

January 4, 2021

Ms. Jennifer Borski Wisconsin Department of Natural Resources 625 East County Road Y, STE 700 Oshkosh, Wisconsin 54901-9731

Subject: Vapor Intrusion Investigation Report 905 S. Commercial St., Neenah, Wisconsin BRRTS# 02-71-110797

Dear Ms. Borski:

EnviroForensics, LLC (EnviroForensics) is pleased to provide this *Vapor Intrusion Investigation Report* for 905 South Commercial Street in Neenah, Wisconsin, which is currently occupied by Cranky Pat's restaurant. The investigation was performed to evaluate potential vapor intrusion (VI) impacts caused by dry cleaning solvent release(s) from the former Donaldson's Cleaners located at 110 W. Cecil Street in Neenah, Wisconsin. The location of the Former Donaldson's Cleaners with respect to surrounding properties is shown on **Figure 1**.

EnviroForensics completed VI investigation activities as described in the proposal dated August 21, 2020. The investigation procedures and a summary of the analytical results are presented below.

INVESTIGATION ACTIVITIES

Vapor intrusion investigation activities at Cranky Pat's were conducted November 10-11, 2020. Activities consisted of indoor/outdoor air sampling followed by sub-slab vapor sampling port installation and sampling of soil vapor from beneath the slab-on-grade portion of the building, from below the partial basement slab, and through the west wall of the basement. All samples collected were submitted to ALS Environmental laboratory under appropriate chain-of-custody procedures, for analysis of the following compounds by US EPA Method TO-15: tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride.

Indoor/Outdoor Air Sampling

Three (3) indoor air samples were collected, including one (1) from the basement and two (2) from first floor bar and dining areas, respectively. A sample of outdoor air was collected from a location near the northwest corner of the building to evaluate background conditions. Air samples were collected from the breathing zone (3-5 feet above the floor) using 6-liter vacuum



canisters, regulated to withdraw a time-integrated sample over an 8-hour period. The air samples were given the following designations:

- Outdoor: 200011-905-OA
- Basement: 200011-905-IA-B
- First floor bar area: 200011-905-IA-1A
- First floor dining area: 200011-905-IA-1B

Approximate air sampling locations are shown on **Figure 2**. Data from the nearest fixed weather station, including temperature, wind speed, wind direction, humidity, barometric pressure, and rainfall were accessed and recorded on the field sampling form presented in **Attachment 1**.

Sub-Slab Vapor Sampling

Quality assurance and quality control (QA/QC) testing and vapor sample collection were conducted in accordance with EnviroForensics procedures as described below.

Sub-Slab Vapor Port Installation

Vapor Pin[®] sampling ports were installed in the basement floor, and in the west wall of the basement, 48 inches below the ceiling. An existing Vapor Pin[®] sampling port was utilized for sample collection beneath the slab-on-grade portion of the building. The approximate vapor sampling port locations are depicted on **Figure 2**.

A permanent, recessed sampling port was installed in the basement floor. A 1 ¹/₂-inch diameter hole was drilled approximately 1 ³/₄-inch deep into the concrete slab using an electric hammerdrill, and a guide was then used to drill a ⁵/₈-inch diameter hole through the center of the previously drilled hole and advanced completely through the concrete slab. The sampling port, constructed with a silicon sleeve to provide a mechanical seal between the sample port and the slab, was installed in the ⁵/₈-inch diameter hole using a dead blow hammer. A stainless steel flush-mount cover was placed over the basement floor sampling port.

The wall sample port was installed by drilling a ⁵/₈-inch diameter hole completely through the poured concrete wall and hammering in the Vapor Pin[®]. The wall sampling port was not recessed to avoid possible damage to the wall from using the larger drill bit. The sampling ports were capped following installation.

Quality Control Methods

To ensure sub-slab vapor samples collected from the ports were representative of actual vapor conditions, leak testing of the sampling port seal and pressure testing of the sampling train was performed at each sample port prior to sampling. EnviroForensics performed water dam leak



testing, which consisted of pouring water directly into the 1 ¹/₂-inch flush mount depression, or into a PVC pipe extension for the wall sample, to immerse the seal between the vapor pin and the concrete. The water level was observed for at least one (1) minute to determine if a leak was present. The water level did not decrease at any of the sub-slab vapor port locations, indicating there were no leaks around the seals.

Pressure testing was performed to verify the integrity of the sampling train (i.e., all tubing and fittings). The fittings and the sample canister were connected with its valve closed, and a negative pressure of approximately 15 inches of mercury was induced on the sampling train using a hand pump and held for approximately 60 seconds while being visually monitored. No pressure drops were noted during the testing, indicating no leaks were present in the sampling trains prior to sampling activities. QA/QC results were recorded on sampling forms provided as **Attachment 1**.

Vapor Sample Collection

Sub-slab vapor samples were collected through disposable polyethylene tubing connected to the sampling port. A graduated syringe was used to purge ambient air from the tubing prior to initiating sample collection. Samples were then collected using 1-liter vacuum canisters fitted with laboratory-supplied regulators that allowed a flow rate of approximately 200 milliliters per minute. The vapor samples were given the following designations:

- First floor slab-on-grade (existing port under the bar): 200011-905-SSV-1
- Basement: 200011-905-SSV-B
- West wall of basement: 200011-905-SSV-W

Initial and final pressure readings were collected from each canister and recorded on the field sampling form provided in **Attachment 1**.

INVESTIGATION RESULTS

The analytical results of the air and vapor samples are summarized and compared to WDNR standards on **Table 1**. The laboratory analytical report is provided as **Attachment 2**. The contaminants of concern were not detected in the outdoor air sample or the indoor air samples collected from the first floor bar and dining areas. The basement indoor air sample contained PCE at a concentration just above the laboratory method detection limit.

The results of the sub-slab vapor samples are summarized as follows:

• The first floor and basement sub-slab vapor samples contained PCE and TCE at concentrations below their respective vapor risk screening levels (VRSLs) for small commercial buildings.



• The concentrations of PCE and TCE in the vapor sample collected through the west wall of the basement were 23,000 and 1,310 micrograms per cubic meter, respectively, which exceed the small commercial VRSLs. Cis-1,2-DCE and trans-1,2-DCE were also detected in the wall sample; VRSLs do not exist for these compounds.

We appreciate the opportunity to submit this report. If you have any questions, please feel free to contact the undersigned at 262-290-4001.

Sincerely, EnviroForensics, LLC

Bithy

Brian Kappen, PG Project Manager

Attachments:

Table 1 – 905 S. Commercial Street Vapor Intrusion Sampling Results Figure 1 – Site and Surrounding Area Layout Figure 2 – 905 S. Commercial Street Vapor Intrusion Sampling Locations Attachment 1 – Field Sampling Forms Attachment 2 – Laboratory Analytical Report



CERTIFICATION

I, Brian Kappen, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Project Manager

<u>1/4/2021</u> Date

Signature and title



TABLE

Table 1905 S. Commercial Street (Cranky Pat's) Vapor Intrusion Sampling Results

Former Donaldson's Cleaners

Neenah, Wisconsin

Sample ID	Sample Location	Sample Type	Sample Date	Tetrachloroethene	Trichloroethene	cis 1,2-Dichloroethene	trans 1,2-Dichoroethene	Vinyl Chloride
Small Commo	ercial Indoor Air	Vapor Action	n Level	180	8.8	NE	NE	28
Small Commerci	al Sub-Slab Vapo	r Risk Scree	ning Level	6,000	290	NE	NE	930
200011-905-OA	Outdor	OA	11/10/2020	<3.39	<1.07	<1.98	<1.98	<1.28
200011-905-IA-1A	Bar Area	IA	11/10/2020	<3.39	<1.07	<1.98	<1.98	<1.28
200011-905-IA-1B	Dining Area	IA	11/10/2020	<3.39	<1.07	<1.98	<1.98	<1.28
200011-905-IA-B	Basement	IA	11/10/2020	5.36	<1.07	<1.98	<1.98	<1.28
200011-905-SSV-1	First Floor	SSV	11/11/2020	104	2.15	<1.98	<1.98	<1.28
200011-905-SSV-B	Basement	SSV	11/10/2020	1,930	69.2	19.2	<1.98	<1.28
200011-905-SSV-W	West Wall	SSV	11/10/2020	23,000	1,310	846	32.5	<1.28

Notes:

Concentrations reported in units of micrograms per cubic meter ($\mu g/m^3$) **Bolded** values are above laboratory method detection limits

Bolded and Blue Shaded values exceed the Vapor Risk Screening Level

IA = Indoor Air

NE = Not Established

OA = Outdoor Air

SSV = Sub-Slab Vapor



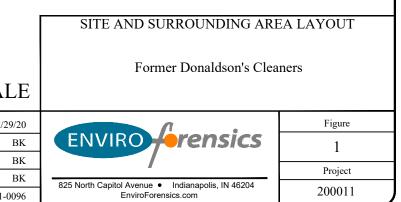
FIGURES

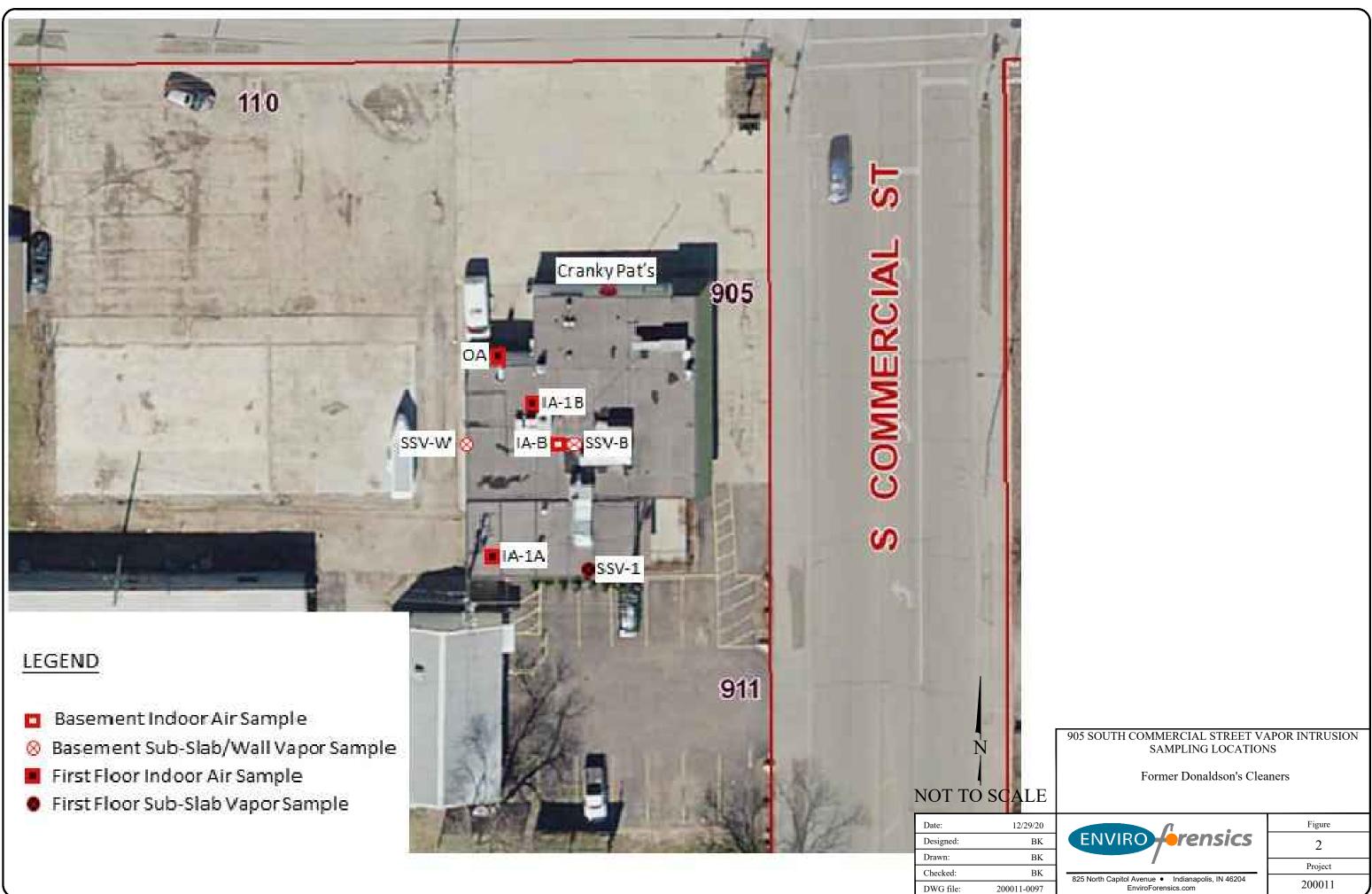


NOT TO SCALE

Date:	12/2
Designed:	
Drawn:	
Checked:	
DWG file:	200011-

Legend







ATTACHMENT 1

Field Sampling Forms



Project Name:	Project Name: Former Donaldson's Cleaners					Property Address: 905 S Commercial St				
Project Number:	200011					Crank	y Pati			
Project Address:	110 W Ces	11 St Nee	nah, wi	OA Sa	ample Location:	SW corr	ner of B	alding		
Client/Contact: WDDR					Sampler(s):	B Kap	pen/R	Bran		
Course la UD	Canister ID	Flow Controller ID	Date Start	Time Start	Date End	Time End	Vacuum	Reading		
Sample ID	Canister ID		mm/dd/yy	hh:mm	mm/dd/yy	hh:mm	Initial in. Hg	Final in. Hg		
200011-905-0A	119830	119609	11-10-20	1025	11-10-20	1817	-30	-6		
200011-905-IA-IA	109497	109461	11-10-20	1010	11-10-20	1811	-28	- 4		
20001-905-IA-1B	109959	119046	11-10-20	612	11-10-20	1813	-30	- 4		
200011-905-IA-B	109963	109129	11-10-20	1020	11.10.20	1819	-30	- 4		

Sketch (include location of outdoor air sample)		Wind Direction	Wind Speed	Temperature	Relative Humidity	Barometric Pressure
			mph	° F	%	in. of Hg
Bar IAA	Start	N	15	480	93%	28.76
IIA-IB	End	E	17	43.	100%/0	28.47
Dining X	Notes:					
Kitchen						
1	Duplicate ID:					

*All indoor air samples collected from one property will be recorded on the same Indoor Air Sampling Form.

*Outdoor air samples will be recorded on separate Indoor Air Sampling Forms due to changing weather conditions.

ENVIRO Arensia	:s
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Sub-Slab Vapor Field Sampling Form

825 N Capitol Avenue Indianapolis, IN 46204 (317) 972-7870

Project Name:	Former Donaldson's Cleaners					Property Address: 965 S Commercial St						
Project Number:						Chanky Pats						
Project Address:	110 WC	ecil St,	Neena	h,w1					1			
Client/Contact:				e.			Sampler(s):	B Kap	pen/1	R Bro	200	
Sample ID			Date	Time Start	Time End	Vacuun	Vacuum Reading Sub-Slab Pressure		Negative Pre	essure Test	Water Da	ım Test
	Canister ID Co	Flow Controller ID	mm/dd/yy	hh:mm	hh:mm	Initial in. Hg	Final in. Hg	in H ₂ O	Induced -15 in Hg and pressure he		Water Dam Tes bubbles not obse level did not dr	erved or water
200011-905-551-1	119240	119742	11-11-20	1106	11:11	-30	- 4		yes	no	yes	no
200011-905-55V-B	119728	19732	11-10-20	1845	1852	-30	- 4	0.00	yes	no	yes	no
20011-905-55V-W	109931	109868	11-10-20	1829	1834	-27	-3	0.00	yes	no	ves	no
									yes	no	yes	no
									yes	no	yes	no
									yes	no	yes	no
	Sketc	ch		~		Wind	Wind					

Sketch	2		Wind Direction	Speed	Temperature	Relative Humidity	Barometric Pressure
SUMP E	N			mph	° F	%	in. of Hg
Ø		11-10	E	FT	430	100%	28.47
Mech		11-11	WW	12	370	48%	28,99
OFFICE COULON		Notes:					
Basement							



INDOOR AIR BUILDING SURVEY FORM

Date	11-10-20									
Site #	CRAnkyPats									
Site Name	former Donaldson's Cle	zaners_								
Address	Mow. cecust., Neer	ah,wi								
Occupant Information										
Owner Name	CROOL Dati DUITI									
Occupant Name										
Address	905 S. Commercial St									
	Neenah, WI									
Telephone No	(920) 540-6741	_Home/Work/Mobile								
	()	_Home/Work/Mobile								
Number and Age of Occupants	~ 8 employees, customers									
Does anyone smoke in	nside the building?									
Building Charact	teristics									
Type of building: (cir	cle) Residential/Industrial/School/Commercial/Multi-use/Other?									
	pe (circle) Single family/Condo/Multi-family/Other?									
If the property is com	mercial, indicate the business? Restaruant									
How many floors doe	s the building have?									
Does the building hav	e a (circle) Basement/Crawl space/Slab-on-grade/Other?									
Is the basement used a	as a living/work space area? MO									

What type of foundation does the building have (circle) Field stone/Poured concrete/Concrete block Other?_____

Is there an attached garage? _	\sim	Is there a fuel tank?	
Is there a wood stove?	no	Is there a fireplace?	00



Describe the heating system: (circle) Forced air furnace/ Boiler/ Window air conditioner/Other?_____

If forced air heating, answer the following questions:

Is there a fresh air exchange? If so, details:

Are air ducts located within the crawl space of the property? $-\frac{\sqrt{-25}}{\sqrt{-25}}$

Are there additional vents within the property? (Non-powered vent/bathroom vent/etc.)

Table 1: Potential vapor migration entry point information

Potential Vapor Entry Points	Present (Yes/No)	Field Screening Results (ppm)	Picture	Comments
Foundation penetrations in floor or walls	NO			
Cracks in foundation floor or walls	40			
Sump	ye5		V	
Floor drain	yes			
Other	/			
Other				т. Э

Sampling Information

Sample Date	11/10/2020	
Sampler Type	Sorbent SUMMA Passive (Please circle one)	
Analysis Method one)	Mass APH TO-15Standard TO-15LL TO-15-SIM TO-	17 Other: (Please circle
Contact Person (Proje	ect Manager) <u>B, Kappen</u>	
Telephone No	()	
Laboratory	ALS	
Telephone No	()	



Table 2: Pre-Sampling Background Screening and Inspection Information

List products or items which may be considered potential sources of VOCs such as paint cans, gasoline cans, gasoline powered equipment, cleaning solvents, furniture polish, moth balls, etc.

Date and time of pre-sampling inspection

Sampli	ng Ins	pection	Product	Inventory	
					N

Potential Source/ <u>Trade Name</u>	(Floor/Room)	Active/Main Ingredient	<u>Picture</u>	Removed (Y/N)
50			h	
	l.			
	- 6-			
		ann) than an	0	
		1 · · · ·		



Sampling Information

Floor	Room	Tube ID#	Pump ID#	Volume (liters)	Duration (minutes)	Comments
	Floor	Floor Room	FloorRoomTube ID#III </td <td>FloorRoomTube ID#Pump ID#ID<t< td=""><td>FloorRoomTube ID#Pump ID#Volume (liters)ID#<td>FloorRoomTube ID#Pump ID#Volume (liters)Duration (minutes)Image: Stress of the stress of</td></td></t<></td>	FloorRoomTube ID#Pump ID#ID <t< td=""><td>FloorRoomTube ID#Pump ID#Volume (liters)ID#<td>FloorRoomTube ID#Pump ID#Volume (liters)Duration (minutes)Image: Stress of the stress of</td></td></t<>	FloorRoomTube ID#Pump ID#Volume (liters)ID# <td>FloorRoomTube ID#Pump ID#Volume (liters)Duration (minutes)Image: Stress of the stress of</td>	FloorRoomTube ID#Pump ID#Volume (liters)Duration (minutes)Image: Stress of the stress of

Table 3: Sorbent Tube Sampler Information

Table 4: Canister Sampler Information

Sample ID#	Floor	Room	Canister ID#	Initial On- site Pressure*	Final On-Site Pressure*
200011-905-DA		outdoor	119830	-30	-6
200011 - 905- IA-IA	first	Dining	109497	-28	- 4
200011 - 905-IA-IB	First	Dining	109959	-30	- 4
200011 - 905 - JA-B	Barement	Basemen	+ 109963	-30	- 4
-		Dining/Bar	119240	-30	- 4
200011-905-55V-B	Basement	Basement	119728	-30	-4
200011-905-55V-W	Baseman	pasement twall	109931	-27	-3

*Indicate pressure in units of inches of mercury.

Please provide a sketch of building and sample locations on the following page.

Was the building ventilated prior to sample collection?	NO
the building ventilited prior to sumple concetion.	100

How long was the ventilation process?____

Were vapor control methods in effect while the samples were being collected?

	tilation fans?	\subseteq	-	parriers? Yes No	Door opens frequently
Vapor phase carbon treatment system measures	? Yes No	SSDS?	Yes/No	Other site control	trequently

Weather Conditions during Sampling

	Outside temperature (°F) High: <u>66</u> Low: <u>45</u>	Inside temperature (°F) 70
11-10	Prevailing wind speed and direction 12mph/NE	
	Describe the general weather conditions (e.g. sunny, cloudy, rain)	Rain
	Significant precipitation (1 inches or more) within 72 hours of the	sampling event? Durving pile of

Significant precipitation (1 inches or more) within 72 hours of the sampling event? During event 11-11 high temp: 41° low temp: 33° inside temp: 70° wind: 15 mph/w mostly sunny

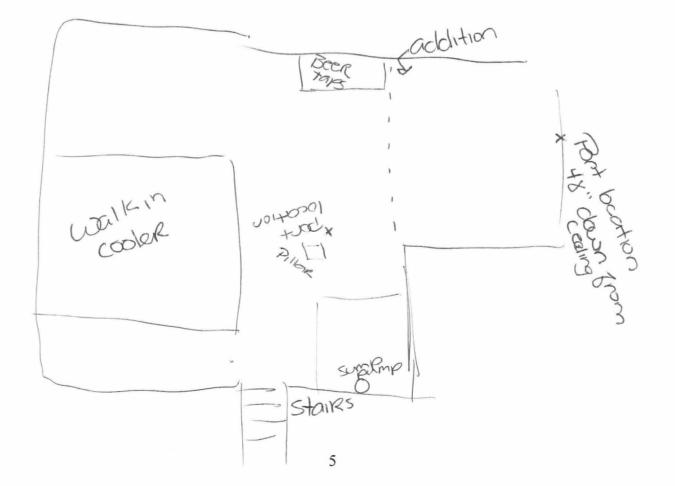


General Comments and Sketch Area

Is there any information you feel is important related to this site and the samples collected which would facilitate an accurate interpretation of the indoor air quality? Sketch floor plan, sample locations, location of background sources.

rater in It Comments:

Sketch:





ATTACHMENT 2

Laboratory Analytical Report



30-Nov-2020

Brian Kappen EnviroForensics N16W23390 Stone Ridge Dr Waukesha, WI 53188

Re: Former Donaldson's Cleaners; PN.: 20001

Work Order: 20110456

Dear Brian,

ALS Environmental received 7 samples on 16-Nov-2020 04:40 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 15.

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

Sincerely,

'Nieman

Electronically approved by: Danielle Strasinger

Rob Nieman Project Manager

Report of Laboratory Analysis

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: Project: Work Order:	EnviroForensics Former Donaldson's Cleaners; P 20110456	N.: 20001		Work Order S	Sample Summary
<u>Lab Samp ID</u> C	lient Sample ID	<u>Matrix</u>	<u>Tag Number</u>	Collection Date	Date Received Hold
20110456-01 2	00011-905-OA	Air		11/10/2020	11/16/2020 16:40
20110456-02 2	00011-905-IA-1A	Air		11/10/2020	11/16/2020 16:40 🗌
20110456-03 2	00011-905-IA-1B	Air		11/10/2020	11/16/2020 16:40 🗌
20110456-04 2	00011-905-IA-B	Air		11/10/2020	11/16/2020 16:40 🗌
20110456-05 2	00011-905-SSV-1	Air		11/10/2020	11/16/2020 16:40 🗌
20110456-06 2	00011-905-SSV-B	Air		11/10/2020	11/16/2020 16:40 🗌
20110456-07 20	00011-905-SSV-W	Air		11/10/2020	11/16/2020 16:40 🗌

Date: 3	0-Nov-20
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Client:	EnviroForensics
Project:	Former Donaldson's Cleaners; PN.: 20001
Work Order:	20110456

Case Narrative

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

Client:	EnviroForensics
Project:	Former Donaldson's Cleaners; PN.: 20001
Sample ID:	200011-905-OA
Collection Date:	11/10/2020

Work Order: 20110456 Lab ID: 20110456-01 Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/18/2020 09:58 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/18/2020 09:58 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/18/2020 09:58 PM
Trichloroethene	ND		0.20	ppbv	1	11/18/2020 09:58 PM
Vinyl chloride	ND		0.50	ppbv	1	11/18/2020 09:58 PM
Surr: Bromofluorobenzene	99.1		60-140	%REC	1	11/18/2020 09:58 PM
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/18/2020 09:58 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/18/2020 09:58 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/18/2020 09:58 PM
Trichloroethene	ND		1.07	µg/m3	1	11/18/2020 09:58 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/18/2020 09:58 PM
Surr: Bromofluorobenzene	99.1		60-140	%REC	1	11/18/2020 09:58 PM

Client:	EnviroForensics
Project:	Former Donaldson's Cleaners; PN.: 20001
Sample ID:	200011-905-IA-1A
Collection Date:	11/10/2020

Work Order: 20110456 Lab ID: 20110456-02 Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/18/2020 10:43 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/18/2020 10:43 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/18/2020 10:43 PM
Trichloroethene	ND		0.20	ppbv	1	11/18/2020 10:43 PM
Vinyl chloride	ND		0.50	ppbv	1	11/18/2020 10:43 PM
Surr: Bromofluorobenzene	98.6		60-140	%REC	1	11/18/2020 10:43 PM
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/18/2020 10:43 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/18/2020 10:43 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/18/2020 10:43 PM
Trichloroethene	ND		1.07	µg/m3	1	11/18/2020 10:43 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/18/2020 10:43 PM
Surr: Bromofluorobenzene	98.6		60-140	%REC	1	11/18/2020 10:43 PM

Client:	EnviroForensics
Project:	Former Donaldson's Cleaners; PN.: 20001
Sample ID:	200011-905-IA-1B
Collection Date:	11/10/2020

Work Order: 20110456 Lab ID: 20110456-03 Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/18/2020 11:28 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/18/2020 11:28 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/18/2020 11:28 PM
Trichloroethene	ND		0.20	ppbv	1	11/18/2020 11:28 PM
Vinyl chloride	ND		0.50	ppbv	1	11/18/2020 11:28 PM
Surr: Bromofluorobenzene	98.1		60-140	%REC	1	11/18/2020 11:28 PM
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/18/2020 11:28 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/18/2020 11:28 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/18/2020 11:28 PM
Trichloroethene	ND		1.07	µg/m3	1	11/18/2020 11:28 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/18/2020 11:28 PM
Surr: Bromofluorobenzene	98.1		60-140	%REC	1	11/18/2020 11:28 PM

Client:	EnviroForensics
Project:	Former Donaldson's Cleaners; PN.: 20001
Sample ID:	200011-905-ІА-В
Collection Date:	11/10/2020

Work Order: 20110456 Lab ID: 20110456-04 Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/19/2020 12:13 AM
Tetrachloroethene	0.79		0.50	ppbv	1	11/19/2020 12:13 AM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/19/2020 12:13 AM
Trichloroethene	ND		0.20	ppbv	1	11/19/2020 12:13 AM
Vinyl chloride	ND		0.50	ppbv	1	11/19/2020 12:13 AM
Surr: Bromofluorobenzene	99.9		60-140	%REC	1	11/19/2020 12:13 AM
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/19/2020 12:13 AM
Tetrachloroethene	5.36		3.39	µg/m3	1	11/19/2020 12:13 AM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/19/2020 12:13 AM
Trichloroethene	ND		1.07	µg/m3	1	11/19/2020 12:13 AM
Vinyl chloride	ND		1.28	µg/m3	1	11/19/2020 12:13 AM
Surr: Bromofluorobenzene	99.9		60-140	%REC	1	11/19/2020 12:13 AM

Client:	EnviroForensics
Project:	Former Donaldson's Cleaners; PN.: 20001
Sample ID:	200011-905-SSV-1
Collection Date:	11/10/2020

Work Order: 20110456 Lab ID: 20110456-05 Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/23/2020 01:46 PM
Tetrachloroethene	15		0.50	ppbv	1	11/23/2020 01:46 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/23/2020 01:46 PM
Trichloroethene	0.40		0.20	ppbv	1	11/23/2020 01:46 PM
Vinyl chloride	ND		0.50	ppbv	1	11/23/2020 01:46 PM
Surr: Bromofluorobenzene	99.9		60-140	%REC	1	11/23/2020 01:46 PM
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/23/2020 01:46 PM
Tetrachloroethene	104		3.39	µg/m3	1	11/23/2020 01:46 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/23/2020 01:46 PM
Trichloroethene	2.15		1.07	µg/m3	1	11/23/2020 01:46 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/23/2020 01:46 PM
Surr: Bromofluorobenzene	99.9		60-140	%REC	1	11/23/2020 01:46 PM

Client:	EnviroForensics
Project:	Former Donaldson's Cleaners; PN.: 20001
Sample ID:	200011-905-SSV-B
Collection Date:	11/10/2020

Work Order: 20110456 Lab ID: 20110456-06 Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	4.8		0.50	ppbv	1	11/23/2020 02:32 PM
Tetrachloroethene	280		10	ppbv	20	11/24/2020 10:27 AM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/23/2020 02:32 PM
Trichloroethene	13		0.20	ppbv	1	11/23/2020 02:32 PM
Vinyl chloride	ND		0.50	ppbv	1	11/23/2020 02:32 PM
Surr: Bromofluorobenzene	101		60-140	%REC	1	11/23/2020 02:32 PM
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	19.2		1.98	µg/m3	1	11/23/2020 02:32 PM
Tetrachloroethene	1,930		67.8	µg/m3	20	11/24/2020 10:27 AM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/23/2020 02:32 PM
Trichloroethene	69.2		1.07	µg/m3	1	11/23/2020 02:32 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/23/2020 02:32 PM
Surr: Bromofluorobenzene	101		60-140	%REC	1	11/23/2020 02:32 PM

Client:	EnviroForensics
Project:	Former Donaldson's Cleaners; PN.: 20001
Sample ID:	200011-905-SSV-W
Collection Date:	11/10/2020

Work Order: 20110456 Lab ID: 20110456-07 Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	210		5.0	ppbv	10	11/23/2020 06:41 PM
Tetrachloroethene	3,400		500	ppbv	1000	11/25/2020 01:43 PM
trans-1,2-Dichloroethene	8.2		5.0	ppbv	10	11/23/2020 06:41 PM
Trichloroethene	240		2.0	ppbv	10	11/23/2020 06:41 PM
Vinyl chloride	ND		5.0	ppbv	10	11/23/2020 06:41 PM
Surr: Bromofluorobenzene	100		60-140	%REC	10	11/23/2020 06:41 PM
TO-15 BY GC/MS			ETO-1	5		Analyst: MRJ
cis-1,2-Dichloroethene	846		19.8	µg/m3	10	11/23/2020 06:41 PM
Tetrachloroethene	23,000		3,390	µg/m3	1000	11/25/2020 01:43 PM
trans-1,2-Dichloroethene	32.5		19.8	µg/m3	10	11/23/2020 06:41 PM
Trichloroethene	1,310		10.7	µg/m3	10	11/23/2020 06:41 PM
Vinyl chloride	ND		12.8	µg/m3	10	11/23/2020 06:41 PM
Surr: Bromofluorobenzene	100		60-140	%REC	10	11/23/2020 06:41 PM

Client:EnviroForensicsWork Order:20110456

QC BATCH REPORT

Project: Former Donaldson's Cleaners; PN.: 20001

Batch ID: R18431	1 Instrumen	t ID VMS4		Metho	d: ETO-1	5						
mblk	Sample ID: MBI	LK-R184311				ι	Jnits: ppb	v	Analysi	s Date: 11/	18/2020 (05:06 PM
Client ID:		Run ID	: VMS4_	201118A		Se	eqNo: 235 :	3808	Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroetl	hene	ND	0.50									
Tetrachloroethene	9	ND	0.50									
trans-1,2-Dichloro	ethene	ND	0.50									
Trichloroethene		ND	0.20									
Vinyl chloride		ND	0.50									
Surr: Bromofluc	orobenzene	9.58	0	10		0	95.8	60-140	()		
lcs	Sample ID: LCS	S-R184311				ι	Jnits: ppb	v	Analysi	s Date: 11/	18/2020 1	1:46 AM
Client ID:		Run ID	: VMS4_	201118A		Se	qNo: 235 :	3807	Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroetl	hene	10.49	0.50	10		0	105	60-140	()		
Tetrachloroethene)	9.45	0.50	10		0	94.5	60-140	()		
trans-1,2-Dichloro	ethene	9.74	0.50	10		0	97.4	60-140	()		
Trichloroethene		9.57	0.20	10		0	95.7	60-140	()		
Vinyl chloride		8.25	0.50	10		0	82.5	60-140	()		
Surr: Bromofluc	orobenzene	10.07	0	10		0	101	60-140	()		

The following samples were analyzed in this batch:

20110456-01A 20110456-04A 20110456-02A 20110456-03A

Client:EnviroForensicsWork Order:20110456

Project: Former Donaldson's Cleaners; PN.: 20001

QC BATCH REPORT

Batch ID: R184443

Instrument ID VMS4

Method: ETO-15

mblk Sample ID: ME	Sample ID: MBLK-R184443						Analy	alysis Date: 11/23/2020 12:58 PM			
Client ID:	Run ID	: VMS4_	201123A		SeqNo: 235	6802	Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.20									
Vinyl chloride	ND	0.50									
Surr: Bromofluorobenzene	9.74	0	10		0 97.4	60-140		0			

Ics Sa	ample ID: LCS-R18444	3				ι	Units: ppb	/	Analy	/sis D	Date: 11/2	23/2020 1	2:13 PM
Client ID:		Run ID: V	/MS4_	201123A		Se	qNo: 2356	801	Prep Date:			DF: 1	
Analyte	F	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value		%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene		10.11	0.50	10		0	101	60-140		0			
Tetrachloroethene		10.19	0.50	10		0	102	60-140		0			
trans-1,2-Dichloroethene	e	10.09	0.50	10		0	101	60-140		0			
Trichloroethene		10.29	0.20	10		0	103	60-140		0			
Vinyl chloride		7.88	0.50	10		0	78.8	60-140		0			
Surr: Bromofluoroben	zene	10.24	0	10		0	102	60-140		0			
The following samples	were analyzed in this	batch:	20)110456-05A	20	0110	456-06A	20	110456-07A				

Client:EnviroForensicsWork Order:20110456

Project: Former Donaldson's Cleaners; PN.: 20001

QC BATCH REPORT

Batch ID: R184512 Instrument ID VMS4

Method: ETO-15

mblk	Sample ID: MBL	(-R184512				U	nits: ppb	v	Analysi	is Date: 11/	24/2020 04	:40 PN
Client ID:		Run ID	Run ID: VMS4_201124A			SeqNo: 2357835		7835	Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene		ND	0.50									
Surr: Bromofluoro	benzene	10.08	0	10		0	101	60-140		0		
lcs	Sample ID: LCS-I	R184512				U	nits: ppb	v	Analys	is Date: 11/	24/2020 03	:56 PN
Client ID:		Run ID	: VMS4_	201124A		Seq	No: 235	7834	Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene		10.27	0.50	10		0	103	60-140	(0		
	benzene	10.35	0	10		0	104	60-140		D		

The following samples were analyzed in this batch:

20110456-07A

EnviroForensics

20110456

Client:

Project:

WorkOrder:

QUALIFIERS,	,
ACRONYMS,	UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
Ε	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
0	Sample amount is > 4 times amount spiked
Р	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S U	Spike Recovery outside laboratory control limits
	Analyzed but not detected above the MDL
Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method
Units Reported	Description
μg/m3	

Former Donaldson's Cleaners; PN.: 20001

ppbv

Sample Receipt Checklist

Client Name: ENVIROFORENSICS-WAKESHA		Date/Time	Received: 16-Nov-20	<u>) 16:40</u>
Work Order: 20110456		Received b	y: JNW	
Checklist completed by Lan Wilcox 1 eSignature	6-Nov-20 Date	Reviewed by:	<u>Rob Nieman</u> eSignature	18-Nov-20 Date
Matrices: <u>air</u> Carrier name: <u>FedEx</u>				l
Shipping container/cooler in good condition?	Yes 🔽	No 🗌	Not Present	
Custody seals intact on shipping container/cooler?	Yes 🗌	No 🗌	Not Present	
Custody seals intact on sample bottles?	Yes 🗌	No 🗆	Not Present	
Chain of custody present?	Yes 🗸	No 🗌		
Chain of custody signed when relinquished and received?	Yes 🔽	No 🗌		
Chain of custody agrees with sample labels?	Yes 🗸	No 🗌		
Samples in proper container/bottle?	Yes 🗸	No 🗌		
Sample containers intact?	Yes 🗸	No 🗌		
Sufficient sample volume for indicated test?	Yes 🗸	No 🗌		
All samples received within holding time?	Yes 🗸	No 🗌		
Container/Temp Blank temperature in compliance?	Yes 🗸	No 🗌		
Sample(s) received on ice? Temperature(s)/Thermometer(s):	Yes] No 🗹		
Cooler(s)/Kit(s):				
Date/Time sample(s) sent to storage:				
Water - VOA vials have zero headspace?	Yes _	No 🗌	No VOA vials submitted	\checkmark
Water - pH acceptable upon receipt?	Yes	No 🗌	N/A	
pH adjusted? pH adjusted by:	Yes	No 🗌	N/A	

Login Notes:

Client Contacted:	Date Contacted:	Person Contacted:
Contacted By:	Regarding:	
Comments:		
CorrectiveAction:		

SRC Page 1 of 1

Air Canister - Chain of Custody Record / Analytical Service Request

Page of

01	> 4	0
	X 1	
1.0)	

	Environment endale Milford										03106
(540) 70	ati, Ohio 45242			Requested Turnard	ound Time in Busir	ness Days (Suro	harges) please	circle		ALS Project	No.
(ALS) Fax: (513) 73	3-5347	11045	~	1 Day (100%) 2 Day					dare		
	20	11043	4						OH VAP: (Yes () No	
Company Name & Address (Reporting)	mormation)			Project Name					OH BUSTR:	O Yes O No	
Enviroforensics NIGW23390 Store		JR. Ste	G	Former Donaldson's Cleaners						s Method	er or
Wankesha, wi S	3188			200011						Tupo	eci es)
Project Manager BRIAN KAPPEN	kappen				nation				CS	Type: SS = SubSlab	Comments / Specific Instructions (ie: water or pressure issues)
Phone	Fax			2020-2068					Q	IA = Indoor Air	ents sure
262-290-4001					00					SG = Soil Gas	ess
Email Address for Result Reporting				Sampler (Print & Sign)	5	~			2	O = Other AA = Ambient	prod
blappeneen viro;	Jorens1	cs.cor	<u>n</u>	TLIL	Rebecc				1	Air	
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	PID	10	SVE = Soil Vapor Extract	
200011-905-0A	01	11.10.20	18:17	119830	119609	- 30	-6		X	AA	
20001-905-IA-IA	02	11.10.20	18:11	109497	109468	-28	- 4		X	IA	
200011-905-IA-1B	03	11.10.20	18:13	109959	119046	-30	-4		X	IA	
200011-905 - IA - B	oy	11.10.20	18:19	109963	109129	-30	- 4		X	IA	
100011-905-55V-1	05	11.10.20		119240	119742	- 30	- 4		X	55	· · · · · · · · · · · · · · · · · · ·
200011-905-SSV-B	06	1110.20		119728	119732	-30	- 4		X	SS	
200011-905-SSV-W	07	11.10.20	18:34	109931	109863	-27	-3		X	SS	
			1.4								
			k)								
1											
There will b	ges for d	lamaged equi	pment		Report QC I EDD require Type:		No Units:		Project Requirements (MRLs, QAPP)		
Relinquished by: (Signature)	L		Date:	Time: 1200	Received by: (Signat	K .			Date:	Time: 12:00	tedies
Relinquished by: (Signature)			Date:	Time:	Received by: (Signat	3 As	10/16	2.01	Date: 16	40 -	Coder/ Blan Temperature°C