Oilfield Environmental and Compliance, INC.

Heidi D'Agostino
Yolo County District Attorney
301 2nd Street
Woodland, CA 95695

06 January 2016

RE: Consumer Products Bioassay Testing Work Order: 1505031

Dear Client:

Enclosed is an analytical report for the above referenced project. The samples included in this report were received on 30-Nov-15 11:00 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Meredith Sprister

Project Manager

TEL: (805) 922-4772
307 Roemer Way, Suite 300, Santa Maria, CA 93454 **www.oecusa.com** FAX: (805) 925-3376

Oilfield Environmental and Compliance, INC.

Yolo County District Attorney	Project: Consumer Products Bioassay Testing	
301 2nd Street	Project Number: [none]	**Reported:**
Woodland CA, 95695	Project Manager: Heidi D'Agostino	06-Jan-16 13:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
304E Simple Green All-Purpose Cleaner, 32 fl o	1505031-01	Product	25-Nov-15 10:30	30-Nov-15 11:00
305E Simple Green d Pro 3, 1 gallon	1505031-02	Product	25-Nov-15 10:30	30-Nov-15 11:00
306E Simple Green Pro HD, 1 gallon	1505031-03	Product	25-Nov-15 10:30	30-Nov-15 11:00
307E Glade Plug Ins Poppy Groove, 2 refills 1.3	1505031-04	Product	25-Nov-15 10:30	30-Nov-15 11:00
308E Glade Candle Poppy Groove, 3.8 oz	1505031-05	Product	25-Nov-15 10:30	30-Nov-15 11:00
309E LemiShine Detergent Booster, 12 oz	1505031-06	Product	25-Nov-15 10:30	30-Nov-15 11:00
310E Sun In Hair Lightener, Tropical Breeze, 4.	1505031-07	Product	25-Nov-15 10:30	30-Nov-15 11:00
311E DAP Dynaflex 230 Window, Door & Trim	1505031-08	Product	25-Nov-15 10:30	30-Nov-15 11:00
312E Loctite Pro Line S40 Polyurethane Sealant	1505031-09	Product	25-Nov-15 10:30	30-Nov-15 11:00
313E babyganics alcohol-free foaming hand san	1505031-10	Product	25-Nov-15 10:30	30-Nov-15 11:00
314E Mustela Dermo-Cleansing, 16.90 fl oz	1505031-11	Product	25-Nov-15 10:30	30-Nov-15 11:00
315E Shea Moisture Raw Shea Chamomile & A	1505031-12	Product	25-Nov-15 10:30	30-Nov-15 11:00

304E Simple Green All-Purpose Cleaner, 32 fl oz

1505031-01 (Product)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Oilfield Environmental and Compliance									
Microbiological Parameters by CA Dept. of Fish and Game									
Bioassay 96 Hour Screen	Pass		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**8.0**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	0.0		"	"	"	"	"	"	
Definitive Bioassay LC50	> 500		mg/L	1	B5L0347	12-Dec-15	12-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Non-Hazardous		"	"	"	"	"	"	

Oilfield Environmental and Compliance, INC.

Yolo County District Attorney	Project: Consumer Products Bioassay Testing	
301 2nd Street	Project Number: [none]	**Reported:**
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305E Simple Green d Pro 3, 1 gallon

1505031-02 (Product)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Bioassay 96 Hour Screen	Fail		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**20**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	**20**		"	"	"	"	"	"	
Definitive Bioassay LC50	< 20		mg/L	1	B5L0133	04-Dec-15	04-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Hazardous		"	"	"	"	"	"	

Oilfield Environmental and Compliance, INC.

Yolo County District Attorney	Project: Consumer Products Bioassay Testing	
301 2nd Street	Project Number: [none]	**Reported:**
Woodland CA, 95695	Project Manager: Heidi D'Agostino	06-Jan-16 13:26

306E Simple Green Pro HD, 1 gallon

1505031-03 (Product)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Bioassay 96 Hour Screen	Fail		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	**1.0**		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**19**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	0.0		"	"	"	"	"	"	
Definitive Bioassay LC50	**689**		mg/L	1	B5L0347	12-Dec-15	12-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Non-Hazardous		"	"	"	"	"	"	

Oilfield Environmental and Compliance, INC.

Yolo County District Attorney	Project: Consumer Products Bioassay Testing	
301 2nd Street	Project Number: [none]	**Reported:**
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307E Glade Plug Ins Poppy Groove, 2 refills 1.34 fl oz
1505031-04 (Product)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Bioassay 96 Hour Screen	Fail		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**20**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	**20**		"	"	"	"	"	"	
Definitive Bioassay LC50	**75.0**		mg/L	1	B5L0544	19-Dec-15	19-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Hazardous		"	"	"	"	"	"	

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Yolo County District Attorney	Project: Consumer Products Bioassay Testing	
301 2nd Street	Project Number: [none]	**Reported:**
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308E Glade Candle Poppy Groove, 3.8 oz

1505031-05 (Product)

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bioassay 96 Hour Screen	Pass		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	**1.0**		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	**1.0**		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	**1.0**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	0.0		"	"	"	"	"	"	

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309E LemiShine Detergent Booster, 12 oz

1505031-06 (Product)

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bioassay 96 Hour Screen	Fail		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**20**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	**1.0**		"	"	"	"	"	"	
Definitive Bioassay LC50	> 500		mg/L	1	B5L0544	19-Dec-15	19-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Non-Hazardous		"	"	"	"	"	"	

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310E Sun In Hair Lightener, Tropical Breeze, 4.7 fl oz
1505031-07 (Product)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Bioassay 96 Hour Screen	Fail		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**20**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	**20**		"	"	"	"	"	"	
Definitive Bioassay LC50	**283**		mg/L	1	B5L0544	19-Dec-15	19-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Hazardous		"	"	"	"	"	"	

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311E DAP Dynaflex 230 Window, Door & Trim Sealant, 10.1 fl oz

1505031-08 (Product)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Bioassay 96 Hour Screen	Fail		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**20**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	**3.0**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	**17**		"	"	"	"	"	"	
Definitive Bioassay LC50	**152**		mg/L	1	B5L0785	31-Dec-15	31-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Hazardous		"	"	"	"	"	"	

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312E Loctite Pro Line S40 Polyurethane Sealant, 10 fl oz

1505031-09 (Product)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Bioassay 96 Hour Screen	Pass	Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0	Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0	"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0	"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	0.0	"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0	"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0	"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	**1.0**	"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	**1.0**	"	"	"	"	"	"	

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313E babyganics alcohol-free foaming hand sanitizer, mandarin, 8.45 fl oz

1505031-10 (Product)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Bioassay 96 Hour Screen	Fail		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**20**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	**20**		"	"	"	"	"	"	
Definitive Bioassay LC50	**148**		mg/L	1	B5L0133	04-Dec-15	04-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Hazardous		"	"	"	"	"	"	

Oilfield Environmental and Compliance, INC.

Yolo County District Attorney	Project: Consumer Products Bioassay Testing	
301 2nd Street	Project Number: [none]	**Reported:**
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314E Mustela Dermo-Cleansing, 16.90 fl oz

1505031-11 (Product)

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bioassay 96 Hour Screen	Fail		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**20**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	**20**		"	"	"	"	"	"	
Definitive Bioassay LC50	**35.0**		mg/L	1	B5L0544	19-Dec-15	19-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Hazardous		"	"	"	"	"	"	

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315E Shea Moisture Raw Shea Chamomile & Argan Oil Baby Eczema Bar Soap, 5 oz

1505031-12 (Product)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Oilfield Environmental and Compliance

Microbiological Parameters by CA Dept. of Fish and Game

Bioassay 96 Hour Screen	Fail		Pass/Fail	1	B5L0056	02-Dec-15	02-Dec-15	Polisini & Miller (CDFG 1988)	LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 750ppm 24-Hr	**20**		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"	"	"	"	"	"	
Mortality Total of 20 @ 400ppm 24-Hr	**20**		"	"	"	"	"	"	
Definitive Bioassay LC50	**123**		mg/L	1	B5L0544	19-Dec-15	19-Dec-15	Polisini & Miller (CDFG 1988)	LC50
LC50	Hazardous		"	"	"	"	"	"	

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Microbiological Parameters by CA Dept. of Fish and Game - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5L0056 - Bio/Micro Prep										
Blank (B5L0056-BLK1)				Prepared & Analyzed: 02-Dec-15						
Bioassay 96 Hour Screen	Pass		Pass/Fail							LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish							
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"							
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"							
Mortality Total of 20 @ 750ppm 24-Hr	0.0		"							
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"							
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"							
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"							
Mortality Total of 20 @ 400ppm 24-Hr	0.0		"							
Blank (B5L0056-BLK2)				Prepared & Analyzed: 02-Dec-15						
Bioassay 96 Hour Screen	Pass		Pass/Fail							LC50
Mortality Total of 20 @ 750ppm 96-Hr	0.0		Fish							
Mortality Total of 20 @ 750ppm 72-Hr	0.0		"							
Mortality Total of 20 @ 750ppm 48-Hr	0.0		"							
Mortality Total of 20 @ 750ppm 24-Hr	0.0		"							
Mortality Total of 20 @ 400ppm 96-Hr	0.0		"							
Mortality Total of 20 @ 400ppm 72-Hr	0.0		"							
Mortality Total of 20 @ 400ppm 48-Hr	0.0		"							
Mortality Total of 20 @ 400ppm 24-Hr	0.0		"							
Batch B5L0133 - Bio/Micro Prep										
Blank (B5L0133-BLK1)				Prepared & Analyzed: 04-Dec-15						
Definitive Bioassay LC50	ND		mg/L							LC50
LC50	Non-Hazardous		"							

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Microbiological Parameters by CA Dept. of Fish and Game - Definitive - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5L0133 - Bio/Micro Prep										
Blank (B5L0133-BLK2)				Prepared & Analyzed: 04-Dec-15						
Definitive Bioassay LC50	ND		mg/L							LC50
LC50	Non-Hazardous		"							
Batch B5L0347 - Bio/Micro Prep										
Blank (B5L0347-BLK1)				Prepared & Analyzed: 12-Dec-15						
Definitive Bioassay LC50	ND		mg/L							LC50
LC50	Non-Hazardous		"							
Blank (B5L0347-BLK2)				Prepared & Analyzed: 12-Dec-15						
Definitive Bioassay LC50	ND		mg/L							LC50
LC50	Non-Hazardous		"							
Batch B5L0544 - Bio/Micro Prep										
Blank (B5L0544-BLK1)				Prepared & Analyzed: 19-Dec-15						
Definitive Bioassay LC50	ND		mg/L							LC50
LC50	Non-Hazardous		"							
Blank (B5L0544-BLK2)				Prepared & Analyzed: 19-Dec-15						
Definitive Bioassay LC50	ND		mg/L							LC50
LC50	Non-Hazardous		"							
Batch B5L0785 - Bio/Micro Prep										
Blank (B5L0785-BLK1)				Prepared & Analyzed: 31-Dec-15						
Definitive Bioassay LC50	ND		mg/L							LC50
LC50	Non-Hazardous		"							

Oilfield Environmental and Compliance, INC.

Yolo County District Attorney	Project: Consumer Products Bioassay Testing	
301 2nd Street	Project Number: [none]	**Reported:**
Woodland CA, 95695	Project Manager: Heidi D'Agostino	06-Jan-16 13:26

Microbiological Parameters by CA Dept. of Fish and Game - Definitive - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5L0785 - Bio/Micro Prep										
Blank (B5L0785-BLK2)				Prepared & Analyzed: 31-Dec-15						
Definitive Bioassay LC50	ND		mg/L							LC50
LC50	Non-Hazardous		"							

Notes and Definitions

Z-01b	ND
Z-01a	> 500
Z-01	< 20
Non-Haz	Non-Hazardous
LC50	State of CA limit for Non-Hazardous Designation: LC50 > 500 mg/L Pass Screen: <40% dead in 750 mg/L (LC50 > 750 mg/L) Fail Screen: >40% dead in 750mg/L (Definitive Recommended) Fail Screen [CA Haz]: >60% dead in 400mg/L (LC50 < 400mg/L)
Haz	Hazardous
_Pass	Pass
_Fail	Fail
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Bioassay Definitive Test

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

Batch #: BSL0347
Sample ID: ~~12/12/2015~~ 1505031
Analyst: EDD
Start Date: 12/12/2015
LC50 Result: >500 mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25	5.68	✓	0.00	0.00
LCS (90-110%)		2.11	✓	2.00	80.00
Control Initial		7.52	✓	1.10	44.00
Control Final		7.55	✓	1.10	44.00
750 ppm Initial		7.45	✓	1.10	44.00
750 ppm Final		8.40	✓	1.10	44.00

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: (Negative) / Positive
Hardness:
LCS ID: 4080404
LCS exp: 7/29/16
Spike Vol.: 2 mL
Alkalinity:
LCS ID: 5120178
LCS exp: 6/10/16
Spike Vol.: 25 mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	5.68	0.10	0.01	2.00
LCS (80-120%)		11.23		11.24	2248.00
Control Initial		7.52		1.02	204.00
Control Final		7.55		.97	194.00
750 ppm Initial		7.45		1.03	206.00
750 ppm Final		8.40		1.04	208.00

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:	
Length (mm)	Weight (g)
51.	.96
50.	.88
51.	.89
49.	.82
47.	.62
47. min	.61 min
49.	.85
51.	.88
49.	.81
53 max	1.00 max
Averages:	
50.0	.83

Reviewed and Date: [signature] 12/18/15

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: ~~SOLID / AQ~~ Product

BATCH # B5L0347

SAMPLE ID 1505031-01

Sample Received: 11/30/15

Start Bioassay: 12/12/2015

End Bioassay: 12/16/2015

Analyst: EDD

	Initial Readout			24-Hr.				48-Hr.				72-Hr.				96-Hr.					
Readouts:	12/12/15 edd 16:10			12/13/15 JMH 11:40				12/14/15 JMH 9:30				12/15/15 JMH 9:15				12/16/15 JMH 9:05					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.3	9.0	18.2	7.6	7.1	20.6	0	7.9	6.4	19.7	0	7.9	6.3	20.3	1	7.9	6.2	20.0	0	1	
750 ppm	7.4	9.5	18.7	7.6	6.1	20.9	0 + JMH 12/13/15	8.0	7.6	21.1	0	8.4	8.9	20.5	0	8.4	8.5	20.6	0	0	
750 ppm	7.4	9.5	18.7	7.6	6.8	20.5	0	8.0	7.7	20.8	0	8.5	8.9	20.1	0	8.4	8.5	20.3	0	0	
650 ppm	7.4	9.3	18.7	7.6	6.5	20.2	0	8.3	8.6	20.4	0	8.4	8.8	20.1	0	8.4	8.2	20.0	0	0	
650 ppm	7.4	9.2	18.6	7.6	7.0	20.1	0	8.3	8.6	20.5	0	8.5	9.0	19.9	0	8.5	8.6	19.6	0	0	
550 ppm	7.4	8.5	18.1	7.6	6.1	20.2	0	8.1	7.4	20.5	0	8.2	8.2	20.1	0	8.3	7.7	19.9	0	0	
550 ppm	7.4	8.9	18.0	7.6	6.9	20.4	0	8.2	8.1	20.6	0	8.3	8.7	20.3	0	8.3	8.4	19.9	0	0	
450 ppm	7.4	9.1	18.6	7.6	6.9	20.7	0	8.4	9.0	20.8	0	8.4	8.8	20.3	0	8.4	8.6	20.2	0	0	
450 ppm	7.4	9.2	18.7	7.6	6.7	20.4	0	8.4	9.0	20.7	0	8.4	8.8	20.0	0	8.5	8.5	20.1	0	0	
300 ppm	7.4	9.0	18.8	7.6	6.6	20.3	0	8.4	8.9	20.4	0	8.4	8.7	19.9	0	8.4	8.4	19.9	0	0	
300 ppm	7.4	9.0	18.7	7.6	6.5	20.1	0	8.2	8.6	20.4	0	8.5	8.9	19.8	0	8.5	8.5	19.4	0	0	
Air Control				7.6	6.5	20.5	0	8.2	8.0	20.4	0	8.4	8.6	19.8	0	8.4	8.5	19.5	0	0	*Start taking data the day air is added to sample tanks

LC50= 7500 mg/L

LC50 Method: Graphical | Probit | Spearman-Karber | Trimmed-SK

95% Confidence Interval:

Upper: NA mg/L

Lower: NA mg/L

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

Initial:

*Day 1	Hardness	Alkalinity
Control	44 mg/L	204 mg/L
750 ppm	44 mg/L	206 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	44 mg/L	194 mg/L
750 ppm	44 mg/L	208 mg/L

Fish ID:	5120084		
Fish Data:	Avg.	Min.	Max.
Length (mm)	50.	47.	53.
Weight (g)	.83	.61	1.00

Test Organism: *Pimephales promelas*

Source: Anderson Farms

Bioassay Definitive Test

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

Yolo

Batch #: B5L0133
Sample ID: 1505031-02
Analyst: EDD
Start Date: 12/4/2015
LC50 Result: < 20. mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25	7.27	✓	0.0	0
LCS (90-110%)		2.01	✓	~~1.0~~ 2.1	84
Control Initial		7.36	✓	1.0	40
Control Final		8.15	✓	1.0	40
500ppm Initial		7.72	✓	1.0	40
500ppm Final		7.91	✓	1.0	40

