July 24, 2008

Robert Martin
Martin and Slagle
P.O. Box 1023
Black Mountain, NC 28711

Dear Mr. Martin,

Enclosed is the Technical Memorandum for VOC work recently performed at the Kuhlman Electric Corporation (KEC) facility in Crystal Springs, MS. If you have any questions concerning this information, give me a call.

Sincerely,

Joseph Kubale

Enclosure

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

Technical Memorandum

Kuhlman Electric Corporation (KEC)

Crystal Springs, Mississippi

TECHNICAL MEMORANDUM

July 24, 2008

To: Robert Martin
Martin and Slagle

From: Joseph Kubale
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 June 2008 during the city well groundwater sampling event 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.

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

	Purge and Trap GC/MSD
1,1-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	1.0
Toluene	1.0
trans-1,3-Dichloropropene	1.0
1,1,2-Trichloroethane	1.0
Tetrachloroethene	1.0
1,3-Dichloropropane	2.0
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 1,4-Dioxane results is provided in table 2. A summary of method blanks and matrix spike/matrix spike duplicate data is provided in Table 3 and 4, respectively.

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, quantitaion 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 in 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 150.

Table 1

Sample Results Volatiles– June

TABLE 1

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

VOLATILES	Reporting Limit ug/L	W2332 CSW WA8 025 - 10-Jun-08 8:10 11-Jun-08	W2333 CSW WA3 025 - 10-Jun-08 8:20 11-Jun-08	W2334 CSW WA1 025 - 10-Jun-08 8:30 11-Jun-08	W2335 CSW WA2 025 - 10-Jun-08 8:37 11-Jun-08	W2336 CSW FB 025 - 10-Jun-08 8:40 11-Jun-08	W2337 CSW WA5 020 - 10-Jun-08 9:10 11-Jun-08	W2338 CSW WA6 020 - 10-Jun-08 9:20 11-Jun-08	W2339 CSW TP 025 - 10-Jun-08 9:32 11-Jun-08	W2340 CSW Duplicate - 10-Jun-08 - 11-Jun-08
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	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.4
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-Dichloropropene	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	2.7	< 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
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

TABLE 1

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

		W2332	W2333	W2334	W2335	W2336	W2337	W2338	W2339	W2340
		CSW	CSW	CSW	CSW	CSW	CSW	CSW	CSW	CSW
		WA8	WA3	WA1	WA2	FB	WA5	WA6	TP	Duplicate
	Depth	025	025	025	025	025	020	020	025	
	Date Collected	-	-	-	-	-	-	-	-	
	Time Collected	10-Jun-08	10-Jun-08	10-Jun-08	10-Jun-08	10-Jun-08	10-Jun-08	10-Jun-08	10-Jun-08	10-Jun-08
	Date Analyzed	8:10	8:20	8:30	8:37	8:40	9:10	9:20	9:32	-
	Reporting Limit	11-Jun-08	11-Jun-08	11-Jun-08	11-Jun-08	11-Jun-08	11-Jun-08	11-Jun-08	11-Jun-08	11-Jun-08
VOLATILES	ug/L									
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
Bromoform	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	5.1	< 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	%	102	101	99.8	100	101	101	101	100	104
Toluene-D8	%	95.2	97.0	97.4	105	96.3	105	98.4	103	98.9
4-Bromofluorobenzene	%	94.4	98.0	95.9	105	98.2	103	96.8	97.4	93.2

Table 2

Sample Results 1,4-Dioxane– June

TABLE 2

Kuhlman Electric - Crystal Springs, Mississippi - 1,4-Dioxane Detected in Water

VOLATILES	Reporting Limit ug/L	W2332 CSW WA8 025 - 10-Jun-08 8:10 13-Jun-08	W2333 CSW WA3 025 - 10-Jun-08 8:20 13-Jun-08	W2334 CSW WA1 025 - 10-Jun-08 8:30 13-Jun-08	W2335 CSW WA2 025 - 10-Jun-08 8:37 13-Jun-08	W2336 CSW FB 025 - 10-Jun-08 8:40 13-Jun-08	W2337 CSW WA5 020 - 10-Jun-08 9:10 13-Jun-08	W2338 CSW WA6 020 - 10-Jun-08 9:20 13-Jun-08	W2339 CSW TP 025 - 10-Jun-08 9:32 13-Jun-08	W2340 CSW Duplicate - 10-Jun-08 13-Jun-08
1,4-Dioxane	1.0	< 1.0	< 1.0	1.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.4
Surrogates:										
1,4-Dioxane-D8	%	106	104	114	114	111	102	113	121	108

