Nettesheim, Denise G - DNR

From: Ken Ebbott <kebbott@fehr-graham.com>

Sent: Monday, March 23, 2015 4:21 PM

To: dedrewssr@sbcglobal.net; Nettesheim, Denise G - DNR

Cc: Megan Hansen

Subject: Olde Tyme Cleaners Subslab and Indoor Air Vapor Results

Attachments: Fig 3 - Vapor Chem.pdf; Table A.5 Vapor Analytical Indoor Olde Tyme Cleaners.pdf; Tbl

1 - subslab Vapor Analytical - Strip Mall.pdf; Tbl A.5.1 - subslab Vapor Analytical -

Drycleaner Site.pdf; 10299071_frc.pdf

Dennis and Denise,

Attached are the vapor chemistry results from the Olde Tyme Cleaners and the adjacent Strip Mall site.

The results have been tabulated by location and sample type for convenience in comparison to the relevant standards. The sample locations and results have been mapped and plotted, all on one drawing. This is a little confusing, as there are both subslab and indoor air samples on one plot, as well as residential and non-residential samples, so there are different standards that should be used for comparison.

Please use the map for locations, and the tables for comparison to standards - less confusing that way.

Results and Comparison to Standards

The results show the following:

Table 1: Strip Mall Subslab - no results above standards for subslab vapors.

Table A.5 Indoor Air Dry Cleaner - retail first floor space and outside ambient are both present at acceptable levels (non-residential). Indoor seamstress location is just barely below the standard at 179 ug/cubic meter versus the standard of 180 for PCE.

Indoor air upstairs apartment is above the Residential standard - but it dropped from 379 ug/cubic meter in 2013 to 65 now. The dryclean machine is still present in the building, but it hadn't been emptied when the 2013 testing took place, and this may be responsible for the observed higher levels of PCE in the indoor air. If the machine were removed, the levels of PCE in the indoor air may decline further.

Table A.5.1 Subslab air below the building is above the subslab standard for the relevant standard, which I believe should be the non-residential standard, as the air in the subslab would leach to the rented business space, not the second story apartment. Those test results were previously known from 2013, and have been provided before - no new data for the subslab vapors at the Drycleaner building.

Recommendations

Based on the results, the following recommendations are made by Fehr Graham. Upon review of the information, the DNR and Department of Health may have other recommendations that are not mentioned below:

- 1) The information from the neighboring strip mall should be sent to the property owner for his records. Due to the low observed concentrations, no further action appears necessary at this time at the neighboring building.
- 2) The information from the Olde Tyme Cleaners building indoor air space on the first floor (Rental space occupied by the seamstress) should be summarized and sent to the tenant (Ms. Victoria Wegmann) with an explanation of the findings. At this time, no further action appears necessary related to the indoor air at the first floor of the building.
- 3) The tenant of the upstairs apartment (Mr. Ken Sellenheim) is aware of the presence of PCE in the air of the apartment. The occupant is related to the owner of the building, and has historically not been concerned

about the presence of PCE in the indoor air. A letter should be sent to both Mr. Drews and Mr. Sellenheim, presenting the findings.

4) The soil and groundwater investigation is nearing completion at the Olde Tyme cleaners site, with completion of the site investigation report anticipated in the next several months. Once completed, bids for potential remedial actions will need to be obtained, and a consultant hired to implement the work. It is expected the remedial action will include installation of a subslab vapor mitigation system beneath the drycleaning building.

It is likely Mr. Drews will also need to wait for reimbursement of the final Site Investigation DERF claim to have funds for initiation of the selected remedial approach. DERF reimbursement may take 18 months or longer upon claim submittal, so any selected remedial action will not likely be initiated in the near future.

I trust this information meets your needs.

Let me know if you need a hard copy of this information for the file - I can print out the attached lab report, tables, figure, and this text and send it to you as a hard copy if needed.

I look forward to hearing from you.

Sincerely,

KENDRICK EBBOTT | P.G. Branch Manager Fehr Graham - Engineering & Environmental

1237 Pilgrim Road Plymouth, WI 53073 P: 920.892.2444 C: 920-980-4231 F: 920.892.2620 www.fehr-graham.com

Table A.5
Vapor Analytical Table: Indoor Air Residential and Non-Residential
Olde Tyme Cleaners
925 Horicon St., Mayville, WI
BRRTS #02-14-551994

	Sample ID		Indoor		IA-1	IA-2		OA-1	OA-2
Sa	ample Date		=		1/25/13	3/9/15	1	1/24/13	3/9/15
Samp	le Location		Residential		Upstairs Apt	Upstairs Apt	1	Next to Garage	Behind Garage
Туре	of Sample		ide		Indoor	Indoor	1	Ambient - outdoor	Ambient - outdoor
Collect	ion Method	_	Sesi		6 L Summa	6 L Summa	1	6 L Summa	6 L Summa
Time Period of	Collection	inogen Carcinogen	FS		24 hour	24 hour	1	30 min	24 hour
Analyti	cal Method	gen	WDHFS		NIOSH TO-15	NIOSH TO-15	1	NIOSH TO-15	NIOSH TO-15
Method/Result Leak	Detection	ino	_		Shut-in; pass	Shut-in; pass	1	Shut-in; pass	Shut-in; pass
PID Read	dings (ppm)	Carc	WDNR		0.0	0.0	1	0.0	0.0
	Notes	0 Z	WD Air		(1)	(1)	1		
PCE	μg/m³	N	42		379	65.1		<0.87	<0.25
TCE	μg/m³	С	2.1		<0.76	<0.30		<0.69	<0.24
cis-1,2 Dichloroethene	μg/m³		NS		<1.1	<0.33		<1.0	<0.26
trans-1,2 Dichloroethene	μg/m³	N	NS		<1.1	<0.28		<1.0	<0.22
Vinyl Chloride	μg/m³	С	1.7		<0.36	<0.16		<0.33	<0.12

	Sample ID			IA-3
S	ample Date			3/9/15
Samp	le Location	1	Air	Seamstress Shop
Туре	e of Sample		WDNR / WDHFS Non-Residential Indoor Air	Indoor
Collect	tion Method	_	J.	6 L Summa
Time Period o	f Collection	inogen Carcinogen	FS	24 hour
Analyt	ical Method	gen	WDNR / WDHFS Non-Residentia	NIOSH TO-15
Method/Result Lea	k Detection	Car	/ v	Shut-in; pass
PID Read	dings (ppm)	Carcinogen Non Carcin	8 8 -c	0.0
	Notes	C-Carc N-Non	No.	(2)
PCE	μg/m³	N	180	179
TCE	μg/m³	С	8.8	<0.26
cis-1,2 Dichloroethene	μg/m³		NS	<0.28
trans-1,2 Dichloroethene	μg/m³	N	NS	<0.23
Vinyl Chloride	μg/m³	С	28	<0.13

Notes:

N = Noncarcinogen; C = Carcinogen

(1) = Results Exceed Residential Standards

(2) = Results Below Non-Residential Standards

ITALICS+: Exceeds Subslab Vapor Standard

BOLD Exceeds Indoor Air Standard

NA=Not Analyzed

NS: No Standards

Standards from DNR Quick look-Up Table based on November 2014 EPA Screening Levels

Table 1
Vapor Analytical Table - Subslab Vapors, East End of Neighboring Strip Mall, West of Drycleaner Property

Olde Tyme Cleaners 925 Horicon St., Mayville, WI BRRTS #02-14-551994

	Sample ID		0	Air	VP-4	VP-5
Sai	mple Date	1	slał	oor	3/9/15	3/9/15
Sample	Sample Location		Sub	luq	Salon - Utility	Strip Mall Hallway
Туре	Type of Sample		ntial	ntial	Sub-Slab	Sub-Slab
Collection	Collection Method		Reside	Reside	6 L Summa	6 L Summa
Time Period of Collection		c	Non-R	Non-F	30 min	30 min
Analytic	Analytical Method		HFS I	HFS I	NIOSH TO-15	NIOSH TO-15
Method/Result Leak	Method/Result Leak Detection		WDNR / WDHFS Non-Residential Subslab	WDNR / WDHFS Non-Residential Indoor Air	Shut-in / water dam; pass	Shut-in / water dam; pass
	Notes	C-Carcinogen N-Non Carcinogen	WDN	WDN		
PCE	μg/m³	N	1800	180	52.6	83.8
TCE	μg/m³	С	88	8.8	0.98	1.2
cis-1,2 Dichloroethene	μg/m³	4 -	NS	NS.	<0.32	<0.32
trans-1,2 Dichloroethene	μg/m³	N	NS	NS	<0.26	<0.26
Vinyl Chloride	μg/m³	С	280	28	<0.15	<0.15