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: (Negative) / Positive	
Hardness:	
LCS ID: 4080404	
LCS exp: 7/29/2016	
Spike Vol.: 2.0	mL
Alkalinity:	
LCS ID: 5100733	
LCS exp: 4/30/2016	
Spike Vol.: 25.0	mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	7.27	.10 N	.01	2
LCS (80-120%)		11.01		11.12	2224
Control Initial		7.36		.87	174
Control Final		8.15		1.04	208
500ppm Initial		7.72		1.06	212
500ppm Final		7.91		1.11	222

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:	
Length (mm)	Weight (g)
49	0.64
50	0.72
52	0.90
54	0.99
43	0.43
53	0.97
46	0.56
54	0.83
54	0.94
54	1.04
Averages:	
50.9	0.80

Reviewed and Date: 12/9/15

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: ~~SOLID / AQ~~ Product

BATCH # 13SL0133

SAMPLE ID: 1505031-02

Sample Received: 11/30/15

Start Bioassay: 12/4/15

End Bioassay: 12/8/15

Analyst: EDD

Readouts:	Initial Readout 12/4 edd 16:45			24-Hr. 12/5 edd 13:30				48-Hr. 12/6 edd 14:00				72-Hr. JMH 12/7 9:30				96-Hr. TRM 12/8 8:40					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.4	7.3	18.0	~~8.0~~ 7.9	~~5.3~~ 6.7	~~20.2~~ 19.0	0	edd 12/5 8.0	6.3	18.0	0	7.9	5.6	19.7	0	8.0	6.2	20.0	0	0	
500 ppm	7.5	9.1	18.0	7.8	8.7	19.8	10													10	
500 ppm	7.5	9.0	18.2	7.8	8.0	19.8	10													10	
200 ppm	7.5	9.2	17.5	7.9	8.8	20.2	10													10	
200 ppm	7.4	9.3	17.9	7.9	8.5	20.1	10													10	
100 ppm	7.5	9.2	18.0	7.9	8.5	20.3	10													10	
100 ppm	7.5	9.3	18.1	7.8	8.9	20.1	10													10	
50 ppm	7.5	8.7	18.1	7.8	8.0	20.4	10													10	
50 ppm	7.5	9.0	18.0	7.9	8.1	20.3	10													10	
20 ppm	7.4	9.0	18.0	7.8	7.8	20.4	10													10	
20 ppm	7.4	9.1	18.2	7.8	8.1	20.4	10													10	
Air Control				~~8.5~~ 7.9	~~7.4~~ 7.0	19.0	0	8.0	6.4	18.2	0	8.4	8.1	19.9	0	8.4	8.8	20.2	0	0	*Start taking data the day air is added to sample tanks

edd 12/5

LC50= < 20 mg/L

LC50 Method: Binomial / Moving Ave./ Probit

95% Confidence Interval:

Upper: NA mg/L

Lower: NA mg/L

Initial:

*Day 1	Hardness	Alkalinity
Control	40 mg/L	174 mg/L
500 ppm	40 mg/L	212 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	46 mg/L	208 mg/L
500 ppm	40 mg/L	222 mg/L

Test Organism: *Pimephales promelas*

Source: Anderson Farms

Fish ID: 5120084

Fish Data:	Avg.	Min.	Max.
Length (mm)	50.9	43	54
Weight (g)	0.80	0.43	1.04

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Sample Extraction: Mechanical Shaker/ DI Water

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

Bioassay Definitive Test

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

Batch #: BSL0347
Sample ID: 1505031-03
Analyst: EDD
Start Date: 12/12/15
LC50 Result: 688.68 mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25.00	5.68	✓	0.00	0.00
LCS (90-110%)		2.11	✓	2.00	80.00
Control Initial		7.52	✓	1.10	44.00
Control Final		7.55	✓	1.10	44.00
750ppm Initial		7.48	✓	1.10	44.00
750ppm Final		7.92	✓	1.10	44.00

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: Negative / Positive	
Hardness:	
LCS ID:	4080404
LCS exp:	7/29/16
Spike Vol.:	2 mL
Alkalinity:	
LCS ID:	S120178
LCS exp:	6/10/16
Spike Vol.:	25 mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	5.68	0.10	0.01	2.00
LCS (80-120%)		11.23		11.24	2248.00
Control Initial		7.52		1.02	204.00
Control Final		7.55		.97	194.00
750ppm Initial		7.48		1.02	204.00
750ppm Final		7.92		1.28	256.00

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:	
Length (mm)	Weight (g)
51.	.96
50.	.88
51.	.89
49.	.82
47.	.62
47. min	.61 min
49.	.85
51.	.88
49.	.81
53. max	1.00 max
Averages:	
50.0	.83

Reviewed and Date: 12/18/15

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: ~~SOLID / AQ~~ Product

BATCH # B5L0347

SAMPLE ID 1505031-03

Sample Received: 11/30/15

Start Bioassay: 12/12/2015

End Bioassay: 12/16/2015

Analyst: EDD

	Initial Readout			24-Hr.				48-Hr.				72-Hr.				96-Hr.					
Readouts:	12/12/15 edd 16:10			12/13/15 JMH 11:50				12/14/15 JMH 9:40				12/15/15 JMH 9:20				12/16/15 JMH 9:15					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.3	9.0	18.2	7.6	7.1	20.6	0	7.9	6.4	19.7	0	7.9	6.3	20.3	1	17.9	6.2	20.0	0	1	
750 ppm	7.9	9.3	18.3	8.0	8.3	20.2	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
750 ppm	7.9	9.2	18.3	8.0	8.4	20.3	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
650 ppm	7.9	9.0	18.7	8.0	7.8	20.4	~~8~~ 0 JMH	8.4	9.0	20.4	0	8.5	9.1	20.3	0	8.4	8.4	20.1	0	0	All fish laying on bottom but still alive
650 ppm	7.9	9.3	18.0	8.0	8.0	20.3	~~7~~ 2 JMH	8.3	~~9~~ 8.6 JMH 12/4	20.6	0	8.3	8.5	20.2	0	8.1	4.9	19.9	0	2	
550 ppm	7.8	9.4	18.0	7.9	7.2	20.2	0	8.2	8.7	20.3	0	8.5	9.1	19.8	0	8.5	8.6	19.5	0	0	
550 ppm	7.8	9.3	18.1	8.0	8.1	20.1	1	8.2	8.5	20.3	0	8.5	9.2	19.8	0	8.5	8.5	19.5	0	0	
450 ppm	7.8	9.3	18.1	7.9	7.2	20.3	0	8.4	9.0	20.3	0	8.3	8.7	20.2	0	8.4	8.5	19.8	0	0	
450 ppm	7.8	9.0	18.2	7.9	7.1	20.3	0	8.4	8.9	20.4	0	8.4	8.7	20.0	0	8.4	8.1	19.8	0	0	
300 ppm	7.7	9.1	18.1	7.8	7.1	20.2	0	8.4	9.0	20.4	0	8.4	8.9	19.7	0	8.5	8.6	19.5	0	0	
300 ppm	7.7	8.9	18.1	7.8	7.0	20.1	0	8.3	9.0	20.4	0	8.4	9.1	19.7	0	8.5	8.5	19.4	0	0	
550%				7.6	6.5	20.5	0	8.2	8.0	20.4	0	8.4	8.6	19.8	0	8.4	8.5	19.5	0	0	*Start taking data the day air is added to sample tanks

95% Confidence Interval:

Upper: 702.39 mg/L

Lower: 675.24 mg/L

LC50= 688.68 mg/L

LC50 Method: Graphical | Probit | Spearman-Karber | Trimmed-SK

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

Initial:

*Day 1	Hardness	Alkalinity
Control	44 mg/L	204 mg/L
750 ppm	44 mg/L	204 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	44 mg/L	194 mg/L
750 ppm	44 mg/L	256 mg/L

Fish ID: 5120084

Fish Data:	Avg.	Min.	Max.
Length (mm)	50.	47.	53.
Weight (g)	.83	.61	1.00

Test Organism: *Pimephales promelas*

Source: Anderson Farms

Bioassay Definitive Test

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

4

Batch #: B5L0544
Sample ID: ~~12/19/2015~~ 1505031-04
Analyst: EDP
Start Date: 12/19/2015
LC50 Result: 75.00 mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25	5.79	✓	0	0
LCS (90-110%)	|	2.16	✓	2.0	80
Control Initial	|	7.50	✓	1.1	44
Control Final	|	7.88	✓	1.1	44
400 ppm Initial	|	7.45	✓	1.1	44
400 ppm Final	|	7.18	✓	1.1	44

