

December 26, 2008

Analytical Report for Service Request No: K0811769

Joe Kabale  
Environmental Chemistry Consulting Services, Inc.  
2525 Advance Rd.  
Madison, WI 53718

**RE: Kuhlman Electric**

Dear Joe:

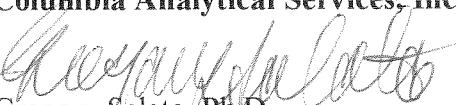
Enclosed are the results of the samples submitted to our laboratory on December 04, 2008. For your reference, these analyses have been assigned our service request number K0811769.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376. You may also contact me via Email at [GSalata@caslab.com](mailto:GSalata@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**

  
Gregory Salata, Ph.D.  
Project Chemist

GS/lb

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## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- B The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
  - i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.
- \* The duplicate analysis not within control limits. See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a chromatographic interference.
- X See case narrative.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**Columbia Analytical Services, Inc.**  
**Kelso, WA**  
**State Certifications, Accreditations, and Licenses**

<b>Program</b>	<b>Number</b>
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Colorado DPHE	-
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DHS	WA200001
South Carolina DHEC	61002
Utah DOH	COLU
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-

## **Case Narrative**

**COLUMBIA ANALYTICAL SERVICES, INC.**

**Client:** Environmental Chemistry Consulting Services, Inc. **Service Request No.:** K0811769  
**Project:** Kuhlman Electric **Date Received:** 12/04/08  
**Sample Matrix:** Water

**CASE NARRATIVE**

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Matrix/Duplicate Matrix Spike (MS/DMS), and Laboratory Control Sample (LCS).

**Sample Receipt**

Three water samples were received for analysis at Columbia Analytical Services on 12/04/08. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

**Volatile Organic Compounds by EPA Method 8260B**

No anomalies associated with the analysis of these samples were observed.

**1,4-dioxane by EPA Method 8270C**

No anomalies associated with the analysis of these samples were observed.

Approved by

Date 12/30/08

## **Chain of Custody Documentation**



Columbia Analytical Services, Inc.  
Cooler Receipt and Preservation Form

PC

*Heg*

Client / Project: Peel Consulting Service Request K08 11769  
 Received: 12/14/08 Opened: 12/14/08 By: BT

1. Samples were received via? US Mail  FedEx  UPS  DHL  GH  GS  PDX  Courier  Hand Delivered
2. Samples were received in: (circle)  Cooler  Box  Envelope  Other  NA
3. Were custody seals on coolers?  NA  Y N If yes, how many and where? 1 f, 1 b  
 If present, were custody seals intact?  Y N If present, were they signed and dated?  Y N
4. Is shipper's air-bill filed? If not, record air-bill number: Enclosed  NA  Y N
  
5. Temperature of cooler(s) upon receipt (°C): 3.2  
 Temperature Blank (°C): 1.7
6. If applicable, list Chain of Custody Numbers:
7. Packing material used. Inserts Baggies  Bubble Wrap Gel Packs  Wet Ice  Sleeves Other
8. Were custody papers properly filled out (ink, signed, etc.)?  NA  Y N
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.*  NA  Y N
10. Were all sample labels complete (i.e analysis, preservation, etc.)?  NA  Y N
11. Did all sample labels and tags agree with custody papers? *Indicate in the table below.*  NA  Y N
12. Were appropriate bottles/containers and volumes received for the tests indicated?  NA  Y N
13. Were the pH-preserved bottles tested\* received at the appropriate pH? *Indicate in the table below.*  NA  Y N
14. Were VOA vials and 1631 Mercury bottles received without headspace? *Indicate in the table below.*  NA  Y N
15. Are CWA Microbiology samples received with >1/2 the 24hr. hold time remaining from collection?  NA  Y N
16. Was C12/Res negative?  NA  Y N

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broken	pH	Reagent	Volume added	Reagent Lot Number	Initials

\*Does not include all pH preserved sample aliquots received. See sample receiving SOP (SMO-GEN).