Table 3

QC Results Volatiles– June

TABLE 3
QC Report

Lab # associated with qc samples: W2332 through W2340

	Matrix Spike W2332		Matrix Spike Duplicate W2332			Blank
Date Analyzed:	6/11/08		6/11/08			6/11/08

Compound	% Rec		% Rec	RPD		ug/L
Dichlorodifluoromethane	79.2%		84.6%	6.6%		< 1.0
Chloromethane	73.2%		93.4%	24.2%		< 1.0
Vinyl chloride	79.4%		84.4%	6.1%		< 1.0
Bromomethane	81.4%		95.8%	16.3%		< 1.0
Chloroethane	86.0%		97.8%	12.8%		< 1.0
Trichlorofluoromethane	83.4%		83.6%	0.2%		< 1.0
1,1-Dichloroethene	79.8%		84.4%	5.6%		< 1.0
Methylene chloride	102%		101%	1.2%		< 1.0
trans-1,2-Dichloroethene	76.0%		77.8%	2.3%		< 1.0
1,1-Dichloroethane	91.8%		89.6%	2.4%		< 1.0
cis-1,2-Dichloroethene	88.8%		88.4%	0.5%		< 1.0
2,2-Dichloropropane	81.4%		78.0%	4.3%		< 1.0
Bromochloromethane	88.6%		88.0%	0.7%		< 1.0
Chloroform	94.0%		91.6%	2.6%		< 1.0
1,1,1-Trichloroethane	87.6%		84.0%	4.2%		< 1.0
1,1-Dichloropropene	81.2%		79.4%	2.2%		< 1.0
Carbon tetrachloride	81.2%		84.8%	4.3%		< 1.0
Benzene	86.4%		86.0%	0.5%		< 1.0
1,2-Dichloroethane	88.4%		88.2%	0.2%		< 1.0
Trichloroethene	87.8%		88.0%	0.2%		< 1.0
1,2-Dichloropropane	92.0%		88.4%	4.0%		< 1.0
Dibromomethane	93.6%		91.8%	1.9%		< 1.0
Bromodichloromethane	94.6%		93.2%	1.5%		< 1.0
cis-1,3-Dichloropropene	90.0%		89.4%	0.7%		< 2.0
Toluene	91.8%		95.6%	4.1%		< 1.0
trans-1,3-Dichloropropene	95.0%		94.4%	0.6%		< 1.0
1,1,2-Trichloroethane	99.8%		101%	1.2%		< 1.0
Tetrachloroethene	90.0%		92.4%	2.6%		< 1.0
1,3-Dichloropropane	98.0%		97.4%	0.6%		< 1.0
Dibromochloromethane	100%		99.2%	1.0%		< 1.0
1,2-Dibromoethane	98.0%		97.6%	0.4%		< 1.0
Chlorobenzene	94.4%		94.6%	0.2%		< 1.0
1,1,1,2-Tetrachloroethane	91.2%		90.0%	1.3%		< 1.0
Ethyl benzene	90.0%		89.8%	0.2%		< 1.0
Xylenes, Total	91.2%		92.3%	1.2%		< 2.0
Styrene	94.6%		97.0%	2.5%		< 1.0
Bromoform	92.4%		93.6%	1.3%		< 2.0

TABLE 3
QC Report

Lab # associated with qc samples: W2332 through W2340

	Matrix Spike W2332	Matrix Spike Duplicate W2332	Blank
Date Analyzed:	6/11/08	6/11/08	6/11/08

