

**Appendix G  
Quarterly Monitoring Report  
Bordeaux Dump Area, Hytec-Littlerock Site  
January 2013 Sampling**

## **1.0 INTRODUCTION**

Results from the January 2013 fourth quarter sampling event are summarized in this Appendix as an addendum to the Bordeaux Dump Remedial Action Report (CALIBRE 2013). The site Cleanup Action Plan (CAP) required that groundwater sampling be conducted on a quarterly basis for four quarters after completion of the landfill removal action. The sampling described in this report was completed in accordance with the compliance monitoring plan. Monitoring well HLMW-07A was sampled. The site location and well sampled is shown in Figure 1.

The information presented in this addendum is organized as follows:

- Introduction and objectives (Section 1);
- Summary of Groundwater Monitoring Performed during January 2013 (Section 2);
- Results of Groundwater Monitoring (Section 3);
- Summary (Section 4); and
- References (Section 5).

Additional information included as attachments are Well Sample Data Sheets, and the Laboratory Analytical Report.

## **2.0 SUMMARY OF GROUNDWATER MONITORING EVENT**

Groundwater was sampled from one well on 31 January 2013 (monitoring well HLMW-07A). Sampling was conducted using a Waterra pump with dedicated tubing and a foot valve. A construction summary of the sampled well is presented in Appendix D of the Bordeaux Dump Remedial Action Report (CALIBRE 2013). Depth-to-water measurement is presented in Table 2-1.

Water quality parameters were measured during well purging and recorded at five minute intervals. Purging continued until the water quality parameters had stabilized. The final water quality parameters are presented in Table 2-1.

Water samples were submitted to Fremont Analytical and analyzed for Semi-Volatile Organic Compounds (SVOCs) by EPA method 8270D and total metals by EPA method 200.8. Well sample data sheet and the complete laboratory analytical reports are included at the end of this addendum.

Samples were collected and delivered to the laboratory under chain-of-custody procedures specified in the project Quality Assurance Project Plan (QAPP). All samples were received at the laboratory within the recommended temperature range and analyzed within the method-

specific required holding time. The field trip blank and duplicate data were reviewed and all results were acceptable (meeting the QAPP requirements). The data is considered usable except where noted below.

### **3.0 SAMPLING RESULTS**

During the January 2013 sampling event four SVOCs were detected at trace levels (all sample detections were less than their respective maximum contaminant level [MCL] or MTCA Method B criteria). These detections were reported as “J” flagged by the laboratory (noted as above the method detection limit [MDL], but below the reporting limit [RL]). All four of the SVOCs were also detected and reported as “J” flagged in the method blank analysis reported by the laboratory (method blank sample identification MB-4030, 2/7/2013). These SVOC compounds are common laboratory contaminants at trace levels and the method blank sample indicated concentrations similar to (and sometimes exceeding) the groundwater sample for these compounds. The sampling results for these specific analytes are therefore reported as non-detect (“ND” flagged, after a 10X factor was applied to the detections observed in the method blank); however the results are still described in this report for completeness.

The detection of bis(2-ethylhexyl) phthalate was 0.714 ug/L (below the MCL/MTCA Method B criterion of 6 ug/L). The detection of dibutyl phthalate was 0.135 ug/L (below the MTCA Method B criterion of 1,600 ug/L). The detection of diethyl phthalate was 0.156 ug/L (below the MTCA Method B criterion of 12,800 ug/L). Phenanthrene was detected at 0.117 ug/L; this compound does not have a MTCA cleanup level or EPA MCL because no toxicity data has been published in IRIS by EPA. Table 2-2 shows the analytical results for SVOCs detected in groundwater samples from January 2013.

Analyses for total metals showed detections for antimony, chromium, copper, nickel, and zinc. Cadmium and lead were detected at trace levels and are reported as “J” flagged. None of the total metals detections exceeded MCLs (or MTCA Method B criteria). Analytical results for total metals are presented in Table 2-3. The complete laboratory analytical reports can be found at the end of this addendum.

### **4.0 SUMMARY**

This report (an addendum to the Bordeaux Dump Remedial Action Report) presents the results for the fourth quarter of sampling at the Bordeaux Dump area of the Hytec-Littlerock Site; the sampling has been completed in accordance with the Cleanup Action Plan (CAP).

With this submittal, all of the monitoring requirements from the CAP and approved Work Plan have been met thereby fulfilling the requirements of the Consent Decree (all required confirmation sampling is complete and four quarters of groundwater sampling is complete). The sampling results have met all applicable criteria (MTCA Method B criteria listed in the CAP). Based on these actions and confirmational sampling results, the remedial actions are complete per the approved remedial action work plan

We recommend that Ecology close the site and request that Ecology prepare a letter confirming that the requirements of the CAP and approved Remedial Action Work Plan have been completed.

## **5.0 REFERENCES**

CALIBRE 2013, Bordeaux Dump Remedial Action Report, Hytec – Littlerock Site, Halo-Kuntux Lane, Littlerock, Washington. January 2013.

Ecology 2010. Final Cleanup Action Plan for Bordeaux Dump Site, Halo-Kuntux Lane, Littlerock Washington. Prepared by: Washington State Department of Ecology, Southwest Regional Office, Toxics Cleanup Program. August 2010.

## TABLES

**Table 2-1 Water Quality Parameters, January 2013**

Parameter	Measured Value
Depth to Water	35.04 ft
Volume Purged	6 gal
pH	5.06
Conductivity	0.069 $\mu$ mhos/cm
Turbidity	88.6 NTU
D.O.	6.98 mg/ L
Temperature	7.85 $^{\circ}$ C
ORP	289

**Table 2-2 Detected SVOCs, January 2013**

Analyte	Reported Concentration ( $\mu$ g/L)	Flag
Bis(2-Ethylhexyl) Phthalate	0.714	BJ
Dibutyl phthalate	0.135	BJ
Diethyl phthalate	0.156	BJ
Phenanthrene	0.117	BJ

All analytes were less than the MTCA B criteria (or non-detect)

**Table 2-3 Detected Total Metals, January 2013**

Analyte	Reported Concentration ( $\mu$ g/L)	Flag
Arsenic	0.748	J
Cadmium	0.041	J
Lead	0.328	J
Antimony	0.264	
Chromium	0.766	
Copper	2.41	
Nickel	1.35	
Zinc	13.5	

All analytes were less than the MTCA B criteria (or non-detect)

### Well Sampling Data Sheet

Date	1 / 31 / 2013	Site Location	Bordeaux
Samplers	JN + CG	Well ID	HLMW-07A
Casing Material	PVC	Constructed Depth	59'
Casing Diameter	2"	Condition of Well	good

**Field Measurements:**

Time	0822	Depth Measured From:	
Depth to Water	35.68'		Top of access port
	35.04'	x	Mark on PVC casing
			Mark of protective casing
			Other

**Purging Information:**

Pump:	Dedicated	Non-dedicated	
Bailer:	PVC	Stainless Steel	Other:
Purge Start Time		Purge End Time	
Approximate Gallons Purged			

**Water Monitoring Conditions:**

Time	0829	0834	0839	0844	0849		
pH	4.45	5.26	5.27	5.39	5.06		
Conductivity	0.191	0.070	0.070	0.070	0.069		
Turbidity	554	799	468	153	88.6		
D.O.	8.52	7.55	7.25	7.12	6.98		
Temperature	7.49	7.92	7.82	7.84	7.85		
ORP	283	243	267	260	289		
Purge Rate	-	-	-	-	-		
Gallons Purged	0	2.5	4.0	5.0	6.0		

**Sampling Data:**

Time	0849	Sample ID	HLMW-07A-013113
pH	5.06	Duplicates	
Conductivity	0.069	QA/QC Volumes	
Turbidity	88.6		
D.O.	6.98		
Temperature	7.85		
ORP	289		

**Sampling Device:**

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	
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**Analyses to be Performed:**

Volatile Organics		VOCs 8260B	SVOCs by 8270C	X	Sulfate 375.2	
Total Metals	X	RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

**Sampling Notes:**

<p>Extra sample taken for dissolved, lab filtered.</p>	<p>Well Diameter Well Volume (Gal/ft)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1 inch</td> <td style="width: 50%;">0.041</td> </tr> <tr> <td>2 inch</td> <td>0.163</td> </tr> <tr> <td>4 inch</td> <td>0.653</td> </tr> <tr> <td>6 inch</td> <td>1.469</td> </tr> </table> <p>Or: (total depth(ft) - DTW(ft)) x Well Dia<sup>2</sup> x 0.0408 = 1 Well Volume</p>	1 inch	0.041	2 inch	0.163	4 inch	0.653	6 inch	1.469
1 inch	0.041								
2 inch	0.163								
4 inch	0.653								
6 inch	1.469								



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info@fremontanalytical.com

**Calibre**

Tom McKeon  
16935 SE 39th St.  
Bellevue, Washington 98008

**RE: Hytec/Bordeaux**

**Lab ID: 1302006**

February 11, 2013

**Attention Tom McKeon:**

Fremont Analytical, Inc. received 13 sample(s) on 2/1/2013 for the analyses presented in the following report.

***Dissolved Metals by EPA Method 200.8***

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

***Total Metals by EPA Method 200.8***

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

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Dee".

