

TECHNICAL MEMORANDUM

September 24, 2008

To: Robert Martin
Martin and Slagle

From: Joseph Kubale *JK*
ECCS

Re: Analytical Methods
Volatile Organic Compounds (VOC), 1,4-Dioxane
Kuhlman Electric Corporation (KEC)
Crystal Springs, MS

Introduction

This Technical Memorandum provides documentation of the analytical test methods used to analyze water samples collected in September 2008 near the Kuhlman Electric Corporation (KEC) facility in Crystal Springs, MS. The samples were analyzed by purge and trap GC/MSD for the VOCs listed below and by direct injection GC/MSD/SIM for 1,4-Dioxane.

Narrative

Waters
Water samples were analyzed for VOCs directly by purge and trap GC/MSD and for 1,4-Dioxane by direct injection GC/MSD/SIM.

The following report limits were used for water samples. The reporting limit units are in ug/L.

Dichlorodifluoromethane	1.0
Chloromethane	1.0
Vinyl chloride	1.0
Bromomethane	1.0
Chloroethane	1.0
Trichlorofluoromethane	1.0
Purge and Trap GC/MSD	1.0



Purge and Trap GC/MSD

1,1-Dichloroethene	1.0
Methylene chloride	1.0
trans-1,2-Dichloroethene	1.0
1,1-Dichloroethane	1.0
cis-1,2-Dichloroethene	1.0
2,2-Dichloropropane	1.0
Bromochloromethane	1.0
Chloroform	1.0
1,1,1-Trichloroethane	1.0
1,1-Dichloropropene	1.0
Carbon tetrachloride	1.0
Benzene	1.0
1,2-Dichloroethane	1.0
Trichloroethene	1.0
1,2-Dichloropropane	1.0
Dibromomethane	1.0
Bromodichloromethane	1.0
cis-1,3-Dichloropropene	2.0
Toluene	1.0
trans-1,3-Dichloropropene	1.0
1,1,2-Trichloroethane	1.0
Tetrachloroethene	1.0
1,3-Dichloropropane	1.0
Dibromochloromethane	1.0
1,2-Dibromoethane	1.0
Chlorobenzene	1.0
1,1,1,2-Tetrachloroethane	1.0
Ethyl benzene	1.0
Xylenes, total	2.0
Styrene	1.0
Bromoform	2.0
Isopropylbenzene	1.0
1,1,2,2-Tetrachloroethane	2.0
Bromobenzene	1.0
1,2,3-Trichloropropane	2.0
n-Propylbenzene	1.0
2-Chlorotoluene	1.0
1,3,5-Trimethylbenzene	1.0
4-Chlorotoluene	1.0
tert-Butylbenzene	1.0
1,2,4-Trimethylbenzene	1.0
sec-Butylbenzene	1.0
1,3-Dichlorobenzene	1.0
p-Isopropyltoluene	1.0
1,4-Dichlorobenzene	1.0
n-Butylbenzene	1.0
1,2-Dichlorobenzene	1.0
1,2-Dibromo-3-chloropropane	2.0
1,3,5-Trichlorobenzene	1.0
1,2,4-Trichlorobenzene	1.0
Hexachlorobutadiene	1.0

Purge and Trap GC/MSD	Naphthalene	3.0
	1,2,3-Trichlorobenzene	1.0
Direct Injection GC/MSD/SIM	1,4-Dioxane	1.0

A summary of volatile test results is provided in Table 1. A summary of method blanks and matrix spike/matrix duplicate data is provided in Table 2 and 3.

In addition copies of the chain of custody sheets and shipping sheets can be found in appendix A through C.

- A) Chain of custody sheets for samples
- B) FEDEX shipping label for Columbia Analytical Services, Inc.
- C) Chain of custody sheets for samples sent to Columbia Analytical Services, Inc.

VOC Method Summary

Water Samples
 Water samples were provided by the client to the lab in 40mL VOC vials. A 10mL aliquot of the sample was withdrawn from the vial with a 10mL Luer-Lok™ syringe. 10 µL of a 25µg/mL surrogate and internal standard solution was added to the sample in the 10 mL syringe. The sample was then immediately loaded onto a Tekmar ALS 2016 autosampler with a Tekmar LSC 2000 purge and trap concentrator for GC/MSD analysis.

GC/MSD Procedure:

Identification of target compounds was done by matching retention times and mass spectra of peaks found in samples to those found in a VOC calibration standard using the internal standards as time reference peaks. Quantitation was performed by the internal standard technique using a seven point standard curve generated from 5, 10, 20, 50, 100, 250, and 500 ng standards. These levels equate to 0.5, 1.0, 2.0, 5.0, 10, 25 and 50 µg/L for water samples. A Hewlett-Packard 5890 gas chromatograph with a 30m x 0.32mm RTX-624 micro-capillary column interfaced to a Hewlett-Packard 5972 MSD was used. The data system included a Hewlett-Packard Enviroquant chromatography workstation for data handling.

