

Lehigh Southwest Cement Company

Permanente Plant
24001 Stevens Creek Boulevard
Phone (408) 996-4000
Fax (408) 725-1019
www.lehighcement.com

September 6, 2011

Christine Boschen
San Francisco Bay Regional Water Quality Control Board
1515 Clay St. Suite 1400
Oakland, CA 94612

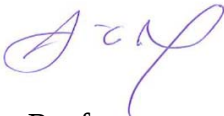
RE: Lehigh Southwest Cement Company April 7, 2011 samples

Ms. Boschen

Please see the enclosed April 7, 2011 sample's analysis. These samples were taken by URS staff, as witnessed by both you and I, during the tour of potential sampling sites at the Permanente Site.

Please do not hesitate to call me with any questions or comments at (408) 996-4262 or at scott.renfrew@lehighhanson.com.

Thank you,



Scott Renfrew
Environmental Manager
Lehigh Southwest Cement Company – Cupertino Plant

cc. Henrik Wesseling, LSCC
Axel Conrads, LSCC
Greg Knapp, Lehigh Hanson
Wayne Whitlock, Pillsbury LLC

Results for 04/07/2011 Reconnaissance Sampling (Lehigh Permanente)

Privileged and Confidential

Attorney Client Communication

Attorney Work Product

Analyte	Method	Unit	Wild Violet Creek		Perm. Cr.
			Trib (ZOMB-1)	SL-4A3-PD	Downstream (PERMUS)
Antimony	EPA 6010B	ug/L	ND<10	ND<10	ND<10
Arsenic	EPA 6010B	ug/L	ND<7.1	ND<7.1	ND<7.1
Barium	EPA 6010B	ug/L	310	77	90
Beryllium	EPA 6010B	ug/L	ND<2	ND<2	ND<2
Cadmium	EPA 6010B	ug/L	ND<5	ND<5	ND<5
Chromium	EPA 6010B	ug/L	ND<5	ND<5	ND<5
Cobalt	EPA 6010B	ug/L	ND<5	ND<5	ND<5
Copper	EPA 6010B	ug/L	ND<5	ND<5	ND<5
Lead	EPA 6010B	ug/L	ND<5	ND<5	ND<5
Molybdenum	EPA 6010B	ug/L	ND<5	340	140
Nickel	EPA 6010B	ug/L	ND<5	110	33
Selenium	EPA 6010B	ug/L	ND<10	48	19
Silver	EPA 6010B	ug/L	ND<5	ND<5	ND<5
Thallium	EPA 6010B	ug/L	ND<10	ND<10	ND<10
Vanadium	EPA 6010B	ug/L	ND<5	110	40
Zinc	EPA 6010B	ug/L	ND<20	21	ND<20
Mercury	EPA 7470A	ug/L	ND<0.2	ND<0.2	ND<0.2
Mercury, Low Level	EPA 1631	ng/L	0.26	6.78	7.31
Antimony	EPA 6010B, Filtrate	ug/L	ND<10	ND<10	ND<10
Arsenic	EPA 6010B, Filtrate	ug/L	ND<7.1	ND<7.1	ND<7.1
Barium	EPA 6010B, Filtrate	ug/L	260	58	74
Beryllium	EPA 6010B, Filtrate	ug/L	ND<2	ND<2	ND<2
Cadmium	EPA 6010B, Filtrate	ug/L	ND<5	ND<5	ND<5
Chromium	EPA 6010B, Filtrate	ug/L	ND<5	ND<5	ND<5
Cobalt	EPA 6010B, Filtrate	ug/L	ND<5	ND<5	ND<5
Copper	EPA 6010B, Filtrate	ug/L	ND<5	ND<5	ND<5
Lead	EPA 6010B, Filtrate	ug/L	ND<5	ND<5	ND<5
Molybdenum	EPA 6010B, Filtrate	ug/L	ND<5	300	130
Nickel	EPA 6010B, Filtrate	ug/L	ND<5	91	26
Selenium	EPA 6010B, Filtrate	ug/L	ND<10	46	14
Silver	EPA 6010B, Filtrate	ug/L	ND<5	ND<5	ND<5
Thallium	EPA 6010B, Filtrate	ug/L	ND<10	ND<10	ND<10
Vanadium	EPA 6010B, Filtrate	ug/L	ND<5	94	34
Zinc	EPA 6010B, Filtrate	ug/L	ND<20	ND<20	ND<20
Mercury	EPA 7470A, Filtrate	ug/L	ND<0.2	ND<0.2	ND<0.2
pH	EPA 9040C	SU	7.5	7.7	7.9
Specific Conductance	SM2510B	umhos/cm	460	1180	970
Total Dissolved Solids	SM2540C	mg/L	310	930	720
Total Suspended Solids	SM2540D	mg/L	ND<5	19	23
Oil & Grease (HEM)	EPA 1664A	mg/L	ND<4.7	ND<4.75	ND<5
Ammonia-N	SM4500NH3-D	mg/L	0.12	0.13	0.15
Unionized Ammonia	SM4500NH3-D	mg/L	ND<0.1	ND<0.1	ND<0.1
Nitrogen, Nitrate	EPA 300.0	mg/L	ND<0.05	1.4	1.3
Chloride	EPA 300.0	mg/L	9.1	11	16
Residual Chlorine	SM4500CL-G	mg/L	ND<0.05	ND<0.05	ND<0.05







Sampling Point 2
Pond 4
SL-4A3-PD





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Analytical Laboratories, Since 1878



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 227115
ANALYTICAL REPORT**

URS Corporation
1333 Broadway
Oakland, CA 94612

Project : 26817928.30000
Location : Lehigh
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
ZOMB1	227115-001
SL-4A3-PD	227115-002
PERMUS	227115-003
LOW LEVEL HG TRIP BLANK	227115-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: 
Project Manager

Date: 04/25/2011

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 227115
Client: URS Corporation
Project: 26817928.30000
Location: Lehigh
Request Date: 04/07/11
Samples Received: 04/07/11

This data package contains sample and QC results for four water samples, requested for the above referenced project on 04/07/11. The samples were received cold and intact.

Metals (EPA 6010B, EPA 7470A, and SM 2340B) Water:

No analytical problems were encountered.

Metals (EPA 6010B and EPA 7470A) Filtrate:

No analytical problems were encountered.

Ion Chromatography (EPA 300.0):

No analytical problems were encountered.

Conductivity (SM2510B):

No analytical problems were encountered.

Ammonia Nitrogen (SM4500NH3-D):

No analytical problems were encountered.

Total Oil & Grease (HEM) (EPA 1664A):

No analytical problems were encountered.

Total Dissolved Solids (TDS) (SM2540C):

No analytical problems were encountered.

Total Suspended Solids (TSS) (SM2540D):

No analytical problems were encountered.

Residual Chlorine (SM4500CL-G):

High recovery was observed for residual chlorine in the LCS for batch 173524; this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

pH (EPA 9040C):

No analytical problems were encountered.

Low-level Mercury (EPA 1631):

Brooks Rand Ltd. in Seattle, WA performed the analysis (NELAP certified). Please see the Brooks Rand Ltd. case narrative.



Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1978

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Project No: 26817928.30000

Project Name: Lehigh

Project P. O. No:

Sampler: Sheri Janowski / Bonnie deBerry

Report To: Bonnie de Berry

Company: URS

EDD Format: Report Level ☐ I ☐ II ☐ III ☐ IV

Telephone: 510-874-3053

Turnaround Time: ☐ RUSH ☒ Standard

Email: bonnie-deberry@urscorp.com

C&T LOGIN # 227115

Chain of Custody #

Page 1 of 2

CHAIN OF CUSTODY

ANALYTICAL REQUEST		RECEIVED BY:	
TPH 1664T	X	DATE: 4/7/11	TIME: 16:50
8 CAM 17 (total) + hardness	X	DATE: 4/7/11	TIME: 16:50
CAM 17 (dissolved)	X	DATE: 4/7/11	TIME: 16:50
TSS, TDS, pH, EC, NO ₃ , Cl ⁻	X	DATE: 4/7/11	TIME: 16:50
Ammunonia	X	DATE: 4/7/11	TIME: 16:50
Residual chlorine/Ammonium	X	DATE: 4/7/11	TIME: 16:50
Low level Hg	X	DATE: 4/7/11	TIME: 16:50

Lab No.	Sample ID.	SAMPLING		MATRIX		# of Containers	CHEMICAL PRESERVATIVE				
		Date Collected	Time Collected	Water	Solid		HCl	H2SO4	HNO3	NaOH	None
1	ZOMB1	4/7/11	09:44	X		1	X				
	"	"	"	X		1			X		
	"	"	"	X		1				X	
	"	"	"	X		1		X			
	"	"	"	X		1					X
	"	"	"	X		1					X
	"	"	"	X		1					X
2	SL-4A3-PD	4/7/11	12:10	X		1	X				
	"	"	"	X		1					
	"	"	"	X		1					
	"	"	"	X		1					
	"	"	"	X		1					
	"	"	"	X		1					
	"	"	"	X		1					
	"	"	"	X		1					
	"	"	"	X		1					

Notes:

SAMPLE RECEIPT

☐ Intact
☒ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:

DATE: 4/7/11 TIME: 16:50

RECEIVED BY:

DATE: 4/7/11 TIME: 16:50

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 227115 Date Received 4-7-11 Number of coolers 1
 Client URS Project Let High
 Date Opened 4-7-11 By (print) M. Pepper (sign) [Signature]
 Date Logged in _____ By (print) _____ (sign) _____

1. Did cooler come with a shipping slip (airbill, etc) _____ YES ☒ NO

2A. Were custody seals present? ☒ YES (circle) on cooler on samples ☒ NO
 How many 1 Name TK Date 2/23/11

2B. Were custody seals intact upon arrival? ☒ YES ☒ NO ☒ N/A PP

3. Were custody papers dry and intact when received? ☒ YES ☒ NO

4. Were custody papers filled out properly (ink, signed, etc)? ☒ YES ☒ NO

5. Is the project identifiable from custody papers? (If so fill out top of form) ☒ YES ☒ NO

6. Indicate the packing in cooler: (if other, describe) _____

☒ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) 6.3

☐ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES ☒ NO

If YES, what time were they transferred to freezer? _____

9. Did all bottles arrive unbroken/unopened? ☒ YES ☒ NO

10. Are samples in the appropriate containers for indicated tests? ☒ YES ☒ NO

11. Are sample labels present, in good condition and complete? ☒ YES ☒ NO

12. Do the sample labels agree with custody papers? ☒ YES ☒ NO

13. Was sufficient amount of sample sent for tests requested? ☒ YES ☒ NO

14. Are the samples appropriately preserved? ☒ YES ☒ NO ☒ N/A

15. Did you check preservatives for all bottles for each sample? ☒ YES ☒ NO ☒ N/A

16. Did you document your preservative check ☒ YES ☒ NO ☒ N/A

17. Are bubbles > 6mm absent in VOA samples? ☒ YES ☒ NO ☒ N/A

18. Was the client contacted concerning this sample delivery? ☒ YES ☒ NO

If YES, Who was called? _____ By _____ Date: _____

COMMENTS

10) client requested analysis Residual Chlorine but did not receive sample in appropriate containers. PP container wrapped with foil.

Curtis & Tompkins Sample Preservation for 227115

Sample	pH: <2	>12	Other
-001a	☒	☐	☐
b	☐	☐	☐
c	☒	☐	☐
d	☐	☐	☐
e	☐	☐	☐
f	☐	☐	☐
-002a	☒	☐	☐
b	☐	☐	☐
c	☒	☐	☐
d	☐	☐	☐
e	☐	☐	☐
f	☐	☐	☐
g	☐	☐	☐
-003a	☒	☐	☐
b	☐	☐	☐
c	☒	☐	☐
d	☐	☐	☐
e	☐	☐	☐
f	☐	☐	☐
g	☐	☐	☐

Analyst: Chris Rul

Date: 4/7/11

Hardness (Total)			
Lab #:	227115	Project#:	26817928.30000
Client:	URS Corporation	Location:	Lehigh
Analyte:	Hardness as CaCO ₃	Sampled:	04/07/11
Matrix:	Water	Received:	04/07/11

Field ID	Lab ID	Result
ZOMB1	227115-001	NA
SL-4A3-PD	227115-002	NA
PERMUS	227115-003	NA

