

## **Attachment 4**

### **Lead and PCB Laboratory Reports**



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701A79 **Amended:** 02/22/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 1205-1207 Isabel St; MBS Twin Rivers Svy

**Project Received:** 01/25/2017

Analytical Report reviewed & approved for release on 01/31/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 1205-1207 Isabel St; MBS Twin Rivers Svy  
**WorkOrder:** 1701A79

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Analytical Report

**Client:** SCA Environmental, Inc.  
**Date Received:** 1/25/17 10:58  
**Date Prepared:** 1/25/17  
**Project:** F-12279; 1205-1207 Isabel St; MBS Twin Rivers Svy

**WorkOrder:** 1701A79  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1701A79-001A	Solid	01/24/2017	ICP-MS2	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	3.4	0.62	1	01/26/2017 14:19

Surrogates	REC (%)	Limits
Terbium	107	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FLVCS-3	1701A79-002A	Solid	01/24/2017	ICP-MS2	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	5.5	0.50	1	01/26/2017 14:25

Surrogates	REC (%)	Limits
Terbium	104	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
OW-1	1701A79-003A	Solid	01/24/2017	ICP-MS2	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	38	0.50	1	01/26/2017 14:31

Surrogates	REC (%)	Limits
Terbium	105	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
BE-2	1701A79-004A	Solid	01/24/2017	ICP-MS2	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	3.9	0.50	1	01/26/2017 14:37

Surrogates	REC (%)	Limits
Terbium	106	70-130

Analyst(s): DVH



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701A79
<b>Date Prepared:</b> 1/25/17	<b>BatchID:</b> 133119
<b>Date Analyzed:</b> 1/25/17 - 1/26/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS2, ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; 1205-1207 Isabel St; MBS Twin Rivers Svy	<b>Sample ID:</b> MB/LCS-133119 1701A98-003AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	52.2	0.50	50	-	104	75-125
<b>Surrogate Recovery</b>							
Terbium	500.7	540		500	100	108	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	55.9	57.4	50	6.816	98	101	75-125	2.68	20
<b>Surrogate Recovery</b>									
Terbium	528	525	500		106	105	70-130	0.551	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	6.94	6.816	1.82	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1701A79**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Dan Leung  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
cc/3rd Party:  
PO:  
ProjectNo: F-12279; 1205-1207 Isabel St; MBS Twin  
Rivers Svy

**Bill to:**

Accounts Payable  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
emuisse@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 01/25/2017**

**Date Logged: 01/25/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1701A79-001	12FLVCT/M-1	Solid	1/24/2017 00:00	<input type="checkbox"/>	A												
1701A79-002	FLVCS-3	Solid	1/24/2017 00:00	<input type="checkbox"/>	A												
1701A79-003	OW-1	Solid	1/24/2017 00:00	<input type="checkbox"/>	A												
1701A79-004	BE-2	Solid	1/24/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 1205-1207 Isabel St; MBS Twin Rivers Svy

**Work Order:** 1701A79

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/25/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701A79-001A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	Plastic Baggie, Small	<input type="checkbox"/>	1/24/2017	5 days		<input type="checkbox"/>	
1701A79-002A	FLVCS-3	Solid	SW6020 (Lead)	1	Plastic Baggie, Small	<input type="checkbox"/>	1/24/2017	5 days		<input type="checkbox"/>	
1701A79-003A	OW-1	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/24/2017	5 days		<input type="checkbox"/>	
1701A79-004A	BE-2	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/24/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.









### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 1205-1207 Isabel St; MBS Twin Rivers Svy**  
 WorkOrder No: **1701A79** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/25/2017 10:58**  
 Date Logged: **1/25/2017**  
 Received by: **Jena Alfaro**  
 Logged by: **Jena Alfaro**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1702353

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; MBS Twin Rivers Svy - 1205-1207 Isabel St.

**Project Received:** 02/06/2017

Analytical Report reviewed & approved for release on 02/10/2017 by:

Angela Rydelius,  
Laboratory Manager

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## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; MBS Twin Rivers Svy - 1205-1207 Isabel St.  
**WorkOrder:** 1702353

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



# Analytical Report

**Client:** SCA Environmental, Inc.  
**Date Received:** 2/6/17 9:07  
**Date Prepared:** 2/6/17  
**Project:** F-12279; MBS Twin Rivers Svy - 1205-1207 Isabel St.

**WorkOrder:** 1702353  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

## Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WLPL-4	1702353-001A	Solid	02/02/2017	ICP-MS1	133762

Analytes	Result	RL	DF	Date Analyzed
Lead	170	0.50	1	02/08/2017 03:03

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	95	70-130	02/08/2017 03:03

**Analyst(s):** DVH



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1702353
<b>Date Prepared:</b> 2/6/17	<b>BatchID:</b> 133762
<b>Date Analyzed:</b> 2/7/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; MBS Twin Rivers Svy - 1205-1207 Isabel St.	<b>Sample ID:</b> MB/LCS-133762 1702364-001AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.9	0.50	50	-	102	75-125
<b>Surrogate Recovery</b>							
Terbium	510.6	526		500	102	105	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	53.9	57.6	50	7.809	92	100	75-125	6.76	20
<b>Surrogate Recovery</b>									
Terbium	522	530	500		104	106	70-130	1.54	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	7.74	7.809	0.884	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1702353**

**ClientCode: SCAO**

- WaterTrax  
  WriteOn  
  EDF  
  Excel  
  EQUIS  
  Email  
  HardCopy  
  ThirdParty  
  J-flag

**Report to:**

Dan Leung  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 (510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
 cc/3rd Party:  
 PO:  
 ProjectNo: F-12279 1205-1207 Isabel St. ; MBS Twin  
 Rivers Svy

**Bill to:**

Accounts Payable  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 02/06/2017**

**Date Logged: 02/06/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1702353-001	WLPL-4	Solid	2/2/2017 00:00	<input type="checkbox"/>	A													

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279 1205-1207 Isabel St. ; MBS Twin Rivers Svy

**Work Order:** 1702353

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 2/6/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702353-001A	WLPL-4	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.







### Sample Receipt Checklist

Client Name:	<b>SCA Environmental, Inc.</b>	Date and Time Received	<b>2/6/2017 09:07</b>
Project Name:	<b>F-12279 1205-1207 Isabel St. ; MBS Twin Rivers Svy</b>	Date Logged:	<b>2/6/2017</b>
WorkOrder No:	<b>1702353</b>	Received by:	<b>Maria Venegas</b>
Carrier:	<u>UPS</u>	Logged by:	<b>Maria Venegas</b>
	Matrix: <u>Solid</u>		

#### Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

#### Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample/Temp Blank temperature		Temp:	NA <input checked="" type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

-----  
 Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1702355

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; MBS Twin Rivers Svy - 1215-1217 Delta St.

**Project Received:** 02/06/2017

Analytical Report reviewed & approved for release on 02/10/2017 by:

Angela Rydelius,  
Laboratory Manager

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## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; MBS Twin Rivers Svy - 1215-1217 Delta St.  
**WorkOrder:** 1702355

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Analytical Report

**Client:** SCA Environmental, Inc.  
**Date Received:** 2/6/17 9:07  
**Date Prepared:** 2/6/17  
**Project:** F-12279; MBS Twin Rivers Svy - 1215-1217 Delta St.

**WorkOrder:** 1702355  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1702355-001A	Solid	02/02/2017	ICP-MS1	133762

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	<b>1.8</b>	0.50	1	02/08/2017 21:26

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>
Terbium	98	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FLVCS-2	1702355-002A	Solid	02/02/2017	ICP-MS1	133762

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	<b>5.8</b>	0.50	1	02/08/2017 03:46

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>
Terbium	95	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WLPL-3	1702355-003A	Solid	02/02/2017	ICP-MS1	133762

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	<b>140</b>	0.50	1	02/08/2017 03:52

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>
Terbium	102	70-130

Analyst(s): DVH





## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1702355
<b>Date Prepared:</b> 2/6/17	<b>BatchID:</b> 133762
<b>Date Analyzed:</b> 2/7/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; MBS Twin Rivers Svy - 1215-1217 Delta St.	<b>Sample ID:</b> MB/LCS-133762 1702364-001AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.9	0.50	50	-	102	75-125
<b>Surrogate Recovery</b>							
Terbium	510.6	526		500	102	105	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	53.9	57.6	50	7.809	92	100	75-125	6.76	20
<b>Surrogate Recovery</b>									
Terbium	522	530	500		104	106	70-130	1.54	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	7.74	7.809	0.884	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

**WorkOrder: 1702355**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Dan Leung  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
cc/3rd Party:  
PO:  
ProjectNo: F-12279; MBS Twin Rivers Svy - 1215-1217 Delta St.

**Bill to:**

Accounts Payable  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 02/06/2017**

**Date Logged: 02/06/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1702355-001	12FLVCT/M-1	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												
1702355-002	FLVCS-2	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												
1702355-003	WLPL-3	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.





### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; MBS Twin Rivers Svy - 1215-1217 Delta St.