Quality control consisted of the following items:

- Initial calibration with % relative standard deviation less than 15% of individual response factors obtained from analysis of calibration standards
- Continuing Calibration Verification standards analyzed at a frequency of every ten samples or less
- Surrogate standard additions to samples
- Blank and LCS samples analyzed every twenty samples or less with a minimum of one per day per matrix.
- MS/MSD samples analyzed every twenty samples or less per matrix.
- Information documented in Logbook 150.

1,4-Dioxane Method Summary

Water Samples

Water samples were provided by the client to the lab in 1L amber bottle. 200 grams of sample was transferred to the filtering apparatus, spiked with 40uL 25ug/mL surrogate solution and 40uL 25ug/mL spike solution (if necessary) then filtered through a 3M 2272 activated carbon disk. The activated carbon disk was placed in a 3 dram vial containing 8mL methanol and sonicated for 15 minutes. A 0.8mL aliquot of the sample extract was spiked with 10uL 25ug/mL internal standard solution and analyzed by direct inject GC/MSD/SIM.

GC/MSD Procedure:

Identification of the target compound was done by matching retention times, quantitation and qualifier ion relative responses to that of an authentic standard. Quantitation is accomplished by comparing the response of the major (quantitation) ion relative to an internal standard using a seven point calibration curve. These levels equate to 0.5, 1.0, 2.5, 5.0, 10, 50 and 100 ug/L for water samples.

A Hewlett-Packard 5890 Series II gas chromatograph with a 30m x 0.32mm 1.8u film, RTX-624 micro-capillary column interfaced to a Hewlett-Packard 5972 MSD was used. The data system included a Hewlett-Packard Enviroquant chromatography workstation for data handling.

Quality control consisted of the following items:

- Initial calibration with % relative standard deviation less than 15% of individual response factors obtained from analysis of calibration standards
- Continuing Calibration Verification standards analyzed at a frequency of every ten samples or less
- Surrogate standard additions to samples
- Blank and LCS samples analyzed every twenty samples or less with a minimum of one per day per matrix.
- MS/MSD samples analyzed every twenty samples or less per matrix.
- Information documented in Logbook 196.

Table 1

Sample Results Volatiles – September

Kuhlman Electric - Crystal Springs, Mississippi - Volatiles Detected in Water

TABLE 1

VOLATILES	Dioxane Date Analyzed	Volatiles	Depth		Reporting Limit														
			Date Collected	Date Analyzed	ug/L	W2407	W2408	W2409	W2410	W2411	W2412	W2413	W2414	W2415	W2415				
Chlorobenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1,1,2-Tetrachloroethane			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Ethyl Benzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Xylenes, Total			2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Styrene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Bromoforn			2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Isopropylbenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1,2,2-Tetrachloroethane			2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Bromobenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2,3-Trichloropropane			2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
n-Propylbenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Chlorotoluene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,3,5-Trimethylbenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
4-Chlorotoluene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
tert-Butylbenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2,4-Trimethylbenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
sec-Butylbenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,3-Dichlorobenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
p-Isopropyltoluene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,4-Dichlorobenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
n-Butylbenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichlorobenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dibromo-3-Chloropropane			2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,3,5-Trichlorobenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2,4-Trichlorobenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Hexachlorobutadiene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Naphthalene			3.0		< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	
1,2,3-Trichlorobenzene			1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Surrogates:																			
Dibromofluoromethane			%		100	104	103	103	103	103	105	104	105	104	105	104	105	104	
Toluene-D8			%		101	101	99.3	98.3	97.8	101	100	100	101	100	101	99.0	99.0	99.0	
4-Bromofluorobenzene			%		95.5	97.5	94.5	99.1	93.8	94.2	97.6	98.4	98.2	98.2	98.2	98.2	98.2	98.2	

TABLE 1
Kuhlman Electric - Crystal Springs, Mississippi - Volatiles Detected in Water

VOLATILES Dioxane Date Analyzed	Volatiles Date Analyzed	Depth Date Collected Time Collected Date Analyzed Reporting Limit ug/L	Volatiles Detected in Water																	
			W2416 KEP- GW- 014A-005	W2417 KEP- GW- 014B-005	W2418 KEP- GW- 023A-005	W2419 KEP- GW- 023B-005	W2420 KEP- GW- 011A-005	W2421 KEP- GW- 011B-005	W2422 KEP- GW- 010A-005	W2423 KEP- GW- 010C-005	W2424 KEP- GW- 007-010									
1,4-Dioxane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,4-Dioxane-d8		%	109	105	114	107	104	93.9	114	115	115	115	115	115	115	115	115	115	115	115
Dichlorodifluoromethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Chloromethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Vinyl chloride		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromomethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Chloroethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Trichlorofluoromethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloroethene		1.0	1.1	<	1.0	<	1.0	11	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Methylene Chloride		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,2-Dichloroethene		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloroethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	4.7	<	1.0	<	1.0	<	1.0	<	1.0
cis-1,2-Dichloroethene		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2,2-Dichloropropane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromochloromethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Chloroform		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.2	<	1.0	<	1.0	<	1.0	<	1.0
1,1,1-Trichloroethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	2.5	<	1.0	<	1.0	<	1.0	<	1.0
1,1-Dichloropropane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Carbon Tetrachloride		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Benzene		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichloroethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	4.1	<	1.0	<	1.0	<	1.0	<	1.0
Trichloroethene		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichloropropane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dibromomethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromodichloromethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
cis-1,3-Dichloropropene		2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Toluene		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
trans-1,3-Dichloropropene		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2-Trichloroethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Tetrachloroethene		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3-Dichloropropane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Dibromochloromethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dibromoethane		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0