NA= Not Analyzed

California Title 22 Metals

Lab #:	227115	Project#:	26817928.30000
Client:	URS Corporation	Location:	Lehigh
Field ID:	ZOMB1	Diln Fac:	1.000
Lab ID:	227115-001	Sampled:	04/07/11
Matrix:	Water	Received:	04/07/11
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Arsenic	ND	7.1	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Barium	90	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Chromium	ND	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Copper	ND	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Lead	ND	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Mercury	ND	0.20	173559	04/08/11	04/08/11	METHOD	EPA 7470A
Molybdenum	140	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Nickel	33	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Selenium	19	10	173680	04/12/11	04/20/11	EPA 3010A	EPA 6010B
Silver	ND	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Thallium	ND	10	173680	04/12/11	04/20/11	EPA 3010A	EPA 6010B
Vanadium	40	5.0	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B
Zinc	ND	20	173680	04/12/11	04/13/11	EPA 3010A	EPA 6010B

ND= Not Detected
RL= Reporting Limit

California Title 22 Metals

Lab #:	227115	Project#:	26817928.30000
Client:	URS Corporation	Location:	Lehigh
Field ID:	SL-4A3-PD	Diln Fac:	1.000
Lab ID:	227115-002	Sampled:	04/07/11
Matrix:	Water	Received:	04/07/11
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Arsenic	ND	7.1	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Barium	77	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Chromium	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Copper	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Lead	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Mercury	ND	0.20	173559	04/08/11	04/08/11	METHOD	EPA 7470A
Molybdenum	340	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Nickel	110	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Selenium	48	10	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Silver	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Thallium	ND	10	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Vanadium	110	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Zinc	21	20	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B

ND= Not Detected
RL= Reporting Limit

California Title 22 Metals

Lab #:	227115	Project#:	26817928.30000
Client:	URS Corporation	Location:	Lehigh
Field ID:	PERMUS	Diln Fac:	1.000
Lab ID:	227115-003	Sampled:	04/07/11
Matrix:	Water	Received:	04/07/11
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Arsenic	ND	7.1	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Barium	310	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Chromium	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Copper	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Lead	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Mercury	ND	0.20	173559	04/08/11	04/08/11	METHOD	EPA 7470A
Molybdenum	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Nickel	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Selenium	ND	10	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Silver	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Thallium	ND	10	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Vanadium	ND	5.0	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B
Zinc	ND	20	173680	04/12/11	04/14/11	EPA 3010A	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Batch QC Report

California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	173559
Lab ID:	QC586856	Prepared:	04/08/11
Matrix:	Water	Analyzed:	04/08/11
Units:	ug/L		

Result	RL
ND	0.20

ND= Not Detected
RL= Reporting Limit

Batch QC Report

California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	173559
Matrix:	Water	Prepared:	04/08/11
Units:	ug/L	Analyzed:	04/08/11
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC586857	2.500	2.600	104	80-120		
BSD	QC586858	2.500	2.520	101	80-120	3	20

RPD= Relative Percent Difference

Batch QC Report

California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	173559
Field ID:	ZZZZZZZZZZ	Sampled:	03/31/11
MSS Lab ID:	227013-001	Received:	04/01/11
Matrix:	Water	Prepared:	04/08/11
Units:	ug/L	Analyzed:	04/08/11
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC586859	<0.03335	2.500	2.560	102	79-120		
MSD	QC586860		2.500	2.520	101	79-120	2	20

RPD= Relative Percent Difference

Batch QC Report

California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	EPA 3010A
Project#:	26817928.30000	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC587330	Batch#:	173680
Matrix:	Water	Prepared:	04/12/11
Units:	ug/L	Analyzed:	04/13/11

Analyte	Result	RL
Antimony	ND	10
Arsenic	ND	7.1
Barium	ND	5.0
Beryllium	ND	2.0
Cadmium	ND	5.0
Chromium	ND	5.0
Cobalt	ND	5.0
Copper	ND	5.0
Lead	ND	5.0
Molybdenum	ND	5.0
Nickel	ND	5.0
Selenium	ND	10
Silver	ND	5.0
Thallium	ND	10
Vanadium	ND	5.0
Zinc	ND	20

ND= Not Detected
RL= Reporting Limit

Batch QC Report

California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	EPA 3010A
Project#:	26817928.30000	Analysis:	EPA 6010B
Matrix:	Water	Batch#:	173680
Units:	ug/L	Prepared:	04/12/11
Diln Fac:	1.000		

Type: BS Lab ID: QC587331

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	500.0	535.2	107	75-120	04/13/11
Arsenic	100.0	108.8	109	80-124	04/20/11
Barium	2,000	2,045	102	80-120	04/13/11
Beryllium	50.00	54.80	110	80-120	04/13/11
Cadmium	50.00	54.85	110	80-120	04/13/11
Chromium	200.0	203.2	102	77-120	04/13/11
Cobalt	500.0	497.8	100	78-120	04/13/11
Copper	250.0	247.3	99	74-120	04/13/11
Lead	100.0	102.4	102	75-120	04/13/11
Molybdenum	400.0	429.9	107	80-120	04/13/11
Nickel	500.0	509.7	102	78-120	04/13/11
Selenium	100.0	100.2	100	78-121	04/13/11
Silver	50.00	50.89	102	78-120	04/13/11
Thallium	100.0	111.5	111	79-120	04/13/11
Vanadium	500.0	518.5	104	80-120	04/13/11
Zinc	500.0	538.4	108	79-120	04/13/11

Type: BSD Lab ID: QC587332

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	500.0	559.4	112	75-120	4	20	04/13/11
Arsenic	100.0	103.6	104	80-124	5	20	04/20/11
Barium	2,000	2,155	108	80-120	5	20	04/13/11
Beryllium	50.00	57.53	115	80-120	5	20	04/13/11
Cadmium	50.00	57.82	116	80-120	5	20	04/13/11
Chromium	200.0	211.6	106	77-120	4	20	04/13/11
Cobalt	500.0	520.9	104	78-120	5	20	04/13/11
Copper	250.0	262.7	105	74-120	6	20	04/13/11
Lead	100.0	106.6	107	75-120	4	20	04/13/11
Molybdenum	400.0	445.8	111	80-120	4	20	04/13/11
Nickel	500.0	532.2	106	78-120	4	20	04/13/11
Selenium	100.0	107.9	108	78-121	7	20	04/13/11
Silver	50.00	53.20	106	78-120	4	20	04/13/11
Thallium	100.0	116.7	117	79-120	5	20	04/13/11
Vanadium	500.0	544.9	109	80-120	5	20	04/13/11
Zinc	500.0	564.7	113	79-120	5	20	04/13/11