Additional Notes, Discrepancies, & Resolutions:

## **Volatile Organic Compounds EPA Method 8260B**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811769  
 Date Collected: 12/02/2008  
 Date Received: 12/04/2008

## Volatile Organic Compounds

Sample Name: CSW-WA1-031 Units: ug/L  
 Lab Code: K0811769-001 Basis: NA

Extraction Method: EPA 5030B Level: Low  
 Analysis Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Vinyl Chloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromomethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Trichlorofluoromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Acetone	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
<b>1,1-Dichloroethene</b>	<b>1.7</b>		0.50	1	12/12/08	12/12/08	KWG0813340	
Carbon Disulfide	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Methylene Chloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
trans-1,2-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Butanone (MEK)	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
2,2-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
cis-1,2-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloroform	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromochloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Carbon Tetrachloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Benzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Trichloroethene (TCE)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromodichloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Dibromomethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Hexanone	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
cis-1,3-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Toluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
trans-1,3-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,2-Trichloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
1,3-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** 12/02/2008  
**Date Received:** 12/04/2008

## Volatile Organic Compounds

**Sample Name:** CSW-WA1-031      **Units:** ug/L  
**Lab Code:** K0811769-001      **Basis:** NA  
**Extraction Method:** EPA 5030B      **Level:** Low  
**Analysis Method:** 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Dibromochloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dibromoethane (EDB)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Ethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
m,p-Xylenes	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
o-Xylene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Styrene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromoform	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Isopropylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,3-Trichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
n-Propylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Chlorotoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Chlorotoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3,5-Trimethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
tert-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,4-Trimethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
sec-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Isopropyltoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,4-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
n-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	12/12/08	12/12/08	KWG0813340	
1,2,4-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,3-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Naphthalene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Hexachlorobutadiene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3,5-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** 12/02/2008  
**Date Received:** 12/04/2008

**Volatile Organic Compounds**

**Sample Name:** CSW-WA1-031      **Units:** ug/L  
**Lab Code:** K0811769-001      **Basis:** NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	75-120	12/12/08	Acceptable
Toluene-d8	98	80-128	12/12/08	Acceptable
4-Bromofluorobenzene	97	75-117	12/12/08	Acceptable

**Comments:** \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811769  
 Date Collected: 12/02/2008  
 Date Received: 12/04/2008

## Volatile Organic Compounds

Sample Name: CSW-Duplicate                          Units: ug/L  
 Lab Code: K0811769-002                          Basis: NA

Extraction Method: EPA 5030B                          Level: Low  
 Analysis Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Vinyl Chloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromomethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Trichlorofluoromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Acetone	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloroethene	1.7		0.50	1	12/12/08	12/12/08	KWG0813340	
Carbon Disulfide	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Methylene Chloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
trans-1,2-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Butanone (MEK)	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
2,2-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
cis-1,2-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloroform	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromochloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Carbon Tetrachloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Benzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Trichloroethene (TCE)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromodichloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Dibromomethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Hexanone	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
cis-1,3-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Toluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
trans-1,3-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,2-Trichloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
1,3-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811769  
 Date Collected: 12/02/2008  
 Date Received: 12/04/2008

## Volatile Organic Compounds

Sample Name:	CSW-Duplicate	Units:	ug/L
Lab Code:	K0811769-002	Basis:	NA
Extraction Method:	EPA 5030B	Level:	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethylene (PCE)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Dibromochloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dibromoethane (EDB)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Ethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
m,p-Xylenes	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
o-Xylene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Styrene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromoform	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Isopropylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,3-Trichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
n-Propylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Chlorotoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Chlorotoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3,5-Trimethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
tert-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,4-Trimethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
sec-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Isopropyltoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,4-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
n-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	12/12/08	12/12/08	KWG0813340	
1,2,4-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,3-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Naphthalene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Hexachlorobutadiene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3,5-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** 12/02/2008  
**Date Received:** 12/04/2008

**Volatile Organic Compounds**

**Sample Name:** CSW-Duplicate      **Units:** ug/L  
**Lab Code:** K0811769-002      **Basis:** NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	75-120	12/12/08	Acceptable
Toluene-d8	98	80-128	12/12/08	Acceptable
4-Bromofluorobenzene	94	75-117	12/12/08	Acceptable

Comments: \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** 12/02/2008  
**Date Received:** 12/04/2008

## Volatile Organic Compounds

**Sample Name:** Trip Blank      **Units:** ug/L  
**Lab Code:** K0811769-003      **Basis:** NA  
**Extraction Method:** EPA 5030B      **Level:** Low  
**Analysis Method:** 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Vinyl Chloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromomethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Trichlorofluoromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Acetone	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Carbon Disulfide	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Methylene Chloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
trans-1,2-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Butanone (MEK)	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
2,2-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
cis-1,2-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloroform	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromochloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Carbon Tetrachloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Benzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Trichloroethene (TCE)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromodichloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Dibromomethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Hexanone	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
cis-1,3-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Toluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
trans-1,3-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,2-Trichloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
1,3-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	