TABLE 1
Kuhlman Electric - Crystal Springs, Mississippi - Volatiles Detected in Water

VOLATILES	Dioxane Date Analyzed	Volatiles	Date Collected	Time Collected	Date Analyzed	Reporting Limit	Depth	Volatiles Detected in Water															
								W2425	W2426	W2427	W2437	W2438	W2439	W2440	W2441	W2442	W2425	W2426	W2427	W2437	W2438	W2439	W2440
1,4-Dioxane	1.0	1.0	8-Sep-08	11:55	11-Sep-08	10-Sep-08	<	1.0	111	5.1	103	80.9	1.9	101	105	96.9	1.0	94.4	1.0	92.7	2.0	89.8	
1,4-Dioxane-d8	%	%																					
Dichlorodifluoromethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Chloromethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Vinyl chloride	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Bromomethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Chloroethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Trichlorofluoromethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
1,1-Dichloroethene	1.0	7.2	33	10	41	8.6	4.1	4.1	15	45													
Methylene Chloride	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
trans-1,2-Dichloroethene	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
1,1-Dichloroethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
cis-1,2-Dichloroethene	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
2,2-Dichloropropane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Bromochloromethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Chloroform	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
1,1,1-Trichloroethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
1,1-Dichloropropane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Carbon Tetrachloride	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Benzene	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
1,2-Dichloroethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Trichloroethene	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
1,2-Dichloropropane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Dibromomethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Bromodichloromethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
cis-1,3-Dichloropropene	2.0	<	2.0	<	2.0	<	<	2.0	<	2.0	<	<	2.0	<	2.0	<	<	2.0	<	2.0	<	<	2.0
Toluene	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
trans-1,3-Dichloropropene	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
1,1,2-Trichloroethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Tetrachloroethene	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
1,3-Dichloropropane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
Dibromochloromethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0
1,2-Dibromoethane	1.0	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0	<	1.0	<	<	1.0

TABLE 1

Kuhlman Electric - Crystal Springs, Mississippi - Volatiles Detected in Water

VOLATILES	Dioxane Date Analyzed	Volatiles Date Analyzed	Depth	Date Collected		Date Analyzed		Reporting Limit	ug/L	W2443	W2444	W2445	W2446	W2447	W2448	W2449	W2450	W2451		
				Time	Date	Time	Date													
Chlorobenzene			1.0	<	9-Sep-08	<	10-Sep-08	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,1,2-Tetrachloroethane			1.0	<	20:13	<	9:20	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Ethyl Benzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Xylenes, Total			2.0	<		<		2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Styrene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Bromoform			2.0	<		<		2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Isopropylbenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,1,2,2-Tetrachloroethane			2.0	<		<		2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
Bromobenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,3-Trichloropropane			2.0	<		<		2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
n-Propylbenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
2-Chlorotoluene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3,5-Trimethylbenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
4-Chlorotoluene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
tert-Butylbenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,4-Trimethylbenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
sec-Butylbenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,3-Dichlorobenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
p-Isopropyltoluene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,4-Dichlorobenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
n-Butylbenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dichlorobenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2-Dibromo-3-Chloropropane			2.0	<		<		2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
1,3,5-Trichlorobenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,4-Trichlorobenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Hexachlorobutadiene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Naphthalene			3.0	<		<		3.0	<	3.0	<	3.0	<	3.0	<	3.0	<	3.0	<	3.0
1,2,3-Trichlorobenzene			1.0	<		<		1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Surrogates:																				
Dibromofluoromethane			%					108		108		102		103		104		105		104
Toluene-D8			%					103		104		104		103		103		103		103
4-Bromofluorobenzene			%					95.2		95.9		93.7		93.4		92.7		93.4		94.6
																				93.3
																				94.4

TABLE 1
Kuhlman Electric - Crystal Springs, Mississippi - Volatiles Detected in Water