RPD= Relative Percent Difference

Batch QC Report

California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	EPA 3010A
Project#:	26817928.30000	Analysis:	EPA 6010B
Field ID:	ZOMB1	Batch#:	173680
MSS Lab ID:	227115-001	Sampled:	04/07/11
Matrix:	Water	Received:	04/07/11
Units:	ug/L	Prepared:	04/12/11
Diln Fac:	1.000	Analyzed:	04/13/11

Type: MS Lab ID: QC587333

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	4.470	500.0	545.6	108	67-120
Arsenic	4.994	100.0	125.2	120	70-132
Barium	89.59	2,000	2,126	102	72-120
Beryllium	<0.2014	50.00	53.91	108	78-121
Cadmium	<1.150	50.00	54.69	109	69-122
Chromium	2.698	200.0	200.6	99	71-120
Cobalt	0.6214	500.0	478.2	96	70-120
Copper	<1.614	250.0	260.5	104	65-120
Lead	<1.610	100.0	101.6	102	62-120
Molybdenum	143.4	400.0	578.5	109	76-120
Nickel	32.64	500.0	521.2	98	65-120
Selenium	18.69	100.0	130.8	112	67-127
Silver	<1.586	50.00	51.10	102	61-120
Thallium	5.254	100.0	113.4	108	64-121
Vanadium	39.81	500.0	561.1	104	73-120
Zinc	6.093	500.0	545.4	108	67-123

Type: MSD Lab ID: QC587334

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	568.2	113	67-120	4	20
Arsenic	100.0	129.5	124	70-132	3	28
Barium	2,000	2,176	104	72-120	2	26
Beryllium	50.00	54.82	110	78-121	2	20
Cadmium	50.00	55.97	112	69-122	2	23
Chromium	200.0	204.5	101	71-120	2	23
Cobalt	500.0	487.9	97	70-120	2	23
Copper	250.0	266.1	106	65-120	2	27
Lead	100.0	104.4	104	62-120	3	24
Molybdenum	400.0	595.0	113	76-120	3	24
Nickel	500.0	532.7	100	65-120	2	23
Selenium	100.0	129.0	110	67-127	1	28
Silver	50.00	52.56	105	61-120	3	25
Thallium	100.0	117.7	112	64-121	4	23
Vanadium	500.0	570.6	106	73-120	2	24
Zinc	500.0	559.8	111	67-123	3	25

RPD= Relative Percent Difference

Dissolved California Title 22 Metals

Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000		
Field ID:	ZOMB1	Diln Fac:	1.000
Lab ID:	227115-001	Sampled:	04/07/11
Matrix:	Filtrate	Received:	04/07/11
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Analysis
Antimony	ND	10	173683	04/13/11	04/14/11	EPA 6010B
Arsenic	ND	7.1	173683	04/13/11	04/14/11	EPA 6010B
Barium	74	5.0	173683	04/13/11	04/14/11	EPA 6010B
Beryllium	ND	2.0	173683	04/13/11	04/14/11	EPA 6010B
Cadmium	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Chromium	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Cobalt	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Copper	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Lead	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Mercury	ND	0.20	173559	04/08/11	04/08/11	EPA 7470A
Molybdenum	130	5.0	173683	04/13/11	04/14/11	EPA 6010B
Nickel	26	5.0	173683	04/13/11	04/14/11	EPA 6010B
Selenium	14	10	173683	04/13/11	04/15/11	EPA 6010B
Silver	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Thallium	ND	10	173683	04/13/11	04/14/11	EPA 6010B
Vanadium	34	5.0	173683	04/13/11	04/14/11	EPA 6010B
Zinc	ND	20	173683	04/13/11	04/14/11	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Dissolved California Title 22 Metals

Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000		
Field ID:	SL-4A3-PD	Diln Fac:	1.000
Lab ID:	227115-002	Sampled:	04/07/11
Matrix:	Filtrate	Received:	04/07/11
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Analysis
Antimony	ND	10	173683	04/13/11	04/14/11	EPA 6010B
Arsenic	ND	7.1	173683	04/13/11	04/14/11	EPA 6010B
Barium	58	5.0	173683	04/13/11	04/14/11	EPA 6010B
Beryllium	ND	2.0	173683	04/13/11	04/14/11	EPA 6010B
Cadmium	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Chromium	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Cobalt	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Copper	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Lead	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Mercury	ND	0.20	173559	04/08/11	04/08/11	EPA 7470A
Molybdenum	300	5.0	173683	04/13/11	04/14/11	EPA 6010B
Nickel	91	5.0	173683	04/13/11	04/14/11	EPA 6010B
Selenium	46	10	173683	04/13/11	04/14/11	EPA 6010B
Silver	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Thallium	ND	10	173683	04/13/11	04/14/11	EPA 6010B
Vanadium	94	5.0	173683	04/13/11	04/14/11	EPA 6010B
Zinc	ND	20	173683	04/13/11	04/14/11	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Dissolved California Title 22 Metals

Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000		
Field ID:	PERMUS	Diln Fac:	1.000
Lab ID:	227115-003	Sampled:	04/07/11
Matrix:	Filtrate	Received:	04/07/11
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Analysis
Antimony	ND	10	173683	04/13/11	04/14/11	EPA 6010B
Arsenic	ND	7.1	173683	04/13/11	04/14/11	EPA 6010B
Barium	260	5.0	173683	04/13/11	04/14/11	EPA 6010B
Beryllium	ND	2.0	173683	04/13/11	04/14/11	EPA 6010B
Cadmium	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Chromium	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Cobalt	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Copper	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Lead	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Mercury	ND	0.20	173559	04/08/11	04/08/11	EPA 7470A
Molybdenum	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Nickel	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Selenium	ND	10	173683	04/13/11	04/14/11	EPA 6010B
Silver	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Thallium	ND	10	173683	04/13/11	04/14/11	EPA 6010B
Vanadium	ND	5.0	173683	04/13/11	04/14/11	EPA 6010B
Zinc	ND	20	173683	04/13/11	04/14/11	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Dissolved California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	173559
Lab ID:	QC586856	Prepared:	04/08/11
Matrix:	Water	Analyzed:	04/08/11
Units:	ug/L		