Michael Dee  
Sr. Chemist / Principal

**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux  
**Lab Order:** 1302006

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1302006-001	HLMW-07A-013113	01/31/2013 8:49 AM	02/01/2013 3:36 PM
1302006-002	HLMW-06B-013113	01/31/2013 9:31 AM	02/01/2013 3:36 PM
1302006-003	HLMW-03A-013113	01/31/2013 10:03 AM	02/01/2013 3:36 PM
1302006-004	HLMW-02A-013113	01/31/2013 10:40 AM	02/01/2013 3:36 PM
1302006-005	HLMW-04A-013113	01/31/2013 11:29 AM	02/01/2013 3:36 PM
1302006-006	SPWE-013113	01/31/2013 12:49 PM	02/01/2013 3:36 PM
1302006-007	HLMW-01A-013113	01/31/2013 1:36 PM	02/01/2013 3:36 PM
1302006-008	MOWE-013113	01/31/2013 1:56 PM	02/01/2013 3:36 PM
1302006-009	PAWE-013113	01/31/2013 2:25 PM	02/01/2013 3:36 PM
1302006-010	Dup1-013113	01/31/2013 8:00 AM	02/01/2013 3:36 PM
1302006-011	HLMW-05B-020113	02/01/2013 12:15 PM	02/01/2013 3:36 PM
1302006-012	Equipment Rinsate-020113	02/01/2013 1:10 PM	02/01/2013 3:36 PM
1302006-013	Trip Blank	01/29/2013 4:00 PM	02/01/2013 3:36 PM

Well sampling listed above includes both Bordeaux well and Hytec Fiberglass debris area wells, as a single sample delivery group to lab.

Only the well hlmw-07a (the compliance monitoring well at Bordeaux dump site) is included in this data package. the same applies the the chain of custody form. The data from all other wells (Hytec Fiberglass debris area) are presented with RA report for that separate area/site



**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

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**I. SAMPLE RECEIPT:**

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Prep Comments for PREP-SEMI-W, Sample 1302006-012A: Foamy Sample



# Analytical Report

WO#: 1302006

Date Reported: 2/11/2013

**Client:** Calibre

**Collection Date:** 1/31/2013 8:49:00 AM

**Project:** Hytec/Bordeaux

**Lab ID:** 1302006-001

**Matrix:** Groundwater

**Client Sample ID:** HLMW-07A-013113

Analyses	Result	MDL	Qual	Units	DF	Date Analyzed
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**Semi-Volatile Organic Compounds by EPA Method 8270**

Batch ID: 4030

Analyst: PH

Phenol	ND	0.0401		µg/L	1	2/8/2013 2:26:00 AM
2-Chlorophenol	ND	0.0132		µg/L	1	2/8/2013 2:26:00 AM
1,3-Dichlorobenzene	ND	0.0161		µg/L	1	2/8/2013 2:26:00 AM
1,4-Dichlorobenzene	ND	0.0241		µg/L	1	2/8/2013 2:26:00 AM
1,2-Dichlorobenzene	ND	0.0232		µg/L	1	2/8/2013 2:26:00 AM
Benzyl alcohol	ND	0.0371		µg/L	1	2/8/2013 2:26:00 AM
Bis(2-chloroethyl) ether	ND	0.0294		µg/L	1	2/8/2013 2:26:00 AM
2-Methylphenol (o-cresol)	ND	0.0245		µg/L	1	2/8/2013 2:26:00 AM
Hexachloroethane	ND	0.0653		µg/L	1	2/8/2013 2:26:00 AM
N-Nitrosodi-n-propylamine	ND	0.0642		µg/L	1	2/8/2013 2:26:00 AM
Nitrobenzene	ND	0.0392		µg/L	1	2/8/2013 2:26:00 AM
Isophorone	ND	0.0205		µg/L	1	2/8/2013 2:26:00 AM
4-Methylphenol (p-cresol)	ND	0.0563		µg/L	1	2/8/2013 2:26:00 AM
2-Nitrophenol	ND	0.0912		µg/L	1	2/8/2013 2:26:00 AM
2,4-Dimethylphenol	ND	0.0376		µg/L	1	2/8/2013 2:26:00 AM
Bis(2-chloroethoxy)methane	ND	0.0337		µg/L	1	2/8/2013 2:26:00 AM
2,4-Dichlorophenol	ND	0.0188		µg/L	1	2/8/2013 2:26:00 AM
1,2,4-Trichlorobenzene	ND	0.0194		µg/L	1	2/8/2013 2:26:00 AM
Naphthalene	ND	0.0123		µg/L	1	2/8/2013 2:26:00 AM
4-Chloroaniline	ND	0.0180		µg/L	1	2/8/2013 2:26:00 AM
Hexachlorobutadiene	ND	0.0390		µg/L	1	2/8/2013 2:26:00 AM
4-Chloro-3-methylphenol	ND	0.0687		µg/L	1	2/8/2013 2:26:00 AM
2-Methylnaphthalene	ND	0.0252		µg/L	1	2/8/2013 2:26:00 AM
1-Methylnaphthalene	ND	0.0214		µg/L	1	2/8/2013 2:26:00 AM
Hexachlorocyclopentadiene	ND	0.0313		µg/L	1	2/8/2013 2:26:00 AM
2,4,6-Trichlorophenol	ND	0.0210		µg/L	1	2/8/2013 2:26:00 AM
2,4,5-Trichlorophenol	ND	0.0339		µg/L	1	2/8/2013 2:26:00 AM
2-Chloronaphthalene	ND	0.0143		µg/L	1	2/8/2013 2:26:00 AM
2-Nitroaniline	ND	0.0710		µg/L	1	2/8/2013 2:26:00 AM
Acenaphthene	ND	0.0139		µg/L	1	2/8/2013 2:26:00 AM
Dimethylphthalate	ND	0.0347		µg/L	1	2/8/2013 2:26:00 AM
2,6-Dinitrotoluene	ND	0.0269		µg/L	1	2/8/2013 2:26:00 AM
Acenaphthylene	ND	0.00613		µg/L	1	2/8/2013 2:26:00 AM
2,4-Dinitrophenol	ND	0.689		µg/L	1	2/8/2013 2:26:00 AM
Dibenzofuran	ND	0.0131		µg/L	1	2/8/2013 2:26:00 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 RL Reporting Limit

D Dilution was required  
 H Holding times for preparation or analysis exceeded  
 ND Not detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits



# Analytical Report

WO#: 1302006

Date Reported: 2/11/2013

**Client:** Calibre

**Collection Date:** 1/31/2013 8:49:00 AM

**Project:** Hytec/Bordeaux

**Lab ID:** 1302006-001

**Matrix:** Groundwater

**Client Sample ID:** HLMW-07A-013113

Analyses	Result	MDL	Qual	Units	DF	Date Analyzed
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**Semi-Volatile Organic Compounds by EPA Method 8270**

Batch ID: 4030

Analyst: PH

2,4-Dinitrotoluene	ND	0.0701		µg/L	1	2/8/2013 2:26:00 AM
4-Nitrophenol	ND	0.431		µg/L	1	2/8/2013 2:26:00 AM
Fluorene	ND	0.0164		µg/L	1	2/8/2013 2:26:00 AM
4-Chlorophenyl phenyl ether	ND	0.0199		µg/L	1	2/8/2013 2:26:00 AM
Diethylphthalate	0.156	0.0144	J	µg/L	1	2/8/2013 2:26:00 AM
4,6-Dinitro-2-methylphenol	ND	0.487		µg/L	1	2/8/2013 2:26:00 AM
4-Bromophenyl phenyl ether	ND	0.0241		µg/L	1	2/8/2013 2:26:00 AM
Hexachlorobenzene	ND	0.0264		µg/L	1	2/8/2013 2:26:00 AM
Pentachlorophenol	ND	0.0344		µg/L	1	2/8/2013 2:26:00 AM
Phenanthrene	0.117	0.0130	J	µg/L	1	2/8/2013 2:26:00 AM
Anthracene	ND	0.0167		µg/L	1	2/8/2013 2:26:00 AM
Carbazole	ND	0.0553		µg/L	1	2/8/2013 2:26:00 AM
Di-n-butyl phthalate	0.135	0.0268	J	µg/L	1	2/8/2013 2:26:00 AM
Fluoranthene	ND	0.0112		µg/L	1	2/8/2013 2:26:00 AM
Pyrene	ND	0.0146		µg/L	1	2/8/2013 2:26:00 AM
Benzyl Butylphthalate	ND	0.0552		µg/L	1	2/8/2013 2:26:00 AM
bis(2-Ethylhexyl)adipate	ND	0.0443		µg/L	1	2/8/2013 2:26:00 AM
Benz[a]anthracene	ND	0.0123		µg/L	1	2/8/2013 2:26:00 AM
Chrysene	ND	0.0126		µg/L	1	2/8/2013 2:26:00 AM
Bis(2-ethylhexyl) phthalate	0.714	0.0316	J	µg/L	1	2/8/2013 2:26:00 AM
Di-n-octyl phthalate	ND	0.0258		µg/L	1	2/8/2013 2:26:00 AM
Benzo (b) fluoranthene	ND	0.0259		µg/L	1	2/8/2013 2:26:00 AM
Benzo (k) fluoranthene	ND	0.0341		µg/L	1	2/8/2013 2:26:00 AM
Benzo[a]pyrene	ND	0.0304		µg/L	1	2/8/2013 2:26:00 AM
Indeno (1,2,3-cd) pyrene	ND	0.0673		µg/L	1	2/8/2013 2:26:00 AM
Dibenzo (a,h) anthracene	ND	0.0366		µg/L	1	2/8/2013 2:26:00 AM
Benzo (g,h,i) perylene	ND	0.0378		µg/L	1	2/8/2013 2:26:00 AM
Surr: 2,4,6-Tribromophenol	99.7	24-138		%REC	1	2/8/2013 2:26:00 AM
Surr: 2-Fluorobiphenyl	75.3	38.6-138		%REC	1	2/8/2013 2:26:00 AM
Surr: Nitrobenzene-d5	74.3	31.7-140		%REC	1	2/8/2013 2:26:00 AM
Surr: Phenol-d6	26.5	15-116		%REC	1	2/8/2013 2:26:00 AM
Surr: p-Terphenyl	103	49-156		%REC	1	2/8/2013 2:26:00 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 RL Reporting Limit

D Dilution was required  
 H Holding times for preparation or analysis exceeded  
 ND Not detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits



**Client:** Calibre

**Collection Date:** 1/31/2013 8:49:00 AM

**Project:** Hytec/Bordeaux

**Lab ID:** 1302006-001

**Matrix:** Groundwater

**Client Sample ID:** HLMW-07A-013113

Analyses	Result	MDL	Qual	Units	DF	Date Analyzed
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**Total Metals by EPA Method 200.8**

Batch ID: 4031

Analyst: MC

Antimony	0.264	0.00300		µg/L	1	2/4/2013 8:03:49 PM
Arsenic	0.748	0.266	J	µg/L	1	2/4/2013 8:03:49 PM
Beryllium	ND	0.0680		µg/L	1	2/4/2013 8:03:49 PM
Cadmium	0.0410	0.0160	J	µg/L	1	2/4/2013 8:03:49 PM
Chromium	0.766	0.0810		µg/L	1	2/4/2013 8:03:49 PM
Copper	2.41	0.0930		µg/L	1	2/4/2013 8:03:49 PM
Lead	0.328	0.0750	J	µg/L	1	2/4/2013 8:03:49 PM
Nickel	1.35	0.110		µg/L	1	2/4/2013 8:03:49 PM
Zinc	13.5	0.121		µg/L	1	2/4/2013 8:03:49 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 RL Reporting Limit

D Dilution was required  
 H Holding times for preparation or analysis exceeded  
 ND Not detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits



# Analytical Report

WO#: 1302006

Date Reported: 2/11/2013

**Client:** Calibre

**Collection Date:** 2/1/2013 1:10:00 PM

**Project:** Hytec/Bordeaux

**Lab ID:** 1302006-012

**Matrix:** Groundwater

**Client Sample ID:** Equipment Rinsate-020113

Analyses	Result	MDL	Qual	Units	DF	Date Analyzed
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**Semi-Volatile Organic Compounds by EPA Method 8270**

Batch ID: 4030

Analyst: PH

Phenol	ND	0.0401		µg/L	1	2/8/2013 6:06:00 AM
2-Chlorophenol	ND	0.0132		µg/L	1	2/8/2013 6:06:00 AM
1,3-Dichlorobenzene	ND	0.0161		µg/L	1	2/8/2013 6:06:00 AM
1,4-Dichlorobenzene	ND	0.0241		µg/L	1	2/8/2013 6:06:00 AM
1,2-Dichlorobenzene	ND	0.0232		µg/L	1	2/8/2013 6:06:00 AM
Benzyl alcohol	ND	0.0371		µg/L	1	2/8/2013 6:06:00 AM
Bis(2-chloroethyl) ether	ND	0.0294		µg/L	1	2/8/2013 6:06:00 AM
2-Methylphenol (o-cresol)	ND	0.0245		µg/L	1	2/8/2013 6:06:00 AM
Hexachloroethane	ND	0.0653		µg/L	1	2/8/2013 6:06:00 AM
N-Nitrosodi-n-propylamine	ND	0.0642		µg/L	1	2/8/2013 6:06:00 AM
Nitrobenzene	ND	0.0392		µg/L	1	2/8/2013 6:06:00 AM
Isophorone	ND	0.0205		µg/L	1	2/8/2013 6:06:00 AM
4-Methylphenol (p-cresol)	ND	0.0563		µg/L	1	2/8/2013 6:06:00 AM
2-Nitrophenol	ND	0.0912		µg/L	1	2/8/2013 6:06:00 AM
2,4-Dimethylphenol	ND	0.0376		µg/L	1	2/8/2013 6:06:00 AM
Bis(2-chloroethoxy)methane	ND	0.0337		µg/L	1	2/8/2013 6:06:00 AM
2,4-Dichlorophenol	ND	0.0188		µg/L	1	2/8/2013 6:06:00 AM
1,2,4-Trichlorobenzene	ND	0.0194		µg/L	1	2/8/2013 6:06:00 AM
Naphthalene	ND	0.0123		µg/L	1	2/8/2013 6:06:00 AM
4-Chloroaniline	ND	0.0180		µg/L	1	2/8/2013 6:06:00 AM
Hexachlorobutadiene	ND	0.0390		µg/L	1	2/8/2013 6:06:00 AM
4-Chloro-3-methylphenol	ND	0.0687		µg/L	1	2/8/2013 6:06:00 AM
2-Methylnaphthalene	ND	0.0252		µg/L	1	2/8/2013 6:06:00 AM
1-Methylnaphthalene	ND	0.0214		µg/L	1	2/8/2013 6:06:00 AM
Hexachlorocyclopentadiene	ND	0.0313		µg/L	1	2/8/2013 6:06:00 AM
2,4,6-Trichlorophenol	ND	0.0210		µg/L	1	2/8/2013 6:06:00 AM
2,4,5-Trichlorophenol	ND	0.0339		µg/L	1	2/8/2013 6:06:00 AM
2-Chloronaphthalene	ND	0.0143		µg/L	1	2/8/2013 6:06:00 AM
2-Nitroaniline	ND	0.0710		µg/L	1	2/8/2013 6:06:00 AM
Acenaphthene	ND	0.0139		µg/L	1	2/8/2013 6:06:00 AM
Dimethylphthalate	ND	0.0347		µg/L	1	2/8/2013 6:06:00 AM
2,6-Dinitrotoluene	ND	0.0269		µg/L	1	2/8/2013 6:06:00 AM
Acenaphthylene	ND	0.00613		µg/L	1	2/8/2013 6:06:00 AM
2,4-Dinitrophenol	ND	0.689		µg/L	1	2/8/2013 6:06:00 AM
Dibenzofuran	ND	0.0131		µg/L	1	2/8/2013 6:06:00 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 RL Reporting Limit

D Dilution was required  
 H Holding times for preparation or analysis exceeded  
 ND Not detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits



# Analytical Report

WO#: 1302006

Date Reported: 2/11/2013

**Client:** Calibre

**Collection Date:** 2/1/2013 1:10:00 PM

**Project:** Hytec/Bordeaux

**Lab ID:** 1302006-012

**Matrix:** Groundwater

**Client Sample ID:** Equipment Rinsate-020113

Analyses	Result	MDL	Qual	Units	DF	Date Analyzed
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**Semi-Volatile Organic Compounds by EPA Method 8270**

Batch ID: 4030

Analyst: PH

2,4-Dinitrotoluene	ND	0.0701		µg/L	1	2/8/2013 6:06:00 AM
4-Nitrophenol	ND	0.431		µg/L	1	2/8/2013 6:06:00 AM
Fluorene	ND	0.0164		µg/L	1	2/8/2013 6:06:00 AM
4-Chlorophenyl phenyl ether	ND	0.0199		µg/L	1	2/8/2013 6:06:00 AM
Diethylphthalate	0.157	0.0144	J	µg/L	1	2/8/2013 6:06:00 AM
4,6-Dinitro-2-methylphenol	ND	0.487		µg/L	1	2/8/2013 6:06:00 AM
4-Bromophenyl phenyl ether	ND	0.0241		µg/L	1	2/8/2013 6:06:00 AM
Hexachlorobenzene	ND	0.0264		µg/L	1	2/8/2013 6:06:00 AM
Pentachlorophenol	ND	0.0344		µg/L	1	2/8/2013 6:06:00 AM
Phenanthrene	0.0257	0.0130	J	µg/L	1	2/8/2013 6:06:00 AM
Anthracene	ND	0.0167		µg/L	1	2/8/2013 6:06:00 AM
Carbazole	ND	0.0553		µg/L	1	2/8/2013 6:06:00 AM
Di-n-butyl phthalate	0.107	0.0268	J	µg/L	1	2/8/2013 6:06:00 AM
Fluoranthene	ND	0.0112		µg/L	1	2/8/2013 6:06:00 AM
Pyrene	ND	0.0146		µg/L	1	2/8/2013 6:06:00 AM
Benzyl Butylphthalate	ND	0.0552		µg/L	1	2/8/2013 6:06:00 AM
bis(2-Ethylhexyl)adipate	ND	0.0443		µg/L	1	2/8/2013 6:06:00 AM
Benz[a]anthracene	ND	0.0123		µg/L	1	2/8/2013 6:06:00 AM
Chrysene	ND	0.0126		µg/L	1	2/8/2013 6:06:00 AM
Bis(2-ethylhexyl) phthalate	0.870	0.0316	J	µg/L	1	2/8/2013 6:06:00 AM
Di-n-octyl phthalate	ND	0.0258		µg/L	1	2/8/2013 6:06:00 AM
Benzo (b) fluoranthene	ND	0.0259		µg/L	1	2/8/2013 6:06:00 AM
Benzo (k) fluoranthene	ND	0.0341		µg/L	1	2/8/2013 6:06:00 AM
Benzo[a]pyrene	ND	0.0304		µg/L	1	2/8/2013 6:06:00 AM
Indeno (1,2,3-cd) pyrene	ND	0.0673		µg/L	1	2/8/2013 6:06:00 AM
Dibenzo (a,h) anthracene	ND	0.0366		µg/L	1	2/8/2013 6:06:00 AM
Benzo (g,h,i) perylene	ND	0.0378		µg/L	1	2/8/2013 6:06:00 AM
Surr: 2,4,6-Tribromophenol	87.0	24-138		%REC	1	2/8/2013 6:06:00 AM
Surr: 2-Fluorobiphenyl	59.6	38.6-138		%REC	1	2/8/2013 6:06:00 AM
Surr: Nitrobenzene-d5	50.2	31.7-140		%REC	1	2/8/2013 6:06:00 AM
Surr: Phenol-d6	22.1	15-116		%REC	1	2/8/2013 6:06:00 AM
Surr: p-Terphenyl	92.6	49-156		%REC	1	2/8/2013 6:06:00 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 RL Reporting Limit