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: Negative / Positive	
Hardness:	
LCS ID: 4080404	
LCS exp: 7/29/16	
Spike Vol.: 2.0	mL
Alkalinity:	
LCS ID: 5120178	
LCS exp: 6/10/16	
Spike Vol.: 25	mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	5.79	0.10	0.01	2
LCS (80-120%)	|	11.20	|	11.36	2272
Control Initial	|	7.50	|	0.90	180
Control Final	|	7.88	|	0.86	172
400 ppm Initial	|	7.45	|	0.81	162
400 ppm Final	|	7.18	|	0.83	166

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:	
Length (mm)	Weight (g)
47. min	.71 min
48.	.80
52.	.88
52. max	1.00 max
48.	.81
51.	.96
50.	.85
52.	.99
52.	.91
50.	.87
Averages:	
50.	.88

Reviewed and Date: 12/30/15

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: SOLID / AQ

BATCH # B5L0544

SAMPLE ID 1505031-04

Sample Received:

Start Bioassay: 12/19/2015

End Bioassay: 12/23/2015

Analyst: EDD

	Initial Readout			24-Hr.				48-Hr.				72-Hr.				96-Hr.					
Readouts:	12/19/15 edd 19:00			12/20/15 JMH 10:35				12/21/15 JMH 9:35				12/22/15 JMH 9:25				12/23/15 JMH 9:45					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.4	9.4	18.0	7.7	6.0	18.8	0	7.6	5.1	19.6	0	7.7	4.9	20.6	0	7.7	4.7	20.0	0	0	
400 ppm	7.4	9.0	18.1	7.5	8.9	19.6	10	—	—	—	—	—	—	—	—	—	—	—	JMH ~~10~~ 12/23	10	
400 ppm	7.4	9.1	18.3	7.6	9.1	20.3	10	—	—	—	—	—	—	—	—	—	—	—	~~10~~	10	
200 ppm	7.4	9.1	18.3	7.6	8.7	20.4	10	—	—	—	—	—	—	—	—	—	—	—	JMH 12/23 ~~10~~	10	
200 ppm	7.4	9.0	18.3	7.6	8.6	20.3	10	—	—	—	—	—	—	—	—	—	—	—	~~10~~	10	
100 ppm	7.4	9.3	18.4	7.5	8.9	20.2	10	—	—	—	—	—	—	—	—	—	—	—	JMH 12/23 ~~10~~	10	
100 ppm	7.4	8.9	18.3	7.5	7.2	20.2	10	—	—	—	—	—	—	—	—	—	—	—	JMH 12/23 ~~10~~	10	
50 ppm	7.4	8.9	18.0	7.5	7.2	20.3	0	8.1	8.1	20.9	0	8.2	8.0	21.5	0	8.2	8.4	21.4	0	0	
50 ppm	7.4	9.1	17.9	7.5	7.3	20.6	0	7.8	5.2	21.5	0	8.1	7.0	21.9	0	7.8	5.0	21.6	0	0	
20 ppm	~~9.4~~ 7.4	8.1	18.1	7.6	6.9	19.6	0	8.3	8.7	20.5	0	8.5	8.5	21.2	0	8.4	8.6	21.0	0	0	
20 ppm	~~9.4~~ 7.4	8.3	18.8	7.6	6.7	19.1	0	8.2	8.1	20.2	0	8.4	8.1	20.9	0	8.4	8.3	20.6	0	0	
Air Control				7.7	6.3	18.7	0	8.2	8.4	19.4	0	8.3	8.3	20.4	0	8.3	8.6	19.8	0	0	*Start taking data the day air is added to sample tanks

LC50= 75.00 mg/L

LC50 Method: Graphical | Probit | Spearman-Karber | Trimmed-SK

95% Confidence Interval:

Upper: NA mg/L

Lower: NA mg/L

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

Initial:

*Day 1	Hardness	Alkalinity
Control	44 mg/L	180 mg/L
400 ppm	44 mg/L	162 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	44 mg/L	172 mg/L
400 ppm	44 mg/L	166 mg/L

Fish ID: 5120234

Fish Data:	Avg.	Min.	Max.
Length (mm)	50.	47.	52.
Weight (g)	.88	.71	1.00

Test Organism: *Pimephales promelas*

Source: Anderson Farms

Bioassay Definitive Test

6

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

Batch #: BSL0544
Sample ID: 1505031-06
Analyst: EDD
Start Date: 12/19/2015
LC50 Result: 7500 mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25	5.79	✓	0	0
LCS (90-110%)	|	2.16	✓	2.0	80
Control Initial	|	7.50	✓	1.1	44
Control Final	|	7.88	✓	~~1.0~~ 1.1 JMR 12/29	44
750 ppm Initial	|	7.62	✓	1.1	44
750 ppm Final	|	8.35	✓	1.0	40

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: Negative / Positive	
Hardness:	
LCS ID:	4080404
LCS exp:	7/29/16
Spike Vol.:	2.0 mL
Alkalinity:	
LCS ID:	5120178
LCS exp:	6/10/16
Spike Vol.:	25 mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	5.79	0.10	0.01	2
LCS (80-120%)	|	11.20	|	11.36	2272
Control Initial	|	7.50	|	0.90	180
Control Final	|	7.88	|	0.86	172
750ppm Initial	|	7.62	|	2.22	444
750ppm Final	|	8.35	|	2.41	482

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:	
Length (mm)	Weight (g)
47. min	.71 min
48.	.80
52.	.88
52. max	1.00 max
48.	.81
51.	.96
50.	.85
52.	.99
52.	.91
50.	.87
Averages:	
50.	.88

Reviewed and Date: 12/30/15

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: ~~SOLID / AQ~~ Product

BATCH # B5L0544

SAMPLE ID 1505031-06

Sample Received:

Start Bioassay: 12/19/2015

End Bioassay: 12/23/2015

Analyst: EDD

Readouts:	Initial Readout 12/19/15 EDD 19:00			24-Hr. 12/20/15 JMH 10:45				48-Hr. 12/21/15 JMH 9:40				72-Hr. 12/22/15 JMH 9:35				96-Hr. 12/23/15 JMH 9:55					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.4	9.4	18.0	7.7	6.0	18.8	0	7.6	5.1	19.6	0	7.7	4.9	20.6	0	7.7	4.7	20.0	0	0	
750 ppm	7.1	9.7	17.8	7.8	7.2	18.5	0	8.4	8.1	19.3	0	7.7	6.8	20.4	0	8.5	7.9	20.0	0	0	~~13~~ 12mL NaOH added
750 ppm	7.2	9.6	17.8	7.4	7.2	18.2	0	8.4	8.6	19.2	0	7.8	6.8	20.3	0	8.3	6.9	19.6	0	0	10N ⊥
650 ppm	7.2	9.6	18.0	7.5	6.1	18.2	0	8.1	6.4	19.4	0	8.2	7.2	20.3	0	8.3	7.1	19.7	0	0	11 mL NaOH
650 ppm	7.2	9.5	18.0	7.4	6.6	18.8	0	8.1	7.2	19.6	0	7.9	5.6	20.5	0	8.4	8.1	19.8	0	0	10N ⊥
600 ppm	7.4	9.3	18.0	7.6	6.9	19.1	0	8.4	8.9	19.8	0	8.3	7.8	20.7	0	8.4	8.4	20.0	0	0	10mL NaOH
600 ppm	7.5	9.1	18.2	7.7	6.5	18.9	0	7.8	5.2	19.9	0	8.2	7.0	20.8	0	8.3	7.4	20.2	0	0	10N ⊥
550 ppm	7.6	9.0	18.1	7.8	6.8	18.7	0	8.4	8.8	19.6	0	8.3	7.5	20.7	0	8.4	8.5	20.0	0	0	9mL NaOH
550 ppm	7.3	9.6	17.5	7.5	7.2	18.7	0	8.4	8.9	19.6	0	8.2	7.1	20.6	0	8.4	8.2	19.9	0	0	10N ⊥
400 ppm	7.1	9.6	17.6	7.3	6.3	18.9	0	8.3	8.9	19.7	0	8.2	7.1	20.6	0	8.4	8.2	19.9	0	0	7mL NaOH
400 ppm	7.3	9.3	17.8	7.5	6.7	19.2	0	8.3	9.1	20.0	0	7.9	6.7	20.5	0	8.4	8.1	20.0	0	0	10N ⊥
Air Control				7.7	6.3	18.7	0	8.2	8.4	19.4	0	8.3	8.3	20.4	0	8.3	8.6	19.8	0	0	*Start taking data the day air is added to sample tanks

LC50= >500 mg/L

LC50 Method: Graphical | Probit | Spearman-Karber | Trimmed-SK

95% Confidence Interval:

Upper: NA mg/L

Lower: NA mg/L

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

Initial:

*Day 1	Hardness	Alkalinity
Control	44 mg/L	180 mg/L
750 ppm	44 mg/L	444 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	44 mg/L	172 mg/L
750 ppm	40 mg/L	482 mg/L

Fish ID:	5120234		
Fish Data:	Avg.	Min.	Max.
Length (mm)	50.	47.	52.
Weight (g)	.88	.71	1.00

Test Organism: *Pimephales promelas*

Source: Anderson Farms

The original screen test had an extreme drop in pH. The definitive had that pH drop neutralized which caused it to pass. Screen should have had pH neutralized.