Result	RL
ND	0.20

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Dissolved California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	173559
Matrix:	Water	Prepared:	04/08/11
Units:	ug/L	Analyzed:	04/08/11
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC586857	2.500	2.600	104	80-120		
BSD	QC586858	2.500	2.520	101	80-120	3	20

RPD= Relative Percent Difference

Batch QC Report

Dissolved California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	173559
Field ID:	ZZZZZZZZZZ	Sampled:	03/31/11
MSS Lab ID:	227013-001	Received:	04/01/11
Matrix:	Water	Prepared:	04/08/11
Units:	ug/L	Analyzed:	04/08/11
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC586859	<0.03335	2.500	2.560	102	79-120		
MSD	QC586860		2.500	2.520	101	79-120	2	20

RPD= Relative Percent Difference

Batch QC Report

Dissolved California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC587342	Batch#:	173683
Matrix:	Filtrate	Prepared:	04/13/11
Units:	ug/L	Analyzed:	04/13/11

Analyte	Result	RL
Antimony	ND	10
Arsenic	ND	7.1
Barium	ND	5.0
Beryllium	ND	2.0
Cadmium	ND	5.0
Chromium	ND	5.0
Cobalt	ND	5.0
Copper	ND	5.0
Lead	ND	5.0
Molybdenum	ND	5.0
Nickel	ND	5.0
Selenium	ND	10
Silver	ND	5.0
Thallium	ND	10
Vanadium	ND	5.0
Zinc	ND	20

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Dissolved California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 6010B
Matrix:	Filtrate	Batch#:	173683
Units:	ug/L	Prepared:	04/13/11
Diln Fac:	1.000	Analyzed:	04/13/11

Type: BS Lab ID: QC587343

Analyte	Spiked	Result	%REC	Limits
Antimony	500.0	503.7	101	75-120
Arsenic	100.0	114.6	115	80-124
Barium	2,000	1,989	99	80-120
Beryllium	50.00	52.82	106	80-120
Cadmium	50.00	54.42	109	80-120
Chromium	200.0	197.7	99	77-120
Cobalt	500.0	490.6	98	78-120
Copper	250.0	243.6	97	74-120
Lead	100.0	100.7	101	75-120
Molybdenum	400.0	419.1	105	80-120
Nickel	500.0	503.6	101	78-120
Selenium	100.0	103.3	103	78-121
Silver	50.00	48.74	97	78-120
Thallium	100.0	111.0	111	79-120
Vanadium	500.0	509.6	102	80-120
Zinc	500.0	535.8	107	79-120

Type: BSD Lab ID: QC587344

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	508.1	102	75-120	1	20
Arsenic	100.0	110.6	111	80-124	4	20
Barium	2,000	1,999	100	80-120	1	20
Beryllium	50.00	52.79	106	80-120	0	20
Cadmium	50.00	54.59	109	80-120	0	20
Chromium	200.0	198.4	99	77-120	0	20
Cobalt	500.0	494.2	99	78-120	1	20
Copper	250.0	241.9	97	74-120	1	20
Lead	100.0	100.2	100	75-120	1	20
Molybdenum	400.0	418.0	105	80-120	0	20
Nickel	500.0	505.2	101	78-120	0	20
Selenium	100.0	102.0	102	78-121	1	20
Silver	50.00	49.83	100	78-120	2	20
Thallium	100.0	114.4	114	79-120	3	20
Vanadium	500.0	509.7	102	80-120	0	20
Zinc	500.0	538.6	108	79-120	1	20

RPD= Relative Percent Difference

Batch QC Report

Dissolved California Title 22 Metals			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	173683
MSS Lab ID:	227071-007	Sampled:	04/05/11
Matrix:	Filtrate	Received:	04/05/11
Units:	ug/L	Prepared:	04/13/11
Diln Fac:	1.000	Analyzed:	04/13/11

Type: MS Lab ID: QC587345

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	7.993	500.0	494.2	97	67-120
Arsenic	<2.361	100.0	104.8	105	70-132
Barium	0.4838	2,000	1,931	97	72-120
Beryllium	<0.2014	50.00	51.16	102	78-121
Cadmium	<1.150	50.00	52.95	106	69-122
Chromium	<0.4886	200.0	191.1	96	71-120
Cobalt	<0.5184	500.0	475.9	95	70-120
Copper	<1.614	250.0	239.1	96	65-120
Lead	<1.610	100.0	100.0	100	62-120
Molybdenum	0.9946	400.0	405.7	101	76-120
Nickel	1.439	500.0	488.5	97	65-120
Selenium	<2.501	100.0	101.6	102	67-127
Silver	<1.586	50.00	46.29	93	61-120
Thallium	<3.020	100.0	107.2	107	64-121
Vanadium	<0.8763	500.0	491.5	98	73-120
Zinc	<3.104	500.0	527.4	105	67-123

Type: MSD Lab ID: QC587346

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	518.3	102	67-120	5	20
Arsenic	100.0	114.4	114	70-132	9	28
Barium	2,000	2,027	101	72-120	5	26
Beryllium	50.00	55.17	110	78-121	8	20
Cadmium	50.00	57.34	115	69-122	8	23
Chromium	200.0	205.2	103	71-120	7	23
Cobalt	500.0	514.8	103	70-120	8	23
Copper	250.0	251.5	101	65-120	5	27
Lead	100.0	103.1	103	62-120	3	24
Molybdenum	400.0	420.7	105	76-120	4	24
Nickel	500.0	525.7	105	65-120	7	23
Selenium	100.0	112.6	113	67-127	10	28
Silver	50.00	51.44	103	61-120	11	25
Thallium	100.0	115.7	116	64-121	8	23
Vanadium	500.0	530.3	106	73-120	8	24
Zinc	500.0	570.3	114	67-123	8	25

RPD= Relative Percent Difference

Curtis & Tompkins Laboratories Analytical Report

Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 300.0
Matrix:	Water	Batch#:	173509
Units:	mg/L	Received:	04/07/11
Diln Fac:	1.000		

Field ID:	ZOMB1	Sampled:	04/07/11 09:44
Type:	SAMPLE	Analyzed:	04/07/11 18:28
Lab ID:	227115-001		

Analyte	Result	RL
Chloride	16	0.20
Nitrogen, Nitrate	1.3	0.05

Field ID:	SL-4A3-PD	Sampled:	04/07/11 12:10
Type:	SAMPLE	Analyzed:	04/07/11 19:23
Lab ID:	227115-002		