D Dilution was required  
 H Holding times for preparation or analysis exceeded  
 ND Not detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits



Date: 2/11/2013

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID: <b>MB-4031</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7350</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>4031</b>		Analysis Date: <b>2/4/2013</b>	SeqNo: <b>144988</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	0.0158	0.200									J
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	0.286	0.500									J
Lead	ND	1.00									
Nickel	ND	0.500									
Zinc	0.127	1.50									J

Sample ID: <b>LCS-4031</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7350</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>4031</b>		Analysis Date: <b>2/4/2013</b>	SeqNo: <b>144989</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	4.92	0.200	5.000	0	98.4	85	115				
Arsenic	99.7	1.00	100.0	0	99.7	85	115				
Beryllium	4.90	0.200	5.000	0	98.1	85	115				
Cadmium	5.22	0.200	5.000	0	104	85	115				
Chromium	105	0.500	100.0	0	105	85	115				
Copper	103	0.500	100.0	0	103	85	115				
Lead	50.0	1.00	50.00	0	99.9	85	115				
Nickel	101	0.500	100.0	0	101	85	115				
Zinc	101	1.50	100.0	0	101	85	115				

**Qualifiers:**

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID: <b>1302006-001BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7350</b>							
Client ID: <b>HLMW-07A-013113</b>	Batch ID: <b>4031</b>		Analysis Date: <b>2/4/2013</b>	SeqNo: <b>144992</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.171	0.200						0.2640	42.8	30	JR
Arsenic	0.532	1.00						0.7480	33.8	30	JR
Beryllium	ND	0.200						0	0	30	
Cadmium	0.0400	0.200						0.04100	2.47	30	J
Chromium	0.803	0.500						0.7665	4.65	30	
Copper	3.14	0.500						2.414	26.2	30	
Lead	0.330	1.00						0.3280	0.608	30	J
Nickel	1.39	0.500						1.353	2.88	30	
Zinc	17.7	1.50						13.54	26.8	30	

**NOTES:**

R - High RPD due to low analyte concentration. In this range, high RPD's may be expected.

Sample ID: <b>1302006-001BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7350</b>							
Client ID: <b>HLMW-07A-013113</b>	Batch ID: <b>4031</b>		Analysis Date: <b>2/4/2013</b>	SeqNo: <b>144993</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	25.0	0.200	25.00	0.2640	98.9	70	130				
Arsenic	505	1.00	500.0	0.7480	101	70	130				
Beryllium	25.9	0.200	25.00	0	104	70	130				
Cadmium	25.4	0.200	25.00	0.04100	101	70	130				
Chromium	498	0.500	500.0	0.7665	99.5	70	130				
Copper	501	0.500	500.0	2.414	99.8	70	130				
Lead	251	1.00	250.0	0.3280	100	70	130				
Nickel	501	0.500	500.0	1.353	99.8	70	130				
Zinc	499	1.50	500.0	13.54	97.1	70	130				

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	D Dilution was required	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	ND Not detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Limit	S Spike recovery outside accepted recovery limits





Work Order: 1302006  
 CLIENT: Calibre  
 Project: Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID: <b>1302006-001BMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7350</b>							
Client ID: <b>HLMW-07A-013113</b>	Batch ID: <b>4031</b>		Analysis Date: <b>2/4/2013</b>	SeqNo: <b>144994</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	25.4	0.200	25.00	0.2640	101	70	130	24.98	1.76	30	
Arsenic	518	1.00	500.0	0.7480	103	70	130	504.7	2.64	30	
Beryllium	25.8	0.200	25.00	0	103	70	130	25.94	0.601	30	
Cadmium	25.8	0.200	25.00	0.04100	103	70	130	25.37	1.74	30	
Chromium	500	0.500	500.0	0.7665	99.9	70	130	498.2	0.394	30	
Copper	516	0.500	500.0	2.414	103	70	130	501.2	2.98	30	
Lead	253	1.00	250.0	0.3280	101	70	130	250.7	1.09	30	
Nickel	513	0.500	500.0	1.353	102	70	130	500.6	2.39	30	
Zinc	507	1.50	500.0	13.54	98.7	70	130	498.9	1.58	30	

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits



Date: 2/11/2013

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>MB-4030</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/7/2013</b>	SeqNo: <b>145824</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	2.00									
2-Chlorophenol	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
Benzyl alcohol	ND	1.00									
Bis(2-chloroethyl) ether	ND	2.00									
2-Methylphenol (o-cresol)	ND	1.00									
Hexachloroethane	ND	1.00									
N-Nitrosodi-n-propylamine	ND	1.00									
Nitrobenzene	ND	2.00									
Isophorone	ND	1.00									
4-Methylphenol (p-cresol)	ND	1.00									
2-Nitrophenol	ND	2.00									
2,4-Dimethylphenol	ND	1.00									
Bis(2-chloroethoxy)methane	ND	1.00									
2,4-Dichlorophenol	ND	2.00									
1,2,4-Trichlorobenzene	ND	1.00									
Naphthalene	ND	0.500									
4-Chloroaniline	ND	5.00									
Hexachlorobutadiene	ND	1.00									
4-Chloro-3-methylphenol	ND	5.00									
2-Methylnaphthalene	ND	0.500									
1-Methylnaphthalene	ND	0.500									
Hexachlorocyclopentadiene	ND	1.00									
2,4,6-Trichlorophenol	ND	2.00									
2,4,5-Trichlorophenol	ND	2.00									
2-Chloronaphthalene	ND	1.00									
2-Nitroaniline	ND	5.00									

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits



Date: 2/11/2013

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>MB-4030</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/7/2013</b>	SeqNo: <b>145824</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.500									
Dimethylphthalate	ND	1.00									
2,6-Dinitrotoluene	ND	1.00									
Acenaphthylene	ND	0.500									
2,4-Dinitrophenol	ND	2.00									
Dibenzofuran	ND	1.00									
2,4-Dinitrotoluene	ND	1.00									
4-Nitrophenol	ND	5.00									
Fluorene	ND	0.500									
4-Chlorophenyl phenyl ether	ND	1.00									
Diethylphthalate	0.180	1.00									J
4,6-Dinitro-2-methylphenol	ND	5.00									
4-Bromophenyl phenyl ether	ND	1.00									
Hexachlorobenzene	ND	1.00									
Pentachlorophenol	ND	2.00									
Phenanthrene	0.0297	0.500									J
Anthracene	ND	0.500									
Carbazole	ND	5.00									
Di-n-butyl phthalate	0.127	1.00									J
Fluoranthene	ND	0.500									
Pyrene	ND	0.500									
Benzyl Butylphthalate	ND	1.00									
bis(2-Ethylhexyl)adipate	ND	1.00									
Benz[a]anthracene	ND	0.500									
Chrysene	ND	0.500									
Bis(2-ethylhexyl) phthalate	0.386	1.00									J
Di-n-octyl phthalate	ND	1.00									
Benzo (b) fluoranthene	ND	0.500									
Benzo (k) fluoranthene	ND	0.500									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	D Dilution was required	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	ND Not detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Limit	S Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>MB-4030</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/7/2013</b>	SeqNo: <b>145824</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzo[a]pyrene	ND	0.500									
Indeno (1,2,3-cd) pyrene	ND	0.500									
Dibenzo (a,h) anthracene	ND	0.500									
Benzo (g,h,i) perylene	ND	0.500									
Surr: 2,4,6-Tribromophenol	3.26		4.000		81.5	24	138				
Surr: 2-Fluorobiphenyl	1.45		2.000		72.7	38.6	138				
Surr: Nitrobenzene-d5	1.35		2.000		67.3	31.7	140				
Surr: Phenol-d6	0.751		4.000		18.8	15	116				
Surr: p-Terphenyl	2.08		2.000		104	49	156				

Sample ID: <b>LCS-4030</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145825</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	1.87	2.00	8.000	0	23.4	20	86.2				
2-Chlorophenol	3.29	1.00	8.000	0	41.1	25	112				
1,3-Dichlorobenzene	3.47	1.00	8.000	0	43.4	25	108				
1,4-Dichlorobenzene	3.54	1.00	8.000	0	44.3	25	110				
1,2-Dichlorobenzene	3.67	1.00	8.000	0	45.8	25	109				
Benzyl alcohol	2.59	1.00	8.000	0	32.4	20	96.5				
Bis(2-chloroethyl) ether	4.16	2.00	8.000	0	52.1	25	111				
2-Methylphenol (o-cresol)	3.40	1.00	8.000	0	42.4	25	101				
Hexachloroethane	3.38	1.00	8.000	0	42.3	25	109				
N-Nitrosodi-n-propylamine	4.55	1.00	8.000	0	56.9	25	122				
Nitrobenzene	4.11	2.00	8.000	0	51.4	25	110				
Isophorone	4.85	1.00	8.000	0	60.6	25	126				
4-Methylphenol (p-cresol)	3.42	1.00	8.000	0	42.8	25	113				
2-Nitrophenol	4.25	2.00	8.000	0	53.2	25	126				