**Work Order:** 1702355

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 2/6/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702355-001A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	
1702355-002A	FLVCS-2	Solid	SW6020 (Lead)	1	Yellow Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	
1702355-003A	WLPL-3	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.





### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; MBS Twin Rivers Svy - 1215-1217 Delta St.**  
 WorkOrder No: **1702355** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **2/6/2017 09:07**  
 Date Logged: **2/6/2017**  
 Received by: **Maria Venegas**  
 Logged by: **Maria Venegas**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1702352

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; MBS Twin Rivers Svy - 1216-1218 Delta St.

**Project Received:** 02/06/2017

Analytical Report reviewed & approved for release on 02/10/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; MBS Twin Rivers Svy - 1216-1218 Delta St.  
**WorkOrder:** 1702352

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)





# Analytical Report

**Client:** SCA Environmental, Inc.  
**Date Received:** 2/6/17 9:07  
**Date Prepared:** 2/6/17  
**Project:** F-12279; MBS Twin Rivers Svy - 1216-1218 Delta St.

**WorkOrder:** 1702352  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

## Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WLPL-4	1702352-001A	Solid	02/02/2017	ICP-MS1	133762

Analytes	Result	RL	DF	Date Analyzed
Lead	130	0.50	1	02/08/2017 02:57

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	104	70-130	02/08/2017 02:57

**Analyst(s):** DVH



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1702352
<b>Date Prepared:</b> 2/6/17	<b>BatchID:</b> 133762
<b>Date Analyzed:</b> 2/7/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; MBS Twin Rivers Svy - 1216-1218 Delta St.	<b>Sample ID:</b> MB/LCS-133762 1702364-001AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.9	0.50	50	-	102	75-125
<b>Surrogate Recovery</b>							
Terbium	510.6	526		500	102	105	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	53.9	57.6	50	7.809	92	100	75-125	6.76	20
<b>Surrogate Recovery</b>									
Terbium	522	530	500		104	106	70-130	1.54	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	7.74	7.809	0.884	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.





1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1702352**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Dan Leung  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
cc/3rd Party:  
PO:  
ProjectNo: F-12279; MBS Twin Rivers Svy - 1216-  
1218 Delta St.

**Bill to:**

Accounts Payable  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
emuisse@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 02/06/2017**

**Date Logged: 02/06/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1702352-001	WLPL-4	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; MBS Twin Rivers Svy - 1216-1218 Delta St.

**Work Order:** 1702352

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 2/6/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702352-001A	WLPL-4	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.





### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; MBS Twin Rivers Svy - 1216-1218 Delta St.**  
 WorkOrder No: **1702352** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **2/6/2017 09:07**  
 Date Logged: **2/6/2017**  
 Received by: **Maria Venegas**  
 Logged by: **Maria Venegas**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701936 **Amended:** 02/22/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 1216-1222 McCarthy; MBS Twin Rivers Svy

**Project Received:** 01/23/2017

Analytical Report reviewed & approved for release on 01/27/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 1216-1222 McCarthy; MBS Twin Rivers Svy  
**WorkOrder:** 1701936

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.
F10	MS/MSD outside control limits. Physical or chemical interferences exist due to sample matrix.





## Analytical Report

**Client:** SCA Environmental, Inc.  
**Date Received:** 1/23/17 14:48  
**Date Prepared:** 1/23/17  
**Project:** F-12279; 1216-1222 McCarthy; MBS Twin Rivers Svy

**WorkOrder:** 1701936  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
OW-1	1701936-001A	Solid	01/17/2017	ICP-MS1	132995

Analytes	Result	RL	DF	Date Analyzed
Lead	2.7	0.50	1	01/24/2017 15:49

Surrogates	REC (%)	Limits
Terbium	84	70-130

Analyst(s): MIG

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GR-1	1701936-002A	Solid	01/17/2017	ICP-MS1	132995

Analytes	Result	RL	DF	Date Analyzed
Lead	9.4	0.50	1	01/24/2017 15:55

Surrogates	REC (%)	Limits
Terbium	93	70-130

Analyst(s): MIG

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1701936-003A	Solid	01/17/2017	ICP-MS1	133005

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.50	1	01/24/2017 16:19

Surrogates	REC (%)	Limits
Terbium	107	70-130

Analyst(s): MIG

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FLVCS-8	1701936-004A	Solid	01/17/2017	ICP-MS1	133005

Analytes	Result	RL	DF	Date Analyzed
Lead	7.4	0.50	1	01/24/2017 16:26

Surrogates	REC (%)	Limits
Terbium	86	70-130

Analyst(s): MIG



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701936
<b>Date Prepared:</b> 1/23/17	<b>BatchID:</b> 132995
<b>Date Analyzed:</b> 1/24/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS1	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; 1216-1222 McCarthy; MBS Twin Rivers	<b>Sample ID:</b> MB/LCS-132995
Svy	1701948-001AMS/MSD
	1701948-001APDS

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	52.2	0.50	50	-	104	75-125
<b>Surrogate Recovery</b>							
Terbium	475.9	528		500	95	106	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	58.5	46.6	50	8.497	100	76	75-125	22.7,F10	20
<b>Surrogate Recovery</b>									
Terbium	521	391	500		104	78	70-130	28.4,F1	20

Analyte	PDS Result	SPK Val	SPKRef Val	PDS %REC	PDS Limits
Lead	58.2	50	8.497	99	75-125

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	9.02	8.497	6.16	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.





## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701936
<b>Date Prepared:</b> 1/23/17 - 1/24/17	<b>BatchID:</b> 133005
<b>Date Analyzed:</b> 1/24/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS1, ICP-MS2	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; 1216-1222 McCarthy; MBS Twin Rivers Svy	<b>Sample ID:</b> MB/LCS-133005 1701985-001AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.1	0.50	50	-	100	75-125
<b>Surrogate Recovery</b>							
Terbium	491.1	494		500	98	99	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	63.8	65.9	50	17.43	93	97	75-125	3.18	20
<b>Surrogate Recovery</b>									
Terbium	524	526	500		105	105	70-130	0	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	16.8	17.43	3.61	20

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1701936**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Dan Leung  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
cc/3rd Party: ccodemo@sca-enviro.com;  
PO:  
ProjectNo: F-12279; 1216-1222 McCarthy; MBS Twin  
Rivers Svy

**Bill to:**

Accounts Payable  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
emuisse@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 01/23/2017**

**Date Logged: 01/23/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1701936-001	OW-1	Solid	1/17/2017 00:00	<input type="checkbox"/>	A												
1701936-002	GR-1	Solid	1/17/2017 00:00	<input type="checkbox"/>	A												
1701936-003	12FLVCT/M-1	Solid	1/17/2017 00:00	<input type="checkbox"/>	A												
1701936-004	FLVCS-8	Solid	1/17/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 1216-1222 McCarthy; MBS Twin Rivers Svy

**Work Order:** 1701936

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/23/2017

WaterTrax    WriteOn    EDF    Excel    Fax    Email    HardCopy    ThirdParty    J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701936-001A	OW-1	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/17/2017	5 days		<input type="checkbox"/>	
1701936-002A	GR-1	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/17/2017	5 days		<input type="checkbox"/>	
1701936-003A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/17/2017	5 days		<input type="checkbox"/>	
1701936-004A	FLVCS-8	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/17/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.





### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 1216-1222 McCarthy; MBS Twin Rivers Svy**  
 WorkOrder No: **1701936** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/23/2017 14:48**  
 Date Logged: **1/23/2017**  
 Received by: **Jena Alfaro**  
 Logged by: **Jena Alfaro**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701934 **Amended:** 02/22/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 1219-1221 Delta St; MBS Twin Rivers Svy

**Project Received:** 01/23/2017

Analytical Report reviewed & approved for release on 01/30/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*







## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 1219-1221 Delta St; MBS Twin Rivers Svy  
**WorkOrder:** 1701934

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Analytical Qualifiers

a4	reporting limits raised due to the sample's matrix prohibiting a full volume extraction.
h4	sulfuric acid permanganate (EPA 3665) cleanup





## **Glossary of Terms & Qualifier Definitions**

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 1219-1221 Delta St; MBS Twin Rivers Svy  
**WorkOrder:** 1701934

### **Quality Control Qualifiers**

F1 MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.  
F10 MS/MSD outside control limits. Physical or chemical interferences exist due to sample matrix.