Bioassay Definitive Test

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

7

Batch #: BSL0544
Sample ID: 1505031-07
Analyst: EDD
Start Date: 12/19/15
LC50 Result: 282.84 mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25	5.79	✓	0	0
LCS (90-110%)		2.16	✓	2.0	80
Control Initial		7.50	✓	1.1	44
Control Final		7.88	✓	1.1	44
400 ppm Initial		7.50	✓	1.1	44
400 ppm Final		7.44	✓	1.0	40

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: Negative / Positive	
Hardness:	
LCS ID:	4080404
LCS exp:	7/29/16
Spike Vol.:	2.0 mL
Alkalinity:	
LCS ID :	5120178
LCS exp:	6/10/16
Spike Vol.:	25 mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	5.79	0.10	0.01	2
LCS (80-120%)		11.20		11.36	2272
Control Initial		7.50		0.90	180
Control Final		7.88		0.86	172
400 ppm Initial		7.50		0.80	160
400 ppm Final		7.44		0.95	190

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:

Length (mm)	Weight (g)
47. min	.71 min
48.	.80
52.	.88
52. max	1.00 max
48.	.81
51.	.96
50.	.85
52.	.99
52.	.91
50.	.87
Averages:	
50.	.88

Reviewed and Date: [signature] 12/30/15

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: SOLID / AQ Product

BATCH # B5L0544

SAMPLE ID 1505031-07

Sample Received:

Start Bioassay: 12/19/2015

End Bioassay: 12/23/2015

Analyst: EDD

Readouts:	Initial Readout 12/19/15 EDJ 19:00			24-Hr. 12/20/15 JMH 9:30				48-Hr. 12/21/15 JMH 8:50				72-Hr. 12/22/15 JMH 8:30				96-Hr. 12/23/15 JMH 8:45					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.4	9.4	18.0	7.7	6.0	18.8	0 ~~10~~ JMH	7.6	5.1	19.6	0	7.7	4.9	20.6	0	7.7	4.7	20.0	0	0	
400 ppm	7.3	9.3	17.6	7.7	9.1	20.9	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
400 ppm	7.3	9.4	17.8	7.7	9.1	20.7	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
200 ppm	7.3	9.0	17.6	7.7	8.5	20.6	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
200 ppm	7.3	9.1	17.8	7.7	8.4	20.6	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
100 ppm	7.3	9.6	17.5	7.7	7.1	20.6	0	8.3	9.1	20.6	1	8.3	8.7	21.2	0	8.3	8.6	20.8	0	1	
100 ppm	7.4	9.0	17.9	7.6	6.8	20.8	0	8.3	9.2	21.1	0	8.3	8.8	21.2	0	8.3	8.7	21.0	0	0	
50 ppm	7.3	9.1	17.9	7.6	6.7	21.0	0	8.2	9.0	21.3	0	8.3	8.7	21.5	0	8.3	8.7	21.1	0	0	
50 ppm	7.3	9.6	17.7	7.6	6.5	21.0	0	8.3	8.9	21.1	0	8.3	8.6	21.4	0	8.4	8.7	21.0	0	0	
20 ppm	7.3	9.4	17.7	7.6	6.0	20.9	0	8.1	8.1	20.9	0	8.2	8.0	21.4	0	8.3	8.2	20.9	0	0	
20 ppm	7.3	9.5	18.0	7.6	6.2	20.7	0	8.3	8.8	20.8	0	8.3	8.4	21.2	0	8.3	8.4	20.8	0	0	
Air Control				7.7	6.3	18.7	0	8.2	8.4	19.4	0	8.3	8.3	20.4	0	8.3	8.6	19.8	0	0	*Start taking data the day air is added to sample tanks

LC50= 282.84 mg/L

LC50 Method: Graphical | Probit | Spearman-Karber | Trimmed-SK

95% Confidence Interval:

Upper: NA mg/L

Lower: NA mg/L

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

Initial:

*Day 1	Hardness	Alkalinity
Control	44 mg/L	180 mg/L
400 ppm	44 mg/L	160 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	44 mg/L	172 mg/L
400 ppm	40 mg/L	190 mg/L

Test Organism: *Pimephales promelas*

Source: Anderson Farms

Fish ID: 5120234

Fish Data:	Avg.	Min.	Max.
Length (mm)	50.	47.	52.
Weight (g)	.88	.71	1.00

Bioassay Definitive Test

Yold

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

Batch #: B5L0785
Sample ID: 1505031-08
Analyst: EDD
Start Date: 12/31/2015
LC50 Result: 151.88 mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25	5.64	✓	0	0
LCS (90-110%)		2.00	✓	2.0	80
Control Initial		7.45	✓	1.0	40
Control Final		7.96	✓	1.0	40
500 ppm Initial		8.11	✓	1.3	52
500 ppm Final		8.13	✓	1.4	56

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: (Negative) / Positive	
Hardness:	
LCS ID:	4080404
LCS exp:	7/29/16
Spike Vol.:	2.0 mL
Alkalinity:	
LCS ID :	5120178
LCS exp:	6/10/16
Spike Vol.:	25 mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	5.64	0.10	0.01	2
LCS (80-120%)		11.15		11.62	2324
Control Initial		7.45		0.64	128
Control Final		7.96		0.64	128
500 ppm Initial		8.11		~~0.~~ 1.06	212
500 ppm Final		8.13		1.06	212

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:	
Length (mm)	Weight (g)
50.	0.83
50.	0.84
49.	0.74
48. min	0.65 min
50.	0.77
52.	0.87
49.	0.71
53. max	0.91 max
51.	0.80
50.	0.82
Averages:	
50.	0.79

Reviewed and Date: 1/6/2016

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: SOLID / AQ / PRODUCT

BATCH # B5L0785

SAMPLE ID: 1505031-08

Sample Received: 11/30/2015

Start Bioassay: 12/31/2015

End Bioassay: 01/04/2016

Analyst: EDD

Readouts:	Initial Readout 12/31 edd 14:25			24-Hr. 01/01 edd 11:30				48-Hr. 02/02 edd 10:30				72-Hr. 01/03 JMH 14:10				96-Hr. 01/04 JMH 8:50					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.4	8.1	16.7	7.5	6.4	19.8	0	7.6	6.2	20.0	0	7.9	6.0	20.3	0	7.7	6.2	20.3	0	0	
500 ppm	8.2	8.8	16.2	8.1	8.1	20.5	10													10	
500 ppm	8.1	8.2	16.1	8.1	8.0	20.5	10													10	
400 ppm	8.1	8.4	16.1	8.0	8.0	20.5	10													10	
400 ppm	8.1	8.7	16.2	8.0	8.1	20.5	10													10	
250 ppm	8.1	8.9	16.3	8.0	7.9	20.5	4	8.0	7.5	20.6	6									10	
250 ppm	8.1	9.1	16.6	8.0	7.9	20.6	6	7.9	7.2	20.7	4									10	
100 ppm	7.9	8.4	16.3	7.9	7.5	20.6	1	8.0	8.1	20.8	0	8.3	8.2	20.6	0	8.2	8.8	20.4	0	1	
100 ppm	7.9	8.4	16.2	7.9	7.3	20.6	0	8.0	7.9	20.8	0	8.4	8.2	20.7	0	8.3	8.9	20.5	0	0	
50 ppm	7.8	8.7	16.2	7.9	7.3	20.5	0	8.1	8.4	20.9	0	8.4	8.1	20.7	0	8.3	8.9	20.6	0	0	
50 ppm	7.8	8.7	16.3	7.8	7.0	20.4	0	8.1	8.1	20.9	0	8.3	7.9	20.8	0	8.3	8.7	20.6	0	0	
Air Control				7.5	6.9	20.0	0	8.3	8.6	20.0	0	8.4	8.4	20.2	0	8.3	8.9	20.3	0	0	*Start taking data the day air is added to sample tanks

LC50= 151.88 mg/L

LC50 Method: Graphical | Probit | Spearman-Karber | Trimmed-SK

95% Confidence Interval:

Upper: 164.27 mg/L

Lower: 140.42 mg/L

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

Initial:

*Day 1	Hardness	Alkalinity
Control	40 mg/L	128 mg/L
500 ppm	52 mg/L	212 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	40 mg/L	128 mg/L
500 ppm	56 mg/L	212 mg/L

Test Organism: *Pimephales promelas*

Source: Anderson Farms

Fish ID: 5120234

Fish Data:	Avg.	Min.	Max.
Length (mm)			
Weight (g)			

	Average	Minimum	Maximum
Length (mm)	50.	48.	53.
Weight (g)	.79	.65	.91

Bioassay Definitive Test

Y010

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

Batch #: B5L0133
Sample ID: 1505031-10
Analyst: EDD
Start Date: 12/4/2015
LC50 Result: 147.64 mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25	7.27	✓	0.0	0
LCS (90-110%)		2.01	✓	2.1	84
Control Initial		7.36	✓	1.0	40
Control Final		8.15	✓	1.0	40
500ppm Initial		7.64	✓	1.0	40
500ppm Final		8.45	✓	1.0	40

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: (Negative) / Positive	
Hardness:	
LCS ID: 4080404	
LCS exp: 7/29/2016	
Spike Vol.: 2.0	mL
Alkalinity:	
LCS ID: 5100733	
LCS exp: 4/30/2016	
Spike Vol.: 25.0	mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	7.27	.10 N	.01	2
LCS (80-120%)		11.01		11.12	2224
Control Initial		7.36		.87	174
Control Final		8.15		1.04	208
500ppm Initial		7.64		1.02	204
500ppm Final		8.45		1.10	220

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:

Length (mm)	Weight (g)
49	0.64
50	0.72
52	0.90
54	0.99
43	0.43
53	0.97
46	0.56
54	0.83
54	0.94
54	1.04
Averages:	
50.9	0.80

Reviewed and Date: 12/8/15

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: ~~SOLID / AQ~~ Product

BATCH # BSL0133

SAMPLE ID: 1506031-10

Sample Received: 11/30/15

Start Bioassay: 12/4/15

End Bioassay: 12/8/15

Analyst: EDD

Readouts:	Initial Readout 12/4 edd 16:45			24-Hr. 12/5 edd 13:30				48-Hr. 12/6 edd 14:00				72-Hr. 12/7 JMH 9:45				96-Hr. 12/8 TRM 8:40					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.4	7.3	18.0	7.9	6.7	19.0	0	8.0	6.3	18.0	0	7.9	5.6	19.7	0	8.0	6.2	20.0	0	0	
500 ppm	7.4	9.3	18.1	7.9	8.4	19.2	10													10	
500 ppm	7.4	9.2	18.0	7.8	8.3	19.3	10													10	
200 ppm	7.4	9.3	18.1	7.9	6.9	19.2	1	7.9	7.6	18.4	5	8.3	8.0	19.6	0	8.3	8.3	19.8	2	8	
200 ppm	7.4	9.5	18.0	8.0	6.6	19.2	4	7.9	7.9	18.4	~~10~~ 6									10	
100 ppm	7.4	9.3	18.1	7.8	6.5	19.4	0	7.9	8.1	18.3	0	8.5	8.5	19.7	0	8.5	8.8	20.8	0	0	
100 ppm	7.5	9.2	18.0	7.9	6.6	19.5	0	7.9	8.2	18.3	1	8.0	5.2	20.0	0	8.5	8.8	20.4	0	1	
50 ppm	7.4	9.0	18.0	7.8	6.0	19.5	0	7.9	6.9	18.3	0	8.4	8.4	19.9	0	8.5	8.9	20.1	0	0	
50 ppm	7.4	9.0	18.1	7.9	5.9	19.6	0	7.8	6.8	18.4	0	8.4	8.3	19.9	0	8.5	9.0	20.1	0	0	
20 ppm	7.5	8.5	18.0	7.9	6.3	19.5	0	7.9	6.8	18.3	0	8.5	8.5	19.9	0	8.5	9.0	20.1	0	0	
20 ppm	7.5	8.4	18.0	7.9	7.0	19.6	0	7.9	7.0	18.3	0	8.4	8.5	20.0	0	8.4	8.9	20.2	0	0	
Air Control				7.9	7.0	19.0	0	8.0	6.9	18.2	0	8.4	8.1	19.9	0	8.4	8.8	20.2	0	0	*Start taking data the day air is added to sample tanks

LC50= 147.64 mg/L

LC50 Method: Binomial / Moving Ave./ Probit

95% Confidence Interval:

Upper: 170.827 mg/L

Lower: 126.127 mg/L

Initial:

*Day 1	Hardness	Alkalinity
Control	40 mg/L	174 mg/L
500 ppm	40 mg/L	204 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	40 mg/L	208 mg/L
500 ppm	40 mg/L	220 mg/L

Test Organism: *Pimephales promelas*

Source: Anderson Farms

Fish ID: 5120084

Fish Data:	Avg.	Min.	Max.
Length (mm)	50.9	43	54
Weight (g)	0.80	0.43	1.04

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Sample Extraction: Mechanical Shaker/ DI Water

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

Bioassay Definitive Test

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

11

Batch #: BSL0544
Sample ID: 150S031-11
Analyst: EPD
Start Date: 12/19/15
LC50 Result: 35.00 mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25	5.79	✓	0	0
LCS (90-110%)		2.16	✓	2.0	80
Control Initial		7.50	✓	1.1	44
Control Final		7.88	✓	1.1	44
400ppm Initial		7.51	✓	1.1	44
400ppm Final		7.44	✓	1.0	40

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: Negative / Positive	
Hardness:	
LCS ID:	4080404
LCS exp:	7/29/16
Spike Vol.:	2.0 mL
Alkalinity:	
LCS ID :	5120178
LCS exp:	6/10/16
Spike Vol.:	25 mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	5.79	0.10	0.01	2
LCS (80-120%)		11.20		11.36	2272
Control Initial		7.50		0.90	180
Control Final		7.88		0.86	172
400ppm Initial		7.51		0.87	174
400ppm Final		7.44		0.86	172

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:

Length (mm)	Weight (g)
47. min	.71 min
48.	.80
52.	.88
52. max	1.00 max
48.	.81
51.	.96
50.	.85
52.	.99
52.	.91
50.	.87
Averages:	
50.	.88

Reviewed and Date: 12/30/15

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: ~~SOLID / AQ~~ Product

BATCH # B5L0544

SAMPLE ID 1505031-11

Sample Received:

Start Bioassay: 12/19/2015

End Bioassay: 12/23/2015

Analyst: EDD

	Initial Readout			24-Hr.				48-Hr.				72-Hr.				96-Hr.					
Readouts:	12/19/15 edd 19:00			12/20/15 JMH 9:45				12/21/15 JMH 9:00				12/22/15 JMH 8:40				12/23/15 JMH 9:00					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.4	9.4	18.0	7.7	6.0	18.8	0	7.6	5.1	19.6	0	7.7	4.9	20.6	0	7.7	4.7	20.0	0	0	
400 ppm	7.4	9.5	17.8	7.5	8.7	20.4	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
400 ppm	7.4	9.0	18.1	7.5	8.9	20.4	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
200 ppm	7.4	8.9	18.0	7.6	8.7	19.7	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
200 ppm	7.4	8.6	17.9	7.6	8.5	19.2	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
100 ppm	7.4	9.1	17.8	7.6	8.0	19.1	10	—	—	—	JMH ~~10~~ 12/21	—	—	—	—	—	—	—	—	110	
100 ppm	7.4	8.1	18.0	7.6	8.2	19.0	10	—	—	—	JMH ~~10~~ 12/21	—	—	—	—	—	—	—	—	10	
50 ppm	7.4	8.6	18.0	7.6	7.1	19.2	1	8.0	7.3	19.7	8	7.8	5.0	20.8	1	—	—	—	—	10	
50 ppm	7.4	8.9	18.1	7.6	7.2	19.4	0	8.1	7.8	20.1	9	7.9	6.4	21.0	1	—	—	—	—	10	
20 ppm	7.4	9.0	18.0	7.5	5.9	19.7	0	8.2	8.6	20.3	0	8.3	8.5	20.9	0	8.3	8.3	20.5	0	0	
20 ppm	7.4	9.1	17.9	7.6	6.6	19.6	0	8.2	8.5	20.2	0	8.3	8.4	20.8	0	8.4	8.3	20.3	0	0	
Air Control				7.7	6.3	18.7	0	8.2	8.4	19.4	0	8.3	8.3	20.4	0	8.3	8.6	19.8	0	0	*Start taking data the day air is added to sample tanks

LC50= 35.00 mg/L

LC50 Method: Graphical | Probit | Spearman-Karber | Trimmed-SK

95% Confidence Interval:

Upper: NA mg/L

Lower: NA mg/L

Initial:

*Day 1	Hardness	Alkalinity
Control	44 mg/L	180 mg/L
400 ppm	44 mg/L	174 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	44 mg/L	172 mg/L
400 ppm	40 mg/L	172 mg/L

Test Organism: *Pimephales promelas*

Source: Anderson Farms

Fish ID: 5120234

Fish Data:	Avg.	Min.	Max.
Length (mm)	50.	47.	52.
Weight (g)	.88	.71	1.00

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

Bioassay Definitive Test

12

OEC-Oilfield Environmental & Compliance, Inc.
Polisini and Miller. CA Fish & Game Lab. 1988