<b>Qualifiers:</b> B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	D Dilution was required J Analyte detected below quantitation limits RL Reporting Limit	E Value above quantitation range ND Not detected at the Reporting Limit S Spike recovery outside accepted recovery limits
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**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>LCS-4030</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>
Client ID: <b>LCSW</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145825</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dimethylphenol	4.36	1.00	8.000	0	54.5	25	124				
Bis(2-chloroethoxy)methane	4.52	1.00	8.000	0	56.5	25	121				
2,4-Dichlorophenol	4.76	2.00	8.000	0	59.5	29.1	110				
1,2,4-Trichlorobenzene	3.63	1.00	8.000	0	45.3	25	113				
Naphthalene	4.04	0.500	8.000	0	50.5	25	115				
4-Chloroaniline	2.09	5.00	8.000	0	26.1	25	136				
Hexachlorobutadiene	3.61	1.00	8.000	0	45.1	25	111				
4-Chloro-3-methylphenol	5.71	5.00	8.000	0	71.4	32.3	122				
2-Methylnaphthalene	4.40	0.500	8.000	0	55.0	25	119				
1-Methylnaphthalene	4.38	0.500	8.000	0	54.7	25	117				
Hexachlorocyclopentadiene	3.43	1.00	8.000	0	42.9	25	125				
2,4,6-Trichlorophenol	5.35	2.00	8.000	0	66.8	25	133				
2,4,5-Trichlorophenol	5.84	2.00	8.000	0	73.0	25	125				
2-Chloronaphthalene	4.66	1.00	8.000	0	58.3	25	121				
2-Nitroaniline	2.48	5.00	8.000	0	31.0	25	121				
Acenaphthene	5.03	0.500	8.000	0	62.8	25	120				
Dimethylphthalate	6.28	1.00	8.000	0	78.5	25	133				
2,6-Dinitrotoluene	6.20	1.00	8.000	0	77.6	25	131				
Acenaphthylene	5.14	0.500	8.000	0	64.2	25	128				
2,4-Dinitrophenol	6.67	2.00	8.000	0	83.4	39.2	124				
Dibenzofuran	5.50	1.00	8.000	0	68.8	25	121				
2,4-Dinitrotoluene	6.99	1.00	8.000	0	87.4	25	132				
4-Nitrophenol	2.52	5.00	8.000	0	31.5	20	106				
Fluorene	5.99	0.500	8.000	0	74.8	25	127				
4-Chlorophenyl phenyl ether	5.79	1.00	8.000	0	72.4	25	124				
Diethylphthalate	7.23	1.00	8.000	0	90.3	31.3	142				
4,6-Dinitro-2-methylphenol	7.74	5.00	8.000	0	96.7	25	139				
4-Bromophenyl phenyl ether	6.27	1.00	8.000	0	78.3	25	130				
Hexachlorobenzene	6.41	1.00	8.000	0	80.1	29	120				

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	D Dilution was required	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	ND Not detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Limit	S Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>LCS-4030</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145825</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Pentachlorophenol	7.44	2.00	8.000	0	93.0	20	137				
Phenanthrene	6.72	0.500	8.000	0	84.0	34	125				
Anthracene	7.04	0.500	8.000	0	87.9	27.7	134				
Carbazole	7.89	5.00	8.000	0	98.6	27.9	150				
Di-n-butyl phthalate	8.82	1.00	8.000	0	110	62	158				
Fluoranthene	7.80	0.500	8.000	0	97.5	34.8	143				
Pyrene	7.91	0.500	8.000	0	98.9	35.5	140				
Benzyl Butylphthalate	8.12	1.00	8.000	0	102	51.4	144				
bis(2-Ethylhexyl)adipate	8.26	1.00	8.000	0	103	51.3	144				
Benz[a]anthracene	8.13	0.500	8.000	0	102	27.2	132				
Chrysene	7.45	0.500	8.000	0	93.1	39.5	123				
Bis(2-ethylhexyl) phthalate	8.28	1.00	8.000	0	104	44.7	180				
Di-n-octyl phthalate	8.24	1.00	8.000	0	103	52.8	164				
Benzo (b) fluoranthene	7.65	0.500	8.000	0	95.6	37.8	123				
Benzo (k) fluoranthene	7.07	0.500	8.000	0	88.4	25	144				
Benzo[a]pyrene	8.16	0.500	8.000	0	102	24.9	125				
Indeno (1,2,3-cd) pyrene	8.65	0.500	8.000	0	108	25	127				
Dibenzo (a,h) anthracene	7.91	0.500	8.000	0	98.9	25	132				
Benzo (g,h,i) perylene	8.16	0.500	8.000	0	102	25	133				
Surr: 2,4,6-Tribromophenol	3.85		4.000		96.4	24	138				
Surr: 2-Fluorobiphenyl	1.22		2.000		61.2	38.6	138				
Surr: Nitrobenzene-d5	1.08		2.000		54.2	31.7	140				
Surr: Phenol-d6	0.801		4.000		20.0	15	116				
Surr: p-Terphenyl	2.03		2.000		101	49	156				

**Qualifiers:**

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>1302006-011BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>
Client ID: <b>HLMW-05B-020113</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145827</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	2.00						0	0	50	
2-Chlorophenol	ND	1.00						0	0	50	
1,3-Dichlorobenzene	ND	1.00						0	0	50	
1,4-Dichlorobenzene	ND	1.00						0	0	50	
1,2-Dichlorobenzene	ND	1.00						0	0	50	
Benzyl alcohol	ND	1.00						0	0	50	
Bis(2-chloroethyl) ether	ND	2.00						0	0	50	
2-Methylphenol (o-cresol)	ND	1.00						0	0	50	
Hexachloroethane	ND	1.00						0	0	50	
N-Nitrosodi-n-propylamine	ND	1.00						0	0	50	
Nitrobenzene	ND	2.00						0	0	50	
Isophorone	ND	1.00						0	0	50	
4-Methylphenol (p-cresol)	ND	1.00						0	0	50	
2-Nitrophenol	ND	2.00						0	0	50	
2,4-Dimethylphenol	ND	1.00						0	0	50	
Bis(2-chloroethoxy)methane	ND	1.00						0	0	50	
2,4-Dichlorophenol	ND	2.00						0	0	50	
1,2,4-Trichlorobenzene	ND	1.00						0	0	50	
Naphthalene	ND	0.500						0	0	50	
4-Chloroaniline	ND	5.00						0	0	50	
Hexachlorobutadiene	ND	1.00						0	0	50	
4-Chloro-3-methylphenol	ND	5.00						0	0	50	
2-Methylnaphthalene	ND	0.500						0	0	50	
1-Methylnaphthalene	ND	0.500						0	0	50	
Hexachlorocyclopentadiene	ND	1.00						0	0	50	
2,4,6-Trichlorophenol	ND	2.00						0	0	50	
2,4,5-Trichlorophenol	ND	2.00						0	0	50	
2-Chloronaphthalene	ND	1.00						0	0	50	
2-Nitroaniline	ND	5.00						0	0	50	

**Qualifiers:** B Analyte detected in the associated Method Blank      D Dilution was required      E Value above quantitation range  
H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits      ND Not detected at the Reporting Limit  
R RPD outside accepted recovery limits      RL Reporting Limit      S Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>1302006-011BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>							
Client ID: <b>HLMW-05B-020113</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145827</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.500						0	0	50	
Dimethylphthalate	ND	1.00						0	0	50	
2,6-Dinitrotoluene	ND	1.00						0	0	50	
Acenaphthylene	ND	0.500						0	0	50	
2,4-Dinitrophenol	ND	2.00						0	0	50	
Dibenzofuran	ND	1.00						0	0	50	
2,4-Dinitrotoluene	ND	1.00						0	0	50	
4-Nitrophenol	ND	5.00						0	0	50	
Fluorene	ND	0.500						0	0	50	
4-Chlorophenyl phenyl ether	ND	1.00						0	0	50	
Diethylphthalate	0.180	1.00						0.1898	5.47	50	J
4,6-Dinitro-2-methylphenol	ND	5.00						0	0	50	
4-Bromophenyl phenyl ether	ND	1.00						0	0	50	
Hexachlorobenzene	ND	1.00						0	0	50	
Pentachlorophenol	ND	2.00						0	0	50	
Phenanthrene	0.0990	0.500						0.03968	85.5	50	JR
Anthracene	ND	0.500						0	0	50	
Carbazole	ND	5.00						0	0	50	
Di-n-butyl phthalate	0.175	1.00						0.09086	63.3	50	JR
Fluoranthene	ND	0.500						0	0	50	
Pyrene	ND	0.500						0	0	50	
Benzyl Butylphthalate	ND	1.00						0	0	50	
bis(2-Ethylhexyl)adipate	ND	1.00						0	0	50	
Benz[a]anthracene	ND	0.500						0	0	50	
Chrysene	ND	0.500						0	0	50	
Bis(2-ethylhexyl) phthalate	0.344	1.00						0.1886	58.3	50	JR
Di-n-octyl phthalate	ND	1.00						0	0	50	
Benzo (b) fluoranthene	ND	0.500						0	0	50	
Benzo (k) fluoranthene	ND	0.500						0	0	50	

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
R RPD outside accepted recovery limits  
D Dilution was required  
J Analyte detected below quantitation limits  
RL Reporting Limit  
E Value above quantitation range  
ND Not detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits



**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>1302006-011BDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>							
Client ID: <b>HLMW-05B-020113</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145827</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzo[a]pyrene	ND	0.500						0	0	50	
Indeno (1,2,3-cd) pyrene	ND	0.500						0	0	50	
Dibenzo (a,h) anthracene	ND	0.500						0	0	50	
Benzo (g,h,i) perylene	ND	0.500						0	0	50	
Surr: 2,4,6-Tribromophenol	3.85		4.000		96.3	24	138		0		
Surr: 2-Fluorobiphenyl	3.18		4.000		79.5	38.6	138		0		
Surr: Nitrobenzene-d5	3.12		4.000		78.0	31.7	140		0		
Surr: Phenol-d6	1.15		4.000		28.7	15	116		0		
Surr: p-Terphenyl	4.25		4.000		106	49	156		0		

**NOTES:**

R - High RPD due to low analyte concentration. In this range, high RPD's may be expected.

Sample ID: <b>1302006-011BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>							
Client ID: <b>HLMW-05B-020113</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145828</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	1.66	2.00	8.000	0	20.7	20	78.2				
2-Chlorophenol	4.29	1.00	8.000	0	53.7	25	106				
1,3-Dichlorobenzene	4.85	1.00	8.000	0	60.6	25.5	103				
1,4-Dichlorobenzene	4.81	1.00	8.000	0	60.2	25.6	104				
1,2-Dichlorobenzene	5.11	1.00	8.000	0	63.9	26.1	105				
Benzyl alcohol	1.67	1.00	8.000	0	20.9	20	96.8				
Bis(2-chloroethyl) ether	5.52	2.00	8.000	0	69.0	25	110				
2-Methylphenol (o-cresol)	4.10	1.00	8.000	0	51.3	25.1	95.8				
Hexachloroethane	4.74	1.00	8.000	0	59.3	25	106				
N-Nitrosodi-n-propylamine	6.23	1.00	8.000	0	77.9	25.5	116				
Nitrobenzene	5.62	2.00	8.000	0	70.2	30.5	105				
Isophorone	6.50	1.00	8.000	0	81.3	25	121				
4-Methylphenol (p-cresol)	3.61	1.00	8.000	0	45.2	25	106				

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>1302006-011BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>							
Client ID: <b>HLMW-05B-020113</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145828</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Nitrophenol	5.75	2.00	8.000	0	71.9	25	123				
2,4-Dimethylphenol	5.51	1.00	8.000	0	68.9	25	123				
Bis(2-chloroethoxy)methane	6.17	1.00	8.000	0	77.2	25.4	116				
2,4-Dichlorophenol	6.25	2.00	8.000	0	78.2	34.3	110				
1,2,4-Trichlorobenzene	5.13	1.00	8.000	0	64.1	25	110				
Naphthalene	5.41	0.500	8.000	0	67.7	25	131				
4-Chloroaniline	1.23	5.00	8.000	0	15.4	25	130				S
Hexachlorobutadiene	4.86	1.00	8.000	0	60.7	25	105				
4-Chloro-3-methylphenol	6.33	5.00	8.000	0	79.2	36.3	120				
2-Methylnaphthalene	5.74	0.500	8.000	0	71.7	25	119				
1-Methylnaphthalene	5.79	0.500	8.000	0	72.4	25.3	117				
Hexachlorocyclopentadiene	4.85	1.00	8.000	0	60.6	25	114				
2,4,6-Trichlorophenol	6.23	2.00	8.000	0	77.9	25	131				
2,4,5-Trichlorophenol	6.76	2.00	8.000	0	84.5	25	122				
2-Chloronaphthalene	5.67	1.00	8.000	0	70.9	27.3	115				
2-Nitroaniline	2.80	5.00	8.000	0	35.0	27.9	114				
Acenaphthene	6.08	0.500	8.000	0	76.0	25	136				
Dimethylphthalate	6.90	1.00	8.000	0	86.3	31	128				
2,6-Dinitrotoluene	6.83	1.00	8.000	0	85.3	26.9	125				
Acenaphthylene	6.18	0.500	8.000	0	77.3	26.8	122				
2,4-Dinitrophenol	7.83	2.00	8.000	0	97.9	25	148				
Dibenzofuran	6.24	1.00	8.000	0	78.0	27.8	116				
2,4-Dinitrotoluene	7.24	1.00	8.000	0	90.5	25	123				
4-Nitrophenol	2.54	5.00	8.000	0	31.7	20	109				
Fluorene	6.57	0.500	8.000	0	82.2	25	131				
4-Chlorophenyl phenyl ether	6.35	1.00	8.000	0	79.3	28.9	119				
Diethylphthalate	7.18	1.00	8.000	0.1898	87.4	36.6	136				
4,6-Dinitro-2-methylphenol	7.54	5.00	8.000	0	94.2	25	136				
4-Bromophenyl phenyl ether	6.75	1.00	8.000	0	84.3	30.2	124				

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	D Dilution was required	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	ND Not detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Limit	S Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID: <b>1302006-011BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/4/2013</b>	RunNo: <b>7398</b>
Client ID: <b>HLMW-05B-020113</b>	Batch ID: <b>4030</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145828</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobenzene	6.67	1.00	8.000	0	83.4	34.6	114				
Pentachlorophenol	7.49	2.00	8.000	0	93.6	25	145				
Phenanthrene	6.83	0.500	8.000	0.03968	84.9	26	139				
Anthracene	7.03	0.500	8.000	0	87.9	34.5	129				
Carbazole	7.24	5.00	8.000	0	90.5	36.7	143				
Di-n-butyl phthalate	8.56	1.00	8.000	0.09086	106	39.7	149				
Fluoranthene	7.59	0.500	8.000	0	94.9	39.3	141				
Pyrene	7.47	0.500	8.000	0	93.4	40.9	137				
Benzyl Butylphthalate	8.03	1.00	8.000	0	100	50.5	139				
bis(2-Ethylhexyl)adipate	7.20	1.00	8.000	0	90.0	36.6	145				
Benz[a]anthracene	7.65	0.500	8.000	0	95.6	34.2	124				
Chrysene	6.97	0.500	8.000	0	87.1	44.6	116				
Bis(2-ethylhexyl) phthalate	7.50	1.00	8.000	0.1886	91.4	39.9	143				
Di-n-octyl phthalate	7.42	1.00	8.000	0	92.8	37.5	163				
Benzo (b) fluoranthene	7.12	0.500	8.000	0	89.1	40.7	116				
Benzo (k) fluoranthene	6.49	0.500	8.000	0	81.1	25.5	135				
Benzo[a]pyrene	7.52	0.500	8.000	0	94.0	25	120				
Indeno (1,2,3-cd) pyrene	8.04	0.500	8.000	0	100	25	121				
Dibenzo (a,h) anthracene	7.37	0.500	8.000	0	92.2	25	125				
Benzo (g,h,i) perylene	7.54	0.500	8.000	0	94.3	25	124				
Surr: 2,4,6-Tribromophenol	3.86		4.000		96.5	24	138				
Surr: 2-Fluorobiphenyl	1.52		2.000		76.0	38.6	138				
Surr: Nitrobenzene-d5	1.56		2.000		77.8	31.7	140				
Surr: Phenol-d6	1.03		4.000		25.7	15	116				
Surr: p-Terphenyl	2.00		2.000		99.8	49	156				

**NOTES:**

S - Outlying spike recovery for 4-Chloroaniline was observed. The method is in control as indicated by the laboratory control sample (LCS).

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	D Dilution was required	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	ND Not detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Limit	S Spike recovery outside accepted recovery limits



Date: 2/11/2013

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>1302006-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>							
Client ID: <b>HLMW-04A-013113</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145507</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0	0	30	
Chloromethane	ND	1.00						0	0	30	
Vinyl chloride	ND	0.200						0	0	30	
Bromomethane	ND	1.00						0	0	30	
Trichlorofluoromethane (CFC-11)	1.48	1.00						1.750	16.7	30	
Chloroethane	ND	1.00						0	0	30	
1,1-Dichloroethene	ND	1.00						0	0	30	
Methylene chloride	ND	1.00						0	0	30	
trans-1,2-Dichloroethene	ND	1.00						0	0	30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0	0	30	
1,1-Dichloroethane	ND	1.00						0	0	30	
2,2-Dichloropropane	ND	2.00						0	0	30	
cis-1,2-Dichloroethene	ND	1.00						0	0	30	
Chloroform	ND	1.00						0	0	30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0	0	30	
1,1-Dichloropropene	ND	1.00						0	0	30	
Carbon tetrachloride	ND	1.00						0	0	30	
1,2-Dichloroethane (EDC)	ND	1.00						0	0	30	
Benzene	ND	1.00						0	0	30	
Trichloroethene (TCE)	ND	1.00						0	0	30	
1,2-Dichloropropane	ND	1.00						0	0	30	
Bromodichloromethane	ND	1.00						0	0	30	
Dibromomethane	ND	1.00						0	0	30	
cis-1,3-Dichloropropene	ND	1.00						0	0	30	
Toluene	ND	1.00						0	0	30	
trans-1,3-Dichloropropene	ND	1.00						0	0	30	
1,1,2-Trichloroethane	ND	1.00						0	0	30	
1,3-Dichloropropane	ND	1.00						0	0	30	
Tetrachloroethene (PCE)	ND	1.00						0	0	30	

**Qualifiers:** B Analyte detected in the associated Method Blank      D Dilution was required      E Value above quantitation range  
H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits      ND Not detected at the Reporting Limit  
R RPD outside accepted recovery limits      RL Reporting Limit      S Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>1302006-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>
Client ID: <b>HLMW-04A-013113</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145507</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	ND	1.00						0	0	30	
1,2-Dibromoethane (EDB)	ND	0.0100						0	0	30	
Chlorobenzene	ND	1.00						0	0	30	
1,1,1,2-Tetrachloroethane	ND	1.00						0	0	30	
Ethylbenzene	ND	1.00						0	0	30	
m,p-Xylene	ND	1.00						0	0	30	
o-Xylene	ND	1.00						0	0	30	
Styrene	ND	1.00						0	0	30	
Isopropylbenzene	ND	1.00						0	0	30	
Bromoform	ND	1.00						0	0	30	
1,1,2,2-Tetrachloroethane	ND	1.00						0	0	30	
n-Propylbenzene	ND	1.00						0	0	30	
Bromobenzene	ND	1.00						0	0	30	
1,3,5-Trimethylbenzene	ND	1.00						0	0	30	
2-Chlorotoluene	ND	1.00						0	0	30	
4-Chlorotoluene	ND	1.00						0	0	30	
tert-Butylbenzene	ND	1.00						0	0	30	
1,2,3-Trichloropropane	ND	1.00						0	0	30	
1,2,4-Trichlorobenzene	ND	2.00						0	0	30	
sec-Butylbenzene	ND	1.00						0	0	30	
4-Isopropyltoluene	ND	1.00						0	0	30	
1,3-Dichlorobenzene	ND	1.00						0	0	30	
1,4-Dichlorobenzene	ND	1.00						0	0	30	
n-Butylbenzene	ND	1.00						0	0	30	
1,2-Dichlorobenzene	ND	1.00						0	0	30	
1,2-Dibromo-3-chloropropane	ND	1.00						0	0	30	
1,2,4-Trimethylbenzene	ND	1.00						0	0	30	
Hexachlorobutadiene	ND	4.00						0	0	30	
Naphthalene	ND	1.00						0	0	30	

