGL	75.2	( 50-150 )	
MS	Aluminum, Total, ICAP/MS	200	150	UGL	75.0	( 70-130 )	
MSD	Aluminum, Total, ICAP/MS	200	152	UGL	76.0	( 70-130 )	
RPD_LCS	Aluminum, Total, ICAP/MS	105.500	104.500	UGL	1.0	( 0-20 )	
RPD_MS	Aluminum, Total, ICAP/MS	75.000	76.000	UGL	1.3	( 0-20 )	

## QC Ref #451196

## Arsenic, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Arsenic, Total, ICAP/MS	20	21.2	UGL	106.0	( 85-115 )	
<del>LCS2</del>	<del>Arsenic, Total, ICAP/MS</del>	<del>20</del>	<del>21.5</del>	<del>UGL</del>	<del>107.5</del>	<del>( 85-115 )</del>	
MBLK	Arsenic, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Arsenic, Total, ICAP/MS	1.000	1.20	UGL	120.0	( 50-150 )	
MS	Arsenic, Total, ICAP/MS	20	21.3	UGL	106.5	( 70-130 )	
MS2	Arsenic, Total, ICAP/MS	20	20.9	UGL	104.5	( 70-130 )	
MSD	Arsenic, Total, ICAP/MS	20	21.3	UGL	106.5	( 70-130 )	
MSD2	Arsenic, Total, ICAP/MS	20	21.6	UGL	108.0	( 70-130 )	
RPD_LCS	Arsenic, Total, ICAP/MS	106.000	107.500	UGL	1.4	( 0-20 )	
RPD_MS	Arsenic, Total, ICAP/MS	106.500	106.500	UGL	0.0	( 0-20 )	

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Laboratory  
QC Report  
#251171

City of Tracy  
(continued)

## QC Ref #451197 Arsenic, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Arsenic, Total, ICAP/MS	20	20.5	UGL	102.5	( 85-115 )	
LCS2	Arsenic, Total, ICAP/MS	20	20.5	UGL	102.5	( 85-115 )	
MBLK	Arsenic, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Arsenic, Total, ICAP/MS	1.000	1.20	UGL	120.0	( 50-150 )	
RPD_LCS	Arsenic, Total, ICAP/MS	102.500	102.500	UGL	0.0	( 0-20 )	

## QC Ref #451199 Selenium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Selenium, Total, ICAP/MS	20	19.3	UGL	96.5	( 85-115 )	
LCS2	Selenium, Total, ICAP/MS	20	19.1	UGL	95.5	( 85-115 )	
MBLK	Selenium, Total, ICAP/MS	ND	<5.0	UGL			
MRL_CHK	Selenium, Total, ICAP/MS	5.000	4.69	UGL	93.8	( 50-150 )	
MS	Selenium, Total, ICAP/MS	20	18.3	UGL	91.5	( 70-130 )	
<del>MS2</del>	<del>Selenium, Total, ICAP/MS</del>	<del>20</del>	<del>18.5</del>	<del>UGL</del>	<del>92.5</del>	<del>( 70-130 )</del>	
MSD	Selenium, Total, ICAP/MS	20	18.4	UGL	92.0	( 70-130 )	
MSD2	Selenium, Total, ICAP/MS	20	18.9	UGL	94.5	( 70-130 )	
RPD_LCS	Selenium, Total, ICAP/MS	96.500	95.500	UGL	1.0	( 0-20 )	
RPD_MS	Selenium, Total, ICAP/MS	91.500	92.000	UGL	0.5	( 0-20 )	

## QC Ref #451200 Selenium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Selenium, Total, ICAP/MS	20	17.1	UGL	85.5	( 85-115 )	
LCS2	Selenium, Total, ICAP/MS	20	17	UGL	85.0	( 85-115 )	
MBLK	Selenium, Total, ICAP/MS	ND	<5.0	UGL			
MRL_CHK	Selenium, Total, ICAP/MS	5.000	4.69	UGL	93.8	( 50-150 )	

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Laboratory  
QC Report  
#251171

City of Tracy  
(continued)

