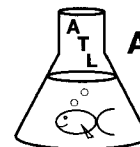


LABORATORY REPORT



**Aquatic
Testing
Laboratories**

"dedicated to providing quality aquatic toxicity testing"

4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA DOHS ELAP Cert. No.: 1775

Date: June 15, 2014

Client: Yolo County District Attorney
301 Second Street
Woodland, CA 95695
Attn: Heidi D'Agostino

Laboratory No.: A-14060901-011/020

Sample Control: The samples were received by ATL in new and unopened packaging, with the chain of custody record attached.

Date Received: 6/09/13
Date Tested: 6/10/13 to 06/15/14

Sample Analysis: The following analyses were performed on your sample:
CCR Title 22 Fathead Minnow Hazardous Waste Screen Bioassay (Polisini & Miller 1988).
Attached are the test data generated from the analysis of your sample. All testing was conducted under the direct supervision of Joseph A. LeMay.

Result Summary:

<u>Sample ID.</u>	<u>Results</u>
73A- Neutrogena Alcohol Free toner	FAIL ($\geq 40\%$ mortality in 750 mg/l)
74A- Ivory original bar soap (3 pack of soaps)	FAIL (LC50 < 400 mg/l)
75A- Febreze Allergen Reducer spray pump "CleanSplash" scent for fabrics	FAIL (LC50 < 400 mg/l)
76A- Wahl waterless shampoo for dogs Coconut-Lime Verbena scent Oatmeal formula	FAIL (LC50 < 400 mg/l)
77A- Bronners Magic Soaps peppermint pure Castile soap	FAIL (LC50 < 400 mg/l)
78A- Rit liquid dye Fushia color	PASS (LC50 > 750 mg/l)
79A- Studio #s Oil free Witch Hazel	PASS (LC50 > 750 mg/l)
80A- Lime-A-Way "turbo Power"	PASS (LC50 > 750 mg/l)
81A- Parsley Plus all surface cleaner pump spray	PASS (LC50 > 750 mg/l)
82A- Sta-Flo concentrated liquid starch	PASS (LC50 > 750 mg/l)

Quality Control: Reviewed and approved by:


Joseph A. LeMay
Laboratory Director

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: A 14060901-011

Client/ID: Yolo 73A Neotoma fencer

TEST SUMMARY

Species: *Pimephales promelas*.
 Fish weight (gm): av: 0.48 ; min: 0.40 ; max: 0.53.
 Reference Toxicant: SDS conducted per batch.
 Test chamber volume: 10 liters.
 Temperature: 20 +/- 2°C.
 Aeration: none, unless D.O. drops below 5.0 mg/l.
 Number of replicates: 2.
 Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.
 Regulations: CCR Title 22.
 Test Protocol: California F&G/DHS 1988.
 Endpoints: Survival at 96 hrs.
 Test type: Static.
 Feeding: None.
 Number of fish per chamber: 10.
 Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL				24 Hr				48 Hr				72 Hr				96 Hr			
	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D
Date/Time:	<u>6-10-14 1030</u>				<u>6-11-14 1030</u>				<u>6-12-14 1100</u>				<u>6-13-14 1030</u>				<u>6-14-14 1000</u>			
Analyst:	<u>Z</u>				<u>Z</u>				<u>Z</u>				<u>Z</u>				<u>PL</u>			
Control A	20.8	27	8.3	0	20.8	8.0	8.1	0	20.7	8.2	8.1	0	20.7	8.1	8.3	0	20.6	8.2	8.1	0
Control B	20.8	8.0	8.1	0	20.8	8.2	8.0	0	20.8	8.3	8.0	0	20.6	8.3	8.3	0	20.6	8.4	8.1	0
400 mg/l A	20.7	8.0	8.1	0	20.7	8.3	7.8	0	20.8	7.8	7.7	0	20.8	7.8	7.7	0	20.7	8.0	7.8	1
400 mg/l B	20.6	8.2	8.0	0	20.6	8.3	7.7	0	20.8	8.1	7.7	0	20.7	8.1	7.7	0	20.8	7.8	7.7	0
750 mg/l A	20.7	7.7	8.0	0	20.7	8.3	7.7	0	20.8	8.1	7.8	0	20.6	8.0	7.6	3	20.6	7.8	7.7	3
750 mg/l B	20.7	7.6	8.1	0	20.7	8.1	7.8	0	20.7	8.0	7.7	0	20.6	7.4	7.5	10	-	-	-	-

Comments: Extraction method: Mechanical shaking / None (aqueous solution) .
 Dissolved Oxygen (DO) readings in mg/l O₂. Test Aerated: Yes / No