Analyte	Result	RL
Chloride	11	0.20
Nitrogen, Nitrate	1.4	0.05

Field ID:	PERMUS	Sampled:	04/07/11 13:30
Type:	SAMPLE	Analyzed:	04/07/11 18:00
Lab ID:	227115-003		

Analyte	Result	RL
Chloride	9.1	0.20
Nitrogen, Nitrate	ND	0.05

Type:	BLANK	Analyzed:	04/07/11 09:35
Lab ID:	QC586671		

Analyte	Result	RL
Chloride	ND	0.20
Nitrogen, Nitrate	ND	0.05

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 300.0
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC586672	Batch#:	173509
Matrix:	Water	Analyzed:	04/07/11 10:02
Units:	mg/L		

Analyte	Spiked	Result	%REC	Limits
Chloride	4.000	3.863	97	80-120
Nitrogen, Nitrate	1.000	0.9910	99	80-120

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 300.0
Field ID:	ZZZZZZZZZZ	Diln Fac:	10.00
MSS Lab ID:	227086-004	Batch#:	173509
Matrix:	Water	Sampled:	04/05/11 10:10
Units:	mg/L	Received:	04/06/11

Type: MS Analyzed: 04/07/11 15:15
Lab ID: QC586673

Analyte	MSS Result	Spiked	Result	%REC	Limits
Chloride	1.291	20.00	20.85	98	80-120
Nitrogen, Nitrate	31.40	5.000	36.21	96 NM	80-120

Type: MSD Analyzed: 04/07/11 15:43
Lab ID: QC586674

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Chloride	20.00	20.70	97	80-120	1	20
Nitrogen, Nitrate	5.000	36.06	93 NM	80-120	0	20

NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Total Oil & Grease (HEM)			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 1664A
Analyte:	Oil & Grease (HEM)	Batch#:	173609
Matrix:	Water	Sampled:	04/07/11
Units:	mg/L	Received:	04/07/11

Field ID	Type	Lab ID	Result	RL	Diln Fac	Analyzed
ZOMB1	SAMPLE	227115-001	ND	5.00	1.000	04/12/11
SL-4A3-PD	SAMPLE	227115-002	ND	4.75	0.9500	04/12/11
PERMUS	SAMPLE	227115-003	ND	4.70	0.9400	04/12/11
	BLANK	QC587037	ND	5.00	1.000	04/11/11

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Total Oil & Grease (HEM)			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 1664A
Analyte:	Oil & Grease (HEM)	Diln Fac:	1.000
Matrix:	Water	Batch#:	173609
Units:	mg/L	Analyzed:	04/11/11

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC587038	40.00	37.60	94	78-114		
BSD	QC587039	40.00	37.80	94	78-114	1	18

RPD= Relative Percent Difference

Ammonia Nitrogen			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	SM4500NH3-B
Project#:	26817928.30000	Analysis:	SM4500NH3-D
Analyte:	Ammonia-N	Batch#:	173654
Matrix:	Water	Received:	04/07/11
Units:	mg/L	Analyzed:	04/12/11 14:00
Diln Fac:	1.000		

Field ID	Type	Lab ID	Result	RL	Sampled
ZOMB1	SAMPLE	227115-001	0.15	0.10	04/07/11 09:44
SL-4A3-PD	SAMPLE	227115-002	0.13	0.10	04/07/11 12:10
PERMUS	SAMPLE	227115-003	0.12	0.10	04/07/11 13:30
	BLANK	QC587216	ND	0.10	

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Ammonia Nitrogen			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	SM4500NH3-B
Project#:	26817928.30000	Analysis:	SM4500NH3-D
Analyte:	Ammonia-N	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	173654
MSS Lab ID:	226983-003	Sampled:	03/29/11
Matrix:	Water	Received:	03/31/11
Units:	mg/L	Analyzed:	04/12/11 14:00

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC587217		5.000	5.000	100	68-120		
MS	QC587218	0.6200	5.000	5.200	92	63-120		
MSD	QC587219		5.000	5.600	100	63-120	7	20

RPD= Relative Percent Difference

Conductivity			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	SM2510B
Analyte:	Specific Conductance	Batch#:	173701
Matrix:	Water	Received:	04/07/11
Units:	umhos/cm	Analyzed:	04/13/11 12:45
Diln Fac:	1.000		

Field ID	Type	Lab ID	Result	RL	Sampled
ZOMB1	SAMPLE	227115-001	970	1.0	04/07/11 09:44
SL-4A3-PD	SAMPLE	227115-002	1,180	1.0	04/07/11 12:10
PERMUS	SAMPLE	227115-003	460	1.0	04/07/11 13:30
	BLANK	QC587414	ND	1.0	

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Conductivity			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	SM2510B
Analyte:	Specific Conductance	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	173701
MSS Lab ID:	227211-001	Sampled:	04/13/11 09:00
Matrix:	Water	Received:	04/13/11
Units:	umhos/cm	Analyzed:	04/13/11 12:45

Type	Lab ID	MSS Result	Spiked	Result	RL	%REC	Limits	RPD	Lim
LCS	QC587415		1,000	1,006		101	90-110		
SDUP	QC587416	119.5		120.0	1.000			0	20

pH			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	EPA 9040C
Analyte:	pH	Batch#:	173521
Matrix:	Water	Received:	04/07/11
Units:	SU	Analyzed:	04/07/11 17:20
Diln Fac:	1.000		

Field ID	Lab ID	Result	RL	Sampled
ZOMB1	227115-001	7.9	1.0	04/07/11 09:44
SL-4A3-PD	227115-002	7.7	1.0	04/07/11 12:10
PERMUS	227115-003	7.5	1.0	04/07/11 13:30

RL= Reporting Limit

Batch QC Report

pH				
Lab #:	227115	Location:	Lehigh	
Client:	URS Corporation	Prep:	METHOD	
Project#:	26817928.30000	Analysis:	EPA 9040C	
Analyte:	pH	Units:	SU	
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000	
Type:	SDUP	Batch#:	173521	
MSS Lab ID:	227102-001	Sampled:	04/07/11 10:30	
Lab ID:	QC586713	Received:	04/07/11	
Matrix:	Water	Analyzed:	04/07/11 16:15	

