

DANE COUNTY DEPARTMENT of PUBLIC WORKS, HIGHWAY and TRANSPORTATION

County Executive
Joseph T. Parisi

1919 Alliant Energy Center Way • Madison, Wisconsin 53713 Phone: (608) 266-4018 • Fax: (608) 267-1533

Commissioner / Director Gerald J. Mandli

February 1, 2017

ATTENTION ALL REQUEST FOR PROPOSAL (RFP) HOLDERS

RFB NO. 316039 - ADDENDUM NO. 1

BIOGAS CLEANING EQUIPMENT FOR PIPELINE INJECTION DANE COUNTY LANDFILL SITE #2 7102 U.S. HIGHWAY 12 & 18 MADISON, WISCONSIN

BIDS DUE: Tuesday, February 14, 2017, 2:00 PM.
DUE DATE AND TIME **ARE NOT** CHANGED BY THIS ADDENDUM

This Addendum is issued to modify, explain or clarify the original Request for Proposal (RFP) and is hereby made a part of the RFP. <u>Bidders must acknowledge this addendum on the bid form.</u>

PLEASE MAKE THE FOLLOWING CHANGES:

1. Requested Services and Business Information

a. Section 1 – General Information:

Existing Conditions: A flare is located on-site with the ability to handle peak landfill gas flow. Flare may be relocated closer to the system if deemed feasible and advantageous to the County.

Dane County did additional testing to determine the pressure at the test port used for analysis. A digital manometer and mechanical gauge were used on January 26, 2017 and showed a result of 3.1 psi. Use this value instead of the 0.3 psi given in the original RFP document.

The current blower for the system is from Houston Service Industries, Inc., Model No. 08811, Serial No. 0609177-30269, and Order No. 30269.

The current chiller for the system is from Xchanger Inc., Model No. Repl Core AA-2750 Xchanger P/N 44725, Serial No. 0509-B11526, and Order No. 2009-5462 (Dane County). Specifications for the current chiller are located in Appendix D.

Dane County uses waste heat to supply two (2) of the landfill buildings with heat during colder months. While not necessary, Dane County would be interested in proposals including waste heat off of the cleaning system for heat supply to the landfill buildings.

RFB No. 316031 -1 - rev. 08/14

The current system uses a glycol and water mixture and exits the heat plate exchanger at approximately 190 °F for entry into the buildings. The mixture returns to the heat plate exchanger at approximately 170 °F.

b. <u>Section 2 – Scope of Work, Paragraph B:</u>

Site Work: Proposer will be responsible for the <u>design</u> of all site work required beyond the system or system skid. Dane County will be responsible for the construction of all site work prior to system installation. Proposer must indicate within proposal ALL civil site work (i.e. stone, landscaping, drainage, etc.), electrical power (i.e. amps/voltage, etc.), process piping (i.e. condensate discharge pipe, landfill gas piping, etc.), and mechanical (i.e. data/communications, temperature requirements, additional natural gas supply, etc.) required for the operation of the system or system skid. Dane County will provide all available existing condition site drawings to the winning proposer for site design.

Additional Infrastructure: If additional infrastructure is required (i.e. foundations, building, etc.), proposer shall indicate proposed infrastructure and rationale within the content of the proposal. If additional infrastructure is approved by County, Proposer will be responsible for the <u>design</u> of additional infrastructure. Dane County will provide winning proposer with all available drawings and/or information required for the design. Dane County will be responsible for the construction of all additional infrastructures prior to system installation.

Permitting: Dane County will be responsible for all permitting (i.e. surface water, air, erosion control, Plan of Operations modifications, etc.) required for this project.

Offsite Gas: A receiving station to accept offsite biogas is not part of this RFP.

Utility Interconnection: Dane County will be responsible for utility interconnection requirements. However, Dane County requires separate gas monitoring (i.e. compression, gas chromatograph, metering etc.) and piping for the monitoring of the cleaning system prior to the utility injection point. Proposers shall include monitoring and additional piping within this proposal. Proposers shall propose best interconnect location.

Base and Alternate Proposal: Base proposal shall include a system with operating ranges of 500 to 1750 scfm, alternative proposals for a more limited gas range deemed advantageous to the County will be considered. Alternate proposals shall outline all benefits of system having a limited range both qualitatively and quantitatively.

c. Section 3 – Proposal Content, Paragraph 4(a):

SHALL READ: "Size of footprint required for construction and final system. Locations of potential available space are shown in Figure 2;"

d. Section 3 – Proposal Content, Paragraph 4(k):

Dane County will own and operate facility. Proposer shall detail all training required for Dane County staff within this section.

e. <u>Section 3 – Proposal Content, Paragraph 10:</u>

SHALL READ:

List nine (9) fees for services **and** desired progress payment plan.

- a. Stated as fixed fee for cleaning system design to meet, or exceed, ANR standards;
- b. Stated as fixed fee for site work design;
- c. Stated as fixed fee for additional infrastructure design, if deemed advantageous to the County;
- d. Stated as fixed fee for system fabrication and delivery (f.o.b. Dane County Landfill Site #2);
- e. Stated as fixed fee for system controls and electrical;
- f. Stated as fixed fee for system installation;
- g. Stated as fixed fee for initial system start-up, commissioning, staff training, etc.;
- h. Stated as annual and peak energy consumption; and
- i. Stated as annual labor hours and material cost for operations and maintenance."

2. Performance and Payment Bond

Performance and payment bond shall only be for delivery and installation of equipment.

3. Appendix B – Siloxane Gas Laboratory Results

Include within proposals consideration for siloxanes. Test sample was taken on January 10, 2017.

4. Appendix C – Historical Landfill Gas Laboratory Results

Appendix C, attached, is historical data on landfill gas laboratory results. Please note these laboratory results are from 2007.

5. Figure 2 – Potential Available Space

Figure 2, attached, to be made part of this RFP.