**Qualifiers:**

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>1302006-005ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>							
Client ID: <b>HLMW-04A-013113</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145507</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2,3-Trichlorobenzene	ND	4.00						0	0	30	
Surr: 1-Bromo-4-fluorobenzene	9.21		10.00		92.1	82.6	120		0		
Surr: Dibromofluoromethane	9.66		10.00		96.6	72.1	122		0		
Surr: Toluene-d8	10.0		10.00		100	83.5	108		0		

Sample ID: <b>1302006-006AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>							
Client ID: <b>SPWE-013113</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145509</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	26.7	1.00	20.00	0	134	33.3	122				S
Chloromethane	25.2	1.00	20.00	0	126	48.2	145				
Vinyl chloride	23.8	0.200	20.00	0	119	45.6	149				
Bromomethane	16.5	1.00	20.00	0	82.6	31.5	135				
Trichlorofluoromethane (CFC-11)	21.8	1.00	20.00	0.3700	107	54.7	138				
Chloroethane	17.7	1.00	20.00	0	88.7	52.7	140				
1,1-Dichloroethene	20.2	1.00	20.00	0	101	58.2	146				
Methylene chloride	19.2	1.00	20.00	0	95.8	65.1	127				
trans-1,2-Dichloroethene	21.0	1.00	20.00	0	105	69	132				
Methyl tert-butyl ether (MTBE)	18.4	1.00	20.00	0	92.2	70	130				
1,1-Dichloroethane	19.5	1.00	20.00	0	97.6	74.7	133				
2,2-Dichloropropane	16.1	2.00	20.00	0	80.4	31.5	121				
cis-1,2-Dichloroethene	20.6	1.00	20.00	0	103	67.1	123				
Chloroform	20.6	1.00	20.00	0	103	58.6	123				
1,1,1-Trichloroethane (TCA)	20.7	1.00	20.00	0	104	64.2	146				
1,1-Dichloropropene	20.1	1.00	20.00	0	100	73.8	136				
Carbon tetrachloride	20.8	1.00	20.00	0	104	69.2	141				
1,2-Dichloroethane (EDC)	19.2	1.00	20.00	0	95.9	62.3	130				
Benzene	20.1	1.00	20.00	0	101	68.7	132				

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>1302006-006AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>							
Client ID: <b>SPWE-013113</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145509</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Trichloroethene (TCE)	19.9	1.00	20.00	0	99.7	65.7	133				
1,2-Dichloropropane	19.9	1.00	20.00	0	99.3	70	130				
Bromodichloromethane	19.7	1.00	20.00	0	98.6	59.4	139				
Dibromomethane	20.0	1.00	20.00	0	100	65.5	130				
cis-1,3-Dichloropropene	18.4	1.00	20.00	0	92.2	63.3	124				
Toluene	20.7	1.00	20.00	0	103	68.4	133				
trans-1,3-Dichloropropene	18.4	1.00	20.00	0	91.8	57.7	125				
1,1,2-Trichloroethane	19.1	1.00	20.00	0	95.6	59.4	127				
1,3-Dichloropropane	19.2	1.00	20.00	0	96.2	68.2	134				
Tetrachloroethene (PCE)	13.1	1.00	20.00	0	65.4	51.5	109				
Dibromochloromethane	19.2	1.00	20.00	0	96.0	66.2	138				
1,2-Dibromoethane (EDB)	19.5	0.0100	20.00	0	97.5	68.9	124				
Chlorobenzene	20.0	1.00	20.00	0	100	68.9	128				
1,1,1,2-Tetrachloroethane	19.8	1.00	20.00	0	98.8	67.3	135				
Ethylbenzene	20.0	1.00	20.00	0	99.9	67.3	135				
m,p-Xylene	39.7	1.00	40.00	0	99.2	63.3	135				
o-Xylene	21.5	1.00	20.00	0	107	67.8	131				
Styrene	23.9	1.00	20.00	0	119	67.2	123				
Isopropylbenzene	19.1	1.00	20.00	0	95.6	56	147				
Bromoform	18.5	1.00	20.00	0	92.7	61.4	136				
1,1,1,2,2-Tetrachloroethane	19.7	1.00	20.00	0	98.4	59.1	137				
n-Propylbenzene	19.2	1.00	20.00	0	95.8	57.6	142				
Bromobenzene	19.0	1.00	20.00	0	94.8	63.6	130				
1,3,5-Trimethylbenzene	19.2	1.00	20.00	0	96.1	59.9	136				
2-Chlorotoluene	19.1	1.00	20.00	0	95.6	63.4	134				
4-Chlorotoluene	19.8	1.00	20.00	0	99.0	58.4	134				
tert-Butylbenzene	21.9	1.00	20.00	0	109	74.2	141				
1,2,3-Trichloropropane	17.3	1.00	20.00	0	86.4	62.4	129				
1,2,4-Trichlorobenzene	18.4	2.00	20.00	0	92.2	53.7	120				

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>1302006-006AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>							
Client ID: <b>SPWE-013113</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145509</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

sec-Butylbenzene	18.8	1.00	20.00	0	94.1	56	146				
4-Isopropyltoluene	18.4	1.00	20.00	0	92.2	62.4	134				
1,3-Dichlorobenzene	19.4	1.00	20.00	0	97.0	58.2	128				
1,4-Dichlorobenzene	19.3	1.00	20.00	0	96.5	60.1	123				
n-Butylbenzene	19.8	1.00	20.00	0	98.8	54.6	135				
1,2-Dichlorobenzene	20.7	1.00	20.00	0	104	62.6	124				
1,2-Dibromo-3-chloropropane	18.3	1.00	20.00	0	91.4	51.8	142				
1,2,4-Trimethylbenzene	18.4	1.00	20.00	0	92.0	63.7	132				
Hexachlorobutadiene	18.8	4.00	20.00	0	94.1	62.1	121				
Naphthalene	19.4	1.00	20.00	0	96.9	58.7	119				
1,2,3-Trichlorobenzene	20.0	4.00	20.00	0	100	50.7	113				
Surr: 1-Bromo-4-fluorobenzene	10.2		10.00		102	82.6	120				
Surr: Dibromofluoromethane	9.97		10.00		99.7	72.1	122				
Surr: Toluene-d8	10.1		10.00		101	83.5	108				

**NOTES:**

S - Outlying QC recoveries were observed for Dichlorodifluoromethane (high bias). The method is in control as indicated by the LCS.

Sample ID: <b>LCS-R7380</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145515</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	16.9	1.00	20.00	0	84.6	43.1	127				
Chloromethane	19.9	1.00	20.00	0	99.7	42.5	131				
Vinyl chloride	19.9	0.200	20.00	0	99.4	56.2	130				
Bromomethane	17.6	1.00	20.00	0	87.8	45.4	138				
Trichlorofluoromethane (CFC-11)	19.5	1.00	20.00	0	97.5	64.7	129				
Chloroethane	17.4	1.00	20.00	0	87.1	62.5	123				
1,1-Dichloroethene	18.7	1.00	20.00	0	93.7	60.7	146				
Methylene chloride	19.5	1.00	20.00	0	97.6	60.3	135				

<b>Qualifiers:</b> B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	D Dilution was required J Analyte detected below quantitation limits RL Reporting Limit	E Value above quantitation range ND Not detected at the Reporting Limit S Spike recovery outside accepted recovery limits
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**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>LCS-R7380</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>
Client ID: <b>LCSW</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145515</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	20.3	1.00	20.00	0	102	71.3	129				
Methyl tert-butyl ether (MTBE)	18.7	1.00	20.00	0	93.5	75.4	123				
1,1-Dichloroethane	19.7	1.00	20.00	0	98.4	71.3	129				
2,2-Dichloropropane	17.5	2.00	20.00	0	87.5	37.8	132				
cis-1,2-Dichloroethene	19.8	1.00	20.00	0	99.0	67.5	127				
Chloroform	20.2	1.00	20.00	0	101	70.3	123				
1,1,1-Trichloroethane (TCA)	20.0	1.00	20.00	0	100	67.9	134				
1,1-Dichloropropene	19.7	1.00	20.00	0	98.6	72.1	133				
Carbon tetrachloride	19.8	1.00	20.00	0	98.9	68	136				
1,2-Dichloroethane (EDC)	19.6	1.00	20.00	0	97.8	65.8	126				
Benzene	19.6	1.00	20.00	0	97.8	75.2	124				
Trichloroethene (TCE)	20.3	1.00	20.00	0	101	71.9	130				
1,2-Dichloropropane	19.5	1.00	20.00	0	97.3	71.9	131				
Bromodichloromethane	19.8	1.00	20.00	0	99.2	70	130				
Dibromomethane	19.9	1.00	20.00	0	99.6	74.2	125				
cis-1,3-Dichloropropene	19.2	1.00	20.00	0	96.0	62.8	135				
Toluene	19.7	1.00	20.00	0	98.5	75.2	129				
trans-1,3-Dichloropropene	18.4	1.00	20.00	0	91.9	58.1	138				
1,1,2-Trichloroethane	19.2	1.00	20.00	0	95.8	65.4	128				
1,3-Dichloropropane	19.1	1.00	20.00	0	95.6	71.9	131				
Tetrachloroethene (PCE)	21.0	1.00	20.00	0	105	52.4	140				
Dibromochloromethane	19.1	1.00	20.00	0	95.7	68.7	139				
1,2-Dibromoethane (EDB)	19.4	0.0100	20.00	0	97.0	71.2	129				
Chlorobenzene	20.4	1.00	20.00	0	102	77.2	122				
1,1,1,2-Tetrachloroethane	19.3	1.00	20.00	0	96.3	76.2	130				
Ethylbenzene	20.2	1.00	20.00	0	101	78	127				
m,p-Xylene	40.4	1.00	40.00	0	101	77.5	130				
o-Xylene	22.1	1.00	20.00	0	110	77.6	126				
Styrene	25.1	1.00	20.00	0	126	66.8	137				

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	D Dilution was required	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	ND Not detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Limit	S Spike recovery outside accepted recovery limits

Work Order: 1302006  
 CLIENT: Calibre  
 Project: Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>LCS-R7380</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>
Client ID: <b>LCSW</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145515</b>

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	19.4	1.00	20.00	0	96.9	75.9	133				
Bromoform	18.8	1.00	20.00	0	94.2	69.9	142				
1,1,2,2-Tetrachloroethane	18.2	1.00	20.00	0	90.9	68	134				
n-Propylbenzene	19.0	1.00	20.00	0	95.2	77.1	133				
Bromobenzene	19.0	1.00	20.00	0	95.2	71.1	131				
1,3,5-Trimethylbenzene	19.5	1.00	20.00	0	97.4	76.2	133				
2-Chlorotoluene	19.2	1.00	20.00	0	96.0	67.1	137				
4-Chlorotoluene	19.7	1.00	20.00	0	98.3	70.7	132				
tert-Butylbenzene	18.7	1.00	20.00	0	93.3	71.3	139				
1,2,3-Trichloropropane	18.4	1.00	20.00	0	91.8	70.8	132				
1,2,4-Trichlorobenzene	19.8	2.00	20.00	0	99.0	61.4	139				
sec-Butylbenzene	19.2	1.00	20.00	0	96.2	77.4	136				
4-Isopropyltoluene	19.0	1.00	20.00	0	95.2	78.1	131				
1,3-Dichlorobenzene	19.7	1.00	20.00	0	98.6	73.5	125				
1,4-Dichlorobenzene	19.8	1.00	20.00	0	98.8	71.4	125				
n-Butylbenzene	20.0	1.00	20.00	0	99.9	69.8	138				
1,2-Dichlorobenzene	20.9	1.00	20.00	0	104	74.2	123				
1,2-Dibromo-3-chloropropane	18.6	1.00	20.00	0	93.2	66.1	138				
1,2,4-Trimethylbenzene	19.3	1.00	20.00	0	96.7	72.3	133				
Hexachlorobutadiene	18.9	4.00	20.00	0	94.6	60.9	141				
Naphthalene	19.7	1.00	20.00	0	98.3	58.2	140				
1,2,3-Trichlorobenzene	20.2	4.00	20.00	0	101	61.3	133				
Surr: 1-Bromo-4-fluorobenzene	9.95		10.00		99.5	82.6	120				
Surr: Dibromofluoromethane	9.88		10.00		98.8	72.1	122				
Surr: Toluene-d8	9.95		10.00		99.5	83.5	108				

**Qualifiers:**

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>MB-R7380</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145516</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	1.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	1.00									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									
trans-1,3-Dichloropropene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>MB-R7380</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145516</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.0100									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	1.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
Hexachlorobutadiene	ND	4.00									
Naphthalene	ND	1.00									

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

**Work Order:** 1302006  
**CLIENT:** Calibre  
**Project:** Hytec/Bordeaux

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260**

Sample ID: <b>MB-R7380</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>2/8/2013</b>	RunNo: <b>7380</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>R7380</b>		Analysis Date: <b>2/8/2013</b>	SeqNo: <b>145516</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2,3-Trichlorobenzene	ND	4.00								
Surr: 1-Bromo-4-fluorobenzene	9.22		10.00		92.2	82.6	120			
Surr: Dibromofluoromethane	9.94		10.00		99.4	72.1	122			
Surr: Toluene-d8	10.0		10.00		100	83.5	108			

**Qualifiers:**
B Analyte detected in the associated Method Blank
D Dilution was required
E Value above quantitation range  
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not detected at the Reporting Limit  
R RPD outside accepted recovery limits
RL Reporting Limit
S Spike recovery outside accepted recovery limits

Client Name: **CLBRE**

 Work Order Number: **1302006**

 Logged by: **Clare Griggs**

 Date Received: **2/1/2013 3:36:00 PM**

### Chain of Custody

1. Were custodial seals present? Yes  No  Not Required
2. Is Chain of Custody complete? Yes  No  Not Present
3. How was the sample delivered? Client

### Log In

4. Coolers are present? Yes  No  NA
5. Was an attempt made to cool the samples? Yes  No  NA
6. Were all coolers received at a temperature of >0° C to 10.0°C Yes  No  NA
7. Sample(s) in proper container(s)? Yes  No
8. Sufficient sample volume for indicated test(s)? Yes  No
9. Are samples properly preserved? Yes  No
10. Was preservative added to bottles? Yes  No  NA
11. Is there headspace present in VOA vials? Yes  No  NA
12. Did all sample containers arrive in good condition?(unbroken) Yes  No
13. Does paperwork match bottle labels? Yes  No
14. Are matrices correctly identified on Chain of Custody? Yes  No
15. Is it clear what analyses were requested? Yes  No
16. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks/Discrepancies

### Item Information

Item #	Temp °C	Condition
Cooler 1	7.9	Good
Cooler 2	5.6	Good
Tmp Blk 1	1.3	Good
Tmp Blk 2	4.3	Good



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record

Laboratory Project No (Internal): ~~1302006~~ 1302006

Date: 2-1-13 Page: 1 of 2  
 Client: CALIBRE Project Name: Hytec/Bordeaux  
 Address: Hytec/Bordeaux  
 City, State, Zip: T N Bore C Gallogher  
 Reports To (PM): Tom McKeon Email: Tom.McKeon@calibre-analytical.com Project No: K0308000

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	VOC (EPA 8260)	GC/MS (EPA 8210)	Quantitative Organic	Semi-Vol (EPA 8210)	PCBs (EPA 8081)	Chlorides (EPA 8081)	Metals (EPA 8210 / 8081)	Total TN / Dissolved (D)	Anions (EPA 8081)	Comments/Depth
1. HLMW-07A-013113	1/31/13	0849	GW			X				T D			Bordeaux well
2. HLMW-06B-013113	1/31/13	0931	GW			X				T D			
3. HLMW-03A-013113	1/31/13	1003	GW			X				T D			
4. HLMW-02A-013113	1/31/13	1040	GW			X				T D			
5. HLMW-04A-013113	1/31/13	1129	GW			X				T D			
6. SPWE-013113	1/31/13	1249	GW			X				T D			
7. HLMW-01A-013113	1/31/13	1336	GW			X				T D			
8. MOWE-013113	1/31/13	1356	GW			X				T D			
9. PAWE-013113	1/31/13	1425	GW			X				T D			
10. Dupl-013113	1/31/13	0800	GW			X				T D			

\*Metals Analysis (Circle): WICA-5 NCPA-3 Priority Pollutants TAL Individual: Ag Al B Ba Co Cu Fe Hg K Mg Mn Ni Na Pb Se Si Sr Ti U V Zn  
 \*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Iodide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal:  Return to Client  Disposal by Lab (A fee may be assessed if samples are retained over 30 days.)

Relinquished Date/Time: 2/1/13 1536  
 Received Date/Time: 2/1/13 1536  
 Signature: [Signature]

Special Remarks: Diss metals collected in next prepared bottle. Hold this analysis until we see T-N results. Metals: Sb, As, Be, Cd, Cr, Cu, Pb, Ni, Zn  
 TAT -> Next Day 2 Day 3 Day





**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

Tel: 206-352-3790  
Fax: 206-352-7178

Client: CALIBRE

Address:

City, State, Zip

Tel:

Project Name:

Location:

Collected by:

Laboratory Project No (Internal):

Page: 2 of: 2

# Chain of Custody Record

Reports To (PM): Tom Mckee Email: Tom.Mckee@calibresys.com Project No: K0303000

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	Analysis Method	Comments/Length
1 HLMW-05B-020113	2/1/13	1215	GW	X	MS/MSD
2 Equipment Rinsate-020113	2/1/13	1310	W	X	
3					
4					
5					
6					
7					
8					
9					
10					

\*Metals Analysis (Circle): MTCA-5 BCRA-8 Priority Pollutants TAL Individual Ag Al B Be Cd Ca Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Se Sr Sn Ti U V Zn  
 \*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Fluoride Nitrate+Nitrite  
 O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal:  Return to Client  Disposal by Lab (if fee may be assessed if samples are retained after 30 days)

Relinquished Date/Time: 2/1/13 1536  
 Received Date/Time: 2/1/13 1536  
 Signature: [Signature]

Special Remarks:  
 Drys Metals collected in Non preserved bottle  
 Hold this analysis until we see Total  
 Metals results.  
 Metals: Sb, As, Ba, Cd, Cr, Cu, Pb, Ni, Zn

TAT -> Next Day 2 Day 3 Day 30D