Comments: \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** 12/02/2008  
**Date Received:** 12/04/2008

## Volatile Organic Compounds

**Sample Name:** Trip Blank      **Units:** ug/L  
**Lab Code:** K0811769-003      **Basis:** NA

**Extraction Method:** EPA 5030B      **Level:** Low  
**Analysis Method:** 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Dibromochloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dibromoethane (EDB)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Ethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
m,p-Xylenes	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
o-Xylene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Styrene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromoform	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Isopropylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,3-Trichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
n-Propylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Chlorotoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Chlorotoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3,5-Trimethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
tert-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,4-Trimethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
sec-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Isopropyltoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,4-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
n-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	12/12/08	12/12/08	KWG0813340	
1,2,4-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,3-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Naphthalene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Hexachlorobutadiene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3,5-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** 12/02/2008  
**Date Received:** 12/04/2008

**Volatile Organic Compounds**

**Sample Name:** Trip Blank      **Units:** ug/L  
**Lab Code:** K0811769-003      **Basis:** NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	75-120	12/12/08	Acceptable
Toluene-d8	99	80-128	12/12/08	Acceptable
4-Bromofluorobenzene	96	75-117	12/12/08	Acceptable

Comments: \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** NA  
**Date Received:** NA

## Volatile Organic Compounds

**Sample Name:** Method Blank      **Units:** ug/L  
**Lab Code:** KWG0813340-4      **Basis:** NA

**Extraction Method:** EPA 5030B      **Level:** Low  
**Analysis Method:** 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Vinyl Chloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromomethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Trichlorofluoromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Acetone	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Carbon Disulfide	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Methylene Chloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
trans-1,2-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Butanone (MEK)	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
2,2-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
cis-1,2-Dichloroethene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chloroform	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromochloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Carbon Tetrachloride	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Benzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Trichloroethene (TCE)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromodichloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Dibromomethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Hexanone	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
cis-1,3-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Toluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
trans-1,3-Dichloropropene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,2-Trichloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	12/12/08	12/12/08	KWG0813340	
1,3-Dichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811769  
 Date Collected: NA  
 Date Received: NA

## Volatile Organic Compounds

Sample Name:	Method Blank	Units:	ug/L
Lab Code:	KWG0813340-4	Basis:	NA
Extraction Method:	EPA 5030B	Level:	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Dibromochloromethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dibromoethane (EDB)	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Chlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Ethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
m,p-Xylenes	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
o-Xylene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Styrene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromoform	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Isopropylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,3-Trichloropropane	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Bromobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
n-Propylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
2-Chlorotoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Chlorotoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3,5-Trimethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
tert-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,4-Trimethylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
sec-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
4-Isopropyltoluene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,4-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
n-Butylbenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	12/12/08	12/12/08	KWG0813340	
1,2,4-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,2,3-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Naphthalene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
Hexachlorobutadiene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	
1,3,5-Trichlorobenzene	ND	U	0.50	1	12/12/08	12/12/08	KWG0813340	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank                           **Units:** ug/L  
**Lab Code:** KWG0813340-4                           **Basis:** NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	75-120	12/12/08	Acceptable
Toluene-d8	98	80-128	12/12/08	Acceptable
4-Bromofluorobenzene	96	75-117	12/12/08	Acceptable

**Comments:** \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811769

**Surrogate Recovery Summary  
Volatile Organic Compounds**

Extraction Method: EPA 5030B

Units: PERCENT

Analysis Method: 8260B

Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
CSW-WA1-031	K0811769-001	92	98	97
CSW-Duplicate	K0811769-002	93	98	94
Trip Blank	K0811769-003	92	99	96
Method Blank	KWG0813340-4	93	98	96
CSW-WA1-031MS	KWG0813340-1	91	100	97
CSW-WA1-031DMS	KWG0813340-2	92	99	95
Lab Control Sample	KWG0813340-3	92	99	95

**Surrogate Recovery Control Limits (%)**

Sur1 = Dibromofluoromethane	75-120
Sur2 = Toluene-d8	80-128
Sur3 = 4-Bromofluorobenzene	75-117

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Extracted:** 12/12/2008  
**Date Analyzed:** 12/12/2008

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds**

<b>Sample Name:</b>	CSW-WA1-031	<b>Units:</b>	ug/L
<b>Lab Code:</b>	K0811769-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 5030B	<b>Level:</b>	Low
<b>Analysis Method:</b>	8260B	<b>Extraction Lot:</b>	KWG0813340

