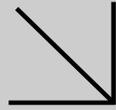




Calscience



WORK ORDER NUMBER: 14-10-1154

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Yolo County District Attorney's Office

Client Project Name: Bioassay Testing

Attention: Heidi D'Agostino
301 Second Street
Woodland, CA 95695-3415

Approved for release on 11/05/2014 by:
Danielle Gonsman
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number: 14-10-1154

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/15/14. They were assigned to Work Order 14-10-1154.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



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Sample Summary

Client: Yolo County District Attorney's Office	Work Order: 14-10-1154
301 Second Street	Project Name: Bioassay Testing
Woodland, CA 95695-3415	PO Number:
	Date/Time Received: 10/15/14 11:20
	Number of Containers: 64

Attn: Heidi D'Agostino

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
174B	14-10-1154-1	10/15/14 00:00	2	Solid
175B	14-10-1154-2	10/15/14 00:00	1	Aqueous
176B	14-10-1154-3	10/15/14 00:00	1	Aqueous
177B	14-10-1154-4	10/15/14 00:00	13	Solid
178B	14-10-1154-5	10/15/14 00:00	3	Solid
179B	14-10-1154-6	10/15/14 00:00	2	Solid
180B	14-10-1154-7	10/15/14 00:00	2	Solid
181B	14-10-1154-8	10/15/14 00:00	1	Solid
182B	14-10-1154-9	10/15/14 00:00	1	Aqueous
183B	14-10-1154-10	10/15/14 00:00	2	Solid
184B	14-10-1154-11	10/15/14 00:00	1	Solid
185B	14-10-1154-12	10/15/14 00:00	4	Aqueous
186B	14-10-1154-13	10/15/14 00:00	4	Aqueous
187B	14-10-1154-14	10/15/14 00:00	6	Solid
188B	14-10-1154-15	10/15/14 00:00	4	Solid
189B	14-10-1154-16	10/15/14 00:00	17	Solid



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Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

Page 1 of 12

Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.8 units	Conductivity:	920 umhos/cm
Dissolved Oxygen (D.O.):	7.09 mg/L	Alkalinity:	200 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
174B	14-10-1154-1	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Bioassay 750 mg/L (% Mortality)	100	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.



Calscience

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.81 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.1 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
177B	14-10-1154-4	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	100	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.



Calscience

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.84 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.11 mg/L	Alkalinity:	198 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
178B	14-10-1154-5	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.



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Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.82 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.15 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
179B	14-10-1154-6	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.



Calscience

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (Pimephales Promelas)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.82 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.15 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
180B	14-10-1154-7	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.



Calscience

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.89 units	Conductivity:	940 umhos/cm
Dissolved Oxygen (D.O.):	7.14 mg/L	Alkalinity:	202 mg/L
Hardness:	44 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
181B	14-10-1154-8	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.



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Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.83 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.1 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
182B	14-10-1154-9	10/15/14	Aqueous	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.

Analytical Report

Yolo County District Attorney's Office
 301 Second Street
 Woodland, CA 95695-3415

Date Received: 10/15/14
 Work Order: 14-10-1154
 Preparation: N/A
 Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.82 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.17 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
183B	14-10-1154-10	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.83 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.15 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
184B	14-10-1154-11	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.



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Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.82 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.11 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
187B	14-10-1154-14	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

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Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.83 units	Conductivity:	920 umhos/cm
Dissolved Oxygen (D.O.):	7.12 mg/L	Alkalinity:	198 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
188B	14-10-1154-15	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	100	%
Bioassay 250 mg/L (% Mortality)	95	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

Page 12 of 12

Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.83 units	Conductivity:	920 umhos/cm
Dissolved Oxygen (D.O.):	7.14 mg/L	Alkalinity:	200 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
189B	14-10-1154-16	10/15/14	Solid	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.

Analytical Report

Yolo County District Attorney's Office
 301 Second Street
 Woodland, CA 95695-3415

Date Received: 10/15/14
 Work Order: 14-10-1154
 Preparation: N/A
 Method: CA Fish and Game

Project: Bioassay Testing

Page 1 of 4

Test Species:	Fathead Minnow (Pimephales Promelas)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.82 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.12 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
175B	14-10-1154-2	10/15/14	Aqueous	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

Page 2 of 4

Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.83 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.21 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
176B	14-10-1154-3	10/15/14	Aqueous	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

Page 3 of 4

Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.82 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.1 mg/L	Alkalinity:	196 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
185B	14-10-1154-12	10/15/14	Aqueous	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.

Analytical Report

Yolo County District Attorney's Office
301 Second Street
Woodland, CA 95695-3415

Date Received: 10/15/14
Work Order: 14-10-1154
Preparation: N/A
Method: CA Fish and Game

Project: Bioassay Testing

Page 4 of 4

Test Species:	Fathead Minnow (<i>Pimephales Promelas</i>)	Mean Length:	43 mm	Mean Weight:	0.46 g
Sample Collected:	10/15/14 00:00:00	Sample Received:	10/15/14 11:20:00		
Test Start:	10/21/14 15:00:00	Test End:	10/25/14 15:00:00		

Initial Water Quality Parameters

Residual Chlorine:	< 0.01 mg/L	Temperature:	20 °C
pH:	7.83 units	Conductivity:	910 umhos/cm
Dissolved Oxygen (D.O.):	7.14 mg/L	Alkalinity:	198 mg/L
Hardness:	42 mg/L	Ammonia:	N/A

Sample Preparation

The sample was adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
186B	14-10-1154-13	10/15/14	Aqueous	10/21/14	10/25/14 15:00:00	

Parameter	Result	Units
Bioassay 750 mg/L (% Mortality)	0	%
Bioassay 250 mg/L (% Mortality)	0	%

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

SRT sample (mg/L):	24.50
Upper 95% confidence limit:	26.00
Lower 95% confidence limit:	23.00

SRT: Standard Reference Toxicant.

Glossary of Terms and Qualifiers

Work Order: 14-10-1154

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSO or PES/PESO associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



**OFFICE OF THE DISTRICT ATTORNEY
YOLO COUNTY**

301 2nd Street
Woodland, California 95695
Telephone: (530) 666-8424 Fax: (530) 666-8423

Please send results to:
Name: Investigator Heidi D'Agostino
Email: heidi.dagostino@yolocounty.org
Fax: 530-666-8423

14-10-1154

Testing Facility

Facility name: eurofins
Calscience Environmental Laboratories, Inc.

Facility address: 7440 Lincoln Way
Garden Grove, CA 92841-1427

CHAIN OF CUSTODY RECORD

L2 Sample Number	Description	Manufacturer	UPC	Quantity	Main Ingredient / Or Usage / NOTES	Date sampled	Time sampled	Sample container description					Required analysis
								Method of sampling: Composite (C) Grab (G)	Size of sample container (include units)	Type of sample container: Plastic (P), Cardboard/box (C)	Evidence tape: Yes (Y) No (N)	Transported in iced cooler: Yes (Y) No (N)	96-hour fish bioassay
174B	Colgate Optic White Platinum	Colgate-Palmolive Co	035000763778	2	solid			n/a	200g (min)	C	N	N	X
175B	Listerine Cool Mint	McNeil-PPC	312547427203	1	liquid			n/a	200g (min)	P	N	N	X
176B	Scope Outlast	Proctor & Gamble	037000227472	1	liquid			n/a	200g (min)	P	N	N	X
177B	Orajel	Church & Dwight Co Inc	310310033132	13	solid			n/a	200g (min)	C	N	N	X
178B	Vicks Baby Rub	Proctor & Gamble	323900006171	3	solid			n/a	200g (min)	C	N	N	X
179B	Mens Speedstick Regular	Colgate-Palmolive Co	022200941525	2	solid			n/a	200g (min)	P	N	N	X
180B	Lady Speedstick Shower Fresh	Colgate-Palmolive Co	022200954419	2	solid			n/a	200g (min)	P	N	N	X
181B	Odor-Eaters Foot Powder	Blistex Inc	041388004464	1	powder			n/a	200g (min)	P	N	N	X
182B	Hawaiian Tropic Dark Tanning Oil	Tanning Research Laboratories LLC	075486087432	1	liquid			n/a	200g (min)	P	N	N	X
183B	CVS Nicotine Gum Original	CVS/pharmacy	050428052525	2	solid			n/a	200g (min)	C	N	N	X
184B	CVS Nicotine Gum Coated Cinnamon	CVS/pharmacy	050428165300	1	solid			n/a	200g (min)	C	N	N	X
185B	Almay Clear Complexion Beige	Almay Inc	309974947053	4	liquid			n/a	200g (min)	G	N	N	X
186B	Almay Smart Shade Skintone Matching	Almay Inc	309975603033	4	liquid			n/a	200g (min)	P	N	N	X
187B	Almay Smart Shade Mousse Makeup	Almay Inc	309972298041	6	solid			n/a	200g (min)	G	N	N	X
188B	Clearasil Vanishing Treatment Cream	Reckitt Benckiser	839977009095	4	solid			n/a	200g (min)	C	N	N	X
189B	Revlon Bold Laquer Mascara	Revlon Consumer Production Co	309972310019	17	solid			n/a	200g (min)	C	N	N	X
								n/a	200g (min)		N	N	X
								n/a	200g (min)		N	N	X
								n/a	200g (min)		N	N	X
								n/a	200g (min)		N	N	X

NOTE: All Samples were taken at 301 2nd Street, Woodland, CA 95695

Relinquished by:	<u>Heidi D'Agostino</u>	<u>YCSA</u>	<u>10/15/2014</u>	<u>1120</u>	<u>ALL PACKAGING NEW & UNOPENED</u>
Received by:	<u>J. PATEL</u>	<u>SC Tech</u>	<u>10/15/14</u>	<u>1120</u>	
Relinquished by:	_____	_____	_____	_____	_____
Received by:	_____	_____	_____	_____	_____
Relinquished by:	_____	_____	_____	_____	_____

Calscience

WORK ORDER #: 14-10-1154

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Dist. Attorney Yolo Co.

DATE: 10/15/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)
Temperature 21.4°C - 0.2°C (CF) = 21.2°C
Sample outside temperature criteria (PM/APM contacted by:)
Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
Received at ambient temperature, placed on ice for transport by Courier.
Ambient Temperature: Air Filter Checked by: JS

CUSTODY SEALS INTACT:
Cooler No (Not Intact) Not Present N/A Checked by: JS
Sample No (Not Intact) Not Present Checked by: JS

SAMPLE CONDITION:
Chain-Of-Custody (COC) document(s) received with samples... Yes No N/A
COC document(s) received complete...
Collection date/time, matrix, and/or # of containers logged in based on sample labels.
No analysis requested. Not relinquished. No date/time relinquished.
Sampler's name indicated on COC...
Sample container label(s) consistent with COC...
Sample container(s) intact and good condition...
Proper containers and sufficient volume for analyses requested...
Analyses received within holding time...
Aqueous samples received within 15-minute holding time
pH Residual Chlorine Dissolved Sulfides Dissolved Oxygen...
Proper preservation noted on COC or sample container...
Unpreserved vials received for Volatiles analysis
Volatile analysis container(s) free of headspace...
Tedlar bag(s) free of condensation...
CONTAINER TYPE:
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve () EnCores TerraCores Various
Aqueous: VOA VOAh VOAna2 125AGB 125AGBh 125AGBp 1AGB 1AGBna2 1AGBs
500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 1PBna 500PB
250PB 250PBn 125PB 125PBzanna 100PJ 100PJna2
Air: Tedlar Canister Other: PB Trip Blank Lot#: Labeled/Checked by: JS
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: JS
Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 u: Ultra-pure zanna: ZnAc2+NaOH f: Filtered Scanned by: JS

*no collection date and time per label.