Compound	% Rec		% Rec	RPD		ug/L
Isopropylbenzene	93.2%		96.8%	3.8%		< 1.0
1,1,2,2-Tetrachloroethane	100%		102%	1.8%		< 2.0
Bromobenzene	96.8%		103%	6.4%		< 1.0
1,2,3-Trichloropropane	100%		103%	2.4%		< 2.0
n-Propylbenzene	97.6%		103%	5.4%		< 1.0
2-Chlorotoluene	100%		106%	5.2%		< 1.0
1,3,5-Trimethylbenzene	99.8%		104%	4.1%		< 1.0
4-Chlorotoluene	105%		107%	2.3%		< 1.0
tert-Butylbenzene	101%		107%	6.2%		< 1.0
1,2,4-Trimethylbenzene	102%		107%	5.0%		< 1.0
sec-Butylbenzene	104%		107%	3.2%		< 1.0
1,3-Dichlorobenzene	101%		101%	0.0%		< 1.0
p-Isopropyltoluene	98.6%		99.2%	0.6%		< 1.0
1,4-Dichlorobenzene	96.4%		99.0%	2.7%		< 1.0
n-Butylbenzene	98.2%		102%	3.6%		< 1.0
1,2-Dichlorobenzene	98.4%		103%	4.2%		< 1.0
1,2-Dibromo-3-chloropropane	97.8%		96.6%	1.2%		< 2.0
1,3,5-Trichlorobenzene	98.8%		103%	4.5%		< 1.0
1,2,4-Trichlorobenzene	99.4%		102%	2.6%		< 1.0
Hexachlorobutadiene	98.4%		101%	2.8%		< 1.0
Naphthalene	97.2%		97.8%	0.6%		< 3.0
1,2,3-Trichlorobenzene	101%		103%	2.0%		< 1.0

Table 4

QC Results 1,4-Dioxane– June

TABLE 4
QC Report

Lab # associated with qc samples: W2332 through W2340

	Matrix Spike	Matrix Spike Duplicate		LCS	Blank
	W2332	W2332			
Date Extracted:	06/10/08	06/10/08		06/10/08	06/10/08
Date Analyzed:	06/13/08	06/13/08		06/13/08	06/12/08

Compound	% Rec		% Rec	RPD		% Rec	ug/L
1,4-Dioxane	109%		117%	7.1%		100%	< 1.0

Appendix A

Chain of Custody Sheets for Samples

Environmental Chemistry Consulting Services, Inc.

2525 Advance Road Madison, WI 53718
Phone 608-221-8700 FAX 608-221-4889

CHAIN OF CUSTODY

City Wells

No. 013708 *

Page 1 of 1

Turn Around (circle one) Normal Rush
Report Due:

Project Number:
Project Name: KUHLEMAN ELECTRIC
Project Location: CLINTON SPRING
Sampled By (Print): Chuck Peal

Mail Report To:
Company: MARTIN + SLAGLE
Address:

Invoice To:
Company:
Address:

P.O. No.: Quote No.:

Sample Description	Collection Date	Collection Time	Matrix	Total Bottles	Preserv*	Analysis Requested	Comments	Laboratory Number
CSW-WA8-025'	6/10/08	0810	W	4	A	8260 + 1,4 Dioxane		W2332
CSW-WA3-025'		0820		4	A			W2333
CSW-WA1-025'		0830		11	A/B			W2334
CSW-WA2-025'		0837		4	A			W2335
CSW-F6-025'		0840		3	A			W2336
CSW-WA5-020		0910		4	A			W2337
CSW-WA6-020		0920		4	A			W2338
CSW-TP-025'		0932		7	A/B			W2339
DUPLICATE	↓	—	↓	7	A/B	↓		W2340

*Preservation Code
A=None B=HCL C=H2SO4
D=HNO3 E=EnCore F=Methanol
G=NaOH O=Other(Indicate)

Relinquished By: Charles A. M. Peal — Date/Time: 6/10/08 1000 — Received By: [signature] — Date/Time: 6/10/08 1000

Relinquished By — Date/Time: — Received By: [signature] — Date/Time:

Custody Seal: Present/Absent Intact/Not Intact Seal #'s
Shipped Via:

Receipt Temp:
Temp Blank Y N

WHITE - REPORT COPY YELLOW - LABORATORY COPY PINK - SAMPLER/SUBMITTER

Appendix B

FEDEX shipping label for Columbia Analytical Services, Inc.

FedEx Express USA Airbill

FedEx tracking number 837784146484

Form ID No. 0200

From Please print and press hard.

Date 6/10/08

Sender's FedEx Account Number 226281991

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

Company ECC's INC

Address 2525 ADVANCE RD

Dept./Floor/Suite/Room

City MADISON State WI ZIP 53718

Your Internal Billing Reference
First 24 characters will appear on invoice

To

Recipient's Name Phone 360 | 577-7222

Company COLUMBIA ANALYTICAL

Address
To hold at FedEx location, print FedEx address. You cannot deliver to P.O. boxes or P.O. ZIP codes.

Address 1317 SE. 13th Ave

Dept./Floor/Suite/Room

City KELSO State WA ZIP 98626

By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

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

4a Express Package Service — Packages up to 150 lbs.
Delivery commitments may be later in some areas

- [X] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge. Dry ice not available.

4b Express Freight Service — Packages over 150 lbs.
Delivery commitments may be later in some areas

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation.

5 Packaging — * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [X] Other

6 Special Handling

- [ ] SATURDAY Delivery — Available for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods?

- [X] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods including Dry Ice cannot be shipped in FedEx packaging.

7 Payment *Bill to:*

- [X] Sender — Acct. No. in Section 1 will be billed
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. or Credit Card No. Exp. Date

Total Packages	Total Weight	Total Declared Value†	
		$ .00	FedEx Use Only

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature Sign to authorize delivery without obtaining signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

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Appendix C

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

CHAIN OF CUSTODY

Columbia Analytical Services, Inc.
An Employee-Owned Company

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

SR#: _____

PAGE _____ OF _____ COC #_____

PROJECT NAME: KUHLMAN ELECTRIC
PROJECT NUMBER:
PROJECT MANAGER: ROBERT MARTIN
COMPANY/ADDRESS: MARTIN & SEAGLE
CITY/STATE/ZIP: BLACK MOUNTAIN NC
E-MAIL ADDRESS:
PHONE #: FAX#:
SAMPLER'S SIGNATURE: Charles O M Peel

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625 ☐ 8270 ☐	Volatile Organics 624 ☐ 8260 ☐	Hydrocarbons (*see below) Gas ☐ Diesel ☐ 8021 ☐ BTEX ☐ Fuel Fingerprint (FIO) ☐ ☐ NW-HCID ☐ Oil & Grease/TRPH 1664 HEM ☐	PCB's Aroclors ☐	Pesticides/Herbicides 608 ☐ 8081A ☐	Chlorophenolics 8141A ☐ 8151A ☐ Tri ☐ Tetra ☐	PAHS 8310 ☐ SIM ☐	Metals, Total or Dissolved (See list below)	Cyanide ☐	pH, Cond., Cl, SO_4, PO_4, F, NO_2, NO_3, BOD, TSS, TDS (circle) NH_3-N, COD, Total-P, TKN, TOC DOC (circle) NO_2+NO_3	TOX 9020 ☐	AOX 1650 ☐ 506 ☐	1,4 Dioxane by 8270 SIM				REMARKS
CSW-WA1-025	6/10/08	0830		W	6		X														X				W2734
CSW-DUPLICATE	6/10/08	—		W	4		X														X				W2740
TRIP BLANK	—	—		W	1																				

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

INVOICE INFORMATION

P.O. #
Bill To: ROBERT MARTIN

TURNAROUND REQUIREMENTS

___ 24 hr. ___ 48 hr.
___ 5 Day.
X Standard (10-15 working days)
___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

8260 B – Kuhlman list
1,4 Dioxane – met 0.5 ug/L Report limit

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Charles O M Peel	Signature:	Signature:	Signature:
Date/Time: 6/10/08 1400	Date/Time:	Date/Time:	Date/Time:
Printed Name: Charles O M Peel	Printed Name:	Printed Name:	Printed Name:
Firm: Peel Consulting	Firm:	Firm:	Firm:

RCOC #1 06/03