



File: 3775-E

February 24, 2004

Mr. Robert Adler Department of Environmental Protection 627 Main Street Worcester, MA 01608

RE: Indoor Air Sampling Results

Former Esquire Cleaners Property 211 West Main Street, Ayer, MA

RTN 2-14537

Dear Mr. Adler:

Enclosed for your review are the results of indoor air sampling and analysis conducted at the Former Esquire Cleaners site located at 211 West Main Street, Ayer, Massachusetts, Release Tracking Number (RTN) 2-14537.

The building located at the 211 West Main Street property is currently used as a video rental store. The building is a single story structure with a partial basement with a concrete floor. Air samples were collected in the basement and the first floor using laboratory supplied Summa air canisters equipped with 8-hour regulators on February 20, 2004. The samples were submitted to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts for analysis of Volatile Organic Compounds (VOC) using method TO-14. The results indicated the presence of tetrachloroethene, toluene, and dichlorodifluoromethane in both samples. Laboratory data sheets are provided as an attachment to this letter.

Ducharme & Wheeler authorized the O'Reilly, Talbot & Okun (OTO) of Westborough, Massachusetts to evaluate potential exposures at the 211 West Main Street property. Using a worst-case scenario for a full-time worker at the video store, OTO concluded that an imminent hazard did not exist for the conditions at the property. The full text of the OTO report is provided as an attachment to this letter.

Based on these results, Ducharme & Wheeler will collect additional air samples in the building at 211 West Main Street to evaluate seasonal variations and will re-evaluate the scoring of the numerical ranking submitted to the MA DEP on January 21, 2004.

If you have any questions, or require further information, please contact either of the undersigned at (978) 779-6091.

Very truly yours,

DUCHARME & WHEELER, INC.

Richard J. Cushing Senior Project Manager Philip J. Wheeler, P.E.

Principal

ATTACHMENTS

Analytical Data Sheets

OTO Memorandum addressing indoor air conditions at 211 West Main Street, Ayer, Massachusetts

Cc: Stanley McNiff, LeMack RT



MEMORANDUM

24 West Main Street, Sime 205

Westborouge, Mrs 01581

Tel 506 366 6469 Fax 508 366 9826

www.otocomplies com

To: From: Rich Cushing, LSP, Ducharme & Wheeler, Inc.

Debbie Listemick, O'Reilly, Talbot & Okun Associates, Inc. 194

Date: Subject: February 23, 2004 Indoor Air Evaluation

LeMack Property Ayer, Massachuserrs

As requested, OTO has evaluated whether the concentrations detected in the indoor air sample collected at the abovementioned site pose a potential volutilization risk to current occupants of the site building. The site building is correndy used as a video store. The first floor of the store is generally an open space with no partitions. The building has a basement with a concrete floor and is not used by the video store for regular activities and storage. The site is the location of a former dry cleaning operation. A release at the site is being addressed under a Massachusetts Contingency Pian (MCP) as an Immediate Response Action (IRA)

Indoor Air Samples

Indoor air samples were collected in the site building on February 10, 2004. Samples were collected from the first floor (AS-1) and basement (AS-2) using SUMMA Canisters. The indoor air samples were analyzed for volatile organic compounds (VOCs) using EPA Method TO-14. The results indicated the presence of dicitiorodifluoromethane (Freon 12), tetrachloroethylene (PCE), and toluene in each of the samples.

The samples were collected from the western side of the site building, where previously collected soil gas samples indicated the highest detected concentrations. Therefore, detected concentrations in the indoor air samples are likely to represent worst-case indoor air conditions and overestimate the actual contenuations present in the entire working space of the building.

The indoor air sample from the first floor was used to evaluate potential current inhalation risks to the video store workers, since no regular work activities are conducted in the basement. The detected compounds and concentrations in the first floor indoor air sample, and MA DEP indoor air background concentrations for the detected compounds are summarized in Table 1.

Table 1 Analytical Results for First Floor (AS-1) Indoor Air Sample

Detected Compounds	Detected Concentrations (ug/m³)	MA DEP Background Indoor Aix Level (ug/m³)!
Dichlorodifluoromethane (Freon 12)	2.7	N/A
Tetrachloroethylene (PCE)	692	11
Toluene	2.4	29

MA DEP, 2001.

N/A - Not Available.

As indicated in this table, there is no MA DEP background indoor air level for Freon 12 and the detected concentration of PCE exceeds the respective MA DEP background indoor air level. concentration of toluene is below the respective MA DEP background indoor air level. Therefore, Freon 12 and PCE are considered to be constituents of concern (COCs) for this evaluation

Inhalation Risk Calculations

This risk evaluation evaluates actual and likely exposures to workers in the video store considering a period of time of 5 years or less. The risk evaluation has considered two scenarios for exposures to the video store workers. The first scenario is considered to be the maximum, worst-case exposure and assumes that a full-time worker is present in the area of the highest indoor air concentration for 8 hours/day, 5 days/week for 48 weeks/year (236 days/year) for 5 years. The second scenario is considered to be the reasonable, more-likely exposure given the nature of the video store business and the likelihood that remedial actions will be completed at the site. The part-time worker scenario assumes that a worker is present in the area of the highest indoor air concentration for 4 hours/day, 5 days/week for 48 weeks/year (236 days/year) for 2 years.

These exposure assumptions and the equations used to calculate average daily exposures (ADEs) for inhalation of vapors by a current full-time worker and part-time worker are presented in Tables 2A and 2B, respectively ADEs were calculated for the full-time worker (Table 3A) and the part-time worker (Table 3B). Inhalation subchronic reference concentrations and unit risks for inhalation exposures from MA DEP (MA DEP, 2001 and 2002) and EPA sources (EPA, 1997, 2003 and 2004) were incorporated with ADEs to calculate noncarcinogenic hazard indices (HI) and cancer risks (Tables 3A and 3B).