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	400 mg/l
Initial	<u>33</u> mg/l CaCO ₃	<u>48</u> mg/l CaCO ₃	<u>33</u> mg/l CaCO ₃	<u>46</u> mg/l CaCO ₃	<u>0</u> / 20	<u>1</u> / 20
Final	<u>33</u> mg/l CaCO ₃	<u>40</u> mg/l CaCO ₃	<u>33</u> mg/l CaCO ₃	<u>48</u> mg/l CaCO ₃	<u>16</u> / 20	

RESULTS (the checked result applies based on fish survival rates)		
<u>NA</u>	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
<input checked="" type="checkbox"/>	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
<u>NA</u>	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)

**FATHEAD MINNOW HAZARDOUS WASTE
SCREEN BIOASSAY**



Lab No.: A14 060901-012

Client/ID: Yolo 74A Ivory bar soap

TEST SUMMARY

Species: *Pimephales promelas*.
 Fish weight (gm): av: 0.48; min: 0.40; max: 0.53.
 Reference Toxicant: SDS conducted per batch.
 Test chamber volume: 10 liters.
 Temperature: 20 +/- 2°C.
 Aeration: none, unless D.O. drops below 5.0 mg/l.
 Number of replicates: 2.
 Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.
 Regulations: CCR Title 22.
 Test Protocol: California F&G/DHS 1988.
 Endpoints: Survival at 96 hrs.
 Test type: Static.
 Feeding: None.
 Number of fish per chamber: 10.
 Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL			24 Hr				48 Hr				72 Hr				96 Hr			
Date/Time:	6-10-14 1030			6-11-14 1030				6-12-14 1100				6-13-14 1030				6-14-14 1000			
Analyst:	Z			J				JH				J				JH			
	°C	DO	pH	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D
Control A	20.5	27	8.3	20.8	8.0	8.1	0	20.7	8.3	8.1	0	20.7	8.1	8.3	0	20.6	8.2	8.1	0
Control B	20.6	5.0	8.7	20.8	8.2	8.0	0	20.8	8.3	8.0	0	20.6	8.3	8.3	0	20.6	8.4	8.1	0
400 mg/l A	20.8	5.1	8.6	20.7	8.4	8.4	10	-	-	-	-	-	-	-	-	-	-	-	-
400 mg/l B	20.7	5.1	8.7	20.8	8.3	8.6	10	-	-	-	-	-	-	-	-	-	-	-	-
750 mg/l A	20.8	5.2	8.6	20.6	8.4	8.8	10	-	-	-	-	-	-	-	-	-	-	-	-
750 mg/l B	20.8	5.3	8.6	20.4	8.2	8.8	10	-	-	-	-	-	-	-	-	-	-	-	-

Comments: Extraction method: Mechanical shaking
 None (aqueous solution)
 Dissolved Oxygen (DO) readings in mg/l O₂. Test Aerated: Yes / No

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	
Initial	33 mg/l CaCO ₃	48 mg/l CaCO ₃	62 mg/l CaCO ₃	47 mg/l CaCO ₃	Control	0 / 20
Final	33 mg/l CaCO ₃	45 mg/l CaCO ₃	— mg/l CaCO ₃	— mg/l CaCO ₃	400 mg/l	20 / 20
					750 mg/l	20 / 20

RESULTS (the checked result applies based on fish survival rates)		
<u>NA</u>	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
<u>NA</u>	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
<input checked="" type="checkbox"/>	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: A14060901-013

Client/ID: Yolo TSA Fabreze

TEST SUMMARY

Species: *Pimephales promelas*.
 Fish weight (gm): av: 0.48; min: 0.40; max: 0.53.
 Reference Toxicant: SDS conducted per batch.
 Test chamber volume: 10 liters.
 Temperature: 20 +/- 2°C.
 Aeration: none, unless D.O. drops below 5.0 mg/l.
 Number of replicates: 2.
 Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.
 Regulations: CCR Title 22.
 Test Protocol: California F&G/DHS 1988.
 Endpoints: Survival at 96 hrs.
 Test type: Static.
 Feeding: None.
 Number of fish per chamber: 10.
 Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL			24 Hr				48 Hr				72 Hr				96 Hr			
	°C	DO	pH	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D
Date/Time:	<u>6-10-14 1030</u>			<u>6-11-14 1030</u>				<u>6-12-14 1100</u>				<u>6-13-14 1430</u>				<u>6-14-14 1000</u>			
Analyst:	<u>[Signature]</u>			<u>[Signature]</u>				<u>[Signature]</u>				<u>[Signature]</u>				<u>[Signature]</u>			
Control A	20.8	2.7	8.3	20.8	8.0	8.1	0	20.7	8.3	8.1	0	20.7	8.1	8.3	0	20.6	8.2	8.1	0
Control B	20.8	2.0	8.2	20.8	8.2	8.0	0	20.8	8.3	8.0	0	20.6	8.3	8.3	0	20.6	8.4	8.1	0
400 mg/l A	20.7	2.2	8.1	20.6	8.6	7.8	10	-	-	-	-	-	-	-	-	-	-	-	-
400 mg/l B	20.6	8.2	8.0	20.7	8.4	7.9	10	-	-	-	-	-	-	-	-	-	-	-	-
750 mg/l A	20.7	8.2	8.0	20.7	8.3	7.8	10	-	-	-	-	-	-	-	-	-	-	-	-
750 mg/l B	20.6	8.1	8.0	20.6	8.4	7.8	10	-	-	-	-	-	-	-	-	-	-	-	-

Comments: Extraction method: Mechanical shaking
 None (aqueous solution)
 Dissolved Oxygen (DO) readings in mg/l O₂. Test Aerated: Yes / No

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	
Initial	<u>33</u> mg/l CaCO ₃	<u>48</u> mg/l CaCO ₃	<u>33</u> mg/l CaCO ₃	<u>67</u> mg/l CaCO ₃	Control	<u>0</u> / 20
Final	<u>33</u> mg/l CaCO ₃	<u>48</u> mg/l CaCO ₃	— mg/l CaCO ₃	— mg/l CaCO ₃	400 mg/l	<u>20</u> / 20
					750 mg/l	<u>20</u> / 20

RESULTS

(the checked result applies based on fish survival rates)

<u>NA</u>	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
<u>NA</u>	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
<input checked="" type="checkbox"/>	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: A14060901-014

Client/ID: Yolo 76A Wash dog shampoo

TEST SUMMARY

Species: *Pimephales promelas*.
 Fish weight (gm): av: 0.48; min: 0.40; max: 0.53.
 Reference Toxicant: SDS conducted per batch.
 Test chamber volume: 10 liters.
 Temperature: 20 +/- 2°C.
 Aeration: none, unless D.O. drops below 5.0 mg/l.
 Number of replicates: 2.
 Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.
 Regulations: CCR Title 22.
 Test Protocol: California F&G/DHS 1988.
 Endpoints: Survival at 96 hrs.
 Test type: Static.
 Feeding: None.
 Number of fish per chamber: 10.
 Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL			24 Hr				48 Hr				72 Hr				96 Hr			
	°C	DO	pH	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D
Date/Time:	<u>6-10-14 1030</u>			<u>6-11-14 1030</u>				<u>6-12-14 1100</u>				<u>6-13-14 1030</u>				<u>6-14-14 1000</u>			
Analyst:	<u>J</u>			<u>J</u>				<u>J</u>				<u>J</u>				<u>J</u>			
Control A	<u>20.8</u>	<u>2.7</u>	<u>8.3</u>	<u>20.8</u>	<u>8.0</u>	<u>8.1</u>	<u>0</u>	<u>20.7</u>	<u>8.3</u>	<u>8.1</u>	<u>0</u>	<u>20.7</u>	<u>8.1</u>	<u>8.3</u>	<u>0</u>	<u>20.6</u>	<u>8.2</u>	<u>8.1</u>	<u>0</u>
Control B	<u>20.6</u>	<u>5.0</u>	<u>8.7</u>	<u>20.8</u>	<u>8.4</u>	<u>8.0</u>	<u>0</u>	<u>20.8</u>	<u>8.3</u>	<u>8.0</u>	<u>0</u>	<u>20.0</u>	<u>8.3</u>	<u>8.3</u>	<u>0</u>	<u>20.6</u>	<u>8.4</u>	<u>8.1</u>	<u>0</u>
400 mg/l A	<u>20.7</u>	<u>8.1</u>	<u>8.1</u>	<u>20.6</u>	<u>8.4</u>	<u>7.9</u>	<u>10</u>	-	-	-	-	-	-	-	-	-	-	-	-
400 mg/l B	<u>20.7</u>	<u>8.2</u>	<u>8.1</u>	<u>20.7</u>	<u>8.3</u>	<u>8.0</u>	<u>10</u>	-	-	-	-	-	-	-	-	-	-	-	-
750 mg/l A	<u>20.6</u>	<u>8.2</u>	<u>8.1</u>	<u>20.7</u>	<u>8.4</u>	<u>8.0</u>	<u>10</u>	-	-	-	-	-	-	-	-	-	-	-	-
750 mg/l B	<u>20.7</u>	<u>8.3</u>	<u>8.0</u>	<u>20.6</u>	<u>8.3</u>	<u>8.0</u>	<u>10</u>	-	-	-	-	-	-	-	-	-	-	-	-

Comments: Extraction method: Mechanical shaking
 None (aqueous solution) NA.
 Dissolved Oxygen (DO) readings in mg/l O₂. Test Aerated: Yes / No

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	
Initial	<u>33</u> mg/l CaCO ₃	<u>48</u> mg/l CaCO ₃	<u>33</u> mg/l CaCO ₃	<u>47</u> mg/l CaCO ₃	Control	<u>0</u> / 20
Final	<u>33</u> mg/l CaCO ₃	<u>48</u> mg/l CaCO ₃	— mg/l CaCO ₃	— mg/l CaCO ₃	400 mg/l	<u>20</u> / 20
					750 mg/l	<u>20</u> / 20

RESULTS (the checked result applies based on fish survival rates)		
<u>NA</u>	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
<u>NA</u>	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
<input checked="" type="checkbox"/>	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: A14060901-015

Client/ID: Yolo 77A Pt Bonnets Mag. Socy

TEST SUMMARY

Species: *Pimephales promelas*.

Fish weight (gm): av: 0.48; min: 0.40; max: 0.53.

Reference Toxicant: SDS conducted per batch.

Test chamber volume: 10 liters.

Temperature: 20 +/- 2°C.

Aeration: none, unless D.O. drops below 5.0 mg/l.

Number of replicates: 2.

Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.

Regulations: CCR Title 22.

Test Protocol: California F&G/DHS 1988.

Endpoints: Survival at 96 hrs.

Test type: Static.

Feeding: None.

Number of fish per chamber: 10.

Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL			24 Hr				48 Hr				72 Hr				96 Hr			
Date/Time:	<u>6-10-14 1070</u>			<u>6-11-14 1030</u>				<u>6-12-14 1100</u>				<u>6-13-14 1030</u>				<u>6-14-14 1000</u>			
Analyst:	<u>[Signature]</u>			<u>[Signature]</u>				<u>[Signature]</u>				<u>[Signature]</u>				<u>[Signature]</u>			
	°C	DO	pH	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D
Control A	<u>20.5</u>	<u>2.7</u>	<u>8.3</u>	<u>20.8</u>	<u>8.0</u>	<u>8.1</u>	<u>0</u>	<u>20.7</u>	<u>8.3</u>	<u>8.1</u>	<u>0</u>	<u>20.7</u>	<u>8.1</u>	<u>8.3</u>	<u>0</u>	<u>20.6</u>	<u>8.2</u>	<u>8.1</u>	<u>0</u>
Control B	<u>20.6</u>	<u>8.0</u>	<u>8.2</u>	<u>20.8</u>	<u>8.2</u>	<u>8.0</u>	<u>0</u>	<u>20.8</u>	<u>8.3</u>	<u>8.0</u>	<u>0</u>	<u>20.9</u>	<u>8.3</u>	<u>8.3</u>	<u>0</u>	<u>20.6</u>	<u>8.1</u>	<u>8.1</u>	<u>0</u>
400 mg/l A	<u>20.7</u>	<u>2.1</u>	<u>8.2</u>	<u>20.6</u>	<u>8.7</u>	<u>8.0</u>	<u>10</u>	—	—	—	—	—	—	—	—	—	—	—	—
400 mg/l B	<u>20.6</u>	<u>8.2</u>	<u>8.1</u>	<u>20.7</u>	<u>8.6</u>	<u>8.1</u>	<u>10</u>	—	—	—	—	—	—	—	—	—	—	—	—
750 mg/l A	<u>20.7</u>	<u>8.2</u>	<u>8.1</u>	<u>20.6</u>	<u>8.4</u>	<u>8.2</u>	<u>10</u>	—	—	—	—	—	—	—	—	—	—	—	—
750 mg/l B	<u>20.6</u>	<u>8.2</u>	<u>8.0</u>	<u>20.6</u>	<u>8.4</u>	<u>8.2</u>	<u>10</u>	—	—	—	—	—	—	—	—	—	—	—	—

Comments: Extraction method: Mechanical shaking
 None (aqueous solution)

Dissolved Oxygen (DO) readings in mg/l O₂. Test Aerated: Yes / No

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	400 mg/l
Initial	<u>33</u> mg/l CaCO ₃	<u>48</u> mg/l CaCO ₃	<u>85</u> mg/l CaCO ₃	<u>48</u> mg/l CaCO ₃	<u>0</u> / 20	<u>20</u> / 20
Final	<u>33</u> mg/l CaCO ₃	<u>48</u> mg/l CaCO ₃	— mg/l CaCO ₃	— mg/l CaCO ₃	<u>20</u> / 20	<u>20</u> / 20

RESULTS

(the checked result applies based on fish survival rates)

<u>NA</u>	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
<u>NA</u>	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
<input checked="" type="checkbox"/>	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: A14060901-016

Client/ID: 78A 12:4 dye Fuchsia
Ydo co.

TEST SUMMARY

Species: *Pimephales promelas*.
Fish weight (gm): av: 0.48; min: 0.40; max: 0.53.
Reference Toxicant: SDS conducted per batch.
Test chamber volume: 10 liters.
Temperature: 20 +/- 2°C.
Aeration: none, unless D.O. drops below 5.0 mg/l.
Number of replicates: 2.
Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.
Regulations: CCR Title 22.
Test Protocol: California F&G/DHS 1988.
Endpoints: Survival at 96 hrs.
Test type: Static.
Feeding: None.
Number of fish per chamber: 10.
Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL				24 Hr				48 Hr				72 Hr				96 Hr			
	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D
Date/Time:	6-11-14 1100				6-12-14 1100				6-13-14 1100				6-14-14 1100				6-15-14 1100			
Analyst:	J				J				J				L				J			
Control A	20.2	8.1	7.9	0	20.2	8.1	7.9	0	20.8	8.3	8.1	0	20.7	8.3	8.1	0	20.8	7.8	8.0	0
Control B	20.3	8.2	8.0	0	20.3	8.2	7.9	0	20.6	8.6	8.0	0	20.8	8.2	8.0	0	20.9	7.9	8.0	0
400 mg/l A	20.7	8.3	8.1	0	20.7	8.1	7.9	0	20.8	8.5	8.1	0	20.8	8.5	8.0	0	20.8	8.1	8.0	0
400 mg/l B	20.6	8.3	8.0	0	20.6	8.2	7.9	0	20.7	8.3	8.0	0	20.8	8.4	8.0	0	20.8	8.3	7.9	0
750 mg/l A	20.7	8.3	8.0	0	20.7	8.2	8.0	0	20.6	8.3	8.0	0	20.8	8.3	8.0	0	20.8	8.2	7.8	0
750 mg/l B	20.6	8.3	8.0	0	20.6	8.0	8.0	0	20.8	8.4	8.0	0	20.7	8.4	8.0	0	20.9	8.2	7.9	0

Comments: Extraction method: Mechanical shaking .
None (aqueous solution) NA.
Dissolved Oxygen (DO) readings in mg/l O₂. Test Aerated: / No

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness		
Initial	37 mg/l CaCO ₃	47 mg/l CaCO ₃	32 mg/l CaCO ₃	49 mg/l CaCO ₃	Control	0 / 20
Final	33 mg/l CaCO ₃	47 mg/l CaCO ₃	30 mg/l CaCO ₃	50 mg/l CaCO ₃	400 mg/l	0 / 20
					750 mg/l	0 / 20

RESULTS (the checked result applies based on fish survival rates)		
✓	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
NA	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
NA	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: A14060901-017

Client/ID: Yolo Co. 79A Studio 35 with Hazel

TEST SUMMARY

Species: *Pimephales promelas*.
 Fish weight (gm): av: 0.48 ; min: 0.40 ; max: 0.53.
 Reference Toxicant: SDS conducted per batch.
 Test chamber volume: 10 liters.
 Temperature: 20 +/- 2°C.
 Aeration: none, unless D.O. drops below 5.0 mg/l.
 Number of replicates: 2.
 Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.
 Regulations: CCR Title 22.
 Test Protocol: California F&G/DHS 1988.
 Endpoints: Survival at 96 hrs.
 Test type: Static.
 Feeding: None.
 Number of fish per chamber: 10.
 Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL				24 Hr				48 Hr				72 Hr				96 Hr			
	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D
Date/Time:	<u>6-11-14 11w</u>				<u>6-12-14 11w</u>				<u>6-13-14 11w</u>				<u>6-14-14 11w</u>				<u>6-15-14 11w</u>			
Analyst:	<u>J</u>				<u>J</u>				<u>J</u>				<u>J</u>				<u>J</u>			
Control A	20.2	8.1	7.9	0	20.3	8.1	7.9	0	20.8	8.2	8.1	0	20.7	8.3	8.1	0	20.8	7.8	8.0	0
Control B	20.3	8.2	8.0	0	20.3	8.2	7.9	0	20.6	8.6	8.0	0	20.8	8.2	8.0	0	20.9	7.9	8.0	0
400 mg/l A	20.7	8.4	8.1	0	20.7	8.1	7.8	0	20.6	8.0	8.0	0	20.8	8.0	7.9	0	20.8	8.1	7.8	0
400 mg/l B	20.6	8.3	8.1	0	20.8	8.0	7.9	0	20.7	8.1	7.9	0	20.7	8.1	7.9	0	20.7	8.2	7.9	0
750 mg/l A	20.5	8.2	8.1	0	20.8	8.1	7.9	0	20.8	8.1	7.9	0	20.7	8.0	7.9	0	20.6	8.0	7.9	0
750 mg/l B	20.5	8.3	8.1	0	20.7	8.1	7.9	0	20.7	8.0	7.9	0	20.8	8.0	7.9	0	20.8	8.1	7.8	0
Comments:	Extraction method: Mechanical shaking <input checked="" type="checkbox"/> / None (aqueous solution) <input checked="" type="checkbox"/> <u>NA</u> .																			
	Dissolved Oxygen (DO) readings in mg/l O ₂ . Test Aerated: <input checked="" type="checkbox"/> Yes / No																			

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	750 mg/l
Initial	37 mg/l CaCO ₃	47 mg/l CaCO ₃	31 mg/l CaCO ₃	48 mg/l CaCO ₃	0	0
Final	33 mg/l CaCO ₃	47 mg/l CaCO ₃	30 mg/l CaCO ₃	49 mg/l CaCO ₃	0	0

RESULTS (the checked result applies based on fish survival rates)		
<input checked="" type="checkbox"/>	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
<input type="checkbox"/>	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
<input type="checkbox"/>	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: A14060901-018

Client/ID: Yolo Co. SOA Line-A-Way
"turbo Power"

TEST SUMMARY

Species: *Pimephales promelas*.
 Fish weight (gm): av: 0.48 ; min: 0.40 ; max: 0.53.
 Reference Toxicant: SDS conducted per batch.
 Test chamber volume: 10 liters.
 Temperature: 20 +/- 2°C.
 Aeration: none, unless D.O. drops below 5.0 mg/l.
 Number of replicates: 2.
 Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.
 Regulations: CCR Title 22.
 Test Protocol: California F&G/DHS 1988.
 Endpoints: Survival at 96 hrs.
 Test type: Static.
 Feeding: None.
 Number of fish per chamber: 10.
 Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL				24 Hr				48 Hr				72 Hr				96 Hr			
	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D
Date/Time:	6-11-14 1100				6-12-14 1100				6-13-14 1100				6-14-14 1100				6-15-14 1100			
Analyst:	J				J				J				J				J			
Control A	20.2	8.1	7.9	0	20.2	8.1	7.9	0	20.8	8.3	8.1	0	20.7	8.3	8.1	0	20.8	7.8	8.0	0
Control B	20.3	8.2	8.0	0	20.3	8.2	7.9	0	20.6	8.6	8.0	0	20.8	8.2	8.0	0	20.9	7.9	8.0	0
400 mg/l A	20.6	8.3	7.9	0	20.7	8.1	7.7	0	20.8	8.2	7.8	0	20.7	8.2	8.0	0	20.8	8.1	7.8	0
400 mg/l B	20.7	8.7	7.7	0	20.6	8.2	7.8	0	20.7	8.3	7.4	0	20.8	7.9	7.8	0	20.7	8.1	7.9	0
750 mg/l A	20.6	8.1	7.6	2	20.6	8.3	7.7	2	20.8	8.2	7.9	0	20.8	8.0	7.9	0	20.8	8.0	7.8	6
750 mg/l B	20.6	8.1	7.8	0	20.7	8.1	7.6	0	20.7	8.3	7.8	0	20.7	8.1	7.9	0	20.8	8.2	7.9	0

Comments: Extraction method: Mechanical shaking .
 None (aqueous solution) NA.
 Dissolved Oxygen (DO) readings in mg/l O₂. Test Aerated: Yes / No

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	750 mg/l
Initial	37 mg/l CaCO ₃	47 mg/l CaCO ₃	10 mg/l CaCO ₃	48 mg/l CaCO ₃	0	0
Final	33 mg/l CaCO ₃	47 mg/l CaCO ₃	23 mg/l CaCO ₃	49 mg/l CaCO ₃	0	2

RESULTS (the checked result applies based on fish survival rates)		
✓	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
NA	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
NA	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: A14060901-019

Client/ID: Yolo Co. 81A Parsley Plus cleaner

TEST SUMMARY

Species: *Pimephales promelas*.
 Fish weight (gm): av: 0.48; min: 0.40; max: 0.53.
 Reference Toxicant: SDS conducted per batch.
 Test chamber volume: 10 liters.
 Temperature: 20 +/- 2°C.
 Aeration: none, unless D.O. drops below 5.0 mg/l.
 Number of replicates: 2.
 Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.
 Regulations: CCR Title 22.
 Test Protocol: California F&G/DHS 1988.
 Endpoints: Survival at 96 hrs.
 Test type: Static.
 Feeding: None.
 Number of fish per chamber: 10.
 Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL				24 Hr				48 Hr				72 Hr				96 Hr			
	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D
Date/Time:	6-11-14 1100				6-12-14 1100				6-13-14 1100				6-14-14 1100				6-15-14 1100			
Analyst:	J				J				J				J				J			
Control A	22.2	8.1	7.9	0	20.2	8.1	7.9	0	20.8	8.3	8.1	0	20.7	8.3	8.1	0	20.2	7.6	8.0	0
Control B	20.3	8.2	8.0	0	20.3	8.2	7.9	0	20.6	8.6	8.0	0	20.8	8.2	8.0	0	20.9	7.9	8.0	0
400 mg/l A	20.7	8.1	8.0	0	20.7	8.2	7.5	0	20.7	8.1	7.8	0	20.8	8.0	7.9	0	20.9	8.1	7.9	0
400 mg/l B	20.6	8.2	8.1	0	20.6	8.1	7.8	0	20.7	8.1	7.8	0	20.5	7.9	7.8	0	20.8	8.0	7.9	0
750 mg/l A	20.6	8.3	8.0	0	20.7	8.1	7.8	0	20.6	8.3	7.9	0	20.8	8.1	7.9	0	20.8	8.2	8.0	0
750 mg/l B	20.7	8.2	8.0	0	20.6	8.3	7.7	0	20.8	8.2	7.8	0	20.7	8.2	7.8	0	20.9	8.1	8.1	0
Comments:	Extraction method: Mechanical shaking <input checked="" type="checkbox"/> / None (aqueous solution) <input checked="" type="checkbox"/> NA. Dissolved Oxygen (DO) readings in mg/l O ₂ . Test Aerated: <input checked="" type="checkbox"/> Yes / No																			

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	400 mg/l
Initial	37 mg/l CaCO ₃	47 mg/l CaCO ₃	31 mg/l CaCO ₃	46 mg/l CaCO ₃	0	0
Final	33 mg/l CaCO ₃	47 mg/l CaCO ₃	31 mg/l CaCO ₃	47 mg/l CaCO ₃	0	0

RESULTS (the checked result applies based on fish survival rates)		
✓	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
NA	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
NA	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: AL4060901-020

Client/ID: Yolo Co. 82A Sta-F6 liquid source

TEST SUMMARY

Species: *Pimephales promelas*.
 Fish weight (gm): av: 0.48 ; min: 0.40 ; max: 0.53 .
 Reference Toxicant: SDS conducted per batch.
 Test chamber volume: 10 liters.
 Temperature: 20 +/- 2°C.
 Aeration: none, unless D.O. drops below 5.0 mg/l.
 Number of replicates: 2.
 Dilution water: Soft reconstituted water (40-48 mg/l CaCO₃).

Source: Thomas Fish.
 Regulations: CCR Title 22.
 Test Protocol: California F&G/DHS 1988.
 Endpoints: Survival at 96 hrs.
 Test type: Static.
 Feeding: None.
 Number of fish per chamber: 10.
 Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL				24 Hr				48 Hr				72 Hr				96 Hr			
	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D	°C	DO	pH	#D
Date/Time:	6-11-14 11w				6-12-14 11w				6-13-14 11w				6-14-14 11w				6-15-14 11w			
Analyst:	Z				Z				Z				JH				Z			
Control A	22.2	8.1	7.9	0	20.2	8.1	7.9	0	20.8	8.3	8.1	0	20.7	8.3	8.1	0	20.8	7.8	8.0	0
Control B	20.3	8.2	8.0	0	20.3	8.2	7.9	0	20.1	8.6	8.0	0	20.8	8.2	8.0	0	20.9	7.9	8.0	0
400 mg/l A	20.6	8.3	8.7	0	20.6	8.1	7.8	0	20.8	8.1	7.8	0	20.7	8.1	7.9	0	20.8	7.8	7.9	0
400 mg/l B	20.5	8.1	8.3	0	20.7	8.1	7.9	0	20.7	8.1	7.8	0	20.8	7.8	7.8	0	20.8	7.9	7.9	0
750 mg/l A	20.6	8.2	8.1	0	20.6	8.2	8.1	0	20.8	8.0	7.8	0	20.8	8.0	7.8	0	20.9	8.1	7.8	0
750 mg/l B	20.6	8.3	8.2	0	20.6	8.1	8.0	0	20.8	8.1	7.7	0	20.7	8.0	7.8	0	20.8	8.0	7.9	0
Comments:	Extraction method: Mechanical shaking <input checked="" type="checkbox"/> . None (aqueous solution) <input checked="" type="checkbox"/> NA. Dissolved Oxygen (DO) readings in mg/l O ₂ . Test Aerated: <input checked="" type="checkbox"/> Yes / No																			

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	750 mg/l
Initial	33 mg/l CaCO ₃	47 mg/l CaCO ₃	33 mg/l CaCO ₃	48 mg/l CaCO ₃	0	0
Final	33 mg/l CaCO ₃	47 mg/l CaCO ₃	33 mg/l CaCO ₃	47 mg/l CaCO ₃	0	0

RESULTS (the checked result applies based on fish survival rates)		
<input checked="" type="checkbox"/>	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
<input checked="" type="checkbox"/>	FAILED	≥40% dead in 750 mg/l (close to passing - definitive test recommended)
<input checked="" type="checkbox"/>	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)



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

Testing Facility
Facility name: Aquatic Testing Laboratories
Facility address: 4350 Transport Street, Unit 107
Ventura, CA 93003
Facility contact: Joseph A. LeMay

CHAIN OF CUSTODY RECORD

Sample Number	Description	Manufacturer	UPC	Quantity	Main Ingredient / Or Usage / NOTES	Date sampled	Time sampled	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)	Required analysis
63A	Dove sensitive skin unscented bath bars	Unilever	0-11111-61164-1	4 oz per bar	solid	6/5/2014	1:30 p.m.	n/a	200g (min)	C	N	N	X
64A	Renuzit gel air freshener raspberry	Dial Corp	0-23400-03731-5	7.0 oz each	solid ***NOTE remove packaging to test product.	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
65A	Kirk's original coco castle bar soap	Kirk's Natural LLC	6-39844-1008-1	4 oz per bar	solid	6/5/2014	1:30 p.m.	n/a	200g (min)	C	N	N	X
66A	4 pack Terro liquid ant bait stations	Senoret Chemical Co Inc	0-70923-00324-2	each	liquid ***NOTE remove packaging to test product.	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
67A	Mortons natural Epsom salts with Eucalyptus	Morton Salt Inc.	0-24600-06408-8	3 lbs	solid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
68A	Aveeno baby wash and shampoo	Johnson & Johnson	3-8137-102390-5	18 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
69A	Comet with bleach lavender fresh	The Spic and Span Co.	6-78112-56544-1	21 oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
70A	Rit liquid dye Derrin Blue	Phoenix Brands LLC	8-85967-88360-2	8 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
71A	Froz Para Moth balls	Willert Home Products	0-70922-31107-2	10 oz	solid	6/5/2014	1:30 p.m.	n/a	200g (min)	C	N	N	X
72A	Gillette Body shave gel tube	Proctor & Gamble	0-47400-65047-3	5.9 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
73A	Neutrogena Alcohol Free toner	Neutrogena Corp	0-70501-02700-4	8.5 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
74A	Inory original bar soap (3 pack of soaps)	Proctor & Gamble	0-37000-32136-1	3.1 oz per bar	solid	6/5/2014	1:30 p.m.	n/a	200g (min)	C	N	N	X
75A	Fehzee Allergen Reducer spray pump	Proctor & Gamble	0-37000-88767-6	16.9 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
76A	"CleanSplash" scent for fabrics	Wahl Clipper Corp	0-43917-82015-6	7.10 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
77A	Veribena scent Oatmeal formula	Dr. Bronners Magic All-	0-18787-77608-0	8 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
78A	Rit liquid dye Fuchsia color	Phoenix Brands LLC	8-85967-88120-2	8 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
79A	Studio 35 Oil free Witch Hazel	Walgreens Co.	0-49022-67563-3	16 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
80A	Line-A-Way "turbo Power"	RedKitt-Benkiser	0-51700-39605-4	28 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
81A	Parsley Plus all surface cleaner pump spray	For Love of the Planet	7-49174-09746-0	22 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X
82A	Sta-Flo concentrated liquid starch	The Dial Corp.	0-24200-13101-2	64 fl. oz	liquid	6/5/2014	1:30 p.m.	n/a	200g (min)	P	N	N	X

NOTE: All Samples were taken at 301 2nd St. Woodland-95695

Received by: HEIDI DAGOSTINO Title: VCOR Date: 06/09/2014 Time: 0915 Remarks: ALL PRODUCTS NEW & UNOPENED

Received by: Joe LeMay Title: ATC Date: 6-9-14 Time: 0915 Remarks: all products intact

Relinquished by: _____

Received by: _____

Relinquished by: _____

Received by: _____