Enclosures

Figure 2 – Potential Available Space

Appendix B – Siloxane Gas Laboratory Results

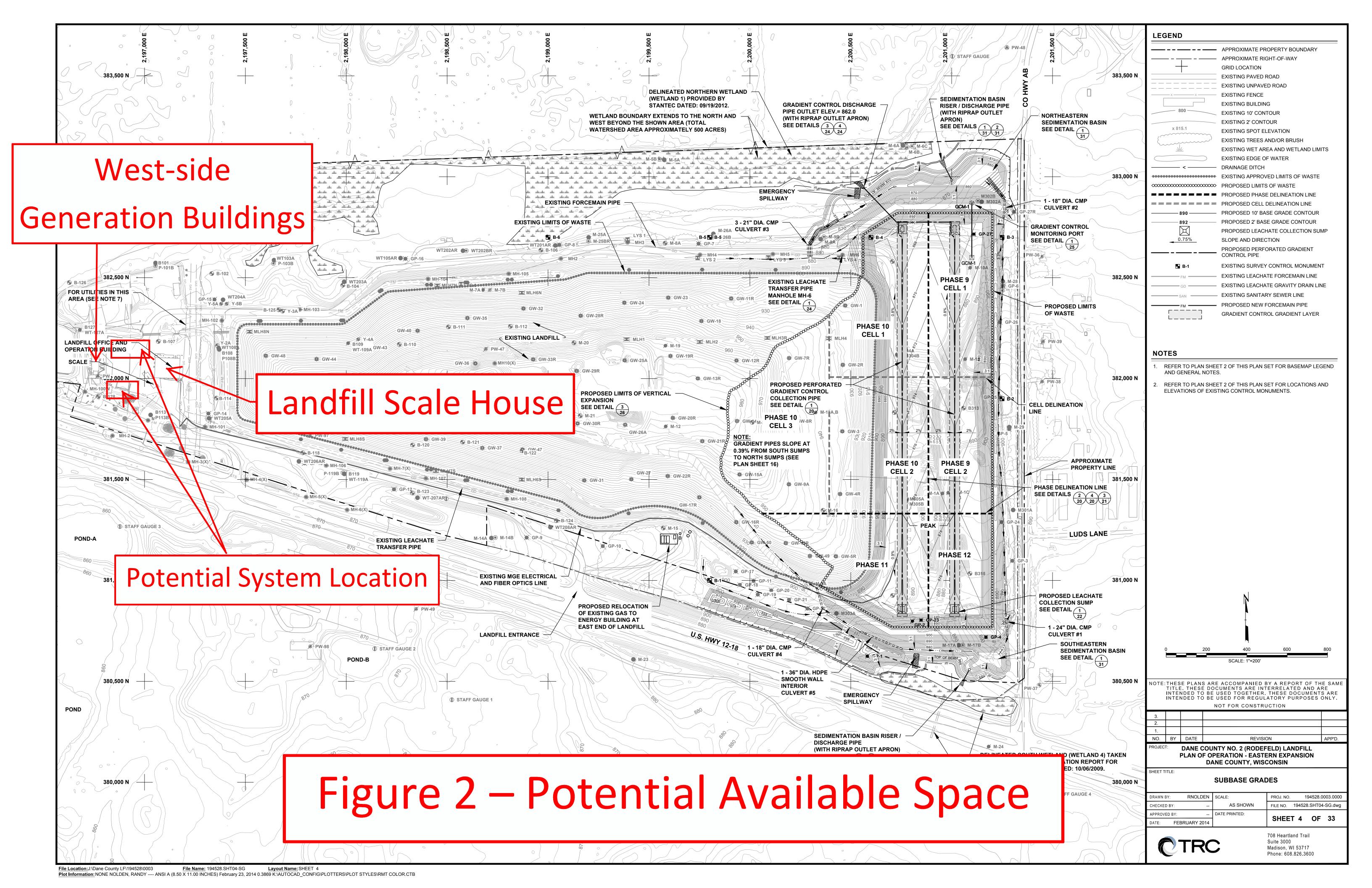
Appendix C – Historical Landfill Gas Laboratory Results

Appendix D – Chiller Specifications

Receipt of the following addenda and inclusion of their provisions in this Proposal is hereby acknowledged:

Addendum No(s).	through
Dated	
Signature	

If any additional information about this Addendum is needed, please contact John Welch at (608) 516-4154, or Welch@countyofdane.com.



APPENDIX B - SILOXANE GAS LABORATORY RESULTS



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270 www.alsglobal.com

LABORATORY REPORT

January 25, 2017

Chris Jimieson SCS Engineers 2830 Dairy Drive Madison, WI 53718

RE: Rodefeld Landfill / 25213005.03

Dear Chris:

Enclosed are the results of the sample submitted to our laboratory on January 12, 2017. For your reference, this analysis has been assigned our service request number P1700130.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Sue Anderson

Project Manager



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270

www.alsglobal.com

Client: SCS Engineers

Project: Rodefeld Landfill / 25213005.03

Service Request No: P1700130

CASE NARRATIVE

The sample was received intact under chain of custody on January 12, 2017 and was stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

Siloxanes

The Anasorb tube sample was analyzed for Siloxanes according to laboratory SOP SVO-Siloxanes using an analytical system comprised of a gas chromatograph/mass spectrometer (GC/MS). This method is not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



2655 Park Center Dr., Suite A Simi Valley, CA 93065 T: +1 805 526 7161 F: +1 805 526 7270

www.alsglobal.com

ALS Environmental - Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure- certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2016036
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1177034
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-003
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413- 16-7
Utah DOH (NELAP)	http://health.utah.gov/lab/environmental-lab-certification/	CA01627201 6-6
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

DETAIL SUMMARY REPORT

Client:	SCS Engineers	Service Request: P1700130
Project ID:	Rodefeld Landfill / 25213005.03	
Date Received:	1/12/2017	Tube
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Time Received:	09:50	Siloxanes
		🚊
	Data Time	AQL
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Matrix Collected Client Sample ID Lab Code Rodefeld LF West Blower P1700130-001 1/10/2017 15:45

Collected

Air - Chain of Custody Record & Analytical Service Request

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Requested Turnaround Time in Business Days (Surcharges) please circle 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10-Day-Standard 2655 Park Center Drive, Suite A Simi Valley, California 93065 Phone (805) 526-7161

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ALS Environmental Sample Acceptance Check Form

Client:	SCS Engineers	s	Sumpi	c rreceptunee		Work order:	P1700130			
Project:	Rodefeld Land	dfill / 25213005.03			•					
Sample(s) received on:	1/12/17]	Date opened:	1/12/17	by:	KKEL	PE	
Note: This	form is used for all	samples received by ALS.	The use of this fo	orm for custody se	als is strictly me	eant to indicate prese	nce/absence and no	ot as an ir	dication	of
		Thermal preservation and								
								<u>Yes</u>	<u>No</u>	<u>N/A</u>
1	_	containers properly n		ent sample ID	?			X		
2	Did sample co	ontainers arrive in goo	od condition?					X		
3	Were chain-of	f-custody papers used	and filled out	?				X		
4	Did sample co	ontainer labels and/or	tags agree wit	th custody pap	ers?			X		
5	Was sample v	rolume received adequ	ate for analysi	is?				X		
6	Are samples w	vithin specified holdin	g times?					X		
7	Was proper te	mperature (thermal p	oreservation) o	f cooler at rece	eipt adhered t	to?				X
8	Were custody	seals on outside of co	ooler/Box/Con	tainer?					X	
		Location of seal(s)?					_Sealing Lid?			X
	Were signature	e and date included?								X
	Were seals int	act?								X
9	Do containe	rs have appropriate p r	eservation, a	ecording to me	thod/SOP or	Client specified	information?			X
	Is there a clien	nt indication that the s	ubmitted samp	oles are pH pre	eserved?					X
	Were VOA v	ials checked for prese	nce/absence of	f air bubbles?						X
	Does the clien	t/method/SOP require	that the analys	st check the sa	mple pH and	if necessary alte	r it?			X
10	Tubes:	Are the tubes capp	ed and intact?	•				X		
11	Badges:	Are the badges pr	operly capped	and intact?						X
		Are dual bed badg	ges separated a	nd individuall	y capped and	l intact?				X
Lab	Sample ID	Container	Required	Received	Adjusted	VOA Headspace	Doggir	ot / Pres	orvotion	
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RESULTS OF ANALYSIS Page 1 of 1

Client: SCS Engineers

Client Sample ID: Rodefeld LF West Blower ALS Project ID: P1700130 Client Project ID: Rodefeld Landfill / 25213005.03 ALS Sample ID: P1700130-001

Test Code: GC/MS Date Collected: 1/10/17 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 1/12/17 Analyst: Evelyn Alvarez Date Analyzed: 1/19/17 Sample Type: Siloxane Tube Desorption Volume: 3.0 ml Test Notes: BC, DE Volume Sampled: 6 Liter(s)

CAS#	Compound	Result µg/Tube	Result μg/m³	MRL μg/m³	Result as Silicon µg/m³	MRL μg/m³	Data Qualifier
1066-40-6	Trimethylsilanol	100	17,000	55	5,200	17	Quarter
107-46-0	Hexamethyldisiloxane (L ₂)	21	3,400	51	1,200	18	
541-05-9	Hexamethylcyclotrisiloxane (D ₃)	9.2	1,500	50	580	19	
107-51-7	Octamethyltrisiloxane (L ₃)	2.2	370	47	130	17	
556-67-2	Octamethylcyclotetrasiloxane (D ₄)	41	6,800	48	2,600	18	
141-62-8	Decamethyltetrasiloxane (L ₄)	< 0.28	ND	47	ND	17	
541-02-6	Decamethylcyclopentasiloxane (D ₅)	6.0	1,000	47	380	18	
141-63-9	Dodecamethylpentasiloxane (L ₅)	< 0.30	ND	50	ND	18	
540-97-6	Dodecamethylcyclohexasiloxane (D_6)	< 0.28	ND	47	ND	18	
	Total Silicon				10,000		

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected.

DE = Results reported are corrected for desorption efficiency.

RESULTS OF ANALYSIS

Page 1 of 1

Client: SCS Engineers
Client Sample ID: Method Blank

Client Sample ID: Method Blank
Client Project ID: Rodefeld Landfill / 25213005.03
ALS Sample ID: P170119-MB

Test Code: GC/MS Date Collected: NA Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA Analyst: Evelyn Alvarez Date Analyzed: 1/19/17 Sample Type: Siloxane Tube Desorption Volume: 3.0 ml Test Notes: BC, DE Volume Sampled: NA Liter(s)

CAS#	Compound	Result µg/Tube	Result µg/m³	MRL μg/m³	Result as Silicon µg/m³	MRL μg/m³	Data Qualifier
1066-40-6	Trimethylsilanol	< 0.33	NA	NA	NA	NA	
107-46-0	Hexamethyldisiloxane (L ₂)	< 0.31	NA	NA	NA	NA	
541-05-9	Hexamethylcyclotrisiloxane (D ₃)	< 0.30	NA	NA	NA	NA	
107-51-7	Octamethyltrisiloxane (L ₃)	< 0.28	NA	NA	NA	NA	
556-67-2	Octamethylcyclotetrasiloxane (D ₄)	< 0.29	NA	NA	NA	NA	
141-62-8	Decamethyltetrasiloxane (L ₄)	< 0.28	NA	NA	NA	NA	
541-02-6	Decamethylcyclopentasiloxane (D ₅)	< 0.28	NA	NA	NA	NA	
141-63-9	Dodecamethylpentasiloxane (L ₅)	< 0.30	NA	NA	NA	NA	
540-97-6	Dodecamethylcyclohexasiloxane (D ₆)	< 0.28	NA	NA	NA	NA	
	Total Silicon				NA		

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

NA = Not applicable.

BC = Results reported are not blank corrected.

DE = Results reported are corrected for desorption efficiency.

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY Page 1 of 1

Client: SCS Engineers

Client Sample ID: Duplicate Lab Control Sample
Client Project ID: Rodefeld Landfill / 25213005.03

ALS Project ID: P1700130

ALS Sample ID: P170119-DLCS

Test Code: GC/MS Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA
Analyst: Evelyn Alvarez Date Analyzed: 1/19/17
Sampling Type: Siloxane Tube Volume(s) Analyzed: NA Liter(s)

Test Notes:

		Spike Amount	Re	sult			ALS			
CAS#	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/ml	μg/ml	μg/ml	LCS	DLCS	Limits		Limit	Qualifier
1066-40-6	Trimethylsilanol	9.89	8.70	9.35	88	95	70-130	8	30	
107-46-0	Hexamethyldisiloxane	10.6	10.7	11.5	101	108	70-130	7	30	
541-05-9	Hexamethylcyclotrisiloxane	11.2	10.9	11.8	97	105	70-130	8	30	
107-51-7	Octamethyltrisiloxane	11.3	11.3	12.2	100	108	70-130	8	30	
556-67-2	Octamethylcyclotetrasiloxane	11.3	11.4	12.2	101	108	70-130	7	30	
141-62-8	Decamethyltetrasiloxane	11.2	11.3	12.4	101	111	70-130	9	30	
541-02-6	Decamethylcyclopentasiloxane	10.7	10.9	11.8	102	110	70-130	8	30	
141-63-9	Dodecamethylpentasiloxane	11.2	11.6	12.6	104	113	70-130	8	30	
540-97-6	Dodecamethylcyclohexasiloxane	10.9	11.1	12.1	102	111	70-130	8	30	

APPENDIX C - HISTORICAL GAS LABORATORY RESULTS



Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- · Results; and
- Chain of Custody (copy).



WORK ORDER #: 0703652A

Work Order Summary

CLIENT:

Mr. Mark Torresani

BILL TO: Mr. Mark Torresani

RMT, Inc.

744 Heartland Trail Madison, WI 53717

744 Heartland Trail Madison, WI 53717

608-831-4444

RMT, Inc.

P.O. #

6198.04

FAX:

PHONE:

608-831-3334

PROJECT #

6198.04 Rodefeld Landfill

DATE RECEIVED: DATE COMPLETED: 03/29/2007 04/03/2007

CONTACT: Brandon Dunmore

			RECEIPT
FRACTION #	NAME	<u>TEST</u>	<u>VAC,/PRES.</u>
01A	Blower Outlet	Modified TO-15	4.5 "Hg
01AA	Blower Outlet Duplicate	Modified TO-15	4.5 "Hg
02A	Lab Blank	Modified TO-15	NA
03A	CCV	Modified TO-15	NA
04A	LCS	Modified TO-15	NA

CERTIFIED BY:

Sinda S. Fruman

DATE:

04/03/07

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004

NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE Modified TO-15 RMT, Inc. Workorder# 0703652A

One 6 Liter Summa Canister sample was received on March 29, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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

Requirement	TO-15	ATL Modifications
Daily CCV	+- 30% Difference	<= 30% Difference with two allowed out up to <=40%.; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
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 no 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.
 - 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



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

Client Sample ID: Blower Outlet

Lab ID#: 0703652A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	79	990	390	4900
Vinyl Chloride	79	740	200	1900
Freon 11	79	150	440	860
Ethanol	320	5000	600	9500
Acetone	320	2800	750	6600
2-Propanol	320	1400	780	3500
Carbon Disulfide	79	81	250	250
Methylene Chloride	79	210	270	740
Hexane	79	1300	280	4400
1,1-Dichloroethane	79	140	320	560
2-Butanone (Methyl Ethyl Ketone)	· 79	3800	230	11000
cis-1,2-Dichloroethene	79	710	310	2800
Tetrahydrofuran	79	3200	230	9600
Cyclohexane	79	1300	270	4500
2,2,4-Trimethylpentane	79	570	370	2600
Benzene	79	660	250	2100
Heptane	79	1900	320	8000
Trichloroethene	79	290	420	1600
4-Methyl-2-pentanone	79	320	320	1300
Toluene	79	19000	300	70000
Tetrachloroethene	79	240	540	1700
Chlorobenzene	79	110	360	490
Ethyl Benzene	79	5200	340	23000
m,p-Xylene	79	8800	340	38000
o-Xylene	79	2600	340	11000
Styrene	79	440	340	1900
Propylbenzene	79	280	390	1400
4-Ethyltoluene	79	910	390	4500
1,3,5-Trimethylbenzene	79	340	390	1700
1,2,4-Trimethylbenzene	79	860	390	4200
1,4-Dichlorobenzene	79	260	480	1600

Client Sample ID: Blower Outlet Duplicate

Lab ID#: 0703652A-01AA

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Freon 12	79	920	390	4500



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

Client Sample ID: Blower Outlet Duplicate

Lab ID#: 0703652A-01AA				
Vinyl Chloride	79	700	200	1800
Freon 11	79	140	440	820
Ethanol	320	5400	600	10000
Acetone	320	2900	750	6800
2-Propanol	320	1500	780	3700
Carbon Disulfide	79	88	250	270
Methylene Chloride	79	210	270	740
Hexane	79	1300	280	4700
1,1-Dichloroethane	79	140	320	570
2-Butanone (Methyl Ethyl Ketone)	79	4000	230	12000
cis-1,2-Dichloroethene	79	730	310	2900
Tetrahydrofuran	79	3400	230	9900
Cyclohexane	79	1400	270	4700
2,2,4-Trimethylpentane	79	580	370	2700
Benzene	79	660	250	2100
Heptane	79	2000	320	8200
Trichloroethene	79	290	420	1600
4-Methyl-2-pentanone	79	320	320	1300
Toluene	79	19000	300	71000
Tetrachloroethene	79	260	540	1800
Chlorobenzene	79	110	360	520
Ethyl Benzene	79	5300	340	23000
m,p-Xylene	79	9100	340	39000
o-Xylene	79	2800	340	12000
Styrene	79	480	340	2000
Propylbenzene	79	300	390	1500
4-Ethyltoluene	79	1000	390	4900
1,3,5-Trimethylbenzene	79	360	390	1700
1,2,4-Trimethylbenzene	79	950	390	4700
1,4-Dichlorobenzene	79	330	480	2000



Client Sample ID: Blower Outlet Lab ID#: 0703652A-01A

File Name: Dil. Factor:	t040213 158		Date of Collection: Date of Analysis: 4	
	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Freon 12	79	990	390	4900
Freon 114	79	Not Detected	550	Not Detected
Chloromethane	320	Not Detected	650	Not Detected
Vinyl Chloride	79	740	200	1900
1,3-Butadiene	79	Not Detected	170	Not Detected
Bromomethane	79	Not Detected	310	Not Detected
Chloroethane	79	Not Detected	210	Not Detected
Freon 11	79	150	440	860
Ethanol	320	5000	600	9500
Freon 113	79	Not Detected	600	Not Detected
1,1-Dichloroethene	79	Not Detected	310	Not Detected
Acetone	320	2800	750	6600
2-Propanol	320	1400	780	3500
Carbon Disulfide	79	81	250	250
3-Chloropropene	320	Not Detected	990	Not Detected
Methylene Chloride	79	210	270	740
Methyl tert-butyl ether	79	Not Detected	280	Not Detected
trans-1,2-Dichloroethene	79	Not Detected	310	Not Detected
Hexane	79	1300	280	4400
1,1-Dichloroethane	79	140	320	560
2-Butanone (Methyl Ethyl Ketone)	79	3800	230	11000
cis-1,2-Dichloroethene	79	710	310	2800
Tetrahydrofuran	79	3200	230	9600
Chloroform	79	Not Detected	380	Not Detected
1,1,1-Trichloroethane	79	Not Detected	430	Not Detected
Cyclohexane	79	1300	270	4500
Carbon Tetrachloride	79	Not Detected	500	Not Detected
2,2,4-Trimethylpentane	79	570	370	2600
Benzene	79	660	250	2100
1,2-Dichloroethane	79	Not Detected	320	Not Detected
Heptane	79	1900	320	8000
Trichloroethene	79	290	420	1600
1,2-Dichloropropane	79	Not Detected	360	Not Detected
1,4-Dioxane	320	Not Detected	1100	Not Detected
Bromodichloromethane	79	Not Detected	530	Not Detected
cis-1,3-Dichloropropene	79	Not Detected	360	Not Detected
4-Methyl-2-pentanone	79	320	320	1300
Toluene	79	19000	300	70000
trans-1,3-Dichloropropene	79	Not Detected	360	Not Detected



Client Sample ID: Blower Outlet

Lab ID#: 0703652A-01A

File Name: Dil. Factor:	t040213 158		Date of Collection: Date of Analysis: 4	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	79	Not Detected	430	Not Detected
Tetrachloroethene	79	240	540	1700
2-Hexanone	320	Not Detected	1300	Not Detected
Dibromochloromethane	79	Not Detected	670	Not Detected
1,2-Dibromoethane (EDB)	79	Not Detected	610	Not Detected
Chlorobenzene	79	110	360	490
Ethyl Benzene	79	5200	340	23000
m,p-Xylene	79	8800	340	38000
o-Xylene	79	2600	340	11000
Styrene	79	440	340	1900
Bromoform	79	Not Detected	820	Not Detected
Cumene	79	Not Detected	390	Not Detected
1,1,2,2-Tetrachioroethane	79	Not Detected	540	Not Detected
Propylbenzene	79	280	390	1400
4-Ethyltoluene	79	910	390	4500
1,3,5-Trimethylbenzene	79	340	390	1700
1,2,4-Trimethylbenzene	79	860	390	4200
1,3-Dichlorobenzene	79	Not Detected	480	Not Detected
1,4-Dichlorobenzene	79	260	480	1600
alpha-Chlorotoluene	79	Not Detected	410	Not Detected
1,2-Dichlorobenzene	79	Not Detected	470	Not Detected
1,2,4-Trichlorobenzene	320	Not Detected	2300	Not Detected
Hexachlorobutadiene	320	Not Detected	3400	Not Detected
Container Type: 6 Liter Summa C	Canister			
Surrogates	# 100 P	%Recovery		Method Limits
Toluene-d8		100	· —————	70-130
1,2-Dichloroethane-d4		100		70-130
4-Bromofluorobenzene		100		70-130



Client Sample ID: Blower Outlet Duplicate

Lab ID#: 0703652A-01AA

File Name: Dil. Factor:	t040214 158		Date of Collection: Date of Analysis: 4	
	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Freon 12	79	920	390	4500
Freon 114	79	Not Detected	550	Not Detected
Chloromethane	320	Not Detected	650	Not Detected
Vinyl Chloride	79	700	200	1800
1,3-Butadiene	79	Not Detected	170	Not Detected
Bromomethane	79	Not Detected	310	Not Detected
Chloroethane	79	Not Detected	210	Not Detected
Freon 11	79	140	440	820
Ethanol	320	5400	600	10000
Freon 113	79	Not Detected	600	Not Detected
1,1-Dichloroethene	79	Not Detected	310	Not Detected
Acetone	320	2900	750	6800
2-Propanol	320	1500	780	3700
Carbon Disulfide	79	88	250	270
3-Chloropropene	320	Not Detected	990	Not Detected
Methylene Chloride	79	210	270	740
Methyl tert-butyl ether	79	Not Detected	280	Not Detected
trans-1,2-Dichloroethene	79	Not Detected	310	Not Detected
Hexane	79	1300	280	4700
1,1-Dichloroethane	79	140	320	570
2-Butanone (Methyl Ethyl Ketone)	79	4000	230	12000
cis-1,2-Dichloroethene	79	730	310	2900
Tetrahydrofuran	79	3400	230	9900
Chloroform	79	Not Detected	380	Not Detected
1,1,1-Trichloroethane	79	Not Detected	430	Not Detected
Cyclohexane	79	1400	270	4700
Carbon Tetrachloride	79	Not Detected	500	Not Detected
2,2,4-Trimethylpentane	79	580	370	2700
Benzene	79	660	250	2100
1,2-Dichloroethane	79	Not Detected	320	Not Detected
Heptane	79	2000	320	8200
Trichloroethene	79	290	420	1600
1,2-Dichloropropane	79	Not Detected	360	Not Detected
1,4-Dioxane	320	Not Detected	1100	Not Detected
Bromodichloromethane	79	Not Detected	530	Not Detected
cis-1,3-Dichloropropene	79	Not Detected	360	Not Detected
4-Methyl-2-pentanone	79	320	320	1300
Toluene	79	19000	300	71000
trans-1,3-Dichloropropene	79	Not Detected	360	Not Detected



Client Sample ID: Blower Outlet Duplicate

Lab ID#: 0703652A-01AA

File Name: Dil. Factor:	t040214 158		Date of Collection:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	79	Not Detected	430	Not Detected
Tetrachloroethene	79	260	540	1800
2-Hexanone	320	Not Detected	1300	Not Detected
Dibromochloromethane	79	Not Detected	670	Not Detected
1,2-Dibromoethane (EDB)	79	Not Detected	610	Not Detected
Chlorobenzene	79	110	360	520
Ethyl Benzene	79	5300	340	23000
m,p-Xylene	79	9100	340	39000
o-Xylene	79	2800	340	12000
Styrene	79	480	340	2000
Bromoform	79	Not Detected	820	Not Detected
Cumene	79	Not Detected	390	Not Detected
1,1,2,2-Tetrachloroethane	. 79	Not Detected	540	Not Detected
Propylbenzene	79	300	390	1500
4-Ethyltoluene	79	1000	390	4900
1,3,5-Trimethylbenzene	79	360	390	1700
1,2,4-Trimethylbenzene	79	950	390	4700
1,3-Dichlorobenzene	79	Not Detected	480	Not Detected
1,4-Dichlorobenzene	79	330	480	2000
alpha-Chlorotoluene	79	Not Detected	410	Not Detected
1,2-Dichlorobenzene	79	Not Detected	470	Not Detected
1,2,4-Trichlorobenzene	320	Not Detected	2300	Not Detected
Hexachlorobutadiene	320	Not Detected	3400	Not Detected
Container Type: 6 Liter Summa C	anister			
Surrogates		%Recovery		Method Limits
Toluene-d8		99	, 40 d J	70-130
1,2-Dichloroethane-d4		98		70-130
4-Bromofluorobenzene		102		70-130



Client Sample ID: Lab Blank Lab ID#: 0703652A-02A

File Name: Dil. Factor:	t040212 1.00		Date of Collection: No. 10 Date of Analysis: 4	
	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected



Client Sample ID: Lab Blank Lab ID#: 0703652A-02A

File Name: Dil. Factor:	t040212 1.00		Date of Collection: Date of Analysis: 4	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
1-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Container Type: NA - Not Applicable				
				Method
Surrogates		%Recovery		Limits
Foluene-d8		96		70-130
l,2-Dichloroethane-d4		100		70-130

		Method Limits	
Surrogates	%Recovery		
Toluene-d8	96	70-130	
1,2-Dichloroethane-d4	100	70-130	
4-Bromofluorobenzene	91	70-130	



Client Sample ID: CCV Lab ID#: 0703652A-03A

File Name: t040202 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 4/2/07 08:26 AM

Compound	%Recovery
Freon 12	98
Freon 114	104
Chloromethane	99
Vinyl Chloride	92
1,3-Butadiene	95
Bromomethane	94
Chloroethane	83
Freon 11	105
Ethanol	92
Freon 113	98
1,1-Dichloroethene	97
Acetone	91
2-Propanol	92
Carbon Disulfide	97
3-Chloropropene	92
Methylene Chloride	98
Methyl tert-butyl ether	98
trans-1,2-Dichloroethene	96
Hexane	90
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	91
cis-1,2-Dichloroethene	97
Tetrahydrofuran	92
Chloroform	95
1,1,1-Trichloroethane	100
Cyclohexane	93
Carbon Tetrachloride	106
2,2,4-Trimethylpentane	93
Benzene	92
1,2-Dichloroethane	103
Heptane	98
Trichloroethene	100
1,2-Dichloropropane	. 95
1,4-Dioxane	96
Bromodichloromethane	103
cis-1,3-Dichloropropene	99
4-Methyl-2-pentanone	95
Toluene	97
trans-1,3-Dichloropropene	98



Client Sample ID: CCV Lab ID#: 0703652A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	t040202 Date of Collection: NA
Dil. Factor:	1.00 Date of Analysis: 4/2/07 08:26 AM

Compound	%Recovery
1,1,2-Trichloroethane	96
Tetrachloroethene	93
2-Hexanone	93
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	100
Chlorobenzene	96
Ethyl Benzene	94
m,p-Xylene	93
o-Xylene	93
Styrene	84
Bromoform	110
Cumene	80
1,1,2,2-Tetrachloroethane	93
Propylbenzene	91
4-Ethyltoluene	92
1,3,5-Trimethylbenzene	87
1,2,4-Trimethylbenzene	86
1,3-Dichlorobenzene	89
1,4-Dichlorobenzene	88
alpha-Chlorotoluene	97
1,2-Dichlorobenzene	87
1,2,4-Trichlorobenzene	102
Hexachlorobutadiene	94

Container Type: NA - Not Applicable

		Method	
Surrogates	%Recovery	Limits	
Toluene-d8	98	70-130	
1,2-Dichloroethane-d4	98	70-130	
4-Bromofluorobenzene	105	70-130	



Client Sample ID: LCS

Lab ID#: 0703652A-04A

F-1 51	1010000	D (10 " " NI
File Name:	t040203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/2/07 09:09 AM
Diff actor,	1,00	Date Of Allarysis. TIZIOT 03.03 AN

Compound	%Recovery
Freon 12	84
Freon 114	72
Chloromethane	83
Vinyl Chloride	81
1,3-Butadiene	84
Bromomethane	88
Chloroethane	80
Freon 11	97
Ethanol	100
Freon 113	104
1,1-Dichloroethene	103
Acetone	95
2-Propanol	97
Carbon Disulfide	92
3-Chloropropene	89
Methylene Chloride	94
Methyl tert-butyl ether	95
trans-1,2-Dichloroethene	91
Hexane	88
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	89
cis-1,2-Dichloroethene	93
Tetrahydrofuran	89
Chloroform	90
1,1,1-Trichloroethane	94
Cyclohexane	89
Carbon Tetrachloride	98
2,2,4-Trimethylpentane	88
Benzene	89
1,2-Dichloroethane	99
Heptane	95
Trichloroethene	96
1,2-Dichloropropane	91
1,4-Dioxane	91
Bromodichloromethane	98
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	96
Toluene	97
trans-1,3-Dichloropropene	90



Client Sample ID: LCS Lab ID#: 0703652A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Ello	Name:	t040	202	Data (of Collection: NA
	Haine,	1040	200	Date	A COMECHOIL, INA
- A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A					
	Factor:	· ·	.00	Date (of Analysis: 4/2/07 09:09 AM
2000000	1 40.01,		,00	Date	Allalysis. Tible outer Alli

Compound	%Recovery
1,1,2-Trichloroethane	90
Tetrachloroethene	89
2-Hexanone	93
Dibromochloromethane	100
1,2-Dibromoethane (EDB)	91
Chlorobenzene	91
Ethyl Benzene	90
m,p-Xylene	89
o-Xylene	90
Styrene	85
Bromoform	108
Cumene	81
1,1,2,2-Tetrachloroethane	91
Propylbenzene	92
4-Ethyltoluene	93
1,3,5-Trimethylbenzene	85
1,2,4-Trimethylbenzene	85
1,3-Dichlorobenzene	89
1,4-Dichlorobenzene	88
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	87
1,2,4-Trichlorobenzene	106
Hexachlorobutadiene	97

Container Type: NA - Not Applicable

	•	Method	
Surrogates	%Recovery	Limits	
Toluene-d8	99	70-130	
1,2-Dichloroethane-d4	96	70-130	
4-Bromofluorobenzene	108	70-130	



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- Work order Summary;
- Laboratory Narrative;
- · Results; and
- Chain of Custody (copy).



WORK ORDER #: 0703652B

Work Order Summary

CLIENT:

Mr. Mark Torresani

BILL TO: Mr. Mark Torresani

RMT, Inc.

RMT, Inc.

744 Heartland Trail

744 Heartland Trail Madison, WI 53717

Madison, WI 53717

PHONE:

608-831-4444

P.O. #

6198.04

FAX:

608-831-3334

PROJECT#

6198.04 Rodefeld Landfill

DATE RECEIVED:

03/29/2007

CONTACT:

Brandon Dunmore

DATE COMPLETED:

04/03/2007

FRACTION#	NAME	TEST	RECEIPT VAC,/PRES.
01A	Blower Outlet	Modified ASTM D-1945	4.5 "Hg
02A	Lab Blank	Modified ASTM D-1945	NA
02B	Lab Blank	Modified ASTM D-1945	NA
03A	LCS	Modified ASTM D-1945	NA
03B	LCS	Modified ASTM D-1945	NA

CERTIFIED BY:

04/03/07

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004

NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07

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LABORATORY NARRATIVE Modified ASTM D-1945 RMT, Inc. Workorder# 0703652B

One 6 Liter Summa Canister sample was received on March 29, 2007. The laboratory performed analysis via modified ASTM Method D-1945 for Methane and fixed gases in natural gas using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample. See the data sheets for the reporting limits for each compound.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Method modifications taken to run these samples include:

Requirement	ASTM D-1945	ATL Modifications
Normalization	Sum of original values should not differ from 100.0% by more than 1.0%.	Sum of original values may range between 75-125%. Normalization of data not performed.
Sample analysis	Equilibrate samples to 20-50° F. above source temperature at field sampling	No heating of samples is performed.
Sample calculation	Response factor is calculated using peak height for C5 and lighter compounds.	Peak areas are used for all target analytes to quantitate concentrations.
Reference Standard	Concentration should not be < half of nor differ by more than 2 X the concentration of the sample. Run 2 consecutive checks; must agree within 1%.	A minimum 3-point linear calibration is performed. The acceptance criterion is %RSD = 25%. All target analytes must be within the linear range of calibration (with the exception of O2, N2, and C6+ Hydrocarbons).</td
Sample Injection Volume	0.50 mL to achieve Methane linearity.	1.0 mL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Since Nitrogen is used to pressurize samples, the Nitrogen values are calculated by adding all the sample components and subtracting from 100%.



Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:

- 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 detection limit.
- M Reported value may be biased due to apparent matrix interferences.

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



Summary of Detected Compounds NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: Blower Outlet

Lab ID#: 0703652B-01A

Dut Limit	A a
(%)	Amount (%)
0.16	0.32
0.16	1.7
0.00016	56
0.016	42
	0.16 0.16 0.00016



Client Sample ID: Blower Outlet

Lab ID#: 0703652B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: Dil. Factor:	9040212 1.58		Collection: 3/28/07 Analysis: 4/2/07 01:37 PM
Compound		Rpt. Limit (%)	Amount (%)
Oxygen		0.16	0.32
Nitrogen		0.16	1.7
Carbon Monoxide		0.016	Not Detected
Methane		0.00016	56
Carbon Dioxide		0.016	42
Ethane		0.0016	Not Detected
Ethene		0.0016	Not Detected
Acetylene		0.0016	Not Detected
Propane		0.0016	Not Detected
Isobutane		0.0016	Not Detected
Butane		0.0016	Not Detected
Neopentane		0.0016	Not Detected
Isopentane		0.0016	Not Detected
Pentane		0.0016	Not Detected
C6+		0.016	Not Detected
Hydrogen		0.016	Not Detected

Container Type: 6 Liter Summa Canister



Client Sample ID: Lab Blank

Lab ID#: 0703652B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: Dil. Factor:	9040210 1.00		Collection: NA Analysis: 4/2/07 12:03 PM
Compound		Rpt. Limit (%)	Amount (%)
Oxygen		0.10	Not Detected
Nitrogen		0.10	Not Detected
Carbon Monoxide		0.010	Not Detected
Methane		0.00010	Not Detected
Carbon Dioxide		0.010	Not Detected
Ethane		0.0010	Not Detected
Ethene		0.0010	Not Detected
Acetylene		0.0010	Not Detected
Propane		0.0010	Not Detected
sobutane		0.0010	Not Detected
Butane		0.0010	Not Detected
Neopentane		0.0010	Not Detected
sopentane		0.0010	Not Detected
Pentane		0.0010	Not Detected
C6+		0.010	Not Detected



Client Sample ID: Lab Blank Lab ID#: 0703652B-02B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9040209b	Date of Co	ollection: NA
Dil. Factor:	1.00	Date of A	nalysis: 4/2/07 11:33 AM
	R	ot. Limit	Amount
Compound		(%)	(%)
Hydrogen		0.010	Not Detected