For the worst-case scenario, full-time worker, the calculated HI was 0.3 and cancer risk was 6E-05 (Table 3A). For the more-likely scenario, part-time worker, the calculated HI was 0.2 and cancer risk was 1E-05 (Table 3B). These HIs are less than the MA DEP risk limit of 10 for determining a condition of No Imminent Hazard and of 1 for determining a condition of No Significant Risk. The cancer risk for the full-time worker exceeds the MA DEP risk limit of 1E-05 for determining a condition of No Significant Risk, but is less than the MA DEP risk limit of 1E-04 for reporting an Imminent Hazard. The cancer risk for the part-time worker does not exceed the MA DEP risk limit of 1E-05 for determining a condition of No Significant Risk.

Conclusions

Indoor air risks were estimated for current site workers in the video store in the site building. Indoor risks were based on measured indoor air concentrations from the first floor, since the basement is not used by site employees. The first floor indoor air concentrations are likely to represent worst-case conditions, since the indoor air sample was collected in the location expected to have the highest concentrations in the working space of the building. In addition, it was assumed that these concentrations would be sustained during the entire exposure duration. This evaluation may be refined using additional indoor air data to represent indoor air concentrations throughout the entire work space.

Inhalation risk calculations indicate that significant noncarcinogenic effects would not be expected for either the full-time or the part-time worker. However, there is a potential for significant carcinogenic risks to the full-time worker under the assumptions of this evaluation and assuming that no remedial action is completed at the site over the length of the assumed exposure period.

References

Massachusetts Department of Environmental Protection (MA DEP). 1992. Documentation for the Risk Assessment Shortform Residential Scenario. Policy #WSC/ORS-142-92. October 1992.

Massachusetts Department of Environmental Protection (MA DEP). 1994. Background Documentation for the Development of the MCP Numerical Standards. April 1994.

Massachusetts Department of Environmental Protection (MA DEP). 1995. Conidance for Disposal Site Risk Characterization - In Support of the Massachusetts Contingency Plan. July 1995.

Massachusetts Departroent of Environmental Protection (MA DEP). 1996. Draft Commercial/ Industrial Shortform Exposure Scenarios. December 1996.

Massachusetts Department of Environmental Protection (MA DEP). 2001. Development of MCP Risk-based Levels for Soil and Groundwater. December 20, 2001.

Massachusetts Department of Environmental Protection (MA DEP). 2002. Proposed Changes to the MCP Numerical Standards GW-2 Standards. Discussion of Significant Changes since the December 2001 Draft. Presentation to the Waste Site Cleanup Advisory Committee. April 24, 2002.

Massachusetts Department of Environmental Protection (MA DEP). 2003. Modeling the Vapor Intrusion Pathway: Revisions to the MCP GW-2 Groundwater Standards. Handouts from the Licensed Site Professional Association/Society for Risk Analysis meeting. March 4, 2003.

United States Environmental Protection Agency (EPA). 1997. Health Effects Assessment Summary Tubles, 175 1997 - Update. EPA 540/R-97-036, July 1997.

United States Environmental Protection Agency (EPA). 2003. EPA Region III Risk-based Concentration Tubic. April 2003.

United States Environmental Protection Agency (EPA). 2004. Integrated Risk Information System. Office of Health and Environmental Assessment. On-line database. February 2004.

TABLES

Table 2A Exposure Assumptions for a Pull-Time Indoor Worker - Inhalation of Vapors

VARIABLE	ASSUMPTIONS	NOTES
Receptor	Adult worker, age 18 to 45	1
Duration of exposure	8 hours/day 240 days/year	2
Averaging period	5 years 5 years (noncarcinogenic effects) 70 years (carcinogenic effects)	3
Relative Absorption Factor	compound-specific (unitless)	4
Exposure Point Concentration (EPC)	measured (ug/rn³)	5

Noncercinogenic effects

Chronic Average Daily Exposure (ug/m²) = EPC (ug/m²) x hours exposed/day x 1 day/24 hours x days exposed/year x 1 year/365 days x years exposed/averaging period x RAF

= EPC (ug/m³) x Exposure Factor x RAF

Exposure Factor = 0.22 (unitless)

Carcinogenic effects

Lifetime Average Daily Exposure (ug/m²) = EPC (ug/m²) x hours exposed/day x 1 day/24 hours x days exposed/year x 1 year/365 days x years exposed/averaging period x RAF

= EPC (ug/m³) x Exposure Factor x RAF

Exposure Factor = 0.016 (unitless)

NOTES

- 1. The receptor is a worker in the current video store.
- The duration of exposure is 8 hours/day, 5 days/week, 48 weeks/year (52 weeks/year minus 2 weeks
 for vacations and 2 weeks for holidays, sickness, personal time, etc.) or 240 days/year for a period of 5 years.
- 3. The averaging period is the period of exposure for noncarcinogenic effects, and a lifetime for carcinogenic effects.
- 4. Compound-specific RAFs for inhalation were not available. Therefore, the RAFs were assumed to be 1...
- 5 Exposure point concentrations were based on measured indoor air concentrations.

Table 2B Exposure Assumptions for a Part-time Indoor Worker - Inhalation of Vapors

VARIABLE	ASSUMPTIONS	NOTES
Receptor	Adult worker, age 18 to 45	1
Duration of exposure	4 hours/day	2
	240 days/year	
	2 years	
Averaging period	2 years (noncarcinogenic effects)	3
	70 years (carcinogenic effects)	
Relative Absorption Factor	compound-specific (unidess)	4
Exposure Point Concentration (EPC)	measuxed (ug/m²)	5

Noncarcinogenic effects

Chronic Average Daily Exposure (ug/m') = EPC (ug/m') x hours exposed/day x 1 day/24 hours x days exposed/year x 1 year/365 days x years exposed/averaging period x RAF

= EPC (ug/m³) x Exposure Factor x RAF

Exposure Factor = 0.11 (unidess)

Carcinogenic effects

Lifetime Average Daily Exposure (ug/m²) = EPC (ug/m²) x hours exposed/day x 1 day/24 hours x days exposed/year x 1 year/365 days x years exposed/averaging period x RAF

= EPC (ug/m³) x Exposure Factor x RAF

Exposure Factor = 0.003 (unitless)

NOTES

- The receptor is a worker in the current video store.
- 2. The duration of exposure is 4 hours/day, 5 days/week, 48 weeks/year (52 weeks/year minus 2 weeks for holidays, sickness, personal time, etc.) or 240 days/year for a period of 2 years.
- 3. The averaging period is the period of exposure for noncarcinogenic effects, and a lifetime for carcinogenic effects.
- 4. Compound-specific RAFs for inhalation were not available. Therefore, the RAFs were assumed to be 1.
- 5. Exposure point concentrations were based on measured indoor air concentrations.