Yolo

Batch #: BSL0544
Sample ID: 1505031-12
Analyst: EDD
Start Date: 12/19/2015
LC50 Result: 123.11 mg/L

Hardness: EDTA Titrimetric Method
S.M. 2340 C (20th ed.)
End point: Eriochrome Black indicator solution from pink to blue

	Sample Vol. (ml)	Initial pH	pH (10.0-10.01)	EDTA Vol. (ml)	$CaCO_3$ mg/L
Method Blank	25	5.79	✓	0	0
LCS (90-110%)		2.16	✓	2.0	80
Control Initial		7.50	✓	1.1	44
Control Final		7.88	✓	1.1	44
400ppm Initial		7.50	✓	1.1	44
400ppm Final		7.45	✓	.7	28

Calculate as follows: Hardness as CaCO3 mg/L = (mL 0.01m EDTA used)(CaCO3 equivalent to 1mL EDTA) (1,000) / mL sample

Chlorine: Negative / Positive	
Hardness:	
LCS ID:	4080404
LCS exp:	7/29/16
Spike Vol.:	2.0 mL
Alkalinity:	
LCS ID :	S120178
LCS exp:	6/10/16
Spike Vol.:	2.5 mL

Total Alkalinity as Calcium Carbonate
S.M. 2320 B. (20th ed.)
End point pH = 4.5

	Sample Vol. (ml)	Initial pH	Normality Stand.	Titrant Vol. to pH 4.5	$CaCO_3$ mg/L
Method Blank	25	5.79	0.10	0.01	2
LCS (80-120%)		11.20		11.36	2272
Control Initial		7.50		0.90	180
Control Final		7.88		0.86	172
400ppm Initial		7.50		0.92	184
400ppm Final		7.45		1.03	206

Calculate as follows: Alkalinity as CaCO3 mg/L = (mL standard acid used)(normality standard acid)(50,000) / mL sample

Fish Averages:	
Length (mm)	Weight (g)
47. min	.71 min
48.	.80
52.	.88
52. max	1.00 max
48.	.81
51.	.96
50.	.85
52.	.99
52.	.91
50.	.87
Averages:	
50.	.88

Reviewed and Date: 12/30/15

Definitive Haz. Toxicity

OEC-Oilfield Environmental & Compliance

Hazardous Material Bioassay (Static)

Polisini and Miller. 1988

Sample Description: ~~SOLID / AQ~~ Product

BATCH # B5L0544

SAMPLE ID 1505031-12

Sample Received:

Start Bioassay: 12/19/2015

End Bioassay: 12/23/2015

Analyst: EDD

Readouts:	Initial Readout 12/19/15 edd 15:00			24-Hr. 12/20/15 JMH 10:00				48-Hr. 12/21/15 JMH 9:05				72-Hr. 12/22/15 JMH 8:50				96-Hr. 12/23/15 JMH 9:05					
	pH	DO	Temp.	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	pH	DO	Temp.	#M	Total M	Comments
Control	7.4	9.4	18.0	7.7	6.0	18.8	0	7.6	5.1	19.6	0	7.7	4.9	20.6	0	7.7	4.7	20.0	0	0	
400 ppm	7.5	9.4	18.0	7.7	7.9	19.5	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
400 ppm	7.5	9.6	17.9	7.7	7.7	19.2	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
200 ppm	7.5	9.4	17.6	7.6	7.0	19.2	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
200 ppm	7.5	9.0	17.6	7.6	7.2	19.3	10	—	—	—	—	—	—	—	—	—	—	—	—	10	
100 ppm	7.5	8.9	17.8	7.5	6.6	18.7	0	8.1	7.4	19.5	1	8.1	6.1	20.5	0	8.1	6.4	20.0	0	1	
100 ppm	7.5	8.8	17.9	7.6	6.8	18.3	2	7.9	5.6	19.2	0	7.9	4.9	20.3	0	8.0	6.0	19.6	~~0~~ 1	~~2~~ 3	JMH 12/23
50 ppm	7.4	8.6	17.6	7.6	7.2	18.3	0	8.0	7.5	19.2	0	7.7	4.8	20.4	0	8.2	7.5	19.7	0	0	
50 ppm	7.4	8.6	17.5	7.5	6.7	18.8	0	7.9	5.0	19.7	0	8.1	7.6	20.5	0	8.0	5.5	20.0	0	0	
20 ppm	7.4	9.4	17.6	7.5	6.5	18.6	0	8.1	8.0	19.4	0	8.3	8.4	20.3	0	8.3	8.1	19.7	0	0	
20 ppm	7.4	9.3	17.9	7.6	6.7	18.5	0	8.3	8.4	19.2	0	8.4	8.7	20.2	0	8.4	8.3	19.7	0	0	
Air Control				7.7	6.3	18.7	0	8.2	8.4	19.4	0	8.3	8.3	20.4	0	8.3	8.6	19.8	0	0	*Start taking data the day air is added to sample tanks

LC50= 123.11 mg/L

LC50 Method: Graphical | Probit | Spearman-Karber | Trimmed-SK

95% Confidence Interval:

Upper: 139.37 mg/L

Lower: 108.76 mg/L

Initial:

*Day 1	Hardness	Alkalinity
Control	44 mg/L	180 mg/L
400 ppm	44 mg/L	184 mg/L

Final:

*Day 5	Hardness	Alkalinity
Control	44 mg/L	172 mg/L
400 ppm	28 mg/L	206 mg/L

Test Organism: *Pimephales promelas*

Source: Anderson Farms

Fish ID: 5120234

Fish Data:	Avg.	Min.	Max.
Length (mm)	50.	47.	52.
Weight (g)	.88	.71	1.00

Method Parameters:

Sample Extraction: Mechanical Shaker w/ DI H_2O

Control Water Source: Soft Water with Filter for Chloramine Rmvl

Control Water Hardness: 40-48 mg/L CaCO3

Feeding: None

Temperature Range: 18 - 22°C

Photoperiod: 16hr. Light/ 8hr. Dark

Test Chamber Volume: 10L

Number of Replicates: 2

Fish per Chamber: 10.

Tanks aerated: None / All Tanks

Aeration Source: Outside Air

Aeration Rate: (Maintain DO > 4ppm.)

Aeration Method: narrow glass bore

Test Endpoints: Survival at 96 hours

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: 530-666-8185

Testing Facility

Facility name: Oilfield Environmental & Compliance, Inc.
Facility address: 307 Roemer Way
Santa Maria, CA 93454
Facility contact: Meredith Sprister, Project Manager

CHAIN OF CUSTODY RECORD

L1 Sample Number	Description	Manufacturer	UPC	Quantity	Main Ingredient / Or Usage / NOTES	Date sampled	Time sampled	Sample container description: 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: 96-hour fish bioassay
304E	Simple Green All-Purpose Cleaner, 32 fl oz	Sunshine Makers, Inc	043318130335	1	liquid 1505031-1A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X
305E	Simple Green d Pro 3, 1 gallon	Sunshine Makers, Inc	043318303203	1	liquid 2A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X
306E	Simple Green Pro HD, 1 gallon	Sunshine Makers, Inc	043318134210	1	liquid 3A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X
307E	Glade Plug Ins Poppy Groove, 2 refills 1.34 fl oz	S.C. Johnson & Son, Inc	046500762055	3	liquid 4A-C	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X
308E	Glade Candle Poppy Groove, 3.8 oz	S.C. Johnson & Son, Inc	046500762116	2	solid 5A-B	11/25/2015	10:30 AM	n/a	200g (min)	G	N	N	X
309E	LemiShine Detergent Booster,12 oz	Envirocon Technologies, Inc	703074228744	1	solid 6A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X
310E	Sun In Hair Lightener, Tropical Breeze, 4.7 fl oz	Chattem, Inc	041167320532	1	liquid 7A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X
311E	DAP Dynaflex 230 Window, Door & Trim Sealant, 10.1 fl oz	DAP Products Inc	070798183001	1	liquid 8A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X
312E	Loctite Pro Line S40 Polyurethane Sealant, 10 fl oz	Henkel Corporation	079340689206	1	liquid 9A	11/25/2015	10:30 AM	n/a	200g (min)	C	N	N	X
313E	babyganics alcohol-free foaming hand sanitizer, mandarin, 8.45 fl oz	KAS Direct, LLC	813277010685	1	liquid 10A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X
314E	Mustela Dermo-Cleansing, 16.90 fl oz	Laboratoires Expanscience	504105022808	1	liquid 11A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X
315E	Shea Moisture Raw Shea Chamomile & Argan Oil Baby Eczema Bar Soap, 5 oz	Sundial Brands LLC	764302901365	1	solid 12A	11/25/2015	10:30 AM	n/a	200g (min)	P	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
								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 St. Woodland, CA 95695

	Name	Title	Date	Time	Remarks
Relinquished by:	Rachel Hunter	Legal Secretary	11/25/15	10:30 AM	
Received by:					
Relinquished by:	UPS		11-30-15	1100	
Received by:		Receiving tech	11-30-15	1100	
Relinquished by:					
Received by:					

CLIENT: Yolo County District Attorney **WORK ORDER:** 1505031 **TEMPERATURE:** 14 °C **SAMPLE RECEIPT**

Acceptable Range: 0°C to 6°C [see exception notes below]

COC RECEIVED DATE/TIME: 11-30-15@1100 **LOGIN DATE/TIME:** 11-30-15@ 1223 **REFRIGERATOR(S):** 8

SAMPLE TRANSPORT

- ☐ OEC Courier/Sampler
- ☒ Delivery (Other than OEC)
- ☐ After-Hours Outside Drop-Off [Brought Inside]

Initials/Date/Time: _____

☒ Shipment Carrier: UPS

Tracking #: 12 1Y9 57W 03 0983 4985

CUSTODY SEALS

☒ None Present

Cooler(s): ☐ Present, Intact ☐ Present, Not Intact ☐ None

Sample(s): ☐ Present, Intact ☐ Present, Not Intact ☐ None

SAMPLE RECEIPT, CONDITION, PRESERVATION

- ☐ Samples Received Outside Temperature Range [Acceptable]
  - ☐ Direct from Field, on Ice
  - ☐ Ambient: Air or Filter Matrix
  - ☐ Received Ambient, Placed on Ice for Transport
  - ☐ Sample Temperature Acceptable for Analysis Requested
- ☐ Samples Received Outside Temperature Range [Exception]
  - ☐ See Problem Chain *
  - ☒ Insufficient Ice or ~~Unknown Cause~~
  - ☐ Expedited PM Notification [Init/Date/Time]: _____

	YES	NO	N/A	(**) OEC PRES. ID
COC Document(s) Received With Samples	☒	☐*	☐	
Correct Container(s) for Analysis Requested	☒	☐*	☐	
Container(s) Intact and in Good Condition	☒	☐*	☐	
Container Label(s) Consistent with COC	☒	☐*	☐	
Proper Preservation on Sample Label(s)	☒	☐	☒	
OEC Preservative Added **	☐	☐	☒	
VOA Containers Free of Headspace	☐	☐*	☒	
Tedlar Bag(s) Free of Condensation	☐	☐*	☒	

(*) PROBLEM CHAIN FORM REQUIRED

CONTAINERS, COC CHANGES, AND/OR CORRECTIONS

OEC CONTAINER ID	CONTAINER DESCRIPTION	PRESERVATIVE	CHECKS: Cl⁻, S⁻ &/or pH	MATRIX	COMMENTS	INITIALS
1A	1-1L poly (spray bottle)	—	—	~~wt~~ P	all original	LY
2-3A	1-1 gallon poly each				product	
4A-C	3-8 oz poly boxes				containers	
5A-B	2-8 oz glasses					
6A	1-12 oz poly					
7A	1-4 oz poly					
8-10A	1-8 oz poly each					
11A	1-16 oz poly					
12A	1 plastic bag					

Rev. 09/25/2015

RECEIPT LOGIN BY: LY **RECEIPT REVIEWED BY:** EnA

Page 1 of 1

YOLO CO
(530) 6
THE UPS
STE A
1296 E
WOODLAND

30 LBS 1 OF 1
SHP WT: 30 LBS
DATE: 25 NOV 2015

6378

SHIP TO: 30 ENVIORNMENTAL & COMPLIANCE
1ER WAY

SANT MARIA CA 93454-1104

CA 934 1-10

UPS GROUND
TRACKING #: 1Z 1Y9 57W 03 0983 4985

P/P

REF #1: 112515MD
REF #2: 533

ISH 13.00N ZZP 450 69.5U 10/2015

SEE NOTICE ON REVERSE regarding UPS Terms, and notice of limitation of liability. Where allowed by law, shipper authorizes UPS to act as forwarding agent for export control and customs purposes. If exported from the US, shipper certifies that the commodities, technology or software were exported from the US in accordance with the Export Administration Regulations. Diversion contrary to law is prohibited.
BRD R 1115

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: 530-666-8185

Testing Facility
Facility name: Oilfield Environmental & Compliance, Inc.
Facility address: 307 Roemer Way
Santa Maria, CA 93454
Facility contact: Meredith Sprister, Project Manager

CHAIN OF CUSTODY RECORD

L1 Sample Number	Description	Manufacturer	UPC	Quantity	Main Ingredient / Or Usage / NOTES	Date sampled	Time sampled	Sample container description: 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: 96-hour fish bioassay	Def Native Bioassay
304E	Simple Green All-Purpose Cleaner, 32 fl oz	Sunshine Makers, Inc	043318130335	1	liquid 15G5031-1A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	
305E	Simple Green d Pro 3, 1 gallon	Sunshine Makers, Inc	043318303203	1	liquid 2A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
306E	Simple Green Pro HD, 1 gallon	Sunshine Makers, Inc	043318134210	1	liquid 3A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
307E	Glade Plug Ins Poppy Groove, 2 refills 1.34 fl oz	S.C. Johnson & Son, Inc	046500762055	3	liquid 4A-C	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
308E	Glade Candle Poppy Groove, 3.8 oz	S.C. Johnson & Son, Inc	046500762116	2	solid 5A-B	11/25/2015	10:30 AM	n/a	200g (min)	G	N	N	X	
309E	LemiShine Detergent Booster,12 oz	Envirocon Technologies, Inc	703074228744	1	solid 6A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
310E	Sun In Hair Lightener, Tropical Breeze, 4.7 fl oz	Chattem, Inc	041167320532	1	liquid 7A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
311E	DAP Dynaflex 230 Window, Door & Trim Sealant, 10.1 fl oz	DAP Products Inc	070798183001	1	liquid 8A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
312E	Loctite Pro Line S40 Polyurethane Sealant, 10 fl oz	Henkel Corporation	079340689206	1	liquid 9A	11/25/2015	10:30 AM	n/a	200g (min)	C	N	N	X	
313E	babyganics alcohol-free foaming hand sanitizer, mandarin, 8.4S fl oz	KAS Direct, LLC	813277010685	1	liquid 10A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
314E	Mustela Dermo-Cleansing, 16.90 fl oz	Laboratoires Expanscience	504105022808	1	liquid 11A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
315E	Shea Moisture Raw Shea Chamomile & Argan Oil Baby Eczema Bar Soap, 5 oz	Sundial Brands LLC	764302901365	1	solid 12A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
								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	
								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 St. Woodland, CA 95695

Δ added 12/3/15 (MC)

	Name	Title	Date	Time	Remarks
Relinquished by:	Rachel Hunter	Legal Secretary	11/25/15	10:30 AM	
Received by:					
Relinquished by:	UPS		11-30-15	1100	
Received by:		Receiving team	11-30-15	1100	
Relinquished by:					
Received by:					

OFFICE OF THE DISTRICT ATTORNEY
YOLO COUNTY

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Facility address: 307 Roemer Way
Santa Maria, CA 93454
Facility contact: Meredith Sprister, Project Manager

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304E	Simple Green All-Purpose Cleaner, 32 fl oz	Sunshine Makers, Inc	043318130335	1	liquid 15G5021-1A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
305E	Simple Green d Pro 3, 1 gallon	Sunshine Makers, Inc	043318303203	1	liquid 2A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
306E	Simple Green Pro HD, 1 gallon	Sunshine Makers, Inc	043318134210	1	liquid 3A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
307E	Glade Plug Ins Poppy Groove, 2 refills 1.34 fl oz	S.C. Johnson & Son, Inc	046500762055	3	liquid 4A-C	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
308E	Glade Candle Poppy Groove, 3.8 oz	S.C. Johnson & Son, Inc	046500762116	2	solid 5A-B	11/25/2015	10:30 AM	n/a	200g (min)	G	N	N	X	
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310E	Sun In Hair Lightener, Tropical Breeze, 4.7 fl oz	Chattem, Inc	041167320532	1	liquid 7A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
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313E	babyganics alcohol-free foaming hand sanitizer, mandarin, 8.45 fl oz	KAS Direct, LLC	813277010685	1	liquid 10A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
314E	Mustela Dermo-Cleansing, 16.90 fl oz	Laboratoires Expanscience	504105022808	1	liquid 11A	11/25/2015	10:30 AM	n/a	200g (min)	P	N	N	X	Δ
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								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	
								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	

Δ Definitive Bioassay

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

Δ added 12/3/15 MD
Δ added 12/9/15 MD per David

	Name	Title	Date	Time	Remarks
Relinquished by:	Rachel Hunter	Legal Secretary	11/25/15	10:30 AM	
Received by:					
Relinquished by:	UPS		11-30-15	1100	
Received by:		Receiving team	11-30-15	1100	
Relinquished by:					
Received by:					