MSS Result	Result	RL	RPD	Lim
6.680	6.640	1.000	1	20

Residual Chlorine			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Analysis:	SM4500CL-G
Project#:	26817928.30000		
Analyte:	Residual Chlorine	Batch#:	173524
Matrix:	Water	Received:	04/07/11
Units:	mg/L	Analyzed:	04/07/11 17:55
Diln Fac:	1.000		

Field ID	Type	Lab ID	Result	RL	Sampled
ZOMB1	SAMPLE	227115-001	ND	0.050	04/07/11 09:44
SL-4A3-PD	SAMPLE	227115-002	ND	0.050	04/07/11 12:10
PERMUS	SAMPLE	227115-003	ND	0.050	04/07/11 13:30
	BLANK	QC586718	ND	0.050	

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Residual Chlorine			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Analysis:	SM4500CL-G
Project#:	26817928.30000		
Analyte:	Residual Chlorine	Diln Fac:	1.000
Field ID:	ZOMB1	Batch#:	173524
MSS Lab ID:	227115-001	Sampled:	04/07/11 09:44
Matrix:	Water	Received:	04/07/11
Units:	mg/L	Analyzed:	04/07/11 17:55

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC586719		0.5594	0.6350	114 *	90-110		
MS	QC586728	<0.05000	0.5594	0.5720	102	58-120		
MSD	QC586729		0.5594	0.5620	101	58-120	2	30

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Total Dissolved Solids (TDS)			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	SM2540C
Analyte:	Total Dissolved Solids	Sampled:	04/07/11
Matrix:	Water	Received:	04/07/11
Units:	mg/L	Prepared:	04/11/11
Diln Fac:	1.000	Analyzed:	04/12/11
Batch#:	173605		

Field ID	Type	Lab ID	Result	RL
ZOMB1	SAMPLE	227115-001	720	10
SL-4A3-PD	SAMPLE	227115-002	930	10
PERMUS	SAMPLE	227115-003	310	10
	BLANK	QC587024	ND	10

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Total Dissolved Solids (TDS)			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	SM2540C
Analyte:	Total Dissolved Solids	Batch#:	173605
Field ID:	ZZZZZZZZZZ	Sampled:	04/06/11
MSS Lab ID:	227075-005	Received:	04/06/11
Matrix:	Water	Prepared:	04/11/11
Units:	mg/L	Analyzed:	04/12/11

Type	Lab ID	MSS Result	Spiked	Result	RL	%REC	Limits	RPD	Lim	Diln	Fac
BS	QC587025		104.0	104.0		100	78-120			1.000	
BSD	QC587026		104.0	102.0		98	78-120	2	5	1.000	
SDUP	QC587027	7,040		6,880	50.00			2	5	5.000	

Total Suspended Solids (TSS)			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	SM2540D
Analyte:	Total Suspended Solids	Batch#:	173692
Matrix:	Water	Sampled:	04/07/11
Units:	mg/L	Received:	04/07/11
Diln Fac:	1.000	Analyzed:	04/13/11

Field ID	Type	Lab ID	Result	RL
ZOMB1	SAMPLE	227115-001	23	5
SL-4A3-PD	SAMPLE	227115-002	19	5
PERMUS	SAMPLE	227115-003	ND	5
	BLANK	QC587376	ND	5

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Total Suspended Solids (TSS)			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	METHOD
Project#:	26817928.30000	Analysis:	SM2540D
Analyte:	Total Suspended Solids	Diln Fac:	1.000
Field ID:	ZOMB1	Batch#:	173692
MSS Lab ID:	227115-001	Sampled:	04/07/11
Matrix:	Water	Received:	04/07/11
Units:	mg/L	Analyzed:	04/13/11

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC587377		50.00	49.00	98	80-120		
BSD	QC587378		50.00	50.00	100	80-120	2	5
MS	QC587379	23.00	50.00	71.00	96	58-126		
MSD	QC587461		50.00	69.00	92	58-126	3	5

RPD= Relative Percent Difference

Unionized Ammonia Nitrogen			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	SM4500NH3-B
Project#:	26817928.30000	Analysis:	SM4500NH3-D
Analyte:	Unionized Ammonia	Batch#:	173697
Matrix:	Water	Received:	04/07/11
Units:	mg/L	Analyzed:	04/12/11 14:00
Diln Fac:	1.000		

Field ID	Type	Lab ID	Result	RL	Sampled
ZOMB1	SAMPLE	227115-001	ND	0.10	04/07/11 09:44
SL-4A3-PD	SAMPLE	227115-002	ND	0.10	04/07/11 12:10
PERMUS	SAMPLE	227115-003	ND	0.10	04/07/11 13:30
	BLANK	QC587400	ND	0.10	

ND= Not Detected
RL= Reporting Limit

Batch QC Report

Unionized Ammonia Nitrogen			
Lab #:	227115	Location:	Lehigh
Client:	URS Corporation	Prep:	SM4500NH3-B
Project#:	26817928.30000	Analysis:	SM4500NH3-D
Analyte:	Unionized Ammonia	Units:	mg/L
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC587401	Batch#:	173697
Matrix:	Water	Analyzed:	04/12/11 14:00

Spiked	Result	%REC	Limits
5.000	5.000	100	68-120

Laboratory Job Number 227115

Subcontracted Products

Brooks Rand Ltd.



April 25, 2011

Curtis & Tompkins, Ltd.
Attn: Tracy Babjar
2323 Fifth Street
Berkeley, CA 94710
Tracy.babjar@ctberk.com

RE: BRL Project Reference: CTL-BE1001
Client Project: 227115

Site: Lehigh

Dear Ms. Babjar,

On April 9, 2011, Brooks Rand Labs (BRL) received four (4) water samples that were logged-in for the contracted analysis of total mercury (Hg) according to the chain-of-custody form. The samples were received, prepared, analyzed, and stored according to BRL SOPs and EPA methodology.

The results were method blank corrected as described in the calculations section of the relevant BRL SOP(s) and may be evaluated using adjusted reporting limits to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details. Aside from concentration qualifiers, all data was reported without qualification and all associated quality control sample results met the acceptance criteria.

BRL, an accredited laboratory, certifies that the reported results of all analyses for which BRL is NELAP accredited meet all NELAP requirements. For more information, please see the *Report Information* page. Please feel free to contact us if you have any questions regarding this report.

Sincerely,

Amy Durdle
Project Manager
amy@brooksrands.com

Lydia Greaves
Project Coordinator
lydia@brooksrands.com

Report Information

Laboratory Accreditation

BRL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BRL is also certified by many other states to perform environmental analyses. For a current list of our accreditations/certifications, please visit our website at <http://www.brooksrand.com/default.asp?contentID=586>. Results reported relate only to the samples listed in the report.

Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

Common Abbreviations

BLK	method blank	MS	matrix spike
BRL	Brooks Rand Labs	MSD	matrix spike duplicate
BS	laboratory fortified blank	ND	non-detect
CAL	calibration standard	NR	non-reportable
CCV	continuing calibration verification	PS	post preparation spike
COC	chain of custody record	REC	percent recovery
CRM	certified reference material	RPD	relative percent difference
D	dissolved fraction	RSD	relative standard deviation
DUP	duplicate	SCV	secondary calibration verification
ICV	initial calibration verification	SOP	standard operating procedure
MDL	method detection limit	SRM	standard reference material
MRL	method reporting limit	T	total recoverable fraction

Definition of Data Qualifiers

(Effective 9/23/09)

B	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
E	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
H	Holding time and/or preservation requirements not met. Result is estimated.
J	Estimated value. A full explanation is presented in the narrative.
J-M	Duplicate precision (RPD) for associated QC sample was not within acceptance criteria. Result is estimated.
J-N	Spike recovery for associated QC sample was not within acceptance criteria. Result is estimated.
M	Duplicate precision (RPD) was not within acceptance criteria. Result is estimated.
N	Spike recovery was not within acceptance criteria. Result is estimated.
R	Rejected, unusable value. A full explanation is presented in the narrative.
U	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
X	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.

These qualifiers are based on those previously utilized by Brooks Rand, Ltd., those found in the EPA SOW_ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses; USEPA; July 2002. These supersede all previous qualifiers ever employed by BRL.



Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
ZOMB1	1115047-01	Water	Sample	04/07/2011	04/09/2011
SL-4A3-PD	1115047-02	Water	Sample	04/07/2011	04/09/2011
PERMUS	1115047-03	Water	Sample	04/07/2011	04/09/2011
LOW LEVEL HG TRIP BLANK	1115047-04	Water	Trip Blank	04/09/2011	04/09/2011

Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
Hg	Water	EPA 1631	04/13/2011	04/15/2011	B110526	1100249

Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
LOW LEVEL HG TRIP BLANK										
1115047-04	Hg	Water	T	0.15	U	0.15	0.40	ng/L	B110526	1100249
PERMUS										
1115047-03	Hg	Water	T	0.26	B	0.15	0.40	ng/L	B110526	1100249
SL-4A3-PD										
1115047-02	Hg	Water	T	6.78		0.30	0.80	ng/L	B110526	1100249
ZOMB1										
1115047-01	Hg	Water	T	7.31		0.15	0.41	ng/L	B110526	1100249

Accuracy & Precision Summary

Batch: B110526
Lab Matrix: Water
Method: EPA 1631

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B110526-SRM1	Certified Reference Material (1116002, NIST 1641d 1000x dilution)						
	Hg		15.68	16.49	ng/L	105% 85-115	
B110526-MS1	Matrix Spike (1115046-12)						
	Hg	1.03	5.103	6.55	ng/L	108% 71-125	
B110526-MSD1	Matrix Spike Duplicate (1115046-12)						
	Hg	1.03	5.041	6.60	ng/L	110% 71-125	0.7% 24

Method Blanks & Reporting Limits

Batch: B110526
Matrix: Water
Method: EPA 1631
Analyte: Hg

Sample	Result	Units
B110526-BLK1	0.15	ng/L
B110526-BLK2	0.03	ng/L
B110526-BLK3	0.05	ng/L
B110526-BLK4	0.02	ng/L
Average: 0.06		Standard Deviation: 0.06
Limit: 0.50		MDL: 0.15
		Limit: 0.10
		MRL: 0.40

Project ID: CTL-BE1001
PM: Amanda Fawley



BRL Report 1115047
Client PM: Tracy Babjar
Client PO: LSA

Sample Containers

Lab ID: 1115047-01 Sample: ZOMB1			Report Matrix: Water Sample Type: Sample			Collected: 04/07/2011 Received: 04/09/2011		
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	
A	Bottle FLPE Hg-T	250mL	71281400 20	None	N/A		Cooler	
Lab ID: 1115047-02 Sample: SL-4A3-PD			Report Matrix: Water Sample Type: Sample			Collected: 04/07/2011 Received: 04/09/2011		
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	
A	Bottle FLPE Hg-T	500mL	71280600 20	None	N/A		Cooler	
Lab ID: 1115047-03 Sample: PERMUS			Report Matrix: Water Sample Type: Sample			Collected: 04/07/2011 Received: 04/09/2011		
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	
A	Bottle FLPE Hg-T	250mL	71281400 20	None	N/A		Cooler	
Lab ID: 1115047-04 Sample: LOW LEVEL HG TRIP BLANK			Report Matrix: Water Sample Type: Trip Blank			Collected: 04/09/2011 Received: 04/09/2011		
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	
A	Bottle FLPE Hg-T	250mL	71281400 20	None	N/A		Cooler	

Shipping Containers

Cooler

Received: April 9, 2011 10:30
Tracking No: 796969713892 via FedEx
Coolant Type: Ice
Temperature: 3.4 °C

Description: Cooler
Damaged in transit? No
Returned to client? No

Custody seals present? No
Custody seals intact? No
COC present? Yes

Curtis & Tompkins, Ltd.
 Analytical Laboratories, Since 1878
 2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900
 (510) 486-0532

Project Number: 227115
 Site: Lehigh

Subcontract Laboratory:
 Brooks Rand Ltd.
 3950 6th Ave. NW
 Seattle, WA 98107
 (206) 632-6206
 ATTN: Amy Durdle

Results due: Report Level: II

Please send report to: Tracy Babjar (tracy.babjar@ctberk.com)

*** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
ZOMB1	04/07 09:44	Water	1631	227115-001	
SL-4A3-PD	04/07 12:10	Water	1631	227115-002	
PERMUS	04/07 13:30	Water	1631	227115-003	
LOW LEVEL HG TRIP BLANK	04/07 00:00	Water	1631	227115-004	

Notes:	Relinquished By:	Received By:
		
	Date/Time: 4/8/11 14:00	Date/Time: 4/9/11 10:50am

Signature on this form constitutes a firm Purchase Order for the services requested above.