TABLE 3A

CALCULATION OF RISK ESTIMATES

FULL-TIME INDOOR WORKER - INHALATION OF VAPORS - SUBCHRONIC EXPOSURE Based on Measured Indoor Air Exposure Point Concentrations

AS-1 First Floor Noncarcinogenic Risks

Compound	Measured EFC (ug/m³) x	Exposure Factor (unitless)	RAF	ADE	Subchronic RIC	Hazard Index
VOCs Dichtorodifluo/omethane			THE PERSON NAMED IN COLUMN TWO	(vg/ra') /	((ug/m²) =	(unidess)
Tetmehlorouthylene	692	0.22 0.22	1.00	5.811-01 1.5(1+02	2.0E+03 4.91(+02	31:-04 31:-01
					Toml:	335.01

Carcinogenie Risks

	Measured	Exposure	(Total Control			
Compound	EPC (ug/xn³) x	Factor (unitless)	RAF (inhalation)	LADE = (ug/m²) x	Unit Risk (ug/m³) ⁻¹	Cancer Risk = (unitless)
VOCs					(dg))	- (aminess)
Lettachlomethylene	692	0.016	1.00	1.1E+01	5.7E-06	663-05
					tora!:	6E-05

Notes:

- 1. EPC is the Exposure Point Concentration
- 2. RAF is the Relative Absorption Factor; compound, and route-specific if available.
- 3. ADE is the Average Dully Exposure of each compound received over the exposure.
- 4. RfC is the Reference Concentration.
- 5. LADE is the Lifetime Average Daily Exposure of each compound.



TABLE 3B

CALCULATION OF RISK ESTIMATES

PART-TIME INDOOR WORKER - INHALATION OF VAPORS - SUBCHRONIC EXPOSURE Based on Measured Indoor Air Exposure Point Concentrations

AS-1 First Floor Noncarcinogenic Risks

Compound VOCs	Measurod EPC (ug/m³) x	Exposure Factor (unicless)	RAF × (inhalmion) =	ADE (ug/m³)	Subchronic RfC (ug/m²) ==	Hazurd Index
Dichlorodifluoromethaue Legacoloroethylene	2.7 692	0.11 0.11		3.013-01 7.61(+0)	2.0E+03 4.9E+02 Total	116.64 216-01 2 E-61

Carcinogenic Risks

Compound	Measured EPC (ug/m ³) x	Exposure Factor (unitless)	RAF × (inhalation) =	LADE (ug/m³) 3	Unit Risk (ug/m ³) ⁴	Cancer Risk = (unitless)
VOCs L'etrachloroethylene	692	0.003	1.00	2.11:+00	5.715-06	1C-05
					Total:	1E-05

Notes:

- 1. EPC is the Exposure Point Concentration.
- 2. RAF is the Relative Absorption Factor; compound- and courte-specific if available.
- 3. ADE is the Average Daily Exposure of each compound received over the exposure.
- 4. RfC is the Reference Concentration.
- $\S(1.\mathrm{ADE})$ is the Lifetime Average Daily Exposure of each compound



REPORT DATE 2/16/2004

DUCHARME & WHEELER, INC. PO BOX 427 BOLTON, MA 01740 ATTN: JENNIFER ROBERGE

CONTRACT NUMBER: **PURCHASE ORDER NUMBER:**

PROJECT NUMBER:

ANALYTICAL SUMMARY

LIMS BAT #:

LIMS-76886

JOB NUMBER: 3775-E

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: LE MACK

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	
A9-1	04803704	AIR	1ST FLOOR	lo-14 ppby	•
AS-1	04B03704	AIR	1ST FLOOR	to-14 ug/m3	•
AS-2	04803705	AIR	BASEMENT	to-14 ppby	·
AS-2	04B03705	· AIR	BASEMENT	to-14 ug/m3	.•

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

AIHA 100033

MASSACHUSETTS MA0100 CONNECTICUT PH-0567

NEW YORK ELAP/NELAP 10899

AIHA ELLAP (LEAD) 100033

NEW HAMPSHIRE NELAP 2516

VERMONT DOH (LEAD) No. LL015036

RHODE ISLAND (LIC. No. 112)

FLORIDA NELAP E87889

NEW JERSEY NELAP NJ MA007 (AIR)

ARIZONA AZ0648

ARIZONA AZ0654 (AIR)

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod Kopyscinski

Director of Operations

Sondra S. Kocot

SIGNATURE

Quality Control Coordinator

Edward Denson Technical Director



JENNIFER ROBERGE

DUCHARME & WHEELER, INC.

PO BOX.427

BOLTON, MA 01740

Purchase Order No.:

2/16/2004

Page 1 of 9

Project Location: LE MACK

Date Received:

2/12/2004

LIMS-BAT #:

LIMS-768B6

Field Sample #: AS-1

Job Number:

3775-E

Sample ID:

04B03704

Sampled: 2/10/2004

Sample Matrix:

AIR

1ST FLOOR

Sample Medium : SUMMA

	Units	Results	Date	Analyst	RL	SPEC	Limit	P/F
			Analyzed			Lo	. HI	
Benzene	PPBv	ND	02/13/04	PRM	0.5			
Bromomethane	PPBv	ND	02/13/04	PRM	0.5		÷	
Carbon Tetrachloride	PPBv	ND	02/13/04	PRM	0.5			
Chlorobenzene	PPBv	ND	02/13/04	PRM	0.5			
Chloroethane	PPBv	ND	02/13/04	PRM	0.5			
Chloroform	PPBv	ND	02/13/04	PRM	0.5			
Chloromethane	PPBv	ND	02/13/04	PRM	0.5			
1,2-Dibromoethane	PPBv	ND	02/13/04	PRM	0.5			
1,2-Dichlorobenzene	PPBv	ND	02/13/04	PRM	0.5			
1,3-Dichlorobenzene	PPBv	NÓ	02/13/04	PRM	0.5			
1,4-Dichlorobenzene	PPBv	ND	02/13/04	PRM	0.5			
Dichlorodifluoromethane	PPBv	0.6	02/13/04	PRM	0.5			
1,1-Dichtoroethane	PPBv	ND	02/13/04	PRM	0.5			
1,2-Dichloroethane	PPBv	ND	02/13/04	PRM	0.5			
1,1-Dichloroethylene	PPBv	ND	02/13/04	PRM	0.5			
cis-1,2-Dichloroethylene	PPBv	ND	02/13/04	PRM	0.5			
1,2-Dichloropropane	PPBv	ND	02/13/04	PRM	0.5			
cis-1,3-Dichloropropene	PPBv	NÐ	02/13/04	PRM	0.5			
trans-1,3-Dichloropropene	PPBv	ND	02/13/04	PRM	0.5			
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	02/13/04	PRM	0.5			
Ethylbenzene	PPBv	ND	02/13/04	PRM	0.5			
Hexachlorobutadiene	PPBv	ND	02/13/04	PRM	0.5			
Melhylene Chloride	₽₽Bv	ND	02/13/04	PRM	0.5			
Styrene	PPBv	ND	02/13/04	PRM	0.5			
1,1,2,2-Tetrachloroethane	PPBv	ND	02/13/04	PRM	0.5			
Tetrachloroethylene	PPBv	102.	02/13/04	PRM	0.5			
Toluene	PPBv	0.6	02/13/04	PRM	0.5			
1,2,4-Trichlorobenzene	PPBv	ND	02/13/04	PRM	0.5			
1,1,1-Trichloroethane	PPBv	ND	02/13/04	PRM	0.5			
1,1,2-Trichloroethane	PPBv	ND	02/13/04	PRM	0.5			

RL = Reporting Limit

ND = Not Detected NM = Not Measured

^{* =} See end of report for comments and notes applying to this sample



JENNIFER ROBERGE

DUCHARME & WHEELER, INC.

PO BOX 427

BOLTON, MA 01740

Purchase Order No.:

2/16/2004

Page 2 of 9

Project Location: LE MACK

LIMS-BAT #:

LIMS-76886

Date Received:

2/12/2004

Job Number:

3775-E

Field Sample #: AS-1

04B03704

Sampled: 2/10/2004

Sample ID: Sample Matrix:

AIR

1ST FLOOR

Sample Medium : SUMMA

	Units Results		Date	Analyst	RL	SPEC Limit F		P/F
			Analyzed			LO	HI	
Trichloroethylene	PPBv	ND	02/13/04	PRM	0.5			
Trichlorofluoromethane (Freon 11)	PPBv	ND	02/13/04	PRM	0.5			
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	ND	02/13/04	PRM	0.5			
1,2,4-Trimethylbenzene	PPBv	ND	02/13/04	PRM	0.5			
1,3,5-Trimethylbenzene	PPBv	ND	02/13/04	PRM	0.5			
Vinyl Chloride	PPBv	ND	02/13/04	PRM	0.5			
m/p-Xylene	PPBv	ND	02/13/04	PRM	0.5	•		
o-Xylene	PPBv	ND	02/13/04	PRM	0.5			

Analytical Method:

EPA TO-14A

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

^{* =} See end of report for comments and notes applying to this sample



JENNIFER ROBERGE

DUCHARME & WHEELER, INC.

PO BOX 427

BOLTON, MA 01740

Purchase Order No.:

2/16/2004

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Project Location: LE MACK

LIMS-BAT#:

LIMS-76886

Date Received:

2/12/2004

Job Number:

3775-E

Field Sample #: AS-2

04B03705

Sampled: 2/10/2004

Sample ID:

BASEMENT

Sample Medium : SUMMA

Sample Matrix:

AIR

Benzene		Units	Results	Date Analyzed	Analyst	RL	SPEC Lo	Limit Hi	P/ F
Carbon Tetrachloride PPBv ND 02/13/04 PRM 0.6 Chlorobenzene PPBv ND 02/13/04 PRM 0.5 Chloroethane PPBv ND 02/13/04 PRM 0.5 Chloromethane PPBv ND 02/13/04 PRM 0.5 Chloromethane PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,3-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBv <	Benzene	PPBv	ND	02/13/04	PRM	0.5	·····	····	
Chlorobenzene PPBv ND 02/13/04 PRM 0.5 Chloroethane PPBv ND 02/13/04 PRM 0.5 Chloroform PPBv ND 02/13/04 PRM 0.5 Chloromethane PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,3-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,1-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorobethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichlorobethylene PPBv ND 02/13/04 PRM 0.5 cis-1,2-Dichloropropane PPBv	Bromomethane	PPBv	ND	02/13/04	PRM	0.5			
Chloroethane PPBv ND 02/13/04 PRM 0.5 Chloroform PPBv ND 02/13/04 PRM 0.5 Chloromethane PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,3-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropane PPBv	Carbon Tetrachloride	PPBv	ND	02/13/04	PRM	0.5			
Chloroform PPBv ND 02/13/04 PRM 0.5 Chloromethane PPBv ND 02/13/04 PRM 0.5 1,2-Dibromoethane PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,3-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichlorodenzene PPBv ND 02/13/04 PRM 0.5 Dichlorodifluoromethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene <	Chlorobenzene	PPBv	ND	02/13/04	PRM	0.5			
Chloromethane PPBv ND 02/13/04 PRM 0.5 1,2-Dibromoethane PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,3-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 Dichlorodifluoromethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichlorosthane PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorosthylene PPBv ND 02/13/04 PRM 0.5 1,1-Dichlorosthylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 1,1-Dichlorosthane PPBv ND 02/13/04 PRM 0.5 1,1-2-Dichloropropene	Chloroethane	PPBv	ND	02/13/04	PRM	0.5			
1,2-Dibromoethane PPBV ND 02/13/04 PRM 0.5 1,2-Dichlorobenzene PPBV ND 02/13/04 PRM 0.5 1,3-Dichlorobenzene PPBV ND 02/13/04 PRM 0.5 1,4-Dichlorobenzene PPBV ND 02/13/04 PRM 0.5 Dichlorodifluoromethane PPBV ND 02/13/04 PRM 0.5 1,1-Dichloroethane PPBV ND 02/13/04 PRM 0.5 1,2-Dichloroethylene PPBV ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBV ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBV ND 02/13/04 PRM 0.5 cis-1,2-Dichloropropane PPBV ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene PPBV ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBV ND 02/13/04 PRM 0.5 Ethylbenzene<	Chloroform	PPBv	ND	02/13/04	PRM	0.5			
1,2-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,3-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 Dichlorodifluoromethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,2-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloroptopene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloropropene PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobtateine	Chloromethane	PPBv	ND	02/13/04	PRM	0.5			
1,3-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,4-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 Dichlorodifluoromethane PPBv 0.6 02/13/04 PRM 0.5 1,1-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,2-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 cis-1,2-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 cis-1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 ttans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobtadiene PPBv ND 02/13/04 PRM 0.5	1,2-Dibromoethane	PPBv	ND	02/13/04	PRM	0.5			
1,4-Dichlorobenzene PPBv ND 02/13/04 PRM 0.5 Dichlorodifluoromethane PPBv 0.6 02/13/04 PRM 0.5 1,1-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,2-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Silyrene </td <td>1,2-Dichlorobenzene</td> <td>PP8v</td> <td>ND</td> <td>02/13/04</td> <td>PRM</td> <td>0.5</td> <td></td> <td></td> <td></td>	1,2-Dichlorobenzene	PP8v	ND	02/13/04	PRM	0.5			
Dichlorodifluoromethane	1,3-Dichlorobenzene	PPBv	ND	02/13/04	PRM	0.5			
1,1-Dichlorosthane PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorosthane PPBv ND 02/13/04 PRM 0.5 1,1-Dichlorosthylene PPBv ND 02/13/04 PRM 0.5 cis-1,2-Dichlorosthylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorotetrafluoroethane (114) PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene </td <td>1,4-Dichlorobenzene</td> <td>PPBv</td> <td>DN</td> <td>02/13/04</td> <td>PRM</td> <td>0.5</td> <td></td> <td></td> <td></td>	1,4-Dichlorobenzene	PPBv	DN	02/13/04	PRM	0.5			
1,2-Dichloroethane PPBv ND 02/13/04 PRM 0.5 1,1-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 cis-1,2-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropane PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorotetrafluoroethane (114) PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 Totuene PPBv ND 02/13/04 PRM 0.5 Totuene PPBv ND 02/13/04 PRM 0.5 1,2,4-Trichloroethane PP	Dichlorodifluoromethane	PPBv	0.6	02/13/04	PRM	0.5			
1,1-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 cis-1,2-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorotetrafluoroethane (114) PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Totuene PPBv 0.5 02/13/04 PRM 0.5 Totuene PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroeth	1,1-Dichloroethane	PPBv	ND	02/13/04	PRM	0.5			
cis-1,2-Dichloroethylene PPBv ND 02/13/04 PRM 0.5 1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorotetrafluoroethane (114) PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene PPBv 714 02/13/04 PRM 0.5 Toluene PPBv ND 02/13/04 PRM 0.5 1,2,4-Trichloroethane	1,2-Dichloroethane	PPBv	ND	02/13/04	PRM	0.5			
1,2-Dichloropropane PPBv ND 02/13/04 PRM 0.5 cis-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorotetrafluoroethane (114) PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Totuene PPBv 714 02/13/04 PRM 0.5 Totuene PPBv ND 02/13/04 PRM 0.5 1,2,4-Trichloroethane PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	1,1-Dichloroethylene	PPBv	ND	02/13/04	PRM	0.5			
cis-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorotetrafluoroethane (114) PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene PPBv 714 02/13/04 PRM 0.5 Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	cis-1,2-Dichloroethylene	PPBv	ND	02/13/04	PRM	0.5			
trans-1,3-Dichloropropene PPBv ND 02/13/04 PRM 0.5 1,2-Dichlorotetrafluoroethane (114) PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene PPBv 714 02/13/04 PRM 0.5 Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	1,2-Dichloropropane	PPBv	ND	02/13/04	PRM	0.5			
1,2-Dichlorotetrafluoroethane (114) PPBv ND 02/13/04 PRM 0.5 Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene PPBv 714. 02/13/04 PRM 0.5 Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichloroethane PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	cis-1,3-Dichloropropene	PPBv	ND	02/13/04	PRM	0.5			
Ethylbenzene PPBv ND 02/13/04 PRM 0.5 Hexachtorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene PPBv 714. 02/13/04 PRM 0.5 Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichloroethane PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	trans-1,3-Dichloropropene	PPBv	ND	02/13/04	PRM	0.5			
Hexachlorobutadiene PPBv ND 02/13/04 PRM 0.5 Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene PPBv 714. 02/13/04 PRM 0.5 Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichloroethane PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	02/13/04	PRM	0.5			
Methylene Chloride PPBv ND 02/13/04 PRM 0.5 Styrene PPBv ND 02/13/04 PRM 0.5 1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene PPBv 714. 02/13/04 PRM 0.5 Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichloroethane PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	Ethylbenzene	PPBv	ND	02/13/04	PRM	0.5			
Styrene PPBv ND 02/13/04 PRM 0.5 1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene PPBv 714. 02/13/04 PRM 0.5 Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	Hexachlorobutadiene	PPBv	ND	02/13/04	PRM	0.5			
1,1,2,2-Tetrachloroethane PPBv ND 02/13/04 PRM 0.5 Tetrachloroethylene PPBv 714. 02/13/04 PRM 0.5 Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichloroethane PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	Methylene Chloride	PPBv	ND	02/13/04	PRM	0.5			
Tetrachloroethylene PPBv 714. 02/13/04 PRM 0.5 Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	Styrene	PPBv	ND	02/13/04	PRM	0.5			
Toluene PPBv 0.5 02/13/04 PRM 0.5 1,2,4-Trichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	1,1,2,2-Tetrachloroethane	PPBv	ND	02/13/04	PRM	0.5	-		
1,2,4-Trichlorobenzene PPBv ND 02/13/04 PRM 0.5 1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	Tetrachioroethylene	PPBv	714.	02/13/04	PRM	0.5			
1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	Foluene	PPBv	0.5	02/13/04	PRM	0.5			
1,1,1-Trichloroethane PPBv ND 02/13/04 PRM 0.5	1,2,4-Trichlorobenzene	PPBv	ND	02/13/04	PRM	0.5			
	1,1,1-Trìchloroethane	PPBv	ND	02/13/04	PRM			•	
	1,1,2-Trichloroethane	PPBv							4

RL = Reporting Limit

ND = Not Detected

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

NM = Not Measured

^{* =} See end of report for comments and notes applying to this sample



JENNIFER ROBERGE

DUCHARME & WHEELER, INC.