## Analytical Report

**Client:** SCA Environmental, Inc. **WorkOrder:** 1701934  
**Date Received:** 1/23/17 14:48 **Extraction Method:** SW3550B  
**Date Prepared:** 1/23/17 **Analytical Method:** SW8082  
**Project:** F-12279; 1219-1221 Delta St; MBS Twin Rivers Svy **Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Caulk-11	1701934-002A	Solid	01/19/2017	GC23	132996

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.50	1	01/23/2017 22:56
Aroclor1221	ND	0.50	1	01/23/2017 22:56
Aroclor1232	ND	0.50	1	01/23/2017 22:56
Aroclor1242	ND	0.50	1	01/23/2017 22:56
Aroclor1248	ND	0.50	1	01/23/2017 22:56
Aroclor1254	ND	0.50	1	01/23/2017 22:56
Aroclor1260	ND	0.50	1	01/23/2017 22:56
PCBs, total	ND	0.50	1	01/23/2017 22:56

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	89	70-130	01/23/2017 22:56

Analyst(s): SS

Analytical Comments: a4,h4



## Analytical Report

**Client:** SCA Environmental, Inc. **WorkOrder:** 1701934  
**Date Received:** 1/23/17 14:48 **Extraction Method:** SW3050B  
**Date Prepared:** 1/23/17 **Analytical Method:** SW6020  
**Project:** F-12279; 1219-1221 Delta St; MBS Twin Rivers Svy **Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
BE-1	1701934-001A	Solid	01/19/2017	ICP-MS1	132995

Analytes	Result	RL	DF	Date Analyzed
Lead	2.7	0.50	1	01/24/2017 15:31

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	83	70-130	01/24/2017 15:31

**Analyst(s):** MIG



## Quality Control Report

<b>Client:</b>	SCA Environmental, Inc.	<b>WorkOrder:</b>	1701934
<b>Date Prepared:</b>	1/23/17	<b>BatchID:</b>	132996
<b>Date Analyzed:</b>	1/23/17 - 1/25/17	<b>Extraction Method:</b>	SW3550B
<b>Instrument:</b>	GC22, GC23	<b>Analytical Method:</b>	SW8082
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/kg
<b>Project:</b>	F-12279; 1219-1221 Delta St; MBS Twin Rivers Svy	<b>Sample ID:</b>	MB/LCS/LCSD-132996

### QC Summary Report for SW8082

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Aroclor1016	ND	0.050	-	-	-
Aroclor1221	ND	0.050	-	-	-
Aroclor1232	ND	0.050	-	-	-
Aroclor1242	ND	0.050	-	-	-
Aroclor1248	ND	0.050	-	-	-
Aroclor1254	ND	0.050	-	-	-
Aroclor1260	ND	0.050	-	-	-
PCBs, total	ND	0.050	-	-	-

**Surrogate Recovery**

Decachlorobiphenyl	0.0466		0.050	93	70-130
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aroclor1016	0.139	0.134	0.15	93	89	70-130	4.02	20
Aroclor1260	0.158	0.156	0.15	105	104	70-130	0.906	20

**Surrogate Recovery**

Decachlorobiphenyl	0.0447	0.0537	0.050	89	107	70-130	18.4	20
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## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701934
<b>Date Prepared:</b> 1/23/17	<b>BatchID:</b> 132995
<b>Date Analyzed:</b> 1/24/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS1	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; 1219-1221 Delta St; MBS Twin Rivers Svy	<b>Sample ID:</b> MB/LCS-132995 1701948-001AMS/MSD 1701948-001APDS

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	52.2	0.50	50	-	104	75-125
<b>Surrogate Recovery</b>							
Terbium	475.9	528		500	95	106	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	58.5	46.6	50	8.497	100	76	75-125	22.7,F10	20
<b>Surrogate Recovery</b>									
Terbium	521	391	500		104	78	70-130	28.4,F1	20

Analyte	PDS Result	SPK Val	SPKRef Val	PDS %REC	PDS Limits
Lead	58.2	50	8.497	99	75-125

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	9.02	8.497	6.16	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1701934**

**ClientCode: SCAO**

WaterTrax  
  WriteOn  
  EDF  
  Excel  
  EQulS  
  Email  
  HardCopy  
  ThirdParty  
  J-flag

**Report to:**

Dan Leung  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 (510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
 cc/3rd Party: ccodemo@sca-enviro.com;  
 PO:  
 ProjectNo: F-12279; 1219-1221 Delta St; MBS Twin  
 Rivers Svy

**Bill to:**

Accounts Payable  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 01/23/2017**

**Date Logged: 01/23/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1701934-001	BE-1	Solid	1/19/2017 00:00	<input type="checkbox"/>		A											
1701934-002	Caulk-11	Solid	1/19/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	8082_PCB_ESL_S	2	PBMS_TTLC_S	3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 1219-1221 Delta St; MBS Twin Rivers Svy

**Work Order:** 1701934

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/23/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701934-001A	BE-1	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/19/2017	5 days		<input type="checkbox"/>	
1701934-002A	Caulk-11	Solid	SW8082 (PCBs Only)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/19/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.







### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 1219-1221 Delta St; MBS Twin Rivers Svy**  
 WorkOrder No: **1701934** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/23/2017 14:48**  
 Date Logged: **1/23/2017**  
 Received by: **Jena Alfaro**  
 Logged by: **Jena Alfaro**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701933 **Amended:** 02/22/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 1220-1222 Delta St; MBS Twin Rivers Svy

**Project Received:** 01/23/2017

Analytical Report reviewed & approved for release on 01/30/2017 by:

Angela Rydelius,  
Laboratory Manager

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## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 1220-1222 Delta St; MBS Twin Rivers Svy  
**WorkOrder:** 1701933

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Analytical Qualifiers

a4	reporting limits raised due to the sample's matrix prohibiting a full volume extraction.
h4	sulfuric acid permanganate (EPA 3665) cleanup



## **Glossary of Terms & Qualifier Definitions**

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 1220-1222 Delta St; MBS Twin Rivers Svy  
**WorkOrder:** 1701933

### **Quality Control Qualifiers**

F1 MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.  
F10 MS/MSD outside control limits. Physical or chemical interferences exist due to sample matrix.



## Analytical Report

**Client:** SCA Environmental, Inc. **WorkOrder:** 1701933  
**Date Received:** 1/23/17 14:48 **Extraction Method:** SW3550B  
**Date Prepared:** 1/23/17 **Analytical Method:** SW8082  
**Project:** F-12279; 1220-1222 Delta St; MBS Twin Rivers Svy **Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Caulk-11	1701933-002A	Solid	01/18/2017	GC23	132996

Analytes	Result	MDL	RL	DF	Date Analyzed
Aroclor1016	ND	0.051	0.50	1	01/23/2017 23:09
Aroclor1221	ND	0.33	0.50	1	01/23/2017 23:09
Aroclor1232	ND	0.032	0.50	1	01/23/2017 23:09
Aroclor1242	ND	0.035	0.50	1	01/23/2017 23:09
Aroclor1248	ND	0.036	0.50	1	01/23/2017 23:09
Aroclor1254	ND	0.022	0.50	1	01/23/2017 23:09
Aroclor1260	ND	0.085	0.50	1	01/23/2017 23:09
PCBs, total	ND	0.33	0.50	1	01/23/2017 23:09

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	85	70-130	01/23/2017 23:09

**Analyst(s):** SS **Analytical Comments:** a4,h4





## Analytical Report

**Client:** SCA Environmental, Inc. **WorkOrder:** 1701933  
**Date Received:** 1/23/17 14:48 **Extraction Method:** SW3050B  
**Date Prepared:** 1/23/17 **Analytical Method:** SW6020  
**Project:** F-12279; 1220-1222 Delta St; MBS Twin Rivers Svy **Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1701933-001A	Solid	01/18/2017	ICP-MS1	132995

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.50	1	01/24/2017 15:24

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	95	70-130	01/24/2017 15:24

**Analyst(s):** MIG





## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701933
<b>Date Prepared:</b> 1/23/17	<b>BatchID:</b> 132996
<b>Date Analyzed:</b> 1/23/17 - 1/25/17	<b>Extraction Method:</b> SW3550B
<b>Instrument:</b> GC22, GC23	<b>Analytical Method:</b> SW8082
<b>Matrix:</b> Soil	<b>Unit:</b> mg/kg
<b>Project:</b> F-12279; 1220-1222 Delta St; MBS Twin Rivers Svy	<b>Sample ID:</b> MB/LCS/LCSD-132996

### QC Summary Report for SW8082

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aroclor1016	ND	0.0051	0.050	-	-	-
Aroclor1221	ND	0.033	0.050	-	-	-
Aroclor1232	ND	0.0032	0.050	-	-	-
Aroclor1242	ND	0.0035	0.050	-	-	-
Aroclor1248	ND	0.0036	0.050	-	-	-
Aroclor1254	ND	0.0022	0.050	-	-	-
Aroclor1260	ND	0.0085	0.050	-	-	-
PCBs, total	ND	0.0040	0.050	-	-	-

**Surrogate Recovery**

Decachlorobiphenyl	0.0466	0.050	93	70-130
--------------------	--------	-------	----	--------

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aroclor1016	0.139	0.134	0.15	93	89	70-130	4.02	20
Aroclor1260	0.158	0.156	0.15	105	104	70-130	0.906	20

**Surrogate Recovery**

Decachlorobiphenyl	0.0447	0.0537	0.050	89	107	70-130	18.4	20
--------------------	--------	--------	-------	----	-----	--------	------	----



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701933
<b>Date Prepared:</b> 1/23/17	<b>BatchID:</b> 132995
<b>Date Analyzed:</b> 1/24/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS1	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; 1220-1222 Delta St; MBS Twin Rivers Svy	<b>Sample ID:</b> MB/LCS-132995 1701948-001AMS/MSD 1701948-001APDS

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	52.2	0.50	50	-	104	75-125
<b>Surrogate Recovery</b>							
Terbium	475.9	528		500	95	106	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	58.5	46.6	50	8.497	100	76	75-125	22.7,F10	20
<b>Surrogate Recovery</b>									
Terbium	521	391	500		104	78	70-130	28.4,F1	20

Analyte	PDS Result	SPK Val	SPKRef Val	PDS %REC	PDS Limits
Lead	58.2	50	8.497	99	75-125

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	9.02	8.497	6.16	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1701933**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Dan Leung  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
cc/3rd Party: ccodemo@sca-enviro.com;  
PO:  
ProjectNo: F-12279; 1220-1222 Delta St; MBS Twin  
Rivers Svy

**Bill to:**

Accounts Payable  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
emuisse@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 01/23/2017**

**Date Logged: 01/23/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1701933-001	12FLVCT/M-1	Solid	1/18/2017 00:00	<input type="checkbox"/>		A											
1701933-002	Caulk-11	Solid	1/18/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	8082_PCB_ESL_S (J)	2	PBMS_TTLC_S	3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 1220-1222 Delta St; MBS Twin Rivers Svy

**Work Order:** 1701933

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/23/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701933-001A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	Small Yellow Plastic Container	<input type="checkbox"/>	1/18/2017	5 days		<input type="checkbox"/>	
1701933-002A	Caulk-11	Solid	SW8082 (PCBs Only)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/18/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



# McC Campbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, CA 94565-1701  
www.mcccampbell.com / main@mcccampbell.com  
Telephone: (877) 252-9262 / Fax: (925) 252-9269

## CHAIN OF CUSTODY RECORD

**TURN AROUND TIME:** RUSH  1 DAY  2 DAY  3 DAY  5 DAY   
GeoTracker EDF  PDF  EDD  Write On (DW)  EquiS  10 DAY   
Effluent Sample Requiring "J" flag  UST Clean Up Fund Project ; Claim # \_\_\_\_\_

**Report To:** Dan Leung                      **Bill To:** SCA Environmental, Inc.  
**Company:** SCA Environmental, Inc.                      CCODENED @SCA-ENVIRO.COM  
1 Lakeside Dr., #215                      Oakland, CA 94612                      pgervasio@scaehs.com and  
**Tele:** (415) 867-9544                      **E-Mail:** dleung@sca-enviro.com  
**Project #:** F-12279                      **Project Name:** MBS TWIN RIVERS  
**Project Location:** 1220-1222 DELTA ST.                      Delta St. Purchase Order#                      SVY  
**Sampler Signature:** Dan Leung

### Analysis Request

SAMPLE ID	Location/ Field Point Name	SAMPLING		# Containers	MATRIX									METHOD PRESERVED			ANALYSIS REQUEST																			
		Date	Time		Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	HCL	HNO <sub>3</sub>	Other	BTEX & TPH as Gas (8021/8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 505/608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic CI Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAS)	CAM 17 Metals (200.8 / 6020)***	LUFT 5 Metals (200.8 / 6020)***	Metals (200.8 / 6020)***	Lab to Filter sample for Dissolved metals analysis	LEAD (1100)	PCB				
																																	12FLVCY/M-1	1/18		
CAULC-17	↓			1																														X		

\*\*\*MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

\*\*\* If metals are requested for water samples and the water type is not specified on the chain of custody, then MAI will default to metals by E200.8.

Relinquished By: Dan Leung	Date: 1/20	Time: 6:00 P	Received By: UPS	ICE/I <sup>e</sup>	<b>COMMENTS:</b> PCBs: 1 PPM detection limit required. Authorized to perform Florisil cleanup to meet the detection limit.  UPS K129 1237 134
Relinquished By: UPS	Date: 1/23/17	Time: 1448	Received By: [Signature]	GOOD CONDITION	
Relinquished By:	Date:	Time:	Received By:	HEAD SPACE ABSENT _____ DECHLORINATED IN LAB _____ APPROPRIATE CONTAINERS _____ PRESERVED IN LAB _____ VOAS O&G METALS OTHER HAZARDOUS: _____ PRESERVATION _____ pH-<2 _____	



### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 1220-1222 Delta St; MBS Twin Rivers Svy**  
 WorkOrder No: **1701933** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/23/2017 14:48**  
 Date Logged: **1/23/2017**  
 Received by: **Jena Alfaro**  
 Logged by: **Jena Alfaro**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:





# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701A77 **Amended:** 02/22/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 1220-1226 Isabel St; MBS Twin Rivers Svy

**Project Received:** 01/25/2017

Analytical Report reviewed & approved for release on 01/31/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*







## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 1220-1226 Isabel St; MBS Twin Rivers Svy  
**WorkOrder:** 1701A77

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Analytical Qualifiers

a4	reporting limits raised due to the sample's matrix prohibiting a full volume extraction.
h4	sulfuric acid permanganate (EPA 3665) cleanup



## Analytical Report

**Client:** SCA Environmental, Inc. **WorkOrder:** 1701A77  
**Date Received:** 1/25/17 10:58 **Extraction Method:** SW3550B  
**Date Prepared:** 1/25/17 **Analytical Method:** SW8082  
**Project:** F-12279; 1220-1226 Isabel St; MBS Twin Rivers **Unit:** mg/kg  
 Svy

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Caulk-9	1701A77-003A	Solid	01/20/2017	GC23	133085

Analytes	Result	MDL	RL	DF	Date Analyzed
Aroclor1016	ND	0.0051	0.050	1	01/25/2017 20:30
Aroclor1221	ND	0.033	0.050	1	01/25/2017 20:30
Aroclor1232	ND	0.0032	0.050	1	01/25/2017 20:30
Aroclor1242	ND	0.0035	0.050	1	01/25/2017 20:30
Aroclor1248	ND	0.0036	0.050	1	01/25/2017 20:30
Aroclor1254	ND	0.0022	0.050	1	01/25/2017 20:30
Aroclor1260	ND	0.0085	0.050	1	01/25/2017 20:30
PCBs, total	ND	0.033	0.050	1	01/25/2017 20:30

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	82	70-130	01/25/2017 20:30

**Analyst(s):** SS **Analytical Comments:** a4,h4



## Analytical Report

**Client:** SCA Environmental, Inc. **WorkOrder:** 1701A77  
**Date Received:** 1/25/17 10:58 **Extraction Method:** SW3050B  
**Date Prepared:** 1/25/17 **Analytical Method:** SW6020  
**Project:** F-12279; 1220-1226 Isabel St; MBS Twin Rivers **Unit:** mg/Kg  
 Svy

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1701A77-001A	Solid	01/20/2017	ICP-MS3	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.50	1	01/26/2017 00:32

Surrogates	REC (%)	Limits
Terbium	101	70-130

Analyst(s): BBO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GR-1	1701A77-002A	Solid	01/20/2017	ICP-MS3	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	5.4	0.50	1	01/26/2017 00:57

Surrogates	REC (%)	Limits
Terbium	107	70-130

Analyst(s): BBO



## Quality Control Report

<b>Client:</b>	SCA Environmental, Inc.	<b>WorkOrder:</b>	1701A77
<b>Date Prepared:</b>	1/24/17	<b>BatchID:</b>	133085
<b>Date Analyzed:</b>	1/24/17	<b>Extraction Method:</b>	SW3550B
<b>Instrument:</b>	GC23	<b>Analytical Method:</b>	SW8082
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/kg
<b>Project:</b>	F-12279; 1220-1226 Isabel St; MBS Twin Rivers Svy	<b>Sample ID:</b>	MB/LCS/LCSD-133085

### QC Summary Report for SW8082

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aroclor1016	ND	0.0051	0.050	-	-	-
Aroclor1221	ND	0.033	0.050	-	-	-
Aroclor1232	ND	0.0032	0.050	-	-	-
Aroclor1242	ND	0.0035	0.050	-	-	-
Aroclor1248	ND	0.0036	0.050	-	-	-
Aroclor1254	ND	0.0022	0.050	-	-	-
Aroclor1260	ND	0.0085	0.050	-	-	-
PCBs, total	ND	0.0040	0.050	-	-	-

**Surrogate Recovery**

Decachlorobiphenyl	0.05272			0.050	105	70-130
--------------------	---------	--	--	-------	-----	--------

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aroclor1016	0.134	0.133	0.15	89	88	70-130	0.634	20
Aroclor1260	0.148	0.154	0.15	99	103	70-130	4.43	20

**Surrogate Recovery**

Decachlorobiphenyl	0.0521	0.0532	0.050	104	106	70-130	1.97	20
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## Quality Control Report

<b>Client:</b>	SCA Environmental, Inc.	<b>WorkOrder:</b>	1701A77
<b>Date Prepared:</b>	1/25/17	<b>BatchID:</b>	133119
<b>Date Analyzed:</b>	1/25/17 - 1/26/17	<b>Extraction Method:</b>	SW3050B
<b>Instrument:</b>	ICP-MS2, ICP-MS3	<b>Analytical Method:</b>	SW6020
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	F-12279; 1220-1226 Isabel St; MBS Twin Rivers Svy	<b>Sample ID:</b>	MB/LCS-133119 1701A98-003AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	52.2	0.50	50	-	104	75-125
<b>Surrogate Recovery</b>							
Terbium	500.7	540		500	100	108	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	55.9	57.4	50	6.816	98	101	75-125	2.68	20
<b>Surrogate Recovery</b>									
Terbium	528	525	500		106	105	70-130	0.551	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	6.94	6.816	1.82	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1701A77**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**  
 Dan Leung  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 (510) 645-6200    FAX: (510) 839- 6200

**Email:** dleung@sca-enviro.com; pgervasio@scae  
 cc/3rd Party:  
**PO:**  
**ProjectNo:** F-12279; 1220-1226 Isabel St; MBS Twin  
 Rivers Svy

**Bill to:**  
 Accounts Payable  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**  
  
**Date Received: 01/25/2017**  
**Date Logged: 01/25/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1701A77-001	12FLVCT/M-1	Solid	1/20/2017 00:00	<input type="checkbox"/>		A										
1701A77-002	GR-1	Solid	1/20/2017 00:00	<input type="checkbox"/>		A										
1701A77-003	Caulk-9	Solid	1/20/2017 00:00	<input type="checkbox"/>	A											

**Test Legend:**

1	8082_PCB_ESL_Solid (J)	2	PBMS_TTLC_S	3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 1220-1226 Isabel St; MBS Twin Rivers Svy

**Work Order:** 1701A77

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/25/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701A77-001A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	Small Yellow Plastic Container	<input type="checkbox"/>	1/20/2017	5 days		<input type="checkbox"/>	
1701A77-002A	GR-1	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/20/2017	5 days		<input type="checkbox"/>	
1701A77-003A	Caulk-9	Solid	SW8082 (PCBs Only)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/20/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.







### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 1220-1226 Isabel St; MBS Twin Rivers Svy**  
 WorkOrder No: **1701A77** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/25/2017 10:58**  
 Date Logged: **1/25/2017**  
 Received by: **Jena Alfaro**  
 Logged by: **Jena Alfaro**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1702354

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; MBS Twin Rivers Svy - 1225-1231 Isabel St.

**Project Received:** 02/06/2017

Analytical Report reviewed & approved for release on 02/10/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; MBS Twin Rivers Svy - 1225-1231 Isabel St.  
**WorkOrder:** 1702354

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



# Analytical Report

**Client:** SCA Environmental, Inc.  
**Date Received:** 2/6/17 9:07  
**Date Prepared:** 2/6/17  
**Project:** F-12279; MBS Twin Rivers Svy - 1225-1231 Isabel St.

**WorkOrder:** 1702354  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

## Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FLVCS-3	1702354-001A	Solid	02/02/2017	ICP-MS1	133762

Analytes	Result	RL	DF	Date Analyzed
Lead	1.8	1.1	1	02/08/2017 21:02

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	93	70-130	02/08/2017 21:02

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WLPL-4	1702354-002A	Solid	02/02/2017	ICP-MS1	133762

Analytes	Result	RL	DF	Date Analyzed
Lead	40	0.50	1	02/08/2017 03:15

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	100	70-130	02/08/2017 03:15

Analyst(s): DVH





## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1702354
<b>Date Prepared:</b> 2/6/17	<b>BatchID:</b> 133762
<b>Date Analyzed:</b> 2/7/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; MBS Twin Rivers Svy - 1225-1231 Isabel St.	<b>Sample ID:</b> MB/LCS-133762 1702364-001AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.9	0.50	50	-	102	75-125
<b>Surrogate Recovery</b>							
Terbium	510.6	526		500	102	105	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	53.9	57.6	50	7.809	92	100	75-125	6.76	20
<b>Surrogate Recovery</b>									
Terbium	522	530	500		104	106	70-130	1.54	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	7.74	7.809	0.884	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1702354**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Dan Leung  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 (510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
 cc/3rd Party:  
 PO:  
 ProjectNo: F-12279; MBS Twin Rivers Svy - 1225-  
 1231 Isabel St.

**Bill to:**

Accounts Payable  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 02/06/2017**

**Date Logged: 02/06/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1702354-001	FLVCS-3	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												
1702354-002	WLPL-4	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.





### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; MBS Twin Rivers Svy - 1225-1231 Isabel St.

**Work Order:** 1702354

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 2/6/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702354-001A	FLVCS-3	Solid	SW6020 (Lead)	1	Yellow Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	
1702354-002A	WLPL-4	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.





### Sample Receipt Checklist

Client Name:	<b>SCA Environmental, Inc.</b>	Date and Time Received:	<b>2/6/2017 09:07</b>
Project Name:	<b>F-12279; MBS Twin Rivers Svy - 1225-1231 Isabel St.</b>	Date Logged:	<b>2/6/2017</b>
WorkOrder No:	<b>1702354</b>	Matrix:	<u>Solid</u>
Carrier:	<u>UPS</u>	Received by:	Maria Venegas
		Logged by:	Maria Venegas

**Chain of Custody (COC) Information**

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

**Sample Receipt Information**

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

**Sample Preservation and Hold Time (HT) Information**

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample/Temp Blank temperature		Temp:	NA <input checked="" type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

**UCMR3 Samples:**

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

-----  
 Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701A78 **Amended:** 02/22/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 1228-1230 Isabel St; MBS Twin Rivers Svy

**Project Received:** 01/25/2017

Analytical Report reviewed & approved for release on 01/31/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 1228-1230 Isabel St; MBS Twin Rivers Svy  
**WorkOrder:** 1701A78

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)





## Analytical Report

**Client:** SCA Environmental, Inc.  
**Date Received:** 1/25/17 10:58  
**Date Prepared:** 1/25/17  
**Project:** F-12279; 1228-1230 Isabel St; MBS Twin Rivers Svy

**WorkOrder:** 1701A78  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
OW-1	1701A78-001A	Solid	01/20/2017	ICP-MS2	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	41	0.50	1	01/26/2017 13:42

Surrogates	REC (%)	Limits
Terbium	101	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
BR-2	1701A78-002A	Solid	01/20/2017	ICP-MS2	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	2.6	0.50	1	01/26/2017 14:00

Surrogates	REC (%)	Limits
Terbium	109	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1701A78-003A	Solid	01/20/2017	ICP-MS2	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.50	1	01/26/2017 14:06

Surrogates	REC (%)	Limits
Terbium	106	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-2	1701A78-004A	Solid	01/20/2017	ICP-MS2	133119

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.50	1	01/26/2017 14:12

Surrogates	REC (%)	Limits
Terbium	107	70-130

Analyst(s): DVH



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701A78
<b>Date Prepared:</b> 1/25/17	<b>BatchID:</b> 133119
<b>Date Analyzed:</b> 1/25/17 - 1/26/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS2, ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; 1228-1230 Isabel St; MBS Twin Rivers Svy	<b>Sample ID:</b> MB/LCS-133119 1701A98-003AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	52.2	0.50	50	-	104	75-125
<b>Surrogate Recovery</b>							
Terbium	500.7	540		500	100	108	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	55.9	57.4	50	6.816	98	101	75-125	2.68	20
<b>Surrogate Recovery</b>									
Terbium	528	525	500		106	105	70-130	0.551	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	6.94	6.816	1.82	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.





1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1701A78**

**ClientCode: SCAO**

WaterTrax  
  WriteOn  
  EDF  
  Excel  
  EQulS  
  Email  
  HardCopy  
  ThirdParty  
  J-flag

**Report to:**

Dan Leung  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 (510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
 cc/3rd Party:  
 PO:  
 ProjectNo: F-12279; 1228-1230 Isabel St; MBS Twin  
 Rivers Svy

**Bill to:**

Accounts Payable  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 01/25/2017**

**Date Logged: 01/25/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1701A78-001	OW-1	Solid	1/20/2017 00:00	<input type="checkbox"/>	A												
1701A78-002	BR-2	Solid	1/20/2017 00:00	<input type="checkbox"/>	A												
1701A78-003	12FLVCT/M-1	Solid	1/20/2017 00:00	<input type="checkbox"/>	A												
1701A78-004	12FLVCT/M-2	Solid	1/20/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 1228-1230 Isabel St; MBS Twin Rivers Svy

**Work Order:** 1701A78

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/25/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701A78-001A	OW-1	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/20/2017	5 days		<input type="checkbox"/>	
1701A78-002A	BR-2	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/20/2017	5 days		<input type="checkbox"/>	
1701A78-003A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	Small Yellow Plastic Container	<input type="checkbox"/>	1/20/2017	5 days		<input type="checkbox"/>	
1701A78-004A	12FLVCT/M-2	Solid	SW6020 (Lead)	1	Small Yellow Plastic Container	<input type="checkbox"/>	1/20/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.





### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 1228-1230 Isabel St; MBS Twin Rivers Svy**  
 WorkOrder No: **1701A78** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/25/2017 10:58**  
 Date Logged: **1/25/2017**  
 Received by: **Jena Alfaro**  
 Logged by: **Jena Alfaro**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701935 **Amended:** 02/22/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 1231-1233 Delta St; MBS Twin Rivers Svy

**Project Received:** 01/23/2017

Analytical Report reviewed & approved for release on 01/26/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 1231-1233 Delta St; MBS Twin Rivers Svy  
**WorkOrder:** 1701935

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.
F10	MS/MSD outside control limits. Physical or chemical interferences exist due to sample matrix.





## Analytical Report

**Client:** SCA Environmental, Inc. **WorkOrder:** 1701935  
**Date Received:** 1/23/17 14:48 **Extraction Method:** SW3050B  
**Date Prepared:** 1/23/17 **Analytical Method:** SW6020  
**Project:** F-12279; 1231-1233 Delta St; MBS Twin Rivers Svy **Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1701935-001A	Solid	01/19/2017	ICP-MS1	132995

Analytes	Result	RL	DF	Date Analyzed
Lead	2.8	0.50	1	01/24/2017 15:37

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	82	70-130	01/24/2017 15:37

Analyst(s): MIG

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GR-1	1701935-002A	Solid	01/19/2017	ICP-MS1	132995

Analytes	Result	RL	DF	Date Analyzed
Lead	0.98	0.50	1	01/24/2017 15:43

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	92	70-130	01/24/2017 15:43

Analyst(s): MIG





## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701935
<b>Date Prepared:</b> 1/23/17	<b>BatchID:</b> 132995
<b>Date Analyzed:</b> 1/24/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS1	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; 1231-1233 Delta St; MBS Twin Rivers Svy	<b>Sample ID:</b> MB/LCS-132995 1701948-001AMS/MSD 1701948-001APDS

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	52.2	0.50	50	-	104	75-125
<b>Surrogate Recovery</b>							
Terbium	475.9	528		500	95	106	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	58.5	46.6	50	8.497	100	76	75-125	22.7,F10	20
<b>Surrogate Recovery</b>									
Terbium	521	391	500		104	78	70-130	28.4,F1	20

Analyte	PDS Result	SPK Val	SPKRef Val	PDS %REC	PDS Limits
Lead	58.2	50	8.497	99	75-125

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	9.02	8.497	6.16	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1701935

ClientCode: SCAO

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQuIS   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Dan Leung  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
cc/3rd Party: ccodemo@sca-enviro.com;  
PO:  
ProjectNo: F-12279; 1231-1233 Delta St; MBS Twin  
Rivers Svy

**Bill to:**

Accounts Payable  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
emuisse@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 01/23/2017**

**Date Logged: 01/23/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1701935-001	12FLVCT/M-1	Solid	1/19/2017 00:00	<input type="checkbox"/>	A												
1701935-002	GR-1	Solid	1/19/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 1231-1233 Delta St; MBS Twin Rivers Svy

**Work Order:** 1701935

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/23/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701935-001A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/19/2017	5 days		<input type="checkbox"/>	
1701935-002A	GR-1	Solid	SW6020 (Lead)	1	Small Clear Plastic Container	<input type="checkbox"/>	1/19/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



# McC Campbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, CA 94565-1701  
 www.mcccampbell.com / main@mcccampbell.com  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

1701935

## CHAIN OF CUSTODY RECORD

**TURN AROUND TIME:** RUSH  1 DAY  2 DAY  3 DAY  5 DAY   
 GeoTracker EDF  PDF  EDD  Write On (DW)  EQuIS  10 DAY   
 Effluent Sample Requiring "J" flag  UST Clean Up Fund Project ; Claim # \_\_\_\_\_

Report To: Dan Leung      Bill To: SCA Environmental, Inc.  
 Company: SCA Environmental, Inc.      CCODEMO@SCA-ENVIRO.COM  
 1 Lakeside Dr., #215      Oakland, CA 94612      pgervasio@scaehs.com and  
 Tele: (415) 867-9544      E-Mail: dleung@sca-enviro.com  
 Project #: F-12279      Project Name: MBS TULL RIVERS  
 Project Location: 1231-1233 DELTA ST. Purchase Order#      RVY  
 Sampler Signature: Dan Leung

### Analysis Request

SAMPLE ID	Location/ Field Point Name	SAMPLING		# Containers	MATRIX										METHOD PRESERVED			BTEX & TPH as Gas (8021/8015) MITBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 505/608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)***	LUFT 5 Metals (200.8 / 6020)***	Metals (200.8 / 6020)***	Lab to Filter sample for Dissolved metals analysis	LEAD (MLC)			
		Date	Time		Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	HCL	HNO3	Other	X	X																			
12FLVCI/M-1 GR-1		1/19		1																															X	X

\*\*MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

\*\*\* If metals are requested for water samples and the water type is not specified on the chain of custody, then MAI will default to metals by E200.8.

Relinquished By: Dan Leung	Date: 1/20	Time: 6:00P	Received By: URS
Relinquished By: URS	Date: 1/23/17	Time: 1448	Received By: 
Relinquished By:	Date:	Time:	Received By:

ICE/t° \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_  
 APPROPRIATE CONTAINERS \_\_\_\_\_  
 PRESERVED IN LAB \_\_\_\_\_  
 COMMENTS:  
 PCBs: 1 PPM detection limit required. Authorized to perform Florisil cleanup to meet the detection limit.  
 URS K129 1237134  
 VOAS O&G METALS OTHER HAZARDOUS:  
 PRESERVATION \_\_\_\_\_ pH < 2 \_\_\_\_\_



### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 1231-1233 Delta St; MBS Twin Rivers Svy**  
 WorkOrder No: **1701935** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/23/2017 14:48**  
 Date Logged: **1/23/2017**  
 Received by: **Jena Alfaro**  
 Logged by: **Jena Alfaro**

**Chain of Custody (COC) Information**

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

**Sample Preservation and Hold Time (HT) Information**

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

**UCMR3 Samples:**

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1702356

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; MBS Twin River Svy - 360-370 Mint St.

**Project Received:** 02/06/2017

Analytical Report reviewed & approved for release on 02/13/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; MBS Twin River Svy - 360-370 Mint St.  
**WorkOrder:** 1702356

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)





## **Glossary of Terms & Qualifier Definitions**

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; MBS Twin River Svy - 360-370 Mint St.  
**WorkOrder:** 1702356

### **Analytical Qualifiers**

a1 sample diluted due to matrix interference  
a4 reporting limits raised due to the sample's matrix prohibiting a full volume extraction.  
a12 reporting limit raised due to high non-reported metals content.  
h4 sulfuric acid permanganate (EPA 3665) cleanup



# Analytical Report

**Client:** SCA Environmental, Inc.

**WorkOrder:** 1702356

**Date Received:** 2/6/17 9:07

**Extraction Method:** SW3550B

**Date Prepared:** 2/6/17

**Analytical Method:** SW8082

**Project:** F-12279; MBS Twin River Svy - 360-370 Mint St.

**Unit:** mg/kg

## Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
CAULK-11	1702356-002A	Solid	01/31/2017	GC23	133723

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	1.0	2	02/07/2017 18:17
Aroclor1221	ND	1.0	2	02/07/2017 18:17
Aroclor1232	ND	1.0	2	02/07/2017 18:17
Aroclor1242	ND	1.0	2	02/07/2017 18:17
Aroclor1248	ND	1.0	2	02/07/2017 18:17
Aroclor1254	ND	1.0	2	02/07/2017 18:17
Aroclor1260	ND	1.0	2	02/07/2017 18:17
PCBs, total	ND	1.0	2	02/07/2017 18:17

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	108	70-130	02/07/2017 18:17

**Analyst(s):** SS

**Analytical Comments:** a1,a4,h4



## Analytical Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1702356
<b>Date Received:</b> 2/6/17 9:07	<b>Extraction Method:</b> SW3050B
<b>Date Prepared:</b> 2/6/17	<b>Analytical Method:</b> SW6020
<b>Project:</b> F-12279; MBS Twin River Svy - 360-370 Mint St.	<b>Unit:</b> mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FLVCS-3	1702356-001A	Solid	01/31/2017	ICP-MS3	133762
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	9.0		3.7	5	02/09/2017 03:20
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
Terbium	107		70-130		02/09/2017 03:20
<u>Analyst(s):</u> DB			<u>Analytical Comments:</u> a12		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
PK-1	1702356-003A	Solid	01/31/2017	ICP-MS3	133762
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	2.8		0.50	1	02/09/2017 14:51
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
Terbium	107		70-130		02/09/2017 14:51
<u>Analyst(s):</u> DB					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WLPL-4	1702356-004A	Solid	01/31/2017	ICP-MS3	133762
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	14		0.50	1	02/09/2017 15:15
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
Terbium	106		70-130		02/09/2017 15:15
<u>Analyst(s):</u> DB					



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1702356
<b>Date Prepared:</b> 2/6/17	<b>BatchID:</b> 133723
<b>Date Analyzed:</b> 2/7/17	<b>Extraction Method:</b> SW3550B
<b>Instrument:</b> GC23	<b>Analytical Method:</b> SW8082
<b>Matrix:</b> Soil	<b>Unit:</b> mg/kg
<b>Project:</b> F-12279; MBS Twin River Svy - 360-370 Mint St.	<b>Sample ID:</b> MB/LCS-133723 1702308-009AMS/MSD

### QC Summary Report for SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	0.128	0.050	0.15	-	85	70-130
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.125	0.050	0.15	-	83	70-130
PCBs, total	ND	-	0.050	-	-	-	-
<b>Surrogate Recovery</b>							
Decachlorobiphenyl	0.03954	0.0357		0.050	79	71	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1016	NR	NR		ND<0.25	NR	NR	-	NR	
Aroclor1260	NR	NR		ND<0.25	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
Decachlorobiphenyl	NR	NR			NR	NR	-	NR	



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1702356
<b>Date Prepared:</b> 2/6/17	<b>BatchID:</b> 133762
<b>Date Analyzed:</b> 2/7/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; MBS Twin River Svy - 360-370 Mint St.	<b>Sample ID:</b> MB/LCS-133762 1702364-001AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.9	0.50	50	-	102	75-125
<b>Surrogate Recovery</b>							
Terbium	510.6	526		500	102	105	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	53.9	57.6	50	7.809	92	100	75-125	6.76	20
<b>Surrogate Recovery</b>									
Terbium	522	530	500		104	106	70-130	1.54	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	7.74	7.809	0.884	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262



# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1702356**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Dan Leung  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
cc/3rd Party:  
PO:  
ProjectNo: F-12279; MBS Twin River Svy - 360-370  
Mint St.

**Bill to:**

Accounts Payable  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 02/06/2017**

**Date Logged: 02/06/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1702356-001	FLVCS-3	Solid	1/31/2017 00:00	<input type="checkbox"/>		A											
1702356-002	CAULK-11	Solid	1/31/2017 00:00	<input type="checkbox"/>	A												
1702356-003	PK-1	Solid	1/31/2017 00:00	<input type="checkbox"/>		A											
1702356-004	WLPL-4	Solid	1/31/2017 00:00	<input type="checkbox"/>		A											

**Test Legend:**

1	8082_PCB_Solid	2	PBMS_TTLC_S	3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; MBS Twin River Svy - 360-370 Mint St.

**Work Order:** 1702356

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 2/6/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702356-001A	FLVCS-3	Solid	SW6020 (Lead)	1	Yellow Plastic	<input type="checkbox"/>	1/31/2017	5 days		<input type="checkbox"/>	
1702356-002A	CAULK-11	Solid	SW8082 (PCBs Only)	1	White Plastic	<input type="checkbox"/>	1/31/2017	5 days		<input type="checkbox"/>	
1702356-003A	PK-1	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	1/31/2017	5 days		<input type="checkbox"/>	
1702356-004A	WLPL-4	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	1/31/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.







### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; MBS Twin River Svy - 360-370 Mint St.**  
 WorkOrder No: **1702356** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **2/6/2017 09:07**  
 Date Logged: **2/6/2017**  
 Received by: **Maria Venegas**  
 Logged by: **Maria Venegas**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1702351

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; MBS Twin Rivers Svy - 380-382 Dos Rios Blvd.

**Project Received:** 02/06/2017

Analytical Report reviewed & approved for release on 02/10/2017 by:

Angela Rydelius,  
Laboratory Manager

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## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; MBS Twin Rivers Svy - 380-382 Dos Rios Blvd.  
**WorkOrder:** 1702351

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Analytical Report

**Client:** SCA Environmental, Inc.  
**Date Received:** 2/6/17 9:07  
**Date Prepared:** 2/6/17  
**Project:** F-12279; MBS Twin Rivers Svy - 380-382 Dos Rios Blvd.

**WorkOrder:** 1702351  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1702351-001A	Solid	02/02/2017	ICP-MS1	133735

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.50	1	02/08/2017 20:56

Surrogates	REC (%)	Limits
Terbium	98	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FLVCS-3	1702351-002A	Solid	02/02/2017	ICP-MS1	133735

Analytes	Result	RL	DF	Date Analyzed
Lead	20	0.50	1	02/08/2017 02:38

Surrogates	REC (%)	Limits
Terbium	101	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
WLPL-4	1702351-003A	Solid	02/02/2017	ICP-MS1	133762

Analytes	Result	RL	DF	Date Analyzed
Lead	200	0.50	1	02/08/2017 02:45

Surrogates	REC (%)	Limits
Terbium	83	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
BE-1	1702351-004A	Solid	02/02/2017	ICP-MS1	133762

Analytes	Result	RL	DF	Date Analyzed
Lead	43	0.50	1	02/08/2017 02:51

Surrogates	REC (%)	Limits
Terbium	100	70-130

Analyst(s): DVH





## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1702351
<b>Date Prepared:</b> 2/6/17	<b>BatchID:</b> 133735
<b>Date Analyzed:</b> 2/6/17 - 2/7/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; MBS Twin Rivers Svy - 380-382 Dos Rios Blvd.	<b>Sample ID:</b> MB/LCS-133735 1702313-002AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	51.5	0.50	50	-	103	75-125
<b>Surrogate Recovery</b>							
Terbium	551.8	571		500	110	114	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	83.0	82.2	50	24.49	117	116	75-125	0.908	20
<b>Surrogate Recovery</b>									
Terbium	593	626	500		119	125	70-130	5.38	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	24.5	24.49	0.0408	20

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1702351
<b>Date Prepared:</b> 2/6/17	<b>BatchID:</b> 133762
<b>Date Analyzed:</b> 2/7/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; MBS Twin Rivers Svy - 380-382 Dos Rios Blvd.	<b>Sample ID:</b> MB/LCS-133762 1702364-001AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.9	0.50	50	-	102	75-125
<b>Surrogate Recovery</b>							
Terbium	510.6	526		500	102	105	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	53.9	57.6	50	7.809	92	100	75-125	6.76	20
<b>Surrogate Recovery</b>									
Terbium	522	530	500		104	106	70-130	1.54	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	7.74	7.809	0.884	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1702351**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**  
 Dan Leung  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 (510) 645-6200    FAX: (510) 839- 6200

**Email:**    dleung@sca-enviro.com; pgervasio@scae  
 cc/3rd Party:  
**PO:**  
 ProjectNo: F-12279; MBS Twin Rivers Svy - 380-382  
 Dos Rios Blvd.

**Bill to:**  
 Accounts Payable  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**  
  
**Date Received: 02/06/2017**  
**Date Logged: 02/06/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1702351-001	12FLVCT/M-1	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												
1702351-002	FLVCS-3	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												
1702351-003	WLPL-4	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												
1702351-004	BE-1	Solid	2/2/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; MBS Twin Rivers Svy - 380-382 Dos Rios Blvd.

**Work Order:** 1702351

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 2/6/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702351-001A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	Yellow Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	
1702351-002A	FLVCS-3	Solid	SW6020 (Lead)	1	Yellow Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	
1702351-003A	WLPL-4	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	
1702351-004A	BE-1	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	2/2/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.





### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; MBS Twin Rivers Svy - 380-382 Dos Rios Blvd.**  
 WorkOrder No: **1702351** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **2/6/2017 09:07**  
 Date Logged: **2/6/2017**  
 Received by: **Maria Venegas**  
 Logged by: **Maria Venegas**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701D21 **Amended:** 02/24/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 431-433 Mint St; MBS Twin Rivers Svy

**Project Received:** 01/31/2017

Analytical Report reviewed & approved for release on 02/06/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 431-433 Mint St; MBS Twin Rivers Svy  
**WorkOrder:** 1701D21

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Analytical Qualifiers

B analyte detected in the associated Method Blank and in the sample





## Analytical Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701D21
<b>Date Received:</b> 1/31/17 9:19	<b>Extraction Method:</b> SW3050B
<b>Date Prepared:</b> 1/31/17	<b>Analytical Method:</b> SW6020
<b>Project:</b> F-12279; 431-433 Mint St; MBS Twin Rivers Svy	<b>Unit:</b> mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GR-1	1701D21-001A	Solid	01/30/2017	ICP-MS2	133384
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	18	B	5.0	10	01/31/2017 23:38
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	112		70-130		01/31/2017 23:38
<u>Analyst(s):</u> DVH					





## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701D21
<b>Date Prepared:</b> 1/30/17	<b>BatchID:</b> 133384
<b>Date Analyzed:</b> 1/31/17 - 2/1/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS2, ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; 431-433 Mint St; MBS Twin Rivers Svy	<b>Sample ID:</b> MB/LCS-133384 1701D13-003AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	0.7838	51.2	0.50	50	-	102	75-125
<b>Surrogate Recovery</b>							
Terbium	481	522		500	96	104	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	63.1	63.1	50	9.790	107	107	75-125	0	20
<b>Surrogate Recovery</b>									
Terbium	553	550	500		111	110	70-130	0.580	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	10.0	9.790	2.15	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1701D21**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQuIS   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**  
 Dan Leung  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 (510) 645-6200    FAX: (510) 839- 6200

**Email:** dleung@sca-enviro.com; pgervasio@scae  
 cc/3rd Party: ccodemo@sca-enviro.com;  
**PO:**  
 ProjectNo: F-12279; 431-433 Mint St; MBS Twin  
 Rivers Svy

**Bill to:**  
 Accounts Payable  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**  
  
**Date Received: 01/31/2017**  
**Date Logged: 01/31/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1701D21-001	GR-1	Solid	1/30/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 431-433 Mint St; MBS Twin Rivers Svy

**Work Order:** 1701D21

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/31/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701D21-001A	GR-1	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	1/30/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.





### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 431-433 Mint St; MBS Twin Rivers Svy**  
 WorkOrder No: **1701D21** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/31/2017 09:19**  
 Date Logged: **1/31/2017**  
 Received by: **Maria Venegas**  
 Logged by: **Maria Venegas**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701D22 **Amended:** 02/22/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 451-453 Mint St; MBS Twin Rivers Svy

**Project Received:** 01/31/2017

Analytical Report reviewed & approved for release on 02/06/2017 by:

Angela Rydelius,  
Laboratory Manager

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## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 451-453 Mint St; MBS Twin Rivers Svy  
**WorkOrder:** 1701D22

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Analytical Qualifiers

B analyte detected in the associated Method Blank and in the sample





## Analytical Report

**Client:** SCA Environmental, Inc. **WorkOrder:** 1701D22  
**Date Received:** 1/31/17 9:19 **Extraction Method:** SW3050B  
**Date Prepared:** 1/31/17 **Analytical Method:** SW6020  
**Project:** F-12279; 451-453 Mint St; MBS Twin Rivers Svy **Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1701D22-001A	Solid	01/30/2017	ICP-MS2	133384

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Lead	2.1	B	0.50	1	01/31/2017 23:26

Surrogates	REC (%)	Limits
Terbium	110	70-130

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
BE-1	1701D22-002A	Solid	01/30/2017	ICP-MS2	133384

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Lead	6.6	B	0.50	1	01/31/2017 23:32

Surrogates	REC (%)	Limits
Terbium	112	70-130

Analyst(s): DVH



## Quality Control Report

<b>Client:</b>	SCA Environmental, Inc.	<b>WorkOrder:</b>	1701D22
<b>Date Prepared:</b>	1/30/17	<b>BatchID:</b>	133384
<b>Date Analyzed:</b>	1/31/17 - 2/1/17	<b>Extraction Method:</b>	SW3050B
<b>Instrument:</b>	ICP-MS2, ICP-MS3	<b>Analytical Method:</b>	SW6020
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	F-12279; 451-453 Mint St; MBS Twin Rivers Svy	<b>Sample ID:</b>	MB/LCS-133384 1701D13-003AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	0.7838	51.2	0.50	50	-	102	75-125
<b>Surrogate Recovery</b>							
Terbium	481	522		500	96	104	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	63.1	63.1	50	9.790	107	107	75-125	0	20
<b>Surrogate Recovery</b>									
Terbium	553	550	500		111	110	70-130	0.580	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	10.0	9.790	2.15	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1701D22**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Dan Leung  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: dleung@sca-enviro.com; pgervasio@scae  
cc/3rd Party: ccodemo@sca-enviro.com;  
PO:  
ProjectNo: F-12279; 451-453 Mint St; MBS Twin  
Rivers Svy

**Bill to:**

Accounts Payable  
SCA Environmental, Inc.  
1 Lakeside Drive, Suite 215  
Oakland, CA 94612  
emuisse@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**

**Date Received: 01/31/2017**

**Date Logged: 01/31/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1701D22-001	12FLVCT/M-1	Solid	1/30/2017 00:00	<input type="checkbox"/>	A												
1701D22-002	BE-1	Solid	1/30/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 451-453 Mint St; MBS Twin Rivers Svy

**Work Order:** 1701D22

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/31/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701D22-001A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	Yellow Plastic	<input type="checkbox"/>	1/30/2017	5 days		<input type="checkbox"/>	
1701D22-002A	BE-1	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	1/30/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.





### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 451-453 Mint St; MBS Twin Rivers Svy**  
 WorkOrder No: **1701D22** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/31/2017 09:19**  
 Date Logged: **1/31/2017**  
 Received by: **Maria Venegas**  
 Logged by: **Maria Venegas**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

-----  
 Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1701D23 **Amended:** 02/22/2017

**Report Created for:** SCA Environmental, Inc.

1 Lakeside Drive, Suite 215  
Oakland, CA 94612

**Project Contact:** Dan Leung

**Project P.O.:**

**Project Name:** F-12279; 560-562 Eliza St; MBS Twin Rivers Svy

**Project Received:** 01/31/2017

Analytical Report reviewed & approved for release on 02/06/2017 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*







## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** F-12279; 560-562 Eliza St; MBS Twin Rivers Svy  
**WorkOrder:** 1701D23

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Analytical Qualifiers

B analyte detected in the associated Method Blank and in the sample



## Analytical Report

**Client:** SCA Environmental, Inc.  
**Date Received:** 1/31/17 9:19  
**Date Prepared:** 1/31/17  
**Project:** F-12279; 560-562 Eliza St; MBS Twin Rivers Svy

**WorkOrder:** 1701D23  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
OW-1	1701D23-001A	Solid	01/25/2017	ICP-MS2	133384
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	290	B	5.0	10	01/31/2017 22:49
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	93		70-130		01/31/2017 22:49
<u>Analyst(s):</u> DVH					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
12FLVCT/M-1	1701D23-002A	Solid	01/25/2017	ICP-MS2	133384
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	0.53	B	0.50	1	02/01/2017 13:20
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	102		70-130		02/01/2017 13:20
<u>Analyst(s):</u> BBO					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FLVCS-3	1701D23-003A	Solid	01/25/2017	ICP-MS2	133384
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	21	B	5.0	10	01/31/2017 23:01
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	111		70-130		01/31/2017 23:01
<u>Analyst(s):</u> DVH					



## Quality Control Report

<b>Client:</b> SCA Environmental, Inc.	<b>WorkOrder:</b> 1701D23
<b>Date Prepared:</b> 1/30/17	<b>BatchID:</b> 133384
<b>Date Analyzed:</b> 1/31/17 - 2/1/17	<b>Extraction Method:</b> SW3050B
<b>Instrument:</b> ICP-MS2, ICP-MS3	<b>Analytical Method:</b> SW6020
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> F-12279; 560-562 Eliza St; MBS Twin Rivers Svy	<b>Sample ID:</b> MB/LCS-133384 1701D13-003AMS/MSD

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	0.7838	51.2	0.50	50	-	102	75-125
<b>Surrogate Recovery</b>							
Terbium	481	522		500	96	104	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	63.1	63.1	50	9.790	107	107	75-125	0	20
<b>Surrogate Recovery</b>									
Terbium	553	550	500		111	110	70-130	0.580	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	10.0	9.790	2.15	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1701D23**

**ClientCode: SCAO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**  
 Dan Leung  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 (510) 645-6200    FAX: (510) 839- 6200

**Email:**    dleung@sca-enviro.com; pgervasio@scae  
 cc/3rd Party: ccodemo@sca-enviro.com;  
**PO:**  
 ProjectNo: F-12279; 560-562 Eliza St; MBS Twin  
 Rivers Svy

**Bill to:**  
 Accounts Payable  
 SCA Environmental, Inc.  
 1 Lakeside Drive, Suite 215  
 Oakland, CA 94612  
 emuise@sca-ic.com;pgervasio@scaehs

**Requested TAT: 5 days;**  
  
**Date Received: 01/31/2017**  
**Date Logged: 01/31/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1701D23-001	OW-1	Solid	1/25/2017 00:00	<input type="checkbox"/>	A												
1701D23-002	12FLVCT/M-1	Solid	1/25/2017 00:00	<input type="checkbox"/>	A												
1701D23-003	FLVCS-3	Solid	1/25/2017 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	PBMS_TTLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** SCA ENVIRONMENTAL, INC.

**Project:** F-12279; 560-562 Eliza St; MBS Twin Rivers Svy

**Work Order:** 1701D23

**Client Contact:** Dan Leung

**QC Level:** LEVEL 2

**Contact's Email:** dleung@sca-enviro.com; pgervasio@scaehs.com

**Comments:**

**Date Logged:** 1/31/2017

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1701D23-001A	OW-1	Solid	SW6020 (Lead)	1	White Plastic	<input type="checkbox"/>	1/25/2017	5 days		<input type="checkbox"/>	
1701D23-002A	12FLVCT/M-1	Solid	SW6020 (Lead)	1	Bag	<input type="checkbox"/>	1/25/2017	5 days		<input type="checkbox"/>	
1701D23-003A	FLVCS-3	Solid	SW6020 (Lead)	1	Bag	<input type="checkbox"/>	1/25/2017	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.







### Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.**  
 Project Name: **F-12279; 560-562 Eliza St; MBS Twin Rivers Svy**  
 WorkOrder No: **1701D23** Matrix: Solid  
 Carrier: UPS

Date and Time Received: **1/31/2017 09:19**  
 Date Logged: **1/31/2017**  
 Received by: **Maria Venegas**  
 Logged by: **Maria Venegas**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  NA   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments: