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ENVIRONMENT

Mike Schmoller
Project Manager
Wisconsin Department of Natural Resources
South Central Region
3911 Fish Hatchery Rd
Fitchburg WI 53711

Subject:
Summary of Office Indoor Air Sampling Activities, Madison-Kipp Corporation Site, 201 Waubesa Street, Madison, Wisconsin. Facility ID No. 113125320, BRRTS No. 02-13-001569

Date:
February 24, 2014

Contact:
Jennine Trask

Phone:
414.277.6203

Email:
Jennine.Trask@arcadis-us.com

Our ref:
WI001368.0005

Dear Mr. Schmoller:

On behalf of Madison-Kipp Corporation, this letter provides a summary of the indoor air sampling activities conducted within the office portion of the Madison-Kipp facility. The office indoor air sampling activities were performed in accordance with the *Indoor Air Sampling Work Plan* (Work Plan) dated August 1, 2013 and approved by the Wisconsin Department of Natural Resources (WDNR) in a letter dated October 9, 2013.

Summary of Activities

A building survey and chemical inventory of the office area was completed on December 3, 6, 10, and 13 prior to the sampling activities to determine and document if any potential indoor air sources of volatile organic compounds (VOCs) exist within the office space. The building survey and chemical inventory was performed in accordance with ARCADIS' Standard Operating Procedure (SOP) for indoor air/ambient air sampling which WDNR approved via electronic correspondence on February 21, 2012. During the building survey, it was noted that the proposed sampling locations presented in the Work Plan were incorrectly shown on the second floor area of the Madison-Kipp offices. Alternate sample locations were proposed on the first floor of the office building and shifted as necessary due to the presence of maintenance areas and a wastewater processing area (refer to attached Figure 1). The revised proposed sampling locations were submitted to WDNR via electronic correspondence dated December 11, 2013. WDNR verbally concurred with these recommendations on December 12, 2013. A copy of the building survey documentation is provided as Attachment A.

On December 13, 2013, five indoor air samples were collected from locations within the first floor office area. A crawlspace exists beneath the office area of the Madison-Kipp building and therefore, sub-slab samples were not collected in accordance with the Work Plan. Two samples were collected from within the crawlspace entrances, located on opposite ends of the crawlspace. The crawlspace entrance doors were kept closed during the sampling. An ambient air sample was also collected outside the east side of the office building as this location was upwind. Figure 1 presents the approximate sample locations.

Indoor air samples were collected from the approximate height of a worker (3 to 5 feet above floor surface) with the exception of the crawlspace samples. Samples were collected in clean, laboratory-supplied, individually certified, 6-liter summa canisters, and in accordance with the ARCADIS SOP. All samples (indoor air, crawlspace, and ambient air) were collected over an approximate 8-hour period using 12.5 milliliter per minute flow controllers. Each sample was submitted for laboratory analysis of five VOCs by United States Environmental Protection Agency Method TO-15. The five VOCs include tetrachloroethene, trichloroethene (TCE), cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride. The samples were submitted to Eurofins Air Toxics, Inc. laboratory using appropriate chain-of-custody procedures.

The analytical results of the indoor air samples were compared to Wisconsin's non-residential indoor air action levels. The results of the crawlspace samples were compared to Wisconsin's sub-slab vapor action levels for large commercial/industrial buildings. Results of the indoor air samples were below the non-residential indoor air action levels in all five samples for the five VOCs, with the exception of indoor air Sample IA-5. Sample IA-5 contained a non-residential indoor air exceedance for TCE. Results of both crawlspace samples were below the sub-slab vapor action levels for large commercial/industrial building for the five VOCs. A summary of the indoor air and crawlspace analytical results is presented in Table 1, and laboratory reports are provided in Attachment B.

Sample IA-5 was located in the northern most file storage room (northeast corner of the office building) as shown on Figure 1. This location was re-sampled to confirm the results. Office indoor air re-sampling of location IA-5 was performed on January 24, 2014. An ambient air sample was also collected upwind outside the east side of the office building. The analytical results from the IA-5 sample collected on January 24, 2014 were below the non-residential indoor air action levels for the five VOCs. The results are presented in Table 1.

It is recommended that an indoor air sample be collected from the IA-5 location again in 6 months to confirm the air quality in this area of the office building. If the IA-5 indoor air sample contains VOC concentrations less than the non-residential indoor air action levels, no further action is necessary.

Closing

If you have any questions or require any additional information, please contact us at 414.276.7742.

Sincerely,

ARCADIS U.S., Inc.

Christopher D. Kubacki, PE
Senior Engineer

Jennine L. Trask, PE
Project Manager

Attachments:
Table 1 – Office Indoor Air Results
Figure 1 – Indoor Air Sampling Locations
A Building Survey and Sampling Logs
B Laboratory Reports

Copies:
David Crass – Michael Best & Friedrich
Linda Hanefeld - WDNR
Mark Meunier – Madison-Kipp

Table 1. Office Indoor Air Analytical Results, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin.

Sample Name	Wisconsin Vapor Action Level [1,2]	Calculated Screening Level [3]	AA-01		CS-01	CS-02	IA-01	IA-02
Sample Date	**Non-Residential Indoor Air**	**Non-Residential Sub-Slab**	**12/13/2013**	**1/24/2014**	**12/13/2013**	**12/13/2013**	**12/13/2013**	**12/13/2013**
VOCs								
cis-1,2-Dichloroethene	NE	NE	<0.03	<0.032	<0.035	<0.033	<0.035	<0.035
trans-1,2-Dichloroethene	65	6,500	<0.15	<0.16	<0.17	<0.17	<0.17	<0.18
Trichloroethene	1.6	160	<0.03	<0.032	<0.035	<0.033	<0.035	<0.035
Tetrachloroethene	27	2,700	<0.03	<0.032	0.24	0.11	<0.035	<0.035
Vinyl Chloride	11	1,100	<0.015	<0.016	<0.017	<0.017	<0.017	<0.018

All units presented in parts per billion by volume (ppbv).

100 Exceeds the Wisconsin Vapor Action Level for Non-Residential Indoor Air.

100 Exceeds the Calculated Screening Level for Non-Residential Sub-Slab Vapor.

< Constituent not detected above noted laboratory detection limit.

1 Wisconsin Vapor Action Levels are the lower of the United States Environmental Protection Agency (U.S. EPA) Residential Screening Levels (RSLs) based on either a target cancer risk of 10-5 or a noncancer HQ of 1, and are presented in WDNR's *Indoor Air Vapor Action Levels for Various VOCS* (November 2013).

2 Section VI A 1 of *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin* (WDNR, 2010), accessed at: http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf

3 For large commercial/industrial buildings, the following attenuation factor was used: 0.01 for sub-slab vapor to indoor air [Section VI A 2 of WDNR (2010)].

AA Ambient Air Sample.

CS Crawlspace Sample.

IA Indoor Air Sample.

NE Not Established.

VOC Volatile organic compound.

Table 1. Office Indoor Air Analytical Results, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin.

Sample Name	IA-03	IA-04	IA-05	
Sample Date	**12/13/2013**	**12/13/2013**	**12/13/2013**	**1/24/2014**
VOCs				
cis-1,2-Dichloroethene	<0.033	0.074	0.47	0.059
trans-1,2-Dichloroethene	<0.17	<0.17	<0.16	<0.16
Trichloroethene	<0.033	0.3	3	0.28
Tetrachloroethene	0.14	5.8	21	2.0
Vinyl Chloride	<0.017	<0.017	<0.016	<0.016

All units presented in parts per billion by volume (ppbv).

100 Exceeds the Wisconsin Vapor Action Level for Non-Residential Indoor Air.

100 Exceeds the Calculated Screening Level for Non-Residential Sub-Slab Vapor.

< Constituent not detected above noted laboratory detection limit.

1 Wisconsin Vapor Action Levels are the lower of the United States Environmental Protection Agency (U.S. EPA) Residential Screening Levels (RSLs) based on either a target cancer risk of 10-5 or a noncancer HQ of 1, and are presented in WDNR's *Indoor Air Vapor Action Levels for Various VOCS* (November 2013).

2 Section VI A 1 of *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin* (WDNR, 2010), accessed at: http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf

3 For large commercial/industrial buildings, the following attenuation factor was used: 0.01 for sub-slab vapor to indoor air [Section VI A 2 of WDNR (2010)].

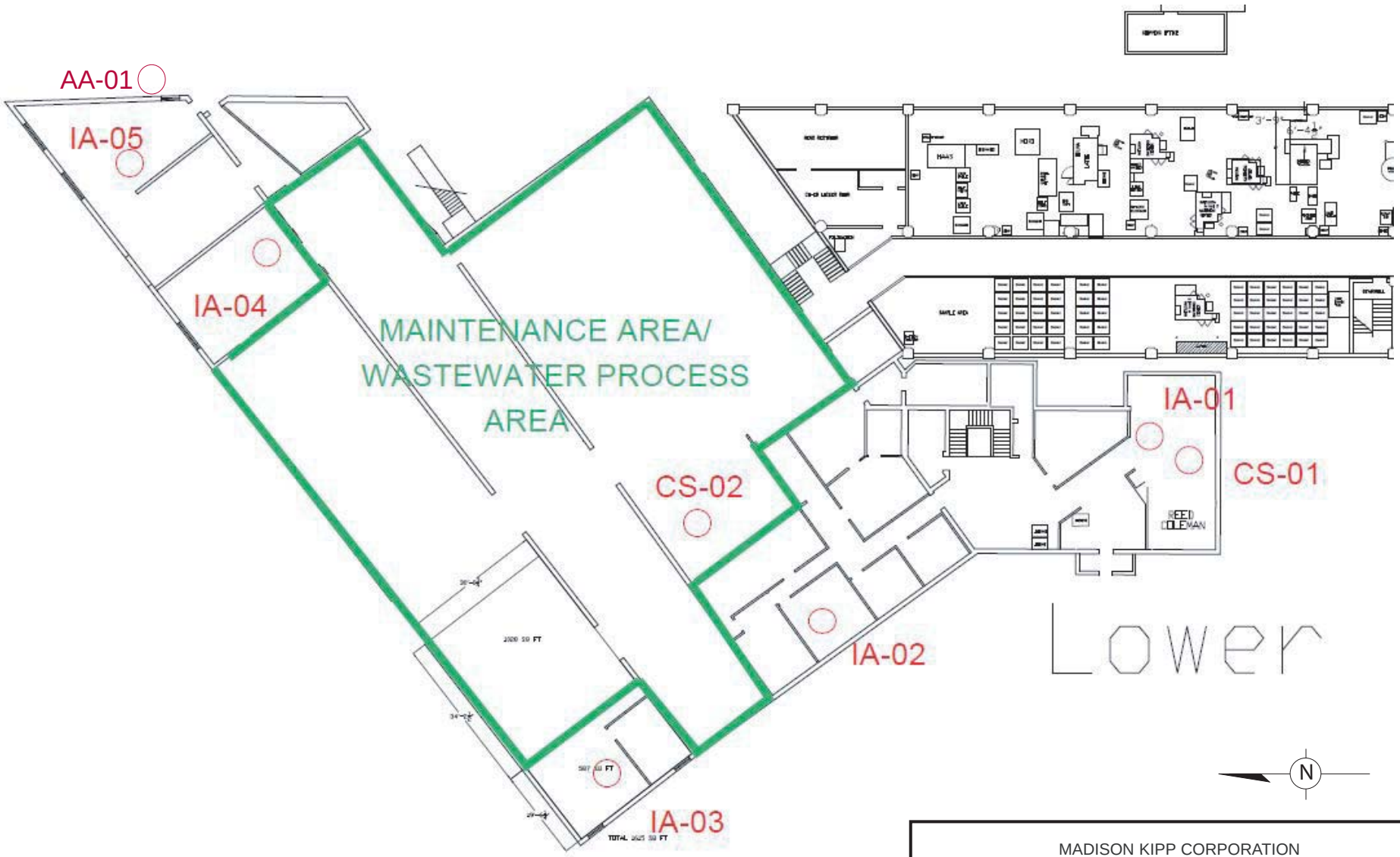
AA Ambient Air Sample.

CS Crawlspace Sample.

IA Indoor Air Sample.

NE Not Established.

VOC Volatile organic compound.