PO BOX 427

BOLTON, MA 01740

Purchase Order No.:

2/16/2004

Page 4 of 9

Project Location: LE MACK Date Received:

2/12/2004

LIMS-BAT #:

LIMS-76886

Field Sample #: AS-2

Sampled: 2/10/2004

Job Number:

3775-E

Sample ID:

Sample Matrix:

04B03705

AIR

BASEMENT

Sample Medium : SUMMA

	Units	Results	Date Analyzed	Analyst	RL	SPEC Lo	Limit Hi	P/F
Trichloroethylene	PPBv	0.8	02/13/04	PRM	0.5			
Trichlorofluoromethane (Freen 11)	PPBv	ND	02/13/04	PRM	0.5			
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	ND	02/13/04	PRM	0.5			
1,2,4-Trimethylbenzene	PPBv	ND	02/13/04	PRM ⁻	0.5			
1,3,5-Trimethylbenzene	PPBv	ND	02/13/04	PRM	0.5			
Vinyl Chloride	PPBv	ND	02/13/04	PRM	0.5			
m/p-Xylene	PPBv	ND	02/13/04	PRM	0.5			
p-Xylene	PPBv	ND	02/13/04	PRM	0.5			

Analytical Method:

EPA TO-14A

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. ($\mathsf{GC/MS}$)

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

^{* =} See end of report for comments and notes applying to this sample



JENNIFER ROBERGE

DUCHARME & WHEELER, INC.

PO BOX 427

BOLTON, MA 01740

Purchase Order No.:

2/16/2004

Page 5 of 9

Project Location: LE MACK

LIMS-BAT #:

LIMS-76886

Date Received: Field Sample #: AS-1

2/12/2004

3775-E

04B03704

Sampled: 2/10/2004

Job Number:

Sample iD:

Sample Matrix:

1ST FLOOR

AIR

Sample Medium : SUMMA

	Units	Results	Date	Analyst	RL	SPE	C Limit	P/F
			Analyzed	I		Lo	Hi	
Benzene	ug/m3	ND	02/13/04	PRM	1.6			
Bromomethane	ug/m3	ND	02/13/04	PRM	1.9			
Carbon Tetrachloride	ug/m3	, ND	02/13/04	PRM	3.1			
Chlorobenzene	ug/m3	ND	02/13/04	PRM	2.3			
Chloroethane	ug/m3	ND	02/13/04	PRM	1.3			
Chloroform	ug/m3	ND	02/13/04	PRM	2.4			
Chloromethane	ug/m3	ND	02/13/04	PRM	1.0			
1,2-Dibromoethane	ug/m3	ND	02/13/04	PRM	3.8			
1,2-Dichlorobenzene	ug/m3	ND	02/13/04	PRM	3.0			
1,3-Dichlorobenzene	ug/m3	ND	02/13/04	PRM	3.0	•		
1,4-Dichlorobenzene	ug/m3	ND	02/13/04	PRM	3.0			
Dichlorodifluoromethane	ug/m3	2.7	02/13/04	PRM	2.5			
1,1-Dichloroethane	ug/m3	ND	02/13/04	PRM	2.0			
1,2-Dichloroethane	ug/m3	ND	02/13/04	PRM	2.0			
1,1-Dichloroethylene	ug/m3	ND	02/13/04	PRM	2.0			
cis-1,2-Dichloroethylene	ug/m3	ND	02/13/04	PRM	2.0			
1,2-Dichloropropane	ug/m3	ND	02/13/04	PRM	2.3			•
cis-1,3-Dichloropropene	ug/m3	ND	02/13/04	PRM	2.3			
trans-1,3-Dichloropropene	ug/m3	ND	02/13/04	PRM	2.3			
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	02/13/04	PRM	3.5			
Ethylbenzene	ug/m3	ND	02/13/04	PRM	2.2			
Hexachlorobutadiene	ug/m3	ND .	02/13/04	PRM	5.3			
Methylene Chloride	ug/m3	ND	02/13/04	PRM	1.7			
Styrene	ug/m3	ND	02/13/04	PRM	2.1			
1,1,2,2-Tetrachloroethane	ug/m3	ND	02/13/04	PRM	3.4			
Tetrachloroethylene	ug/m3	692.	02/13/04	PRM	3.4			
Toluene	ug/m3	2.4		PRM	1.9			
1,2,4-Trichlorobenzene	ug/m3	ND		PRM	3.7			
1,1,1-Trichloroethane	ug/m3	ND		PRM	2.7			
1,1,2-Trichloroethane	ug/m3	ND		PRM	2.7			
	¥			,				

RL ≈ Reporting Limit

ND = Not Detected

NM = Not Measured

^{* =} See and of report for comments and notes applying to this sample



JENNIFER ROBERGE

DUCHARME & WHEELER, INC.

PO BOX 427

BOLTON, MA 01740

Purchase Order No.:

2/16/2004

Page 6 of 9

Project Location: LE MACK

2/12/2004

LIMS-BAT #:

LIMS-76886

Date Received: Field Sample #: AS-1

3775-E

Sample ID:

Sampled: 2/10/2004

Job Number:

04B03704

1ST FLOOR

Sample Matrix:

AIR

Sample Medium : SUMMA

÷	Units	Results	Date	Analyst	RL	SPEC	Limit	P/F
			Analyzed			Lo	Hi	
Trichloroethylene	ug/m3	ND	02/13/04	PRM	2.7			
Trichtorofluoromethane	ug/m3	ND	02/13/04	PRM	2.8			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	02/13/04	PRM	3.8	•		
1,2,4-Trimethylbenzene	ug/m3	ND.	02/13/04	PRM	2,5			
1,3,5-Trimethylbenzene	ид/т3	ND	02/13/04	PRM	2,5			
/inyl Chloride	ug/m3	ND	02/13/04	PRM	1.3			
n/p-Xylene	ug/m3	ND	02/13/04	PRM	2.2			
-Xylene	ug/m3	ND	02/13/04	PRM	2.2			

Analytical Method:

EPA TO-14A

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

^{* =} See end of report for comments and notes applying to this sample



JENNIFER ROBERGE

DUCHARME & WHEELER, INC.