VOLATILES Dioxane Date Analyzed	Depth Date Collected Time Collected Date Analyzed Reporting Limit ug/L	W2452			W2453			W2454		
		KEP- GW- 022-005	KEP- GW- 024-005	005-010	KEP- GW- 024-005	KEP- GW- 024-005	005-010	KEP- GW- 005-010	KEP- GW- 005-010	005-010
1,4-Dioxane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	
1,4-Dioxane-d8	%		111		108		102			
Dichlorodifluoromethane	1.0	<	1.0	<	1.0	<	1.0			
Chloromethane	1.0	<	1.0	<	1.0	<	1.0			
Vinyl chloride	1.0	<	1.0	<	1.0	<	1.0			
Bromomethane	1.0	<	1.0	<	1.0	<	1.0			
Chloroethane	1.0	<	1.0	<	1.0	<	1.0			
Trichlorofluoromethane	1.0	<	1.0	<	1.0	<	1.0			
1,1-Dichloroethene	1.0	<	1.0	<	1.0	<	1.0			
Methylene Chloride	1.0	<	1.0	<	1.0	<	1.0			
trans-1,2-Dichloroethene	1.0	<	1.0	<	1.0	<	1.0			
1,1-Dichloroethane	1.0	<	1.0	<	1.0	<	1.0			
cis-1,2-Dichloroethene	1.0	<	1.0	<	1.0	<	1.0			
2,2-Dichloropropane	1.0	<	1.0	<	1.0	<	1.0			
Bromochloromethane	1.0	<	1.0	<	1.0	<	1.0			
Chloroform	1.0	<	1.0	<	1.0	<	1.0			
1,1,1-Trichloroethane	1.0	<	1.0	<	1.0	<	1.0			
1,1-Dichloropropene	1.0	<	1.0	<	1.0	<	1.0			
Carbon Tetrachloride	1.0	<	1.0	<	1.0	<	1.0			
Benzene	1.0	<	1.0	<	1.0	<	1.0			
1,2-Dichloroethane	1.0	<	1.0	<	1.0	<	1.0			
Trichloroethene	1.0	<	1.0	<	1.0	<	1.0			
1,2-Dichloropropane	1.0	<	1.0	<	1.0	<	1.0			
Dibromomethane	1.0	<	1.0	<	1.0	<	1.0			
Bromodichloromethane	1.0	<	1.0	<	1.0	<	1.0			
cis-1,3-Dichloropropene	2.0	<	2.0	<	2.0	<	2.0			
Toluene	1.0	<	1.0	<	1.0	<	1.0			
trans-1,3-Dichloropropene	1.0	<	1.0	<	1.0	<	1.0			
1,1,2-Trichloroethane	1.0	<	1.0	<	1.0	<	1.0			
Tetrachloroethene	1.0	<	1.0	<	1.0	<	1.0			
1,3-Dichloropropane	1.0	<	1.0	<	1.0	<	1.0			
Dibromochloromethane	1.0	<	1.0	<	1.0	<	1.0			
1,2-Dibromoethane	1.0	<	1.0	<	1.0	<	1.0			

Kuhlman Electric - Crystal Springs, Mississippi - Volatiles Detected in Water

TABLE 1

VOLATILES Dioxane Date Analyzed	Depth Date Collected Time Collected Date Analyzed Reporting Limit ug/L	W2452			W2453			W2454		
		KEP- GW- 022-005	KEP- GW- 024-005	005-010	KEP- GW- 022-005	KEP- GW- 024-005	005-010	KEP- GW- 005-010	KEP- GW- 005-010	005-010
Chlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethyl Benzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes, Total	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoforn	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Isopropylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Bromobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
n-Propylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
tert-Butylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
n-Butylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,3,5-Trichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,3-Trichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Surrogates:										
Dibromofluoromethane	%	103	103	98.0						
Toluene-D8	%	102	102	103						
4-Bromofluorobenzene	%	97.2	95.0	93.2						

Table 2

QC Results Volatiles–September

Table 2
QC Results

Lab # associated with qc samples: W2407 through W2426

Compound	% Rec	% Rec	RPD	ug/L	ug/L
Dichlorodifluoromethane	103%	97.4%	5.2%	< 1.0	< 1.0
Chloromethane	105%	103%	2.1%	< 1.0	< 1.0
Vinyl chloride	110%	107%	2.6%	< 1.0	< 1.0
Bromomethane	102%	99.0%	2.8%	< 1.0	< 1.0
Chloroethane	115%	105%	9.1%	< 1.0	< 1.0
Trichlorofluoromethane	114%	107%	6.0%	< 1.0	< 1.0
1,1-Dichloroethene	110%	103%	6.6%	< 1.0	< 1.0
Methylene chloride	108%	106%	2.4%	< 1.0	< 1.0
trans-1,2-Dichloroethene	111%	105%	5.7%	< 1.0	< 1.0
1,1-Dichloroethane	115%	109%	5.6%	< 1.0	< 1.0
cis-1,2-Dichloroethene	104%	99.2%	5.1%	< 1.0	< 1.0
2,2-Dichloropropane	110%	106%	3.9%	< 1.0	< 1.0
Bromochloromethane	102%	98.8%	3.4%	< 1.0	< 1.0
Chloroform	105%	102%	2.7%	< 1.0	< 1.0
1,1,1-Trichloroethane	108%	105%	2.8%	< 1.0	< 1.0
1,1-Dichloropropene	101%	99.8%	1.4%	< 1.0	< 1.0
Carbon tetrachloride	109%	101%	7.6%	< 1.0	< 1.0
Benzene	102%	101%	1.2%	< 1.0	< 1.0
1,2-Dichloroethane	102%	103%	0.2%	< 1.0	< 1.0
Trichloroethene	103%	97.4%	5.2%	< 1.0	< 1.0
1,2-Dichloropropane	101%	100%	0.4%	< 1.0	< 1.0
Dibromomethane	102%	100%	2.2%	< 1.0	< 1.0
Bromodichloromethane	98.2%	100%	2.2%	< 1.0	< 1.0
cis-1,3-Dichloropropene	92.0%	93.6%	1.7%	< 2.0	< 2.0
Toluene	100%	95.6%	4.7%	< 1.0	< 1.0
trans-1,3-Dichloropropene	93.0%	94.0%	1.1%	< 1.0	< 1.0
1,1,2-Trichloroethane	95.6%	98.6%	3.1%	< 1.0	< 1.0
Tetrachloroethene	101%	97.6%	3.0%	< 1.0	< 1.0
1,3-Dichloropropane	92.8%	95.4%	2.8%	< 1.0	< 1.0
Dibromochloromethane	94.6%	98.8%	4.3%	< 1.0	< 1.0
1,2-Dibromoethane	93.2%	93.4%	0.2%	< 1.0	< 1.0
Chlorobenzene	99.8%	101%	1.6%	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	98.0%	101%	2.8%	< 1.0	< 1.0
Ethyl benzene	102%	99.6%	2.4%	< 1.0	< 1.0

Date Analyzed: W2408 Matrix Spike
W2408 Duplicate
9/10/08 Blank
9/11/08 Blank

Compound	% Rec	% Rec	RPD	ug/L	ug/L
Xylenes, Total	104%	103%	1.0%	< 2.0	< 2.0
Styrene	102%	99.8%	1.8%	< 1.0	< 1.0
Bromoforn	91.2%	95.2%	4.3%	< 2.0	< 2.0
Isopropylbenzene	99.2%	98.2%	1.0%	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	95.8%	102%	5.9%	< 2.0	< 2.0
Bromobenzene	98.2%	100%	1.8%	< 1.0	< 1.0
1,2,3-Trichloropropane	102%	101%	1.4%	< 2.0	< 2.0
n-Propylbenzene	102%	99.2%	3.0%	< 1.0	< 1.0
2-Chloroluene	104%	99.0%	4.9%	< 1.0	< 1.0
1,3,5-Trimethylbenzene	99.2%	98.2%	1.0%	< 1.0	< 1.0
4-Chloroluene	100%	98.0%	2.4%	< 1.0	< 1.0
tert-Butylbenzene	97.6%	97.8%	0.2%	< 1.0	< 1.0
1,2,4-Trimethylbenzene	96.2%	96.2%	0.0%	< 1.0	< 1.0
sec-Butylbenzene	100%	98.2%	2.0%	< 1.0	< 1.0
1,3-Dichlorobenzene	102%	100%	1.6%	< 1.0	< 1.0
p-Isopropyltoluene	96.6%	95.8%	0.8%	< 1.0	< 1.0
1,4-Dichlorobenzene	101%	99.4%	1.2%	< 1.0	< 1.0
n-Butylbenzene	95.2%	96.0%	0.8%	< 1.0	< 1.0
1,2-Dichlorobenzene	98.6%	101%	2.6%	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	95.4%	102%	6.5%	< 2.0	< 2.0
1,3,5-Trichlorobenzene	90.8%	90.6%	0.2%	< 1.0	< 1.0
1,2,4-Trichlorobenzene	85.2%	88.6%	3.9%	< 1.0	< 1.0
Hexachlorobutadiene	98.8%	97.2%	1.6%	< 1.0	< 1.0
Naphthalene	80.0%	87.6%	9.1%	< 3.0	< 3.0
1,2,3-Trichlorobenzene	88.0%	91.8%	4.2%	< 1.0	< 1.0

Lab # associated with qc samples: W2407 through W2426

Date Analyzed:	W2408	W2408	W2408	9/10/08	9/11/08
	Matrix	Spike	Duplicate	Blank	Blank

Table 2
QC Results

Table 2
QC Results

Lab # associated with qc samples: W2427

Matrix W2437 through W2454

Matrix Spike Duplicate
Spike Duplicate
Blank Blank

Date Analyzed: W2449 W2449 W2449 9/12/08 9/13/08

Compound	% Rec	% Rec	RPD	ug/L	ug/L
Dichlorodifluoromethane	101%	98.6%	2.4%	< 1.0	< 1.0
Chloromethane	104%	106%	1.9%	< 1.0	< 1.0
Vinyl chloride	101%	106%	5.4%	< 1.0	< 1.0
Bromomethane	105%	120%	12.6%	< 1.0	< 1.0
Chloroethane	105%	107%	2.5%	< 1.0	< 1.0
Trichlorofluoromethane	108%	107%	0.6%	< 1.0	< 1.0
1,1-Dichloroethene	101%	101%	0.2%	< 1.0	< 1.0
Methylene chloride	105%	99.8%	4.9%	< 1.0	< 1.0
trans-1,2-Dichloroethene	104%	104%	0.6%	< 1.0	< 1.0
1,1-Dichloroethane	104%	106%	2.3%	< 1.0	< 1.0
cis-1,2-Dichloroethene	102%	101%	0.2%	< 1.0	< 1.0
2,2-Dichloropropane	101%	100%	0.4%	< 1.0	< 1.0
Bromochloromethane	102%	101%	1.2%	< 1.0	< 1.0
Chloroform	83.6%	84.6%	1.2%	< 1.0	< 1.0
1,1,1-Trichloroethane	103%	104%	1.2%	< 1.0	< 1.0
1,1-Dichloropropene	97.2%	101%	4.2%	< 1.0	< 1.0
Carbon tetrachloride	105%	102%	3.1%	< 1.0	< 1.0
Benzene	103%	105%	2.1%	< 1.0	< 1.0
1,2-Dichloroethane	102%	101%	0.6%	< 1.0	< 1.0
Trichloroethene	103%	97.4%	5.2%	< 1.0	< 1.0
1,2-Dichloropropane	99.2%	96.6%	2.7%	< 1.0	< 1.0
Dibromomethane	95.4%	95.2%	0.2%	< 1.0	< 1.0
Bromodichloromethane	82.2%	85.4%	3.8%	< 1.0	< 1.0
cis-1,3-Dichloropropene	91.4%	91.8%	0.4%	< 2.0	< 2.0
Toluene	100%	101%	0.6%	< 1.0	< 1.0
trans-1,3-Dichloropropene	90.8%	93.2%	2.6%	< 1.0	< 1.0
1,1,2-Trichloroethane	97.0%	95.4%	1.7%	< 1.0	< 1.0
Tetrachloroethene	98.8%	97.6%	1.2%	< 1.0	< 1.0
1,3-Dichloropropane	93.2%	91.4%	2.0%	< 1.0	< 1.0
Dibromochloromethane	87.4%	85.8%	1.8%	< 1.0	< 1.0
1,2-Dibromomethane	96.0%	96.2%	0.2%	< 1.0	< 1.0
Chlorobenzene	99.8%	104%	3.9%	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	98.6%	98.8%	0.2%	< 1.0	< 1.0
Ethyl benzene	97.2%	100%	3.2%	< 1.0	< 1.0

Table 2
QC Results

Lab # associated with qc samples: W2427

Matrix W2437 through W2454

Matrix	Spike	Duplicate	Blank	Blank
W2449	W2449	W2449	9/12/08	9/13/08

Date Analyzed:

Compound	% Rec	% Rec	RPD	ug/L	ug/L
Xylenes, Total	98.9%	99.9%	1.0%	< 2.0	< 2.0
Styrene	96.4%	101%	5.1%	< 1.0	< 1.0
Bromoforn	90.8%	92.2%	1.5%	< 2.0	< 2.0
Isopropylbenzene	94.8%	99.2%	4.5%	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	94.6%	94.8%	0.2%	< 2.0	< 2.0
Bromobenzene	97.6%	99.2%	1.6%	< 1.0	< 1.0
1,2,3-Trichloropropane	95.4%	97.0%	1.7%	< 2.0	< 2.0
n-Propylbenzene	98.0%	104%	5.9%	< 1.0	< 1.0
2-Chloroluene	101%	104%	3.5%	< 1.0	< 1.0
1,3,5-Trimethylbenzene	96.4%	100%	3.9%	< 1.0	< 1.0
4-Chloroluene	97.6%	104%	6.0%	< 1.0	< 1.0
tert-Butylbenzene	95.0%	100%	5.5%	< 1.0	< 1.0
1,2,4-Trimethylbenzene	98.4%	102%	3.2%	< 1.0	< 1.0
sec-Butylbenzene	96.8%	103%	6.0%	< 1.0	< 1.0
1,3-Dichlorobenzene	104%	105%	1.5%	< 1.0	< 1.0
p-Isopropyltoluene	102%	103%	0.8%	< 1.0	< 1.0
1,4-Dichlorobenzene	99.6%	101%	1.2%	< 1.0	< 1.0
n-Butylbenzene	105%	107%	1.9%	< 1.0	< 1.0
1,2-Dichlorobenzene	100%	101%	0.2%	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	99.2%	97.4%	1.8%	< 2.0	< 2.0
1,3,5-Trichlorobenzene	97.4%	99.2%	1.8%	< 1.0	< 1.0
1,2,4-Trichlorobenzene	92.4%	94.2%	1.9%	< 1.0	< 1.0
Hexachlorobutadiene	88.8%	99.6%	11.5%	< 1.0	< 1.0
Naphthalene	88.2%	88.0%	0.2%	< 3.0	< 3.0
1,2,3-Trichlorobenzene	92.4%	95.6%	3.4%	< 1.0	< 1.0

Table 3

QC Results 1,4-Dioxane—September

Table 3
QC Results

Lab # associated with qc samples:

W2407 through W2409
W2411 through W2426

Matrix

Spike

Duplicate

Matrix

Spike

W2411

W2411

Date Extracted:

09/08/08

09/08/08

Date Analyzed:

09/09/08

09/09/08

Compound	% Rec	% Rec	RPD	% Rec	ug/L
1,4-Dioxane	104%	104%	0.0%	115%	< 1.0

Table 3
QC Results

Lab # associated with qc samples:

W2410 and W2427
W2437 through W2454

Matrix

Spike

Duplicate

Matrix

Spike

W2446

W2446

Date Extracted:

09/11/08

09/11/08

Date Analyzed:

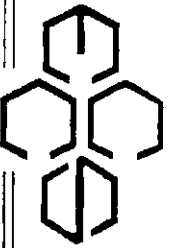
09/13/08

09/13/08

Compound	% Rec	% Rec	RPD	% Rec	ug/L
1,4-Dioxane	101%	107%	5.8%	105%	< 1.0

Appendix A

Chain of Custody Sheets for Samples



Environmental Chemistry Consulting Services, Inc.

2525 Advance Road
Phone 608-221-8700

Madison, WI 53718

FAX 608-221-4889

CHAIN OF CUSTODY

Maintaining Well

No. **013761**

Page 1 of 1

Turn Around (circle one) Normal Rush

Report Due:

Invoice To:

Company:

Address:

P.O. No.:

Quote No.:

Comments

Laboratory Number

Project Number:

KUTHWIND ETERNAL

Mail Report To:

MARTIN + STACIE

Project Location:

CURTAIN SPRINGS

Address:

Sampled By (Print):

Sheryl Paul

Sample Description

Collection Date

Time

Matrix

Total Bottles

Preserv*

Analysis Requested

Comments

Laboratory Number

KEP-FB-018

9/6/08 0946

W

4

A

1,4 Dioxin + PCBs

W2407

KEP-GW-006-010

1003

W

4

A

W2408

KEP-GW-008-010

1027

W

4

A

W2409

KEP-GW-004-010

1313

W

4

A

W2410

KEP-GW-002-010

1345

W

4

A

W2411

KEP-GW-003-010

1545

W

7

A/B

W2412

KEP-GW-013-005

1646

W

4

A

W2413

KEP-GW-010B-005

2045

W

7

A/B

W2414

KEP-Duplicate 1

—

W

7

A/B

W2415

*Preservation Code

A=None B=HCL C=H2SO4

D=HNO3 E=Encore F=Methanol

G=NaOH O=Other(Indicate)

Relinquished By:

Sheryl Paul

Date/Time:

9/7/08 2200

Received By:

Sheryl Paul

Date/Time:

9/7/08 1200

Custody Seal: Present/Absent

Intact/Not Intact

Seal #s

Shipped Via:

Receipt Temp:

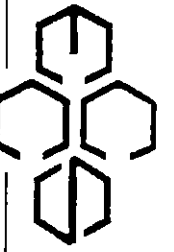
Temp Blank Y N

Received By:

Sheryl Paul

Date/Time:

9/7/08



Environmental Chemistry
Consulting Services, Inc.
 2525 Advance Road
 Madison, WI 53718
 Phone 608-221-8700
 FAX 608-221-4889

CHAIN OF CUSTODY
 Monitoring well
 No. **013763**
 Page 1 of 1
 Turn Around (circle one) Normal Rush
 Report Due:

Project Number:

Mail Report To:

Invoice To:

Project Name: **KLUHMAN ELECTRIC**

Company: **MAXIM + SUTHER**

Company:

Project Location: **CHRYSLER SPLAINS**

Address:

Address:

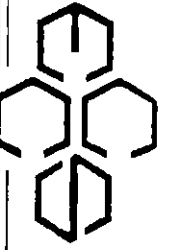
Sampled By (Print):

Shirley Paul

P.O. No.:

Quote No.:

Sample Description	Collection		Matrix	Total Bottles	Preserv*	Analysis Requested	Comments	Laboratory Number
	Date	Time						
KEP-GW-007-010	9/8/08	0910	W	7	A/B	1,4-Dioxan + 82008		W24224
KEP-GW-009-008		1155		7	A/B			W24225
KEP-GW-018A-005		1452		7	A/B			W24226
KEP-GW-018B-005		1605		4	A			W24227
<i>[Signature]</i>								
*Preservation Code								
A=None B=HCL C=H2SO4								
D=HNO3 E=EnCore F=Methanol								
G=NaOH O=Other(Indicate)								
Relinquished By:			Date/Time:			Received By:		
<i>Shirley Paul</i>			9/8/08 1630			<i>[Signature]</i>		
Intact/Not Intact			Seal #s			Receipt Temp:		
Present/Absent						Temp Blank Y N <i>None</i>		
Shipped Via:								



Environmental Chemistry Consulting Services, Inc.
 2525 Advance Road
 Madison, WI 53718
 Phone 608-221-8700 FAX 608-221-4899

CHAIN OF CUSTODY
 Morris for King, WI 115

No. **013765** *
 Page 1 of 1
 Turn Around (circle one) Normal Rush
 Report Due:

Project Number: _____ Mail Report To: _____
 Project Name: **KUHLMANN ELECTRIC** Company: **MAXTRON + SUTCLIFF**
 Project Location: **CHRYSTAL SPRINGS** Address: _____
 Sampled By (Print): **Shedd Paul** P.O. No.: _____ Quote No.: _____

Sample Description	Collection		Matrix	Total Bottles	Preserv*	Analysis Requested	Comments	Laboratory Number
	Date	Time						
KEP-GW-015A-005	9/9/08	1220	W	7	A/B	1 yd. down + 92208		W2437
KEP-GW-015R-005		1320		4	A			W2438
KEP-GW-020A-005		1522		7	A/B			W2439
KEP-Duplicate 2		—		7	A/B			W2440
KEP-GW-020B-005		1715		7	A/B			W2441
KEP-GW-021A-005		1847		4	A			W2442
KEP-GW-021B-005		2013		4	A			W2443
<i>[Handwritten Signature]</i>								
* Preservation Code								
A=None B=HCL C=H2SO4								
D=HNO3 E=Encore F=Methanol								
G=NaOH O=Other(Indicate)								
Relinquished By: <i>Shedd Paul</i>			Date/Time: 9/9/08 2030			Received By: <i>[Signature]</i>		
Relinquished By:			Date/Time:			Received By:		
Custody Seal: Present/Absent			Intact/Not Intact			Seal #s		
Shipped Via:			Receipt Temp: _____			Temp Blank Y N		



Environmental Chemistry Consulting Services, Inc.
 2525 Advance Road
 Madison, WI 53718
 Phone 608-221-8700 FAX 608-221-4889

CHAIN OF CUSTODY
Maintaining Well

No. **013766** *
 Page 1 of 1
 Turn Around (circle one) Normal Rush
 Report Due:

Project Number:

Mail Report To:

Invoice To:

Project Name: **KULHWAND ELECTRIC**

Company: **MARTIN + SMITCHE**

Company:

Project Location: **CHESTER SPRINGS**

Address:

Address:

Sampled By (Print):

Shuck Paul

P.O. No.:

Quote No.:

Sample Description	Collection		Matrix	Total Bottles	Preserv*	Analysis Requested	Comments	Laboratory Number
	Date	Time						
KEP-6W-016-005	9/10/08	0920	W	4	A	1, YDioxans + P2608		W2444
KEP-6W-012-005		1149						W2445
KEP-6W-017B-005		1330						W2446
KEP-6W-017A-005		1415						W2447
KEP-6W-027-005		1629						W2448
KEP-6W-025-005		1914						W2449
<i>[Signature]</i>								
*Preservation Code A=None B=HCL C=H2SO4 D=HNO3 E=Encore F=Methanol G=NaOH O=Other(Indicate)								
Relinquished By:			Date/Time:			Received By:		
<i>Shuck Paul</i>			9/10/08 1930			<i>Shuck Paul</i>		
Intact/Not Intact			Seal #s			Receipt Temp:		
Present/Absent						Temp Blank Y N <i>OK</i>		
Shipped Via:								

Appendix B

FEDEX shipping label for Columbia Analytical Services, Inc.

FedEx USA Airbill
 Tracking Number: 837784146430

From: Please print and press hard
 Date: 9/9/08
 Sender's FedEx Account Number: 2262 8199 1

Sender's Name: Joe Kurale
 Phone: (608) 345-1974

Company: ECCS INC
 Address: 2525 ADVANCE RD
 City: MADISON WI ZIP: 53715

Recipient's Name: SHARLE CURTIS
 Phone: (310) 577-7222

Company: COLUMBIA ANALYTICAL
 Address: 1317 SOUTH 13TH AVE
 City: KENOSHA WI ZIP: 53142

Your Internal Billing Reference: 1317 SOUTH 13TH AVE

To: SHARLE CURTIS
 Phone: (310) 577-7222

Address: 1317 SOUTH 13TH AVE
 City: KENOSHA WI ZIP: 53142

Address: 2525 ADVANCE RD
 City: MADISON WI ZIP: 53715

Address: 1317 SOUTH 13TH AVE
 City: KENOSHA WI ZIP: 53142

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 Questions? Visit our Web site at fedex.com
 or call 1.800.Go.FedEx® 800.463.3339.

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Company: ECCS INC
 Address: 2525 ADVANCE RD
 City: MADISON WI ZIP: 53715

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4a Express Package Service
 Packages up to 150 lbs.
 Delivery commitment may be later in some areas.
 Next business morning
 Next business morning
 Next business afternoon
 Next business day

4b Express Freight Service
 Packages over 150 lbs.
 Delivery commitment may be later in some areas.
 Second business day
 Second business day
 Third business day

5 Packaging
 Declared value limit: \$500
 FedEx Pak*
 Includes FedEx Small Pak, FedEx Large Pak, and FedEx Surety Pak
 Other

6 Special Handling
 Include FedEx address in Section 3.
 HOLD Saturday at FedEx Location
 Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations
 SATURDAY Delivery at FedEx Location
 Available ONLY for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
 Does this shipment contain dangerous goods? One box must be checked.
 Yes
 No
 Shipper's Declaration not required
 Shipper's Declaration required
 Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.
 Cargo Aircraft Only
 Dry Ice (UN 1845)
 Dry Ice (UN 1850)

7 Payment Bill to:
 Enter FedEx Account No. or Credit Card No. Below
 Recipient
 Third Party
 Credit Card
 Cash/Check
 Sender
 FedEx Act No. 2262 8199 1
 Date: 09/10/08

8 Release Signature
 Sign to authorize delivery without obtaining signature.
 Your liability is limited to \$100 unless you declare a higher value. See back for details.
 FedEx Use Only

By signing you authorize us to deliver this shipment without obtaining a signature and agree indemnify and hold us harmless from any resulting claims.
 Questions? Visit our Web site at fedex.com
 or call 1.800.Go.FedEx® 800.463.3339.

City: KENOSHA WI ZIP: 53142

446

446

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Appendix C

Chain of Custody Sheets for samples sent to Columbia Analytical Services, Inc.