Advanced Technology Laboratories

Date: *13-Mar-07*

CLIENT: Department of Toxic Substances Control
Project: 06AT0174
Lab Order: 090099
Contract No: 05-T2888

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
090099-001A	DFControl-COMP1	Wood	10/19/2006	2/27/2007	3/13/2007
090099-002A	DFControl-COMP2	Wood	10/19/2006	2/27/2007	3/13/2007
090099-003A	DFControl-COMP3	Wood	10/19/2006	2/27/2007	3/13/2007
090099-004A	DFControl-COMP4	Wood	10/19/2006	2/27/2007	3/13/2007
090099-005A	CADF-COMP1	Wood	10/19/2006	2/27/2007	3/13/2007
090099-006A	CADF-COMP2	Wood	10/19/2006	2/27/2007	3/13/2007
090099-007A	CADF-COMP3	Wood	10/19/2006	2/27/2007	3/13/2007
090099-008A	CADF-COMP4	Wood	10/19/2006	2/27/2007	3/13/2007
090099-009A	ACQDF-COMP1	Wood	10/19/2006	2/27/2007	3/13/2007
090099-010A	ACQDF-COMP2	Wood	10/19/2006	2/27/2007	3/13/2007
090099-011A	ACQDF-COMP3	Wood	10/19/2006	2/27/2007	3/13/2007
090099-012A	ACQDF-COMP4	Wood	10/19/2006	2/27/2007	3/13/2007
090099-013A	CAHF-COMP1	Wood	10/19/2006	2/27/2007	3/13/2007
090099-014A	CAHF-COMP2	Wood	10/19/2006	2/27/2007	3/13/2007
090099-015A	CAHF-COMP3	Wood	10/19/2006	2/27/2007	3/13/2007
090099-016A	CAHF-COMP4	Wood	10/19/2006	2/27/2007	3/13/2007

CASE NARRATIVE

Samples for Fish Bioassay were subcontracted to Associated Laboratory with ELAP Cert.#1338.

Lab No. LR 185682-1

Date Received: 2/27/07
Date Reported: 3/5/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

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By

Report To: Adv Tech Labs

(83) 7805223

Sample Description: Wood 090099 - 001A / DF Control - COMP1
Source: Thomas Fish Farm
Acclimatization: 21 Days @ 20 deg. C
Test Organism: Pimephales Promelas
Total Chlorine Residual: N/D
Sample Conductivity: 230 µmhos/cm
Aquaria Volume: 10 liters
Aquaria Depth: 5 inches
No. Fish/Concentration: 10
Weight (gm) Min: 0.34 gm Max: 0.58 gm Avg: 0.47 gm
Organism Characteristics - Length (mm) Min: 30 mm Max: 40 mm Avg: 35 mm
Alkalinity - Initial: 32 mg/l Final: 45 mg/l
Dilution Water - Source: Soft Water
Hardness - Initial: 45 mg/l Final: 65 mg/l
Control Conductivity: 200 µmhos/cm
Aeration: Air
Control Hardness Initial: 40 mg/l Final: 45 mg/l
Control Alkalinity Initial: 30 mg/l Final: 38 mg/l

Bioassay Conditions	Date Time	Control No.	Control %	750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
				Dilution											
Organisms Surviving	2/28	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/1	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/2	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/3	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/4	10	100	10	100	10	100	10	100	10	100	10	100	10	100
Dissolved Oxygen mg/l	11:40	6.5		6.2		6.2		6.2		6.2		6.2		6.2	
	14:20	6.8		7.1		7.2		7.0		7.1		7.2		7.0	
	15:00	7.2		7.0		7.3		7.1		7.0		7.3		7.1	
	10:10	7.0		7.4		7.1		7.2		7.4		7.1		7.2	
	9:30	7.5		7.2		7.0		7.3		7.2		7.0		7.3	
pH	Start	7.0	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C
	24 Hr	7.1	19.8 °C	7.0	19.8 °C	7.2	19.8 °C	7.4	19.8 °C	7.0	19.8 °C	7.2	19.8 °C	7.4	19.8 °C
	48 Hr	7.2	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C
	72 Hr	7.1	20.2 °C	6.9	20.2 °C	7.1	20.2 °C	7.3	20.2 °C	6.9	20.2 °C	7.1	20.2 °C	7.3	20.2 °C
Temp	96 Hr	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l

% Survival: N/A
Toxicity Units T.U.: (TD)

Observation/Remarks

Method of Calculations: N/A
95% Confidence Limits
LC_{50} Method

Laboratory Supervisor

3/13

Lab No. LR 185682-2

Date Received: 2/27/07
Date Reported: 3/5/07

LABORATORY WORKSHEET

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Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

Report To: Adv Tech Labs

780524 (83)

Sample Description: Wood 090099 - 002A/ DF Control - COMP 2
Test Organism: Pimephales Promelas — Source: Thomas Fish Farm — Acclimatization: 21 Days @ 20 deg. C
Aquaria Volume: 10 liters — Aquaria Depth: 5 inches — No. Fish/Concentration: 10 — Total Chlorine Residual: N/D — Sample Conductivity: 235 µmhos/cm
Organism Characteristics - Length (mm) Min: 30 mm Max: 40 mm Avg: 35 mm — Weight (gm) Min: 0.34 gm Max: 0.58 gm Avg: 0.46 /cm
Dilution Water - Source: Soft Water — Hardness - Initial: 45 mg/l Final: 70 mg/l — Alkalinity - Initial: 32 mg/l Final: 45 mg/l
Aeration: Air — Control Hardness Initial: 40 mg/l Final: 45 mg/l — Control Alkalinity Initial: 30 mg/l Final: 38 mg/l — Control Conductivity: 200 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	Dilution 750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	2/28	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/1	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/2	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/3	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/4	10	100	10	100	10	100	10	100	10	100	10	100	10	100
Dissolved Oxygen mg/l	11:50	6.5		6.4		6.4		6.4		6.4		6.4		6.4	
	14:30	6.8		7.2		7.0		7.3		7.2		7.0		7.3	
	15:10	7.2		7.0		7.1		7.4		7.0		7.1		7.4	
	10:20	7.0		7.1		7.4		7.2		7.1		7.4		7.2	
	9:40	7.5		7.3		7.2		7.0		7.3		7.2		7.0	
pH	Start	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.6	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.6	20.0 °C
	24 Hr	7.1	19.8 °C	7.1	19.8 °C	7.3	19.8 °C	7.5	19.8 °C	7.1	19.8 °C	7.3	19.8 °C	7.5	19.8 °C
	48 Hr	7.2	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C
	72 Hr	7.1	20.2 °C	7.0	20.2 °C	7.2	20.2 °C	7.4	20.2 °C	7.0	20.2 °C	7.2	20.2 °C	7.4	20.2 °C
Temp	96 Hr	7.3	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l
% Survival: N/A
Toxicity Units T.U.: (TD)
Observation/Remarks:

Method of Calculations: N/A
95% Confidence Limits:
LC_{50} Method:

✓
Laboratory Supervisor

3/13

Lab No. LR 185682-3

Date Received: 2/27/07
Date Reported: 3/5/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

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By

Report To: Adv Tech Labs

(83) 780525

Sample Description: Wood 090099-003A/DF Control - COMP 3
Acclimatization: 21 Days @ 20 deg. C
Test Organism: Pimephales Promelas Source: Thomas Fish Farm
Aquaria Volume: 10 liters Aquaria Depth: 5 inches No. Fish/Concentration: 10 Total Chlorine Residual: N/D Sample Conductivity: 240 µmhos/cm
Organism Characteristics: Length (mm) Min: 32 mm Max: 40 mm Avg: 35 mm Weight (gm) Min: 0.38 gm Max: 0.58 gm Avg: 0.46 gm
Dilution Water: Source: Soft Water Hardness - Initial: 45 mg/l Final: 75 mg/l Alkalinity - Initial: 32 mg/l Final: 50 mg/l
Aeration: Air Control Hardness Initial: 40 mg/l Final: 45 mg/l Control Alkalinity Initial: 30 mg/l Final: 38 mg/l Control Conductivity: 200 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	2/28	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/1	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/2	10	100	10	100	10	100	10	100	9	90	10	100	10	100
	3/3	10	100	9	90	10	100	10	100	9	90	10	100	10	100
	3/4	10	100	9	90	10	100	10	100	9	90	10	100	10	100
Dissolved Oxygen mg/l	12:00	6.5		6.3		6.3		6.3		6.3		6.3		6.3	
	14:40	6.8		7.2		7.0		7.1		7.2		7.0		7.1	
	15:20	7.2		7.0		7.3		7.4		7.0		7.3		7.4	
	10:30	7.0		7.4		7.1		7.2		7.4		7.1		7.2	
	9:50	7.5		7.1		7.2		7.3		7.1		7.2		7.3	
pH	Start	7.0	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C
	24 HR	7.1	19.8 °C	6.9	19.8 °C	7.1	19.8 °C	7.3	19.8 °C	6.9	19.8 °C	7.1	19.8 °C	7.3	19.8 °C
	48 HR	7.2	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C
	72 HR	7.1	20.2 °C	6.8	20.2 °C	7.0	20.2 °C	7.2	20.2 °C	6.8	20.2 °C	7.0	20.2 °C	7.2	20.2 °C
Temp	96 HR	7.3	20.0 °C	6.8	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	6.8	20.0 °C	7.0	20.0 °C	7.2	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l

% Survival: N/A
Toxicity Units T.U.: (TD)

Observation/Remarks

Method of Calculations: N/A
95% Confidence Limits
LC_{50} Method

Laboratory Supervisor

Lab No. LR 185682-4

Date Received: 2/27/07
Date Reported: 3/5/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

Report To: Adv Tech Labs

(83) 780526

FAXED
MAR 13 2007
By

Sample Description: Wood 090099-004A / DF Control - COM P4
Test Organism: Pimephales Promelas — Source: Thomas Fish Farm — Acclimatization: 21 Days @ 20 deg. C
Aquaria Volume: 10 liters — Aquaria Depth: 5 inches — No. Fish/Concentration: 10 — Total Chlorine Residual: N/D — Sample Conductivity: 230 µmhos/cm
Organism Characteristics: Length (mm) Min 30 mm Max 38 mm Avg 35 mm — Weight (gm) Min 0.34 gm Max 0.54 gm Avg 0.46 gm
Dilution Water: Source: Soft Water — Hardness - Initial: 45 mg/l Final: 65 mg/l — Alkalinity - Initial: 32 mg/l Final: 45 mg/l — Control Conductivity: 200 µmhos/cm
Aeration: Air — Control Hardness Initial: 40 mg/l Final: 45 mg/l — Control Alkalinity Initial: 30 mg/l Final: 38 mg/l

Bioassay Conditions	Date Time	Control No.	Control %	Dilution 750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	2/28	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/1	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/2	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/3	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/4	10	100	10	100	10	100	10	100	10	100	10	100	10	100
Dissolved Oxygen mg/l	12:10	6.5		6.2		6.2		6.2		6.2		6.2		6.2	
	14:50	6.8		7.2		7.1		7.0		7.2		7.1		7.0	
	15:30	7.2		7.1		7.0		7.4		7.1		7.0		7.4	
	10:40	7.0		7.4		7.3		7.2		7.4		7.3		7.2	
	10:00	7.5		7.0		7.2		7.3		7.0		7.2		7.3	
pH	Start	7.0	20.0°C	7.0	20.0°C	7.2	20.0°C	7.4	20.0°C	7.0	20.0°C	7.2	20.0°C	7.4	20.0°C
	24 Hr	7.1	19.8°C	6.9	19.8°C	7.1	19.8°C	7.3	19.8°C	6.9	19.8°C	7.1	19.8°C	7.3	19.8°C
	48 Hr	7.2	20.0°C	6.9	20.0°C	7.1	20.0°C	7.3	20.0°C	6.9	20.0°C	7.1	20.0°C	7.3	20.0°C
	72 Hr	7.1	20.2°C	6.8	20.2°C	7.0	20.2°C	7.2	20.2°C	6.8	20.2°C	7.0	20.2°C	7.2	20.2°C
Temp	96 Hr	7.3	20.0°C	6.8	20.0°C	7.0	20.0°C	7.2	20.0°C	6.8	20.0°C	7.0	20.0°C	7.2	20.0°C

Results - LC_{50} = >750 mg/l
>750 mg/l
% Survival: N/A
Toxicity Units T.U.: (TD)
Observation/Remarks

Method of Calculations: N/A
95% Confidence Limits
LC_{50} Method

3/13

Laboratory Supervisor

Lab No. LR 185682-5

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

FAXED MAR 13 2007 By

Report To: Adv Tech Labs

780527

(84)

Sample Description: Wood 090099 - 005A / CADF - COMP1

Test Organism: Pimephales Promelas — Source: Thomas Fish Farm — Acclimatization: 13 Days @ 20 deg. C
Aquaria Volume: 10 liters — Aquaria Depth: 5 inches — No. Fish/Concentration: 10 — Total Chlorine Residual: N/D — Sample Conductivity: 240 µmhos/cm
Organism Characteristics - Length (mm) Min: 30 mm Max: 40 mm Avg: 35 mm — Weight (gm) Min: 0.34 gm Max: 0.58 gm Avg: 0.47 gm
Dilution Water - Source: Soft Water — Hardness - Initial: 45 mg/l Final: 75 mg/l — Alkalinity - Initial: 32 mg/l Final: 50 mg/l
Aeration: Air — Control Hardness Initial: 40 mg/l Final: 50 mg/l — Control Alkalinity Initial: 30 mg/l Final: 40 mg/l — Control Conductivity: 205 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/8	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/9	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/10	10	100	10	100	10	100	10	100	10	100	10	100	10	100
Dissolved Oxygen mg/l	10:20	6.6		6.2		6.2		6.2		6.2		6.2		6.2	
	14:00	6.9		7.3		7.1		7.0		7.3		7.1		7.0	
	14:30	7.3		7.0		7.2		7.1		7.0		7.2		7.1	
	13:20	7.1		7.4		7.3		7.2		7.4		7.3		7.2	
	9.30	7.5		7.2		7.0		7.3		7.2		7.0		7.3	
pH	Start	7.0	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C
	24 Hr	7.1	20.2 °C	6.9	20.2 °C	7.1	20.2 °C	7.3	20.2 °C	6.9	20.2 °C	7.1	20.2 °C	7.3	20.2 °C
	48 Hr	7.1	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C
	72 Hr	7.2	19.8 °C	6.8	19.8 °C	7.0	19.8 °C	7.2	19.8 °C	6.8	19.8 °C	7.0	19.8 °C	7.2	19.8 °C
Temp	96 Hr	7.3	20.0 °C	6.8	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	6.8	20.0 °C	7.0	20.0 °C	7.2	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l

% Survival: N/A

Toxicity Units T.U.: (TD)

Observation/Remarks:

Method of Calculations: N/A
95% Confidence Limits:
LC_{50} Method:

Laboratory Supervisor

Lab No. LR 185682-6

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

FAXED MAR 13 2007 By

Report To: Adv Tech Labs

780528

(84)

Sample Description: Wood 090099 - 006A / CADF - COMP2

Test Organism: Pimephales Promelas — Source: Thomas Fish Farm — Acclimatization: 13 Days @ 20 deg. C
Aquaria Volume: 10 liters — Aquaria Depth: 5 inches — No. Fish/Concentration: 10 — Total Chlorine Residual: N/D — Sample Conductivity: 235 µmhos/cm
Organism Characteristics: Length (mm) Min 30 mm Max 40 mm Avg 35 mm — Weight (gm) Min 0.34 gm Max 0.58 gm Avg 0.46 gm
Dilution Water: Source Soft Water — Hardness - Initial 45 mg/l Final 70 mg/l — Alkalinity - Initial 32 mg/l Final 48 mg/l
Aeration: Air — Control Hardness Initial: 40 mg/l Final: 50 mg/l — Control Alkalinity Initial: 30 mg/l Final: 40 mg/l — Control Conductivity: 205 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	Dilution 750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/8	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/9	10	100	9	90	10	100	10	100	10	100	10	100	10	100
	3/10	10	100	9	90	10	100	10	100	9	90	10	100	10	100
Dissolved Oxygen mg/l	10:30	6.6		6.4		6.4		6.4		6.4		6.4		6.4	
	14:10	6.9		7.2		7.1		7.3		7.2		7.1		7.3	
	14:40	7.3		7.1		7.2		7.0		7.1		7.2		7.0	
	13:30	7.1		7.0		7.4		7.2		7.0		7.4		7.2	
	9:40	7.5		7.3		7.0		7.1		7.3		7.0		7.1	
pH	Start	7.0	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C
	24 Hr	7.1	20.2 °C	7.0	20.2 °C	7.2	20.2 °C	7.4	20.2 °C	7.0	20.2 °C	7.2	20.2 °C	7.4	20.2 °C
	48 Hr	7.1	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C
	72 Hr	7.2	19.8 °C	6.9	19.8 °C	7.1	19.8 °C	7.3	19.8 °C	6.9	19.8 °C	7.1	19.8 °C	7.3	19.8 °C
Temp	96 Hr	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l

% Survival: N/A
Toxicity Units T.U.: (TD)

Observation/Remarks

Method of Calculations: N/A
95% Confidence Limits
LC_{50} Method

Laboratory Supervisor

3/13

Lab No. LR 185682-7

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

FAXED MAR 3 2007 By

Report To: Adv Tech Labs

780529

(84)

Sample Description: Wood 090099 - 007A - CADF - COMP3

Test Organism: Pimephales Promelas — Source: Thomas Fish Farm — Acclimatization: 13 Days @ 20 deg. C
Aquaria Volume: 10 liters — Aquaria Depth: 5 inches — No. Fish/Concentration: 10 — Total Chlorine Residual: N/D — Sample Conductivity: 230 µmhos/cm
Organism Characteristics: Length (mm) Min 30 mm Max 38 mm Avg 35 mm — Weight (gm) Min 0.34 gm Max 0.54 gm Avg 0.47 gm
Dilution Water: Source: Soft Water — Hardness - Initial: 45 mg/l Final: 65 mg/l — Alkalinity - Initial: 32 mg/l Final: 45 mg/l
Aeration: Air — Control Hardness Initial: 40 mg/l Final: 50 mg/l — Control Alkalinity Initial: 30 mg/l Final: 40 mg/l — Control Conductivity: 205 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/8	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/9	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/10	10	100	10	100	10	100	10	100	10	100	10	100	10	100
Dissolved Oxygen mg/l	10:40	6.6		6.3		6.3		6.3		6.3		6.3		6.3	
	14:20	6.9		7.3		7.0		7.1		7.3		7.0		7.1	
	14:50	7.3		7.2		7.1		7.0		7.2		7.1		7.0	
	13:40	7.1		7.0		7.2		7.4		7.0		7.2		7.4	
	9:50	7.5		7.1		7.3		7.2		7.1		7.3		7.2	
pH	Start	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.6	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.6	20.0 °C
	24 Hr	7.1	20.2 °C	7.1	20.2 °C	7.3	20.2 °C	7.5	20.2 °C	7.1	20.2 °C	7.3	20.2 °C	7.5	20.2 °C
	48 Hr	7.1	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C
	72 Hr	7.2	19.8 °C	7.0	19.8 °C	7.2	19.8 °C	7.4	19.8 °C	7.0	19.8 °C	7.2	19.8 °C	7.4	19.8 °C
Temp	96 Hr	7.3	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l

% Survival: N/A
Toxicity Units T.U.: (TP)

Observation/Remarks:

Method of Calculations: N/A
95% Confidence Limits:
LC_{50} Method:

Laboratory Supervisor

pd 3/13

Lab No. LR 185682-8

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

FILMED MAR By

Report To: Adv Tech Labs

780530

(84)

Sample Description Wood 090099 - 008A / CADF - COMP4
Test Organism Pimephales Promelas Source Thomas Fish Farm Acclimatization 13 Days @ 20 deg. C
Aquaria Volume 10 liters Aquaria Depth 5 inches No. Fish/Concentration 10 Total Chlorine Residual N/D Sample Conductivity 240 µmhos/cm
Organism Characteristics Length (mm) Min 30 mm Max 40 mm Avg 35 mm Weight (gm) Min 0.34 gm Max 0.58 gm Avg 0.47 gm
Dilution Water Source Soft Water Hardness - Initial 45 mg/l Final 75 mg/l Alkalinity - Initial 32 mg/l Final 50 mg/l
Aeration Air Control Hardness Initial: 40 mg/l Final: 50 mg/l Control Alkalinity Initial: 30 mg/l Final: 40 mg/l Control Conductivity 205 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/8	10	100	10	100	10	100	10	100	9	90	10	100	10	100
	3/9	10	100	9	90	10	100	10	100	9	90	10	100	10	100
	3/10	10	100	9	90	10	100	10	100	9	90	10	100	10	100
Dissolved Oxygen mg/l	10:50	6.6		6.1		6.1		6.1		6.1		6.1		6.1	
	14:30	6.9		7.1		7.3		7.2		7.1		7.3		7.2	
	15:00	7.3		7.0		7.4		7.1		7.0		7.4		7.1	
	13:50	7.1		7.4		7.0		7.3		7.4		7.0		7.3	
	10:00	7.5		7.3		7.2		7.0		7.3		7.2		7.0	
pH	Start	7.0	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C
	24 HR	7.1	20.2 °C	6.9	20.2 °C	7.1	20.2 °C	7.3	20.2 °C	6.9	20.2 °C	7.1	20.2 °C	7.3	20.2 °C
	48 HR	7.1	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C
	72 HR	7.2	19.8 °C	6.8	19.8 °C	7.0	19.8 °C	7.2	19.8 °C	6.8	19.8 °C	7.0	19.8 °C	7.2	19.8 °C
Temp	96 HR	7.3	20.0 °C	6.8	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	6.8	20.0 °C	7.0	20.0 °C	7.2	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l
% Survival N/A
Toxicity Units T.U. (TD)
Observation/Remarks

Method of Calculations N/A
95% Confidence Limits
LC_{50} Method

Laboratory Supervisor

Lab No. LR 185682-9

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

Report To: Adv Tech Labs

760531

(84)

FAXED
Mar
By

Sample Description Wood 090099 - 009A / ACQDF - COMPI
Test Organism Pimephales Promelas Source Thomas Fish Farm Acclimatization 13 Days @ 20 deg. C
Aquaria Volume 10 liters Aquaria Depth 5 inches No. Fish/Concentration 10 Total Chlorine Residual N/D Sample Conductivity 240 µmhos/cm
Organism Characteristics - Length (mm) Min 32 mm Max 40 mm Avg 35 mm Weight (gm) Min 0.38 gm Max 0.58 gm Avg 0.46 gm
Dilution Water - Source Soft Water Hardness - Initial 45 mg/l Final 75 mg/l Alkalinity - Initial 32 mg/l Final 50 mg/l
Aeration Air Control Hardness Initial: 40 mg/l Final: 50 mg/l Control Alkalinity Initial: 30 mg/l Final: 40 mg/l Control Conductivity 205 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	Dilution 750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/8	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/9	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/10	10	100	10	100	10	100	10	100	10	100	10	100	10	100
Dissolved Oxygen mg/l	11:00	6.6		6.5		6.5		6.5		6.5		6.5		6.5	
	14:40	6.9		7.3		7.0		7.2		7.3		7.0		7.2	
	15:10	7.3		7.2		7.1		7.0		7.2		7.1		7.0	
	14:00	7.1		7.0		7.4		7.3		7.0		7.4		7.3	
	10:10	7.5		7.1		7.2		7.4		7.1		7.2		7.4	
pH	Start	7.0	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C
	24 Hr	7.1	20.2 °C	7.0	20.2 °C	7.2	20.2 °C	7.4	20.2 °C	7.0	20.2 °C	7.2	20.2 °C	7.4	20.2 °C
	48 Hr	7.1	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C
	72 Hr	7.2	19.8 °C	6.9	19.8 °C	7.1	19.8 °C	7.3	19.8 °C	6.9	19.8 °C	7.1	19.8 °C	7.3	19.8 °C
Temp	96 Hr	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l

% Survival N/A
Toxicity Units T.U. (TD)

Observation/Remarks

Method of Calculations N/A
95% Confidence Limits
LC_{50} Method

Laboratory Supervisor

Lab No. LR 185682-10

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

Report To: Adv Tech Labs

780532

(84)

FAXED
MAR
BY

Sample Description: Wood 090099 - 010A / ACQDF - COMP2
Acclimatization: 13 Days @ 20 deg. C
Test Organism: Pimephales Promelas
Source: Thomas Fish Farm
Total Chlorine Residual: N/D
Sample Conductivity: 235 µmhos/cm
Aquaria Volume: 10 liters
Aquaria Depth: 5 inches
No. Fish/Concentration: 10
Weight (gm) Min: 0.34 gm Max: 0.58 gm Avg: 0.46 gm
Organism Characteristics: Length (mm) Min: 30 mm Max: 40 mm Avg: 35 mm
Dilution Water: Source: Soft Water
Hardness - Initial: 45 mg/l Final: 70 mg/l
Alkalinity - Initial: 32 mg/l Final: 48 mg/l
Aeration: Air
Control Hardness Initial: 40 mg/l Final: 50 mg/l
Control Alkalinity Initial: 30 mg/l Final: 40 mg/l
Control Conductivity: 205 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/8	10	100	9	90	10	100	10	100	10	100	10	100	10	100
	3/9	10	100	9	90	10	100	10	100	9	90	10	100	10	100
	3/10	10	100	9	90	10	100	10	100	9	90	10	100	10	100
Dissolved Oxygen mg/l	11:10	6.6		6.3		6.3		6.3		6.3		6.3		6.3	
	14:50	6.9		7.1		7.0		7.3		7.1		7.0		7.3	
	15:20	7.3		7.2		7.1		7.0		7.2		7.1		7.0	
	14:10	7.1		7.4		7.2		6.8		7.4		7.2		6.8	
	10:20	7.5		7.0		7.3		7.2		7.0		7.3		7.2	
pH	Start	7.0	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C
	24 HR	7.1	20.2 °C	7.0	20.2 °C	7.2	20.2 °C	7.4	20.2 °C	7.0	20.2 °C	7.2	20.2 °C	7.4	20.2 °C
	48 HR	7.1	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C
	72 HR	7.2	19.8 °C	6.9	19.8 °C	7.1	19.8 °C	7.3	19.8 °C	6.9	19.8 °C	7.1	19.8 °C	7.3	19.8 °C
Temp	96 HR	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l

% Survival: N/A
Toxicity Units T.U.: (TU)

Observation/Remarks:

Method of Calculations: N/A
95% Confidence Limits:
LC_{50} Method:

Laboratory Supervisor

Lab No. LR 185682-11

Date Received: 2/27/07
Date Reported: 3/5/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

FAXED
MAR 13 2007
By

Report To: Adv Tech Labs

(83) 780533

Sample Description: Wood 090099-011A/ACQDF - COMP3
Test Organism: Pimephales Promelas — Source: Thomas Fish Farm — Acclimatization: 21 Days @ 20 deg. C
Aquaria Volume: 10 liters — Aquaria Depth: 5 inches — No. Fish/Concentration: 10 — Total Chlorine Residual: N/D — Sample Conductivity: 230 µmhos/cm
Organism Characteristics - Length (mm) Min: 30 mm Max: 48 mm Avg: 35 mm — Weight (gm) Min: 0.34 gm Max: 0.58 gm Avg: 0.47 gm
Dilution Water - Source: Soft Water — Hardness - Initial: 45 mg/l Final: 65 mg/l — Alkalinity - Initial: 72 mg/l Final: 45 mg/l
Aeration: Air — Control Hardness Initial: 40 mg/l Final: 45 mg/l — Control Alkalinity Initial: 30 mg/l Final: 38 mg/l — Control Conductivity: 200 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	Dilution 750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	2/28	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/1	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/2	10	100	9	90	10	100	10	100	10	100	10	100	10	100
	3/3	10	100	9	90	10	100	10	100	9	90	10	100	10	100
	3/4	10	100	9	90	10	100	10	100	9	90	10	100	10	100
Dissolved Oxygen mg/l	12:20	6.5		6.1		6.1		6.1		6.1		6.1		6.1	
	15:00	6.8		7.2		7.0		7.3		7.2		7.0		7.3	
	15:40	7.2		7.1		7.3		7.0		7.1		7.3		7.0	
	10:50	7.0		7.4		7.1		7.2		7.4		7.1		7.2	
	10:10	7.5		7.3		7.2		7.1		7.3		7.2		7.1	
pH	Start	7.0	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	7.5	20.0 °C
	24 Hr	7.1	19.8 °C	7.0	19.8 °C	7.2	19.8 °C	7.4	19.8 °C	7.0	19.8 °C	7.2	19.8 °C	7.4	19.8 °C
	48 Hr	7.2	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C
	72 Hr	7.1	20.2 °C	6.9	20.2 °C	7.1	20.2 °C	7.3	20.2 °C	6.9	20.2 °C	7.1	20.2 °C	7.3	20.2 °C
Temp	96 Hr	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C	6.9	20.0 °C	7.1	20.0 °C	7.3	20.0 °C

Results - LC_{50} = >750 mg/l
>750 mg/l
% Survival: N/A
Toxicity Units T.U.: (TD)
Observation/Remarks:

Method of Calculations: N/A
95% Confidence Limits:
LC_{50} Method:

3/13

Laboratory Supervisor

Lab No. LR 185682-12

Date Received: 2/27/07
Date Reported: 3/5/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

FAXED
MAR 13 2007
By

Report To: Adv Tech Labs

780534

(83)

Sample Description: Wood 090099 - 012A / ACQDF - COMP4

Test Organism: Pimephales Promelas — Source: Thomas Fish Farm — Acclimatization: 21 Days @ 20 deg. C

Aquaria Volume: 10 liters — Aquaria Depth: 5 inches — No. Fish/Concentration: 10 — Total Chlorine Residual: N/D — Sample Conductivity: 245 Umhos/cm

Organism Characteristics - Length (mm) Min: 30 mm Max: 40 mm Avg: 35 mm — Weight (gm) Min: 0.34 gm Max: 0.58 gm Avg: 0.47 gm

Dilution Water - Source: Soft Water — Hardness - Initial: 45 mg/l Final: 80 mg/l — Alkalinity - Initial: 32 mg/l Final: 52 mg/l

Aeration: Air — Control Hardness Initial: 40 mg/l Final: 45 mg/l — Control Alkalinity Initial: 30 mg/l Final: 38 mg/l — Control Conductivity: 200 Umhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	2/28	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/1	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/2	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/3	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/4	10	100	10	100	10	100	10	100	10	100	10	100	10	100
Dissolved Oxygen mg/l	12:30	6.5		6.4		6.4		6.4		6.4		6.4		6.4	
	15:10	6.8		7.2		7.0		7.1		7.2		7.0		7.1	
	15:50	7.2		7.1		7.3		7.0		7.1		7.3		7.0	
	11:00	7.0		7.4		7.1		7.2		7.4		7.1		7.2	
	10:20	7.5		7.0		7.2		7.3		7.0		7.2		7.3	
pH	Start	7.0	20.0°C	7.1	20.0°C	7.3	20.0°C	7.5	20.0°C	7.1	20.0°C	7.3	20.0°C	7.5	20.0°C
	24 HR	7.1	19.8°C	7.0	19.8°C	7.2	19.8°C	7.4	19.8°C	7.0	19.8°C	7.2	19.8°C	7.4	19.8°C
	48 HR	7.2	20.0°C	7.0	20.0°C	7.2	20.0°C	7.4	20.0°C	7.0	20.0°C	7.2	20.0°C	7.4	20.0°C
	72 HR	7.1	20.2°C	6.9	20.2°C	7.1	20.2°C	7.3	20.2°C	6.9	20.2°C	7.1	20.2°C	7.3	20.2°C
Temp	96 HR	7.3	20.0°C	6.9	20.0°C	7.1	20.0°C	7.3	20.0°C	6.9	20.0°C	7.1	20.0°C	7.3	20.0°C

Results - LC_{50} = >750 mg/l
>750 mg/l

% Survival: N/A

Toxicity Units T.U.: (TD)

Observation/Remarks

Method of Calculations: N/A

95% Confidence Limits

LC_{50} Method

Laboratory Supervisor

Lab No. LR 185682 - 13

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

FAXED MAR 3 2007 By

Report To: Adv Tech Labs

780535

(84)

Sample Description: Wood 090099 - 013A / LAHF - COMPI
Test Organism: Pimephales Promelas — Source: Thomas Fish Farm — Acclimatization: 13 Days @ 20 deg. C
Aquaria Volume: 10 liters — Aquaria Depth: 5 inches — No. Fish/Concentration: 10 — Total Chlorine Residual: N/D — Sample Conductivity: 2240 µmhos/cm
Organism Characteristics - Length (mm) Min: 30 mm Max: 40 mm Avg: 34 mm — Weight (gm) Min: 0.34 gm Max: 0.58 gm Avg: 0.44 gm
Dilution Water - Source: Soft Water — Hardness - Initial: 45 mg/l Final: 75 mg/l — Alkalinity - Initial: 32 mg/l Final: 50 mg/l
Aeration: Air — Control Hardness Initial: 40 mg/l Final: 50 mg/l — Control Alkalinity Initial: 30 mg/l Final: 40 mg/l — Control Conductivity: 205 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	0	0	2	20	7	70	0	0	2	20	6	60
	3/8	10	100	✓	✓	0	0	5	50	✓		0	0	4	40
	3/9	10	100			✓	✓	3	30			✓		4	40
	3/10	10	100					3	30					3	30
Dissolved Oxygen mg/l	11:20	6.6		6.2		6.2		6.2		6.2		6.2		6.2	
	15:00	6.9		7.1		7.0		7.2		7.1		7.0		7.2	
	15:30	7.3		✓		7.2		7.1		✓		7.2		7.1	
	14:20	7.1				✓		7.3				✓		7.3	
	10:30	7.5						7.0						7.0	
pH	Start	7.0	20.0 °C	7.2	20.0 °C	7.5	20.0 °C	7.7	20.0 °C	7.2	20.0 °C	7.5	20.0 °C	7.7	20.0 °C
	24 Hr	7.1	20.2 °C	7.1	20.2 °C	7.4	20.2 °C	7.6	20.2 °C	7.1	20.2 °C	7.4	20.2 °C	7.6	20.2 °C
	48 Hr	7.1	20.0 °C	✓	°C	7.3	°C	7.5	20.0 °C	✓	20.0 °C	7.3	20.0 °C	7.5	20.0 °C
	72 Hr	7.2	19.8 °C		°C	✓	°C	7.4	19.8 °C		°C	✓	°C	7.4	19.8 °C
Temp	96 Hr	7.3	20.0 °C		°C		°C	7.3	20.0 °C		°C		°C	7.3	20.0 °C

Results - LC_{50} = < 250 mg/l
< 250 mg/l

% Survival: N/
Toxicity Units T.U.: /A

(TD)

Method of Calculations: N/
95% Confidence Limits: /A
LC_{50} Method:

Observation/Remarks:

Laboratory Supervisor

Lab No. LR 185682 - 14

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

Report To: Adv Tech Labs

780536

(84)

FAXED MAR By

Sample Description Wood 090099 - 014A / CAHF - COMP2
Test Organism Pimephales Promelas Source Thomas Fish Farm Acclimatization 13 Days @ 20 deg. C
Aquaria Volume 10 liters Aquaria Depth 5 inches No. Fish/Concentration 10 Total Chlorine Residual ND Sample Conductivity 240 µmhos/cm
Organism Characteristics - Length (mm) Min 30 mm Max 40 mm Avg 35 mm Weight (gm) Min 0.34 gm Max 0.58 gm Avg 0.45 gm
Dilution Water - Source Soft Water Hardness - Initial 45 mg/l Final 65 mg/l Alkalinity - Initial 32 mg/l Final 40 mg/l
Aeration Air Control Hardness Initial: 40 mg/l Final: 50 mg/l Control Alkalinity Initial: 30 mg/l Final: 40 mg/l Control Conductivity 205 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	Dilution 750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	0	0	1	10	5	50	0	0	2	20	6	60
	3/8	10	100	✓	✓	0	0	4	40	✓		0	0	4	40
	3/9	10	100			✓	✓	2	20			✓	✓	3	30
	3/10	10	100					2	20					2	20
Dissolved Oxygen mg/l	11:30	6.6		6.4		6.4		6.4		6.4		6.4		6.4	
	15:10	6.9		7.2		7.0		7.1		7.2		7.0		7.1	
	15:40	7.3		✓		7.1		7.0		✓		7.1		7.0	
	14:30	7.1				✓		7.3				✓		7.3	
	10:40	7.5						7.2						7.2	
pH	Start	7.0	20.0 °C	7.2	20.0 °C	7.3	20.0 °C	7.6	20.0 °C	7.2	20.0 °C	7.3	20.0 °C	7.6	20.0 °C
	24 Hr	7.1	20.2 °C	7.1	20.2 °C	7.2	20.2 °C	7.5	20.2 °C	7.1	20.2 °C	7.2	20.2 °C	7.5	20.2 °C
	48 Hr	7.1	20.0 °C	✓	°C	7.1	20.0 °C	7.4	20.0 °C	✓	°C	✓ 7.1	20.0 °C	7.4	20.0 °C
	72 Hr	7.2	19.8 °C		°C	✓	°C	7.3	19.8 °C		°C		°C	7.3	19.8 °C
Temp	96 Hr	7.3	20.0 °C		°C		°C	7.2	20.0 °C		°C		°C	7.2	20.0 °C

Results - LC_{50} = < 250 mg/l
< 250 mg/l
% Survival N
Toxicity Units T.U. /A (TD)

Method of Calculations N/
95% Confidence Limits /A
LC_{50} Method

Observation/Remarks

✓
Laboratory Supervisor

Lab No. LR 185682-15

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

Report To: Adv Tech Labs

780537

(84)

FAXED By

Sample Description Wood 090099 - 015A / CAHF - COMP3
Acclimatization 13 Days @ 20 deg. C
Test Organism Pimephales Promelas Source Thomas Fish Farm
Aquaria Volume 10 liters Aquaria Depth 5 inches No. Fish/Concentration 10 Total Chlorine Residual N/D Sample Conductivity 230 µmhos/cm
Organism Characteristics Length (mm) Min 30 mm Max 40 mm Avg 35 mm Weight (gm) Min 0.34 gm Max 0.58 gm Avg 0.46 gm
Dilution Water Source Soft Water Hardness - Initial 45 mg/l Final 65 mg/l Alkalinity - Initial 32 mg/l Final 45 mg/l
Aeration Air Control Hardness Initial: 40 mg/l Final: 50 mg/l Control Alkalinity Initial: 30 mg/l Final: 40 mg/l Control Conductivity 205 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	Dilution 750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	0	0	2	20	7	70	0	0	3	30	6	60
	3/8	10	100	✓	✓	0	0	5	50	✓		0	0	4	40
	3/9	10	100			✓	✓	4	40			✓	✓	3	30
	3/10	10	100					4	40					3	30
Dissolved Oxygen mg/l	11:40	6.6		6.5		6.5		6.5		6.5		6.5		6.5	
	15:20	6.9		7.1		7.2		7.0		7.1		7.2		7.0	
	15:50	7.3		✓		7.0		7.1		✓		7.0		7.1	
	14:40	7.1				✓		7.3				✓		7.3	
	10:50	7.5						7.2						7.2	
pH	Start	7.0	20.0 °C	7.2	20.0 °C	7.5	20.0 °C	7.7	20.0 °C	7.2	20.0 °C	7.5	20.0 °C	7.7	20.0 °C
	24 Hr	7.1	20.2 °C	7.1	20.2 °C	7.4	20.2 °C	7.6	20.2 °C	7.1	20.2 °C	7.4	20.2 °C	7.6	20.2 °C
	48 Hr	7.1	20.0 °C	✓	°C	7.3	°C	7.5	20.0 °C	✓	20.0 °C	7.3	20.0 °C	7.5	20.0 °C
	72 Hr	7.2	19.8 °C		°C	✓	°C	7.4	19.8 °C		°C	✓	°C	7.4	19.8 °C
Temp	96 Hr	7.3	20.0 °C		°C		°C	7.3	20.0 °C		°C		°C	7.3	20.0 °C

Results - LC_{50} = < 250 mg/l
< 250 mg/l

% Survival N/A
Toxicity Units T.U. N/A

(TD)

Method of Calculations N/A
95% Confidence Limits
LC_{50} Method

Observation/Remarks

Laboratory Supervisor

3/13

Lab No. LR 185682-16

Date Received: 2/27/07
Date Reported: 3/10/07

LABORATORY WORKSHEET

Bioassay Type
Static ✓ Continuous ____
Screening ✓ Definitive ____

Report To: Adv Tech Labs

780538

(84)

Sample Description Wood 090099 - 016A / CAHF - COMP4
Test Organism Pimephales Promelas Source Thomas Fish Farm Acclimatization 13 Days @ 20 deg. C
Aquaria Volume 10 liters Aquaria Depth 5 inches No. Fish/Concentration 10 Total Chlorine Residual N/D Sample Conductivity 250 µmhos/cm
Organism Characteristics - Length (mm) Min 30 mm Max 40 mm Avg 34 mm Weight (gm) Min 0.34 gm Max 0.58 gm Avg 0.45 gm
Dilution Water - Source Soft Water Hardness - Initial 45 mg/l Final 80 mg/l Alkalinity - Initial 32 mg/l Final 52 mg/l
Aeration Air Control Hardness Initial: 40 mg/l Final: 50 mg/l Control Alkalinity Initial: 30 mg/l Final: 40 mg/l Control Conductivity 305 µmhos/cm

Bioassay Conditions	Date Time	Control No.	Control %	750 No.	750 %	500 No.	500 %	250 No.	250 %	DUP 750 No.	DUP 750 %	500 No.	500 %	250 No.	250 %
Organisms Surviving	3/6	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	3/7	10	100	0	0	1	10	7	70	0	0	2	20	6	60
	3/8	10	100	✓	✓	0	0	5	50	✓		0	0	5	50
	3/9	10	100			✓	✓	3	30			✓	✓	4	40
	3/10	10	100					3	30					4	40
Dissolved Oxygen mg/l	11:50	6.6		6.3		6.3		6.3		6.3		6.3		6.3	
	15:30	6.9		7.2		7.0		7.1		7.2		7.0		7.1	
	16:00	7.3		✓		7.1		7.2		✓		7.1		7.2	
	14:50	7.1				✓		7.0				✓		7.0	
	11:00	7.5						7.3						7.3	
pH	Start	7.0	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.6	20.0 °C	7.2	20.0 °C	7.4	20.0 °C	7.6	20.0 °C
	24 Hr	7.1	20.2 °C	7.1	20.2 °C	7.3	20.2 °C	7.5	20.2 °C	7.1	20.2 °C	7.3	20.2 °C	7.5	20.2 °C
	48 Hr	7.1	20.0 °C	✓	°C	7.2	20.0 °C	7.4	20.0 °C	✓	°C	7.2	20.0 °C	7.4	20.0 °C
	72 Hr	7.2	19.8 °C		°C	✓	°C	7.3	19.8 °C		°C	✓	°C	7.3	19.8 °C
Temp	96 Hr	7.3	20.0 °C		°C		°C	7.2	20.0 °C		°C		°C	7.2	20.0 °C

Results - LC_{50} = < 250 mg/l
< 250 mg/l
% Survival N/
Toxicity Units T.U. /A (TD)

Method of Calculations N/
95% Confidence Limits /A
LC_{50} Method

Observation/Remarks

✓
Laboratory Supervisor

State of California
California Environmental Protection Agency

Department of Toxic Substances Control
Environmental Chemistry Laboratory

ENVIRONMENTAL CHEMISTRY LABORATORY SAMPLE ANALYSIS REQUEST	1. Authorization Number 06AT0174	ECL No.: _____ To _____	2. Page 1 of 2

3. Requestor: (to Receive Results) a. Name: Martin Snider
b. Address: 700 Heinz Ave., Suite 100 (street number)
Berkeley, CA 94710 (city, state, zip)
c. Phone: (510) 849-5258 (area code first) d. Fax: (510) 540-2305 (area code first)
e. Email: msnider @dtsc.ca.gov

4. Program/Activity: HWM-RPD
5. TAT Level: 2
*Unit Chief's Signature:
(if TAT level = 1)

6. Sampling Information: a. Date/Time Sampled: 10/19/06 (mm/dd/yy) (#:## AM/PM)
b. Location: EPA ID No.
Site: UCCE-Richmond Field Station c/o Steve Quarles
Address: 1301 South 46th Street, Bldg 478 (street number)
Richmond, CA 94804 (city, state, zip)
GPS-Lat: GPS-Long:
GPS-Alt: GPS-Depth:

7. Codes (select from drop down list or fill in if applicable)
a. Office HWM 05–HQ Units
b. INDEX
c. PCA 22090
d. MPC
e. SITE
f. County

8. Samples:

a.ID	b. Collector's No.	c. ECL No.	d. Matrix	e. Container Size	f. Number of containers	g. Preservative / Field Information
1	DFControl-COMP1		Wood	4 oz clear glass jar	1	Milled at ECL to <2mm sieve
2	DFControl-COMP2		Wood	4 oz clear glass jar	1	Milled at ECL to <2mm sieve
3	DFControl-COMP3		Wood	4 oz clear glass jar	1	Milled at ECL to <2mm sieve
4	DFControl-COMP4		Wood	4 oz clear glass jar	1	Milled at ECL to <2mm sieve
5	CADF-COMP1		Wood	4 oz clear glass jar	1	Milled at ECL to <2mm sieve
6	CADF-COMP2		Wood	4 oz clear glass jar	1	Milled at ECL to <2mm sieve
7	CADF-COMP3		Wood	4 oz clear glass jar	1	Milled at ECL to <2mm sieve
8	CADF-COMP4		Wood	4 oz clear glass jar	1	Milled at ECL to <2mm sieve
9	ACQDF-COMP1		Wood	4 oz clear glass jar	1	Milled at ECL to <2mm sieve

9. Analysis Requested: Enter sample IDs and sample ID ranges separated by commas. For example, 1-3, 5-7, 9

a. Inorganic Analysis	Sample(s) ID	b. Organic Analysis	Sample(s) ID
Other Metals:			
c. TCLP Analysis		**d. Other Analysis**	
		Fish Bioassay (Title 22, FishBio)	1-9

e. Comments for Multiphasic Samples/Analysis Priority:

10. Analysis Objective: Waste Characterization

11. Detection Limit Requirements: (Check ECL User's Manual to assure default DL is sufficient.)

12. Supplemental Requests: Enter sample IDs as described in Item 9

Desired Analysis	Sample(s) ID

Initials:
Date:

ECL

13. ECL Lab Remarks:

FIELD

LAB

14. Chain of Custody:

	Name	Title	Signature	Inclusive Dates of Custody		
a.	Martin Snider	RSII		10/26/2006	to	2/23/2007
b.	Mrgp	ATL		2/23/07	to	
c.					to	
d.					to	

COC

Feol V

State of California
California Environmental Protection Agency

Department of Toxic Substances Control
Environmental Chemistry Laboratory

ENVIRONMENTAL CHEMISTRY LABORATORY SAMPLE ANALYSIS REQUEST	1. Authorization Number 06AT0174	ECL No.: _____ To _____	2. Page 2 of 2

3. Requestor: (to Receive Results) a. Name: Martin Snider
b. Address: 700 Heinz Ave., Suite 100 (street number)
Berkeley, CA 94710 (city, state, zip)
c. Phone: (510) 849-5258 (area code first) d. Fax: (510) 540-2305 (area code first)
e. Email: msnider @dtsc.ca.gov

4. Program/Activity: HWM-RPD
5. TAT Level: 2
*Unit Chief's Signature:
(if TAT level = 1)

6. Sampling Information: a. Date Sampled: 10/19/06 (mm/dd/yy)
b. Location: EPA ID No. _____ (#:## AM/PM)
Site: UCCE-Richmond Field Station c/o Steve Quarles
Address: 1301 South 46th Street, Bldg 478 (street number)
Richmond, CA 94804 (city, state, zip)
GPS-Lat: _____ GPS-Long: _____
GPS-Alt: _____ GPS-Depth: _____

7. Codes (select from drop down list or fill in if applicable)
a. Office HWM 05--HQ Units
b. INDEX
c. PCA 22090
d. MPC
e. SITE
f. County

8. Samples:

a.ID	b. Collector's No.	c. ECL No.	d. Matrix	e. Container Size	f. Number of containers	g. Preservative / Field Information
10	ACGDF-COMP2		Wood	4 oz clear glass jar		Milled at ECL to <2mm sieve
11	ACQDF-COMP3		Wood	4 oz clear glass jar		Milled at ECL to <2mm sieve
12	ACQDF-COMP4		Wood	4 oz clear glass jar		Milled at ECL to <2mm sieve
13	CAHF-COMP1		Wood	4 oz clear glass jar		Milled at ECL to <2mm sieve
14	CAHF-COMP2		Wood	4 oz clear glass jar		Milled at ECL to <2mm sieve
15	CAHF-COMP3		Wood	4 oz clear glass jar		Milled at ECL to <2mm sieve
16	CAHF-COMP4		Wood	4 oz clear glass jar		Milled at ECL to <2mm sieve
17						
18						

9. Analysis Requested: Enter sample IDs and sample ID ranges separated by commas. For example, 1-3, 5-7, 9

a. Inorganic Analysis	Sample(s) ID	b. Organic Analysis	Sample(s) ID
Other Metals:			
c. TCLP Analysis		**d. Others Analysis**	
		Fish Bioassay (Title 22, FishBio)	10-16

e. Comments for Multiphasic Samples/Analysis Priority:

10. Analysis Objective: Waste Characterization

11. Detection Limit Requirements: (Check ECL User's Manual to assure default DL is sufficient.)

12. Supplemental Requests: Enter sample IDs as described in Item 9

Desired Analysis	Sample(s) ID

Initials: _____
Date: _____

ECL

13. ECL Lab Remarks:

14. Chain of Custody:

	Name	Title	Signature	Inclusive Dates of Custody		
a.	Martin Snider	RSII		10/26/2006	to	2/23/2007
b.					to	
c.					to	
d.					to	

FIELD

LAB

COC

Department of Toxic Substances Control
Environmental Chemistry Laboratory

SUPPLEMENTAL ☐
(Check if Supplemental Requested)

AUTHORIZATION REQUEST FORM (ARF)

PART A : (By Requestor - PLEASE PRINT)

TAT Level ☐1 ☒2 ☐3 ☐4

Requestor's Name	Martin Snider	Email	msnider @dtsc.ca.gov	Phone (510)	849-5258
Region	02--Berkeley	Unit	SPPT-ECL	Fax ( )	
Back-up Requestor	Li Tang			Phone (916)	922-2505
Site Name	Treated Wood Waste Study				AREA CODE

PART B: Analytical Requests (By Requestor) (Lab uses default methods listed below. Please specify all other requests.)

Inorganic Analysis	Number of Samples/Type: Solid	Liquid	Water	Other
% Dry Solids (ECL730-S)				
Acidity (305-1)				
Alkalinity (310-1)				
Anions by IC (9056)				
Chromium VI(Cr^{6+}) by Colorimetric (7196A)				
Chromium VI(Cr^{6+}) in Water by IC (7199)				
Cyanides for Wastes,Leachates (9010B)				
Hardness (130-2)				
Mercury(Hg) in (Semi)Solid Waste (7471A)				
Mercury(Hg) in Liquid Waste (7470A)				
Metals Scan (6010B, for As,Ba,Cu,Pb, etc)				
Metals Scan (for Drinking water, 6020A)				
OrganoLead in Waste (ECL938-M)				
Particle Size (ECL740-S)				
Perchlorate for Soil,Sludge (ECL955-M)				
Perchlorate for Water (314-0)				
pH (9040B, 9045C)				
Total Dissolved Solids (160-1)				
WET(ECL910-S) ☐ Only if necessary ☒ Do it regardless				
(others, type in)				

TCLP Analysis**					
Metals ☐ Only if necessary ☐ Do it regardless					
Mercury ☐ Only if necessary ☐ Do it regardless					
Volatiles ☐ Only if necessary ☐ Do it regardless					
Semivolatiles ☐ Only if necessary ☐ Do it regardless					
(others, type in)					

Organic Analysis		Number of Samples/Type: Solid	Liquid	Water	Other
GRO (Gasoline, 8015B)					
DRO(Diesel) only (ECL816-M)					
Motor Oil only (ECL816-M)					
DRO(Diesel) & Motor Oil (ECL816-M)					
EthyleneGlycol (ECL772-M)					
PBDEs (ECL750-M)					
PCBs (8082)					
Pesticides - Chlorinated (8081A)					
Pesticides - Organophosphate (8141A)					
1,4-Dioxane (ECL830-S)					
GC/MS	Semivolatiles (8270C)				
GC/MS	Volatiles (8260B)				
HPLC	Carbonyl Compounds (8315A)				
HPLC	Explosives (8330)				
HPLC	PAHs (8310)				
Dioxins/Furans by HRGC/HRMS (ECL880-M)					
Flash Point (1020A)					
n-Hexane Extractables/TPH (1664)					
TXO-Total Halogens in Oil (ECL792-S)					
(others, type in)					

Other Analysis					
Fish Bioassay (Title 22)		24			
Congener PCBs (ECL-CG-PCB)					
Congener PBDEs (ECL-CG-PBDE)					
(others,type in)					
(others, type in)					

Analysis Objective: Waste Characterization

Detection Limit Requirements: (Check ECL User's Manual to assure default DL is sufficient.)
CCR Title 22, TTLC, STLC (WET)

Other Comments: Do metal scan and WET on all samples; samples have been pre-milled to 2 mm

Expected Date of Sample Arrival at Lab 02/22/07 (mm/dd/yy)

PART C : (By SMO - ECL)

Authorization Number (AN) 0 6 A T 0 1 7 4

ARF's Revision No. ____ Initials: ____ Date: ____

Lab to Receive Sample(s)

Advanced Technology Labs
3275 Walnut Avenue
Signal Hill, CA 90807
Att: Diane Galvin (562)989-4045

ARF's Revision No. ____ Initials: ____ Date: ____

Sample Management Officer (SMO)

☐ Check box if cancelled
Initials: ____ Date: ____

Today's Date 2/20/07 (mm/dd/yy) Expiration Date 3/2/07 (mm/dd/yy)

TAT Level : *1 = 10-15 days (requires unit chief's signature on SAR) 2 = 16 - 30 days 3 = 31 - 45 days 4 = when possible

**TCLP : If time permits and sample matrix type is appropriate, lab may analyze or screen the sample(s) first to determine if TCLP is needed.

ECL01 (REV 10/06)