RPD_LCS	Selenium, Total, ICAP/MS	85.500	85.000	UGL	0.6	( 0-20 )
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## QC Ref #451206 Silver, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Silver, Total, ICAP/MS	50	51.3	UGL	103.6	( 85-115 )	
LCS2	Silver, Total, ICAP/MS	50	53.4	UGL	106.8	( 85-115 )	
MBLK	Silver, Total, ICAP/MS	ND	<0.50	UGL			
MRL_CHK	Silver, Total, ICAP/MS	0.500	0.52	UGL	104.0	( 50-150 )	
MS	Silver, Total, ICAP/MS	50	50.8	UGL	101.6	( 70-130 )	
MS2	Silver, Total, ICAP/MS	50	41.3	UGL	82.6	( 70-130 )	
MSD	Silver, Total, ICAP/MS	50	50.9	UGL	101.8	( 70-130 )	
MSD2	Silver, Total, ICAP/MS	50	42.4	UGL	84.8	( 70-130 )	
RPD_LCS	Silver, Total, ICAP/MS	103.600	106.800	UGL	3.0	( 0-20 )	
RPD_MS	Silver, Total, ICAP/MS	101.600	101.800	UGL	0.2	( 0-20 )	

## QC Ref #451207 Silver, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Silver, Total, ICAP/MS	50	50	UGL	100.0	( 85-115 )	
LCS2	Silver, Total, ICAP/MS	50	49.3	UGL	98.6	( 85-115 )	
MBLK	Silver, Total, ICAP/MS	ND	<0.50	UGL			
MRL_CHK	Silver, Total, ICAP/MS	0.500	0.52	UGL	104.0	( 50-150 )	
RPD_LCS	Silver, Total, ICAP/MS	100.000	98.600	UGL	1.4	( 0-20 )	

## QC Ref #451209 Cadmium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Cadmium, Total, ICAP/MS	20	20.1	UGL	100.5	( 85-115 )	

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Laboratory  
QC Report  
#251171

City of Tracy  
(continued)

LCS2	Cadmium, Total, ICAP/MS	20	20.5	UGL	102.5	( 85-115 )
MBLK	Cadmium, Total, ICAP/MS	ND	<0.50	UGL		
MRL_CHK	Cadmium, Total, ICAP/MS	0.500	0.47	UGL	94.0	( 50-150 )
MS	Cadmium, Total, ICAP/MS	20	20.1	UGL	100.5	( 70-130 )
MS2	Cadmium, Total, ICAP/MS	20	19.9	UGL	99.5	( 70-130 )
MSD	Cadmium, Total, ICAP/MS	20	20.3	UGL	101.5	( 70-130 )
MSD2	Cadmium, Total, ICAP/MS	20	19.9	UGL	99.5	( 70-130 )
RPD_LCS	Cadmium, Total, ICAP/MS	100.500	102.500	UGL	2.0	( 0-20 )
RPD_MS	Cadmium, Total, ICAP/MS	100.500	101.500	UGL	1.0	( 0-20 )

## QC Ref #451210 Cadmium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Cadmium, Total, ICAP/MS	20	19.5	UGL	97.5	( 85-115 )	
LCS2	Cadmium, Total, ICAP/MS	20	19.3	UGL	96.5	( 85-115 )	
MBLK	Cadmium, Total, ICAP/MS	ND	<0.50	UGL			
MRL_CHK	Cadmium, Total, ICAP/MS	0.500	0.47	UGL	94.0	( 50-150 )	
RPD_LCS	Cadmium, Total, ICAP/MS	97.500	96.500	UGL	1.0	( 0-20 )	

## QC Ref #451213 Antimony, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Antimony, Total, ICAP/MS	50	52.8	UGL	105.6	( 85-115 )	
LCS2	Antimony, Total, ICAP/MS	50	54.8	UGL	109.6	( 85-115 )	
MBLK	Antimony, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Antimony, Total, ICAP/MS	1.000	0.98	UGL	98.0	( 50-150 )	
MS	Antimony, Total, ICAP/MS	50	54.5	UGL	109.0	( 70-130 )	
MS2	Antimony, Total, ICAP/MS	50	54.7	UGL	109.4	( 70-130 )	
MSD	Antimony, Total, ICAP/MS	50	54.1	UGL	108.2	( 70-130 )	
MSD2	Antimony, Total, ICAP/MS	50	55.5	UGL	111.0	( 70-130 )	
RPD_LCS	Antimony, Total, ICAP/MS	105.600	109.600	UGL	3.7	( 0-20 )	
RPD_MS	Antimony, Total, ICAP/MS	109.000	108.200	UGL	0.7	( 0-20 )	

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Laboratory  
QC Report  
#251171

City of Tracy  
(continued)

## QC Ref #451214 Antimony, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Antimony, Total, ICAP/MS	50	51.9	UGL	103.8	( 85-115 )	
LCS2	Antimony, Total, ICAP/MS	50	52.6	UGL	105.2	( 85-115 )	
MBLK	Antimony, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Antimony, Total, ICAP/MS	1.000	0.98	UGL	98.0	( 50-150 )	
RPD_LCS	Antimony, Total, ICAP/MS	103.800	105.200	UGL	1.3	( 0-20 )	

## QC Ref #451216 Barium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Barium, Total, ICAP/MS	100	104	UGL	104.0	( 85-115 )	
LCS2	Barium, Total, ICAP/MS	100	107	UGL	107.0	( 85-115 )	
MBLK	Barium, Total, ICAP/MS	ND	<2.0	UGL			
MRL_CHK	Barium, Total, ICAP/MS	2.000	1.93	UGL	96.5	( 50-150 )	
MS	Barium, Total, ICAP/MS	100	105	UGL	105.0	( 70-130 )	
<del>MS2</del>	<del>Barium, Total, ICAP/MS</del>	<del>100</del>	<del>102</del>	<del>UGL</del>	<del>102.0</del>	<del>( 70-130 )</del>	
MSD	Barium, Total, ICAP/MS	100	103	UGL	103.0	( 70-130 )	
MSD2	Barium, Total, ICAP/MS	100	104	UGL	104.0	( 70-130 )	
RPD_LCS	Barium, Total, ICAP/MS	104.000	107.000	UGL	2.8	( 0-20 )	
RPD_MS	Barium, Total, ICAP/MS	105.000	103.000	UGL	1.9	( 0-20 )	

## QC Ref #451217 Barium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Barium, Total, ICAP/MS	100	102	UGL	102.0	( 85-115 )	
LCS2	Barium, Total, ICAP/MS	100	101	UGL	101.0	( 85-115 )	
MBLK	Barium, Total, ICAP/MS	ND	<2.0	UGL			
MRL_CHK	Barium, Total, ICAP/MS	2.000	1.93	UGL	96.5	( 50-150 )	

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Laboratory  
QC Report  
#251171

City of Tracy  
(continued)

RPD_LCS	Barium, Total, ICAP/MS	102.000	101.000	UGL	1.0	( 0-20 )
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## QC Ref #451219

## Thallium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Thallium, Total, ICAP/MS	20.0	19.2	UGL	96.0	( 85-115 )	
LCS2	Thallium, Total, ICAP/MS	20.0	20	UGL	100.0	( 85-115 )	
MBLK	Thallium, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Thallium, Total, ICAP/MS	1.000	0.93	UGL	93.0	( 50-150 )	
MS	Thallium, Total, ICAP/MS	20.0	19.8	UGL	99.0	( 70-130 )	
MS2	Thallium, Total, ICAP/MS	20.0	19.4	UGL	97.0	( 70-130 )	
MSD	Thallium, Total, ICAP/MS	20.0	19.5	UGL	97.5	( 70-130 )	
MSD2	Thallium, Total, ICAP/MS	20.0	19.6	UGL	98.0	( 70-130 )	
RPD_LCS	Thallium, Total, ICAP/MS	96.000	100.000	UGL	4.1	( 0-20 )	
RPD_MS	Thallium, Total, ICAP/MS	99.000	97.500	UGL	1.5	( 0-20 )	

## QC Ref #451220

## Thallium, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Thallium, Total, ICAP/MS	20.0	19	UGL	95.0	( 85-115 )	
LCS2	Thallium, Total, ICAP/MS	20.0	18.7	UGL	93.5	( 85-115 )	
MBLK	Thallium, Total, ICAP/MS	ND	<1.0	UGL			
MRL_CHK	Thallium, Total, ICAP/MS	1.000	0.93	UGL	93.0	( 50-150 )	
RPD_LCS	Thallium, Total, ICAP/MS	95.000	93.500	UGL	1.6	( 0-20 )	

## QC Ref #451222

## Lead, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 28	08160045	UGL		( 0-0 )	
AASPKSMP	Spiked sample	Lab # 28	08190175	UGL		( 0-0 )	
LCS1	Lead, Total, ICAP/MS	20	19.8	UGL	99.0	( 85-115 )	

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Laboratory  
QC Report  
#251171

City of Tracy  
(continued)

LCS2	Lead, Total, ICAP/MS	20	20.5	UGL	102.5	( 85-115 )
MBLK	Lead, Total, ICAP/MS	ND	<0.50	UGL		
MRL_CHK	Lead, Total, ICAP/MS	0.500	0.48	UGL	96.0	( 50-150 )
MS	Lead, Total, ICAP/MS	20	19.8	UGL	99.5	( 70-130 )
MS2	Lead, Total, ICAP/MS	20	19.8	UGL	99.0	( 70-130 )
MSD	Lead, Total, ICAP/MS	20	20	UGL	100.0	( 70-130 )
MSD2	Lead, Total, ICAP/MS	20	20	UGL	100.0	( 70-130 )
RPD_LCS	Lead, Total, ICAP/MS	99.000	102.500	UGL	3.5	( 0-20 )
RPD_MS	Lead, Total, ICAP/MS	96.500	100.000	UGL	0.0	( 0-20 )

QC Ref #451224

Lead, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Lead, Total, ICAP/MS	20	19.5	UGL	97.5	( 85-115 )	
LCS2	Lead, Total, ICAP/MS	20	19.2	UGL	96.0	( 85-115 )	
MBLK	Lead, Total, ICAP/MS	ND	<0.50	UGL			
MRL_CHK	Lead, Total, ICAP/MS	0.500	0.48	UGL	96.0	( 50-150 )	
RPD_LCS	Lead, Total, ICAP/MS	97.500	96.000	UGL	1.6	( 0-20 )	

QC Ref #451230

Manganese, Total, ICAP/MS

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Manganese, Total, ICAP/MS	50	45.8	UGL	91.6	( 85-115 )	
LCS2	Manganese, Total, ICAP/MS	50	44.9	UGL	89.8	( 85-115 )	
MBLK	Manganese, Total, ICAP/MS	ND	<2.0	UGL			
MRL_CHK	Manganese, Total, ICAP/MS	2.000	1.94	UGL	97.0	( 50-150 )	
RPD_LCS	Manganese, Total, ICAP/MS	91.600	89.800	UGL	2.0	( 0-20 )	

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.  
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## GENERAL MINERAL &amp; PHYSICAL &amp; INORGANIC ANALYSIS (9/99)

Date of Report:10/08/08

Sample ID No. 2808190175-251171 EDT

Laboratory

Signature Lab

Name: MWH Laboratories

Director:

Name of Sampler:

Employed By:

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 08/18/08 0909

Received @ Lab: 08/19/08

Completed: 09/12/08

System Name:

System Number:

COC ID: R-001

Name or Number of Sample Source:

\*\*\*\*\*

\* User ID: Station Number: xxxxxxxx-xxx \*

\* Date/Time of Sample: |08|08|18|0909| Laboratory Code: 9590 \*

\* YY MM DD TTTT YY MM DD \*

\* Date Analysis completed: |08|09|12| \*

\* Submitted by: Erich Delmas Phone #: (209) 831-4488 \*

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MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
	mg/L	Total Hardness (as CaCO3)	00900	175.	
	mg/L	Calcium (Ca)	00916	37	
	mg/L	Magnesium (Mg)	00927	20	
	mg/L	Sodium (Na)	00929	74	
	mg/L	Potassium (K)	00937	3.1	
	meq/L	Total Cations	ENT01	6.8	
	mg/L	Total Alkalinity (as CaCO3)	00410	151	
	mg/L	Hydroxide (OH)	71830	<2.000	
	mg/L	Carbonate (CO3)	00445	3.0	
	mg/L	Bicarbonate (HCO3)	00440	183.	
	mg/L	Sulfate (SO4)	00945	74	0.5
	mg/L	Chloride (Cl)	00940	100	
45	mg/L	Nitrate (NO3)	71850	5.2	2.0
2	mg/L	Fluoride (F) (Natural - Source)	00951	<.1	.1
	meq/L	Total Anions	ENT02	7.5	
6.5-8.5	Units	pH (laboratory)	00403	8.4	
	uhmo/cm	Specific Conductance (E.C.)	00095	721	
	mg/L	Total Filterable Residue	70300	444	
0.5	mg/L	MBAS	38260	<0.050	
1000	ug/L	Aluminum (Al)	01105	770	50.0
6.	ug/L	Antimony	01097	<6.	6.
10	ug/L	Arsenic (As)	01002	3.3	2.0
1000	ug/L	Barium (Ba)	01007	<100.	100.
4	ug/L	Beryllium	01012	<1.0	1.0
5	ug/L	Cadmium (Cd)	01027	<1.0	1.0
50	ug/L	Chromium (Total Cr)	01034	<10.0	10.0
1000	ug/L	Copper (Cu)	01042	<50.	50.
300	ug/L	Iron (Fe)	01045	380	100.
	ug/L	Lead (Pb)	01051	<5.0	5.0
50	ug/L	Manganese (Mn)	01055	170	20.

MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
2 ug/L		Mercury (Hg)	71900	<1.0	1.0
100 ug/L		Nickel	01067	<10.0	10.0
50 ug/L		Selenium (Se)	01147	<5.0	5.0
100 ug/L		Silver (Ag)	01077	<10.0	10.0
2 ug/L		Thallium	01059	<1.0	1.0
5000 ug/L		Zinc (Zn)	01092	<50.	50.
		Langelier Index at 25 C	71813	0.80	
		Aggressiveness Index	82383	13.	
	ug/L	Boron	01020	300	100
10000	ug/L	Nitrate + Nitrite as N	A-029	1200	400
1000	ug/L	Nitrite as N (Nitrogen)	00620	<400	400
	ug/L	Carbon Dioxide	77000	<2000	

## GENERAL MINERAL &amp; PHYSICAL &amp; INORGANIC ANALYSIS (9/99)

Date of Report:10/08/08

Sample ID No. 2808190176-251171 EDT

Laboratory

Signature Lab

Name: MWH Laboratories

Director:

Name of Sampler:

Employed By:

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 08/18/08 0847

Received @ Lab: 08/19/08

Completed: 09/05/08

System Name:

System Number:

COC ID: R-002

Name or Number of Sample Source:

\*\*\*\*\*

\* User ID:

Station Number: xxxxxxxx-xxx

\* Date/Time of Sample: |08|08|18|0847|

Laboratory Code: 9590

\* YY MM DD TTTT

YY MM DD

\*

Date Analysis completed: |08|09|05|

\* Submitted by: Erich Delmas

Phone #: (209) 831-4488

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Page 1

MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
	mg/L	Total Hardness (as CaCO3)	00900	175.	
	mg/L	Calcium (Ca)	00916	37	
	mg/L	Magnesium (Mg)	00927	20	
	mg/L	Sodium (Na)	00929	76	
	mg/L	Potassium (K)	00937	3.2	
	meq/L	Total Cations	ENT01	6.9	
	mg/L	Total Alkalinity (as CaCO3)	00410	162	
	mg/L	Hydroxide (OH)	71830	<2.000	
	mg/L	Carbonate (CO3)	00445	2.0	
	mg/L	Bicarbonate (HCO3)	00440	197.	
	mg/L	Sulfate (SO4)	00945	75	0.5
	mg/L	Chloride (Cl)	00940	110	
45	mg/L	Nitrate (NO3)	71850	4.8	2.0
2	mg/L	Fluoride (F) (Natural - Source)	00951	0.10	.1
	meq/L	Total Anions	ENT02	8.0	
6.5-8.5	Units	pH (laboratory)	00403	8.2	
	uhmo/cm	Specific Conductance (E.C.)	00095	741	
	mg/L	Total Filterable Residue	70300	432	
0.5	mg/L	MBAS	38260	<0.050	
1000	ug/L	Aluminum (Al)	01105	800	50.0
6.	ug/L	Antimony	01097	<6.	6.
10	ug/L	Arsenic (As)	01002	3.5	2.0
1000	ug/L	Barium (Ba)	01007	<100.	100.
4	ug/L	Beryllium	01012	<1.0	1.0
5	ug/L	Cadmium (Cd)	01027	<1.0	1.0
50	ug/L	Chromium (Total Cr)	01034	<10.0	10.0
1000	ug/L	Copper (Cu)	01042	<50.	50.
300	ug/L	Iron (Fe)	01045	320	100.
	ug/L	Lead (Pb)	01051	<5.0	5.0
50	ug/L	Manganese (Mn)	01055	190	20.

MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
2 ug/L		Mercury (Hg)	71900	<1.0	1.0
100 ug/L		Nickel	01067	<10.0	10.0
50 ug/L		Selenium (Se)	01147	<5.0	5.0
100 ug/L		Silver (Ag)	01077	<10.0	10.0
2 ug/L		Thallium	01059	<1.0	1.0
5000 ug/L		Zinc (Zn)	01092	<50.	50.
		Langelier Index at 25 C	71813	0.60	
		Aggressiveness Index	82383	12.	
	ug/L	Boron	01020	290	100
10000 ug/L		Nitrate + Nitrite as N	A-029	1100	400
1000 ug/L		Nitrite as N (Nitrogen)	00620	<400	400
	ug/L	Carbon Dioxide	77000	2000	

## GENERAL MINERAL &amp; PHYSICAL &amp; INORGANIC ANALYSIS (9/99)

Date of Report: 10/08/08

Sample ID No. 2808190177-251171 EDT

Laboratory

Signature Lab

Name: MWH Laboratories

Director:

Name of Sampler:

Employed By:

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 08/18/08 0837

Received @ Lab: 08/19/08

Completed: 09/11/03

System Name:

System Number:

COC ID: R-003

Name or Number of Sample Source:

\*\*\*\*\*

\* User ID: Station Number: xxxxxxxx-xxx \*

\* Date/Time of Sample: |08|08|18|0837| Laboratory Code: 9590 \*

\* YY MM DD TTTT YY MM DD \*

\* Date Analysis completed: |08|09|11| \*

\* Submitted by: Erich Delmas Phone #: (209) 831-4488 \*

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MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
	mg/L	Total Hardness (as CaCO <sub>3</sub> )	00900	181.	
	mg/L	Calcium (Ca)	00916	38	
	mg/L	Magnesium (Mg)	00927	21	
	mg/L	Sodium (Na)	00929	79	
	mg/L	Potassium (K)	00937	3.5	
	meq/L	Total Cations	ENT01	7.2	
	mg/L	Total Alkalinity (as CaCO <sub>3</sub> )	00410	154	
	mg/L	Hydroxide (OH)	71830	<2.000	
	mg/L	Carbonate (CO <sub>3</sub> )	00445	<2.000	
	mg/L	Bicarbonate (HCO <sub>3</sub> )	00440	187.	
	mg/L	Sulfate (SO <sub>4</sub> )	00945	78	0.5
	mg/L	Chloride (Cl)	00940	110	
45	mg/L	Nitrate (NO <sub>3</sub> )	71850	5.4	2.0
2	mg/L	Fluoride (F) (Natural - Source)	00951	0.10	.1
	meq/L	Total Anions	ENT02	7.9	
6.5-8.5	Units	pH (laboratory)	00403	8.1	
	uhmo/cm	Specific Conductance (E.C.)	00095	753	
	mg/L	Total Filterable Residue	70300	456	
0.5	mg/L	MBAS	38260	<0.050	
1000	ug/L	Aluminum (Al)	01105	680	50.0
6.	ug/L	Antimony	01097	<6.	6.
10	ug/L	Arsenic (As)	01002	3.3	2.0
1000	ug/L	Barium (Ba)	01007	<100.	100.
4	ug/L	Beryllium	01012	<1.0	1.0
5	ug/L	Cadmium (Cd)	01027	<1.0	1.0
50	ug/L	Chromium (Total Cr)	01034	<10.0	10.0
1000	ug/L	Copper (Cu)	01042	<50.	50.
300	ug/L	Iron (Fe)	01045	610	100.
	ug/L	Lead (Pb)	01051	<5.0	5.0
50	ug/L	Manganese (Mn)	01055	190	20.

MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
2 ug/L		Mercury (Hg)	71900	<1.0	1.0
100 ug/L		Nickel	01067	<10.0	10.0
50 ug/L		Selenium (Se)	01147	<5.0	5.0
100 ug/L		Silver (Ag)	01077	<10.0	10.0
2 ug/L		Thallium	01059	<1.0	1.0
5000 ug/L		Zinc (Zn)	01092	<50.	50.
		Langelier Index at 25 C	71813	0.50	
		Aggressiveness Index	82383	12.	
	ug/L	Boron	01020	330	100
10000 ug/L		Nitrate + Nitrite as N	A-029	1200	400
1000 ug/L		Nitrite as N (Nitrogen)	00620	<400	400
	ug/L	Carbon Dioxide	77000	2400	

## GENERAL MINERAL &amp; PHYSICAL &amp; INORGANIC ANALYSIS (9/99)

Date of Report: 10/08/08

Sample ID No. 2808190178-251171 EDT

Laboratory

Signature Lab

Name: MWH Laboratories

Director:

Name of Sampler:

Employed By:

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 08/18/08 0802

Received @ Lab: 08/19/08

Completed: 09/11/08

System Name:

System Number:

COC ID: R-005

Name or Number of Sample Source:

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\* User ID:

Station Number: xxxxxxxx-xxx

\* Date/Time of Sample: |08|08|18|0802|

Laboratory Code: 9590

\* YY MM DD TTTT

YY MM DD

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Date Analysis completed: |08|09|11|

\* Submitted by: Erich Delmas

Phone #: (209) 831-4488

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Page 1

MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
	mg/L	Total Hardness (as CaCO3)	00900	193.	
	mg/L	Calcium (Ca)	00916	41	
	mg/L	Magnesium (Mg)	00927	22	
	mg/L	Sodium (Na)	00929	83	
	mg/L	Potassium (K)	00937	3.6	
	meq/L	Total Cations	ENT01	7.6	
	mg/L	Total Alkalinity (as CaCO3)	00410	128	
	mg/L	Hydroxide (OH)	71830	<2.000	
	mg/L	Carbonate (CO3)	00445	<2.000	
	mg/L	Bicarbonate (HCO3)	00440	156.	
	mg/L	Sulfate (SO4)	00945	89	0.5
	mg/L	Chloride (Cl)	00940	120	
45	mg/L	Nitrate (NO3)	71850	4.0	2.0
2	mg/L	Fluoride (F) (Natural - Source)	00951	0.11	.1
	meq/L	Total Anions	ENT02	7.9	
6.5-8.5	Units	pH (laboratory)	00403	8.0	
	uhmo/cm	Specific Conductance (E.C.)	00095	811	
	mg/L	Total Filterable Residue	70300	486	
0.5	mg/L	MEAS	38260	<0.050	
1000	ug/L	Aluminum (Al)	01105	320	50.0
6.	ug/L	Antimony	01097	<5.	6.
10	ug/L	Arsenic (As)	01002	4	2.0
1000	ug/L	Barium (Ba)	01007	<100.	100.
4	ug/L	Beryllium	01012	<1.0	1.0
5	ug/L	Cadmium (Cd)	01027	<1.0	1.0
50	ug/L	Chromium (Total Cr)	01034	<10.0	10.0
1000	ug/L	Copper (Cu)	01042	<50.	50.
300	ug/L	Iron (Fe)	01045	1200	100.
	ug/L	Lead (Pb)	01051	<5.0	5.0
50	ug/L	Manganese (Mn)	01055	260	20.

MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
2	ug/L	Mercury (Hg)	71900	<1.0	1.0
100	ug/L	Nickel	01067	<10.0	10.0
50	ug/L	Selenium (Se)	01147	<5.0	5.0
100	ug/L	Silver (Ag)	01077	<10.0	10.0
2	ug/L	Thallium	01059	<1.0	1.0
5000	ug/L	Zinc (Zn)	01092	<50.	50.
		Langelier Index at 25 C	71813	0.40	
		Aggressiveness Index	82383	12.	
	ug/L	Boron	01020	380	100
10000	ug/L	Nitrate + Nitrite as N	A-029	910	400
1000	ug/L	Nitrite as N (Nitrogen)	00620	<400	400
	ug/L	Carbon Dioxide	77000	2600	

## GENERAL MINERAL &amp; PHYSICAL &amp; INORGANIC ANALYSIS (9/99)

Date of Report: 10/08/08

Sample ID No. 2808190179-251171 EDT

Laboratory

Signature Lab

Name: MWH Laboratories

Director:

Name of Sampler:

Employed By:

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 08/18/08 0823

Received @ Lab: 08/19/08

Completed: 09/11/08

System Name:

System Number:

COC ID: R-006

Name or Number of Sample Source:

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\* User ID:

Station Number: xxxxxxxx-xxx

\* Date/Time of Sample: |08|08|18|0823|

Laboratory Code: 9590

\* YY MM DD TTTT

YY MM DD

\* Submitted by: Erich Delmas

Date Analysis completed: |08|09|11|

Phone #: (209) 831-4488

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Page 1

MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
	mg/L	Total Hardness (as CaCO3)	00900	181.	
	mg/L	Calcium (Ca)	00916	38	
	mg/L	Magnesium (Mg)	00927	21	
	mg/L	Sodium (Na)	00929	78	
	mg/L	Potassium (K)	00937	3.5	
	meq/L	Total Cations	ENT01	7.1	
	mg/L	Total Alkalinity (as CaCO3)	00410	121	
	mg/L	Hydroxide (OH)	71830	<2.000	
	mg/L	Carbonate (CO3)	00445	<2.000	
	mg/L	Bicarbonate (HCO3)	00440	147.	
	mg/L	Sulfate (SO4)	00945	83	0.5
	mg/L	Chloride (Cl)	00940	110	
45	mg/L	Nitrate (NO3)	71850	4.9	2.0
2	mg/L	Fluoride (F) (Natural - Source)	00951	0.10	.1
	meq/L	Total Anions	ENT02	7.3	
6.5-8.5	Units	pH (laboratory)	00403	8.0	
	uhmo/cm	Specific Conductance (E.C.)	00095	755	
	mg/L	Total Filterable Residue	70300	444	
0.5	mg/L	MBAS	38260	<0.050	
1000	ug/L	Aluminum (Al)	01105	210	50.0
6.	ug/L	Antimony	01097	<6.	6.
10	ug/L	Arsenic (As)	01002	3.3	2.0
1000	ug/L	Barium (Ba)	01007	<100.	100.
4	ug/L	Beryllium	01012	<1.0	1.0
5	ug/L	Cadmium (Cd)	01027	<1.0	1.0
50	ug/L	Chromium (Total Cr)	01034	<10.0	10.0
1000	ug/L	Copper (Cu)	01042	<50.	50.
300	ug/L	Iron (Fe)	01045	890	100.
	ug/L	Lead (Pb)	01051	<5.0	5.0
50	ug/L	Manganese (Mn)	01055	150	20.

MCL	REPORT UNITS	CHEMICAL	STORET CODE	ANALYSES RESULTS	DLR
2 ug/L		Mercury (Hg)	71900	<1.0	1.0
100 ug/L		Nickel	01067	<10.0	10.0
50 ug/L		Selenium (Se)	01147	<5.0	5.0
100 ug/L		Silver (Ag)	01077	<10.0	10.0
2 ug/L		Thallium	01059	<1.0	1.0
5000 ug/L		Zinc (Zn)	01092	<50.	50.
		Langelier Index at 25 C	71813	0.30	
		Aggressiveness Index	82383	12.	
	ug/L	Boron	01020	340	100
10000	ug/L	Nitrate + Nitrite as N	A-029	1100	400
1000	ug/L	Nitrite as N (Nitrogen)	00620	<400	400
	ug/L	Carbon Dioxide	77000	2400	