<b>Analyte Name</b>	<b>Sample Result</b>	CSW-WA1-031MS			CSW-WA1-031DMS			<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
		KWG0813340-1			KWG0813340-2								
		Matrix Spike			Duplicate Matrix Spike								
1,1-Dichloroethene	1.7	15.4	10.0	137	14.5	10.0	128	67-147	6	30			
Benzene	ND	11.1	10.0	111	10.6	10.0	106	69-126	4	30			
Trichloroethene (TCE)	ND	10.7	10.0	107	10.4	10.0	104	56-137	3	30			
Toluene	ND	11.4	10.0	114	11.0	10.0	110	66-128	3	30			
Chlorobenzene	ND	10.3	10.0	103	9.71	10.0	97	68-120	6	30			
1,2-Dichlorobenzene	ND	9.82	10.0	98	9.52	10.0	95	67-116	3	30			
Naphthalene	ND	10.1	10.0	101	10.1	10.0	101	61-137	1	30			

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811769  
 Date Extracted: 12/12/2008  
 Date Analyzed: 12/12/2008

**Lab Control Spike Summary  
Volatile Organic Compounds**

Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: KWG0813340

Lab Control Sample  
KWG0813340-3  
Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
Dichlorodifluoromethane	10.4	10.0	104	21-156
Chloromethane	8.70	10.0	87	45-135
Vinyl Chloride	11.0	10.0	110	59-135
Bromomethane	8.90	10.0	89	24-144
Chloroethane	9.20	10.0	92	60-128
Trichlorofluoromethane	9.25	10.0	93	54-129
Acetone	57.2	50.0	114	53-129
1,1-Dichloroethene	11.7	10.0	117	70-136
Carbon Disulfide	19.1	20.0	95	64-129
Methylene Chloride	10.2	10.0	102	64-137
trans-1,2-Dichloroethene	10.2	10.0	102	70-121
1,1-Dichloroethane	9.28	10.0	93	72-122
2-Butanone (MEK)	56.6	50.0	113	56-137
2,2-Dichloropropane	9.17	10.0	92	48-133
cis-1,2-Dichloroethene	9.57	10.0	96	76-125
Chloroform	8.62	10.0	86	71-118
Bromochloromethane	9.40	10.0	94	72-123
1,1,1-Trichloroethane (TCA)	9.14	10.0	91	65-126
1,1-Dichloropropene	9.49	10.0	95	71-119
Carbon Tetrachloride	9.07	10.0	91	58-133
1,2-Dichloroethane (EDC)	9.69	10.0	97	69-125
Benzene	9.68	10.0	97	74-118
Trichloroethene (TCE)	9.47	10.0	95	71-122
1,2-Dichloropropane	9.37	10.0	94	73-123
Bromodichloromethane	9.54	10.0	95	72-127
Dibromomethane	9.00	10.0	90	71-124
2-Hexanone	48.0	50.0	96	44-135
cis-1,3-Dichloropropene	9.41	10.0	94	71-125
Toluene	9.43	10.0	94	74-117
trans-1,3-Dichloropropene	8.60	10.0	86	56-121
1,1,2-Trichloroethane	9.16	10.0	92	73-122
4-Methyl-2-pentanone (MIBK)	49.3	50.0	99	57-129
1,3-Dichloropropane	9.42	10.0	94	74-120
Tetrachloroethene (PCE)	9.17	10.0	92	65-121
Dibromochloromethane	9.57	10.0	96	67-124

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Extracted:** 12/12/2008  
**Date Analyzed:** 12/12/2008