Notes:

No Results Exceed Standards

N = Noncarcinogen; C = Carcinogen

ITALICS+: Exceeds Subslab Vapor Standard

BOLD Exceeds Indoor Air Standard

NA=Not Analyzed NS: No Standards

Standards from DNR Quick look-Up Table based on Nov 2014 EPA Screening Levels

Table A.5.1
Subslab Vapor Analytical Table: Drycleaning Facility

Olde Tyme Cleaners 925 Horicon St., Mayville, WI BRRTS #02-14-551994

	Sample ID			Non-Residential Indoor	VP-1	VP-2	VP-3
Sa	ample Date		al	al la	1/25/13	1/25/13	1/25/13
Samp	le Location		nti	it.	SE Entryway-Laundry	Laundry Area	DCM
Туре	of Sample		Non-Residential	ide	Sub-Slab	Sub-Slab	Sub-Slab
Collect	ion Method		Res	Res	6 L Summa	6 L Summa	6 L Summa
Time Period of	Collection		-uo	-io	30 min	30 min	30 min
Analyti	cal Method	inogen Carcinogen	S		NIOSH TO-15	NIOSH TO-15	NIOSH TO-15
		en ino	WDHFS I	WDHFS		Shut-in / water	Shut-in / water
Method/Result Leak	Detection	loge arc		M	Shut-in / water dam; pass	dam; pass	dam; pass
PID Read	lings (ppm)	rcir n C	R/ lab	R /	11.1	0.0	310
	Notes	C-Carcinogen N-Non Carcin	WDNR / Subslab	WDNR Air	(2)		(2)
PCE	μg/m³	N	1800	180	9,950+	45.3	2,920,000+
TCE	μg/m³	С	88	8.8	0.91	<0.74	<4,200
cis-1,2 Dichloroethene	μg/m³		NS	NS	<1.1	<1.1	<6,180
trans-1,2 Dichloroethene	μg/m³	N	NS	NS	<1.1	<1.1	<6,180
Vinyl Chloride	μg/m³	С	280	28	<0.35	<0.35	<1,980

Notes:

N = Noncarcinogen; C = Carcinogen

(2) = Results exceed Non-Residential Subslab Standards

ITALICS+: Exceeds Subslab Vapor Standard

NA=Not Analyzed NS: No Standards

Standards from DNR Quick look-Up Table based on November 2014 EPA Screening Levels





March 19, 2015

Mr. Ken Ebbott Fehr Graham 1237 Pilgrim Road Plymouth, WI 53073

RE: Project: 14-1133 Olde Tyme Cleaners

Pace Project No.: 10299071

Dear Mr. Ebbott:

Enclosed are the analytical results for sample(s) received by the laboratory on March 11, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carolynne That

Carolynne Trout carolynne.trout@pacelabs.com Project Manager

Enclosures







CERTIFICATIONS

Project:

14-1133 Olde Tyme Cleaners

Pace Project No.:

10299071

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414

A2LA Certification #: 2926.01 Alaska Certification #: UST-078 Alaska Certification #MN00064 Alabama Certification #40770 Arizona Certification #: AZ-0014 Arkansas Certification #: 88-0680 California Certification #: 01155CA Colorado Certification #Pace Connecticut Certification #: PH-0256

EPA Region 8 Certification #: 8TMS-L Florida/NELAP Certification #: E87605 Guam Certification #:14-008r

Georgia Certification #: 959 Georgia EPD #: Pace Idaho Certification #: MN00064 Hawaii Certification #MN00064 Illinois Certification #: 200011 Indiana Certification#C-MN-01 Iowa Certification #: 368 Kansas Certification #: E-10167

Kentucky Dept of Envi. Protection - DW #90062 Kentucky Dept of Envi. Protection - WW #:90062

Louisiana DEQ Certification #: 3086 Louisiana DHH #: LA140001 Maine Certification #: 2013011 Maryland Certification #: 322 Michigan DEPH Certification #: 9909

Minnesota Certification #: 027-053-137 Mississippi Certification #: 027-053Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace New Jersey Certification #: MN-002 New York Certification #: 11647 North Carolina Certification #: 530

North Carolina State Public Health #: 27700 North Dakota Certification #: R-036

Ohio EPA #: 4150 Ohio VAP Certification #: CL101 Oklahoma Certification #: 9507 Oregon Certification #: MN200001 Oregon Certification #: MN300001 Pennsylvania Certification #: 68-00563

Puerto Rico Certification Saipan (CNMI) #:MP0003 South Carolina #:74003001 Texas Certification #: T104704192 Tennessee Certification #: 02818 Utah Certification #: MN000642013-4 Virginia DGS Certification #: 251 Virginia/VELAP Certification #: Pace Washington Certification #: C486 West Virginia Certification #: 382 West Virginia DHHR #:9952C Wisconsin Certification #: 999407970





SAMPLE SUMMARY

Project:

14-1133 Olde Tyme Cleaners

Pace Project No.:

10299071

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10299071001	IA-2	Air	03/09/15 12:30	03/11/15 09:45
10299071002	IA-3	Air	03/09/15 12:31	03/11/15 09:45
10299071003	OA-2	Air	03/09/15 12:35	03/11/15 09:45
10299071004	VP-4	Air	03/09/15 14:10	03/11/15 09:45
10299071005	VP-5	Air	03/09/15 14:50	03/11/15 09:45





SAMPLE ANALYTE COUNT

Project:

14-1133 Olde Tyme Cleaners

Pace Project No.: 10299071

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10299071001	IA-2	TO-15	MJL	5	PASI-M
10299071002	IA-3	TO-15	MJL	5	PASI-M
10299071003	OA-2	TO-15	MJL	5	PASI-M
10299071004	VP-4	TO-15	MJL	5	PASI-M
10299071005	VP-5	TO-15	MJL	5	PASI-M



ANALYTICAL RESULTS

Project:

14-1133 Olde Tyme Cleaners

Pace Project No.:

Date: 03/19/2015 10:45 AM

10299071

Sample: IA-2	Lab ID:	10299071001	Collected	1: 03/09/1	5 12:30	Received: 03	3/11/15 09:45 Ma	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	< 0.33	ug/m3	3.4	0.33	1.69		03/17/15 23:43	156-59-2	
trans-1,2-Dichloroethene	<0.28	ug/m3	1.4	0.28	1.69		03/17/15 23:43	156-60-5	
Tetrachloroethene	65.1	ug/m3	1.2	0.32	1.69		03/17/15 23:43	127-18-4	
Trichloroethene	< 0.30	ug/m3	0.92	0.30	1.69		03/17/15 23:43	79-01-6	
Vinyl chloride	<0.16	ug/m3	0.44	0.16	1.69		03/17/15 23:43	75-01-4	
Sample: IA-3	Lab ID:	10299071002	Collected	1: 03/09/1	5 12:31	Received: 03	3/11/15 09:45 Ma	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.28	ug/m3	2.9	0.28	1.44		03/18/15 01:49	156-59-2	
trans-1,2-Dichloroethene	<0.23	ug/m3	1.2	0.23	1.44		03/18/15 01:49		
Tetrachloroethene	179	ug/m3	0.99	0.27	1.44		03/18/15 01:49		
Trichloroethene	<0.26	ug/m3	0.79	0.26	1.44		03/18/15 01:49		
Vinyl chloride	<0.13	ug/m3	0.37	0.13	1.44		03/18/15 01:49		
Sample: OA-2	Lab ID:	10299071003	Collected	: 03/09/1	12:35	Received: 03	2/11/15 00:45 M	atrix: Air	
		1020001 1000	Concocc	1. 03/03/1	12.55	Neceived. 00	5/11/15 09.45 IVI	auix. Ali	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Parameters TO15 MSV AIR			LOQ						Qual
TO15 MSV AIR	Analytical	Units Method: TO-15	LOQ	LOD	DF			CAS No.	Qual
TO15 MSV AIR cis-1,2-Dichloroethene	Analytical	Units Method: TO-15 ug/m3	LOQ 2.7	LOD 0.26	DF		Analyzed 03/18/15 00:46	CAS No.	Qual
TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene	Analytical	Units Method: TO-15 ug/m3 ug/m3	LOQ	LOD	DF		Analyzed	CAS No. 156-59-2 156-60-5	Qual
TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene	Analytical <0.26 <0.22 <0.25	Units Method: TO-15 ug/m3 ug/m3 ug/m3	2.7 1.1 0.92	0.26 0.22	DF 1.34 1.34		Analyzed 03/18/15 00:46 03/18/15 00:46	CAS No. 156-59-2 156-60-5 127-18-4	Qual
TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene Trichloroethene	Analytical <0.26 <0.22	Units Method: TO-15 ug/m3 ug/m3	2.7 1.1	0.26 0.22 0.25	1.34 1.34 1.34		Analyzed 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46	CAS No. 156-59-2 156-60-5 127-18-4 79-01-6	Qual
TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene Trichloroethene Vinyl chloride	Analytical <0.26 <0.22 <0.25 <0.24 <0.12	Units Method: TO-15 ug/m3 ug/m3 ug/m3 ug/m3	2.7 1.1 0.92 0.73 0.35	0.26 0.22 0.25 0.24	1.34 1.34 1.34 1.34 1.34		Analyzed 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46	CAS No. 156-59-2 156-60-5 127-18-4 79-01-6	Qual
TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene Trichloroethene Vinyl chloride	Analytical <0.26 <0.22 <0.25 <0.24 <0.12	Units Method: TO-15 ug/m3 ug/m3 ug/m3 ug/m3 ug/m3	2.7 1.1 0.92 0.73 0.35	0.26 0.22 0.25 0.24 0.12	1.34 1.34 1.34 1.34 1.34	Prepared	Analyzed 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46	CAS No. 156-59-2 156-60-5 127-18-4 79-01-6 75-01-4	Qual
TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene Trichloroethene Vinyl chloride Sample: VP-4	Analytical	Units Method: TO-15 ug/m3 ug/m3 ug/m3 ug/m3 ug/m3	2.7 1.1 0.92 0.73 0.35	0.26 0.22 0.25 0.24 0.12	1.34 1.34 1.34 1.34 1.34	Prepared Received: 03	03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46	CAS No. 156-59-2 156-60-5 127-18-4 79-01-6 75-01-4 atrix: Air	
TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene Trichloroethene Vinyl chloride Sample: VP-4 Parameters TO15 MSV AIR	Analytical	Units Method: TO-15 ug/m3 ug/m3 ug/m3 ug/m3 Units	2.7 1.1 0.92 0.73 0.35	0.26 0.22 0.25 0.24 0.12	1.34 1.34 1.34 1.34 1.34 5.14:10	Prepared Received: 03	03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46	CAS No. 156-59-2 156-60-5 127-18-4 79-01-6 75-01-4 atrix: Air CAS No.	
cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene Trichloroethene Vinyl chloride Sample: VP-4 Parameters TO15 MSV AIR cis-1,2-Dichloroethene	Analytical	Units Method: TO-15 ug/m3 ug/m3 ug/m3 ug/m3 Ug/m3 Ug/m3 Method: TO-15 ug/m3	2.7 1.1 0.92 0.73 0.35 Collected	0.26 0.22 0.25 0.24 0.12 I: 03/09/11	1.34 1.34 1.34 1.34 1.34 5.14:10 DF	Prepared Received: 03	Analyzed 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 3/11/15 09:45 Ma Analyzed	CAS No. 156-59-2 156-60-5 127-18-4 79-01-6 75-01-4 atrix: Air CAS No.	
TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene Trichloroethene Vinyl chloride Sample: VP-4 Parameters TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene	Analytical <0.26 <0.22 <0.25 <0.24 <0.12 Lab ID: Results Analytical	Units Method: TO-15 ug/m3 ug/m3 ug/m3 ug/m3 Ug/m3 Ug/m3 Method: TO-15	2.7 1.1 0.92 0.73 0.35	0.26 0.22 0.25 0.24 0.12	1.34 1.34 1.34 1.34 1.34 5.14:10	Prepared Received: 03	Analyzed 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 3/11/15 09:45 Ma Analyzed 03/18/15 01:17	CAS No. 156-59-2 156-60-5 127-18-4 79-01-6 75-01-4 atrix: Air CAS No. 156-59-2 156-60-5	
TO15 MSV AIR cis-1,2-Dichloroethene trans-1,2-Dichloroethene Tetrachloroethene Trichloroethene Vinyl chloride Sample: VP-4 Parameters	Analytical <0.26 <0.22 <0.25 <0.24 <0.12 Lab ID: Results Analytical <0.32 <0.26	Units Method: TO-15 ug/m3 ug/m3 ug/m3 ug/m3 Ug/m3 Units Method: TO-15 ug/m3 ug/m3	2.7 1.1 0.92 0.73 0.35 Collected	0.26 0.22 0.25 0.24 0.12 I: 03/09/11 LOD	DF 1.34 1.34 1.34 1.34 1.34 1.34 1.34 1.3	Prepared Received: 03	Analyzed 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 03/18/15 00:46 3/11/15 09:45 Ma Analyzed 03/18/15 01:17 03/18/15 01:17	CAS No. 156-59-2 156-60-5 127-18-4 79-01-6 75-01-4 atrix: Air CAS No. 156-59-2 156-60-5 127-18-4	

REPORT OF LABORATORY ANALYSIS





ANALYTICAL RESULTS

Project:

14-1133 Olde Tyme Cleaners

Pace Project No.: 10299071

Date: 03/19/2015 10:45 AM

Sample: VP-5	Lab ID:	10299071005	Collecte	d: 03/09/1	5 14:50	Received: 03	3/11/15 09:45 M	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.32	ug/m3	3.2	0.32	1.61		03/18/15 02:19	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/m3	1.3	0.26	1.61		03/18/15 02:19	156-60-5	
Tetrachloroethene	83.8	ug/m3	1.1	0.30	1.61		03/18/15 02:19	127-18-4	
Trichloroethene	1.2	ug/m3	0.88	0.29	1.61		03/18/15 02:19	79-01-6	
Vinyl chloride	<0.15	ug/m3	0.42	0.15	1.61		03/18/15 02:19	75-01-4	



QUALITY CONTROL DATA

Project:

14-1133 Olde Tyme Cleaners

Pace Project No.:

10299071

QC Batch:

AIR/22753

Analysis Method:

TO-15

QC Batch Method:

TO-15

Analysis Description:

TO15 MSV AIR Low Level

Associated Lab Samples:

10299071001, 10299071002, 10299071003, 10299071004, 10299071005

METHOD BLANK: 1920071

Matrix: Air

Date: 03/19/2015 10:45 AM

Associated Lab Samples: 10299071001, 10299071002, 10299071003, 10299071004, 10299071005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.20	2.0	03/17/15 16:59	
Tetrachloroethene	ug/m3	< 0.19	0.69	03/17/15 16:59	
trans-1,2-Dichloroethene	ug/m3	< 0.16	0.81	03/17/15 16:59	
Trichloroethene	ug/m3	<0.18	0.55	03/17/15 16:59	
Vinyl chloride	ug/m3	< 0.093	0.26	03/17/15 16:59	

LABORATORY CONTROL SAMPLE:	1920072						
		Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers	
cis-1,2-Dichloroethene	ug/m3	40.3	43.1	107	64-137		
Tetrachloroethene	ug/m3	69	61.9	90	66-137		
trans-1,2-Dichloroethene	ug/m3	40.3	40.9	101	61-140		
Trichloroethene	ug/m3	54.6	54.0	99	70-134		
Vinyl chloride	ug/m3	26	26.2	101	72-129		

		10298839001	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<84.0		25	5
Tetrachloroethene	ug/m3	ND	<80.6		25	5
trans-1,2-Dichloroethene	ug/m3	ND	<69.9		25	5
Trichloroethene	ug/m3	ND	<76.3		25	5
Vinyl chloride	ug/m3	ND	<39.9		25	5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





1700 Elm Street - Suite 200 Minneapolis, MN 55414 (612)607-1700

QUALIFIERS

Project:

14-1133 Olde Tyme Cleaners

Pace Project No.:

10299071

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M

Date: 03/19/2015 10:45 AM

Pace Analytical Services - Minneapolis





QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

14-1133 Olde Tyme Cleaners

Pace Project No.:

Date: 03/19/2015 10:45 AM

10299071

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10299071001	IA-2	TO-15	AIR/22753		
10299071002	IA-3	TO-15	AIR/22753		
10299071003	OA-2	TO-15	AIR/22753		
10299071004	VP-4	TO-15	AIR/22753		
10299071005	VP-5	TO-15	AIR/22753		



AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

pany: - GRAHAM	Report To: Ebbo #			Attention: Dennis Drews								Program DERF										
37 PUERIN PA	MEGAN TOMISTA			Attention: Dennis Drews Company Name Clearlys								UST Superfund Emissions Clean Air Act										
WUTH WI 53073				Address Q 25 HORICON ST. MAYNUE, WI Pace Quote Reference: 53050 Pace Project Manager/Sales Rep.								Voluntary Clean Up Dry Clean RCRA Other_										
Purchase Order No.: Project Name: Project Name: Project Name: Project Name: Project Name:			Location of Sampling by State Reporting Units tag/m² / mg/m² / PPBV PPMV																			
	Project Name; Project Number;	e a	ea	nes			ager/Sales	кер.				*****			Sam	pling by	State			Other	PPMV_	
pested Due Date (TAT: DAY 3 of S	Valid Media Codes	113	3	T-	Pace Pr				-	7		7				rt Level	11	111	IV	Other		nover
'Section D Required Client Information AIR SAMPLE ID Sample IDS MUST BE UNIQUE	MEDIA CODE Tediar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COMPOSITE STAF END/GRAB DATE	TIME		OMPOSITE -	Canister Pressure	0 0	S	umma Can umber	Con	Flo trol I	ow Numbe	Metho	od:	Cost (Mether)	0,13 (Bg) 0,14 (Bg) 0,14 (Bg)	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Pace La	
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VP-4		6LC	0	3/3/15	1338	Blis	14/2	-3	5 -5		672								X	0	04	
VP-5		6LC	0	3/0/15	14-20	98/15	450	30	6		700		9	32					X	0	05	
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Pace Analytical*

Document Name: Air Sample Condition Upon Receipt

Document No.: F-MN-A-106-rev.09 Document Revised: 26Dec2013
Page 1 of 1
issuing Authority:
Pace Minnesota Quality Office

Air Sample Condition (Upon Receipt	Client Name: Fehr - Gra		Project #: WO‡	t: 102990'	71
E	Fed Ex UPS Commercial Pace	USPS Cli	ent	71	
Tracking Number:					
Custody Seal on Cooler/	Box Present? Yes	No Seals Int	act? Yes No	Optional: Proj. Due Date:	Proj. Name:
Packing Material: B	ubble Wrap Bubble	Bags Foam Nor	ne Other:	Тетр	Blank rec: Yes No
Temp. (TO17 and TO13 sam	roles only) (°C):	Corrected Temp (°C):	Thermom. Used:	☐B88A912167504	☐72337080
	izing to 6°C Correction Fa	1		B88A9132521491 Person Examining Contents:	□80512447 □ 311
Type of ice Received B		The second of th			7
·	`			Comments:	
Chain of Custody Present	t?	Yes 🔲 No	□N/A 1.		
Chain of Custody Filled C	Out?	Yes No	□N/A 2.	the sign of the si	
Chain of Custody Relinqu	ished?	Yes No	□N/A 3.		· · · · · · · · · · · · · · · · · · ·
Sampler Name and/or Sig	gnature on COC?	Yes No	□N/A 4.		***************************************
Samples Arrived within H	lold Time?	Yes No	□N/A 5.		
Short Hold Time Analysis		Yes No	□N/A 6.		
Rush Turn Around Time	Requested?	☐Yes ☐No	□N/A 7.		
Sufficient Volume?	•	Yes No	□N/A 8.		
Correct Containers Used		Yes No	□N/A 9.		
-Pace Containers Used	11	Yes No	□N/A		
Containers Intact? Media: (\(\chi\)) (\(\chi\))	1	Yes No	□N/A 10.		
Sample Labels Match CO		Yes No	11. □N/A 12.		
Sumple Labels Water Co		Lalies Files			
Samples Received:		T			
	isters		ontrollers		Alone G
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
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0A-7	2187		0328		
V8-4	1672		1107		
VP-5	1700		0932		
	1,100				
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CLIENT NOTIFICATION/RE	ESOLUTION			Field Data Required?	Tives Tillo
			Date/Time:	rieid Data Nequireus	
Comments/Resol	ution:				
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Project Manager Review:	M	· Lucinos		3/2/15	
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