



STL Denver
4955 Yarrow Street
Arvada, CO 80002-4517

Tel: 303 736 0100
Fax: 303 431 7171
www.stl-inc.com

ANALYTICAL REPORT

Project: CW Well

RECEIVED JUN 18 2002
....

Lot #: D2E290137

Sheila Parker

Waste Control Specialists, LLC
1710 W. Broadway
Andrews, TX 79714

STL DENVER

A handwritten signature in black ink, appearing to read "B. Stringer".

Brian Stringer
Project Manager

June 10, 2002

LES Exhibit 11

Table Of Contents

Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.

37

- **Table of Contents**
- **Project Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **QC Evaluation and/or Data Reports**
- **Chain-of-Custody**

Project Narrative

Lot D2E290137

Introduction

The following report contains the analytical results for one sample received at STL Denver on May 29, 2002. All samples were received according to documented sample acceptance procedures.

Dilution factors and footnotes have been provided on each datasheet to assist in the interpretation of the results.

STL Laboratories utilize USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. The test results shown in this report meet all requirements of NELAC and any exceptions are noted below. This report shall not be reproduced, except in full, without written permission of STL Denver.

Sample Arrival and Receipt

The sample bottles were received in the laboratory at 0.5°C on May 29, 2002. All sample bottles were received in acceptable condition.

Total Metals, MCAWW 200.7 and 245.1

No anomalies were observed.

General Chemistry, Various Methods

Chloride was positive in the Method Blank at a concentration below the reporting limit in prep batch 2150449. However, chloride was greater than 10 times the blank result in the associated sample. No corrective action is required for results below the reporting limits in the method blanks.

The sample was diluted for chloride and sulfate due to high levels of the target analytes. The reporting limits are elevated according to the dilutions.

LES-04380

Project Narrative

Lot D2E290137, continued

The following recoveries for the matrix spike performed on sample D2E290137-001 were outside the established control limits: the MS for bromide batch 2150452, the MS/MSD for chloride batch 2150449, the MS for fluoride batch 2150451, and TOC batch 2158149. Since the LCS and Method Blank samples were in control, these anomalies are attributed to matrix interference and no further corrective action was taken. Additionally, the recoveries for chloride are estimated because the MS/MSD spiked amounts were above the linear calibration range.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D2E290137

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
CW WELL 05/28/02 11:45 001				
Barium	17.2	10.0	ug/L	MCAWW 200.7
Copper	2.4 B	10.0	ug/L	MCAWW 200.7
pH	8.3	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	1370	10.0	mg/L	MCAWW 160.1
Chloride	223 J,Q	15.0	mg/L	MCAWW 300.0A
Sulfate	438 Q	100	mg/L	MCAWW 300.0A
Fluoride	2.3	1.0	mg/L	MCAWW 300.0A
Bromide	0.81	0.20	mg/L	MCAWW 300.0A
Total Organic Halogens	6.1 B	10.0	ug/L	SW846 9020B
Total Alkalinity	336	5.0	mg/L	MCAWW 310.1
Total Cyanide	0.0040 B	0.010	mg/L	MCAWW 335.3

METHODS SUMMARY

D2E290137

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
pH (Electrometric)	MCAWW 150.1	MCAWW 150.1
Alkalinity	MCAWW 310.1	MCAWW 310.1
Bromide	MCAWW 300.0A	MCAWW 300.0A
Chloride	MCAWW 300.0A	MCAWW 300.0A
Fecal Coliform	SM18 9221E	SM18 9221-E
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Fluoride	MCAWW 300.0A	MCAWW 300.0A
Inductively Coupled Plasma (ICP) Metals	MCAWW 200.7	MCAWW 200.7
Mercury (Manual Cold Vapor Technique)	MCAWW 245.1	MCAWW 245.1
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Phosphate as P, Ortho	MCAWW 300.0A	MCAWW 300.0A
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Total Cyanide	MCAWW 335.3	MCAWW 335.3
Total Organic Carbon	MCAWW 415.1	MCAWW 415.1
Total Organic Halogens	SW846 9020B	SW846 9020B
Trace Inductively Coupled Plasma (ICP) Metals	MCAWW 200.7	MCAWW 200.7

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SM18 "Standard Methods for the Examination of Water and
Wastewater", 18th Edition, 1992.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D2E290137

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 150.1	Duane Allee	001470
MCAWW 160.1		
MCAWW 200.7	Lynn-Anne Trudell	006645
MCAWW 245.1	Thomas Lill	006929
MCAWW 300.0A	Lowell Coon	016091
MCAWW 300.0A	Nathan Lovstad	000090
MCAWW 310.1	Nathan Lovstad	000090
MCAWW 335.3	Ewa Kudla	001167
MCAWW 415.1	Dave Elkin	000901
SM18 9221E	Maria Fayard	002596
SW846 9020B	Duane Allee	001470

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020. March 1983 and subsequent revisions.

SM18 "Standard Methods for the Examination of Water and
Wastewater", 18th Edition, 1992.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D2E290137

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT</u>	<u>SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
E15C2	001	CW	WELL	05/26/02	11:45

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

WASTE CONTROL SPECIALISTS LLC

Client Sample ID: CW WELL

TOTAL Metals

Lot-Sample #...: D2E290137-001

Matrix.....: WATER

Date Sampled...: 05/28/02 11:45 Date Received...: 05/29/02

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2149254						
Silver	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21AW
		Dilution Factor: 1		Analysis Time...: 15:31		
Barium	17.2	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21AT
		Dilution Factor: 1		Analysis Time...: 15:31		
Cobalt	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21AX
		Dilution Factor: 1		Analysis Time...: 15:31		
Chromium	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21AU
		Dilution Factor: 1		Analysis Time...: 15:31		
Copper	2.4 B	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21AO
		Dilution Factor: 1		Analysis Time...: 15:31		
Nickel	ND	40.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21AV
		Dilution Factor: 1		Analysis Time...: 15:31		
Vanadium	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21AR
		Dilution Factor: 1		Analysis Time...: 15:31		
Arsenic	ND	15.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21A1
		Dilution Factor: 1		Analysis Time...: 15:31		
Cadmium	ND	5.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21A2
		Dilution Factor: 1		Analysis Time...: 15:31		
Lead	ND	3.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21A3
		Dilution Factor: 1		Analysis Time...: 15:31		
Selenium	ND	5.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15C21A4
		Dilution Factor: 1		Analysis Time...: 15:31		
Prep Batch #...: 2149471						
Mercury	ND	0.20	ug/L	MCAWW 245.1	05/31/02	E15C21AQ
		Dilution Factor: 1		Analysis Time...: 19:55		

NOTE(S):

B Estimated result. Result is less than RL.

WASTE CONTROL SPECIALISTS LLC

Client Sample ID: CW WELL

General Chemistry

Lot-Sample #....: D2E290137-001 Work Order #....: E15C2 Matrix.....: WATER
 Date Sampled....: 05/28/02 11:45 Date Received...: 05/29/02

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	8.3	0.10	No Units	MCAWW 150.1	05/29/02	2149492
				Dilution Factor: 1	Analysis Time...: 12:00	
Bromide	0.81	0.20	mg/L	MCAWW 300.0A	05/29/02	2150452
				Dilution Factor: 1	Analysis Time...: 14:30	
Chloride	223 J,Q	15.0	mg/L	MCAWW 300.0A	05/29/02	2150449
				Dilution Factor: 5	Analysis Time...: 13:43	
Fecal Coliform	ND	2.0	MPN/100	SM18 9221E	05/29/02	2151254
				Dilution Factor: 1	Analysis Time...: 11:45	
Fluoride	2.3	1.0	mg/L	MCAWW 300.0A	05/29/02	2150451
				Dilution Factor: 1	Analysis Time...: 12:56	
Nitrate	ND	0.50	mg/L	MCAWW 300.0A	05/29/02	2150453
				Dilution Factor: 1	Analysis Time...: 12:56	
Nitrite	ND	0.50	mg/L	MCAWW 300.0A	05/29/02	2150454
				Dilution Factor: 1	Analysis Time...: 12:56	
Phosphate as P, Ortho	ND	0.50	mg/L	MCAWW 300.0A	05/29/02	2150455
				Dilution Factor: 1	Analysis Time...: 12:56	
Sulfate	438 Q	100	mg/L	MCAWW 300.0A	05/29/02	2150450
				Dilution Factor: 20	Analysis Time...: 13:59	
Total Alkalinity	336	5.0	mg/L	MCAWW 310.1	05/30/02	2151220
				Dilution Factor: 1	Analysis Time...: 10:00	
Total Cyanide	0.0040 B	0.010	mg/L	MCAWW 335.3	06/03-06/04/02	2155392
				Dilution Factor: 1	Analysis Time...: 14:00	
Total Dissolved Solids	1370	10.0	mg/L	MCAWW 160.1	05/31/02	2151413
				Dilution Factor: 1	Analysis Time...: 17:00	
Total Organic Carbon	ND	1.0	mg/L	MCAWW 415.1	06/06/02	2158149
				Dilution Factor: 1	Analysis Time...: 11:00	

(Continued on next page)

WASTE CONTROL SPECIALISTS LLC

Client Sample ID: CW WELL

General Chemistry

Lot-Sample #...: D2E290137-001

Work Order #...: E15C2

Matrix.....: WATER

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Organic Halogens	6.1 B	10.0	ug/L	SW846 9020B	05/28-05/29/02	2148513

Dilution Factor: 1

Analysis Time...: 12:00

NOTE(S):

RL Reporting Limit

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

B Estimated result. Result is less than RL.

QC DATA ASSOCIATION SUMMARY

D2E290137

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 150.1		2149492	2149264
	WATER	MCAWW 160.1		2151413	2155247
	WATER	MCAWW 200.7		2149254	2149110
	WATER	MCAWW 245.1		2149471	2149255
	WATER	MCAWW 300.0A		2150449	2155125
	WATER	MCAWW 300.0A		2150450	2155133
	WATER	MCAWW 300.0A		2150451	2154138
	WATER	MCAWW 300.0A		2150453	2155130
	WATER	MCAWW 415.1		2158149	2158039
	WATER	MCAWW 300.0A		2150455	2155132
	WATER	MCAWW 300.0A		2150452	2155129
	WATER	MCAWW 300.0A		2150454	2155127
	WATER	SW846 9020B		2148513	2148239
	WATER	MCAWW 310.1		2151220	2151086
	WATER	MCAWW 335.3		2155392	2155237
	WATER	SM18 9221E		2151254	

METHOD BLANK REPORT

TOTAL Metals

Client Lot #....: D2E290137

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MB Lot-Sample #: D2E290000-254 Prep Batch #....: 2149254						
Barium	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AC
		Dilution Factor: 1				
		Analysis Time...: 15:20				
Chromium	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AD
		Dilution Factor: 1				
		Analysis Time...: 15:20				
Cobalt	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AG
		Dilution Factor: 1				
		Analysis Time...: 15:20				
Copper	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AH
		Dilution Factor: 1				
		Analysis Time...: 15:20				
Nickel	ND	40.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AE
		Dilution Factor: 1				
		Analysis Time...: 15:20				
Silver	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AF
		Dilution Factor: 1				
		Analysis Time...: 15:20				
Vanadium	ND	10.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AA
		Dilution Factor: 1				
		Analysis Time...: 15:20				
Arsenic	ND	15.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AJ
		Dilution Factor: 1				
		Analysis Time...: 15:20				
Cadmium	ND	5.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AK
		Dilution Factor: 1				
		Analysis Time...: 15:20				
Lead	ND	3.0	ug/L	MCAWW 200.7	05/31-06/03/02	E15GL1AL
		Dilution Factor: 1				
		Analysis Time...: 09:06				
Selenium	ND	5.0	ug/L	MCAWW 200.7	05/31-06/01/02	E15GL1AM
		Dilution Factor: 1				
		Analysis Time...: 15:20				

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #....: D2E290137

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MB Lot-Sample #: D2E290000-471						
Prep Batch #....: 2149471						
Mercury	ND	0.20	ug/L	MCAWW 245.1	05/31/02	E16FW1AA
		Dilution Factor: 1				
		Analysis Time...: 19:52				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D2E290137

Matrix.....: WATER

<u>PAPAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#: D2E290000-254 Prep Batch #...: 2149254					
Vanadium	102	(88 - 114)	MCAWW 200.7	05/31-06/01/02	E15GL1AN
		Dilution Factor: 1			
		Analysis Time...: 15:26			
Barium	105	(90 - 114)	MCAWW 200.7	05/31-06/01/02	E15GL1AP
		Dilution Factor: 1			
		Analysis Time...: 15:26			
Chromium	101	(89 - 113)	MCAWW 200.7	05/31-06/01/02	E15GL1AQ
		Dilution Factor: 1			
		Analysis Time...: 15:26			
Nickel	100	(90 - 111)	MCAWW 200.7	05/31-06/01/02	E15GL1AR
		Dilution Factor: 1			
		Analysis Time...: 15:26			
Silver	102	(89 - 112)	MCAWW 200.7	05/31-06/01/02	E15GL1AT
		Dilution Factor: 1			
		Analysis Time...: 15:26			
Cobalt	97	(88 - 108)	MCAWW 200.7	05/31-06/01/02	E15GL1AU
		Dilution Factor: 1			
		Analysis Time...: 15:26			
Copper	99	(90 - 110)	MCAWW 200.7	05/31-06/01/02	E15GL1AV
		Dilution Factor: 1			
		Analysis Time...: 15:26			
Arsenic	98	(89 - 110)	MCAWW 200.7	05/31-06/01/02	E15GL1AW
		Dilution Factor: 1			
		Analysis Time...: 15:26			
Cadmium	99	(89 - 111)	MCAWW 200.7	05/31-06/01/02	E15GL1AX
		Dilution Factor: 1			
		Analysis Time...: 15:26			
Lead	101	(88 - 110)	MCAWW 200.7	05/31-06/01/02	E15GL1AO
		Dilution Factor: 1			
		Analysis Time...: 15:26			

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D2E290137

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Selenium	97	(87 - 109)	MCAWW 200.7	05/31-06/01/02	E15GL1A1
Dilution Factor: 1					
Analysis Time...: 13:26					

LCS Lot-Sample#: D2E290000-471 Prep Batch #...: 2149471

Mercury	100	(88 - 114)	MCAWW 245.1	05/31/02	E16FW1AC
Dilution Factor: 1					
Analysis Time...: 19:53					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client lot #....: D2E290137

Matrix.....: WATER

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#: D2E290000-254 Prep Batch #....: 2149254							
Vanadium	500	511	ug/L	102	MCAWW 200.7	05/31-06/01/02	E15GL1AN
			Dilution Factor: 1				
			Analysis Time...: 15:26				
Barium	2000	2100	ug/L	105	MCAWW 200.7	05/31-06/01/02	E15GL1AP
			Dilution Factor: 1				
			Analysis Time...: 15:26				
Chromium	200	202	ug/L	101	MCAWW 200.7	05/31-06/01/02	E15GL1AQ
			Dilution Factor: 1				
			Analysis Time...: 15:26				
Nickel	500	498	ug/L	100	MCAWW 200.7	05/31-06/01/02	E15GL1AR
			Dilution Factor: 1				
			Analysis Time...: 15:26				
Silver	50.0	51.2	ug/L	102	MCAWW 200.7	05/31-06/01/02	E15GL1AT
			Dilution Factor: 1				
			Analysis Time...: 15:26				
Cobalt	500	485	ug/L	97	MCAWW 200.7	05/31-06/01/02	E15GL1AU
			Dilution Factor: 1				
			Analysis Time...: 15:26				
Copper	250	247	ug/L	99	MCAWW 200.7	05/31-06/01/02	E15GL1AV
			Dilution Factor: 1				
			Analysis Time...: 15:26				
Arsenic	2000	1950	ug/L	98	MCAWW 200.7	05/31-06/01/02	E15GL1AW
			Dilution Factor: 1				
			Analysis Time...: 15:26				
Cadmium	50.0	49.3	ug/L	99	MCAWW 200.7	05/31-06/01/02	E15GL1AX
			Dilution Factor: 1				
			Analysis Time...: 15:26				
Lead	500	503	ug/L	101	MCAWW 200.7	05/31-06/01/02	E15GL1AO
			Dilution Factor: 1				
			Analysis Time...: 15:26				

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D2E290137

Matrix.....: WATER

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Selenium	2000	1940	ug/L	97	MCAWW 200.7	05/31-06/01/02	E15GL1A1
			Dilution Factor: 1				
			Analysis Time...: 15:26				

LCS Lot-Sample#: D2E290000-471 Prep Batch #...: 2149471

Mercury	5.00	5.01	ug/L	100	MCAWW 245.1	05/31/02	E16FW1AC
			Dilution Factor: 1				
			Analysis Time...: 19:53				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D2E290137

Matrix.....: WATER

Date Sampled...: 05/28/02 11:45 Date Received...: 05/29/02

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: D2E290137-001 Prep Batch #...: 2149254							
Barium	103	(90 - 114)			MCAWW 200.7	05/31-06/01/02	E15C21A7
	102	(90 - 114)	1.7	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21A8
Dilution Factor: 1 Analysis Time...: 15:43							
Chromium	99	(89 - 113)			MCAWW 200.7	05/31-06/01/02	E15C21A9
	99	(89 - 113)	0.59	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21CA
Dilution Factor: 1 Analysis Time...: 15:43							
Cobalt	99	(88 - 108)			MCAWW 200.7	05/31-06/01/02	E15C21CG
	98	(88 - 108)	0.64	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21CH
Dilution Factor: 1 Analysis Time...: 15:43							
Copper	102	(90 - 110)			MCAWW 200.7	05/31-06/01/02	E15C21CJ
	101	(90 - 110)	1.6	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21CK
Dilution Factor: 1 Analysis Time...: 15:43							
Nickel	100	(90 - 111)			MCAWW 200.7	05/31-06/01/02	E15C21CC
	100	(90 - 111)	0.32	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21CD
Dilution Factor: 1 Analysis Time...: 15:43							
Silver	106	(89 - 112)			MCAWW 200.7	05/31-06/01/02	E15C21CE
	104	(89 - 112)	1.2	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21CF
Dilution Factor: 1 Analysis Time...: 15:43							
Vanadium	102	(88 - 114)			MCAWW 200.7	05/31-06/01/02	E15C21A5
	101	(88 - 114)	0.92	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21A6
Dilution Factor: 1 Analysis Time...: 15:43							
Arsenic	100	(89 - 110)			MCAWW 200.7	05/31-06/01/02	E15C21CL
	100	(89 - 110)	0.30	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21CM
Dilution Factor: 1 Analysis Time...: 15:43							

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #....: D2E290137

Matrix.....: WATER

Date Sampled....: 05/28/02 11:45 Date Received...: 05/29/02

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Cadmium	98	(89 - 111)			MCAWW 200.7	05/31-06/01/02	E15C21CN
	98	(89 - 111)	0.06	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21CP
			Dilution Factor: 1				
			Analysis Time...: 15:43				
Lead	103	(88 - 110)			MCAWW 200.7	05/31-06/01/02	E15C21CQ
	103	(88 - 110)	0.46	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21CR
			Dilution Factor: 1				
			Analysis Time...: 15:43				
Selenium	101	(87 - 109)			MCAWW 200.7	05/31-06/01/02	E15C21CT
	99	(87 - 109)	1.2	(0-20)	MCAWW 200.7	05/31-06/01/02	E15C21CU
			Dilution Factor: 1				
			Analysis Time...: 15:43				

MS Lot-Sample #: D2E290137-001 Prep Batch #....: 2149471

Mercury	95	(88 - 114)			MCAWW 245.1	05/31/02	E15C21CV
	96	(88 - 114)	1.5	(0-10)	MCAWW 245.1	05/31/02	E15C21CW
			Dilution Factor: 1				
			Analysis Time...: 19:57				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D2E290137

Matrix.....: WATER

Date Sampled...: 05/28/02 11:45 Date Received...: 05/29/02

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	---------------	-----------	---------------	-------	---------------	-----	--------	----------------------------	--------------

MS Lot-Sample #: D2E290137-001 Prep Batch #...: 2149254

Barium

17.2	2000	2080	ug/L	103			MCAWW 200.7	05/31-06/01/02	E15C21A7
17.2	2000	2050	ug/L	102	1.7		MCAWW 200.7	05/31-06/01/02	E15C21A8

Dilution Factor: 1
Analysis Time...: 15:43

Chromium

ND	200	199	ug/L	99			MCAWW 200.7-	05/31-06/01/02	E15C21A9
ND	200	198	ug/L	99	0.59		MCAWW 200.7	05/31-06/01/02	E15C21CA

Dilution Factor: 1
Analysis Time...: 15:43

Cobalt

ND	500	495	ug/L	99			MCAWW 200.7	05/31-06/01/02	E15C21CG
ND	500	492	ug/L	98	0.64		MCAWW 200.7	05/31-06/01/02	E15C21CH

Dilution Factor: 1
Analysis Time...: 15:43

Copper

2.4	250	256	ug/L	102			MCAWW 200.7	05/31-06/01/02	E15C21CJ
2.4	250	254	ug/L	101	1.6		MCAWW 200.7	05/31-06/01/02	E15C21CK

Dilution Factor: 1
Analysis Time...: 15:43

Nickel

ND	500	499	ug/L	100			MCAWW 200.7	05/31-06/01/02	E15C21CC
ND	500	498	ug/L	100	0.32		MCAWW 200.7	05/31-06/01/02	E15C21CD

Dilution Factor: 1
Analysis Time...: 15:43

Silver

ND	50.0	52.9	ug/L	106			MCAWW 200.7	05/31-06/01/02	E15C21CE
ND	50.0	52.2	ug/L	104	1.2		MCAWW 200.7	05/31-06/01/02	E15C21CF

Dilution Factor: 1
Analysis Time...: 15:43

Vanadium

ND	500	509	ug/L	102			MCAWW 200.7	05/31-06/01/02	E15C21A5
ND	500	504	ug/L	101	0.92		MCAWW 200.7	05/31-06/01/02	E15C21A6

Dilution Factor: 1
Analysis Time...: 15:43

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #....: D2E290137

Matrix.....: WATER

Date Sampled...: 05/28/02 11:45 Date Received...: 05/29/02

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Arsenic									
ND	2000	2000	2000	ug/L	100		MCAWW 200.7	05/31-06/01/02	E15C21CL
ND	2000	1990	1990	ug/L	100	0.30	MCAWW 200.7	05/31-06/01/02	E15C21CM
Dilution Factor: 1									
Analysis Time...: 15:43									
Cadmium									
ND	50.0	49.0	49.0	ug/L	98		MCAWW 200.7	05/31-06/01/02	E15C21CN
ND	50.0	49.0	49.0	ug/L	98	0.06	MCAWW 200.7	05/31-06/01/02	E15C21CP
Dilution Factor: 1									
Analysis Time...: 15:43									
Lead									
ND	500	515	515	ug/L	103		MCAWW 200.7	05/31-06/01/02	E15C21CQ
ND	500	513	513	ug/L	103	0.46	MCAWW 200.7	05/31-06/01/02	E15C21CR
Dilution Factor: 1									
Analysis Time...: 15:43									
Selenium									
ND	2000	2010	2010	ug/L	101		MCAWW 200.7	05/31-06/01/02	E15C21CT
ND	2000	1990	1990	ug/L	99	1.2	MCAWW 200.7	05/31-06/01/02	E15C21CU
Dilution Factor: 1									
Analysis Time...: 15:43									

MS Lot-Sample #: D2E290137-001 Prep Batch #....: 2149471

Mercury

ND	5.00	4.75	4.75	ug/L	95		MCAWW 245.1	05/31/02	E15C21CV
ND	5.00	4.82	4.82	ug/L	96	1.5	MCAWW 245.1	05/31/02	E15C21CW
Dilution Factor: 1									
Analysis Time...: 19:57									

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: D2E290137

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bromide	ND	Work Order #: E2EP61AA 0.20	mg/L	MB Lot-Sample #: D2E300000-452 MCAWW 300.0A	05/29/02	2150452
		Dilution Factor: 1 Analysis Time...: 12:41				
Chloride	0.87 B	Work Order #: E2EPX1AA 3.0	mg/L	MB Lot-Sample #: D2E300000-449 MCAWW 300.0A	05/29/02	2150449
		Dilution Factor: 1 Analysis Time...: 12:41				
Fecal Coliform	ND	Work Order #: E188T1AA 2.0	MPN/100	MB Lot-Sample #: D2E310000-254 SM18 9221E	05/29/02	2151254
		Dilution Factor: 1 Analysis Time...: 11:45				
Fluoride	ND	Work Order #: E2C6V1AA 1.0	mg/L	MB Lot-Sample #: D2E300000-451 MCAWW 300.0A	05/29/02	2150451
		Dilution Factor: 1 Analysis Time...: 12:41				
Nitrate	ND	Work Order #: E2EP81AA 0.50	mg/L	MB Lot-Sample #: D2E300000-453 MCAWW 300.0A	05/29/02	2150453
		Dilution Factor: 1 Analysis Time...: 12:41				
Nitrite	ND	Work Order #: E2EP41AA 0.50	mg/L	MB Lot-Sample #: D2E300000-454 MCAWW 300.0A	05/29/02	2150454
		Dilution Factor: 1 Analysis Time...: 12:41				
Phosphate as P, Ortho	ND	Work Order #: E2EQC1AA 0.50	mg/L	MB Lot-Sample #: D2E300000-455 MCAWW 300.0A	05/29/02	2150455
		Dilution Factor: 1 Analysis Time...: 12:41				
Sulfate	ND	Work Order #: E2EQE1AA 5.0	mg/L	MB Lot-Sample #: D2E300000-450 MCAWW 300.0A	05/29/02	2150450
		Dilution Factor: 1 Analysis Time...: 12:41				
Total Alkalinity	ND	Work Order #: E185G1AE 5.0	mg/L	MB Lot-Sample #: D2E310000-220 MCAWW 310.1	05/30/02	2151220
		Dilution Factor: 1 Analysis Time...: 10:00				

(Continued on next page)

METHOD BLANK REPORT

General Chemistry

Client Lot #...: D2E290137

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Cyanide	ND	Work Order #: E2FD41AA 0.010	mg/L	MB Lot-Sample #: D2F040000-392 MCAWW 335.3	06/03-06/04/02	2155392
		Dilution Factor: 1 Analysis Time...: 16:00				
Total Dissolved Solids	ND	Work Order #: E2FGJ1AA 10.0	mg/L	MB Lot-Sample #: D2E310000-413 MCAWW 160.1	05/31/02	2151413
		Dilution Factor: 1 Analysis Time...: 17:00				
Total Organic Halogens	ND	Work Order #: E14NM1AA 10.0	ug/L	MB Lot-Sample #: D2E280000-513 SW846 9020B	05/28/02	2148513
		Dilution Factor: 1 Analysis Time...: 12:00				
Total Organic Carbon	ND	Work Order #: E2L4N1AA 1.0	mg/L	MB Lot-Sample #: D2F070000-149 MCAWW 415.1	06/06/02	2158149
		Dilution Factor: 1 Analysis Time...: 08:00				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: D2E290137

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH		WO#:E16G11AA-LCS/E16G11AC-LCSD	LCS	Lot-Sample#:	D2E290000-492		
	100	(97 - 102)			MCAWW 150.1	05/29/02	2149492
	100	(97 - 102)	0.14	(0-5.0)	MCAWW 150.1	05/29/02	2149492
		Dilution Factor: 1					
Bromide		WO#:E2EP61AC-LCS/E2EP61AD-LCSD	LCS	Lot-Sample#:	D2E300000-452		
	97	(90 - 110)			MCAWW 300.0A	05/29/02	2150452
	99	(90 - 110)	1.4	(0-10)	MCAWW 300.0A	05/29/02	2150452
		Dilution Factor: 1					
Chloride		WO#:E2EPX1AC-LCS/E2EPX1AD-LCSD	LCS	Lot-Sample#:	D2E300000-449		
	96	(90 - 110)			MCAWW 300.0A	05/29/02	2150449
	95	(90 - 110)	0.92	(0-10)	MCAWW 300.0A	05/29/02	2150449
		Dilution Factor: 1					
Fluoride		WO#:E2C6V1AC-LCS/E2C6V1AD-LCSD	LCS	Lot-Sample#:	D2E300000-451		
	96	(90 - 110)			MCAWW 300.0A	05/29/02	2150451
	96	(90 - 110)	0.0	(0-10)	MCAWW 300.0A	05/29/02	2150451
		Dilution Factor: 1					
Nitrate		WO#:E2EP81AC-LCS/E2EP81AD-LCSD	LCS	Lot-Sample#:	D2E300000-453		
	98	(90 - 110)			MCAWW 300.0A	05/29/02	2150453
	98	(90 - 110)	0.20	(0-10)	MCAWW 300.0A	05/29/02	2150453
		Dilution Factor: 1					
Nitrite		WO#:E2EP41AC-LCS/E2EP41AD-LCSD	LCS	Lot-Sample#:	D2E300000-454		
	97	(90 - 110)			MCAWW 300.0A	05/29/02	2150454
	99	(90 - 110)	1.2	(0-10)	MCAWW 300.0A	05/29/02	2150454
		Dilution Factor: 1					
Phosphate as P, Ortho		WO#:E2EQC1AC-LCS/E2EQC1AD-LCSD	LCS	Lot-Sample#:	D2E300000-455		
	97	(90 - 110)			MCAWW 300.0A	05/29/02	2150455
	96	(90 - 110)	1.4	(0-10)	MCAWW 300.0A	05/29/02	2150455
		Dilution Factor: 1					
Sulfate		WO#:E2EQE1AC-LCS/E2EQE1AD-LCSD	LCS	Lot-Sample#:	D2E300000-450		
	98	(90 - 110)			MCAWW 300.0A	05/29/02	2150450
	98	(90 - 110)	0.20	(0-10)	MCAWW 300.0A	05/29/02	2150450
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #....: D2E290137

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Total Dissolved Solids		WO#:E2FGJ1AC-LCS/E2FGJ1AD-LCSD		LCS Lot-Sample#: D2E310000-413			
	97	(86 - 106)			MCAWW 160.1	05/31/02	2151413
	94	(86 - 106)	3.4	(0-20)	MCAWW 160.1	05/31/02	2151413
		Dilution Factor: 1					
Total Organic Carbon		WO#:E2L4N1AC-LCS/E2L4N1AD-LCSD		LCS Lot-Sample#: D2F070000-149			
	98	(90 - 110)			MCAWW 415.1	06/06/02	2158149
	100	(90 - 110)	1.9	(0-10)	MCAWW 415.1	06/06/02	2158149
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: D2E290137

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH								
	7.00	7.00	No Units	100		MCAWW 150.1	05/29/02	2149492
	7.00	6.99	No Units	100	0.14	MCAWW 150.1	05/29/02	2149492
Dilution Factor: 1								
WO#:E16G11AA-LCS/E16G11AC-LCSD LCS Lot-Sample#: D2E290000-492								
Bromide								
	5.00	4.86	mg/L	97		MCAWW 300.0A	05/29/02	2150452
	5.00	4.93	mg/L	99	1.4	MCAWW 300.0A	05/29/02	2150452
Dilution Factor: 1								
WO#:E2EP61AC-LCS/E2EP61AD-LCSD LCS Lot-Sample#: D2E300000-452								
Chloride								
	25.0	24.0	mg/L	96		MCAWW 300.0A	05/29/02	2150449
	25.0	23.8	mg/L	95	0.92	MCAWW 300.0A	05/29/02	2150449
Dilution Factor: 1								
WO#:E2EPX1AC-LCS/E2EPX1AD-LCSD LCS Lot-Sample#: D2E300000-449								
Fluoride								
	5.00	4.82	mg/L	96		MCAWW 300.0A	05/29/02	2150451
	5.00	4.82	mg/L	96	0.0	MCAWW 300.0A	05/29/02	2150451
Dilution Factor: 1								
WO#:E2C6V1AC-LCS/E2C6V1AD-LCSD LCS Lot-Sample#: D2E300000-451								
Nitrate								
	5.00	4.91	mg/L	98		MCAWW 300.0A	05/29/02	2150453
	5.00	4.92	mg/L	98	0.20	MCAWW 300.0A	05/29/02	2150453
Dilution Factor: 1								
WO#:E2EP81AC-LCS/E2EP81AD-LCSD LCS Lot-Sample#: D2E300000-453								
Nitrite								
	5.00	4.87	mg/L	97		MCAWW 300.0A	05/29/02	2150454
	5.00	4.93	mg/L	99	1.2	MCAWW 300.0A	05/29/02	2150454
Dilution Factor: 1								
WO#:E2EP41AC-LCS/E2EP41AD-LCSD LCS Lot-Sample#: D2E300000-454								
Phosphate as P, Ortho								
	5.00	4.85	mg/L	97		MCAWW 300.0A	05/29/02	2150455
	5.00	4.78	mg/L	96	1.4	MCAWW 300.0A	05/29/02	2150455
Dilution Factor: 1								
WO#:E2EQC1AC-LCS/E2EQC1AD-LCSD LCS Lot-Sample#: D2E300000-455								
Sulfate								
	25.0	24.4	mg/L	98		MCAWW 300.0A	05/29/02	2150450
	25.0	24.4	mg/L	98	0.20	MCAWW 300.0A	05/29/02	2150450
Dilution Factor: 1								
WO#:E2EQE1AC-LCS/E2EQE1AD-LCSD LCS Lot-Sample#: D2E300000-450								

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: D2E290137

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids				WO#:E2FGJ1AC-LCS/E2FGJ1AD-LCSD LCS Lot-Sample#: D2E310000-413				
	500	484	mg/L	97		MCAWW 160.1	05/31/02	2151413
	500	468	mg/L	94	3.4	MCAWW 160.1	05/31/02	2151413
				Dilution Factor: 1				
Total Organic Carbon				WO#:E2L4N1AC-LCS/E2L4N1AD-LCSD LCS Lot-Sample#: D2F070000-149				
	10.0	9.79	mg/L	98		MCAWW 415.1	06/06/02	2158149
	10.0	9.98	mg/L	100	1.9	MCAWW 415.1	06/06/02	2158149
				Dilution Factor: 1				

NOTE(S):

 Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #....: D2E290137

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Total Alkalinity	101	Work Order #: E185G1AF (95 - 110)	LCS Lot-Sample#: D2E310000-220 MCAWW 310.1	05/30/02	2151220
		Dilution Factor: 1 Analysis Time...: 10:00			
Total Cyanide	94	Work Order #: E2FD41AC (85 - 115)	LCS Lot-Sample#: D2F040000-392 MCAWW 335.3	06/03-06/04/02	2155392
		Dilution Factor: 1 Analysis Time...: 14:00			
Total Organic Halogens	97	Work Order #: E14NM1AC (76 - 109)	LCS Lot-Sample#: D2E280000-513 SW846 90208	05/28/02	2148513
		Dilution Factor: 1 Analysis Time...: 12:00			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: D2E290137

Matrix.....: WATER

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCNT</u> <u>RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Total Alkalinity	265	267	mg/L	101	MCAWW 310.1	05/30/02	2151220
Work Order #: E185G1AF LCS Lot-Sample#: D2E310000-220							
Dilution factor: 1							
Analysis Time...: 10:00							
Total Cyanide	0.200	0.187	mg/L	94	MCAWW 335.3	06/03-06/04/02	2155392
Work Order #: E2FD41AC LCS Lot-Sample#: D2F040000-392							
Dilution factor: 1							
Analysis Time...: 14:00							
Total Organic Halogens	100	96.6	ug/L	97	SW846 9020B	05/28/02	2148513
Work Order #: E14NM1AC LCS Lot-Sample#: D2E280000-513							
Dilution factor: 1							
Analysis Time...: 12:00							

NOTE(S):

 Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: D2E290137

Matrix.....: WATER

Date Sampled...: 05/29/02 09:00 Date Received...: 05/30/02

PARAMETER	PERCENT RECOVERY		RPD		METHOD	PREPARATION-	PREP
	RECOVERY	LIMITS	RPD	LIMITS		ANALYSIS DATE	BATCH #
Bromide	WO#: E15C21C6-MS/E15C21C7-MSD MS Lot-Sample #: D2E290137-001						
	89 N	(90 - 110)			MCAWW 300.0A	05/29/02	2150452
	92	(90 - 110)	2.6	(0-10)	MCAWW 300.0A	05/29/02	2150452
	Dilution Factor: 1						
	Analysis Time...: 13:12						
Chloride	WO#: E15C21C2-MS/E15C21C3-MSD MS Lot-Sample #: D2E290137-001						
	112 N,I	(90 - 110)			MCAWW 300.0A	05/29/02	2150449
	114 N,I	(90 - 110)	0.38	(0-10)	MCAWW 300.0A	05/29/02	2150449
	Dilution Factor: 1						
	Analysis Time...: 18:40						
Fluoride	WO#: E15C21C0-MS/E15C21C1-MSD MS Lot-Sample #: D2E290137-001						
	89 N	(90 - 110)			MCAWW 300.0A	05/29/02	2150451
	91	(90 - 110)	1.0	(0-10)	MCAWW 300.0A	05/29/02	2150451
	Dilution Factor: 1						
	Analysis Time...: 13:12						
Nitrate	WO#: E15C21C8-MS/E15C21C9-MSD MS Lot-Sample #: D2E290137-001						
	95	(90 - 110)			MCAWW 300.0A	05/29/02	2150453
	97	(90 - 110)	1.7	(0-10)	MCAWW 300.0A	05/29/02	2150453
	Dilution Factor: 1						
	Analysis Time...: 13:12						
Nitrite	WO#: E15C21C4-MS/E15C21C5-MSD MS Lot-Sample #: D2E290137-001						
	100	(90 - 110)			MCAWW 300.0A	05/29/02	2150454
	101	(90 - 110)	1.6	(0-10)	MCAWW 300.0A	05/29/02	2150454
	Dilution Factor: 1						
	Analysis Time...: 13:12						
Phosphate as P, Ortho	WO#: E15C21DA-MS/E15C21DC-MSD MS Lot-Sample #: D2E290137-001						
	93	(90 - 110)			MCAWW 300.0A	05/29/02	2150455
	94	(90 - 110)	1.1	(0-10)	MCAWW 300.0A	05/29/02	2150455
	Dilution Factor: 1						
	Analysis Time...: 13:12						
Sulfate	WO#: E15C21DD-MS/E15C21DE-MSD MS Lot-Sample #: D2E290137-001						
	110	(90 - 110)			MCAWW 300.0A	05/29/02	2150450
	109	(90 - 110)	0.71	(0-10)	MCAWW 300.0A	05/29/02	2150450
	Dilution Factor: 1						
	Analysis Time...: 19:11						

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: D2E290137

Matrix.....: WATER

Date Sampled...: 05/29/02 09:00 Date Received...: 05/30/02

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Cyanide			WO#: E18FV1AF-MS/E18FV1AG-MSD		MS Lot-Sample #: D2E300324-005		
	94	(85 - 115)			MCAWW 335.3	06/03-06/04/02	2155392
	96	(85 - 115)	1.7	(0-20)	MCAWW 335.3	06/03-06/04/02	2155392
			Dilution Factor: 1				
			Analysis Time...: 14:00				
Total Organic Halogens			WO#: E1JW51A9-MS/E1JW51CA-MSD		MS Lot-Sample #: D2E160264-003		
	100	(79 - 115)			SW846 9020B	05/28/02	2148513
	101	(79 - 115)	0.77	(0-18)	SW846 9020B	05/28/02	2148513
			Dilution Factor: 1				
			Analysis Time...: 12:00				
Total Organic Carbon			WO#: E15C21DF-MS/E15C21DG-MSD		MS Lot-Sample #: D2E290137-001		
	89 N	(90 - 110)			MCAWW 415.1	06/06/02	2158149
	92	(90 - 110)	3.5	(0-10)	MCAWW 415.1	06/06/02	2158149
			Dilution Factor: 1				
			Analysis Time...: 14:00				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

I Estimated result. Result concentration exceeds the calibration range.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: D2E290137

Matrix.....: WATER

Date Sampled...: 05/29/02 09:00 Date Received...: 05/30/02

PARAMETER	SAMPLE SPIKE		MEASRD		PERCNT		PREPARATION-		PREP
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD	ANALYSIS DATE	
Bromide			WO#: E15C21C6-MS/E15C21C7-MSD MS Lot-Sample #: D2E290137-001						
	0.81	5.00	5.27	N mg/L	89		MCAWW 300.0A	05/29/02	2150452
	0.81	5.00	5.41	mg/L	92	2.6	MCAWW 300.0A	05/29/02	2150452
	Dilution Factor: 1								
	Analysis Time...: 13:12								
Chloride			WO#: E15C21C2-MS/E15C21C3-MSD MS Lot-Sample #: D2E290137-001						
	223	125	363	N,I mg/L	112		MCAWW 300.0A	05/29/02	2150449
	223	125	365	N,I mg/L	114	0.38	MCAWW 300.0A	05/29/02	2150449
	Dilution Factor: 1								
	Analysis Time...: 18:40								
Fluoride			WO#: E15C21C0-MS/E15C21C1-MSD MS Lot-Sample #: D2E290137-001						
	2.3	5.00	6.74	N mg/L	89		MCAWW 300.0A	05/29/02	2150451
	2.3	5.00	6.81	mg/L	91	1.0	MCAWW 300.0A	05/29/02	2150451
	Dilution Factor: 1								
	Analysis Time...: 13:12								
Nitrate			WO#: E15C21C8-MS/E15C21C9-MSD MS Lot-Sample #: D2E290137-001						
	ND	5.00	4.75	mg/L	95		MCAWW 300.0A	05/29/02	2150453
	ND	5.00	4.83	mg/L	97	1.7	MCAWW 300.0A	05/29/02	2150453
	Dilution Factor: 1								
	Analysis Time...: 13:12								
Nitrite			WO#: E15C21C4-MS/E15C21C5-MSD MS Lot-Sample #: D2E290137-001						
	ND	5.00	4.98	mg/L	100		MCAWW 300.0A	05/29/02	2150454
	ND	5.00	5.06	mg/L	101	1.6	MCAWW 300.0A	05/29/02	2150454
	Dilution Factor: 1								
	Analysis Time...: 13:12								
Phosphate as P, Ortho			WO#: E15C21DA-MS/E15C21DC-MSD MS Lot-Sample #: D2E290137-001						
	ND	5.00	4.65	mg/L	93		MCAWW 300.0A	05/29/02	2150455
	ND	5.00	4.70	mg/L	94	1.1	MCAWW 300.0A	05/29/02	2150455
	Dilution Factor: 1								
	Analysis Time...: 13:12								
Sulfate			WO#: E15C21DD-MS/E15C21DE-MSD MS Lot-Sample #: D2E290137-001						
	438	500	991	mg/L	110		MCAWW 300.0A	05/29/02	2150450
	438	500	984	mg/L	109	0.71	MCAWW 300.0A	05/29/02	2150450
	Dilution Factor: 1								
	Analysis Time...: 19:11								

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #....: D2E290137

Matrix.....: WATER

Date Sampled...: 05/29/02 09:00 Date Received...: 05/30/02

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	FREP BATCH #
Total Cyanide			WO#: E18FV1AF-MS/E18FV1AG-MSD MS Lot-Sample #: D2E300324-005						
	0.0049	0.100	0.0994	mg/L	94		MCAWW 335.3	06/03-06/04/02	2155392
	0.0049	0.100	0.101	mg/L	96	1.7	MCAWW 335.3	06/03-06/04/02	2155392

Dilution Factor: 1
Analysis Time...: 14:00

Total Organic Halogens			WO#: E1JWS1A9-MS/E1JWS1CA-MSD MS Lot-Sample #: D2E160264-003						
	28.0	100	128	ug/L	100		SW846 9020B	05/28/02	2148513
	28.0	100	129	ug/L	101	0.77	SW846 9020B	05/28/02	2148513

Dilution Factor: 1
Analysis Time...: 12:00

Total Organic Carbon			WO#: E15C21DF-MS/E15C21DG-MSD MS Lot-Sample #: D2E290137-001						
	ND	5.00	4.45 N	mg/L	89		MCAWW 415.1	06/06/02	2158149
	ND	5.00	4.60	mg/L	92	3.5	MCAWW 415.1	06/06/02	2158149

Dilution Factor: 1
Analysis Time...: 14:00

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

I Estimated result. Result concentration exceeds the calibration range.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: D2E290137

Work Order #...: E16CR-SMP
E16CR-DUP

Matrix.....: WATER

Date Sampled...: 05/29/02 07:55

Date Received...: 05/29/02

% Moisture.....: 100

Dilution Factor:

Initial Wgt/Vol:

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
pH	8.1	8.1	No Units	0.12	(0-5.0)	MCAWW 150.1	SD Lot-Sample #: D2E290248-001 05/29/02	2149492
			Dilution Factor: 1			Analysis Time...: 12:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: D2E290137 Work Order #....: E2QWA-SMP Matrix.....: WATER
E2QWA-DUP

Date Sampled....: 06/09/02 08:00 Date Received...: 06/10/02

% Moisture.....: 100

Dilution Factor:

Initial Wgt/Vol:

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids	233	230	mg/L	1.3	(0-20)	MCAWW 160.1	05/31/02	2151413
Dilution Factor: 1						SD Lot-Sample #: D2F100153-001		
						Analysis Time...: 17:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: D2E290137 Work Order #...: E15NC-SMP Matrix.....: WATER
E15NC-DUP

Date Sampled...: 05/28/02 11:05 Date Received...: 05/29/02

% Moisture.....: 100

Dilution Factor:

Initial Wgt/Vol:

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Alkalinity	1400	1420	mg/L	0.96	(0-10)	SD Lot-Sample #: D2E290168-001 MCAWW 310.1	05/30/02	2151220
				Dilution Factor: 1		Analysis Time...: 10:00		

Chain of Custody Record

STL Denver
4955 Yarrow Street
Arvada, CO 80002

**SEVERN
TRENT
SERVICES**

Severn Trent Laboratories, Inc.

DATE
5/29/02

STL 4124 (1/200) DEN (0900)

Client WCS		Project Manager Sheila Parker		Date 5.28.02	Chain of Custody Number 093360
Address P.O. Box 1129		Telephone Number (Area Code)/Fax Number 505-394-4300		Lab Number 10134	Page 1 of 1
City Andrews	State TX	Zip Code 79714	Site Contact Sheila Parker	Lab Contact Sheila Parker	Analysis (Attach list if more space is needed)
Project Name and Location (State) CW WELL			Carrier/Waybill Number		
Contract/Purchase Order/Quote No.					

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix			Containers & Preservatives										Special Instructions/ Conditions of Receipt								
			2	3	5	UNO	2500	4000	MD	NOV	ZINC	1500	NOV	NOV	Cyanide		Fluoride	IC, pH, TDS, etc	TAC	TOA	METALS			
CW Well	5/28/02	1145	✓			✓	✓	✓																

Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	Sample Disposal <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For 3 Months (A fee may be assessed if samples are retained longer than 3 months)
---	--

Turn Around Time Required <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input checked="" type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other	QC Requirements (Specify)
--	---------------------------

1. Requisitioned By Sheila King SHELL King	Date 5/28/02	Time 1:00pm	1. Received By D.A. King	Date 5/29/02	Time 0645
2. Requisitioned By	Date	Time	2. Received By	Date	Time
3. Requisitioned By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

LES-04415

05/14/2004 15:36 5053943427 MCS PAGE 39/39