Client Sample ID: LCS Lab ID#: 0703652B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	0.40000 D.4FO-U
File Name: 9i	040208 Date of Collection: NA
	Date of Concount, 147
Dil Fastavi	4.00 D / CA / T 4/0/07 44.07 448
Dil. Factor:	1.00 Date of Analysis: 4/2/07 11:07 AM
	Dute of Attack of Attack Attack

Compound	%Recovery
Oxygen	95
Nitrogen	99
Carbon Monoxide	99
Methane	102
Carbon Dioxide	102
Ethane	104
Ethene	102
Acetylene	101
Propane	99
Isobutane	105
Butane	108
Neopentane	107
Isopentane	101
Pentane	98
C6+	99



Client Sample ID: LCS Lab ID#: 0703652B-03B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9040207b Date of Collection: NA Dil. Factor: 1.00 Date of Analysis: 4/2/07 10:39 AM			
20 TO 20	File Name: 004	0207h	Date of Collection: NA
Dil. Factor:			
	Dil. Factor:	1.00	Date of Analysis: 4/2/07 10:39 AM

Compound %Recovery

Hydrogen 94



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WORK ORDER #: 0703652C

Work Order Summary

CLIENT:

Mr. Mark Torresani

BILL TO: Mr. Mark Torresani

RMT, Inc.

RMT, Inc.

744 Heartland Trail Madison, WI 53717 744 Heartland Trail

Madison, WI 53717

PHONE:

608-831-4444

P.O. #

6198.04

FAX:

608-831-3334

PROJECT #

6198.04 Rodefeld Landfill

DATE RECEIVED: DATE COMPLETED: 03/29/2007

CONTACT:

Brandon Dunmore

04/03/2007

FRACTION#

NAME

TEST

01A 01AA 72122 (Front Half)

Siloxanes

01B

72122 (Front Half) Duplicate

Siloxanes

02A

72123 (Back Half) Lab Blank

Siloxanes Siloxanes

03A

LCS

Siloxanes

CERTIFIED BY:

Sinda S. Fruman

Laboratory Director

DATE:

04/03/07



LABORATORY NARRATIVE Siloxanes RMT, Inc. Workorder# 0703652C

Two Vial samples were received on March 29, 2007. The laboratory performed analysis for siloxanes by GC/MS. A sample volume of 1.0 uL was injected directly onto the GC column. Initial results are in ug/mL. The units are converted to total micrograms (ug) by multiplying the result (ug/mL) by the total volume (mL) contained in the impinger. See the data sheets for the reporting limits for each compound.

Receiving Notes

The ice included in the sample shipment melted during transit, therefore the temperature at receipt was greater than 6 °C. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the analysis proceeded.

Analytical Notes

Impinger volumes were measured at the laboratory using a graduated cylinder and documented in the analytical logbook.

Sampling volume was supplied by the client. A sample volume of 26.0 L was assumed for all QC samples.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:

- B Compound present in laboratory blank greater than reporting limit.
- J Estimated Value.
- E Exceeds instrument calibration range.
- S Saturated peak.
- Q Exceeds quality control limits.
- M Reported value may be biased due to apparent matrix interferences.

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



Summary of Detected Compounds SILOXANES - GC/MS

Client Sample ID: 72122 (Front Half)

Lab ID#: 0703652C-01A

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Octamethylcyclotetrasiloxane (D4)	43	560	520	6800
Decamethylcylopentasiloxane (D5)	34	410	520	6300

Client Sample ID: 72122 (Front Half) Duplicate

Lab ID#: 0703652C-01AA

1	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Octamethylcyclotetrasiloxane (D4)	43	600	520	7200
Decamethylcylopentasiloxane (D5)	34	430	520	6500

Client Sample ID: 72123 (Back Half)

Lab ID#: 0703652C-01B

No Detections Were Found.



Client Sample ID: 72122 (Front Half)

Lab ID#: 0703652C-01A SILOXANES - GC/MS

File Name: Dil. Factor:	k032915 1.00		Date of Collection: Date of Analysis: 3	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/mȝ)
Octamethylcyclotetrasiloxane (D4)	43	560	520	6800
Decamethylcylopentasiloxane (D5)	34	410	520	6300
Dodecamethylcyclohexasiloxane (D6)	57	Not Detected	1000	Not Detected
Hexamethyldisiloxane	78	Not Detected	520	Not Detected
Octamethyltrisiloxane	54	Not Detected	520	Not Detected

Air Sample Volume(L): 26.1 Impinger Total Volume(mL): 13.6

Container Type: Vial

		Method	
Surrogates	%Recovery	Limits	
Hexamethyl disiloxane -d18	91	70-130	



Client Sample ID: 72122 (Front Half) Duplicate

Lab ID#: 0703652C-01AA

SILOXANES - GC/MS

File Name: Dil. Factor:	k032917 1.00		Date of Collection:	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Date of Analysis: 3 Rpt. Limit (uG/m3)	Amount (uG/m3)
Octamethylcyclotetrasiloxane (D4)	43	600	520	7200
Decamethylcylopentasiloxane (D5)	34	430	520	6500
Dodecamethylcyclohexasiloxane (D6)	57	Not Detected	1000	Not Detected
Hexamethyldisiloxane	78	Not Detected	520	Not Detected
Octamethyltrisiloxane	54	Not Detected	520	Not Detected

Air Sample Volume(L): 26.1 Impinger Total Volume(mL): 13.6

Container Type: Vial

		Method
Surrogates	%Recovery	Limits
Hexamethyl disiloxane -d18	92	70-130



Client Sample ID: 72123 (Back Half)

Lab ID#: 0703652C-01B SILOXANES - GC/MS

File Name: k032916 Dil. Factor: 1.00		Date of Collection: 3/28/07 Date of Analysis: 3/29/07 06:58 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Octamethylcyclotetrasiloxane (D4)	48	Not Detected	580	Not Detected
Decamethylcylopentasiloxane (D5)	38	Not Detected	580	Not Detected
Dodecamethylcyclohexasiloxane (D6)	64	Not Detected	1200	Not Detected
Hexamethyldisiloxane	87	Not Detected	580	Not Detected
Octamethyltrisiloxane	60	Not Detected	580	Not Detected

Air Sample Volume(L): 26.1 Impinger Total Volume(mL): 15.1

Container Type: Vial

		Method
Surrogates	%Recovery	Limits
Hexamethyl disiloxane -d18	92	70-130



Client Sample ID: Lab Blank Lab ID#: 0703652C-02A SILOXANES - GC/MS

File Name: Dil. Factor:	k032905 1.00		Date of Collection: Date of Analysis: 3	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Octamethylcyclotetrasiloxane (D4)	3.2	Not Detected	38	Not Detected
Decamethylcylopentasiloxane (D5)	2.5	Not Detected	38	Not Detected
Dodecamethylcyclohexasiloxane (D6)	4.2	Not Detected	77	Not Detected
Hexamethyldisiloxane	5.8	Not Detected	38	Not Detected
Octamethyltrisiloxane	4.0	Not Detected	38	Not Detected

Air Sample Volume(L): 26.0 Impinger Total Volume(mL): 1.00 Container Type: NA - Not Applicable

· · · · · · · · · · · · · · · · · · ·		Method	
Surrogates	%Recovery	Limits	
Hexamethyl disiloxane -d18	91	70-130	



Client Sample ID: LCS Lab ID#: 0703652C-03A SILOXANES - GC/MS

File Name:		
	k032904	ollection: NA
Dil. Factor:		
	1.00	nalvsis: 3/29/07 02:07 PM

Compound	%Recovery
Octamethylcyclotetrasiloxane (D4)	94
Decamethylcylopentasiloxane (D5)	105
Dodecamethylcyclohexasiloxane (D6)	Not Spiked
Hexamethyldisiloxane	95
Octamethyltrisiloxane	93

Air Sample Volume(L): 26.0 Impinger Total Volume(mL): 1.00 Container Type: NA - Not Applicable

		Method
Surrogates	%Recovery	Limits
Hexamethyl disiloxane -d18	95	70-130



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WORK ORDER #: 0703652D

Work Order Summary

CLIENT:

Mr. Mark Torresani

BILL TO: Mr. Mark Torresani

RMT, Inc.

RMT, Inc. 744 Heartland Trail

744 Heartland Trail

Madison, WI 53717

Madison, WI 53717

PHONE:

FAX:

608-831-4444

6198.04 P.O. #

608-831-3334

PROJECT #

6198.04 Rodefeld Landfill

DATE RECEIVED: DATE COMPLETED: 03/29/2007 04/02/2007

CONTACT: Brandon Dunmore

FRACTION #	NAME
01A	72124
01AA	72124 Duplicate
02A(on hold)	72125
03A	Lab Blank
04A	LCS

	RECEIPT
<u>TEST</u>	VAC./PRES.
ASTM D-5504	Tedlar Bag
ASTM D-5504	Tedlar Bag
ASTM D-5504	Tedlar Bag
ASTM D-5504	NA
ASTM D-5504	NA

CERTIFIED BY:

Sinda d. Fruman

04/02/07 DATE:

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004 NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07

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LABORATORY NARRATIVE ASTM D-5504 RMT, Inc. Workorder# 0703652D

Two 1 Liter Tedlar Bag samples were received on March 29, 2007. The laboratory performed the analysis of sulfur compounds via ASTM D-5504 using GC/SCD. The method involves direct injection of the air sample into the GC via a fixed 1.0 mL sampling loop. See the data sheets for the reporting limits for each compound.

Receiving Notes

Sample 72125 was placed on hold per the client's request.

Analytical Notes

Samples 72124 and 72124 Duplicate were received with insufficient time remaining to analyze within the method specified 24 hour hold time.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M Reported value may be biased due to apparent matrix interferences.

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



Summary of Detected Compounds SULFUR GASES BY ASTM D-5504 GC/SCD

Client Sample ID: 72124 Lab ID#: 0703652D-01A

	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)
Hydrogen Sulfide	2400	180000

Client Sample ID: 72124 Duplicate

Lab ID#: 0703652D-01AA

	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)
Hydrogen Sulfide	2400	170000



Client Sample ID: 72124 Lab ID#: 0703652D-01A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	b032914		ection: 3/28/07
Dil. Factor:	600 Rr	Date of Ana ot, Limit	lysis: 3/29/07 02:14 PM Amount
Compound	•	ppbv)	(ppbv)
Hydrogen Sulfide		2400	180000

Container Type: 1 Liter Tedlar Bag



Client Sample ID: 72124 Duplicate Lab ID#: 0703652D-01AA

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name: Dil. Factor:	b032915 600		f Collection: 3/28/07 f Analysis: 3/29/07 02:35 PM
Compound		Rpt. Limit (ppbv)	Amount (ppbv)
Hydrogen Sulfide		2400	170000

Container Type: 1 Liter Tedlar Bag



Client Sample ID: Lab Blank Lab ID#: 0703652D-03A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	ь032903	Date of C	ollection: NA
Dil. Factor:	1.00	Date of A	nalysis: 3/29/07 10:06 AM
	Rp	t. Limit	Amount
Compound	()	(ppbv)	
Hydrogen Sulfide		4.0	Not Detected



Client Sample ID: LCS Lab ID#: 0703652D-04A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name: b032902 Date of Collection: NA	
File Name: b032902 Date of Collection: NA	
Dil. Factor: 1.00 Date of Analysis: 3/29/07 09:04 AM	
Dil. Factor: 1.00 Date of Analysis: 3/29/07 09:04 AM	
Dil. I doloi. Date of Affaiyata. 0/20/01 03:04 Affa	

Compound

Hydrogen Sulfide

%Recovery 97

APPENDIX D – CHILLER SPECIFICATIONS

Prepared for: Unison Solut	ions			
Dane County				
PERFORMANCE	PROCESS GAS		AMBIENT AIR	
Fluid Circulated	LFG		Air	
Volumetric Flow Rate		Std. ft^3/min	3,685 Std. ft^3/m	
Total Fluid Entering	8,460		16,582 lb/hr	
Liquid				
Vapor				
Non-Condensibles	8,460	lb/hr	16,582 lb/hr	
Vaporized or (Cond.)				
Temperature In	205		90 °F	
Temperature Out	120		151 °F	
Inlet Pressure (Absolute)		lb/in²	14.2 lb/in²	
Velocity (Standard)	1,977		879 ft/min	
Pressure Loss Fouling Factor		lb/in² ft²-°F-hr/BTU	1.1 in. water 0.0001 ft ² -°F-hr/B	
Total Heat Exchanged: 243		rc - r-mr/BTU	0.0001 1t~- F-NT/B	
Total heat Exchanged. 243	, ODA DIO/III			
PROPERTIES				
Thermal Conductivity	0.0180	BTU/hr-ft-°F	0.016 BTU/hr-ft-°	
Specific Heat		BTU/lb-°F	0.240 BTU/lb-°F	
Viscosity		lb/ft-hr	0.047 lb/ft-hr	
Density	0.0752	lb/ft^3	0.066 lb/ft^3	
Latent Heat of Vapor				
CONSTRUCTION				
Design Temperature	250		Not Applicable	
Design Pressure (Gauge)		lb/in²	Not Applicable	
Test Pressure (Gauge)		lb/in²	Not Applicable	
Cyclic Pressure Flow Direction	No Right Hand	Uorigontal	Not Applicable Horizontal - Blow Thro	
Coating	None	IIOIIZOIICAI	None	
Coucing	None		INOTIC	
Plate-Fin Core : Aluminum		Fan Hood	: Galvanized Steel	
Fan Guard : Coated C			ne : Coated Carbon Stee	
Drawing Number :		Weight	: 410 lb	
CONNECTIONS				
Process Inlet : 10 inch 1				
Process Outlet: 10 inch 1	50 lb. ANSI	RFF		
Instrument :				
MECHANICAT EQUITORENE				
MECHANICAL EQUIPMENT Fan Diameter : 24 inch		IMotor	: 2.00 HP XPID	
Fan Qty/Speed : 1 / 1725			eed: 1 / 1725 RPM	
Fan Type : 4 Blade .			rical: 230-460/3/60	
· i bidde .	iii amiiiam	1.10001 110001	100/0/00	
NOTES				
Approximate unit dimension	s (inches):	A = 30, $B = 6$	66, C = 42	
Construction material suit				
The process flow must be u	niform, smoo	th and free of	pulsation.	
This unit is not designed			essure.	
A motor access panel is in	cluded in the	e fan hood.		