AA Ambient Air Sample

CS Crawlspace Sample

IA Indoor Air Sample

MADISON KIPP CORPORATION
201 WAUBESA STREET
MADISON, WISCONSIN

APPROXIMATE LOCATION OF OFFICE INDOOR AIR SAMPLES

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FIGURE
1

21FEB14\ENVIRONMENT\CK\LMB
MADISONKPPWI\001283\GRAPHICS\APPROX LOC OF INDOOR AIR SAMPLES.AI

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Attachment A

Building Survey and Sampling Logs

Building Survey and Product Inventory Form

Directions: This form must be completed for each residence or area involved in indoor air testing.

Preparer's Name: Alina Walck

Date/Time Prepared: 12/13/13 7:00

Preparer's Affiliation: MEC

Phone No.: 608-242-5200

Purpose of Investigation: Air sampling

1. OCCUPANT:

Interviewed: Y / (N)

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/Persons at this Location: _____

Age of Occupants: _____

2. OWNER OR LANDLORD: (Check if Same as Occupant ___)

Interviewed: Y / (N)

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS:

Type of Building: (circle appropriate response)

Residential	School	Commercial/Multi-use
(Industrial)	Church	Other: _____

If the Property is Residential, Type? (circle appropriate response)

Ranch		2-Family 3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If Multiple Units, How Many? _____

If the Property is Commercial, Type?

Business Type(s) Aluminum die casting

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other Characteristics:

Number of Floors 2 Building Age ~100 yrs.

Is the Building Insulated? Y / N How Air-Tight? Tight / Average / Not Tight

4. AIRFLOW:

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow Between Floors

_____

_____

_____

Airflow Near Source

Outdoor Air Infiltration

Infiltration Into Air Ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS: (circle all that apply)

a.	**Above grade construction:**	wood frame	(concrete)	stone brick	
b.	**Basement type:**	full	(crawlspace)	slab	other _____
c.	**Basement floor:**	concrete	dirt	stone	other _____
d.	**Basement floor:**	uncovered	covered	covered with _____	
e.	**Concrete floor:**	unsealed	sealed	sealed with _____	
f.	**Foundation walls:**	poured	block stone	other _____	
g.	**Foundation walls:**	unsealed	sealed	sealed with _____	
h.	**The basement is:**	wet	damp	dry	moldy
i.	**The basement is:**	finished	unfinished	partially finished	
j.	**Sump present?**	Y / N			
k.	**Water in sump?**	Y / N / NA			

Basement/lowest level depth below grade: _____(feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

_____

_____

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Y / N

6. HEATING, VENTILATING, AND AIR CONDITIONING: (circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard
Space heaters	Stream radiation	Radiant floor
Electric baseboard	Wood stove	Outdoor wood boiler
Other _____		

The primary type of fuel used is:

(Natural base)	Fuel oil	Kerosene
Electric	Propane	Solar
Wood coal		

Domestic hot water tank fueled by: _____

Boiler/furnace located in: Basement Outdoors Main Floor Other_____

Air conditioning: (Central Air) Window Units Open Windows None

Are there air distribution ducts present? Y / N in offices only

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

_____

_____

_____

7. OCCUPANCY:

Is basement/lowest level occupied? (Full-time) Occasionally Seldom Almost Never

General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, storage):

Basement none

1st Floor maintenance area, wastewater storage/treatment/offices

2nd Floor Offices

3rd Floor _____

4th Floor _____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY:

a. **Is there an attached garage?** Y (N) maintenance area used as garage

b. **Does the garage have a separate heating unit?** Y / N / NA

c. **Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, ATV, car)?**
Y / N / NA Please specify: plow carts, forklifts

d. **Has the building ever had a fire?** Y / N When? _____

e. **Is a kerosene or unvented gas space heater present?** Y / N Where? _____

f. **Is there a workshop or hobby/craft area?** (Y) / N Where & Type? _____

g. **Is there smoking in the building?** Y / (N) How frequently? _____

h. **Have cleaning products been used recently?** Y / N When & Type? _____

i. **Have cosmetic products been used recently?** Y (N) When & Type? _____

j. **Has painting/staining been done in the last 6 months?** Y / N Where & When? _____

k. **Is there new carpet, drapes or other textiles?** Y / (N) Where & When? _____

l. **Have air fresheners been used recently?** Y / (N) When & Type? _____

m. **Is there a kitchen exhaust fan?** Y (N) If yes, where _____

n. **Is there a bathroom exhaust fan?** Y / (N) If yes, where vented? _____

o. **Is there a clothes dryer?** Y (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / (N) When & Type?_____

q. Are there odors in the building? (Y) / N

If yes, please describe: _____

Do any of the building occupants use solvents (e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist) at work? (Y) N

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y (N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No

Yes, use dry-cleaning infrequently (monthly or less) Unknown

Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / (N)

Date of Installation: _____

Is the system active or passive? Active/Passive

Are there any Outside Contaminant Sources? (circle appropriate responses)

Contaminated site with 1000-foot radius? Y / N Specify _____

Other stationary sources nearby (e.g., gas stations, emission stacks, etc.): _____
Emission stacks

Heavy vehicle traffic nearby (or other mobile sources): parking lot

9. WATER AND SEWAGE:

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION: (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

_____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

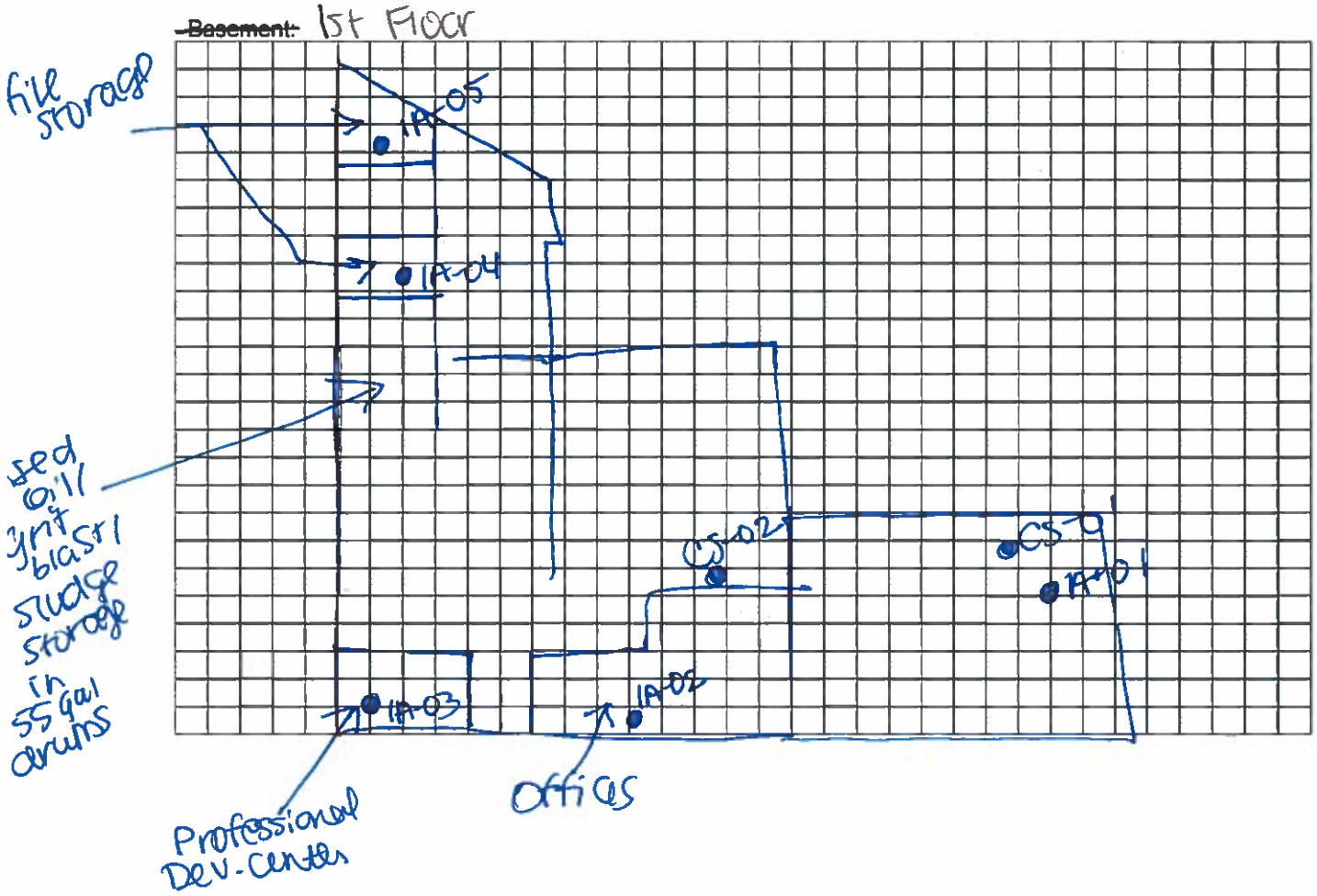
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS:

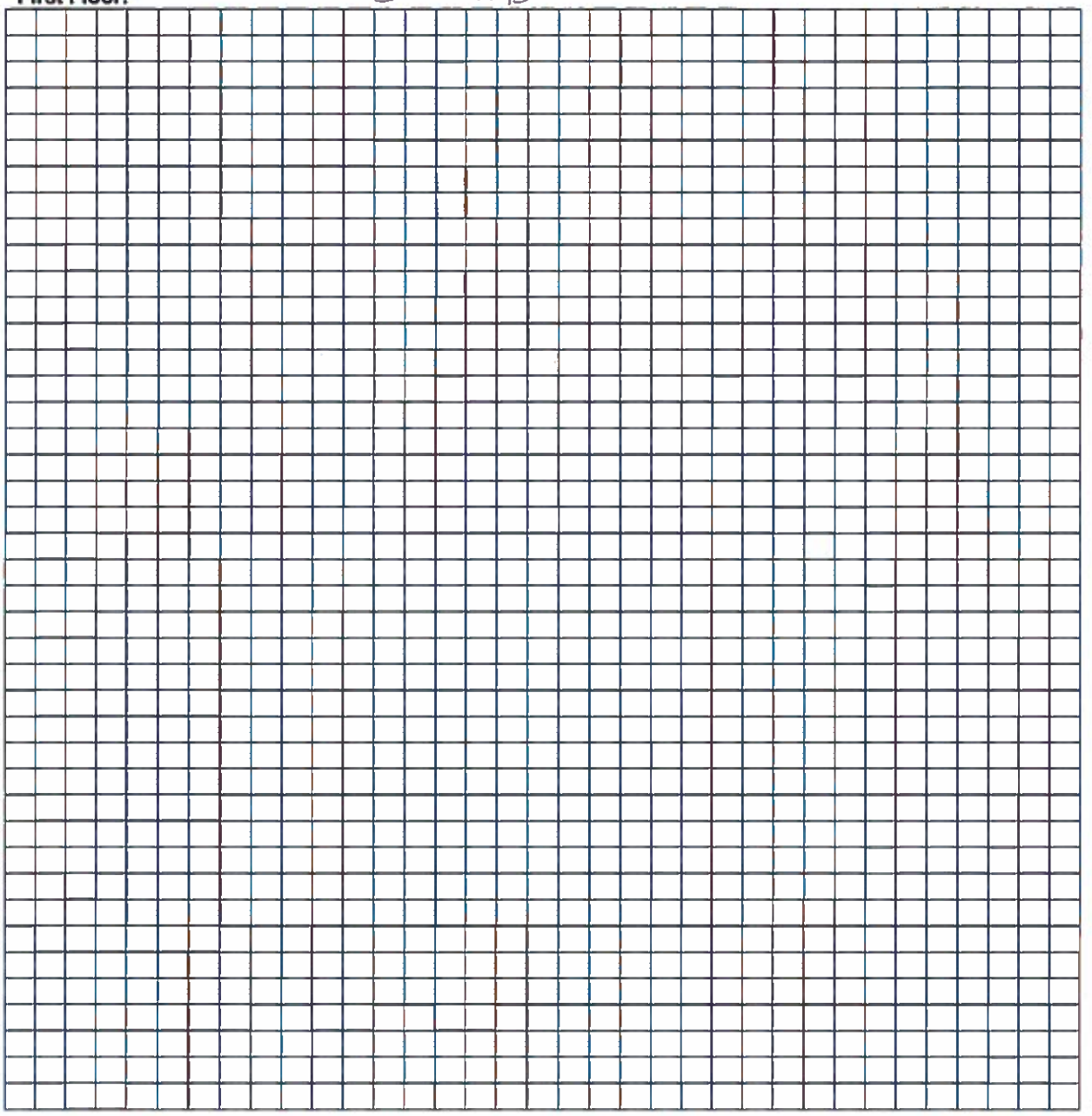
Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

~~Basement:~~ 1st Floor



2nd Floor See Building Plans

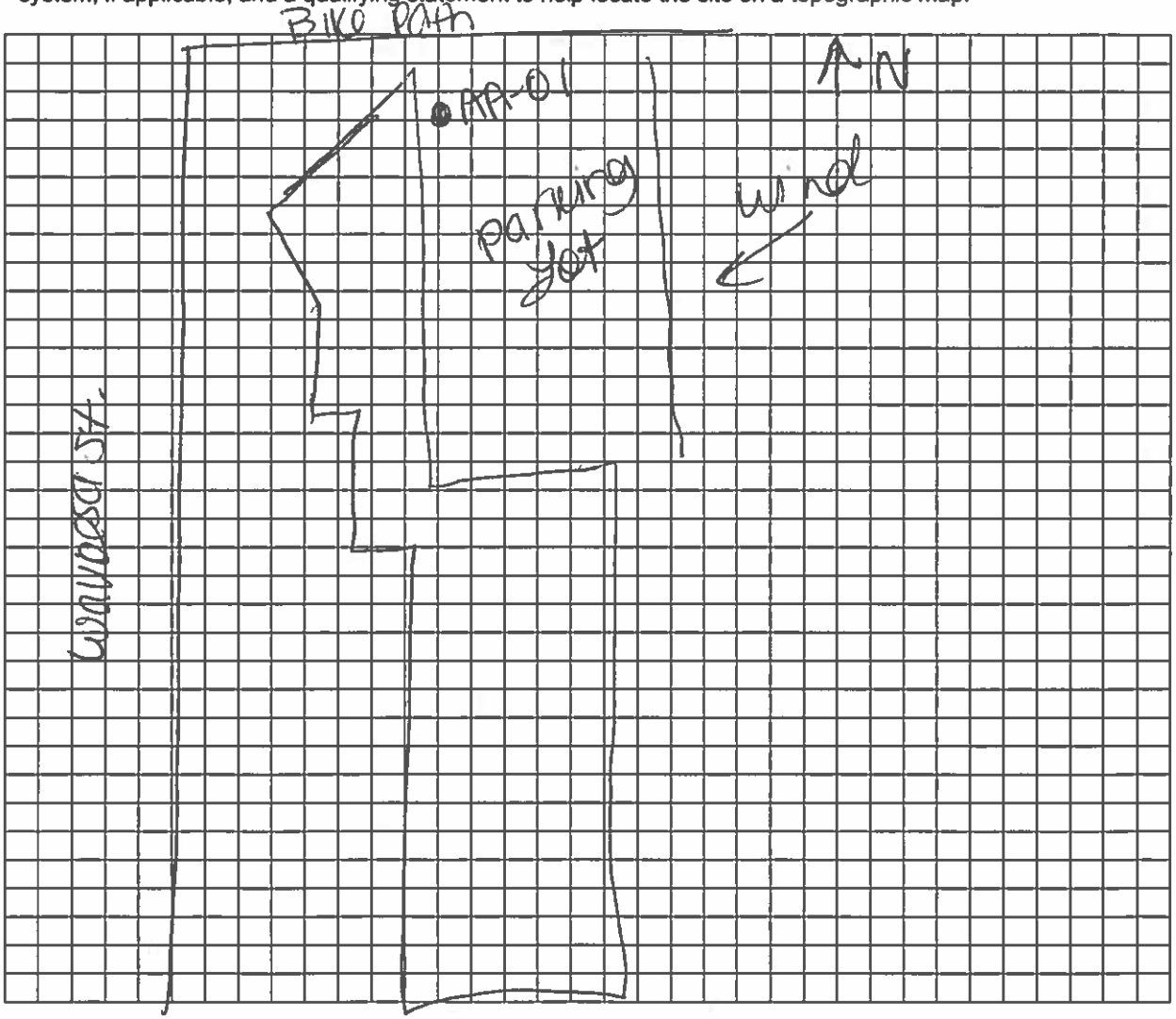
~~First Floor:~~



12. OUTDOOR PLOT:

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s), and PID meter readings.

Also Indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM:

Make and Model of field Instrument used: PID

List specific products found in the residence or area that have the potential to affect indoor air quality (e.g., gasoline or kerosene storage cans, glues, paints, cleaning solvents/products, polishes/waxes, new furniture/ carpet, nail polish/hairspray/cologne).

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y/N
AA-01	None					
CS-01	None -	Crawl space opens to maintenance area				
CS-02	None					
IA-01	None					
IA-02	None					
IA-03	None					
IA-04	None -	cracked concrete. Trench in concrete open to dirt				
IA-05	None					

Madison Kipp Corporation

Indoor Air/Ambient Air Sample Collection Log

		Sample ID:	IA-01
Client:	MKC	Outdoor/Indoor:	Indoor
Project:	Indoor Air Sampling	Sample Intake Height:	4'
Location:	Conference Room	Tubing Information:	
Project #:	WI001368.0005.0001	Miscellaneous Equipment:	
Samplers:	AAW	Time On/Off:	7:08 / 15:16
Sample Point Location:	Conference Room	Subcontractor:	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
12/13/13	7:08	-29.5					0.0
12/13/13	12:16	-13.5					
12/13/13	15:16	-7					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	~~4[illegible]~~ 3742
Flow Controller ID:	
Notes:	

General Observations/Notes:

Madison Kipp Corporation

Indoor Air/Ambient Air Sample Collection Log

		Sample ID:	IA-02
Client:	MKC	**Outdoor/Indoor:**	Indoor
Project:	Indoor Air Sampling	**Sample Intake Height:**	4'
Location:	Vacant Office	**Tubing Information:**	
Project #:	WI001368.0005.00001	**Miscellaneous Equipment:**	
Samplers:	AAW	**Time On/Off:**	7:04 / 14:35
Sample Point Location:		**Subcontractor:**	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
12/13/13	7:04	-28.5					0.0
12/13/13	12:15	-12					
12/13/13	14:35	-6.5					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	4346
Flow Controller ID:	
Notes:	

General Observations/Notes:

Madison Kipp Corporation

Indoor Air/Ambient Air Sample Collection Log

Sample ID:	IA-03		
Client:	MKC	**Outdoor/Indoor:**	Indoor
Project:		**Sample Intake Height:**	4'
Location:	Professional Dev. Center	**Tubing Information:**	
Project #:	WI00136.0005.00001	**Miscellaneous Equipment:**	e
Samplers:	AAW	**Time On/Off:**	7:19 / 15:25
Sample Point Location:		**Subcontractor:**	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
12/13/13	7:19	-30					0.0
12/13/13	12:09	-13.5					
12/13/13	15:25	-6.5					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	3437
Flow Controller ID:	
Notes:	

General Observations/Notes:

Madison Kipp Corporation

Indoor Air/Ambient Air Sample Collection Log

		Sample ID:	IA-04
Client:	MKC	**Outdoor/Indoor:**	Indoor
Project:	Indoor Air Sampling	**Sample Intake Height:**	4'
Location:	File Storage - Blw Dock	**Tubing Information:**	
Project #:	WI001368.0005.00601	**Miscellaneous Equipment:**	
Samplers:	APW	**Time On/Off:**	7:25 / 15:30
Sample Point Location:		**Subcontractor:**	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
12/13/13	7:25	<-30					0.2
12/13/13	12:11	-14					
12/13/13	15:30	-7					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	9417
Flow Controller ID:	3
Notes:	

General Observations/Notes: Broken concrete,

Madison Kipp Corporation		**Indoor Air/Ambient Air Sample Collection Log**	
		Sample ID:	IA-05
Client:	MKC	**Outdoor/Indoor:**	Indoor
Project:	Indoor Air Sampling	**Sample Intake Height:**	41
Location:	File Storage	**Tubing Information:**	
Project #:	WI001368.0005.00001	**Miscellaneous Equipment:**	
Samplers:	AAW	**Time On/Off:**	7:29 / 14:50
Sample Point Location:		**Subcontractor:**	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
12/13/13	7:29	-29					0.1
12/13/13	12:12	-13					
12/13/13	14:50	-7					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	34233
Flow Controller ID:	
Notes:	

General Observations/Notes:

Madison Kipp Corporation

Indoor Air/Ambient Air Sample Collection Log

		Sample ID:	CJ-01
Client:	MKC	Outdoor/Indoor:	Indoor
Project:	Indoor Air Sampling	Sample Intake Height:	2' below floor
Location:	Crawl Space - Office	Tubing Information:	
Project #:	WI001368.0005.00001	Miscellaneous Equipment:	
Samplers:	AAW	Time On/Off:	7:45 / 14:45
Sample Point Location:		Subcontractor:	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
12/13/13	7:45	-30					0.0
12/13/13	12:18	-13					
12/13/13	14:45	-8					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	03423
Flow Controller ID:	
Notes:	

General Observations/Notes:

Madison Kipp Corporation

Indoor Air/Ambient Air Sample Collection Log

		Sample ID:	CS-02
Client:	MKC	**Outdoor/Indoor:**	Indoor
Project:	Indoor Air Sampling	**Sample Intake Height:**	2 ft. ~~Breathing Zone~~
Location:	Crawl Space - maintenance	**Tubing Information:**	
Project #:	WI01368.0005.00001	**Miscellaneous Equipment:**	
Samplers:	AAW	**Time On/Off:**	7:18 / 14:23
Sample Point Location:		**Subcontractor:**	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
12/13/13	7:15	<-30					0.0
12/13/13	12:06	-13					
12/13/13	14:23	-6.5					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	1567
Flow Controller ID:	
Notes:	

General Observations/Notes:

Madison Kipp Corporation

Indoor Air/Ambient Air Sample Collection Log

		Sample ID:	AA-01
Client:	MKC	Outdoor/Indoor:	Outdoor
Project:	Indoor Air Sampling	Sample Intake Height:	3'
Location:	Outside, near bike rack	Tubing Information:	
Project #:	WI01368.0005.00001	Miscellaneous Equipment:	
Samplers:	AAW	Time On/Off:	7:55 / 15:10
Sample Point Location:		Subcontractor:	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
12/13/13	7:55	-29	18°	71%	8.1	30.20	0.0
12/13/13	12:13	-13	19.9°	76%	10.8	30.19	
12/13/13	15:10	-6					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	9600
Flow Controller ID:	
Notes:	

General Observations/Notes:

on edge of parking lot

Madison Kipp Corporation

Indoor Air/Ambient Air Sample Collection Log

Client:	Madison Kipp	**Sample ID:**	AA-01 1/24/14
Project:	Indoor Air Sampling	**Outdoor/Indoor:**	Outdoor
Location:	Parking lot	**Sample Intake Height:**	4'
Project #:	WI001368.0005.00001	**Tubing Information:**	—
Samplers:	A Walak	**Miscellaneous Equipment:**	—
Sample Point Location:	Parking lot	**Time On/Off:**	730/1440
		Subcontractor:	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
1/24/14	730	<-30	9				—
1/24/14	1255	-11	10				—
1/24/14	1440	-7	16				—

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	2317
Flow Controller ID:	2317
Notes:	

General Observations/Notes:

Madison Kipp Corporation

Indoor Air/Ambient Air Sample Collection Log

Client:	Madison Kipp	**Sample ID:**	IA-05 1/24/14
Project:	WI001368.0005.00001	**Outdoor/Indoor:**	Indoor
Location:	File Storage Room	**Sample Intake Height:**	4'
Project #:	Indoor Air Sampling	**Tubing Information:**	–
Samplers:	AWalck	**Miscellaneous Equipment:**	–
Sample Point Location:	file Storage Room	**Time On/Off:**	735 / 1515
		Subcontractor:	–

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppm)
1/24/14	735	-30					
1/24/14	1250	-12					
1/24/14	1515	-7					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	13659
Flow Controller ID:	13659
Notes:	

General Observations/Notes:

left door open for 1 week prior.

ARCADIS

Attachment B

Laboratory Reports

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12/19/2013
Mr. Christopher Kubacki
Arcadis U.S., Inc.
126 N. Jefferson St.
Suite 400
Milwaukee WI 53202

Project Name: Madison-Kipp
Project #:
Workorder #: 1312255

Dear Mr. Christopher Kubacki

The following report includes the data for the above referenced project for sample(s) received on 12/16/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

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WORK ORDER #: 1312255

Work Order Summary

CLIENT:	Mr. Christopher Kubacki Arcadis U.S., Inc. 126 N. Jefferson St. Suite 400 Milwaukee, WI 53202	**BILL TO:**	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	414 277 6227	**P.O. #**	WI001368.0005.00001
FAX:		**PROJECT #**	Madison-Kipp
DATE RECEIVED:	12/16/2013	**CONTACT:**	Ausha Scott
DATE COMPLETED:	12/19/2013		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	IA-01	Modified TO-15 SIM	6.7 "Hg	5 psi
02A	IA-02	Modified TO-15 SIM	6.9 "Hg	5.1 psi
03A	IA-03	Modified TO-15 SIM	5.5 "Hg	5.3 psi
04A	IA-04	Modified TO-15 SIM	6.3 "Hg	5.2 psi
05A	IA-05	Modified TO-15 SIM	5.5 "Hg	5.1 psi
06A	CS-01	Modified TO-15 SIM	6.9 "Hg	4.9 psi
07A	CS-02	Modified TO-15 SIM	6.3 "Hg	4.7 psi
08A	AA-01	Modified TO-15 SIM	3.7 "Hg	4.9 psi
09A	Lab Blank	Modified TO-15 SIM	NA	NA
10A	CCV	Modified TO-15 SIM	NA	NA
11A	LCS	Modified TO-15 SIM	NA	NA
11AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 12/19/13

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Arcadis U.S., Inc.
Workorder# 1312255

Eight 6 Liter Summa Canister (SIM Certified) samples were received on December 16, 2013. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A signature and date were not provided by the field sampler.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See

data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-01

Lab ID#: 1312255-01A

No Detections Were Found.

Client Sample ID: IA-02

Lab ID#: 1312255-02A

No Detections Were Found.

Client Sample ID: IA-03

Lab ID#: 1312255-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.033	0.14	0.23	0.92

Client Sample ID: IA-04

Lab ID#: 1312255-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.034	0.074	0.14	0.29
Trichloroethene	0.034	0.30	0.18	1.6
Tetrachloroethene	0.034	5.8	0.23	39

Client Sample ID: IA-05

Lab ID#: 1312255-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.033	0.47	0.13	1.9
Trichloroethene	0.033	3.0	0.18	16
Tetrachloroethene	0.033	21	0.22	140

Client Sample ID: CS-01

Lab ID#: 1312255-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.035	0.24	0.23	1.6

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: CS-02

Lab ID#: 1312255-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.033	0.11	0.23	0.76

Client Sample ID: AA-01

Lab ID#: 1312255-08A

No Detections Were Found.

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Client Sample ID: IA-01

Lab ID#: 1312255-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121812sim**	**Date of Collection: 12/13/13 3:16:00 PM**	
Dil. Factor:	**1.73**	**Date of Analysis: 12/18/13 03:22 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.035	Not Detected	0.18	Not Detected
Tetrachloroethene	0.035	Not Detected	0.23	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: IA-02

Lab ID#: 1312255-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121813sim**	**Date of Collection: 12/13/13 2:35:00 PM**	
Dil. Factor:	**1.75**	**Date of Analysis: 12/18/13 03:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.035	Not Detected	0.19	Not Detected
Tetrachloroethene	0.035	Not Detected	0.24	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: IA-03

Lab ID#: 1312255-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121814sim**	**Date of Collection: 12/13/13 3:25:00 PM**	
Dil. Factor:	**1.67**	**Date of Analysis: 12/18/13 04:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	0.14	0.23	0.92
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: IA-04

Lab ID#: 1312255-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121815sim**	**Date of Collection: 12/13/13 3:30:00 PM**	
Dil. Factor:	**1.72**	**Date of Analysis: 12/18/13 05:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
cis-1,2-Dichloroethene	0.034	0.074	0.14	0.29
Trichloroethene	0.034	0.30	0.18	1.6
Tetrachloroethene	0.034	5.8	0.23	39
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: IA-05

Lab ID#: 1312255-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121816sim**	**Date of Collection: 12/13/13 2:50:00 PM**	
Dil. Factor:	**1.65**	**Date of Analysis: 12/18/13 06:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
cis-1,2-Dichloroethene	0.033	0.47	0.13	1.9
Trichloroethene	0.033	3.0	0.18	16
Tetrachloroethene	0.033	21	0.22	140
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: CS-01

Lab ID#: 1312255-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121817sim**	**Date of Collection: 12/13/13 2:45:00 PM**	
Dil. Factor:	**1.73**	**Date of Analysis: 12/18/13 06:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.035	Not Detected	0.18	Not Detected
Tetrachloroethene	0.035	0.24	0.23	1.6
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: CS-02

Lab ID#: 1312255-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121818sim**	**Date of Collection: 12/13/13 2:23:00 PM**	
Dil. Factor:	**1.67**	**Date of Analysis: 12/18/13 08:04 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	0.11	0.23	0.76
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: AA-01

Lab ID#: 1312255-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121819sim**	**Date of Collection: 12/13/13 3:10:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 12/18/13 08:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.030	Not Detected	0.16	Not Detected
Tetrachloroethene	0.030	Not Detected	0.21	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1312255-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121806sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/18/13 11:31 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: CCV

Lab ID#: 1312255-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121802sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/18/13 08:29 AM**	

Compound	%Recovery
Vinyl Chloride	92
cis-1,2-Dichloroethene	102
Trichloroethene	87
Tetrachloroethene	98
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCS

Lab ID#: 1312255-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121803sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/18/13 09:10 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	93	70-130
cis-1,2-Dichloroethene	120	70-130
Trichloroethene	90	70-130
Tetrachloroethene	102	70-130
trans-1,2-Dichloroethene	91	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCSD

Lab ID#: 1312255-11AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c121804sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/18/13 09:53 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	95	70-130
cis-1,2-Dichloroethene	122	70-130
Trichloroethene	90	70-130
Tetrachloroethene	103	70-130
trans-1,2-Dichloroethene	92	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.

Chain-of-Custody Record

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection handling or shipping of these samples. Relinquished signature also indicated agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

AIR TOXICS LTD.
180 BLUE RAVINE RD, SUITE B
FOLSOM, CA 95630-1020
916-985-1000 main line
916-985-1020 fax line

Contact Person: Jennine Trask
Company: ARCADIS
Address: 126 N Jefferson St City: Milwaukee State: WI Zip: 53202
Phone: 414-~~260~~ 276-7742 FAX: 414-276-7603
Collected By: (Signature) Alina Walecka

Project Information:
madison Kipp
P.O. # WI001368.0005.00001
Project #
Project Name
madison Kipp

Turn Around Time:
☒ Normal
☐ Rush
Specify

Pressurized by:
Date:
Press. Gas: N2 He

Lab I.D.	Field Sample I.D.	Canister I.D.	Date & Time	Analysis Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	1A-01	3742	12/13/13 15:16	TO-15	-29.5 "Hg	-7		
02A	1A-02	4346	12/13/13 14:35	TO-15	-28.5 "Hg	-6.5		
03A	1A-03	34378	12/13/13 15:25	TO-15	<-30 "Hg	-6.5		
04A	1A-04	9417	12/13/13 15:30	TO-15	<-30 "Hg	-7		
05A	1A-05	34233	12/13/13 14:50	TO-15	-29 "Hg	-7		
06A	CS-01	34231	12/13/13 14:45	TO-15	<-30 "Hg	-8		
07A	CS-02	1567	12/13/13 14:23	TO-15	<-30 "Hg	-6.5		
08A	AA-01	96100	12/13/13 15:10	TO-15	-29 "Hg	-6		
					"Hg			
					"Hg			

Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time: Amy ATL 12/16/13 1035

Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time

Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time

Notes:
only Report
PCE Vinyl Chloride
TCE cis 1,2 DCE
trans 1,2 DCE

Lab Use Only

Shipper Name	Air Bill #	Opened By	Temp ©	Condition	Custody Seals	Work Order #
Fedex		MB	N/A	Good	Yes No (None)	1312255

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1/30/2014
Mr. Christopher Kubacki
Arcadis U.S., Inc.
126 N. Jefferson St.
Suite 400
Milwaukee WI 53202

Project Name: Madison Kipp
Project #:
Workorder #: 1401367

Dear Mr. Christopher Kubacki

The following report includes the data for the above referenced project for sample(s) received on 1/27/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1401367

Work Order Summary

CLIENT:	Mr. Christopher Kubacki Arcadis U.S., Inc. 126 N. Jefferson St. Suite 400 Milwaukee, WI 53202	**BILL TO:**	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	414 277 6227	**P.O. #**	WI001368.0005.00001
FAX:		**PROJECT #**	Madison Kipp
DATE RECEIVED:	01/27/2014	**CONTACT:**	Ausha Scott
DATE COMPLETED:	01/30/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	AA-01 1/24/14	Modified TO-15 SIM	4.9 "Hg	4.9 psi
02A	IA-05 1/24/14	Modified TO-15 SIM	5.7 "Hg	4.8 psi
03A	Lab Blank	Modified TO-15 SIM	NA	NA
04A	CCV	Modified TO-15 SIM	NA	NA
05A	LCS	Modified TO-15 SIM	NA	NA
05AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 01/30/14

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Arcadis U.S., Inc.
Workorder# 1401367

Two 6 Liter Summa Canister (SIM Certified) samples were received on January 27, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: AA-01 1/24/14

Lab ID#: 1401367-01A

No Detections Were Found.

Client Sample ID: IA-05 1/24/14

Lab ID#: 1401367-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.033	0.059	0.13	0.23
Trichloroethene	0.033	0.28	0.18	1.5
Tetrachloroethene	0.033	2.0	0.22	14

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Client Sample ID: AA-01 1/24/14

Lab ID#: 1401367-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c012907sim**	**Date of Collection: 1/24/14 2:40:00 PM**	
Dil. Factor:	**1.59**	**Date of Analysis: 1/29/14 02:50 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.032	Not Detected	0.17	Not Detected
Tetrachloroethene	0.032	Not Detected	0.22	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: IA-05 1/24/14

Lab ID#: 1401367-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c012908sim**	**Date of Collection: 1/24/14 3:15:00 PM**	
Dil. Factor:	**1.64**	**Date of Analysis: 1/29/14 03:27 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
cis-1,2-Dichloroethene	0.033	0.059	0.13	0.23
Trichloroethene	0.033	0.28	0.18	1.5
Tetrachloroethene	0.033	2.0	0.22	14
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1401367-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c012906sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/29/14 01:31 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: CCV

Lab ID#: 1401367-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c012902sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/29/14 09:51 AM**	

Compound	%Recovery
Vinyl Chloride	97
cis-1,2-Dichloroethene	101
Trichloroethene	84
Tetrachloroethene	98
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: LCS

Lab ID#: 1401367-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c012903sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/29/14 10:45 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	93	70-130
cis-1,2-Dichloroethene	116	70-130
Trichloroethene	87	70-130
Tetrachloroethene	100	70-130
trans-1,2-Dichloroethene	87	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: LCSD

Lab ID#: 1401367-05AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**c012904sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/29/14 11:20 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	85	70-130
cis-1,2-Dichloroethene	113	70-130
Trichloroethene	85	70-130
Tetrachloroethene	96	70-130
trans-1,2-Dichloroethene	85	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

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Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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Project Manager Jennine Trask

Collected by: (Print and Sign) Alina Walcek Alina Walcek

Company ARCADIS Email jennine.trask@arcadis-us.com

Address 126 N. Jefferson St. City Milwaukee State WI Zip ____

Phone 414 276 7742 Fax 414 276 7603

Project Info:
P.O. # WI001368.0005.00001
Project # ____
Project Name Madison Kipp

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	AA-01 1/24/14	2317	1/24/14	730/14:40	TO-15	-30	-7		
02A	IA-05 1/24/14	13659	1/24/14	735/15:15	TO-15	-30	-7		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Alina Walcek	1/24/14 16:00	ATL	1/27/14 1000
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
Only Report:
PCE
TCE
Vinyl Chloride
cis 1,2 DCE
trans 1,2 DCE

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fedex	8048 6691 2218	NA	Good	Yes No (None)	1401367

Form 1293 rev.11