**Lab Control Spike Summary**  
**Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG0813340

Lab Control Sample

KWG0813340-3

Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	9.44	10.0	94	71-120
Chlorobenzene	9.20	10.0	92	74-115
1,1,1,2-Tetrachloroethane	9.41	10.0	94	71-118
Ethylbenzene	9.44	10.0	94	71-118
m,p-Xylenes	18.9	20.0	95	73-119
o-Xylene	9.26	10.0	93	74-120
Styrene	9.36	10.0	94	75-123
Bromoform	9.36	10.0	94	57-135
Isopropylbenzene	8.49	10.0	85	65-110
1,1,2,2-Tetrachloroethane	9.10	10.0	91	63-126
1,2,3-Trichloropropane	9.07	10.0	91	67-123
Bromobenzene	9.33	10.0	93	76-111
n-Propylbenzene	9.26	10.0	93	69-122
2-Chlorotoluene	9.28	10.0	93	72-120
4-Chlorotoluene	9.10	10.0	91	70-118
1,3,5-Trimethylbenzene	9.22	10.0	92	70-120
tert-Butylbenzene	9.38	10.0	94	72-118
1,2,4-Trimethylbenzene	9.44	10.0	94	72-121
sec-Butylbenzene	9.86	10.0	99	73-130
1,3-Dichlorobenzene	9.11	10.0	91	76-110
4-Isopropyltoluene	9.17	10.0	92	67-115
1,4-Dichlorobenzene	9.16	10.0	92	74-112
n-Butylbenzene	9.13	10.0	91	62-123
1,2-Dichlorobenzene	9.05	10.0	91	75-110
1,2-Dibromo-3-chloropropane	9.21	10.0	92	49-124
1,2,4-Trichlorobenzene	9.54	10.0	95	66-115
1,2,3-Trichlorobenzene	9.46	10.0	95	64-120
Naphthalene	9.43	10.0	94	58-132
Hexachlorobutadiene	9.67	10.0	97	61-124
1,3,5-Trichlorobenzene	35.3	40.0	88	46-133

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**Semi-Volatile Organic Compounds  
EPA Method 8270C**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** 12/02/2008  
**Date Received:** 12/04/2008

## 1,4-Dioxane by GC/MS

<b>Sample Name:</b>	CSW-WA1-031	<b>Units:</b>	ug/L
<b>Lab Code:</b>	K0811769-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C SIM		

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,4-Dioxane	0.92	0.50	1	12/08/08	12/23/08	KWG0813119	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Dioxane-d8	77	55-100	12/23/08	Acceptable

Comments: \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** 12/02/2008  
**Date Received:** 12/04/2008

## 1,4-Dioxane by GC/MS

**Sample Name:** CSW-Duplicate                    **Units:** ug/L  
**Lab Code:** K0811769-002                    **Basis:** NA  
**Extraction Method:** EPA 3510C                    **Level:** Low  
**Analysis Method:** 8270C SIM

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,4-Dioxane	0.91		0.50	1	12/08/08	12/23/08	KWG0813119	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Dioxane-d8	77	55-100	12/23/08	Acceptable

Comments: \_\_\_\_\_

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## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Collected:** NA  
**Date Received:** NA

## 1,4-Dioxane by GC/MS

**Sample Name:** Method Blank      **Units:** ug/L  
**Lab Code:** KWG0813119-4      **Basis:** NA  
**Extraction Method:** EPA 3510C      **Level:** Low  
**Analysis Method:** 8270C SIM

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,4-Dioxane	ND U	0.50	1	12/08/08	12/23/08	KWG0813119	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Dioxane-d8	82	55-100	12/23/08	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769

**Surrogate Recovery Summary**  
**1,4-Dioxane by GC/MS**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8270C SIM

**Units:** PERCENT  
**Level:** Low

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>
CSW-WA1-031	K0811769-001	77
CSW-Duplicate	K0811769-002	77
Method Blank	KWG0813119-4	82
CSW-WA1-031MS	KWG0813119-1	72
CSW-WA1-031DMS	KWG0813119-2	78
Lab Control Sample	KWG0813119-3	81

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**Surrogate Recovery Control Limits (%)**

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Sur1 = 1,4-Dioxane-d8                    55-100

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Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Extracted:** 12/08/2008  
**Date Analyzed:** 12/23/2008

**Matrix Spike/Duplicate Matrix Spike Summary**  
**1,4-Dioxane by GC/MS**

<b>Sample Name:</b>	CSW-WA1-031	<b>Units:</b>	ug/L
<b>Lab Code:</b>	K0811769-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C SIM	<b>Extraction Lot:</b>	KWG0813119

<b>Analyte Name</b>	<b>Sample Result</b>	CSW-WA1-031MS			CSW-WA1-031DMS			<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
		<b>Result</b>	<b>Expected</b>	<b>%Rec</b>	<b>Result</b>	<b>Expected</b>	<b>%Rec</b>			
1,4-Dioxane	0.92	21.9	25.0	84	21.9	25.0	84	53-105	0	30

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811769  
**Date Extracted:** 12/08/2008  
**Date Analyzed:** 12/23/2008

**Lab Control Spike Summary**  
1,4-Dioxane by GC/MS

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8270C SIM

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG0813119

## Lab Control Sample

KWG0813119-3

## Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
1,4-Dioxane	21.5	25.0	86	56-107

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.