PO BOX 427

BOLTON, MA 01740

Purchase Order No.:

2/16/2004

Page 7 of 9

Project Location: LE MACK Date Received:

2/12/2004

LIMS-BAT #:

LIMS-76886

Field Sample #: AS-2

3775-E

Sampled: 2/10/2004

Job Number:

Sample ID:

Sample Matrix:

04B03705

AIR

BASEMENT

Sample Medium : SUMMA

	Units	Results	Date Analyzed	Anaiyst	RL	SPEC L	imit Hi	P/ F
Benzene	ug/m3	ND	02/13/04	PRM	1.6			
Bromomethane	ug/m3	ND	02/13/04	PRM	1.9			
Carbon Tetrachloride	ug/m3	ND	02/13/04	PRM	3.1			
Chlorobenzene	ug/m3	ND.	02/13/04	PRM	2.3			
Chloroethane	ug/m3	ND	02/13/04	PRM	1.3			
Chloroform	ug/m3	ND	02/13/04	PRM	2.4			
Chloromethane	ug/m3	ND	02/13/04	PRM	1.0	•		
1,2-Dibromoethane	ug/m3	ND	02/13/04	PRM	3.8			
1,2-Dichlorobenzene	ug/m3	ND	02/13/04	PRM	3.0			
1,3-Dichlorobenzene	ug/m3	ND	02/13/04	PRM	3.0			
1,4-Dichlorobenzene	ug/m3	ND	02/13/04	PRM	3.0			
Dichlorodifluoromethane	ug/m3	2.7	02/13/04	PRM	2.5			
1,1-Dichloroethane	ug/m3	ND	02/13/04	PRM	2.0			
1,2-Dichloroethane	ug/m3	ND	02/13/04	PRM	2.0			
1,1-Dichloroethylene	ug/m3	ND	02/13/04	PRM	2.0			
cis-1,2-Dichloroethylene	ug/m3	ND	02/13/04	PRM	2.0			
1,2-Dichloropropane	ug/m3	ND	02/13/04	PRM	2.3			
cis-1,3-Dichloropropene	ug/m3	ND	02/13/04	PRM	2.3		•	
trans-1,3-Dichloropropene	ug/m3	ND	02/13/04	PRM	2.3			
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	02/13/04	PRM	3.5			
Ethylbenzene	ug/m3	ND	02/13/04	PRM	2.2			
Hexachlorobutadiene	ug/m3	ND	02/13/04	PRM .	5.3			
Methylene Chloride	ug/m3	ND	02/13/04	PRM	1.7			
Styrene	ug/m3	ND	02/13/04	PRM	2.1			
1,1,2,2-Tetrachloroethane	ug/m3	ND	02/13/04	PRM	3.4			
Tetrachloroethylene	ug/m3	4840.	02/13/04	PRM	3.4			
Toluene	ug/m3	2.0	02/13/04	PRM	1.9	•		
1,2,4-Trichlorobenzene	ug/m3	ND	02/13/04	PRM	3.7			
1,1,1-Trichloroethane	ug/m3	ND		PRM	2.7			
1,1,2-Trichloroethane	ug/m3	ND	02/13/04	PRM	2.7			

RL ≈ Reporting Limit

ND = Not Detected

NM = Not Measured

^{* =} See end of report for comments and notes applying to this sample



JENNIFER ROBERGE

DUCHARME & WHEELER, INC.

PO BOX 427

BOLTON, MA 01740

Purchase Order No.:

2/16/2004

Page 8 of 9

Project Location: LE MACK

LIMS-BAT#:

LIMS-76886

Date Received: Field Sample #: AS-2

2/12/2004

Sampled: 2/10/2004

Job Number:

3775-E

Sample ID:

04B03705

BASEMENT

Sample Matrix:

AIR

Sample Medium : SUMMA

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/F
Trichloroethylene	ug/m3	4.1	02/13/04	PRM	2.7		
Frichlorofluoromethane	ug/m3	ND	02/13/04	PRM	2.8		
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	02/13/04	PRM	3.8		
,2,4-Trimethylbenzene	ug/m3	МD	02/13/04	PRM	2.5		
,3,5-Trimethylbenzene	ug/m3	ND	02/13/04	PRM	2.5		
'inyl Chloride	ug/m3	ND	02/13/04	PRM	1.3		
n/p-Xylene	ug/m3	ND	02/13/04	PRM	2.2		
-Xylene	ug/m3	ND	02/13/04	PRM	2.2		

Analytical Method:

EPA TO-14A

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

^{* =} See end of report for comments and notes applying to this sample



JENNIFER ROBERGE

DUCHARME & WHEELER, INC.

Project Location: LE MACK

PO BOX 427

Date Received:

BOLTON, MA 01740

Purchase Order No.:

2/16/2004

Page 9 of 9

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LIMS-BAT #:

LIMS-76886

Job Number:

3775-E

* ** END OF REPORT **

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

* = See end of report for comments and notes applying to this sample



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates Method Blanks

Report Date:	2/16/2004 L	ims Bat # : LIMS-76886		Page	1 of 2
QC Batch Num					
Sample Id	Analysis	QC Analysis	Values	Units	Limits
04B03704					
	4-Bromofluorobenzene	Surrogate Recovery	94.0	%	70-130
04B03705					75 156
	4-Bromofluorobenzene	Surrogate Recovery	94.4	%	70-130
BLANK-57630		_			
	Benzene	Blank	<1.6	ug/m3	
	Carbon Tetrachloride	Blank	<3.1	ug/m3	
	Chloroform	Blank	<2.4	ug/m3	
	1,2-Dichtoroethane	Blank	<2.0	ug/m3	
	1,4-Dichlorobenzene	Blank	<3.0	ug/m3	
	Ethylbenzene	Blank	<2.2	ug/m3	
	Styrene	Blank	<2.1	ug/m3	
	Tetrachioroethylene	Blank	<3.4	· ug/m3	
	Toluene	Blank	<1.9	ug/m3	
	1,1,1-Trichloroethane	Blank	<2.7	ug/m3	
	Trichloroethylene	Blank	<2.7	ug/m3	
	1,1,2-Trichloro-1,2,2-Trifluoroethan	e Blank	<3.8	ug/m3 -	
	Trichlorofluoromethane	Blank	<2.8	ug/m3	
	o-Xylene	Blank	<2.2	ug/m3	
•	m/p-Xylene	Blank	<2.2	ug/m3	
	1,2-Dichlorobenzene	Blank	<3.0	ug/m3	
•	1,3-Dichlorobenzene	Blank	<3.0	ug/m3	
	1,1-Dichloroethane	Blank	<2.0	ug/m3	
	1,1-Dichloroethylene	Blank	<2.0	ug/m3	
	Vinyl Chloride	Blank	<1.3	ug/m3	
	Methylene Chloride	Blank	<1.7	ug/m3	•
	Chlorobenzene	Blank	<2.3	ug/m3	
	Chloromethane	Blank	<1.0	ug/m3	
	Bromomethane	Blank	<1.9	ug/m3	
	Chloroethane	Blank	<1.3	ug/m3	
	cis-1,3-Dichloropropene	Blank	<2.3	ug/m3	
	trans-1,3-Dichloropropene	Blank	<2.3	ug/m3	
	1,1,2-Trichloroethane	Blank	<2.7	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<3.4	ug/m3	
	Hexachiorobutadiene	Blank	<5.3	ug/m3	
	1,2,4-Trichlorobenzene	Blank	<3.7	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<2.5	ug/m3	4
	1,3,5-Trimethylbenzene	Blank	<2.5	ug/m3	
	cis-1,2-Dichtoroethylene	Blank	<2.0	ug/m3	
	1,2-Dichloropropane	Blank	<2.3	ug/m3	
	Dichlorodifluoromethane	Blank	<2.5	ug/m3	
	1,2-Dibromoethane	Blank	<3.8	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Blank	<3.5	_	
			~3.5	ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date:

2/16/2004

Lims Bat #: LIMS-76886

Page 2 of 2

QUALITY CONTROL DEFINITIONS AND ABBREVIATIONS

QC BATCH NUMBER

This is the number assigned to all samples analyzed together that would be subject to comparison with a particular set of Quality Control Data.

LIMITS

Upper and Lower Control Limits for the QC ANALYSIS Reported. All values normally would fall within these statistically determined limits, unless there is an unusual circumstance that would be documented in a NOTE appearing on the last page of the QC SUMMARY REPORT. Not all QC results will have Limits defined.

Sample Amount

Amount of analyte found in a sample.

Blank

Method Blank that has been taken though all the steps of the

analysis.

LFBLANK

Laboratory Fortified Blank (a control sample)

STDADD

Standard Added (a laboratory control sample)

Matrix Spk Amt Added MS Amt Measured Matrix Spike % Rec.

Amount of analyte spiked into a sample

Amount of analyte found including amount that was spiked

% Recovery of spiked amount in sample.

Duplicate Value Duplicate RPD

The result from the Duplicate analysis of the sample.

The Relative Percent Difference between two Duplicate Analyses.

Surrogate Recovery

Recovery for non-environmental compounds (surrogates) spiked into samples to determine the performance of the analytical methods.

Sur. Recovery (ELCD)

Sur. Recovery (PID)

Surrogate Recovery on the Electrolytic Conductivity Detector.

Surrogate Recovery on the Photoionization Detector.

Standard Measured Standard Amt Added Standard % Recovery

Amount measured for a laboratory control sample

Known value for a laboratory control sample * recovered for a laboratory control sample with a known value.

Lab Fort Blank Amt Lab Fort Blk. Found Lab Fort Blk % Rec

Laboratory Fortified Blank Amount Added Laboratory Fortified Blank Amount Found Laboratory Fortified Blank % Recovered

Dup Lab Fort Bl Amt Dup Lab Fort Bl Fnd Dup Lab Fort Bl % Rec Duplicate Laboratory Fortified Blank Amount Added Duplicate Laboratory Fortified Blank Amount Found Duplicate Laboratory Fortified Blank % Recovery

Lab Fort Blank Range

Laboratory Fortified Blank Range (Absolute value of difference between recoveries for Lab Fortified Blank and Lab Fortified Blank Duplicate)

Lab Fort Bl. Av. Rec.

Laboratory Fortified Blank Average Recovery

Duplicate Sample Amt MSD Amount Added MSD Amt Measured MSD % Recovery

MSD Range

Sample Value for Duplicate used with Matrix Spike Duplicate

Matrix Spike Duplicate Amount Added (Spiked) Matrix Spike Duplicate Amount Measured

Matrix Spike Duplicate % Recovery Absolute difference between Matrix Spike and Matrix Spike Duplicate Recoveries

con-test

Phone: 413-525-2332 Fex: 413-525-6405

Email: info@contectiabs.com

CHAIN OF CUSTODY RECORD

9889L # 5w17

EAST LONGMEADOW, MA 01028 39 SPRUCE ST, 2ND FLOOR

Page J of

of containers **Preservation -Cont.Code ANALYSIS REQUESTED -01 61 CI GIS KEY CIEMAIL, ENVEBSITE CLIENT Telephone; (40%) 779-6091 DATA DELIVERY (check one): 0 POF 3775-6 Date Sampled Format: [] EXCEL Client PO# Project # OFAX Fex* www.contestisbs.com Company Name: Docharmet Whele Proposal Provided? (For Billing purposes) 1092 Hair St proposal date Jewife Ra Boton MA Project Location: Sampled By: Attention: <u>§</u> Address:

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Con-Test Laboratory is the ONLY Independent laboratory in all of New England with both prestigious AIHA and NELAC Certifications!

Date/Time: Date 1500 | Prequire lab approval.

B = Sodium bisulfate S = Suffuric Acid

O = Offrer

> S = soil/solid St. = studge O = other

Jathur

ceived by: