

# Appendix E

## Laboratory Reports



**BABCOCK Laboratories, Inc.**  
*The Standard of Excellence for Over 100 Years*

Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 1 of 9  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 24-Jan-2019

**Work Order Number: B8K3513**  
Received on Ice (Y/N): Yes Temp: 2 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

**Sample Identification**

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
B8K3513-01	Horsetheif-01	Liquid	11/29/18 10:30	Garth E.	11/30/18 08:15	Mallory Graves
B8K3513-02	McVicker-01	Liquid	11/29/18 11:10	Garth E.	11/30/18 08:15	Mallory Graves
B8K3513-03	Adobe-01	Liquid	11/29/18 12:30	Garth E.	11/30/18 08:15	Mallory Graves
B8K3513-04	Adobe-02	Liquid	11/29/18 12:30	Garth E.	11/30/18 08:15	Mallory Graves
B8K3513-05	Adobe-03	Liquid	11/29/18 13:00	Garth E.	11/30/18 08:15	Mallory Graves

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Contact: Abigail Suter

Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 2 of 9

Project Name: Post Fire Monitoring

Project Number: SAR Post Fire

Report Date: 24-Jan-2019

**Work Order Number: B8K3513**

Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number**B8K3513-01**Sample Description

Horsetheif-01

Matrix

Liquid

Sampled Date/Time

11/29/18 10:30

Received Date/Time

11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Aggregate Organic Compounds								
Biochemical Oxygen Demand	55	10	10	mg/L	SM 5210B	12/01/18 01:02	JGZ	
Chemical Oxygen Demand	500	40	30	mg/L	SM 5220D	12/11/18 18:51	JCW	

*mailing*P.O Box 432  
Riverside, CA 92502-0432*location*6100 Quail Valley Court  
Riverside, CA 92507-0704

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CA ELAP No. 2698

EPA No. CA00102

NELAP No. OR4035

LACSD No. 10119

**BABCOCK Laboratories, Inc.***The Standard of Excellence for Over 100 Years*

Client Name: Riverside County Flood Control

Contact: Abigail Suter

Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 3 of 9

Project Name: Post Fire Monitoring

Project Number: SAR Post Fire

Report Date: 24-Jan-2019

**Work Order Number: B8K3513**

Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number**B8K3513-02**Sample Description

McVicker-01

Matrix

Liquid

Sampled Date/Time

11/29/18 11:10

Received Date/Time

11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Aggregate Organic Compounds								
Biochemical Oxygen Demand	<498	1.0	1.0	mg/L	SM 5210B	12/01/18 01:02	JGZ	N-BOD
Chemical Oxygen Demand	10000	100	74	mg/L	SM 5220D	12/11/18 18:51	JCW	

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Address: 1995 Market Street  
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Analytical Report: Page 4 of 9

Project Name: Post Fire Monitoring

Project Number: SAR Post Fire

Report Date: 24-Jan-2019

**Work Order Number: B8K3513**

Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number**B8K3513-03**Sample Description

Adobe-01

Matrix

Liquid

Sampled Date/Time

11/29/18 12:30

Received Date/Time

11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Aggregate Organic Compounds								
Biochemical Oxygen Demand	ND	5.0	5.0	mg/L	SM 5210B	12/01/18 01:02	JGZ	
Chemical Oxygen Demand	23	10	7.4	mg/L	SM 5220D	12/11/18 18:51	JCW	

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Client Name: Riverside County Flood Control

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Address: 1995 Market Street  
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Analytical Report: Page 5 of 9

Project Name: Post Fire Monitoring

Project Number: SAR Post Fire

Report Date: 24-Jan-2019

**Work Order Number: B8K3513**

Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number**B8K3513-04**Sample Description

Adobe-02

Matrix

Liquid

Sampled Date/Time

11/29/18 12:30

Received Date/Time

11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Aggregate Organic Compounds								
Biochemical Oxygen Demand	ND	5.0	5.0	mg/L	SM 5210B	12/01/18 01:02	JGZ	
Chemical Oxygen Demand	21	10	7.4	mg/L	SM 5220D	12/11/18 18:51	JCW	

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Analytical Report: Page 6 of 9

Project Name: Post Fire Monitoring

Project Number: SAR Post Fire

Report Date: 24-Jan-2019

**Work Order Number: B8K3513**

Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number**B8K3513-05**Sample Description

Adobe-03

Matrix

Liquid

Sampled Date/Time

11/29/18 13:00

Received Date/Time

11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Aggregate Organic Compounds								
Biochemical Oxygen Demand	ND	2.5	2.5	mg/L	SM 5210B	12/01/18 01:02	JGZ	
Chemical Oxygen Demand	ND	10	7.4	mg/L	SM 5220D	12/11/18 18:51	JCW	

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Analytical Report: Page 7 of 9  
 Project Name: Post Fire Monitoring  
 Project Number: SAR Post Fire

Report Date: 24-Jan-2019

**Work Order Number: B8K3513**  
 Received on Ice (Y/N): Yes Temp: 2 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8K30041 - Analyzed as received</b>										
<b>Blank (8K30041-BLK1)</b>				Prepared & Analyzed: 12/01/18						
Biochemical Oxygen Demand	ND	1.0	1.0	mg/L						
<b>LCS (8K30041-BS1)</b>				Prepared & Analyzed: 12/01/18						
Biochemical Oxygen Demand	179	1.0	1.0	mg/L	198	90.2	85-115			
<b>Duplicate (8K30041-DUP1)</b>		<b>Source: B8K3328-01</b>		Prepared & Analyzed: 12/01/18						
Biochemical Oxygen Demand	ND	10	10	mg/L	ND				20	
<b>Batch 8L11124 - Acid Digest</b>										
<b>Blank (8L11124-BLK1)</b>				Prepared & Analyzed: 12/11/18						
Chemical Oxygen Demand	ND	10	7.4	mg/L						
<b>LCS (8L11124-BS1)</b>				Prepared & Analyzed: 12/11/18						
Chemical Oxygen Demand	504	10	7.4	mg/L	500	101	95-105			
<b>Matrix Spike (8L11124-MS1)</b>		<b>Source: B8L0307-01</b>		Prepared & Analyzed: 12/11/18						
Chemical Oxygen Demand	365	13	9.9	mg/L	333	27.6	101	80-120		
<b>Matrix Spike Dup (8L11124-MSD1)</b>		<b>Source: B8L0307-01</b>		Prepared & Analyzed: 12/11/18						
Chemical Oxygen Demand	365	13	9.9	mg/L	333	27.6	101	80-120	0.00	20





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Analytical Report: Page 8 of 9  
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Project Number: SAR Post Fire

Report Date: 24-Jan-2019

**Work Order Number: B8K3513**  
Received on Ice (Y/N): Yes Temp: 2 °C

## Notes and Definitions

J Estimated value

N-BOD The reported result is an estimated value because the result did not meet method calculation criteria.

ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)

NR: Not Reported

NRLrcf: RL for analyte does not meet the SWAMP / CTR required RL.

RDL: Reportable Detection Limit

MDL: Method Detection Limit

\* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

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## Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

**KayeLani A. Marshall**

cc:

e-Standard\_RCFC\_N2.rpt

This report applies only to the sample(s) analyzed. As a mutual protection to clients, the public, and Babcock Laboratories, Inc., this report is submitted and accepted for the exclusive use of the Client to whom it is addressed. Interpretation and use of the information contained within this report are the sole responsibility of the Client. Babcock Laboratories, Inc. is not responsible for any misinformation or consequences that may result from misinterpretation or improper use of this report. This report is not to be modified or abbreviated in any way. Additionally, this report is not to be used, in whole or in part, in any advertising or publicity matter without written authorization from Babcock Laboratories, Inc. The liability of Babcock Laboratories, Inc. is limited to the actual cost of the requested analyses, unless otherwise agreed upon in writing. There is no other warranty expressed or implied.

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LACSD No. 10119



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Analytical Report: Page 9 of 9  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 24-Jan-2019

Work Order Number: **B8K3513**  
Received on Ice (Y/N): Yes Temp: 2 °C

**Babcock Laboratories, Inc.**  
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**Chain of Custody Sample Information Record**

Client: <u>RLFC &amp; WCO</u>		Contact: <u>Rebekah Gull</u>		Phone No. <u>951-955-2901</u>																
FAX No. <u>951-788-9965</u>		Email: <u>rgull@rlfc.org</u>		Additional Reporting Requests																
Project Name: <u>SAR - Post Fire</u>		Turn Around Time: <u>Routine</u>		<input type="checkbox"/> Include QC Data Package: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> FAX Results: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Email Results: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> State EDT: <input type="checkbox"/> Yes <input type="checkbox"/> No (Include Source Number in Notes)																
Project Location: <u>Post-Fire</u>		*3-5 Day Rush    *48 Hour Rush    *24 Hour Rush Lab TAT Approval: By _____																		
<b>Sampler Information</b> Name: <u>Garth P</u> Employer: <u>Alta</u> Signature: _____		<b># of Containers &amp; Preservatives</b> Unpreserved: <input type="checkbox"/> H2SO4 <input type="checkbox"/> HCl <input type="checkbox"/> HNO3 <input type="checkbox"/> Na2S2O3 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH/ZnAcetate <input type="checkbox"/> NH4Cl <input type="checkbox"/> MCAA		<b>Sample Type</b> Routine: <input checked="" type="checkbox"/> Resample: <input type="checkbox"/> Special: <input type="checkbox"/>																
<b>Analysis Requested</b> COD <input checked="" type="checkbox"/> SM <input checked="" type="checkbox"/> BOD <input checked="" type="checkbox"/>		<b>Matrix</b> DW = Drinking Water GW = Groundwater WW = Wastewater S = Source SG = Sludge L = Liquid M = Miscellaneous		<b>Notes</b>																
Sample ID	Date	Time	Total # of Containers	Analysis Requested	Matrix															
Horsetheif - 01	11/29/18	10:30	2	X	SW															
McVicker - 01	11/29/18	11:10	2	X	SW															
Adobe - 01	11/29/18	12:30	2	X	SW															
Adobe - 02	11/29/18	12:30	2	X	SW															
Adobe - 03	11/29/18	13:00	2	X	SW															
<table border="1"> <tr> <td>Relinquished By (sign)</td> <td>Print Name / Company</td> <td>Date / Time</td> <td>Received By (Sign)</td> <td>Print Name / Company</td> </tr> <tr> <td><u>[Signature]</u></td> <td>Garth Engelhorn / Alta</td> <td>11/30/18 0715</td> <td><u>[Signature]</u></td> <td>Mallory Graves / Alta Environmental</td> </tr> <tr> <td><u>[Signature]</u></td> <td>Mallory Graves / Alta</td> <td>11/30/18 0815</td> <td><u>[Signature]</u></td> <td>Kayla Marshall</td> </tr> </table>						Relinquished By (sign)	Print Name / Company	Date / Time	Received By (Sign)	Print Name / Company	<u>[Signature]</u>	Garth Engelhorn / Alta	11/30/18 0715	<u>[Signature]</u>	Mallory Graves / Alta Environmental	<u>[Signature]</u>	Mallory Graves / Alta	11/30/18 0815	<u>[Signature]</u>	Kayla Marshall
Relinquished By (sign)	Print Name / Company	Date / Time	Received By (Sign)	Print Name / Company																
<u>[Signature]</u>	Garth Engelhorn / Alta	11/30/18 0715	<u>[Signature]</u>	Mallory Graves / Alta Environmental																
<u>[Signature]</u>	Mallory Graves / Alta	11/30/18 0815	<u>[Signature]</u>	Kayla Marshall																
(For Lab Use Only) Sample Integrity Upon Receipt/Acceptance Criteria Sample(s) Submitted on Ice? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Sample Meets Laboratory Acceptance Criteria? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody Seal(s) Intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Permission to continue: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Sample(s) Intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Deviation/Notes: _____ Temperature: <u>2</u> °C <input type="checkbox"/> Cooler Blank Signature/Date: _____																				

**B8K3513**  
11/30/2018 17:17



Page 1 of 1



**BABCOCK Laboratories, Inc.**  
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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 1 of 25  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

**Sample Identification**

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
B8K3428-01	Horsetheif-01-C ---ROUTINE---	Liquid	11/29/18 12:10	Garth Englehorn	11/30/18 08:15	Mallory Graves
B8K3428-02	McVicker-01-C ---ROUTINE---	Liquid	11/29/18 12:14	Garth Englehorn	11/30/18 08:15	Mallory Graves
B8K3428-03	Adobe-03-C ---ROUTINE---	Liquid	11/30/18 6:00	Garth Englehorn	11/30/18 08:15	Mallory Graves



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Address: 1995 Market Street  
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Analytical Report: Page 2 of 25  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number

**B8K3428-01**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Horsetheif-01-C	Liquid	11/29/18 12:10	11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
<b>Cations</b>								
Total Hardness	770	15	1.8	mg/L	SM 2340B/EPA 200.7	12/11/18 11:32	KCS	
Calcium	230	5.0	1.6	mg/L	EPA 200.7	12/11/18 11:32	KCS	
Magnesium	44	5.0	1.8	mg/L	EPA 200.7	12/11/18 11:32	KCS	
<b>Anions</b>								
Sulfate	53	0.50	0.23	mg/L	EPA 300.0	11/30/18 20:43	KBS	
Nitrate as N	4.7	0.20	0.055	mg/L	EPA 300.0	11/30/18 20:43	KBS	
<b>Solids</b>								
Total Dissolved Solids	830	40	40	mg/L	SM 2540C	12/05/18 00:45	CMR	
Total Suspended Solids	6900	100	100	mg/L	SM 2540D	12/05/18 12:35	ATR	
<b>Aggregate Organic Compounds</b>								
Biochemical Oxygen Demand	64	10	10	mg/L	SM 5210B	12/01/18 01:02	JGZ	
Chemical Oxygen Demand	1800	200	150	mg/L	SM 5220D	12/12/18 19:56	JCW	
Total Organic Carbon	100	3.5	0.83	mg/L	SM 5310B	12/07/18 01:36	KCS	
Dissolved Organic Carbon	77	1.4	0.49	mg/L	SM 5310B	12/06/18 00:31	KCS	N-TOCd
<b>Nutrients</b>								
Nitrite as N	0.11	0.010	0.0042	mg/L	SM 4500NO2 B	11/30/18 22:55	CMR	
Ammonia-Nitrogen	3.8	1.0	0.48	mg/L	SM4500NH3H G	12/05/18 10:59	SLL	
Kjeldahl Nitrogen	28	3.2	2.0	mg/L	EPA 351.2	12/06/18 15:25	SLL	
Organic Nitrogen	24	0.1	0.02	mg/L	Calculation			
Total Nitrogen	33	3.4	2.1	mg/L	Calculation			
Ortho Phosphate Phosphorus	0.25	0.050	0.016	mg/L	SM 4500P E	12/01/18 12:00	JB	
Total Phosphorus	16	0.50	0.19	mg/L	SM 4500P B E	12/10/18 17:45	ATR	

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Analytical Report: Page 3 of 25

Project Name: Post Fire Monitoring

Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3428**

Received on Ice (Y/N):

Yes

Temp: 2 °C

Laboratory Reference Number**B8K3428-01**Sample Description

Horsetheif-01-C

Matrix

Liquid

Sampled Date/Time

11/29/18 12:10

Received Date/Time

11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids								
Aluminum	97000	500	190	ug/L	EPA 200.7	12/11/18 11:33	KCS	
Cadmium	3.8	3.1	3.1	ug/L	EPA 200.8	12/10/18 20:47	MEL	
Copper	120	12	6.2	ug/L	EPA 200.8	12/10/18 20:47	MEL	
Iron	93000	250	19	ug/L	EPA 200.7	12/11/18 11:33	KCS	
Lead	200	12	6.2	ug/L	EPA 200.8	12/10/18 20:47	MEL	
Manganese	7000	250	120	ug/L	EPA 200.8	12/10/18 20:47	MEL	
Nickel	45	25	12	ug/L	EPA 200.8	12/10/18 20:47	MEL	
Zinc	730	25	16	ug/L	EPA 200.8	12/10/18 20:47	MEL	

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EPA No. CA00102

NELAP No. OR4035

LACSD No. 10119



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Contact: Abigail Suter  
Address: 1995 Market Street  
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Analytical Report: Page 4 of 25  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number

**B8K3428-02**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
McVicker-01-C	Liquid	11/29/18 12:14	11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	16000	90	10	mg/L	SM 2340B/EPA 200.7	12/11/18 11:37	KCS	
Calcium	4600	30	9.3	mg/L	EPA 200.7	12/11/18 11:37	KCS	
Magnesium	1100	30	11	mg/L	EPA 200.7	12/11/18 11:37	KCS	
Anions								
Sulfate	170	0.50	0.23	mg/L	EPA 300.0	11/30/18 20:55	KBS	
Nitrate as N	6.2	0.20	0.055	mg/L	EPA 300.0	11/30/18 20:55	KBS	
Solids								
Total Dissolved Solids	1500	100	100	mg/L	SM 2540C	12/05/18 00:45	CMR	
Total Suspended Solids	130000	250	250	mg/L	SM 2540D	12/05/18 12:35	ATR	
Aggregate Organic Compounds								
Biochemical Oxygen Demand	520	250	250	mg/L	SM 5210B	12/01/18 01:02	JGZ	
Chemical Oxygen Demand	1900	200	150	mg/L	SM 5220D	12/12/18 19:56	JCW	
Total Organic Carbon	780	14	3.3	mg/L	SM 5310B	12/07/18 04:30	KCS	N_ppH
Dissolved Organic Carbon	330	14	4.9	mg/L	SM 5310B	12/06/18 07:45	KCS	N-TOCd
Nutrients								
Nitrite as N	1.2	0.50	0.21	mg/L	SM 4500NO2 B	11/30/18 22:55	CMR	
Ammonia-Nitrogen	8.9	1.0	0.48	mg/L	SM4500NH3H G	12/05/18 11:01	SLL	
Kjeldahl Nitrogen	50	4.0	2.5	mg/L	EPA 351.2	12/06/18 15:26	SLL	
Organic Nitrogen	41	0.1	0.02	mg/L	Calculation			
Total Nitrogen	58	4.7	2.8	mg/L	Calculation			
Ortho Phosphate Phosphorus	0.052	0.050	0.016	mg/L	SM 4500P E	12/01/18 12:00	JB	
Total Phosphorus	7.3	0.50	0.19	mg/L	SM 4500P B E	12/10/18 17:45	ATR	



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Report Date: 28-Dec-2018

**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number

**B8K3428-02**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
McVicker-01-C	Liquid	11/29/18 12:14	11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids								
Aluminum	3400000	30000	11000	ug/L	EPA 200.7	12/11/18 11:54	KCS	
Cadmium	680	31	16	ug/L	EPA 200.8	12/10/18 22:33	MEL	N_ppH
Copper	7900	62	31	ug/L	EPA 200.8	12/10/18 22:33	MEL	N_ppH
Iron	3600000	15000	1100	ug/L	EPA 200.7	12/11/18 11:54	KCS	
Lead	5100	62	31	ug/L	EPA 200.8	12/10/18 22:33	MEL	N_ppH
Manganese	210000	50000	25000	ug/L	EPA 200.8	12/11/18 10:14	MEL	N_ppH
Nickel	5700	120	62	ug/L	EPA 200.8	12/10/18 22:33	MEL	N_ppH
Zinc	39000	120	82	ug/L	EPA 200.8	12/10/18 22:33	MEL	N_ppH





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**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number

**B8K3428-03**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Adobe-03-C	Liquid	11/30/18 06:00	11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
<b>Cations</b>								
Total Hardness	ND	6.0	0.70	mg/L	SM 2340B/EPA 200.7	12/11/18 11:42	KCS	
Calcium	ND	1.0	0.62	mg/L	EPA 200.7	12/11/18 11:42	KCS	
Magnesium	ND	1.0	0.70	mg/L	EPA 200.7	12/11/18 11:42	KCS	
<b>Anions</b>								
Sulfate	ND	0.50	0.23	mg/L	EPA 300.0	11/30/18 21:07	KBS	
Nitrate as N	ND	0.20	0.055	mg/L	EPA 300.0	11/30/18 21:07	KBS	
<b>Solids</b>								
Total Dissolved Solids	ND	10	10	mg/L	SM 2540C	12/05/18 00:45	CMR	
Total Suspended Solids	ND	2	2	mg/L	SM 2540D	12/05/18 12:35	ATR	
<b>Aggregate Organic Compounds</b>								
Biochemical Oxygen Demand	ND	2.5	2.5	mg/L	SM 5210B	12/01/18 01:02	JGZ	
Chemical Oxygen Demand	9.2	10	7.4	mg/L	SM 5220D	12/12/18 19:56	JCW	J
Total Organic Carbon	ND	0.70	0.17	mg/L	SM 5310B	12/08/18 21:54	KCS	
Dissolved Organic Carbon	ND	0.70	0.24	mg/L	SM 5310B	12/08/18 16:59	KCS	N-TOCd
<b>Nutrients</b>								
Nitrite as N	ND	0.010	0.0042	mg/L	SM 4500NO2 B	11/30/18 22:55	CMR	
Ammonia-Nitrogen	ND	0.10	0.048	mg/L	SM4500NH3H G	12/04/18 12:08	SLL	
Kjeldahl Nitrogen	ND	0.10	0.063	mg/L	EPA 351.2	12/06/18 14:45	SLL	
Organic Nitrogen	ND	0.1	0.02	mg/L	Calculation			
Total Nitrogen	ND	0.31	0.12	mg/L	Calculation			
Ortho Phosphate Phosphorus	ND	0.050	0.016	mg/L	SM 4500P E	11/30/18 17:50	ATR	
Total Phosphorus	ND	0.05	0.02	mg/L	SM 4500P B E	12/10/18 17:45	ATR	





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**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number

**B8K3428-03**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Adobe-03-C	Liquid	11/30/18 06:00	11/30/18 8:15

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids								
Aluminum	ND	100	74	ug/L	EPA 200.7	12/11/18 11:43	KCS	
Cadmium	ND	0.25	0.12	ug/L	EPA 200.8	12/10/18 20:50	MEL	
Copper	ND	0.5	0.2	ug/L	EPA 200.8	12/10/18 20:50	MEL	
Iron	22	50	7.5	ug/L	EPA 200.7	12/11/18 11:43	KCS	J
Lead	ND	0.5	0.2	ug/L	EPA 200.8	12/10/18 20:50	MEL	
Manganese	ND	10	5.0	ug/L	EPA 200.8	12/10/18 20:50	MEL	
Nickel	ND	1.0	0.5	ug/L	EPA 200.8	12/10/18 20:50	MEL	
Zinc	ND	1.0	0.7	ug/L	EPA 200.8	12/10/18 20:50	MEL	



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**Work Order Number: B8K3428**  
 Received on Ice (Y/N): Yes Temp: 2 °C

**Cations - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L10107 - EPA 200.2</b>										
<b>Blank (8L10107-BLK1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Calcium	ND	1.0	0.31	mg/L						
Magnesium	ND	1.0	0.35	mg/L						
<b>LCS (8L10107-BS1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Calcium	17.9	1.0	0.31	mg/L	17.0	105	85-115			
Magnesium	17.6	1.0	0.35	mg/L	17.0	103	85-115			
<b>LCS Dup (8L10107-BSD1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Calcium	16.9	1.0	0.31	mg/L	17.0	99.3	85-115	6.00	20	
Magnesium	16.6	1.0	0.35	mg/L	17.0	97.4	85-115	5.93	20	
<b>Matrix Spike (8L10107-MS1)</b>				<b>Source: B8K3423-01</b>		Prepared: 12/10/18 Analyzed: 12/11/18				
Calcium	27.5	1.0	0.31	mg/L	17.0	9.43	106	70-130		
Magnesium	19.5	1.0	0.35	mg/L	17.0	2.22	102	70-130		
<b>Matrix Spike (8L10107-MS2)</b>				<b>Source: B8L0652-01RE1</b>		Prepared: 12/10/18 Analyzed: 12/11/18				
Calcium	86.1	5.0	1.6	mg/L	17.0	66.2	117	70-130		
Magnesium	29.0	5.0	1.8	mg/L	17.0	11.1	105	70-130		



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 Received on Ice (Y/N): Yes Temp: 2 °C

**Anions - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8K30040 - Analyzed as Received IC</b>										
<b>Blank (8K30040-BLK1)</b>				Prepared & Analyzed: 11/30/18						
Sulfate	ND	0.50	0.23	mg/L						
Nitrate as N	ND	0.10	0.055	mg/L						
<b>LCS (8K30040-BS1)</b>				Prepared & Analyzed: 11/30/18						
Sulfate	24.8	0.50	0.23	mg/L	25.0	99.1	90-110			
Nitrate as N	5.57	0.10	0.055	mg/L	5.65	98.7	90-110			
<b>Matrix Spike (8K30040-MS1)</b>				<b>Source: B8K3428-03</b>		Prepared & Analyzed: 11/30/18				
Sulfate	24.3	0.50	0.23	mg/L	25.0	ND	97.1	75-128		
Nitrate as N	5.54	0.10	0.055	mg/L	5.65	ND	98.0	75-131		
<b>Matrix Spike (8K30040-MS2)</b>				<b>Source: B8K3453-01</b>		Prepared & Analyzed: 11/30/18				
Sulfate	188	0.50	0.23	mg/L	25.0	163	99.1	75-128		
Nitrate as N	9.01	0.10	0.055	mg/L	5.65	3.05	105	75-131		
<b>Matrix Spike Dup (8K30040-MSD1)</b>				<b>Source: B8K3428-03</b>		Prepared & Analyzed: 11/30/18				
Sulfate	24.6	0.50	0.23	mg/L	25.0	ND	98.6	75-128	1.53	20
Nitrate as N	5.65	0.10	0.055	mg/L	5.65	ND	100	75-131	2.09	20



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**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

**Solids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L04190 - Analyzed as received</b>										
<b>Blank (8L04190-BLK1)</b>				Prepared & Analyzed: 12/05/18						
Total Dissolved Solids	ND	10	10	mg/L						
<b>LCS (8L04190-BS1)</b>				Prepared & Analyzed: 12/05/18						
Total Dissolved Solids	739	10	10	mg/L	746	99.1	90-110			
<b>Duplicate (8L04190-DUP1)</b>				<b>Source: B8K3210-02</b>		Prepared & Analyzed: 12/05/18				
Total Dissolved Solids	213	10	10	mg/L	203			4.81	20	
<b>Duplicate (8L04190-DUP2)</b>				<b>Source: B8K3217-02</b>		Prepared & Analyzed: 12/05/18				
Total Dissolved Solids	211	10	10	mg/L	222			5.08	20	
<b>Batch 8L05131 - Analyzed as received</b>										
<b>Blank (8L05131-BLK1)</b>				Prepared & Analyzed: 12/05/18						
Total Suspended Solids	ND	0.5	0.5	mg/L						
<b>LCS (8L05131-BS1)</b>				Prepared & Analyzed: 12/05/18						
Total Suspended Solids	452	50	50	mg/L	500	90.4	90-110			
<b>Duplicate (8L05131-DUP1)</b>				<b>Source: B8K3429-01</b>		Prepared & Analyzed: 12/05/18				
Total Suspended Solids	7.00	2	2	mg/L	7.00			0.00	25	
<b>Duplicate (8L05131-DUP2)</b>				<b>Source: B8K3430-03</b>		Prepared & Analyzed: 12/05/18				
Total Suspended Solids	42.0	2	2	mg/L	46.5			10.2	25	



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 Received on Ice (Y/N): Yes Temp: 2 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8K30041 - Analyzed as received</b>										
<b>Blank (8K30041-BLK1)</b>				Prepared & Analyzed: 12/01/18						
Biochemical Oxygen Demand	ND	1.0	1.0	mg/L						
<b>LCS (8K30041-BS1)</b>				Prepared & Analyzed: 12/01/18						
Biochemical Oxygen Demand	179	1.0	1.0	mg/L	198	90.2	85-115			
<b>Duplicate (8K30041-DUP1)</b>				<b>Source: B8K3328-01</b>		Prepared & Analyzed: 12/01/18				
Biochemical Oxygen Demand	ND	10	10	mg/L	ND				20	
<b>Batch 8L05102 - As recieved</b>										
<b>Blank (8L05102-BLK1)</b>				Prepared & Analyzed: 12/05/18						
Dissolved Organic Carbon	ND	0.70	0.16	mg/L						
<b>LCS (8L05102-BS1)</b>				Prepared & Analyzed: 12/05/18						
Dissolved Organic Carbon	4.10	0.70	0.16	mg/L	4.00	102	86-112			
<b>Matrix Spike (8L05102-MS1)</b>				<b>Source: B8L0432-02</b>		Prepared & Analyzed: 12/05/18				
Dissolved Organic Carbon	110	3.5	0.82	mg/L	20.0	90.7	97.0	80-120		
<b>Matrix Spike Dup (8L05102-MSD1)</b>				<b>Source: B8L0432-02</b>		Prepared & Analyzed: 12/05/18				
Dissolved Organic Carbon	111	3.5	0.82	mg/L	20.0	90.7	99.3	80-120	0.408	10
<b>Batch 8L06058 - As recieved</b>										
<b>Blank (8L06058-BLK1)</b>				Prepared & Analyzed: 12/06/18						
Total Organic Carbon	ND	0.70	0.17	mg/L						



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Received on Ice (Y/N): Yes Temp: 2 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L06058 - As recieved</b>										
<b>LCS (8L06058-BS1)</b>				Prepared & Analyzed: 12/06/18						
Total Organic Carbon	4.06	0.70	0.17	mg/L	4.00	102	90-110			
<b>Matrix Spike (8L06058-MS1)</b>				<b>Source: B8L0423-01</b> Prepared & Analyzed: 12/06/18						
Total Organic Carbon	113	3.5	0.83	mg/L	20.0	92.2	102	80-120		
<b>Matrix Spike Dup (8L06058-MSD1)</b>				<b>Source: B8L0423-01</b> Prepared & Analyzed: 12/06/18						
Total Organic Carbon	112	3.5	0.83	mg/L	20.0	92.2	96.5	80-120	0.982	10
<b>Batch 8L06059 - As recieved</b>										
<b>Blank (8L06059-BLK1)</b>				Prepared & Analyzed: 12/07/18						
Total Organic Carbon	ND	0.70	0.17	mg/L						
<b>LCS (8L06059-BS1)</b>				Prepared & Analyzed: 12/07/18						
Total Organic Carbon	4.06	0.70	0.17	mg/L	4.00	102	90-110			
<b>Duplicate (8L06059-DUP1)</b>				<b>Source: B8L0517-01</b> Prepared & Analyzed: 12/07/18						
Total Organic Carbon	4.38	0.70	0.17	mg/L	4.42			1.09	20	
<b>Matrix Spike (8L06059-MS1)</b>				<b>Source: B8L0575-01</b> Prepared & Analyzed: 12/07/18						
Total Organic Carbon	104	3.5	0.83	mg/L	20.0	80.4	119	80-120		
<b>Matrix Spike Dup (8L06059-MSD1)</b>				<b>Source: B8L0575-01</b> Prepared & Analyzed: 12/07/18						
Total Organic Carbon	104	3.5	0.83	mg/L	20.0	80.4	119	80-120	0.00	10
<b>Batch 8L08076 - As recieved</b>										
<b>Blank (8L08076-BLK1)</b>				Prepared & Analyzed: 12/08/18						
Dissolved Organic Carbon	ND	0.70	0.24	mg/L						



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**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L08076 - As recieved</b>										
<b>LCS (8L08076-BS1)</b>				Prepared & Analyzed: 12/08/18						
Dissolved Organic Carbon	4.02	0.70	0.24	mg/L	4.00	101	86-112			
<b>Matrix Spike (8L08076-MS1)</b>				<b>Source: B8L0891-04</b> Prepared & Analyzed: 12/08/18						
Dissolved Organic Carbon	19.0	1.4	0.49	mg/L	8.00	11.1	98.9	80-120		
<b>Matrix Spike Dup (8L08076-MSD1)</b>				<b>Source: B8L0891-04</b> Prepared & Analyzed: 12/08/18						
Dissolved Organic Carbon	19.4	1.4	0.49	mg/L	8.00	11.1	103	80-120	1.88	10
<b>Batch 8L08077 - As recieved</b>										
<b>Blank (8L08077-BLK1)</b>				Prepared & Analyzed: 12/08/18						
Total Organic Carbon	ND	0.60	0.17	mg/L						
<b>LCS (8L08077-BS1)</b>				Prepared & Analyzed: 12/08/18						
Total Organic Carbon	3.96	0.60	0.17	mg/L	4.00	99.0	90-110			
<b>Matrix Spike (8L08077-MS1)</b>				<b>Source: B8L0639-02</b> Prepared & Analyzed: 12/08/18						
Total Organic Carbon	47.7	1.2	0.33	mg/L	16.0	31.9	99.1	80-120		
<b>Matrix Spike Dup (8L08077-MSD1)</b>				<b>Source: B8L0639-02</b> Prepared & Analyzed: 12/08/18						
Total Organic Carbon	48.1	1.2	0.33	mg/L	16.0	31.9	101	80-120	0.668	10
<b>Batch 8L12114 - Acid Digest</b>										
<b>Blank (8L12114-BLK1)</b>				Prepared & Analyzed: 12/12/18						
Chemical Oxygen Demand	ND	10	7.4	mg/L						



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Received on Ice (Y/N): Yes Temp: 2 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L12114 - Acid Digest</b>										
<b>LCS (8L12114-BS1)</b>				Prepared & Analyzed: 12/12/18						
Chemical Oxygen Demand	498	10	7.4	mg/L	500	99.5	95-105			
<b>Matrix Spike (8L12114-MS1)</b>				<b>Source: B8L0600-01</b> Prepared & Analyzed: 12/12/18						
Chemical Oxygen Demand	377	13	9.9	mg/L	333	32.2	103	80-120		
<b>Matrix Spike Dup (8L12114-MSD1)</b>				<b>Source: B8L0600-01</b> Prepared & Analyzed: 12/12/18						
Chemical Oxygen Demand	368	13	9.9	mg/L	333	32.2	101	80-120	2.47	20





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**Work Order Number: B8K3428**  
 Received on Ice (Y/N): Yes Temp: 2 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8K30020 - Filter if turbid.</b>										
<b>LCS (8K30020-BS1)</b>				Prepared & Analyzed: 11/30/18						
Ortho Phosphate Phosphorus	0.523	0.050	0.016	mg/L	0.500	105	90-110			
<b>Matrix Spike (8K30020-MS1)</b>				<b>Source: B8K3328-02</b> Prepared & Analyzed: 11/30/18						
Ortho Phosphate Phosphorus	0.860	0.050	0.016	mg/L	0.500	0.361	99.8	80-120		
<b>Matrix Spike Dup (8K30020-MSD1)</b>				<b>Source: B8K3328-02</b> Prepared & Analyzed: 11/30/18						
Ortho Phosphate Phosphorus	0.852	0.050	0.016	mg/L	0.500	0.361	98.2	80-120	0.958	20
<b>Batch 8K30060 - Filter if turbid.</b>										
<b>LCS (8K30060-BS1)</b>				Prepared & Analyzed: 11/30/18						
Nitrite as N	0.104	0.010	0.0042	mg/L	0.100	104	90-110			
<b>Matrix Spike (8K30060-MS1)</b>				<b>Source: B8K3415-05</b> Prepared & Analyzed: 11/30/18						
Nitrite as N	0.131	0.012	0.0053	mg/L	0.125	ND	104	80-120		
<b>Matrix Spike Dup (8K30060-MSD1)</b>				<b>Source: B8K3415-05</b> Prepared & Analyzed: 11/30/18						
Nitrite as N	0.129	0.012	0.0053	mg/L	0.125	ND	103	80-120	1.39	20
<b>Batch 8L01086 - Filter if turbid.</b>										
<b>LCS (8L01086-BS1)</b>				Prepared & Analyzed: 12/01/18						
Ortho Phosphate Phosphorus	0.510	0.050	0.016	mg/L	0.500	102	90-110			
<b>Matrix Spike (8L01086-MS1)</b>				<b>Source: B8K3415-03</b> Prepared & Analyzed: 12/01/18						
Ortho Phosphate Phosphorus	0.730	0.050	0.016	mg/L	0.500	0.241	97.9	80-120		



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Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 8L01086 - Filter if turbid.										
Matrix Spike Dup (8L01086-MSD1)		Source: B8K3415-03			Prepared & Analyzed: 12/01/18					
Ortho Phosphate Phosphorus	0.741	0.050	0.016	mg/L	0.500	0.241	100	80-120	1.49	20
Batch 8L04114 - Analyzed as received										
Blank (8L04114-BLK1)		Prepared & Analyzed: 12/04/18								
Ammonia-Nitrogen	ND	0.10	0.048	mg/L						
LCS (8L04114-BS1)		Prepared & Analyzed: 12/04/18								
Ammonia-Nitrogen	0.736	0.10	0.048	mg/L	0.780		94.4	90-110		
Matrix Spike (8L04114-MS1)		Source: B8K3415-01			Prepared & Analyzed: 12/04/18					
Ammonia-Nitrogen	0.933	0.10	0.048	mg/L	0.780	0.197	94.3	80-120		
Matrix Spike Dup (8L04114-MSD1)		Source: B8K3415-01			Prepared & Analyzed: 12/04/18					
Ammonia-Nitrogen	0.946	0.10	0.048	mg/L	0.780	0.197	96.0	80-120	1.41	20
Batch 8L05122 - Analyzed as received										
Blank (8L05122-BLK1)		Prepared & Analyzed: 12/05/18								
Ammonia-Nitrogen	ND	0.10	0.048	mg/L						
LCS (8L05122-BS1)		Prepared & Analyzed: 12/05/18								
Ammonia-Nitrogen	0.796	0.10	0.048	mg/L	0.780		102	90-110		
Matrix Spike (8L05122-MS1)		Source: B8L0423-02			Prepared & Analyzed: 12/05/18					
Ammonia-Nitrogen	0.737	0.10	0.048	mg/L	0.780	ND	94.5	80-120		



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Received on Ice (Y/N): Yes Temp: 2 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 8L05122 - Analyzed as received										
Matrix Spike Dup (8L05122-MSD1)		Source: B8L0423-02			Prepared & Analyzed: 12/05/18					
Ammonia-Nitrogen	0.765	0.10	0.048	mg/L	0.780	ND	98.1	80-120	3.66	20
Batch 8L06008 - Acid Digest										
Blank (8L06008-BLK1)		Prepared & Analyzed: 12/06/18								
Kjeldahl Nitrogen	ND	0.10	0.063	mg/L						
LCS (8L06008-BS1)		Prepared & Analyzed: 12/06/18								
Kjeldahl Nitrogen	0.844	0.10	0.063	mg/L	1.00		84.4	80-120		
Matrix Spike (8L06008-MS1)		Source: B8K3415-01			Prepared & Analyzed: 12/06/18					
Kjeldahl Nitrogen	2.68	0.10	0.063	mg/L	1.00	1.86	81.8	42-154		
Matrix Spike (8L06008-MS2)		Source: B8K3415-03			Prepared & Analyzed: 12/06/18					
Kjeldahl Nitrogen	2.51	0.10	0.063	mg/L	1.00	1.74	76.6	42-154		
Batch 8L06010 - Acid Digest										
Blank (8L06010-BLK1)		Prepared & Analyzed: 12/06/18								
Kjeldahl Nitrogen	ND	0.10	0.063	mg/L						
LCS (8L06010-BS1)		Prepared & Analyzed: 12/06/18								
Kjeldahl Nitrogen	0.854	0.10	0.063	mg/L	1.00		85.4	80-120		
Matrix Spike (8L06010-MS1)		Source: B8K3431-02			Prepared & Analyzed: 12/06/18					
Kjeldahl Nitrogen	1.14	0.10	0.063	mg/L	1.00	0.279	86.0	42-154		



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Received on Ice (Y/N): Yes Temp: 2 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L10087 - Acid Digest</b>										
<b>LCS (8L10087-BS1)</b>				Prepared & Analyzed: 12/10/18						
Total Phosphorus	0.505	0.05	0.02	mg/L	0.500	101	85-115			
<b>Matrix Spike (8L10087-MS1)</b>				<b>Source: B8K3210-02</b> Prepared & Analyzed: 12/10/18						
Total Phosphorus	0.680	0.05	0.02	mg/L	0.500	0.172	102	80-120		
<b>Matrix Spike Dup (8L10087-MSD1)</b>				<b>Source: B8K3210-02</b> Prepared & Analyzed: 12/10/18						
Total Phosphorus	0.671	0.05	0.02	mg/L	0.500	0.172	99.8	80-120	1.27	20



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 Received on Ice (Y/N): Yes Temp: 2 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L04157 - EPA 200.2</b>										
<b>Blank (8L04157-BLK1)</b>				Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	ND	0.25	0.12	ug/L						
Copper	ND	0.5	0.2	ug/L						
Lead	ND	0.5	0.2	ug/L						
Manganese	ND	10	5.0	ug/L						
Nickel	ND	1.0	0.5	ug/L						
Zinc	ND	1.0	0.7	ug/L						
<b>Blank (8L04157-BLK2)</b>				Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	ND	0.5	0.2	ug/L						QBfil
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	2.05	1.0	0.7	ug/L						QBfil, QBLKf
<b>Blank (8L04157-BLK3)</b>				Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	ND	0.5	0.2	ug/L						QBfil
Lead	3.60	0.5	0.2	ug/L						QBfil, QBLKf
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	1.89	1.0	0.7	ug/L						QBfil, QBLKf
<b>Blank (8L04157-BLK4)</b>				Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	0.583	0.5	0.2	ug/L						QBfil, QBLKf
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	0.869	1.0	0.7	ug/L						J, QBfil, QBLKf



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**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L04157 - EPA 200.2</b>										
<b>LCS (8L04157-BS1)</b>					Prepared: 12/05/18 Analyzed: 12/10/18					
Cadmium	39.1	0.25	0.12	ug/L	40.0	97.8	85-115			
Copper	38.2	0.5	0.2	ug/L	40.0	95.6	85-115			
Lead	38.9	0.5	0.2	ug/L	40.0	97.2	85-115			
Manganese	39.9	10	5.0	ug/L	40.0	99.8	85-115			
Nickel	38.0	1.0	0.5	ug/L	40.0	95.1	85-115			
Zinc	40.6	1.0	0.7	ug/L	40.0	102	85-115			
<b>LCS Dup (8L04157-BSD1)</b>					Prepared: 12/05/18 Analyzed: 12/10/18					
Cadmium	39.1	0.25	0.12	ug/L	40.0	97.8	85-115	0.0716	20	
Copper	38.1	0.5	0.2	ug/L	40.0	95.3	85-115	0.288	20	
Lead	38.8	0.5	0.2	ug/L	40.0	97.0	85-115	0.306	20	
Manganese	39.4	10	5.0	ug/L	40.0	98.4	85-115	1.43	20	
Nickel	38.1	1.0	0.5	ug/L	40.0	95.2	85-115	0.0841	20	
Zinc	40.4	1.0	0.7	ug/L	40.0	101	85-115	0.686	20	
<b>Matrix Spike (8L04157-MS1)</b>					<b>Source: B8K3415-01</b>		Prepared: 12/05/18 Analyzed: 12/10/18			
Cadmium	37.2	0.25	0.12	ug/L	40.0	ND	93.0	70-130		
Copper	46.0	0.5	0.2	ug/L	40.0	10.9	87.7	70-130		
Lead	36.0	0.5	0.2	ug/L	40.0	0.364	89.1	70-130		
Manganese	100	10	5.0	ug/L	40.0	63.8	91.7	70-130		
Nickel	40.2	1.0	0.5	ug/L	40.0	4.18	90.1	70-130		
Zinc	55.6	1.0	0.7	ug/L	40.0	18.9	91.9	70-130		
<b>Batch 8L10098 - EPA 200.2</b>										
<b>Blank (8L10098-BLK1)</b>					Prepared: 12/10/18 Analyzed: 12/11/18					
Cadmium	ND	0.25	0.12	ug/L						
Copper	ND	0.5	0.2	ug/L						
Lead	ND	0.5	0.2	ug/L						
Manganese	ND	10	5.0	ug/L						
Nickel	ND	1.0	0.5	ug/L						
Zinc	ND	1.0	0.7	ug/L						



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Work Order Number: **B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L10098 - EPA 200.2</b>										
<b>Blank (8L10098-BLK2)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	ND	0.5	0.2	ug/L						QBfil
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	0.774	1.0	0.7	ug/L						QBfil, QBLKf, J
<b>LCS (8L10098-BS1)</b>				Prepared & Analyzed: 12/10/18						
Cadmium	39.2	0.25	0.12	ug/L	40.0	97.9	85-115			
Copper	38.5	0.5	0.2	ug/L	40.0	96.3	85-115			
Lead	38.1	0.5	0.2	ug/L	40.0	95.2	85-115			
Manganese	41.0	10	5.0	ug/L	40.0	102	85-115			
Nickel	38.5	1.0	0.5	ug/L	40.0	96.3	85-115			
Zinc	41.0	1.0	0.7	ug/L	40.0	103	85-115			
<b>LCS Dup (8L10098-BSD1)</b>				Prepared & Analyzed: 12/10/18						
Cadmium	37.7	0.25	0.12	ug/L	40.0	94.3	85-115	3.69	20	
Copper	37.2	0.5	0.2	ug/L	40.0	93.1	85-115	3.33	20	
Lead	37.8	0.5	0.2	ug/L	40.0	94.6	85-115	0.695	20	
Manganese	39.2	10	5.0	ug/L	40.0	98.0	85-115	4.45	20	
Nickel	37.3	1.0	0.5	ug/L	40.0	93.1	85-115	3.39	20	
Zinc	39.8	1.0	0.7	ug/L	40.0	99.6	85-115	2.99	20	
<b>Matrix Spike (8L10098-MS1)</b>		<b>Source: B8L0532-02</b>		Prepared & Analyzed: 12/10/18						
Cadmium	38.8	0.25	0.12	ug/L	40.0	ND	97.0	70-130		
Copper	43.3	0.5	0.2	ug/L	40.0	5.71	93.9	70-130		
Lead	38.4	0.5	0.2	ug/L	40.0	ND	96.1	70-130		
Manganese	73.8	10	5.0	ug/L	40.0	31.0	107	70-130		
Nickel	41.0	1.0	0.5	ug/L	40.0	1.96	97.7	70-130		
Zinc	67.3	1.0	0.7	ug/L	40.0	27.8	98.7	70-130		



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 Received on Ice (Y/N): Yes Temp: 2 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L10107 - EPA 200.2</b>										
<b>Blank (8L10107-BLK1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Aluminum	ND	100	37	ug/L						
Iron	ND	20	3.8	ug/L						
<b>LCS (8L10107-BS1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Aluminum	1170	100	37	ug/L	1170	100	85-115			
Iron	1240	20	3.8	ug/L	1170	107	85-115			
<b>LCS Dup (8L10107-BSD1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Aluminum	1100	100	37	ug/L	1170	94.2	85-115	6.43	20	
Iron	1180	20	3.8	ug/L	1170	101	85-115	4.99	20	
<b>Matrix Spike (8L10107-MS1)</b>				<b>Source: B8K3423-01</b>		Prepared: 12/10/18 Analyzed: 12/11/18				
Aluminum	1970	100	37	ug/L	1170	556	121	70-130		
Iron	1900	20	3.8	ug/L	1170	626	109	70-130		
<b>Matrix Spike (8L10107-MS2)</b>				<b>Source: B8L0652-01RE1</b>		Prepared: 12/10/18 Analyzed: 12/11/18				
Aluminum	1390	500	190	ug/L	1170	249	NR	70-130		
Iron	3010	100	19	ug/L	1170	1670	115	70-130		





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Received on Ice (Y/N): Yes Temp: 2 °C

## Notes and Definitions

J Estimated value

N\_ppH Sample could not be preserved to the pH required by the method.

N-TOCd Sample filtered and preserved at laboratory after 15 minute regulatory holding time.

QBfil Method blank was filtered prior to processing.

QBLKf The filtered method blank did not meet laboratory acceptance criteria.

ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)

NR: Not Reported

NRLrcf: RL for analyte does not meet the SWAMP / CTR required RL.

RDL: Reportable Detection Limit

MDL: Method Detection Limit

\* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

---

## Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

**KayeLani A. Marshall**

cc:

e-Standard\_RCFC\_N2.rpt

This report applies only to the sample(s) analyzed. As a mutual protection to clients, the public, and Babcock Laboratories, Inc., this report is submitted and accepted for the exclusive use of the Client to whom it is addressed. Interpretation and use of the information contained within this report are the sole responsibility of the Client. Babcock Laboratories, Inc. is not responsible for any misinformation or consequences that may result from misinterpretation or improper use of this report. This report is not to be modified or abbreviated in any way. Additionally, this report is not to be used, in whole or in part, in any advertising or publicity matter without written authorization from Babcock Laboratories, Inc. The liability of Babcock Laboratories, Inc. is limited to the actual cost of the requested analyses, unless otherwise agreed upon in writing. There is no other warranty expressed or implied.

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NELAP No. OR4035  
LACSD No. 10119



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**Chain of Custody Sample Information Record**


Client: <u>RLFC &amp; WCD</u>		Contact: <u>Rebekah Guill</u>		Phone No. <u>951-955-2901</u>	
FAX No. <u>951-788-9965</u>		Email: <u>rguill@rlvco.org</u>		Additional Reporting Requests	
Project Name: <u>SAR-Post Fire</u>		Turn Around Time: <u>Routine</u>		<input type="checkbox"/> Include QC Data Package: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> FAX Results: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Email Results: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> State EDT: <input type="checkbox"/> Yes <input type="checkbox"/> No (Include Source Number in Notes)	
Project Location: <u>Post Fire</u>		*Lab TAT Approval: By: _____		*Additional Charges May Apply	
<b>Sampler Information</b> Name: <u>Garth Engelhorn</u> Employer: <u>Alta</u> Signature: <u>[Signature]</u>		<b># of Containers &amp; Preservatives</b> Unpreserved: <input type="checkbox"/> H2SO4 <input type="checkbox"/> HCl <input type="checkbox"/> HNO3 <input type="checkbox"/> Na2S2O3 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH/ZnAcetate <input type="checkbox"/> NH4Cl <input type="checkbox"/> MCAA		<b>Analysis Requested</b> DW = Drinking Water GW = Groundwater WW = Wastewater S = Source SG = Sludge L = Liquid M = Miscellaneous	
<b>Sample ID</b> <u>Horsetheif-01-C</u> <u>McVicker-01-C</u> <u>Adobe-03-C</u>		<b>Date</b> <u>11/29/18</u> <u>11/29/18</u> <u>11/30/18</u>		<b>Time</b> <u>12:10</u> <u>12:14</u> <u>06:00</u>	
<b>Relinquished By (sign)</b> <u>[Signature]</u>		<b>Print Name / Company</b> <u>Garth Engelhorn</u>		<b>Date / Time</b> <u>11/30/18 07:15</u>	
<b>Received By (Sign)</b> <u>[Signature]</u>		<b>Print Name / Company</b> <u>Mallory Graves</u>		<b>Date / Time</b> <u>11/30/18 12:15</u>	
<b>Relinquished By (sign)</b> <u>[Signature]</u>		<b>Print Name / Company</b> <u>Mallory Graves</u>		<b>Date / Time</b> <u>11/30/18 12:15</u>	
<b>Relinquished By (sign)</b> <u>[Signature]</u>		<b>Print Name / Company</b> <u>Mallory Graves</u>		<b>Date / Time</b> <u>11/30/18 12:15</u>	

(For Lab Use Only) Sample Integrity Upon Receipt/Acceptance Criteria

Sample(s) Submitted on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sample Meets Laboratory Acceptance Criteria? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Custody Seal(s) Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permission to continue: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample(s) Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Deviation/Notes: _____
Temperature: <u>2</u> °C <input type="checkbox"/> Cooler Blank	Signature/Date: _____

**B8K3428**

11/30/2018 14:11



Page 1 of 1



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 25 of 25  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3428**  
Received on Ice (Y/N): Yes Temp: 2 °C

**Project Information**

**Riverside County Flood Control**

1995 Market Street  
Riverside, CA 92501

Laboratory PM: KayeLani A. Marshall

Phone:(951) 955-1273  
Fax:(951) 788-9965

**0250**  
11/30/2018

Project Name:	Post Fire Monitoring	Invoice To:	Riverside County Flood Control
Project Number:	[none]	Invoice Bid:	(list pricing)
Client PM:	Abigail Suter	Invoice Manager:	Abigail Suter
Comments:			

Analysis	Comment
ML-ZN_ICPMS	
Ammonia-N	
BOD	
COD	
FE_ICP_WW	
Hardness Pack-WW	
ML-CD_ICPMS	
ML-CU_ICPMS	
ML-MN_ICPMS	
AL_ICP_WW	
ML-PB_ICPMS	
TOC-Dissolved	
Nitrite-N-LL	
Nitrogen-Kjeldahl	
Nitrogen-Organic	
Nitrogen-Tot Calc (MDL, LowLv	
NO3-N	
Phos-Ortho	
Phos-Total	
SO4	
Solids-Total Diss	
Solids-Total Suspend	
TOC	
ML-NI_ICPMS	

**Hardness Pack-WW subanalyses:**

CA\_ICP\_WW  
Hardness Total-WW  
MG\_ICP\_WW



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 1 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

**Sample Identification**

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
B8K3431-01	Adobe-01-C	Liquid	11/30/18 6:01	Garth Engelhorn	11/30/18 13:35	Mallory Graves
B8K3431-02	Adobe-02-C	Liquid	11/30/18 6:01	Garth Engelhorn	11/30/18 13:35	Mallory Graves



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 2 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

**B8K3431-01**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Adobe-01-C	Liquid	11/30/18 06:01	11/30/18 13:35

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
<b>Cations</b>								
Total Hardness	180	6.0	0.70	mg/L	SM 2340B/EPA 200.7	12/11/18 12:12	KCS	
Calcium	41	2.0	0.62	mg/L	EPA 200.7	12/11/18 12:12	KCS	
Magnesium	18	2.0	0.70	mg/L	EPA 200.7	12/11/18 12:12	KCS	
<b>Anions</b>								
Sulfate	51	0.50	0.23	mg/L	EPA 300.0	11/30/18 21:43	KBS	
Nitrate as N	ND	0.20	0.055	mg/L	EPA 300.0	11/30/18 21:43	KBS	
<b>Solids</b>								
Total Dissolved Solids	300	10	10	mg/L	SM 2540C	12/05/18 23:20	CMR	
Total Suspended Solids	ND	2	2	mg/L	SM 2540D	12/06/18 12:03	ATR	
<b>Aggregate Organic Compounds</b>								
Biochemical Oxygen Demand	ND	5.0	5.0	mg/L	SM 5210B	12/01/18 20:05	JGZ	N-BOD2
Chemical Oxygen Demand	25	10	7.4	mg/L	SM 5220D	12/12/18 19:56	JCW	
Total Organic Carbon	7.7	0.70	0.17	mg/L	SM 5310B	12/07/18 05:02	KCS	
Dissolved Organic Carbon	6.9	0.70	0.24	mg/L	SM 5310B	12/06/18 01:20	KCS	N-TOCd
<b>Nutrients</b>								
Nitrite as N	ND	0.010	0.0042	mg/L	SM 4500NO2 B	11/30/18 22:55	CMR	
Ammonia-Nitrogen	ND	0.10	0.048	mg/L	SM4500NH3H G	12/04/18 12:10	SLL	
Kjeldahl Nitrogen	0.25	0.10	0.063	mg/L	EPA 351.2	12/06/18 15:27	SLL	
Organic Nitrogen	0.2	0.1	0.02	mg/L	Calculation			
Total Nitrogen	0.25	0.31	0.12	mg/L	Calculation			J
Ortho Phosphate Phosphorus	0.083	0.050	0.016	mg/L	SM 4500P E	12/01/18 12:00	JB	
Total Phosphorus	0.12	0.05	0.02	mg/L	SM 4500P B E	12/10/18 17:45	ATR	

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Client Name: Riverside County Flood Control

Contact: Abigail Suter

Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 3 of 19

Project Name: Post Fire Monitoring

Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number**B8K3431-01**Sample Description

Adobe-01-C

Matrix

Liquid

Sampled Date/Time

11/30/18 06:01

Received Date/Time

11/30/18 13:35

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids								
Aluminum	ND	100	74	ug/L	EPA 200.7	12/11/18 12:13	KCS	
Cadmium	ND	0.25	0.12	ug/L	EPA 200.8	12/10/18 18:53	MEL	
Copper	1.5	0.5	0.2	ug/L	EPA 200.8	12/10/18 18:53	MEL	
Iron	65	50	7.5	ug/L	EPA 200.7	12/11/18 12:13	KCS	
Lead	ND	0.5	0.2	ug/L	EPA 200.8	12/10/18 18:53	MEL	
Manganese	17	10	5.0	ug/L	EPA 200.8	12/10/18 18:53	MEL	
Nickel	1.9	1.0	0.5	ug/L	EPA 200.8	12/10/18 18:53	MEL	
Zinc	6.2	1.0	0.7	ug/L	EPA 200.8	12/10/18 18:53	MEL	

*mailing*P.O Box 432  
Riverside, CA 92502-0432*location*6100 Quail Valley Court  
Riverside, CA 92507-0704

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CA ELAP No. 2698

EPA No. CA00102

NELAP No. OR4035

LACSD No. 10119



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 4 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

**B8K3431-02**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Adobe-02-C	Liquid	11/30/18 06:01	11/30/18 13:35

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Cations								
Total Hardness	190	6.0	0.70	mg/L	SM 2340B/EPA 200.7	12/11/18 12:14	KCS	
Calcium	45	2.0	0.62	mg/L	EPA 200.7	12/11/18 12:14	KCS	
Magnesium	20	2.0	0.70	mg/L	EPA 200.7	12/11/18 12:14	KCS	
Anions								
Sulfate	51	0.50	0.23	mg/L	EPA 300.0	11/30/18 21:55	KBS	
Nitrate as N	ND	0.20	0.055	mg/L	EPA 300.0	11/30/18 21:55	KBS	
Solids								
Total Dissolved Solids	300	10	10	mg/L	SM 2540C	12/05/18 23:20	CMR	
Total Suspended Solids	ND	2	2	mg/L	SM 2540D	12/06/18 12:03	ATR	
Aggregate Organic Compounds								
Biochemical Oxygen Demand	ND	5.0	5.0	mg/L	SM 5210B	12/01/18 20:05	JGZ	N-BOD2
Chemical Oxygen Demand	25	10	7.4	mg/L	SM 5220D	12/12/18 19:56	JCW	
Total Organic Carbon	7.7	0.70	0.17	mg/L	SM 5310B	12/07/18 05:19	KCS	
Dissolved Organic Carbon	6.9	0.70	0.24	mg/L	SM 5310B	12/06/18 01:38	KCS	N-TOCd
Nutrients								
Nitrite as N	ND	0.010	0.0042	mg/L	SM 4500NO2 B	11/30/18 22:55	CMR	
Ammonia-Nitrogen	ND	0.10	0.048	mg/L	SM4500NH3H G	12/04/18 12:15	SLL	
Kjeldahl Nitrogen	0.28	0.10	0.063	mg/L	EPA 351.2	12/06/18 14:46	SLL	
Organic Nitrogen	0.3	0.1	0.02	mg/L	Calculation			
Total Nitrogen	0.28	0.31	0.12	mg/L	Calculation			J
Ortho Phosphate Phosphorus	0.089	0.050	0.016	mg/L	SM 4500P E	12/01/18 12:00	JB	
Total Phosphorus	0.12	0.05	0.02	mg/L	SM 4500P B E	12/10/18 17:45	ATR	

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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 5 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number**B8K3431-02**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Adobe-02-C	Liquid	11/30/18 06:01	11/30/18 13:35

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids								
Aluminum	ND	100	74	ug/L	EPA 200.7	12/11/18 12:15	KCS	
Cadmium	ND	0.25	0.12	ug/L	EPA 200.8	12/10/18 18:56	MEL	
Copper	1.4	0.5	0.2	ug/L	EPA 200.8	12/10/18 18:56	MEL	
Iron	72	50	7.5	ug/L	EPA 200.7	12/11/18 12:15	KCS	
Lead	ND	0.5	0.2	ug/L	EPA 200.8	12/10/18 18:56	MEL	
Manganese	17	10	5.0	ug/L	EPA 200.8	12/10/18 18:56	MEL	
Nickel	1.7	1.0	0.5	ug/L	EPA 200.8	12/10/18 18:56	MEL	
Zinc	6.0	1.0	0.7	ug/L	EPA 200.8	12/10/18 18:56	MEL	





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Client Name: Riverside County Flood Control  
 Contact: Abigail Suter  
 Address: 1995 Market Street  
 Riverside, CA 92501

Analytical Report: Page 6 of 19  
 Project Name: Post Fire Monitoring  
 Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
 Received on Ice (Y/N): Yes Temp: 8 °C

**Cations - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L10107 - EPA 200.2</b>										
<b>Blank (8L10107-BLK1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Calcium	ND	1.0	0.31	mg/L						
Magnesium	ND	1.0	0.35	mg/L						
<b>LCS (8L10107-BS1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Calcium	17.9	1.0	0.31	mg/L	17.0	105	85-115			
Magnesium	17.6	1.0	0.35	mg/L	17.0	103	85-115			
<b>LCS Dup (8L10107-BSD1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Calcium	16.9	1.0	0.31	mg/L	17.0	99.3	85-115	6.00	20	
Magnesium	16.6	1.0	0.35	mg/L	17.0	97.4	85-115	5.93	20	
<b>Matrix Spike (8L10107-MS1)</b>				<b>Source: B8K3423-01</b>		Prepared: 12/10/18 Analyzed: 12/11/18				
Calcium	27.5	1.0	0.31	mg/L	17.0	9.43	106	70-130		
Magnesium	19.5	1.0	0.35	mg/L	17.0	2.22	102	70-130		
<b>Matrix Spike (8L10107-MS2)</b>				<b>Source: B8L0652-01RE1</b>		Prepared: 12/10/18 Analyzed: 12/11/18				
Calcium	86.1	5.0	1.6	mg/L	17.0	66.2	117	70-130		
Magnesium	29.0	5.0	1.8	mg/L	17.0	11.1	105	70-130		



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Client Name: Riverside County Flood Control  
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Analytical Report: Page 7 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

**Anions - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8K30040 - Analyzed as Received IC</b>										
<b>Blank (8K30040-BLK1)</b>				Prepared & Analyzed: 11/30/18						
Sulfate	ND	0.50	0.23	mg/L						
Nitrate as N	ND	0.10	0.055	mg/L						
<b>LCS (8K30040-BS1)</b>				Prepared & Analyzed: 11/30/18						
Sulfate	24.8	0.50	0.23	mg/L	25.0	99.1	90-110			
Nitrate as N	5.57	0.10	0.055	mg/L	5.65	98.7	90-110			
<b>Matrix Spike (8K30040-MS1)</b>				<b>Source: B8K3428-03</b>		Prepared & Analyzed: 11/30/18				
Sulfate	24.3	0.50	0.23	mg/L	25.0	ND	97.1	75-128		
Nitrate as N	5.54	0.10	0.055	mg/L	5.65	ND	98.0	75-131		
<b>Matrix Spike (8K30040-MS2)</b>				<b>Source: B8K3453-01</b>		Prepared & Analyzed: 11/30/18				
Sulfate	188	0.50	0.23	mg/L	25.0	163	99.1	75-128		
Nitrate as N	9.01	0.10	0.055	mg/L	5.65	3.05	105	75-131		
<b>Matrix Spike Dup (8K30040-MSD1)</b>				<b>Source: B8K3428-03</b>		Prepared & Analyzed: 11/30/18				
Sulfate	24.6	0.50	0.23	mg/L	25.0	ND	98.6	75-128	1.53	20
Nitrate as N	5.65	0.10	0.055	mg/L	5.65	ND	100	75-131	2.09	20



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Client Name: Riverside County Flood Control  
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Analytical Report: Page 8 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

**Solids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L05185 - Analyzed as received</b>										
<b>Blank (8L05185-BLK1)</b>				Prepared & Analyzed: 12/05/18						
Total Dissolved Solids	ND	10	10	mg/L						
<b>LCS (8L05185-BS1)</b>				Prepared & Analyzed: 12/05/18						
Total Dissolved Solids	741	10	10	mg/L	746	99.3	90-110			
<b>Duplicate (8L05185-DUP1)</b>				<b>Source: B8K3415-01</b>		Prepared & Analyzed: 12/05/18				
Total Dissolved Solids	382	10	10	mg/L	388			1.56	20	
<b>Duplicate (8L05185-DUP2)</b>				<b>Source: B8K3415-03</b>		Prepared & Analyzed: 12/05/18				
Total Dissolved Solids	398	10	10	mg/L	400			0.501	20	
<b>Batch 8L06042 - Analyzed as received</b>										
<b>Blank (8L06042-BLK1)</b>				Prepared & Analyzed: 12/06/18						
Total Suspended Solids	ND	0.5	0.5	mg/L						
<b>LCS (8L06042-BS1)</b>				Prepared & Analyzed: 12/06/18						
Total Suspended Solids	497	50	50	mg/L	500	99.4	90-110			
<b>Duplicate (8L06042-DUP1)</b>				<b>Source: B8K3164-01</b>		Prepared & Analyzed: 12/06/18				
Total Suspended Solids	278	10	10	mg/L	262			5.93	25	
<b>Duplicate (8L06042-DUP2)</b>				<b>Source: B8K3179-01</b>		Prepared & Analyzed: 12/06/18				
Total Suspended Solids	18.0	2	2	mg/L	18.0			0.00	25	



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Client Name: Riverside County Flood Control  
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Analytical Report: Page 9 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L01087 - Analyzed as received</b>										
<b>Blank (8L01087-BLK1)</b>				Prepared & Analyzed: 12/01/18						
Biochemical Oxygen Demand	ND	1.0	1.0	mg/L						
<b>LCS (8L01087-BS1)</b>				Prepared & Analyzed: 12/01/18						
Biochemical Oxygen Demand	162	1.0	1.0	mg/L	198	81.7	85-115			Q-BOD2
<b>Duplicate (8L01087-DUP1)</b>				<b>Source: B8L0029-01</b>	Prepared & Analyzed: 12/01/18					
Biochemical Oxygen Demand	291	50	50	mg/L	259			11.7	20	
<b>Batch 8L05102 - As recieved</b>										
<b>Blank (8L05102-BLK1)</b>				Prepared & Analyzed: 12/05/18						
Dissolved Organic Carbon	ND	0.70	0.16	mg/L						
<b>LCS (8L05102-BS1)</b>				Prepared & Analyzed: 12/05/18						
Dissolved Organic Carbon	4.10	0.70	0.16	mg/L	4.00	102	86-112			
<b>Matrix Spike (8L05102-MS1)</b>				<b>Source: B8L0432-02</b>	Prepared & Analyzed: 12/05/18					
Dissolved Organic Carbon	110	3.5	0.82	mg/L	20.0	90.7	97.0	80-120		
<b>Matrix Spike Dup (8L05102-MSD1)</b>				<b>Source: B8L0432-02</b>	Prepared & Analyzed: 12/05/18					
Dissolved Organic Carbon	111	3.5	0.82	mg/L	20.0	90.7	99.3	80-120	0.408	10
<b>Batch 8L06059 - As recieved</b>										
<b>Blank (8L06059-BLK1)</b>				Prepared & Analyzed: 12/07/18						
Total Organic Carbon	ND	0.70	0.17	mg/L						



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Client Name: Riverside County Flood Control  
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Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 10 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L06059 - As recieved</b>										
<b>LCS (8L06059-BS1)</b>				Prepared & Analyzed: 12/07/18						
Total Organic Carbon	4.06	0.70	0.17	mg/L	4.00	102	90-110			
<b>Duplicate (8L06059-DUP1)</b>				<b>Source: B8L0517-01</b> Prepared & Analyzed: 12/07/18						
Total Organic Carbon	4.38	0.70	0.17	mg/L	4.42			1.09	20	
<b>Matrix Spike (8L06059-MS1)</b>				<b>Source: B8L0575-01</b> Prepared & Analyzed: 12/07/18						
Total Organic Carbon	104	3.5	0.83	mg/L	20.0	80.4	119	80-120		
<b>Matrix Spike Dup (8L06059-MSD1)</b>				<b>Source: B8L0575-01</b> Prepared & Analyzed: 12/07/18						
Total Organic Carbon	104	3.5	0.83	mg/L	20.0	80.4	119	80-120	0.00	10
<b>Batch 8L12114 - Acid Digest</b>										
<b>Blank (8L12114-BLK1)</b>				Prepared & Analyzed: 12/12/18						
Chemical Oxygen Demand	ND	10	7.4	mg/L						
<b>LCS (8L12114-BS1)</b>				Prepared & Analyzed: 12/12/18						
Chemical Oxygen Demand	498	10	7.4	mg/L	500	99.5	95-105			
<b>Matrix Spike (8L12114-MS1)</b>				<b>Source: B8L0600-01</b> Prepared & Analyzed: 12/12/18						
Chemical Oxygen Demand	377	13	9.9	mg/L	333	32.2	103	80-120		
<b>Matrix Spike Dup (8L12114-MSD1)</b>				<b>Source: B8L0600-01</b> Prepared & Analyzed: 12/12/18						
Chemical Oxygen Demand	368	13	9.9	mg/L	333	32.2	101	80-120	2.47	20



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 11 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8K30060 - Filter if turbid.</b>										
<b>LCS (8K30060-BS1)</b>				Prepared & Analyzed: 11/30/18						
Nitrite as N	0.104	0.010	0.0042	mg/L	0.100	104	90-110			
<b>Matrix Spike (8K30060-MS1)</b>				<b>Source: B8K3415-05</b> Prepared & Analyzed: 11/30/18						
Nitrite as N	0.131	0.012	0.0053	mg/L	0.125	ND	104	80-120		
<b>Matrix Spike Dup (8K30060-MSD1)</b>				<b>Source: B8K3415-05</b> Prepared & Analyzed: 11/30/18						
Nitrite as N	0.129	0.012	0.0053	mg/L	0.125	ND	103	80-120	1.39	20
<b>Batch 8L01086 - Filter if turbid.</b>										
<b>LCS (8L01086-BS1)</b>				Prepared & Analyzed: 12/01/18						
Ortho Phosphate Phosphorus	0.510	0.050	0.016	mg/L	0.500	102	90-110			
<b>Matrix Spike (8L01086-MS1)</b>				<b>Source: B8K3415-03</b> Prepared & Analyzed: 12/01/18						
Ortho Phosphate Phosphorus	0.730	0.050	0.016	mg/L	0.500	0.241	97.9	80-120		
<b>Matrix Spike Dup (8L01086-MSD1)</b>				<b>Source: B8K3415-03</b> Prepared & Analyzed: 12/01/18						
Ortho Phosphate Phosphorus	0.741	0.050	0.016	mg/L	0.500	0.241	100	80-120	1.49	20
<b>Batch 8L04114 - Analyzed as received</b>										
<b>Blank (8L04114-BLK1)</b>				Prepared & Analyzed: 12/04/18						
Ammonia-Nitrogen	ND	0.10	0.048	mg/L						
<b>LCS (8L04114-BS1)</b>				Prepared & Analyzed: 12/04/18						
Ammonia-Nitrogen	0.736	0.10	0.048	mg/L	0.780	94.4	90-110			



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Analytical Report: Page 12 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 8L04114 - Analyzed as received										
Matrix Spike (8L04114-MS1)		Source: B8K3415-01			Prepared & Analyzed: 12/04/18					
Ammonia-Nitrogen	0.933	0.10	0.048	mg/L	0.780	0.197	94.3	80-120		
Matrix Spike Dup (8L04114-MSD1)		Source: B8K3415-01			Prepared & Analyzed: 12/04/18					
Ammonia-Nitrogen	0.946	0.10	0.048	mg/L	0.780	0.197	96.0	80-120	1.41	20
Batch 8L06008 - Acid Digest										
Blank (8L06008-BLK1)		Prepared & Analyzed: 12/06/18								
Kjeldahl Nitrogen	ND	0.10	0.063	mg/L						
LCS (8L06008-BS1)		Prepared & Analyzed: 12/06/18								
Kjeldahl Nitrogen	0.844	0.10	0.063	mg/L	1.00		84.4	80-120		
Matrix Spike (8L06008-MS1)		Source: B8K3415-01			Prepared & Analyzed: 12/06/18					
Kjeldahl Nitrogen	2.68	0.10	0.063	mg/L	1.00	1.86	81.8	42-154		
Matrix Spike (8L06008-MS2)		Source: B8K3415-03			Prepared & Analyzed: 12/06/18					
Kjeldahl Nitrogen	2.51	0.10	0.063	mg/L	1.00	1.74	76.6	42-154		
Batch 8L06010 - Acid Digest										
Blank (8L06010-BLK1)		Prepared & Analyzed: 12/06/18								
Kjeldahl Nitrogen	ND	0.10	0.063	mg/L						
LCS (8L06010-BS1)		Prepared & Analyzed: 12/06/18								
Kjeldahl Nitrogen	0.854	0.10	0.063	mg/L	1.00		85.4	80-120		



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Analytical Report: Page 13 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L06010 - Acid Digest</b>										
<b>Matrix Spike (8L06010-MS1)</b>		<b>Source: B8K3431-02</b>			Prepared & Analyzed: 12/06/18					
Kjeldahl Nitrogen	1.14	0.10	0.063	mg/L	1.00	0.279	86.0	42-154		
<b>Batch 8L10087 - Acid Digest</b>										
<b>LCS (8L10087-BS1)</b>		Prepared & Analyzed: 12/10/18								
Total Phosphorus	0.505	0.05	0.02	mg/L	0.500		101	85-115		
<b>Matrix Spike (8L10087-MS1)</b>		<b>Source: B8K3210-02</b>			Prepared & Analyzed: 12/10/18					
Total Phosphorus	0.680	0.05	0.02	mg/L	0.500	0.172	102	80-120		
<b>Matrix Spike Dup (8L10087-MSD1)</b>		<b>Source: B8K3210-02</b>			Prepared & Analyzed: 12/10/18					
Total Phosphorus	0.671	0.05	0.02	mg/L	0.500	0.172	99.8	80-120	1.27	20





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Analytical Report: Page 14 of 19  
 Project Name: Post Fire Monitoring  
 Project Number: SAR Post Fire

Report Date: 28-Dec-2018

Work Order Number: **B8K3431**  
 Received on Ice (Y/N): Yes Temp: 8 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L04156 - EPA 200.2</b>										
<b>Blank (8L04156-BLK1)</b>				Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	ND	0.25	0.12	ug/L						
Copper	ND	0.5	0.2	ug/L						
Lead	ND	0.5	0.2	ug/L						
Manganese	ND	10	5.0	ug/L						
Nickel	ND	1.0	0.5	ug/L						
Zinc	ND	1.0	0.7	ug/L						
<b>Blank (8L04156-BLK2)</b>				Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	ND	0.5	0.2	ug/L						QBfil
Lead	3.53	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	1.82	1.0	0.7	ug/L						QBfil
<b>Blank (8L04156-BLK3)</b>				Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	ND	0.5	0.2	ug/L						QBfil
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	1.33	1.0	0.7	ug/L						QBfil
<b>LCS (8L04156-BS1)</b>				Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	39.3	0.25	0.12	ug/L	40.0	98.2	85-115			
Copper	36.9	0.5	0.2	ug/L	40.0	92.3	85-115			
Lead	38.2	0.5	0.2	ug/L	40.0	95.6	85-115			
Manganese	38.0	10	5.0	ug/L	40.0	95.1	85-115			
Nickel	36.6	1.0	0.5	ug/L	40.0	91.4	85-115			
Zinc	39.6	1.0	0.7	ug/L	40.0	99.0	85-115			



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Analytical Report: Page 15 of 19  
 Project Name: Post Fire Monitoring  
 Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
 Received on Ice (Y/N): Yes Temp: 8 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L04156 - EPA 200.2</b>										
<b>LCS Dup (8L04156-BSD1)</b>				Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	40.9	0.25	0.12	ug/L	40.0	102	85-115	4.09	20	
Copper	39.9	0.5	0.2	ug/L	40.0	99.7	85-115	7.77	20	
Lead	40.5	0.5	0.2	ug/L	40.0	101	85-115	5.66	20	
Manganese	40.9	10	5.0	ug/L	40.0	102	85-115	7.18	20	
Nickel	39.3	1.0	0.5	ug/L	40.0	98.4	85-115	7.31	20	
Zinc	42.4	1.0	0.7	ug/L	40.0	106	85-115	6.89	20	
<b>Matrix Spike (8L04156-MS1)</b>				Source: B8K3228-01 Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	42.4	0.25	0.12	ug/L	40.0	0.167	106	70-130		
Copper	66.6	0.5	0.2	ug/L	40.0	25.4	103	70-130		
Lead	47.3	0.5	0.2	ug/L	40.0	6.00	103	70-130		
Manganese	104	10	5.0	ug/L	40.0	59.6	112	70-130		
Nickel	45.2	1.0	0.5	ug/L	40.0	4.45	102	70-130		
Zinc	176	1.0	0.7	ug/L	40.0	131	111	70-130		
<b>Matrix Spike (8L04156-MS2)</b>				Source: B8K3228-02 Prepared: 12/05/18 Analyzed: 12/10/18						
Cadmium	39.8	0.25	0.12	ug/L	40.0	ND	99.5	70-130		
Copper	50.2	0.5	0.2	ug/L	40.0	12.4	94.3	70-130		
Lead	39.7	0.5	0.2	ug/L	40.0	0.378	98.4	70-130		
Manganese	44.7	10	5.0	ug/L	40.0	ND	112	70-130		
Nickel	40.8	1.0	0.5	ug/L	40.0	2.47	95.9	70-130		
Zinc	80.6	1.0	0.7	ug/L	40.0	42.6	94.9	70-130		
<b>Batch 8L10107 - EPA 200.2</b>										
<b>Blank (8L10107-BLK1)</b>				Prepared: 12/10/18 Analyzed: 12/11/18						
Aluminum	ND	100	37	ug/L						
Iron	ND	20	3.8	ug/L						



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Analytical Report: Page 16 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 8L10107 - EPA 200.2</b>										
<b>LCS (8L10107-BS1)</b>					Prepared: 12/10/18 Analyzed: 12/11/18					
Aluminum	1170	100	37	ug/L	1170	100	85-115			
Iron	1240	20	3.8	ug/L	1170	107	85-115			
<b>LCS Dup (8L10107-BSD1)</b>					Prepared: 12/10/18 Analyzed: 12/11/18					
Aluminum	1100	100	37	ug/L	1170	94.2	85-115	6.43	20	
Iron	1180	20	3.8	ug/L	1170	101	85-115	4.99	20	
<b>Matrix Spike (8L10107-MS1)</b>					<b>Source: B8K3423-01</b>		Prepared: 12/10/18 Analyzed: 12/11/18			
Aluminum	1970	100	37	ug/L	1170	556	121	70-130		
Iron	1900	20	3.8	ug/L	1170	626	109	70-130		
<b>Matrix Spike (8L10107-MS2)</b>					<b>Source: B8L0652-01RE1</b>		Prepared: 12/10/18 Analyzed: 12/11/18			
Aluminum	1390	500	190	ug/L	1170	249	NR	70-130		
Iron	3010	100	19	ug/L	1170	1670	115	70-130		



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Analytical Report: Page 17 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

## Notes and Definitions

J Estimated value

N-BOD2 The LCS is outside method acceptance limits. As per method, data is reportable as qualified.

N-TOCd Sample filtered and preserved at laboratory after 15 minute regulatory holding time.

QBfil Method blank was filtered prior to processing.

Q-BOD2 This LCS is outside method acceptance limits. As per method, data is reportable as qualified.

ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)

NR: Not Reported

NRLrcf: RL for analyte does not meet the SWAMP / CTR required RL.

RDL: Reportable Detection Limit

MDL: Method Detection Limit

\* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

---

## Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

**KayeLani A. Marshall**

cc:

e-Standard\_RCFC\_N2.rpt

This report applies only to the sample(s) analyzed. As a mutual protection to clients, the public, and Babcock Laboratories, Inc., this report is submitted and accepted for the exclusive use of the Client to whom it is addressed. Interpretation and use of the information contained within this report are the sole responsibility of the Client. Babcock Laboratories, Inc. is not responsible for any misinformation or consequences that may result from misinterpretation or improper use of this report. This report is not to be modified or abbreviated in any way. Additionally, this report is not to be used, in whole or in part, in any advertising or publicity matter without written authorization from Babcock Laboratories, Inc. The liability of Babcock Laboratories, Inc. is limited to the actual cost of the requested analyses, unless otherwise agreed upon in writing. There is no other warranty expressed or implied.

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EPA No. CA00102  
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LACSD No. 10119



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Client Name: Riverside County Flood Control  
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Analytical Report: Page 18 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

Work Order Number: **B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

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**Chain of Custody Sample Information Record**

Client: <u>RCFC &amp; WCD</u>		Contact: <u>Rebecca Guill</u>		Phone No. <u>951-455-2901</u>																
FAX No. <u>951-788-9965</u>		Email: <u>rguill@rcfc.org</u>		Additional Reporting Requests																
Project Name: <u>SAR - Post Fire</u>		Turn Around Time: <u>Routine</u>		<input type="checkbox"/> Include QC Data Package: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> FAX Results: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Email Results: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> State EDT: <input type="checkbox"/> Yes <input type="checkbox"/> No (Include Source Number in Notes)																
Project Location: <u>Adobe</u>		*Lab TAT Approval: By: _____		*Additional Charges May Apply																
<b>Sampler Information</b> Name: <u>Garth Engelhorn</u> Employer: <u>Alta</u> Signature: _____		<b># of Containers &amp; Preservatives</b> Unpreserved: <u>4</u> H2SO4: <u>5</u> HCl: <u>1</u> HNO3: <u>1</u> Na2S2O3: <u>1</u> NaOH: <u>1</u> NaOH/ZnAcetate: <u>1</u> NH4Cl: <u>1</u> MCAA: <u>1</u>		<b>Sample Type</b> Routine: <u>10</u> Resample: <u>10</u> Special: <u>10</u> (SAR Post-Fire)																
<b>Analysis Requested</b> <u>SW</u> <u>SW</u>		<b>Matrix</b> DW = Drinking Water GW = Groundwater WW = Wastewater S = Source SG = Sludge L = Liquid M = Miscellaneous		<b>Notes</b>																
Sample ID	Date	Time	Unpreserved	H2SO4	HCl															
<u>Adobe - 01 - C</u>	<u>11/30/18</u>	<u>0601</u>	<u>4</u>	<u>5</u>	<u>1</u>															
<u>Adobe - 02 - C</u>	<u>11/30/18</u>	<u>0601</u>	<u>4</u>	<u>5</u>	<u>1</u>															
<table border="1"> <tr> <th>Relinquished By (sign)</th> <th>Print Name / Company</th> <th>Date / Time</th> <th>Received By (Sign)</th> <th>Print Name / Company</th> </tr> <tr> <td><u>[Signature]</u></td> <td><u>Garth Engelhorn / Alta</u></td> <td><u>11/30/18 1240</u></td> <td><u>[Signature]</u></td> <td><u>Mallory Graves / Alta</u></td> </tr> <tr> <td><u>[Signature]</u></td> <td><u>Mallory Graves / Alta</u></td> <td><u>11/30/18 0135</u></td> <td><u>[Signature]</u></td> <td><u>Alex Griffin / RCFC</u></td> </tr> </table>						Relinquished By (sign)	Print Name / Company	Date / Time	Received By (Sign)	Print Name / Company	<u>[Signature]</u>	<u>Garth Engelhorn / Alta</u>	<u>11/30/18 1240</u>	<u>[Signature]</u>	<u>Mallory Graves / Alta</u>	<u>[Signature]</u>	<u>Mallory Graves / Alta</u>	<u>11/30/18 0135</u>	<u>[Signature]</u>	<u>Alex Griffin / RCFC</u>
Relinquished By (sign)	Print Name / Company	Date / Time	Received By (Sign)	Print Name / Company																
<u>[Signature]</u>	<u>Garth Engelhorn / Alta</u>	<u>11/30/18 1240</u>	<u>[Signature]</u>	<u>Mallory Graves / Alta</u>																
<u>[Signature]</u>	<u>Mallory Graves / Alta</u>	<u>11/30/18 0135</u>	<u>[Signature]</u>	<u>Alex Griffin / RCFC</u>																
(For Lab Use Only) Sample Integrity Upon Receipt/Acceptance Criteria Sample(s) Submitted on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal(s) Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>N/A</u> Sample(s) Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temperature: <u>8</u> °C <input type="checkbox"/> Cooler Blank Sample Meets Laboratory Acceptance Criteria? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permission to continue: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Deviation/Notes: _____ Signature/Date: _____																				

**B8K3431**

11/30/2018 13:35



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
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Analytical Report: Page 19 of 19  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 28-Dec-2018

**Work Order Number: B8K3431**  
Received on Ice (Y/N): Yes Temp: 8 °C

**Project Information**

**Riverside County Flood Control**

1995 Market Street  
Riverside, CA 92501

Laboratory PM: KayeLani A. Marshall

Phone:(951) 955-1273  
Fax:(951) 788-9965

**0250**  
11/30/2018

<b>Project Name:</b>	Post Fire Monitoring	<b>Invoice To:</b>	Riverside County Flood Control
<b>Project Number:</b>	[none]	<b>Invoice Bid:</b>	(list pricing)
<b>Client PM:</b>	Abigail Suter	<b>Invoice Manager:</b>	Abigail Suter
<b>Comments:</b>			

Analysis	Comment
----------	---------

ML-ZN_ICPMS	
Ammonia-N	
BOD	
COD	
FE_ICP_WW	
Hardness Pack-WW	
ML-CD_ICPMS	
ML-CU_ICPMS	
ML-MN_ICPMS	
AL_ICP_WW	
ML-PB_ICPMS	
TOC-Dissolved	
Nitrite-N-LL	
Nitrogen-Kjeldahl	
Nitrogen-Organic	
Nitrogen-Tot Calc (MDL, LowLv	
NO3-N	
Phos-Ortho	
Phos-Total	
SO4	
Solids-Total Diss	
Solids-Total Suspend	
TOC	
ML-NI_ICPMS	

**Hardness Pack-WW subanalyses:**

CA_ICP_WW
Hardness Total-WW
MG_ICP_WW



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
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Riverside, CA 92501

Analytical Report: Page 1 of 5  
Project Name: Post Fire Monitoring  
Project Number: SAR Post-Fire

Report Date: 12-Mar-2019

**Work Order Number: B9A1710**  
Received on Ice (Y/N): Yes Temp: 1 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

### Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
B9A1710-01	McVicker-01	Liquid	01/14/19 15:40	Austin Kay	01/15/19 10:54	Austin Kay

**BOD result reported as estimated result. Due to sample appearance and absence of historical data the dilutions utilized were too conservative. Sample was dark in color with sediment but lower in BOD than suggested by appearance and COD result.**

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Client Name: Riverside County Flood Control

Contact: Abigail Suter

Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 2 of 5

Project Name: Post Fire Monitoring

Project Number: SAR Post-Fire

Report Date: 12-Mar-2019

**Work Order Number: B9A1710**

Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number**B9A1710-01**Sample Description

McVicker-01

Matrix

Liquid

Sampled Date/Time

01/14/19 15:40

Received Date/Time

01/15/19 10:54

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Aggregate Organic Compounds								
Biochemical Oxygen Demand	<50	1.0	1.0	mg/L	SM 5210B	01/15/19 19:32	JCW	N-BOD, N-BOD1
Chemical Oxygen Demand	5900	500	370	mg/L	SM 5220D	01/24/19 16:00	SLL	

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EPA No. CA00102

NELAP No. OR4035

LACSD No. 10119





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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 3 of 5  
Project Name: Post Fire Monitoring  
Project Number: SAR Post-Fire

Report Date: 12-Mar-2019

**Work Order Number: B9A1710**  
Received on Ice (Y/N): Yes Temp: 1 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A15142 - Analyzed as received</b>										
<b>Blank (9A15142-BLK1)</b>				Prepared & Analyzed: 01/15/19						
Biochemical Oxygen Demand	ND	1.0	1.0	mg/L						
<b>LCS (9A15142-BS1)</b>				Prepared & Analyzed: 01/15/19						
Biochemical Oxygen Demand	176	1.0	1.0	mg/L	198	89.0	85-115			
<b>Duplicate (9A15142-DUP1)</b>				<b>Source: B9A1679-01</b>		Prepared & Analyzed: 01/15/19				
Biochemical Oxygen Demand	320	50	50	mg/L	265			19.1	20	
<b>Batch 9A24029 - Acid Digest</b>										
<b>Blank (9A24029-BLK1)</b>				Prepared & Analyzed: 01/24/19						
Chemical Oxygen Demand	ND	10	7.4	mg/L						
<b>LCS (9A24029-BS1)</b>				Prepared & Analyzed: 01/24/19						
Chemical Oxygen Demand	516	10	7.4	mg/L	500	103	95-105			
<b>Matrix Spike (9A24029-MS1)</b>				<b>Source: B9A1836-01</b>		Prepared & Analyzed: 01/24/19				
Chemical Oxygen Demand	441	13	9.9	mg/L	333	89.8	105	80-120		
<b>Matrix Spike Dup (9A24029-MSD1)</b>				<b>Source: B9A1836-01</b>		Prepared & Analyzed: 01/24/19				
Chemical Oxygen Demand	438	13	9.9	mg/L	333	89.8	104	80-120	0.697	20



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Analytical Report: Page 4 of 5  
Project Name: Post Fire Monitoring  
Project Number: SAR Post-Fire

Report Date: 12-Mar-2019

**Work Order Number: B9A1710**  
Received on Ice (Y/N): Yes Temp: 1 °C

## Notes and Definitions

N-BOD The reported result is an estimated value because the result did not meet method calculation criteria.  
N-BOD1 Dilution water blank exceeds 0.20 mg/L. As per method, data is reportable as qualified.  
ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)  
NR: Not Reported  
NRLrcf: RL for analyte does not meet the SWAMP / CTR required RL.  
RDL: Reportable Detection Limit  
MDL: Method Detection Limit

\* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

---

## Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

**KayeLani A. Marshall**

cc:

e-Standard\_RCFC\_N2.rpt

This report applies only to the sample(s) analyzed. As a mutual protection to clients, the public, and Babcock Laboratories, Inc., this report is submitted and accepted for the exclusive use of the Client to whom it is addressed. Interpretation and use of the information contained within this report are the sole responsibility of the Client. Babcock Laboratories, Inc. is not responsible for any misinformation or consequences that may result from misinterpretation or improper use of this report. This report is not to be modified or abbreviated in any way. Additionally, this report is not to be used, in whole or in part, in any advertising or publicity matter without written authorization from Babcock Laboratories, Inc. The liability of Babcock Laboratories, Inc. is limited to the actual cost of the requested analyses, unless otherwise agreed upon in writing. There is no other warranty expressed or implied.

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LACSD No. 10119





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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 1 of 20  
Project Name: Post Fire Monitoring  
Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
Received on Ice (Y/N): Yes Temp: 1 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

### Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
B9A1721-01	McVicker-01-C ---ROUTINE---	Liquid	01/14/19 19:20	Austin Kay	01/15/19 10:54	Austin Kay
B9A1721-02	McVicker-01-C (Dissolved) -- -ROUTINE---	Liquid	01/14/19 19:20	Austin Kay	01/15/19 10:54	Austin Kay

**BOD result reported as estimated result. Due to sample appearance and absence of historical data the dilutions utilized were too conservative. Sample was dark in color with sediment but lower in BOD than suggested by appearance and COD result.**



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Client Name: Riverside County Flood Control  
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Analytical Report: Page 2 of 20  
Project Name: Post Fire Monitoring  
Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number

**B9A1721-01**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
McVicker-01-C	Liquid	01/14/19 19:20	01/15/19 10:54

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
<b>Cations</b>								
Total Hardness	930	30	3.5	mg/L	SM 2340B/EPA 200.7	01/22/19 17:12	KCS	
Calcium	180	10	3.1	mg/L	EPA 200.7	01/22/19 17:12	KCS	
Magnesium	120	10	3.5	mg/L	EPA 200.7	01/22/19 17:12	KCS	
<b>Anions</b>								
Sulfate	28	0.50	0.23	mg/L	EPA 300.0	01/15/19 18:17	KBS	
Nitrate as N	1.8	0.20	0.055	mg/L	EPA 300.0	01/15/19 18:17	KBS	
<b>Solids</b>								
Total Dissolved Solids	290	10	10	mg/L	SM 2540C	01/21/19 12:57	BBR	
Total Suspended Solids	15000	100	100	mg/L	SM 2540D	01/17/19 18:20	KL	
<b>Aggregate Organic Compounds</b>								
Biochemical Oxygen Demand	<100	1.0	1.0	mg/L	SM 5210B	01/16/19 12:29	RER	N-BOD, N-BOD2
Chemical Oxygen Demand	3600	100	74	mg/L	SM 5220D	01/24/19 16:00	SLL	
Total Organic Carbon	43	3.5	0.83	mg/L	SM 5310B	01/19/19 18:04	KCS	
Dissolved Organic Carbon	15	14	4.9	mg/L	SM 5310B	01/17/19 21:26	KCS	N-TOCd
<b>Nutrients</b>								
Nitrite as N	0.053	0.010	0.0042	mg/L	SM 4500NO2 B	01/16/19 14:55	RER	
Ammonia-Nitrogen	0.81	0.10	0.048	mg/L	SM4500NH3H G	01/16/19 11:42	SLL	
Kjeldahl Nitrogen	23	1.6	1.0	mg/L	EPA 351.2	01/17/19 11:05	SLL	
Organic Nitrogen	22	0.1	0.02	mg/L	Calculation			
Total Nitrogen	25	1.8	1.1	mg/L	Calculation			
Ortho Phosphate Phosphorus	0.12	0.050	0.016	mg/L	SM 4500P E	01/15/19 19:45	ATR	
Total Phosphorus	16	0.50	0.19	mg/L	SM 4500P B E	01/21/19 15:55	ATR	

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Client Name: Riverside County Flood Control  
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Analytical Report: Page 3 of 20  
Project Name: Post Fire Monitoring  
Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number

**B9A1721-01**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
McVicker-01-C	Liquid	01/14/19 19:20	01/15/19 10:54

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids								
Aluminum	320000	2000	740	ug/L	EPA 200.7	01/23/19 14:49	KCS	
Cadmium	33	1.2	0.62	ug/L	EPA 200.8	01/25/19 10:37	MEL	
Copper	450	2.5	1.2	ug/L	EPA 200.8	01/25/19 10:37	MEL	
Iron	300000	1000	75	ug/L	EPA 200.7	01/23/19 14:49	KCS	
Lead	210	2.5	1.2	ug/L	EPA 200.8	01/25/19 10:37	MEL	
Manganese	9300	500	250	ug/L	EPA 200.8	01/25/19 12:13	MEL	
Nickel	300	5.0	2.5	ug/L	EPA 200.8	01/25/19 10:37	MEL	
Zinc	1700	5.0	3.3	ug/L	EPA 200.8	01/25/19 10:37	MEL	



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Analytical Report: Page 4 of 20  
Project Name: Post Fire Monitoring  
Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number

**B9A1721-02**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
McVicker-01-C (Dissolved)	Liquid	01/14/19 19:20	01/15/19 10:54

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids								
Aluminum	ND	100	37	ug/L	EPA 200.7	02/13/19 17:35	KCS	N_pFilt
Cadmium	ND	0.25	0.12	ug/L	EPA 200.8	02/14/19 12:33	MEL	N_pFilt
Copper	4.4	0.5	0.2	ug/L	EPA 200.8	02/14/19 12:33	MEL	N_pFilt, NBLKf
Iron	15	50	3.8	ug/L	EPA 200.7	02/13/19 17:35	KCS	J, N_pFilt
Lead	ND	0.5	0.2	ug/L	EPA 200.8	02/14/19 12:33	MEL	N_pFilt
Manganese	96	10	5.0	ug/L	EPA 200.8	02/14/19 12:33	MEL	N_pFilt
Nickel	2.4	1.0	0.5	ug/L	EPA 200.8	02/14/19 12:33	MEL	N_pFilt
Zinc	1.6	1.0	0.7	ug/L	EPA 200.8	02/14/19 12:33	MEL	N_pFilt, NBLKfa



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Client Name: Riverside County Flood Control  
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Analytical Report: Page 5 of 20  
Project Name: Post Fire Monitoring  
Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
Received on Ice (Y/N): Yes Temp: 1 °C

**Cations - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A22082 - EPA 200.2</b>										
<b>Blank (9A22082-BLK1)</b>				Prepared & Analyzed: 01/22/19						
Calcium	ND	1.0	0.31	mg/L						
Magnesium	ND	1.0	0.35	mg/L						
<b>LCS (9A22082-BS1)</b>				Prepared & Analyzed: 01/22/19						
Calcium	16.9	1.0	0.31	mg/L	17.0	99.4	85-115			
Magnesium	16.5	1.0	0.35	mg/L	17.0	96.9	85-115			
<b>LCS Dup (9A22082-BSD1)</b>				Prepared & Analyzed: 01/22/19						
Calcium	16.5	1.0	0.31	mg/L	17.0	97.0	85-115	2.53	20	
Magnesium	15.9	1.0	0.35	mg/L	17.0	93.3	85-115	3.78	20	
<b>Matrix Spike (9A22082-MS1)</b>		<b>Source: B9A0398-01</b>		Prepared & Analyzed: 01/22/19						
Calcium	54.9	2.0	0.62	mg/L	17.0	36.3	109	70-130		
Magnesium	33.3	2.0	0.70	mg/L	17.0	16.1	101	70-130		
<b>Matrix Spike (9A22082-MS2)</b>		<b>Source: B9A1842-01</b>		Prepared & Analyzed: 01/22/19						
Calcium	109	5.0	1.6	mg/L	17.0	96.9	69.4	70-130		QFnt, QMout
Magnesium	27.8	5.0	1.8	mg/L	17.0	12.4	90.8	70-130		





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Analytical Report: Page 6 of 20  
 Project Name: Post Fire Monitoring  
 Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
 Received on Ice (Y/N): Yes Temp: 1 °C

**Anions - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A15138 - Analyzed as Received IC</b>										
<b>Blank (9A15138-BLK1)</b>				Prepared & Analyzed: 01/15/19						
Sulfate	ND	0.50	0.23	mg/L						
Nitrate as N	0.127	0.10	0.055	mg/L						PblkJ
<b>LCS (9A15138-BS1)</b>				Prepared & Analyzed: 01/15/19						
Sulfate	24.1	0.50	0.23	mg/L	25.0		96.5	90-110		
Nitrate as N	5.30	0.10	0.055	mg/L	5.65		93.8	90-110		
<b>Matrix Spike (9A15138-MS1)</b>				<b>Source: B9A1642-01</b>		Prepared & Analyzed: 01/15/19				
Sulfate	25.3	0.50	0.23	mg/L	25.0	1.61	94.7	75-128		
Nitrate as N	5.75	0.10	0.055	mg/L	5.65	0.446	93.8	75-131		
<b>Matrix Spike (9A15138-MS2)</b>				<b>Source: B9A1718-01</b>		Prepared & Analyzed: 01/15/19				
Sulfate	178	0.50	0.23	mg/L	25.0	153	98.8	75-128		
Nitrate as N	6.21	0.10	0.055	mg/L	5.65	0.415	103	75-131		
<b>Matrix Spike Dup (9A15138-MSD1)</b>				<b>Source: B9A1642-01</b>		Prepared & Analyzed: 01/15/19				
Sulfate	25.6	0.50	0.23	mg/L	25.0	1.61	96.0	75-128	1.29	20
Nitrate as N	5.94	0.10	0.055	mg/L	5.65	0.446	97.2	75-131	3.29	20



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Analytical Report: Page 7 of 20  
Project Name: Post Fire Monitoring  
Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
Received on Ice (Y/N): Yes Temp: 1 °C

**Solids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A17098 - Analyzed as received</b>										
<b>Blank (9A17098-BLK1)</b>				Prepared & Analyzed: 01/17/19						
Total Suspended Solids	ND	0.5	0.5	mg/L						
<b>LCS (9A17098-BS1)</b>				Prepared & Analyzed: 01/17/19						
Total Suspended Solids	520	50	50	mg/L	500	104	90-110			
<b>Duplicate (9A17098-DUP1)</b>				<b>Source: B9A1722-02</b>		Prepared & Analyzed: 01/17/19				
Total Suspended Solids	57.0	5	5	mg/L	62.0			8.40	25	
<b>Duplicate (9A17098-DUP2)</b>				<b>Source: B9A1739-01</b>		Prepared & Analyzed: 01/17/19				
Total Suspended Solids	358	10	10	mg/L	356			0.560	25	
<b>Batch 9A21083 - Analyzed as received</b>										
<b>Blank (9A21083-BLK1)</b>				Prepared & Analyzed: 01/21/19						
Total Dissolved Solids	ND	10	10	mg/L						
<b>LCS (9A21083-BS1)</b>				Prepared & Analyzed: 01/21/19						
Total Dissolved Solids	750	10	10	mg/L	746	101	90-110			
<b>Duplicate (9A21083-DUP1)</b>				<b>Source: B9A2078-03</b>		Prepared & Analyzed: 01/21/19				
Total Dissolved Solids	530	10	10	mg/L	528			0.378	20	
<b>Duplicate (9A21083-DUP2)</b>				<b>Source: B9A2078-04</b>		Prepared & Analyzed: 01/21/19				
Total Dissolved Solids	500	10	10	mg/L	502			0.399	20	



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Analytical Report: Page 8 of 20  
Project Name: Post Fire Monitoring  
Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
Received on Ice (Y/N): Yes Temp: 1 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A15187 - Analyzed as received</b>										
<b>Blank (9A15187-BLK1)</b>				Prepared & Analyzed: 01/16/19						
Biochemical Oxygen Demand	ND	1.0	1.0	mg/L						
<b>LCS (9A15187-BS1)</b>				Prepared & Analyzed: 01/16/19						
Biochemical Oxygen Demand	164	1.0	1.0	mg/L	198	82.9	85-115			Q-BOD2
<b>Duplicate (9A15187-DUP1)</b>				<b>Source: B9A1747-01</b>	Prepared & Analyzed: 01/16/19					
Biochemical Oxygen Demand	182	50	50	mg/L	196			7.41	20	
<b>Batch 9A16082 - As recieved</b>										
<b>Blank (9A16082-BLK1)</b>				Prepared & Analyzed: 01/17/19						
Dissolved Organic Carbon	ND	0.60	0.16	mg/L						
<b>LCS (9A16082-BS1)</b>				Prepared & Analyzed: 01/17/19						
Dissolved Organic Carbon	4.21	0.60	0.16	mg/L	4.00	105	90-110			
<b>Duplicate (9A16082-DUP1)</b>				<b>Source: B9A1828-02</b>	Prepared & Analyzed: 01/17/19					
Dissolved Organic Carbon	56.9	3.0	0.82	mg/L	59.6			4.72	10	
<b>Matrix Spike (9A16082-MS1)</b>				<b>Source: B9A1826-02</b>	Prepared & Analyzed: 01/17/19					
Dissolved Organic Carbon	78.1	3.0	0.82	mg/L	20.0	58.8	96.2	80-120		
<b>Matrix Spike Dup (9A16082-MSD1)</b>				<b>Source: B9A1826-02</b>	Prepared & Analyzed: 01/17/19					
Dissolved Organic Carbon	78.2	3.0	0.82	mg/L	20.0	58.8	97.0	80-120	0.192	10
<b>Batch 9A16084 - As recieved</b>										
<b>Blank (9A16084-BLK1)</b>				Prepared & Analyzed: 01/19/19						
Total Organic Carbon	ND	0.70	0.17	mg/L						



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Analytical Report: Page 9 of 20  
Project Name: Post Fire Monitoring  
Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

Work Order Number: **B9A1721**  
Received on Ice (Y/N): Yes Temp: 1 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A16084 - As recieved</b>										
<b>LCS (9A16084-BS1)</b>				Prepared & Analyzed: 01/19/19						
Total Organic Carbon	4.20	0.70	0.17	mg/L	4.00	105	90-110			
<b>Matrix Spike (9A16084-MS1)</b>				Source: <b>B9A2041-01</b> Prepared & Analyzed: 01/19/19						
Total Organic Carbon	103	3.5	0.83	mg/L	20.0	73.6	149	80-120		QFini, QMout
<b>Matrix Spike Dup (9A16084-MSD1)</b>				Source: <b>B9A2041-01</b> Prepared & Analyzed: 01/19/19						
Total Organic Carbon	104	3.5	0.83	mg/L	20.0	73.6	153	80-120	0.675	10 QFini, QMout
<b>Batch 9A24029 - Acid Digest</b>										
<b>Blank (9A24029-BLK1)</b>				Prepared & Analyzed: 01/24/19						
Chemical Oxygen Demand	ND	10	7.4	mg/L						
<b>LCS (9A24029-BS1)</b>				Prepared & Analyzed: 01/24/19						
Chemical Oxygen Demand	516	10	7.4	mg/L	500	103	95-105			
<b>Matrix Spike (9A24029-MS1)</b>				Source: <b>B9A1836-01</b> Prepared & Analyzed: 01/24/19						
Chemical Oxygen Demand	441	13	9.9	mg/L	333	89.8	105	80-120		
<b>Matrix Spike Dup (9A24029-MSD1)</b>				Source: <b>B9A1836-01</b> Prepared & Analyzed: 01/24/19						
Chemical Oxygen Demand	438	13	9.9	mg/L	333	89.8	104	80-120	0.697	20



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 Project Name: Post Fire Monitoring  
 Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
 Received on Ice (Y/N): Yes Temp: 1 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A15179 - Filter if turbid.</b>										
<b>LCS (9A15179-BS1)</b>				Prepared & Analyzed: 01/15/19						
Ortho Phosphate Phosphorus	0.488	0.050	0.016	mg/L	0.500	97.7	90-110			
<b>Matrix Spike (9A15179-MS1)</b>				<b>Source: B9A1756-01</b> Prepared & Analyzed: 01/15/19						
Ortho Phosphate Phosphorus	0.654	0.050	0.016	mg/L	0.500	0.126	106	80-120		
<b>Matrix Spike Dup (9A15179-MSD1)</b>				<b>Source: B9A1756-01</b> Prepared & Analyzed: 01/15/19						
Ortho Phosphate Phosphorus	0.659	0.050	0.016	mg/L	0.500	0.126	107	80-120	0.833	20
<b>Batch 9A16102 - Analyzed as received</b>										
<b>Blank (9A16102-BLK1)</b>				Prepared & Analyzed: 01/16/19						
Ammonia-Nitrogen	ND	0.10	0.048	mg/L						
<b>LCS (9A16102-BS1)</b>				Prepared & Analyzed: 01/16/19						
Ammonia-Nitrogen	0.732	0.10	0.048	mg/L	0.780	93.8	90-110			
<b>Matrix Spike (9A16102-MS1)</b>				<b>Source: B9A1742-02</b> Prepared & Analyzed: 01/16/19						
Ammonia-Nitrogen	1.37	0.10	0.048	mg/L	0.780	0.645	93.3	80-120		
<b>Matrix Spike Dup (9A16102-MSD1)</b>				<b>Source: B9A1742-02</b> Prepared & Analyzed: 01/16/19						
Ammonia-Nitrogen	1.33	0.10	0.048	mg/L	0.780	0.645	88.2	80-120	2.94	20
<b>Batch 9A16126 - Filter if turbid.</b>										
<b>LCS (9A16126-BS1)</b>				Prepared & Analyzed: 01/16/19						
Nitrite as N	0.101	0.010	0.0042	mg/L	0.100	101	90-110			



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**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A16126 - Filter if turbid.</b>										
<b>Matrix Spike (9A16126-MS1)</b>		<b>Source: B9A1756-01</b>			Prepared & Analyzed: 01/16/19					
Nitrite as N	0.139	0.012	0.0053	mg/L	0.125	0.0176	97.1	80-120		
<b>Matrix Spike Dup (9A16126-MSD1)</b>		<b>Source: B9A1756-01</b>			Prepared & Analyzed: 01/16/19					
Nitrite as N	0.139	0.012	0.0053	mg/L	0.125	0.0176	96.8	80-120	0.260	20
<b>Batch 9A16136 - Acid Digest</b>										
<b>Blank (9A16136-BLK1)</b>		Prepared: 01/16/19 Analyzed: 01/17/19								
Kjeldahl Nitrogen	ND	0.10	0.063	mg/L						
<b>LCS (9A16136-BS1)</b>		Prepared: 01/16/19 Analyzed: 01/17/19								
Kjeldahl Nitrogen	0.972	0.10	0.063	mg/L	1.00		97.2	80-120		
<b>Matrix Spike (9A16136-MS1)</b>		<b>Source: B9A1556-01</b>			Prepared: 01/16/19 Analyzed: 01/17/19					
Kjeldahl Nitrogen	1.79	0.10	0.063	mg/L	1.00	0.845	94.8	42-154		
<b>Matrix Spike (9A16136-MS2)</b>		<b>Source: B9A1932-01</b>			Prepared: 01/16/19 Analyzed: 01/17/19					
Kjeldahl Nitrogen	134	8.0	5.0	mg/L	80.0	53.2	101	42-154		
<b>Batch 9A21087 - Acid Digest</b>										
<b>LCS (9A21087-BS1)</b>		Prepared & Analyzed: 01/21/19								
Total Phosphorus	0.536	0.05	0.02	mg/L	0.500		107	85-115		
<b>Matrix Spike (9A21087-MS1)</b>		<b>Source: B9A1433-01</b>			Prepared & Analyzed: 01/21/19					
Total Phosphorus	0.938	0.05	0.02	mg/L	0.500	0.396	108	80-120		



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**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A21087 - Acid Digest</b>										
<b>Matrix Spike Dup (9A21087-MSD1)</b>		<b>Source: B9A1433-01</b>			<b>Prepared &amp; Analyzed: 01/21/19</b>					
Total Phosphorus	0.915	0.05	0.02	mg/L	0.500	0.396	104	80-120	2.48	20



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 Received on Ice (Y/N): Yes Temp: 1 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A23131 - EPA 200.2</b>										
<b>Blank (9A23131-BLK1)</b>				Prepared: 01/24/19 Analyzed: 01/25/19						
Cadmium	ND	0.25	0.12	ug/L						
Copper	ND	0.5	0.2	ug/L						
Lead	ND	0.5	0.2	ug/L						
Manganese	ND	10	5.0	ug/L						
Nickel	ND	1.0	0.5	ug/L						
Zinc	ND	1.0	0.7	ug/L						
<b>LCS (9A23131-BS1)</b>				Prepared: 01/24/19 Analyzed: 01/25/19						
Cadmium	39.8	0.25	0.12	ug/L	40.0	99.5	85-115			
Copper	39.4	0.5	0.2	ug/L	40.0	98.6	85-115			
Lead	40.0	0.5	0.2	ug/L	40.0	100	85-115			
Manganese	40.4	10	5.0	ug/L	40.0	101	85-115			
Nickel	39.5	1.0	0.5	ug/L	40.0	98.8	85-115			
Zinc	37.0	1.0	0.7	ug/L	40.0	92.6	85-115			
<b>LCS Dup (9A23131-BSD1)</b>				Prepared: 01/24/19 Analyzed: 01/25/19						
Cadmium	38.9	0.25	0.12	ug/L	40.0	97.3	85-115	2.22	20	
Copper	38.7	0.5	0.2	ug/L	40.0	96.8	85-115	1.87	20	
Lead	39.4	0.5	0.2	ug/L	40.0	98.6	85-115	1.56	20	
Manganese	40.2	10	5.0	ug/L	40.0	100	85-115	0.613	20	
Nickel	38.7	1.0	0.5	ug/L	40.0	96.8	85-115	2.12	20	
Zinc	36.5	1.0	0.7	ug/L	40.0	91.2	85-115	1.53	20	
<b>Matrix Spike (9A23131-MS1)</b>				<b>Source: B9A2356-01</b>		Prepared: 01/24/19 Analyzed: 01/25/19				
Cadmium	38.2	0.25	0.12	ug/L	40.0	0.499	94.3	70-130		
Copper	137	0.5	0.2	ug/L	40.0	101	88.3	70-130		
Lead	74.6	0.5	0.2	ug/L	40.0	42.7	79.6	70-130		
Manganese	2260	10	5.0	ug/L	40.0	2200	155	70-130		QM-4X, QOcal
Nickel	102	1.0	0.5	ug/L	40.0	64.4	95.0	70-130		
Zinc	260	1.0	0.7	ug/L	40.0	232	71.0	70-130		





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**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A23171 - EPA 200.2</b>										
<b>Blank (9A23171-BLK1)</b>				Prepared & Analyzed: 01/23/19						
Aluminum	ND	100	37	ug/L						
Iron	ND	50	3.8	ug/L						
<b>LCS (9A23171-BS1)</b>				Prepared & Analyzed: 01/23/19						
Aluminum	1070	100	37	ug/L	1170	92.1	85-115			
Iron	1110	50	3.8	ug/L	1170	95.5	85-115			
<b>LCS Dup (9A23171-BSD1)</b>				Prepared & Analyzed: 01/23/19						
Aluminum	1070	100	37	ug/L	1170	91.7	85-115	0.430	20	
Iron	1130	50	3.8	ug/L	1170	96.7	85-115	1.22	20	
<b>Batch 9B12119 - EPA 200.2</b>										
<b>Blank (9B12119-BLK1)</b>				Prepared: 02/13/19 Analyzed: 02/14/19						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	0.530	0.5	0.2	ug/L						QBfil, QBLKf
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	2.75	1.0	0.7	ug/L						QBfil, QBLKf
<b>Blank (9B12119-BLK2)</b>				Prepared: 02/13/19 Analyzed: 02/14/19						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	0.470	0.5	0.2	ug/L						QBfil, QBLKf, J
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	1.34	1.0	0.7	ug/L						QBfil, QBLKf



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**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9B12119 - EPA 200.2</b>										
<b>Blank (9B12119-BLK3)</b>				Prepared: 02/13/19 Analyzed: 02/14/19						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	1.69	0.5	0.2	ug/L						QBfil, QBLKf
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	ND	1.0	0.7	ug/L						QBfil
<b>LCS (9B12119-BS1)</b>				Prepared: 02/13/19 Analyzed: 02/14/19						
Cadmium	41.5	0.25	0.12	ug/L	40.0	104	85-115			
Copper	42.7	0.5	0.2	ug/L	40.0	107	85-115			
Lead	41.6	0.5	0.2	ug/L	40.0	104	85-115			
Manganese	41.4	10	5.0	ug/L	40.0	104	85-115			
Nickel	41.7	1.0	0.5	ug/L	40.0	104	85-115			
Zinc	43.9	1.0	0.7	ug/L	40.0	110	85-115			
<b>LCS Dup (9B12119-BSD1)</b>				Prepared: 02/13/19 Analyzed: 02/14/19						
Cadmium	41.0	0.25	0.12	ug/L	40.0	103	85-115	1.13	20	
Copper	40.6	0.5	0.2	ug/L	40.0	101	85-115	5.22	20	
Lead	40.7	0.5	0.2	ug/L	40.0	102	85-115	2.15	20	
Manganese	39.7	10	5.0	ug/L	40.0	99.2	85-115	4.30	20	
Nickel	39.5	1.0	0.5	ug/L	40.0	98.8	85-115	5.34	20	
Zinc	41.2	1.0	0.7	ug/L	40.0	103	85-115	6.50	20	
<b>Matrix Spike (9B12119-MS1)</b>				Source: B9B0626-02 Prepared: 02/13/19 Analyzed: 02/14/19						
Cadmium	39.5	0.25	0.12	ug/L	40.0	ND	98.8	70-130		
Copper	39.8	0.5	0.2	ug/L	40.0	5.10	86.7	70-130		
Lead	37.7	0.5	0.2	ug/L	40.0	ND	94.3	70-130		
Manganese	46.9	10	5.0	ug/L	40.0	24.0	57.2	70-130		
Nickel	40.6	1.0	0.5	ug/L	40.0	2.13	96.2	70-130		
Zinc	68.0	1.0	0.7	ug/L	40.0	31.5	91.4	70-130		



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 Received on Ice (Y/N): Yes Temp: 1 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9B13086 - 200.7/ No Digest</b>										
<b>Blank (9B13086-BLK1)</b>				Prepared & Analyzed: 02/13/19						
Aluminum	ND	100	37	ug/L						QBfil
Iron	ND	50	3.8	ug/L						QBfil
<b>Blank (9B13086-BLK3)</b>				Prepared & Analyzed: 02/13/19						
Aluminum	ND	100	37	ug/L						
Iron	ND	50	3.8	ug/L						
<b>Blank (9B13086-BLK8)</b>				Prepared & Analyzed: 02/13/19						
Aluminum	ND	100	37	ug/L						QBfil
Iron	ND	50	3.8	ug/L						QBfil
<b>LCS (9B13086-BS1)</b>				Prepared & Analyzed: 02/13/19						
Aluminum	333	100	37	ug/L	334	99.7	85-115			
Iron	1260	50	3.8	ug/L	1270	99.8	85-115			
<b>LCS Dup (9B13086-BSD1)</b>				Prepared & Analyzed: 02/13/19						
Aluminum	334	100	37	ug/L	334	99.9	85-115	0.185	20	
Iron	1270	50	3.8	ug/L	1270	100	85-115	0.643	20	
<b>Matrix Spike (9B13086-MS1)</b>		<b>Source: B9B0892-01</b>		Prepared & Analyzed: 02/13/19						
Aluminum	380	100	37	ug/L	334	66.1	93.9	70-130		
Iron	1280	50	3.8	ug/L	1270	26.8	99.1	70-130		
<b>Matrix Spike (9B13086-MS2)</b>		<b>Source: B9B1194-03</b>		Prepared & Analyzed: 02/13/19						
Aluminum	330	100	37	ug/L	334		98.9	70-130		
Iron	1280	50	3.8	ug/L	1270		101	70-130		



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## Notes and Definitions

J	Estimated value
N_pFilt	Sample filtered and preserved upon receipt to the laboratory.
NBLKf	Analyte was detected at 0.530 in the filtered Method Blank.
NBLKfa	Analyte was detected at 2.75 in the filtered Method Blank.
N-BOD	The reported result is an estimated value because the result did not meet method calculation criteria.
N-BOD2	The LCS is outside method acceptance limits. As per method, data is reportable as qualified.
N-TOCd	Sample filtered and preserved at laboratory after 15 minute regulatory holding time.
PbIkJ	The analyte was detected in the Method Blank at a concentration between the MDL and the MRL.
QBfil	Method blank was filtered prior to processing.
QBLKf	The filtered method blank did not meet laboratory acceptance criteria.
Q-BOD2	This LCS is outside method acceptance limits. As per method, data is reportable as qualified.
QFinl	Follow-up result also did not meet laboratory acceptance criteria.
QFnt	The referenced sample did not require this QC analyte, so a follow-up is not needed.
QM-4X	Due to analyte concentration greater than or equal to 4 times the spike concentration, recoveries for the MS and/or MSD did not meet laboratory acceptance criteria.
QMout	MS and/or MSD recovery did not meet laboratory acceptance criteria.
QOcal	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit ( <b>if MDL is reported</b> ), otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
NRLrcf:	RL for analyte does not meet the SWAMP / CTR required RL.
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit

\* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination



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Received on Ice (Y/N): Yes Temp: 1 °C

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### Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

**KayeLani A. Marshall**

cc:

e-Standard\_RCFC\_N2.rpt

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EPA No. CA00102  
NELAP No. OR4035  
LACSD No. 10119



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**Chain of Custody Sample Information Record**

Client: <u>RCFL WCD</u>		Contact: <u>Rebekah Guill</u>		Phone No. <u>951-955-2901</u>	
FAX No. <u>951-788-9965</u>		Email: <u>rguill@rcfl.org</u>		Additional Reporting Requests	
Project Name: <u>SAR-Post Fire</u>		Turn Around Time: <u>Routine</u>		Include QC Data Package: <input type="checkbox"/> Yes <input type="checkbox"/> No FAX Results: <input type="checkbox"/> Yes <input type="checkbox"/> No Email Results: <input type="checkbox"/> Yes <input type="checkbox"/> No State EDT: <input type="checkbox"/> Yes <input type="checkbox"/> No (Include Source Number in Notes)	
Project Location: <u>Post Fire</u>		*Lab TAT Approval: By: _____		*Additional Charges May Apply	
<b>Sampler Information</b> Name: <u>Austin May</u> Employer: <u>Altus</u> Signature: <u>[Signature]</u>		<b># of Containers &amp; Preservatives</b> Unpreserved: <u>3</u> HCl: <u>3</u> HNO3: <u>1</u> Na2SO3: <u>0</u> NaOH: <u>0</u> NaOH/ZnAcetate: <u>0</u> NH4Cl: <u>0</u> MCAA: <u>0</u>		<b>Sample Type</b> Total # of Containers: <u>7</u> Routine: <u>X</u> Resample: <u>0</u> Special: <u>X</u> <u>See Project List (SAR Post Fire) 2/15/19</u>	
<b>Analysis Requested</b> DW = Drinking Water GW = Groundwater WW = Wastewater S = Source SG = Sludge L = Liquid M = Miscellaneous		<b>Matrix</b> <u>SW</u>		<b>Notes</b> <u>All vials g/c 2/15/19</u> <u>*Per Project 2/15/19</u>	
Sample ID	Date	Time			
<u>McVicker-01-C</u>	<u>1/14/19</u>	<u>10:20</u>			
Relinquished By (Sign)		Print Name / Company	Date / Time	Received By (Sign)	
<u>[Signature]</u>		<u>Austin May/Altus</u>	<u>1/15/19 10:54</u>	<u>[Signature]</u>	
				<u>Jenny G. ESB</u>	
(For Lab Use Only) Sample Integrity Upon Receipt/Acceptance Criteria					
Sample(s) Submitted on Ice? <u>Yes</u> <u>No</u>		Sample Meets Laboratory Acceptance Criteria? <u>Yes</u> <u>No</u>			
Custody Seal(s) Intact? <u>Yes</u> <u>No</u> <u>N/A</u>		Permission to continue: <u>Yes</u> <u>No</u>			
Sample(s) Intact? <u>Yes</u> <u>No</u>		Deviation/Notes: _____			
Temperature: <u>1</u> °C <input type="checkbox"/> Cooler Blank		Signature/Date: _____			

**B9A1721**

1/15/2019 12:28

JMG





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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 20 of 20  
Project Name: Post Fire Monitoring  
Project Number: SAR-Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A1721**  
Received on Ice (Y/N): Yes Temp: 1 °C

**Project Information**

**Riverside County Flood Control**

1995 Market Street  
Riverside, CA 92501

Laboratory PM: KayeLani A. Marshall

Phone:(951) 955-1273  
Fax:(951) 788-9965

**0250**  
1/15/2019

<b>Project Name:</b>	Post Fire Monitoring	<b>Invoice To:</b>	Riverside County Flood Control
<b>Project Number:</b>	[none]	<b>Invoice Bid:</b>	(list pricing)
<b>Client PM:</b>	Abigail Suter	<b>Invoice Manager:</b>	Abigail Suter
<b>Comments:</b>			

Analysis	Comment
----------	---------

ML-ZN_ICPMS	
Ammonia-N	
BOD	
COD	
FE_ICP_WW	
Hardness Pack-WW	
ML-CD_ICPMS	
ML-CU_ICPMS	
ML-MN_ICPMS	
AL_ICP_WW	
ML-PB_ICPMS	
TOC-Dissolved	
Nitrite-N-LL	
Nitrogen-Kjeldahl	
Nitrogen-Organic	
Nitrogen-Tot Calc (MDL, LowLv	
NO3-N	
Phos-Ortho	
Phos-Total	
SO4	
Solids-Total Diss	
Solids-Total Suspend	
TOC	
ML-NI_ICPMS	

**Hardness Pack-WW subanalyses:**

CA_ICP_WW	
Hardness Total-WW	
MG_ICP_WW	



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Client Name: Riverside County Flood Control

Contact: Abigail Suter

Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 1 of 5

Project Name: Post Fire Monitoring

Project Number: SAR - Post Fire

Report Date: 13-Mar-2019

**Work Order Number: B9A2313**

Received on Ice (Y/N):

Yes

Temp: 2 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

### Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
B9A2313-01	Horsetheif-01	Liquid	01/17/19 13:35	Austin Kay	01/18/19 09:38	Mallory Graves

#### *mailing*

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Riverside, CA 92502-0432

#### *location*

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CA ELAP No. 2698

EPA No. CA00102

NELAP No. OR4035

LACSD No. 10119





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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 2 of 5  
Project Name: Post Fire Monitoring  
Project Number: SAR - Post Fire

Report Date: 13-Mar-2019

**Work Order Number: B9A2313**  
Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number

**B9A2313-01**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Horsetheif-01	Liquid	01/17/19 13:35	01/18/19 9:38

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Aggregate Organic Compounds								
Biochemical Oxygen Demand	ND	10	10	mg/L	SM 5210B	01/18/19 22:30	HRL	N-BOD1
								N-BOD2
Chemical Oxygen Demand	470	20	15	mg/L	SM 5220D	01/30/19 15:20	SLL	



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Client Name: Riverside County Flood Control  
 Contact: Abigail Suter  
 Address: 1995 Market Street  
 Riverside, CA 92501

Analytical Report: Page 3 of 5  
 Project Name: Post Fire Monitoring  
 Project Number: SAR - Post Fire

Report Date: 13-Mar-2019

**Work Order Number: B9A2313**  
 Received on Ice (Y/N): Yes Temp: 2 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A18048 - Analyzed as received</b>										
<b>Blank (9A18048-BLK1)</b>				Prepared & Analyzed: 01/18/19						
Biochemical Oxygen Demand	ND	1.0	1.0	mg/L						
<b>LCS (9A18048-BS1)</b>				Prepared & Analyzed: 01/18/19						
Biochemical Oxygen Demand	139	1.0	1.0	mg/L	198	70.4	85-115			Q-BOD2
<b>Duplicate (9A18048-DUP1)</b>				<b>Source: B9A2303-01</b>		Prepared & Analyzed: 01/18/19				
Biochemical Oxygen Demand	685	100	100	mg/L	638			7.11	20	
<b>Batch 9A30101 - Acid Digest</b>										
<b>Blank (9A30101-BLK1)</b>				Prepared & Analyzed: 01/30/19						
Chemical Oxygen Demand	ND	10	7.4	mg/L						
<b>LCS (9A30101-BS1)</b>				Prepared & Analyzed: 01/30/19						
Chemical Oxygen Demand	509	10	7.4	mg/L	500	102	95-105			
<b>Matrix Spike (9A30101-MS1)</b>				<b>Source: B9A3535-01</b>		Prepared & Analyzed: 01/30/19				
Chemical Oxygen Demand	358	13	9.9	mg/L	333	23.0	101	80-120		
<b>Matrix Spike Dup (9A30101-MSD1)</b>				<b>Source: B9A3535-01</b>		Prepared & Analyzed: 01/30/19				
Chemical Oxygen Demand	355	13	9.9	mg/L	333	23.0	99.7	80-120	0.859	20



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Client Name: Riverside County Flood Control  
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Analytical Report: Page 4 of 5  
Project Name: Post Fire Monitoring  
Project Number: SAR - Post Fire

Report Date: 13-Mar-2019

**Work Order Number: B9A2313**  
Received on Ice (Y/N): Yes Temp: 2 °C

## Notes and Definitions

N-BOD1 Dilution water blank exceeds 0.20 mg/L. As per method, data is reportable as qualified.  
N-BOD2 The LCS is outside method acceptance limits. As per method, data is reportable as qualified.  
Q-BOD2 This LCS is outside method acceptance limits. As per method, data is reportable as qualified.  
ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)  
NR: Not Reported  
NRLrcf: RL for analyte does not meet the SWAMP / CTR required RL.  
RDL: Reportable Detection Limit  
MDL: Method Detection Limit

\* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

---

## Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

**KayeLani A. Marshall**

cc:

e-Standard\_RCFC\_N2.rpt

This report applies only to the sample(s) analyzed. As a mutual protection to clients, the public, and Babcock Laboratories, Inc., this report is submitted and accepted for the exclusive use of the Client to whom it is addressed. Interpretation and use of the information contained within this report are the sole responsibility of the Client. Babcock Laboratories, Inc. is not responsible for any misinformation or consequences that may result from misinterpretation or improper use of this report. This report is not to be modified or abbreviated in any way. Additionally, this report is not to be used, in whole or in part, in any advertising or publicity matter without written authorization from Babcock Laboratories, Inc. The liability of Babcock Laboratories, Inc. is limited to the actual cost of the requested analyses, unless otherwise agreed upon in writing. There is no other warranty expressed or implied.

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CA ELAP No. 2698  
EPA No. CA00102  
NELAP No. OR4035  
LACSD No. 10119



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 5 of 5  
Project Name: Post Fire Monitoring  
Project Number: SAR - Post Fire

Report Date: 13-Mar-2019

Work Order Number: **B9A2313**  
Received on Ice (Y/N): Yes Temp: 2 °C

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www.babcocklabs.com

**Chain of Custody Sample Information Record**

Client: <u>RCFC &amp; WCD</u>		Contact: <u>Rebekah Guill</u>		Phone No. <u>951-955-2901</u>	
FAX No. <u>951-788-9965</u>		Email: <u>rguill@rivco.org</u>		Additional Reporting Requests Include QC Data Package: <input type="checkbox"/> Yes <input type="checkbox"/> No FAX Results: <input type="checkbox"/> Yes <input type="checkbox"/> No Email Results: <input type="checkbox"/> Yes <input type="checkbox"/> No State EDT: <input type="checkbox"/> Yes <input type="checkbox"/> No (Include Source Number in Notes)	
Project Name: <u>SAR-Post Fire</u>		Turn Around Time: <u>Routine</u> *3-5 Day *48 Hour *24 Hour Rush Rush Rush			
Project Location: <u>Post Fire</u>		*Lab TAT Approval: By: _____		*Additional Charges May Apply	
Sampler Information Name: <u>Austin Kay</u> Employer: <u>Alta</u> Signature: <u>[Signature]</u>		# of Containers & Preservatives Unpreserved H2SO4 HCl HNO3 Na2S2O3 NaOH NaOH/ZnAcetate NH4Cl MCAA		Analysis Requested Total # of Containers Routine Resample Special <u>600 5M5210B</u> <u>600 5M5210D</u>	
Sample ID <u>Horseheit-01</u>		Date <u>1/17/19</u>		Time <u>12:35</u>	
				Matrix DW = Drinking Water GW = Groundwater WW = Wastewater S = Source SG = Sludge L = Liquid M = Miscellaneous <u>SW</u>	
Relinquished By (sign) <u>[Signature]</u>		Print Name / Company <u>Austin Kay / Alta</u>		Date / Time <u>1/18/19 07:30</u>	
Received By (Sign) <u>[Signature]</u>		Print Name / Company <u>Mallory Graves / Alta</u>		Date / Time <u>1/18/19 09:38</u>	
Relinquished By (sign) <u>[Signature]</u>		Print Name / Company <u>Mallory Graves / Alta</u>		Date / Time <u>1/18/19 09:38</u>	
Received By (Sign) <u>[Signature]</u>		Print Name / Company <u>Jenny G ESR</u>		Date / Time <u>1/18/19 09:38</u>	
(For Lab Use Only) Sample Integrity Upon Receipt/Acceptance Criteria					
Sample(s) Submitted on Ice? <u>Yes</u> No		Sample Meets Laboratory Acceptance Criteria? <u>Yes</u> No			
Custody Seal(s) Intact? <u>Yes</u> No <u>N/A</u>		Permission to continue: <u>Yes</u> No			
Sample(s) Intact? <u>Yes</u> No		Deviation/Notes: _____			
Temperature: <u>2</u> °C <input type="checkbox"/> Cooler Blank		Signature/Date: _____			

**B9A2313**

1/18/2019 12:33  
AJG





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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 1 of 21  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A2343**  
Received on Ice (Y/N): Yes Temp: 2 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

## Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
B9A2343-01	Horsetheif-01-C ---ROUTINE---	Liquid	01/17/19 14:30	Austin Kay	01/18/19 09:38	Mallory Graves
B9A2343-02	Horsetheif-01-C (Dissolved) -- -ROUTINE---	Liquid	01/17/19 14:30	Austin Kay	01/18/19 09:38	Mallory Graves



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Client Name: Riverside County Flood Control  
 Contact: Abigail Suter  
 Address: 1995 Market Street  
 Riverside, CA 92501

Analytical Report: Page 2 of 21  
 Project Name: Post Fire Monitoring  
 Project Number: SAR Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A2343**  
 Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number

**B9A2343-01**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Horsetheif-01-C	Liquid	01/17/19 14:30	01/18/19 9:38

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
<b>Cations</b>								
Total Hardness	160	15	1.8	mg/L	SM 2340B/EPA 200.7	01/29/19 15:39	KCS	
Calcium	38	5.0	1.6	mg/L	EPA 200.7	01/29/19 15:39	KCS	
Magnesium	15	5.0	1.8	mg/L	EPA 200.7	01/29/19 15:39	KCS	
<b>Anions</b>								
Sulfate	2.8	0.50	0.23	mg/L	EPA 300.0	01/18/19 20:23	KBS	Nconf
Nitrate as N	1.2	0.20	0.055	mg/L	EPA 300.0	01/18/19 20:23	KBS	
<b>Solids</b>								
Total Dissolved Solids	300	10	10	mg/L	SM 2540C	01/23/19 13:44	BBR	
Total Suspended Solids	2200	50	50	mg/L	SM 2540D	01/23/19 15:23	MWM	
<b>Aggregate Organic Compounds</b>								
Biochemical Oxygen Demand	ND	10	10	mg/L	SM 5210B	01/18/19 22:30	HRL	N-BOD1 , N-BOD2
Chemical Oxygen Demand	700	40	30	mg/L	SM 5220D	01/30/19 15:20	SLL	
Total Organic Carbon	15	3.5	0.83	mg/L	SM 5310B	01/27/19 03:55	KCS	
Dissolved Organic Carbon	8.1	3.5	1.2	mg/L	SM 5310B	01/26/19 20:03	KCS	N-TOCd
<b>Nutrients</b>								
Nitrite as N	0.027	0.010	0.0042	mg/L	SM 4500NO2 B	01/18/19 21:20	RER	
Ammonia-Nitrogen	0.14	0.10	0.048	mg/L	SM4500NH3H G	01/21/19 12:05	SLL	
Kjeldahl Nitrogen	8.4	0.40	0.25	mg/L	EPA 351.2	01/28/19 14:29	SLL	
Organic Nitrogen	8.3	0.1	0.02	mg/L	Calculation			
Total Nitrogen	9.6	0.61	0.31	mg/L	Calculation			
Ortho Phosphate Phosphorus	0.37	0.050	0.016	mg/L	SM 4500P E	01/18/19 18:20	ATR	
Total Phosphorus	4.6	0.50	0.19	mg/L	SM 4500P B E	01/22/19 18:15	ATR	

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 EPA No. CA00102  
 NELAP No. OR4035  
 LACSD No. 10119



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 3 of 21  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A2343**  
Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number

**B9A2343-01**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Horsetheif-01-C	Liquid	01/17/19 14:30	01/18/19 9:38

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids								
Aluminum	67000	500	190	ug/L	EPA 200.7	01/29/19 15:39	KCS	
Cadmium	1.7	1.2	0.62	ug/L	EPA 200.8	01/25/19 10:43	MEL	
Copper	24	2.5	1.2	ug/L	EPA 200.8	01/25/19 10:43	MEL	
Iron	74000	250	19	ug/L	EPA 200.7	01/29/19 15:39	KCS	
Lead	64	2.5	1.2	ug/L	EPA 200.8	01/25/19 10:43	MEL	
Manganese	3300	50	25	ug/L	EPA 200.8	01/25/19 10:43	MEL	
Nickel	13	5.0	2.5	ug/L	EPA 200.8	01/25/19 10:43	MEL	
Zinc	200	5.0	3.3	ug/L	EPA 200.8	01/25/19 10:43	MEL	



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Client Name: Riverside County Flood Control  
Contact: Abigail Suter  
Address: 1995 Market Street  
Riverside, CA 92501

Analytical Report: Page 4 of 21  
Project Name: Post Fire Monitoring  
Project Number: SAR Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A2343**  
Received on Ice (Y/N): Yes Temp: 2 °C

Laboratory Reference Number

**B9A2343-02**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Horsetheif-01-C (Dissolved)	Liquid	01/17/19 14:30	01/18/19 9:38

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids								
Aluminum	ND	100	37	ug/L	EPA 200.7	02/13/19 17:37	KCS	N_pFilt
Cadmium	ND	0.25	0.12	ug/L	EPA 200.8	02/14/19 12:36	MEL	N_pFilt
Copper	1.8	0.5	0.2	ug/L	EPA 200.8	02/14/19 12:36	MEL	N_pFilt, NBLKf
Iron	15	50	3.8	ug/L	EPA 200.7	02/13/19 17:37	KCS	J, N_pFilt
Lead	ND	0.5	0.2	ug/L	EPA 200.8	02/14/19 12:36	MEL	N_pFilt
Manganese	ND	10	5.0	ug/L	EPA 200.8	02/14/19 12:36	MEL	N_pFilt
Nickel	0.6	1.0	0.5	ug/L	EPA 200.8	02/14/19 12:36	MEL	J, N_pFilt
Zinc	2.8	1.0	0.7	ug/L	EPA 200.8	02/14/19 12:36	MEL	N_pFilt, NBLKfa





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Client Name: Riverside County Flood Control  
 Contact: Abigail Suter  
 Address: 1995 Market Street  
 Riverside, CA 92501

Analytical Report: Page 5 of 21  
 Project Name: Post Fire Monitoring  
 Project Number: SAR Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A2343**  
 Received on Ice (Y/N): Yes Temp: 2 °C

**Cations - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A26089 - EPA 200.2</b>										
<b>Blank (9A26089-BLK1)</b>				Prepared: 01/28/19 Analyzed: 01/29/19						
Calcium	ND	1.0	0.31	mg/L						
Magnesium	ND	1.0	0.35	mg/L						
<b>LCS (9A26089-BS1)</b>				Prepared: 01/28/19 Analyzed: 01/29/19						
Calcium	16.4	1.0	0.31	mg/L	17.0	96.7	85-115			
Magnesium	15.7	1.0	0.35	mg/L	17.0	92.1	85-115			
<b>LCS Dup (9A26089-BSD1)</b>				Prepared: 01/28/19 Analyzed: 01/29/19						
Calcium	17.0	1.0	0.31	mg/L	17.0	99.7	85-115	3.03	20	
Magnesium	16.2	1.0	0.35	mg/L	17.0	95.2	85-115	3.32	20	
<b>Matrix Spike (9A26089-MS1)</b>				Source: B9A2204-02RE1 Prepared: 01/28/19 Analyzed: 01/29/19						
Calcium	29.3	1.0	0.31	mg/L	17.0	11.4	105	70-130		
Magnesium	18.5	1.0	0.35	mg/L	17.0	2.28	95.5	70-130		
<b>Matrix Spike (9A26089-MS2)</b>				Source: B9A2536-01 Prepared: 01/28/19 Analyzed: 01/29/19						
Calcium	198	1.0	0.31	mg/L	17.0	188	62.0	70-130		QM-4X
Magnesium	36.5	1.0	0.35	mg/L	17.0	23.5	76.4	70-130		



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 Project Name: Post Fire Monitoring  
 Project Number: SAR Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A2343**  
 Received on Ice (Y/N): Yes Temp: 2 °C

**Anions - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A18043 - Analyzed as Received IC</b>										
<b>Blank (9A18043-BLK1)</b>				Prepared & Analyzed: 01/19/19						
Sulfate	ND	0.50	0.23	mg/L						
Nitrate as N	0.130	0.20	0.055	mg/L						J
<b>LCS (9A18043-BS1)</b>				Prepared & Analyzed: 01/18/19						
Sulfate	26.4	0.50	0.23	mg/L	25.0	106	90-110			
Nitrate as N	5.70	0.20	0.055	mg/L	5.65	101	90-110			
<b>Matrix Spike (9A18043-MS1)</b>				<b>Source: B9A2291-01</b>		Prepared & Analyzed: 01/19/19				
Sulfate	342	2.6	1.2	mg/L	125	212	104	75-128		
Nitrate as N	37.2	1.0	0.29	mg/L	28.2	9.01	99.9	75-131		
<b>Matrix Spike (9A18043-MS2)</b>				<b>Source: B9A2310-01</b>		Prepared & Analyzed: 01/18/19				
Sulfate	231	0.50	0.23	mg/L	25.0	208	90.3	75-128		
Nitrate as N	5.69	0.20	0.055	mg/L	5.65	0.211	96.9	75-131		
<b>Matrix Spike Dup (9A18043-MSD1)</b>				<b>Source: B9A2291-01</b>		Prepared & Analyzed: 01/19/19				
Sulfate	344	2.6	1.2	mg/L	125	212	105	75-128	0.578	20
Nitrate as N	37.3	1.0	0.29	mg/L	28.2	9.01	100	75-131	0.0890	20



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Report Date: 14-Feb-2019

**Work Order Number: B9A2343**  
Received on Ice (Y/N): Yes Temp: 2 °C

**Solids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A22155 - Analyzed as received</b>										
<b>Blank (9A22155-BLK1)</b>				Prepared & Analyzed: 01/23/19						
Total Suspended Solids	ND	0.5	0.5	mg/L						
<b>LCS (9A22155-BS1)</b>				Prepared & Analyzed: 01/23/19						
Total Suspended Solids	481	50	50	mg/L	500	96.2	90-110			
<b>Duplicate (9A22155-DUP1)</b>				<b>Source: B9A2187-01</b>		Prepared & Analyzed: 01/23/19				
Total Suspended Solids	10.5	2	2	mg/L	12.0			13.3	25	
<b>Duplicate (9A22155-DUP2)</b>				<b>Source: B9A2189-01</b>		Prepared & Analyzed: 01/23/19				
Total Suspended Solids	80.0	5	5	mg/L	81.0			1.24	25	
<b>Batch 9A23130 - Analyzed as received</b>										
<b>Blank (9A23130-BLK1)</b>				Prepared & Analyzed: 01/23/19						
Total Dissolved Solids	ND	10	10	mg/L						
<b>LCS (9A23130-BS1)</b>				Prepared & Analyzed: 01/23/19						
Total Dissolved Solids	743	10	10	mg/L	746	99.6	90-110			
<b>Duplicate (9A23130-DUP1)</b>				<b>Source: B9A2173-01</b>		Prepared & Analyzed: 01/23/19				
Total Dissolved Solids	225	10	10	mg/L	211			6.42	20	
<b>Duplicate (9A23130-DUP2)</b>				<b>Source: B9A2175-01</b>		Prepared & Analyzed: 01/23/19				
Total Dissolved Solids	431	10	10	mg/L	442			2.52	20	



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Received on Ice (Y/N): Yes Temp: 2 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A18048 - Analyzed as received</b>										
<b>Blank (9A18048-BLK1)</b>				Prepared & Analyzed: 01/18/19						
Biochemical Oxygen Demand	ND	1.0	1.0	mg/L						
<b>LCS (9A18048-BS1)</b>				Prepared & Analyzed: 01/18/19						
Biochemical Oxygen Demand	139	1.0	1.0	mg/L	198	70.4	85-115			Q-BOD2
<b>Duplicate (9A18048-DUP1)</b>				<b>Source: B9A2303-01</b>	Prepared & Analyzed: 01/18/19					
Biochemical Oxygen Demand	685	100	100	mg/L	638			7.11	20	
<b>Batch 9A25064 - As recieved</b>										
<b>Blank (9A25064-BLK1)</b>				Prepared & Analyzed: 01/26/19						
Dissolved Organic Carbon	ND	0.70	0.16	mg/L						
<b>LCS (9A25064-BS1)</b>				Prepared & Analyzed: 01/26/19						
Dissolved Organic Carbon	4.15	0.70	0.16	mg/L	4.00	104	90-110			
<b>Matrix Spike (9A25064-MS1)</b>				<b>Source: B9A2886-02</b>	Prepared & Analyzed: 01/26/19					
Dissolved Organic Carbon	55.4	3.5	0.82	mg/L	20.0	35.8	98.2	80-120		
<b>Matrix Spike Dup (9A25064-MSD1)</b>				<b>Source: B9A2886-02</b>	Prepared & Analyzed: 01/26/19					
Dissolved Organic Carbon	55.4	3.5	0.82	mg/L	20.0	35.8	97.9	80-120	0.0902	10
<b>Batch 9A25065 - As recieved</b>										
<b>Blank (9A25065-BLK1)</b>				Prepared & Analyzed: 01/26/19						
Total Organic Carbon	ND	0.70	0.17	mg/L						



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**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A25065 - As recieved</b>										
<b>LCS (9A25065-BS1)</b>				Prepared & Analyzed: 01/26/19						
Total Organic Carbon	4.03	0.70	0.17	mg/L	4.00	101	90-110			
<b>Duplicate (9A25065-DUP1)</b>				<b>Source: B9A2140-01</b> Prepared & Analyzed: 01/26/19						
Total Organic Carbon	3.99	0.70	0.17	mg/L	3.99			0.100	20	
<b>Matrix Spike (9A25065-MS1)</b>				<b>Source: B9A2183-01</b> Prepared & Analyzed: 01/26/19						
Total Organic Carbon	5.50	0.70	0.17	mg/L	4.00	1.70	95.0	80-120		
<b>Matrix Spike Dup (9A25065-MSD1)</b>				<b>Source: B9A2183-01</b> Prepared & Analyzed: 01/26/19						
Total Organic Carbon	5.59	0.70	0.17	mg/L	4.00	1.70	97.3	80-120	1.66	10
<b>Batch 9A30101 - Acid Digest</b>										
<b>Blank (9A30101-BLK1)</b>				Prepared & Analyzed: 01/30/19						
Chemical Oxygen Demand	ND	10	7.4	mg/L						
<b>LCS (9A30101-BS1)</b>				Prepared & Analyzed: 01/30/19						
Chemical Oxygen Demand	509	10	7.4	mg/L	500	102	95-105			
<b>Matrix Spike (9A30101-MS1)</b>				<b>Source: B9A3535-01</b> Prepared & Analyzed: 01/30/19						
Chemical Oxygen Demand	358	13	9.9	mg/L	333	23.0	101	80-120		
<b>Matrix Spike Dup (9A30101-MSD1)</b>				<b>Source: B9A3535-01</b> Prepared & Analyzed: 01/30/19						
Chemical Oxygen Demand	355	13	9.9	mg/L	333	23.0	99.7	80-120	0.859	20



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**Work Order Number: B9A2343**  
Received on Ice (Y/N): Yes Temp: 2 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A18065 - Filter if turbid.</b>										
<b>LCS (9A18065-BS1)</b>				Prepared & Analyzed: 01/18/19						
Ortho Phosphate Phosphorus	0.512	0.050	0.016	mg/L	0.500	102	90-110			
<b>Matrix Spike (9A18065-MS1)</b>				<b>Source: B9A2343-01</b> Prepared & Analyzed: 01/18/19						
Ortho Phosphate Phosphorus	0.962	0.050	0.016	mg/L	0.500	0.369	118	80-120		
<b>Matrix Spike Dup (9A18065-MSD1)</b>				<b>Source: B9A2343-01</b> Prepared & Analyzed: 01/18/19						
Ortho Phosphate Phosphorus	0.944	0.050	0.016	mg/L	0.500	0.369	115	80-120	1.87	20
<b>Batch 9A18074 - Filter if turbid.</b>										
<b>LCS (9A18074-BS1)</b>				Prepared & Analyzed: 01/18/19						
Nitrite as N	0.104	0.010	0.0042	mg/L	0.100	104	90-110			
<b>Matrix Spike (9A18074-MS1)</b>				<b>Source: B9A2343-01</b> Prepared & Analyzed: 01/18/19						
Nitrite as N	0.150	0.012	0.0053	mg/L	0.125	0.0268	98.4	80-120		
<b>Matrix Spike Dup (9A18074-MSD1)</b>				<b>Source: B9A2343-01</b> Prepared & Analyzed: 01/18/19						
Nitrite as N	0.150	0.012	0.0053	mg/L	0.125	0.0268	98.9	80-120	0.481	20
<b>Batch 9A21105 - Analyzed as received</b>										
<b>Blank (9A21105-BLK1)</b>				Prepared & Analyzed: 01/21/19						
Ammonia-Nitrogen	ND	0.10	0.048	mg/L						
<b>LCS (9A21105-BS1)</b>				Prepared & Analyzed: 01/21/19						
Ammonia-Nitrogen	0.764	0.10	0.048	mg/L	0.780	98.0	90-110			



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Received on Ice (Y/N): Yes Temp: 2 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A21105 - Analyzed as received</b>										
<b>Matrix Spike (9A21105-MS1)</b>		<b>Source: B9A2221-02</b>		Prepared & Analyzed: 01/21/19						
Ammonia-Nitrogen	1.03	0.10	0.048	mg/L	0.780	0.168	111	80-120		
<b>Matrix Spike Dup (9A21105-MSD1)</b>		<b>Source: B9A2221-02</b>		Prepared & Analyzed: 01/21/19						
Ammonia-Nitrogen	0.937	0.10	0.048	mg/L	0.780	0.168	98.6	80-120	9.84	20
<b>Batch 9A22106 - Acid Digest</b>										
<b>LCS (9A22106-BS1)</b>		Prepared & Analyzed: 01/22/19								
Total Phosphorus	0.539	0.05	0.02	mg/L	0.500		108	85-115		
<b>Matrix Spike (9A22106-MS1)</b>		<b>Source: B9A2536-01</b>		Prepared & Analyzed: 01/22/19						
Total Phosphorus	0.711	0.05	0.02	mg/L	0.500	0.175	107	80-120		
<b>Matrix Spike Dup (9A22106-MSD1)</b>		<b>Source: B9A2536-01</b>		Prepared & Analyzed: 01/22/19						
Total Phosphorus	0.708	0.05	0.02	mg/L	0.500	0.175	107	80-120	0.404	20
<b>Batch 9A28094 - Acid Digest</b>										
<b>Blank (9A28094-BLK1)</b>		Prepared & Analyzed: 01/28/19								
Kjeldahl Nitrogen	ND	0.10	0.063	mg/L						
<b>LCS (9A28094-BS1)</b>		Prepared & Analyzed: 01/28/19								
Kjeldahl Nitrogen	1.07	0.10	0.063	mg/L	1.00		107	80-120		
<b>Matrix Spike (9A28094-MS1)</b>		<b>Source: B9A2536-01</b>		Prepared & Analyzed: 01/28/19						
Kjeldahl Nitrogen	1.98	0.10	0.063	mg/L	1.00	0.989	98.8	42-154		



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Received on Ice (Y/N): Yes Temp: 2 °C

**Nutrients - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A28094 - Acid Digest</b>										
<b>Matrix Spike (9A28094-MS2)</b>		<b>Source: B9A2774-01</b>			Prepared & Analyzed: 01/28/19					
Kjeldahl Nitrogen	219	8.0	5.0	mg/L	80.0	161	72.4	42-154		





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 Received on Ice (Y/N): Yes Temp: 2 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A23131 - EPA 200.2</b>										
<b>Blank (9A23131-BLK1)</b>				Prepared: 01/24/19 Analyzed: 01/25/19						
Cadmium	ND	0.25	0.12	ug/L						
Copper	ND	0.5	0.2	ug/L						
Lead	ND	0.5	0.2	ug/L						
Manganese	ND	10	5.0	ug/L						
Nickel	ND	1.0	0.5	ug/L						
Zinc	ND	1.0	0.7	ug/L						
<b>LCS (9A23131-BS1)</b>				Prepared: 01/24/19 Analyzed: 01/25/19						
Cadmium	39.8	0.25	0.12	ug/L	40.0	99.5	85-115			
Copper	39.4	0.5	0.2	ug/L	40.0	98.6	85-115			
Lead	40.0	0.5	0.2	ug/L	40.0	100	85-115			
Manganese	40.4	10	5.0	ug/L	40.0	101	85-115			
Nickel	39.5	1.0	0.5	ug/L	40.0	98.8	85-115			
Zinc	37.0	1.0	0.7	ug/L	40.0	92.6	85-115			
<b>LCS Dup (9A23131-BSD1)</b>				Prepared: 01/24/19 Analyzed: 01/25/19						
Cadmium	38.9	0.25	0.12	ug/L	40.0	97.3	85-115	2.22	20	
Copper	38.7	0.5	0.2	ug/L	40.0	96.8	85-115	1.87	20	
Lead	39.4	0.5	0.2	ug/L	40.0	98.6	85-115	1.56	20	
Manganese	40.2	10	5.0	ug/L	40.0	100	85-115	0.613	20	
Nickel	38.7	1.0	0.5	ug/L	40.0	96.8	85-115	2.12	20	
Zinc	36.5	1.0	0.7	ug/L	40.0	91.2	85-115	1.53	20	
<b>Matrix Spike (9A23131-MS1)</b>				<b>Source: B9A2356-01</b>		Prepared: 01/24/19 Analyzed: 01/25/19				
Cadmium	38.2	0.25	0.12	ug/L	40.0	0.499	94.3	70-130		
Copper	137	0.5	0.2	ug/L	40.0	101	88.3	70-130		
Lead	74.6	0.5	0.2	ug/L	40.0	42.7	79.6	70-130		
Manganese	2260	10	5.0	ug/L	40.0	2200	155	70-130		QM-4X, QOcal
Nickel	102	1.0	0.5	ug/L	40.0	64.4	95.0	70-130		
Zinc	260	1.0	0.7	ug/L	40.0	232	71.0	70-130		



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 Received on Ice (Y/N): Yes Temp: 2 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9A26089 - EPA 200.2</b>										
<b>Blank (9A26089-BLK1)</b>				Prepared: 01/28/19 Analyzed: 01/29/19						
Aluminum	ND	100	37	ug/L						
Iron	ND	50	3.8	ug/L						
<b>LCS (9A26089-BS1)</b>				Prepared: 01/28/19 Analyzed: 01/29/19						
Aluminum	1120	100	37	ug/L	1170	96.5	85-115			
Iron	1160	50	3.8	ug/L	1170	99.2	85-115			
<b>LCS Dup (9A26089-BSD1)</b>				Prepared: 01/28/19 Analyzed: 01/29/19						
Aluminum	1130	100	37	ug/L	1170	96.5	85-115	0.0475	20	
Iron	1170	50	3.8	ug/L	1170	101	85-115	1.29	20	
<b>Matrix Spike (9A26089-MS1)</b>				<b>Source: B9A2204-02RE1</b> Prepared: 01/28/19 Analyzed: 01/29/19						
Aluminum	5680	100	37	ug/L	1170	3380	198	70-130		QM-4X
Iron	7290	50	3.8	ug/L	1170	5740	133	70-130		QM-4X
<b>Matrix Spike (9A26089-MS2)</b>				<b>Source: B9A2536-01</b> Prepared: 01/28/19 Analyzed: 01/29/19						
Aluminum	1090	100	37	ug/L	1170	ND	93.7	70-130		
Iron	1170	50	3.8	ug/L	1170	43.1	96.5	70-130		
<b>Batch 9B12119 - EPA 200.2</b>										
<b>Blank (9B12119-BLK1)</b>				Prepared: 02/13/19 Analyzed: 02/14/19						
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	0.530	0.5	0.2	ug/L						QBfil, QBLKf
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	2.75	1.0	0.7	ug/L						QBfil, QBLKf



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**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9B12119 - EPA 200.2</b>										
<b>Blank (9B12119-BLK2)</b> Prepared: 02/13/19 Analyzed: 02/14/19										
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	0.470	0.5	0.2	ug/L						QBfil, QBLKf, J
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	1.34	1.0	0.7	ug/L						QBfil, QBLKf
<b>Blank (9B12119-BLK3)</b> Prepared: 02/13/19 Analyzed: 02/14/19										
Cadmium	ND	0.25	0.12	ug/L						QBfil
Copper	1.69	0.5	0.2	ug/L						QBfil, QBLKf
Lead	ND	0.5	0.2	ug/L						QBfil
Manganese	ND	10	5.0	ug/L						QBfil
Nickel	ND	1.0	0.5	ug/L						QBfil
Zinc	ND	1.0	0.7	ug/L						QBfil
<b>LCS (9B12119-BS1)</b> Prepared: 02/13/19 Analyzed: 02/14/19										
Cadmium	41.5	0.25	0.12	ug/L	40.0	104	85-115			
Copper	42.7	0.5	0.2	ug/L	40.0	107	85-115			
Lead	41.6	0.5	0.2	ug/L	40.0	104	85-115			
Manganese	41.4	10	5.0	ug/L	40.0	104	85-115			
Nickel	41.7	1.0	0.5	ug/L	40.0	104	85-115			
Zinc	43.9	1.0	0.7	ug/L	40.0	110	85-115			
<b>LCS Dup (9B12119-BSD1)</b> Prepared: 02/13/19 Analyzed: 02/14/19										
Cadmium	41.0	0.25	0.12	ug/L	40.0	103	85-115	1.13	20	
Copper	40.6	0.5	0.2	ug/L	40.0	101	85-115	5.22	20	
Lead	40.7	0.5	0.2	ug/L	40.0	102	85-115	2.15	20	
Manganese	39.7	10	5.0	ug/L	40.0	99.2	85-115	4.30	20	
Nickel	39.5	1.0	0.5	ug/L	40.0	98.8	85-115	5.34	20	
Zinc	41.2	1.0	0.7	ug/L	40.0	103	85-115	6.50	20	



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Client Name: Riverside County Flood Control  
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 Address: 1995 Market Street  
 Riverside, CA 92501

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 Project Name: Post Fire Monitoring  
 Project Number: SAR Post Fire

Report Date: 14-Feb-2019

**Work Order Number: B9A2343**  
 Received on Ice (Y/N): Yes Temp: 2 °C

**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9B12119 - EPA 200.2</b>										
<b>Matrix Spike (9B12119-MS1)</b>		<b>Source: B9B0626-02</b>			Prepared: 02/13/19		Analyzed: 02/14/19			
Cadmium	39.5	0.25	0.12	ug/L	40.0	ND	98.8	70-130		
Copper	39.8	0.5	0.2	ug/L	40.0	5.10	86.7	70-130		
Lead	37.7	0.5	0.2	ug/L	40.0	ND	94.3	70-130		
Manganese	46.9	10	5.0	ug/L	40.0	24.0	57.2	70-130		
Nickel	40.6	1.0	0.5	ug/L	40.0	2.13	96.2	70-130		
Zinc	68.0	1.0	0.7	ug/L	40.0	31.5	91.4	70-130		
<b>Batch 9B13086 - 200.7/ No Digest</b>										
<b>Blank (9B13086-BLK1)</b>		Prepared & Analyzed: 02/13/19								
Aluminum	ND	100	37	ug/L						QBfil
Iron	ND	50	3.8	ug/L						QBfil
<b>Blank (9B13086-BLK3)</b>		Prepared & Analyzed: 02/13/19								
Aluminum	ND	100	37	ug/L						
Iron	ND	50	3.8	ug/L						
<b>Blank (9B13086-BLK8)</b>		Prepared & Analyzed: 02/13/19								
Aluminum	ND	100	37	ug/L						QBfil
Iron	ND	50	3.8	ug/L						QBfil
<b>LCS (9B13086-BS1)</b>		Prepared & Analyzed: 02/13/19								
Aluminum	333	100	37	ug/L	334		99.7	85-115		
Iron	1260	50	3.8	ug/L	1270		99.8	85-115		
<b>LCS Dup (9B13086-BSD1)</b>		Prepared & Analyzed: 02/13/19								
Aluminum	334	100	37	ug/L	334		99.9	85-115	0.185	20
Iron	1270	50	3.8	ug/L	1270		100	85-115	0.643	20



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**Metals and Metalloids - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 9B13086 - 200.7/ No Digest</b>										
<b>Matrix Spike (9B13086-MS1)</b>		<b>Source: B9B0892-01</b>			Prepared & Analyzed: 02/13/19					
Aluminum	380	100	37	ug/L	334	66.1	93.9	70-130		
Iron	1280	50	3.8	ug/L	1270	26.8	99.1	70-130		
<b>Matrix Spike (9B13086-MS2)</b>		<b>Source: B9B1194-03</b>			Prepared & Analyzed: 02/13/19					
Aluminum	330	100	37	ug/L	334		98.9	70-130		
Iron	1280	50	3.8	ug/L	1270		101	70-130		



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## Notes and Definitions

J	Estimated value
N_pFilt	Sample filtered and preserved upon receipt to the laboratory.
NBLKf	Analyte was detected at 0.530 in the filtered Method Blank.
NBLKfa	Analyte was detected at 2.75 in the filtered Method Blank.
N-BOD1	Dilution water blank exceeds 0.20 mg/L. As per method, data is reportable as qualified.
N-BOD2	The LCS is outside method acceptance limits. As per method, data is reportable as qualified.
Nconf	Result(s) confirmed by re-analysis.
N-TOCd	Sample filtered and preserved at laboratory after 15 minute regulatory holding time.
QBfil	Method blank was filtered prior to processing.
QBLKf	The filtered method blank did not meet laboratory acceptance criteria.
Q-BOD2	This LCS is outside method acceptance limits. As per method, data is reportable as qualified.
QM-4X	Due to analyte concentration greater than or equal to 4 times the spike concentration, recoveries for the MS and/or MSD did not meet laboratory acceptance criteria.
QOcal	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit ( <b>if MDL is reported</b> ), otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
NRLrcf:	RL for analyte does not meet the SWAMP / CTR required RL.
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit

\* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination



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### Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

**KayeLani A. Marshall**

cc:

e-Standard\_RCFC\_N2.rpt

This report applies only to the sample(s) analyzed. As a mutual protection to clients, the public, and Babcock Laboratories, Inc., this report is submitted and accepted for the exclusive use of the Client to whom it is addressed. Interpretation and use of the information contained within this report are the sole responsibility of the Client. Babcock Laboratories, Inc. is not responsible for any misinformation or consequences that may result from misinterpretation or improper use of this report. This report is not to be modified or abbreviated in any way. Additionally, this report is not to be used, in whole or in part, in any advertising or publicity matter without written authorization from Babcock Laboratories, Inc. The liability of Babcock Laboratories, Inc. is limited to the actual cost of the requested analyses, unless otherwise agreed upon in writing. There is no other warranty expressed or implied.

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**Riverside County Flood Control**  
**Project Information**

1995 Market Street

Riverside, CA 92501

Laboratory PM: KayeLani A. Marshall

Phone:(951) 955-1273

Fax:(951) 788-9965

**0250**

1/18/2019

<b>Project Name:</b>	Post Fire Monitoring	<b>Invoice To:</b>	Riverside County Flood Control
<b>Project Number:</b>	[none]	<b>Invoice Bid:</b>	(list pricing)
<b>Client PM:</b>	Abigail Suter	<b>Invoice Manager:</b>	Abigail Suter
<b>Comments:</b>			

Analysis	Comment
ML-ZN_ICPMS	
Ammonia-N	
BOD	
COD	
FE_ICP_WW	
Hardness Pack-WW	
ML-CD_ICPMS	
ML-CU_ICPMS	
ML-MN_ICPMS	
AL_ICP_WW	
ML-PB_ICPMS	
TOC-Dissolved	
Nitrite-N-LL	
Nitrogen-Kjeldahl	
Nitrogen-Organic	
Nitrogen-Tot Calc (MDL, LowLv	
NO3-N	
Phos-Ortho	
Phos-Total	
SO4	
Solids-Total Diss	
Solids-Total Suspend	
TOC	
ML-NI_ICPMS	
<b>Hardness Pack-WW subanalyses:</b>	
CA_ICP_WW	
Hardness Total-WW	
MG_ICP_WW	