



RFP NO. 316039

DANE COUNTY DEPARTMENT OF PUBLIC WORKS,
HIGHWAY AND TRANSPORTATION

PUBLIC WORKS SOLID WASTE DIVISION
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

REQUEST FOR PROPOSALS NO. 316039
BIOGAS CLEANING EQUIPMENT FOR PIPELINE INJECTION
DANE COUNTY LANDFILL SITE #2
7102 U.S. HIGHWAY 12
MADISON, WISCONSIN

Due Date / Time: **TUESDAY, FEBRUARY 14, 2017 / 2:00 P.M.**

Location: **PUBLIC WORKS OFFICE**

Performance / Payment Bond: **100% OF CONTRACT AMOUNT**

FOR INFORMATION ON THIS REQUEST FOR BIDS, PLEASE CONTACT:

JOHN WELCH, SOLID WASTE MANAGER
TELEPHONE NO.: 608/516-4154
FAX NO.: 608/267-1533
E-MAIL: WELCH@COUNTYOFDANE.COM



Department of Public Works, Highway & Transportation
Public Works Solid Waste Division

608/266-4018

Gerald J. Mandli, P.E.
Commissioner / Director

Joseph T. Parisi
County Executive

Associate Director
Rob Nebel

Solid Waste Manager
John Welch, P.E.

1919 Alliant Energy Center Way
Madison, Wisconsin 53713
Fax: 608/267-1533

www.countyofdane.com/pwht/public_works.aspx

January 3, 2017

INVITATION FOR PROPOSALS

You are invited to submit a Proposal for RFP No. 316039 to provide Biogas Cleaning Equipment for Pipeline Injection at the Dane County Landfill Site #2. The Proposals are due on or before **2:00 p.m., Tuesday, February 14, 2017**. Performance and Payment bond are required for this project.

ADDITIONAL INFORMATION

Dane County is inviting Proposals for fabrication, delivery, installation, and start-up of a biogas cleaning system at the Dane County Landfill Site #2 for converting landfill gas into high BTU biomethane.

SPECIAL INSTRUCTIONS

Please be sure to complete one (1) unbound original and four (4) bound copies of the entire proposal package. To return your proposal, please follow these instructions:

1. Place the signed Signature Page on top as page 1.
2. Place the signed Fair Labor Practices Certification after the Signature Page as page 2.
3. Place the signed Addenda after the Fair Labor Practices Certification as page 3, if applicable.
4. Place the Proposal information after Fair Labor Practices Certification or Addenda.
5. Clearly label your envelope containing your proposal in the lower left-hand corner as follows:
"Proposal No. 316039
Biogas Cleaning Equipment for Pipeline Injection
2:00 p.m., Tuesday, February 14, 2017"
6. Mail to:
John Welch, Solid Waste Manager
Dane County Department of Public Works, Highway & Transportation
1919 Alliant Energy Center Way
Madison, Wisconsin 53713

If any additional information about this Request for Proposals is needed, please call John Welch at 608/516-4154 or send email to Welch@countyofdane.com.

Sincerely,

John Welch

Solid Waste Manager

Enclosure: Request for Proposals No. 316039 Package

TABLE OF CONTENTS FOR RFP NO. 316039

PROPOSAL CONTENTS

- RFP Cover
- RFP Cover Letter
- Table of Contents
- Request for Proposal (Legal Notice)
- Signature Page and Additional Dane County Requirements
- Requested Services and Business Information
- Fair Labor Practices Certification
- Sample Public Works Construction Contract
- Sample Performance Bond
- Sample Payment Bond
- Equal Benefits Compliance Payment Certification

FIGURES

- Figure 1 – Gas Well Field

APPENDICES

- Appendix A – Landfill Gas Laboratory Results
- Appendix B – Dane County Proprietary Information

LEGAL NOTICE

REQUEST FOR PROPOSALS

Dane County Public Works, Highway & Transportation Dept., 1919 Alliant Energy Center Way, Madison, WI 53713, will receive sealed Proposals until:

2:00 P.M., TUESDAY, FEBRUARY 14, 2017

REQUEST FOR PROPOSALS NO. 316039

BIOGAS CLEANING EQUIPMENT FOR PIPELINE INJECTION

DANE COUNTY LANDFILL SITE #2

7102 U.S. HIGHWAY 12

MADISON, WISCONSIN

Dane County is inviting Proposals for fabrication, delivery, installation, and start-up of a biogas cleaning system at the Dane County Landfill Site #2 for converting landfill gas into high BTU biomethane. Only firms with capabilities, experience & expertise with similar projects should obtain this Request for Proposals document & submit Proposals.

Request for Proposals document may be obtained after **2:00 p.m. on Tuesday, January 3, 2017** by downloading it from countyofdane.com/pwbids. Please call John Welch, Project Manager, at 608/516-4154, or our office at 608/266-4018, for any questions or additional information.

All Proposers must be a registered vendor with Dane County & pay an annual registration fee before award of Agreement. Complete Vendor Registration Form at danepurchasing.com/registration or obtain one by calling 608/266-4131.

PUBLISH: JANUARY 3RD & 10TH, 2017 - WISCONSIN STATE JOURNAL
JANUARY 3RD & 10TH, 2017 - THE DAILY REPORTER



SIGNATURE PAGE

County of Dane
 DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
 Room 425, City-County Building
 210 Martin Luther King, Jr. Blvd.
 Madison, Wisconsin 53703
 (608) 266-4131

COMMODITY / SERVICE: Biogas Cleaning Equipment for Pipeline Injection											
REQUEST FOR PROPOSAL NO.: 316039	PROPOSAL DUE DATE: 2/14/17	BID BOND: N/A	PERFORMANCE BOND: 100%								
<p align="center">PROPOSAL INVALID WITHOUT SIGNATURE</p> <p>THE UNDERSIGNED, SUBMITTING THIS PROPOSAL, HEREBY AGREES WITH ALL TERMS, CONDITIONS AND REQUIREMENTS OF THE ABOVE REFERENCED REQUEST FOR PROPOSAL, AND DECLARES THAT THE ATTACHED PROPOSAL AND PRICING ARE IN CONFORMITY THEREWITH.</p> <table border="1"> <tr> <td>SIGNATURE OF PROPOSER REQUIRED: (Do Not Type or Print)</td> <td>DATE:</td> </tr> <tr> <td>SUBMITTED BY: (Typed Name)</td> <td>TELEPHONE: (Include Area Code)</td> </tr> <tr> <td colspan="2">COMPANY NAME:</td> </tr> <tr> <td colspan="2">ADDRESS: (Street, City, State, Zip Code)</td> </tr> </table>				SIGNATURE OF PROPOSER REQUIRED: (Do Not Type or Print)	DATE:	SUBMITTED BY: (Typed Name)	TELEPHONE: (Include Area Code)	COMPANY NAME:		ADDRESS: (Street, City, State, Zip Code)	
SIGNATURE OF PROPOSER REQUIRED: (Do Not Type or Print)	DATE:										
SUBMITTED BY: (Typed Name)	TELEPHONE: (Include Area Code)										
COMPANY NAME:											
ADDRESS: (Street, City, State, Zip Code)											

CONTRACT COMPLIANCE PROGRAM WORKSHEET

- A. Dane County has an established Contract Compliance Program that encourages targeted groups identified below to do business with Dane County, and requires Dane County to actively solicit bids from these businesses.
- B. Information from your response to this worksheet will be entered in the Purchasing Division's Advanced Procurement Systems database to provide data that will be valuable to Dane County's Contract Compliance Program as well as establishing computerized bidder lists for future solicitations. All vendors will be added to the database whether or not they qualify as a targeted business.
- C. **Contract Compliance Program:** Following are abbreviated definitions of ethnic and group codes used by Contract Compliance Program. See reverse side for full definitions:
 - 1. DBE Disadvantaged Business Enterprise
 - 2. MBE Minority Business Enterprise
 - 3. WBE Women Business Enterprise
 - 4. ESB Emerging Small Business
- D. Please select category / categories that best describe your business by marking letter for each column in box provided at bottom of column:

<input type="checkbox"/> D	DBE	<input type="checkbox"/> B	African American	<input type="checkbox"/> L	Male	<input type="checkbox"/> E	ESB
<input type="checkbox"/> M	MBE	<input type="checkbox"/> H	Hispanic American	<input type="checkbox"/> F	Female		
<input type="checkbox"/> W	WBE	<input type="checkbox"/> N	Native American / American Indian				
		<input type="checkbox"/> A	Asian Pacific American				
		<input type="checkbox"/> I	Asian-Indian American				
↓		↓		↓		↓	
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

- E. I hereby certify that all of the above information given is true. If no category / categories are marked, I do not meet the requirements for any of the targeted groups.

Signature: _____ Date: _____

(over)

DANE COUNTY CONTRACT COMPLIANCE PROGRAM DEFINITIONS

- A. **Disadvantaged Business Enterprise (DBE):** A small business concern:
1. Which is at least fifty-one percent (51%) owned by one or more socially and economically disadvantaged individuals, or in the case of any publicly owned business, at least fifty-one percent (51%) of the stock of which is owned by one or more socially and economically disadvantaged individuals; and
 2. Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.
 3. Socially and Economically Disadvantaged Individuals:
 - a) Any person having a current Section 8 (a) Certification from the Small Business Administration is considered socially and economically disadvantaged.
 - b) Individuals who are citizens of the United States (of lawfully permanent residents) are socially and economically disadvantaged:
 - 1) Women;
 - 2) Black Americans, which includes persons having origins in any of the black racial groups of Africa;
 - 3) Hispanic Americans, which includes persons of Mexican, Puerto Rican, Cuban, Central, or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - 4) Native Americans, which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;
 - 5) Asian-Pacific Americans, which includes persons whose origins are from Burma, Thailand, Malaysian, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia, the Philippines, Samoa, Guam, the U.S. Trust territories of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, or the Commonwealth of the Northern Mariana Islands; and
 - 6) Asian-Indian Americans, which includes persons whose origins are from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal.
- B. **Minority Business Enterprise (MBE):** A minority person(s) owned and controlled independent and valid business concern. A minority person(s) must own fifty-one percent (51%) of the business and must control the management daily operation of the business.
- C. **Women Owned Enterprise (WBE):** A woman or women owned and controlled independent and valid business concern. A woman or women must own fifty-one percent (51%) of the business and must control the management daily operation of the business.
- D. **Emerging Small Business (ESB):**
1. An independent business concern that has been in business for at least one (1) year.
 2. Business is located in the State of Wisconsin.
 3. Business is comprised of less than twenty-five (25) employees.
 4. Business must not have gross sales in excess of three million over the past three (3) years.
 5. Business does not have a history of failing to complete projects.

THIS PAGE IS FOR PROPOSERS' REFERENCE AND NEED NOT BE SUBMITTED WITH PROPOSAL.

PROPOSERS SHOULD BE AWARE OF THE FOLLOWING:

DANE COUNTY VENDOR REGISTRATION PROGRAM

Any person proposing on any County contract must be registered with the Dane County Purchasing Division & pay an annual registration fee. A contract will not be awarded to an unregistered vendor. Complete a Vendor Registration Form at:

www.danepurchasing.com

or obtain one by calling 608/266-4131.

EQUAL BENEFITS REQUIREMENT

By submitting a Proposal, the contractor / consultant acknowledges that a condition of this contract is to provide equal benefits as required by Dane County Code of Ordinances Chapter 25.016. Contractor / Consultant shall provide equal benefits as required by that Ordinance to all required employees during the term of the contract. For more information:

www.danepurchasing.com/DomesticPartnerEqualBenefitRequirement

REQUESTED SERVICES AND BUSINESS INFORMATION

1. GENERAL INFORMATION

- A. Background: In 2009, the County and a local utility entered into a power purchase agreement (PPA) for renewable electricity produced from our landfill gas with fixed terms and increasing rates. That agreement is set to expire in 2019, and terms and rates would need to be renegotiated. Dane County is currently receiving approximately 12 cents per kWh with rates expected to drop significantly, potentially creating a County deficit of millions of dollars. Therefore, Dane County is looking to move away from electrical generation to pipeline injection.
- B. Gas Quantity & Quality: Dane County Landfill Site #2 is collecting approximately 1200 – 1400 standard cubic feet per minute (scfm) of biogas from anaerobic decomposition of municipal solid waste. Average methane content of the biogas is approximately 50-55%.
- C. Future Gas Quantity: Waste is still being placed in the landfill, which is expected to be open for the next 15+ years. Based upon results from the EPA LandGem Model, total gas production will reach a peak of 2,600 scfm in approximately 2030 and continue producing biogas for the next 50 years or more. This biogas cleaning system may be expanded in the future to accommodate the peak volume of landfill gas.

2. SCOPE OF WORK

- A. Project deliverables and specific tasks are detailed in the *Public Works Construction Contract*.
- B. Dane County is inviting Proposals for fabrication, delivery, installation, and start-up of a biogas cleaning system at the Dane County Landfill Site #2 for converting landfill gas into high BTU biomethane. The proposer is responsible for the installation of all electrical, mechanical, process piping, data/communications, etc. within the confines of the proposer's system or system skid. Dane County will provide all civil site work, electrical power to the system, process piping to the system, and mechanical up to the proposed system. If additional infrastructure is required (i.e. foundations, data/communications, natural gas, buildings, heating requirements, etc.), proposer shall indicate proposed infrastructure and rationale within the content of the proposal.

The proposed biogas cleaning system shall be designed to have a flexible operating range, so County can allocate assets most advantageous to Dane County. The operating range shall be a minimum flow of 500 scfm and a maximum of 1,750 scfm of landfill gas. Flexible operating range will allow Dane County the opportunity to choose between electrical generation, pipeline injection, and BioCNG for fueling County vehicles. System must be easily expanded in the future for anticipated increased landfill gas flow up to 2,600 scfm.

Dane County does not seek an “owner-operator” approach, will retain its right to all of the biomethane, and will be the sole owner and operator of the biogas cleaning system. The high BTU biomethane will be injected into an existing high pressure natural gas transmission pipeline that bisects the landfill property.

The primary function of the biogas cleaning equipment will be to achieve the pipeline quality standards set by ANR Pipeline Company (ANR). Dane County will not accept a system that does not meet those standards.

The biogas from Dane County Landfill Site #2 has been sampled and analyzed for several constituents (Table 1). Complete laboratory results are included in Appendix A for review. Average annual biogas quality readings from the last three (3) years are included in Table 2.

Additional gas testing will not be performed prior to the proposal submittal deadline. If additional information is required, proposer shall indicate testing requested within proposal and indicate the impact test results will have on proposal.

Proposing firms must let Dane County know, in writing, by February 3, 2017 if they desire to have additional historical data on Dane County landfill gas.

Respondents' proposals that are reviewed favorably by Dane County may be asked to interview or asked to provide more detailed information. Dane County acknowledges that many different types of landfill biogas cleaning systems are available and welcomes individual proposer's creativity.

Table 1. Minimum Standards for Cleaning Equipment

Natural Gas Property	Gas Sample Taken 11/10/16	ANR Pipeline Standards
Heating Value (BTU/ft ³)	565	967 - 1200
Hydrogen Sulfide (ppmv) ¹	430	< 4
Total Sulfur (ppmv) ²	435	< 320
Oxygen (% by volume)	0.32%	< 1%
Carbon Dioxide (% by volume)	37.4%	< 2 %
Nitrogen (% by volume)	6.56%	< 3%
Water Vapor (lb/1x10 ⁶ ft ³)	1,381	< 7
Temperature (°F)	123	40 < T < 120
Hydrocarbon Dewpoint (°F) ³	-151	> 15
Pressure (psig) ⁴	0.31	> 500

¹16 ppmv ~ 1 grain/100ft³

²Including the sulfur in any hydrogen sulfide and mercaptans

³Additional language in Federal Energy Regulatory Commission (FERC) Gas Tariff for ANR Pipeline Company (Third Revised Volume No. 1) – Section 6.13

⁴Additional language in FERC Gas Tariff for ANR Pipeline Company (Third Revised Volume No. 1) – Section 6.11

Table 2. Gas Quality at Dane County Landfill Site #2¹

Gas Property	Gas Data (2014) - West	Gas Data (2014) - East	Gas Data (2015) - West	Gas Data (2015) - East	Gas Data (2016) - West	Gas Data (2016) - East
Flow (scfm)	1236	293	993	260	996	280
Field Draw (inch water)	-43.6	-43.4	-40.6	-40.1	-46.6	-43.6
Methane Content (%)	49.9	48.7	53.5	49.1	53.8	47.3
Carbon Dioxide Content (%)	36.0	35.8	39.9	38.4	41.4	39.1
Oxygen Content (%)	0.9	1.2	0.3	1.6	0.3	1.5
Remaining gases (%)	13.2	14.3	6.9	10.9	4.6	12.1
Temperature (°F)	61	56	66	74	62	62

¹East and west electrical generation systems are independent with the ability to run simultaneously (i.e. each system is complete with blowers, generators, engines, transformers, etc.). Approximate division of the landfill gas well field is located in Figure 1.

3. PROPOSAL CONTENT

A. Interested consultants are requested to submit the following information in their proposal, in twelve clearly distinct sections or divisions:

1. Proposer's cover letter, Signature Page and Fair Labor Practices Certification.
2. Description of firm's qualifications, experience, organization and resources. This description must pay specific attention to the programming, planning and design of biogas cleaning equipment. Description must include:
 - a. Experience with, or involvement in developing biogas cleaning systems;
 - b. Related new design and installation experience; and
 - c. Resumes describing the professional affiliations, educational and work experiences for each of the key staff (including sub-contractors) that would be assigned to this Work; these key staff shall retain project involvement and oversight throughout the course of the Work.
3. Listing of at least three design and installation projects completed by their company that are similar to the one being proposed. Emphasis given to firm's with experience in landfill biogas. Listing shall include for each project:
 - a. Brief description of the project including services provided and size of system (e.g., structural and/or component design, MEP engineering, system controls, etc.);
 - b. Detail the proposing company's role(s) in the project;
 - c. Project references (name of the organization, contact person or responsible official, address, telephone and fax numbers, e-mail address);
 - d. Start and end dates of services; and
 - e. Specific details of originally proposed project budget and time of completion and final (actual) project budget and time of completion.
4. Description of programming, planning and design techniques to be used in approaching the Work. Close attention will be paid to the firm's knowledge and understanding of:
 - a. Size of footprint required for construction and final system;
 - b. Dust considerations;
 - c. Methods used to remove hydrogen sulfide;
 - d. Methods used to remove VOC's and siloxanes;
 - e. Methods used to remove carbon dioxide;
 - f. Methods used to remove oxygen;
 - g. Methods use to remove nitrogen for two (2) scenarios (i.e. nitrogen content up to 5% by volume and nitrogen content greater than 5% by volume);
 - h. Compressor system design;
 - i. Off-product destruction methods;
 - j. Byproduct recovery methods and uses; and
 - k. Installation, start-up, and operation of the system.

It is understood by Dane County that some of the technologies used to treat landfill gas are proprietary. If proprietary information is included in the design of the system, explain in this section following the format in Appendix B.

Detailed information about the operation and maintenance of the biogas cleaning system, including associated costs, shall also be included in this section. Information shall include, at a minimum, the following:

- l. Media and/or filter types proposed, including required change-out frequency, replacement costs, and disposal requirements;
- m. Parasitic load for system in term of electrical demand (kWh/operating hour and hp) and/or gas use;
- n. System efficiency (% of biomethane captured, cleaned, and able to be injected into pipeline);
- o. Volume of landfill gas required for byproduct destruction;
- p. Total life expectancy of all system components;
- q. Optional items to save County on operation and maintenance costs of system; and
- r. Firm must estimate the number of man hours per week or per month or per year for Dane County to operate and perform maintenance on the biogas cleaning system.

NOTE: County intends to provide all material and labor associated with operation and maintenance of system. County may be interested in giving Proposers the option to provide technical support and/or remote monitoring, attach any language required for service agreement(s). Include associated cost(s) with agreement language.

5. List **ALL** major equipment suppliers, make, model, operation parameters, and all other necessary information. If subcontractors are to be used to design, supply, or operate and maintain aspects of the entire system, they should be identified and their contribution to the project should be described.
6. Detailed information about the types of controls proposed to regulate and monitor system operation, and how the controls for each piece of equipment in the system are integrated, shall be included in this section. In addition, the type of training necessary to understand the operation of the controls should be included, as this will help Dane County in staffing operators for the proposed system.
7. Detailed information about the expandability of the system to handle the peak flow of landfill gas. List all additional equipment, system controls, footprint, and associated costs, in present value, necessary for system to handle peak landfill gas flow.
8. Indicate individual staff availability and tentative timetable (in the form of a Gantt chart) for the project development, design and installation phases, using a theoretical contract start date of May 1, 2017. Include listing of other consultants who will participate in this Work and their area of expertise.
9. Listing of any additional data/information that must be provided by the County. Indicate any County work or responsibilities, including required infrastructure beyond the confines of the cleaning system.
10. List seven (7) 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 fabrication and delivery (f.o.b. Dane County Landfill Site #2);
 - c. Stated as fixed fee for system controls and electrical;
 - d. Stated as fixed fee for system installation;
 - e. Stated as fixed fee for initial system start-up;
 - f. Stated as fixed fee for annual energy cost; and
 - g. Stated as fixed fee for annual operations and maintenance cost.

NOTE: As of January 1, 2017, Prevailing Wage Rate Determination (PWRD) are **NOT** required for State of Wisconsin construction projects.

11. Sample performance guarantee based on either percent run-time or minimum cleaning specifications.
12. State clearly any limitations you wish to include in *Public Works Construction Contract* and advise of any conditions that you may have.

4. EVALUATION CRITERIA

A. Proposing consultants will be evaluated on this criteria:

Pricing/Cost Proposal	30%
Approach to Project	25%
Relative Experience	20%
Past Project References	15%
Project Personnel	<u>10%</u>
Total	100%

5. FACILITY TOUR

A. A facility tour for interested proposers may be scheduled through John Welch, Solid Waste Manager, 608/516-4154, Welch@countyofdane.com.

6. OWNER'S RESPONSIBILITY

A. Dane County will provide all available gas flow graphs, building site, architectural, structural, mechanical, electrical, plumbing, telecommunications, fire protection, and security drawings and specifications to selected firm. These drawings and specifications may not be complete or in an as-built condition. Firm will need to confirm accuracy of drawings and specifications. Dane County will provide any necessary hazardous material protection or abatement.

7. TIMETABLE

A. Listed below are specific and estimated dates and times of events related to this RFP. The events with specific dates must be completed as indicated unless otherwise changed by Dane County. In the event that Dane County finds it necessary to change any of the specific dates and times in the calendar of events listed below, it will do so by issuing an addendum to this RFP. There may or may not be a formal notification issued for changes in the estimated dates and times.

<u>DATE</u>	<u>EVENT</u>
January 3, 2017	RFP issued
February 3, 2017 - 2:00 p.m.	Written inquiries due
February 7, 2017	Last addendum (if necessary)
February 14, 2017 - 2:00 p.m.	Proposals due
February 28, 2017 (estimated)	Interviews (if necessary)
March 14, 2017 (estimated)	Notification of intent to award sent out
May 1, 2017 (estimated)	Contract start date
May 2, 2017 (estimated)	Kick-off meeting
June 2, 2017 (estimated)	Preliminary design deliverable due
July 7, 2017 (estimated)	Final design deliverable due
August 7, 2017 (estimated)	Order biogas cleaning equipment
October, 2017 – April, 2018 (estimated)	Installation of biogas cleaning system

July 2, 2018 (estimated)

System must be fully operational and running continuously

January 1, 2019 (estimated)

Pipeline injection start date

8. ADDITIONAL INFORMATION

- A. Dane County Department of Public Works, Highway & Transportation, 1919 Alliant Energy Center Way, Madison, Wisconsin 53713, will receive your Proposal.
- B. Information regarding this project may be obtained from John Welch, Solid Waste Manager, 608/516-4154, Welch@countyofdane.com.
- C. Since RFP documents are obtained from the Dane County web site, proposing company is responsible to check back there regularly for Addenda.
- D. All Proposals must be submitted by 2:00 p.m., Tuesday, February 14, 2016. Electronic submittals will not be accepted or opened.
- E. Dane County reserves the right to accept or reject any Proposal submitted.
- F. Information submitted by consultants will be reviewed and candidates may be scheduled to appear before an interview panel. Those appearing for an interview shall be prepared to discuss their approach for the design of this work, methodology, project team, a timetable, the basis of their fee schedule and answer questions from our staff.
- G. Dane County reserves the right to negotiate a Contract after the successful firm is selected. Selection will be based only on the proposal submitted and subsequent interviews. Therefore, the proposals must be complete. Submission of a proposal shall constitute a valid offer, which may be accepted by the County for a period of one-hundred and twenty (120) calendar days following the proposal due date.
- H. Dane County is an Equal Opportunity Employer.

FAIR LABOR PRACTICES CERTIFICATION

The undersigned, for and on behalf of the BIDDER, APPLICANT or PROPOSER named herein, certifies as follows:

- A. That he or she is an officer or duly authorized agent of the above-referenced BIDDER, APPLICANT or PROPOSER, which has a submitted a bid, application or proposal for a contract or agreement with the county of Dane.
- B. That BIDDER, APPLICANT or PROPOSER has (check one):

_____ not been found by the National Labor Relations Board (“NLRB”) or the Wisconsin Employment Relations Commission (“WERC”) to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the signature date of this Certification.

_____ been found by the National Labor Relations Board (“NLRB”) or the Wisconsin Employment Relations Commission (“WERC”) to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the signature date of this Certification.

Officer or Authorized Agent Signature Date

Printed or Typed Name and Title

Printed or Typed Business Name

NOTE: You can find information regarding the violations described above at: www.nlrb.gov and werc.wi.gov.

For reference, Dane County Ordinance 25.11(28)(a) is as follows:
(28) BIDDER RESPONSIBILITY. (a) Any bid, application or proposal for any contract with the county, including public works contracts regulated under chapter 40, shall include a certification indicating whether the bidder has been found by the National Labor Relations Board (NLRB) or the Wisconsin Employment Relations Committee (WERC) to have violated any statute or regulation regarding labor standards or relations within the last seven years. The purchasing manager shall investigate any such finding and make a recommendation to the committee, which shall determine whether the conduct resulting in the finding affects the bidder’s responsibility to perform the contract.

If you indicated that the NLRB or WERC have found you to have such a violation, you must include copies of any relevant information regarding such violation with your proposal, bid or application.

Include this completed Certification with your bid, application or proposal.

COUNTY OF DANE

PUBLIC WORKS CONSTRUCTION CONTRACT

Contract No. _____ Bid No. 316039

Authority: 20[XX] RES - _____

THIS CONTRACT, made and entered into as of the date by which authorized representatives of both parties have affixed their signatures, by and between the County of Dane (hereafter referred to as "COUNTY") and _____ (hereafter, "CONTRACTOR"), and

WITNESSETH:

WHEREAS, COUNTY, whose address is c/o Assistant Public Works Director, 1919 Alliant Energy Center Way, Madison, WI 53713, desires to have CONTRACTOR provide Biogas Cleaning Equipment for Pipeline Injection at Dane County Landfill Site #2 ("the Project"); and

WHEREAS, CONTRACTOR, whose address is _____ is able and willing to construct the Project, in accordance with the Request for Proposals dated [Month, Day, 20XX] and CONTRACTOR's proposal dated [Month, Day, 20XX];

NOW, THEREFORE, in consideration of the above premises and the mutual covenants of the parties hereinafter set forth, the receipt and sufficiency of which is acknowledged by each party for itself, COUNTY and CONTRACTOR do agree as follows:

1. CONTRACTOR agrees to construct, for the price of \$ _____ the Project and at the CONTRACTOR'S own proper cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendence labor, insurance, and other accessories and services necessary to complete the Project in accordance with the conditions and prices stated in the CONTRACTOR's proposal dated [Month, Day, 20XX], and as enumerated in the Request for Proposals dated [Month, Day, 20XX], all of which are made a part hereof and collectively evidence and constitute the Contract.
2. COUNTY agrees to pay the CONTRACTOR in current funds for the performance of the Contract subject to additions and deductions, as provided in the CONTRACTOR's proposal dated [Month, Day, 20XX], and to make payments on account thereof as provided in Article 4 entitled, "Compensation" outlined in Attachment A – Additional Conditions of Contract.
3. During the term of this Contract, CONTRACTOR agrees to take affirmative action to ensure equal employment opportunities. The CONTRACTOR agrees in accordance with Wisconsin Statute 111.321 and Chapter 19 of the Dane County Code of Ordinances not to discriminate on the basis of age, race, ethnicity, religion, color, gender, disability, marital status, sexual orientation, national origin, cultural differences, ancestry, physical appearance, arrest record or conviction record, military participation or membership in the national guard, state defense force or any other reserve component of the military forces of the United States, or political beliefs. Such equal opportunity shall include, but not be limited to, the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation. CONTRACTOR agrees to post in conspicuous places,

available to all employees and applicants for employment, notices setting forth the provisions of this paragraph.

4. CONTRACTOR shall file an Affirmative Action Plan with the Dane County Contract Compliance Officer in accord with Chapter 19 of the Dane County Code of Ordinances. CONTRACTOR must file such plan within fifteen (15) business days of the effective date of this Contract. During the term of this Contract CONTRACTOR shall also provide copies of all announcements of employment opportunities to COUNTY'S Contract Compliance Office, and shall report annually the number of persons, by race, ethnicity, gender, and disability status, which apply for employment and, similarly classified, the number hired and number rejected.

5. During the term of this Contract, all solicitations for employment placed on CONTRACTOR'S behalf shall include a statement to the effect that CONTRACTOR is an "Equal Opportunity Employer".

6. CONTRACTOR agrees to comply with provisions of Chapter 25.016 of the Dane County Code of Ordinances, which pertains to domestic partnership benefits.

7. CONTRACTOR agrees to furnish all information and reports required by COUNTY'S Contract Compliance Officer as the same relate to affirmative action and nondiscrimination, which may include any books, records, or accounts deemed appropriate to determine compliance with Chapter 19, Dane County Code of Ordinances, and the provisions of this Contract.

8. CONTRACTOR agrees that all persons employed by CONTRACTOR or any subcontractor shall be paid no less than the minimum wage established under Chapter 40, Subchapter II, Dane County Code of Ordinances. CONTRACTOR agrees to abide by and comply with the provisions of Chapter 40, Subchapter II of the Dane County Code of Ordinances, and said Subchapter is fully incorporated herein by reference.

9. This Contract is intended to be a Contract solely between the parties hereto and for their benefit only. No part of this Contract shall be construed to add to, supplement, amend, abridge or repeal existing rights, benefits or privileges of any third party or parties including, but not limited to, employees of either of the parties.

10. The entire agreement of the parties is contained herein and this Contract supersedes any and all oral agreements and negotiations between the parties relating to the subject matter hereof. The parties expressly agree that the express terms of this Contract shall not be amended in any fashion except in writing, executed by both parties.

11. Attachment B is the Contractor's proposal and is made a part of this Contract.

IN WITNESS WHEREOF, COUNTY and CONTRACTOR, by their respective authorized agents, have caused this Contract and its Schedules to be executed, effective as of the date by which all parties hereto have affixed their respective signatures, as indicated below.

* * * * *

FOR CONTRACTOR:

Signature Date

Printed or Typed Name and Title

Signature Date

Printed or Typed Name and Title

NOTE: If CONTRACTOR is a corporation, Secretary should attest. In accordance with IRS Regulations, unincorporated entities are required to provide either their Social Security or Employer Number in order to receive payment for services rendered.

* * * * *

This Contract is not valid or effectual for any purpose until approved by the appropriate authority designated below, and no work is authorized until the CONTRACTOR has been given notice to proceed by COUNTY'S Assistant Public Works Director.

FOR COUNTY:

Joseph T. Parisi, County Executive Date

Scott McDonell, County Clerk Date

ATTACHMENT A
PUBLIC WORKS CONSTRUCTION CONTRACT
ADDITIONAL CONDITIONS OF CONTRACT

Follows on subsequent page(s)

Sample

1. ARTICLE 1: SCOPE OF CONTRACT

- 1.A. By accepting this Contract, the CONTRACTOR represents possession of the necessary skill and other qualifications to perform work under this Contract and is familiar with the practices in the locality where such services and work shall be performed.
- 1.B. The CONTRACTOR shall be professionally responsible for work performed under this Contract. Upon written approval of COUNTY, the CONTRACTOR may subcontract work to an approved consultant or contractor under this Contract, to the specific extent authorized by COUNTY. The authorization to subcontract shall not relieve the CONTRACTOR of professional or contractual responsibility for any work performed or delivered under this Contract. The authorization to subcontract shall not be construed to create any contractual relationship between COUNTY and such consultant.
- 1.C. WORK BY OTHERS: Work by Others will include connection to ANR Pipeline and registration of the gas purification facility under the U.S.E.P.A. Renewable Fuel Standard. The Contractor shall support Work by Others by providing gas cleaning performance specifications and any other information required on an as-needed basis.

2. ARTICLE 2: SCOPE OF SERVICES TO BE PROVIDED

2.A. General:

- 2.A.1) Services are to be provided by the CONTRACTOR in each of the following phases:

- Design Development Phase
- Installation Phase
- Start-up Phase

- 2.A.2) An assigned COUNTY Public Works Project Manager will be the CONTRACTOR's contact in securing COUNTY direction and for arranging the necessary meetings with COUNTY or other County Departments and obtaining the approvals required by COUNTY.

- 2.A.3) The CONTRACTOR shall create a log of all COUNTY and CONTRACTOR generated design changes resulting from meetings and communications from COUNTY. This log shall be kept throughout the entire design process and submitted to COUNTY every month.

- 2.A.4) The term "written" or "in writing" may be either electronic or hard copy documentation, unless otherwise stated or directed by COUNTY.

2.B. Study Phase: NOT USED

2.C. Schematic Design Phase: NOT USED

2.D. Design Development Phase:

- 2.D.1) The CONTRACTOR shall obtain from COUNTY information and materials necessary to ascertain scope of the Project and shall verify with COUNTY program and functional requirements of the Project. This shall include gathering information from building users subject to approval by the COUNTY Public Works Project Manager.

- 2.D.2) The CONTRACTOR shall review the program and functional requirements, plans and specifications of record, (to the extent that such documents are reasonably available), and applicable COUNTY standards and guides or other written direction by COUNTY. The CONTRACTOR shall establish the limiting parameters of the design as defined by the instructions issued to it by COUNTY, to determine if the design concept is achievable within the schedule and budget proposed by COUNTY.
- 2.D.3) To the extent necessary, the CONTRACTOR shall facilitate investigation of the site for existing conditions which differ from those indicated in the record drawings or which could have a detrimental impact on the achievement of the work called for under the project.
- 2.D.4) Within seven (7) calendar days of receipt of the program and functional requirements, plans and specifications of record, the CONTRACTOR and COUNTY shall schedule a meeting to review the CONTRACTOR's design concept and such other matters as are necessary to establish that at this preliminary point, the proposed design concept is consistent with the requirements of COUNTY.
- 2.D.5) The CONTRACTOR shall document the results of design meetings, including design factors agreed to, with any instructions furnished by COUNTY to carry out such factors, including, but not limited to:
- Program clarification
 - Scheduling concerns
 - Existing site conditions
 - Project cost estimates
 - Cost-value trade offs
 - Quality requirements
 - Special material requirements
 - Communications requirements
 - Engineering requirements
- 2.D.6) The CONTRACTOR shall furnish a copy of the documentation produced under this Paragraph to each participant attending a design concept meeting.
- 2.D.7) In Contracts which involve renovation or remodeling of or additions to existing facilities, the CONTRACTOR shall evaluate the suitability of existing building elements, materials and equipment for reuse in the renovated project. Reasonably accessible areas shall also be observed by the CONTRACTOR or its consultants to evaluate existing major mechanical, plumbing and electrical systems. Any of the foregoing considered to be economically reusable shall be reported to COUNTY and may be reused unless directed otherwise by COUNTY.
- 2.D.8) The CONTRACTOR shall provide sufficient, alternative design solutions on major design features to allow COUNTY to ascertain that the recommended design achieves a practical programmatic and economic solution, within the limitations of the authorized program, schedule and budget. Include staffing and occupancy considerations provided by COUNTY.
- 2.D.9) The major design features and systems that must be evaluated include, but are not limited to:

Site & civil related work (e.g., utilities, stormwater management, erosion control)
Methods to remove hydrogen sulfide
Methods to remove VOC's and siloxanes
Methods to remove carbon dioxide
Methods to remove oxygen
Methods to remove nitrogen for two (2) scenarios (i.e. nitrogen-content up to 10% by volume and nitrogen content greater than 10% by volume)
Compressor system design
Off-product destruction methods
Byproduct recovery methods and uses
Installation, start-up, and operation of system
Controls to regulate and monitor system

2.D.10) The analysis of major design features and systems shall include initial and life cycle cost comparisons.

2.D.11) The CONTRACTOR shall provide a working analysis of each major design feature included in the selected design concept, with constraints and dependencies that is sufficiently complete to allow commencement of the Installation Phase.

2.D.11) a. The CONTRACTOR shall prepare preliminary drawings, specifications and other data tailored to the project that fix and describe the size and character of the entire project as to major design features and systems and such other essentials outlined by COUNTY.

2.D.11) a.(1) The preliminary drawings shall include plans, elevations, sections and details at a scale which is sufficient to fully illustrate the design concepts, materials and finishes to be employed. Drawings shall be in format as approved by COUNTY.

2.D.11) b. The CONTRACTOR shall prepare a Design Report with appendix that includes:

2.D.11) b.(1) A time estimate for completion of each separate phase of the work (Design, Installation, and Start-up).

2.D.11) b.(2) A detailed estimate of project cost based on the preliminary design concept, which indicates that the project budget limitations will not be exceeded. Factors influencing the cost feasibility of each major division of the specification and related drawings shall be identified.

2.D.11) b.(3) An identification of any part of the work that might require special monitoring or consideration during installation to prevent quality control problems, delays, or cost escalation. Include any long lead time equipment or materials, items which interface with difficulty, areas of work requiring significant care, sequencing or precision in installation and full or partial User occupancy during installation.

2.D.12) Upon determination by the CONTRACTOR that the final design is represented by the preliminary drawings and specifications, those documents along with a

final Design Report shall be submitted to COUNTY for review and concurrence prior to commencement of Installation.

2.D.12) a. The CONTRACTOR shall provide COUNTY with up to four (4) sets and one (1) electronic file of the Design Report with appendix, preliminary drawings and specifications for review and coordination purposes. Electronic documents shall be in a format approved by COUNTY.

2.D.12) b. COUNTY will issue a list of recommended changes / corrections to be incorporated into the documents. Within seven (7) calendar days of receipt, the CONTRACTOR shall transmit written replies to review comments issued by COUNTY. Directions by COUNTY shall be incorporated into the design, unless the CONTRACTOR shall have explained objections to COUNTY and obtained prior written approval of noncompliance from COUNTY before proceeding with related work.

2.D.12) c. The CONTRACTOR or COUNTY may call a further preliminary review meeting, when necessary to finalize the design concept. Written replies to additional COUNTY comments shall be made before proceeding to the Installation Phase.

2.D.12) d. Approval of these documents by COUNTY will complete the Design Development Phase, whereupon COUNTY will issue written instruction to the CONTRACTOR to order equipment and proceed to the Installation Phase.

2.D.13) Design Development Phase deliverables shall be:

2.D.13) a. Final design deliverables are referenced as Construction Documents.

2.D.13) b. Four (4) bound copies of drawings (full size-typical of all submissions) & specifications (in 8½ x 11 format-typical of all submissions); and

2.D.13) c. Electronic version of all documents:

- (1) Drawings in AutoCAD 2014 (or earlier version);
- (2) Specifications in Word 2010 (or earlier version); and
- (3) Adobe Acrobat 11 (or earlier version) of drawings and specifications (PDFs converted from Word, AutoCAD, or other programs; minimize pdf file size by converting files rather than scanning printouts).

2.E. Construction Documents Phase: NOT USED

2.F. Bidding Phase: NOT USED

2.G. Installation Phase:

2.G.1) An assigned COUNTY Project Manager will be responsible for arranging and conducting installation-related meetings as required and act as the point of contact. A COUNTY approved CONTRACTOR representative shall attend, take notes, publish and distribute COUNTY approved minutes of job meetings.

2.G.1) a. The CONTRACTOR shall provide a COUNTY-approved person, with suitable experience in the installation process to visit the site in order to monitor and report the progress, quality, and timely performance of the

work relative to the Construction Documents, as such work is being performed by the installer(s). The CONTRACTOR shall keep COUNTY informed of the progress and quality of the work based on on-site observations and shall endeavor to protect COUNTY against defects and deficiencies in the work.

2.G.2) The COUNTY's site representative shall observe the installation process to evaluate the adequacy and completeness of the installer(s) compliance with the Construction Documents, and shall immediately report any noncompliance to the CONTRACTOR Project Manager in writing.

2.G.2) a. The CONTRACTOR shall be responsible for the coordination and performance of on-site services performed by consultants employed by the CONTRACTOR and COUNTY shall review reports and other data submitted by such consultants. The CONTRACTOR and each consultant engaged under Article 1.G. shall visit the job site. The CONTRACTOR shall provide in each consultant agreement, a requirement for consultant visits to the site and a schedule for such visits for professional evaluation of the work monitored by each consultant and a reporting system to inform COUNTY. Site visits shall coincide with crucial times of the installation for the specialty area involved.

2.G.2) b. Following construction site visits, the CONTRACTOR shall make routine, written status reports detailing observations and activities on the project, at such intervals as is elsewhere herein established and in a format approved by COUNTY. The CONTRACTOR shall submit the reports within three (3) business days of the site visit by the CONTRACTOR's representative. Reporting requirements for full-time, on-site representation shall be established by each Contract for such professional services.

2.G.2) c. The CONTRACTOR's site representative will receive copies of reports submitted by the Installer(s) and shall provide site observation to evaluate the reports. Discovered installation variances shall immediately be reported to COUNTY.

2.G.2) d. If it becomes necessary during installation, to interpret, construe, clarify or to otherwise determine the reasonable meaning, application or implementation of the Construction Documents, the CONTRACTOR acting in good faith, based upon the facts made known to it at the time, shall recommend to COUNTY in writing, a reasonable course of conduct in connection with the issues involved. Such recommendation(s) may be considered for further contractual action by COUNTY.

2.G.2) e. Should the COUNTY become aware that the work of any installer(s) in place or underway does not conform to the work or quality required by the Construction Documents, the CONTRACTOR Project Manager shall be immediately notified in writing. It is appropriate for the COUNTY to also immediately advise the installer(s) of substantial deficiencies, and that notification of these deficiencies will be made to CONTRACTOR. The COUNTY shall furnish such data as necessary to inform CONTRACTOR of the degree of the noncompliance with the Construction Documents, the cause thereof, the impact on schedule and cost, if known, and a recommended course of conduct. CONTRACTOR shall be solely responsible for implementation of the COUNTY's recommendation. This

assumption of responsibility by COUNTY shall not relieve the CONTRACTOR or its consultants for negligence in the discovery of the condition, which was or should have been discovered.

- 2.G.3) Necessary professional services or installations required to repair or overcome problems caused by errors, omissions, ambiguities or changes not authorized by COUNTY in the preparation of the documents or design shall be the responsibility of the CONTRACTOR or its consultants, without additional cost to COUNTY.
- 2.G.4) The COUNTY shall review requests for information (RFIs) and shall respond within five (5) business days.
- 2.G.5) The COUNTY shall develop and issue appropriate construction bulletins (CBs) at the direction of the COUNTY Project Manager. The COUNTY shall then evaluate the CB proposals received from the installer(s) and provide a written recommendation regarding the appropriateness of the proposals. The evaluation and recommendation shall be completed within five (5) business days of receipt, or in accordance with another schedule approved by COUNTY. The evaluation shall consider the necessity for such change, the reasonableness of the proposed change, and an analysis of the cost proposed for effecting the change.
- 2.G.6) Upon installer(s) written notification and the COUNTY Project Manager's confirmation that Substantial Completion has taken place, the COUNTY shall observe the installation and provide a written punchlist to the CONTRACTOR. The COUNTY Project Manager will schedule the punchlist inspection in conjunction with the User and installer(s) involved. The punchlist shall contain items found not to be complete, in need of correction, replacement or otherwise not in accordance with the Construction Documents. As part of the Substantial Completion verification, the COUNTY shall perform or witness and document functional testing and review the testing and balance report prepared by others for all equipment, piping, safety requirements, controls, and electrical systems to verify installation and operation meet the intent of their design. The COUNTY shall forward the results of the functional testing and provide written recommendations for corrective measures where systems do not meet the intent of their design. The COUNTY shall prepare and distribute the Certificate of Substantial Completion when appropriate.
- 2.G.7) COUNTY will provide a set of Construction Documents to Installer(s) on which daily records of changes and deviations shall be recorded. At completion of the project, Installer(s) will submit its marked-up as-built documents to the CONTRACTOR who shall, based on these marked up as-built documents, revise the original documents, including the electronic files, showing changes in the work made during the installation process to produce a set of Record Documents. Electronic documents shall be in a format and on a medium required by COUNTY. This work shall be completed and submitted to COUNTY within thirty (30) calendar days of receipt of the last marked up prints. The consequences of addenda, change orders and other circumstances known by the CONTRACTOR to have caused change shall be included in the production of the Record Documents. The marked-up as-built documents shall be turned over to the COUNTY at the same time as the Record Documents.

2.G.7) a. Record Documents deliverables shall be:

- (1) Original unbound copy of Drawings and Project Manual in full size, paper format;
- (2) Four (4) bound copies of Drawings and Project Manual; and
- (3) Electronic version of all documents on CD, USB flash drive or sent via email:
 - a) Drawings in AutoCAD 2014 (or earlier version);
 1. Each digital sheet shall be complete with x-refs or base plan sheets included and attached;
 2. All external data from non-AutoCAD programs (e.g., Excel or Word) shall be included and attached; and
 3. Include copy of Plot Style Table (ctb file) used to print drawings.
 - b) Drawings in Adobe Acrobat 11 (or earlier version; minimize pdf file size by converting files from AutoCAD or other programs);
 - c) Project Manual in Word 2010 (or earlier version); and
 - d) Project Manual in Adobe Acrobat 11 (or earlier version; minimize pdf file size by converting files from Word or other programs, rather than scanning printouts).

2.G.8) The CONTRACTOR shall obtain from the Installer(s), and review for compliance with design intent, an Operating and Maintenance Manual for building systems and operable mechanical and electrical equipment on the project, both powered and manual. Two (2) copies of the Manuals shall be provided to COUNTY's Project Representative. These manuals shall include:

- 2.G.8) a. Manufacturer's Instruction for Maintenance and Operation of Equipment and Systems, including a Spare Parts List with associated suppliers; and
- 2.G.8) b. Temperature Control Record Drawings and Equipment Data Sheets including recommended maintenance procedures.

2.G.9) It is intended by this Contract to impose upon the CONTRACTOR the duty of a guarantor of the installer(s). It is the intent of the Contract to impose upon the CONTRACTOR the duty of the faithful fulfillment, in accordance with the standard of care ordinary to the profession, of the performance of the duties specifically enumerated herein and for the close monitoring of the work of its consultants. As such, this shall not preclude the entitlement to COUNTY of reasonable expectation that systems as designed by the CONTRACTOR or their consultants will operate as anticipated by COUNTY upon faithful completion of installation.

2.H. Start-up Phase:

2.H.1) Start-up Phase will commence upon the sole discretion of the COUNTY based on CONTRACTOR's completion of punchlist, supplying COUNTY with Operating and Maintenance Manuals, all work associated with installation is complete and system is operable, no latent residual work still to be completed, and site is free from debris, dirt, and discarded material.

2.H.2) CONTRACTOR shall work with third party consultant hired by COUNTY for testing throughout the course of the project.

- 2.H.2) a. Third party consultant will be the authority reporting to the COUNTY on actual biomethane composition and compare them to pipeline quality standards set by ANR Pipeline Company.

- 2.H.2) b. Third party consultant shall submit test results to COUNTY and COUNTY shall distribute to CONTRACTOR.
- 2.H.3) CONTRACTOR shall adjust operating equipment and products to ensure smooth and unhindered operation to meet pipeline quality standards set by ANR Pipeline Company.
- 2.H.4) Third party consultant shall retest and CONTRACTOR shall adjust and balance system subsequent to significant system modifications
- 2.H.5) Once third party consultant verifies that system will continuously meet pipeline quality standards set by ANR Pipeline Company, the testing, adjusting, and balancing portion will be complete and training shall commence.
- 2.H.6) Training:
- 2.H.6) a. CONTRACTOR shall train COUNTY personnel on operation and maintenance of system prior to Starting Systems.
- 2.H.6) b. CONTRACTOR shall train COUNTY personnel on start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at designated locations.
- 2.H.6) c. COUNTY may choose to videotape training sessions; training and trainer shall be to level of satisfaction of COUNTY.
- 2.H.7) Starting Systems:
- 2.H.7) a. CONTRACTOR shall provide COUNTY written notification prior to start-up of each equipment item or system.
- 2.H.7) b. CONTRACTOR shall ensure that each piece of equipment or system is ready for operation.
- 2.H.7) c. CONTRACTOR shall execute start-up under supervision of COUNTY in accordance with installer(s) or manufacturers' instructions.
- 2.H.7) d. CONTRACTOR shall submit written report that equipment or system has been properly installed and is functioning correctly.

3. ARTICLE 3: COUNTY'S RESPONSIBILITIES

- 3.A. COUNTY will determine the project scope for which the professional design services are required and will fully cooperate in achieving completion of that work.
- 3.B. COUNTY will establish an internal operating procedure for timely and proper performance of any COUNTY duty required to fulfill the needs of the project.
- 3.C. COUNTY will provide available information regarding the requirements for the project, which set forth COUNTY's objectives for program, schedule and overall budget. COUNTY will make available to the CONTRACTOR data known to COUNTY or requested by the CONTRACTOR, which may be needed for the fulfillment of the professional responsibility of the CONTRACTOR. This data may include, but is not limited to, prints of existing buildings or record drawings and COUNTY standards and guides. Such documents will be the most recent and accurate available. The use of any

such data by the CONTRACTOR shall be without contractual or legal significance unless otherwise established elsewhere in this Contract. However, providing of documents by COUNTY shall not relieve the CONTRACTOR from the responsibility for conducting a field survey to verify existing conditions as specified herein.

- 3.D. COUNTY will communicate to the CONTRACTOR the format of the documents required to be submitted.
- 3.E. COUNTY will examine documents submitted by the CONTRACTOR and will render decisions regarding them promptly, to avoid unreasonable delay in the progress and sequence of the CONTRACTOR's work. COUNTY will coordinate review comments from the User agency and COUNTY staff prior to issuance to the CONTRACTOR.
- 3.F. COUNTY will distribute Construction Documents to installer(s).
- 3.G. COUNTY will prepare and process the Contracts between COUNTY and CONTRACTOR.
- 3.H. Unless otherwise specified in this Contract, COUNTY will arrange for services of a testing laboratory to furnish structural, chemical, mechanical and other laboratory tests, inspections and reports as required by law or deemed necessary by COUNTY.

4. ARTICLE 4: COMPENSATION

4.A. CONTRACTOR fees for basic services will be compensated by COUNTY in accordance with the Terms and Conditions of this Contract as follows:

4.A.1) COUNTY will pay the CONTRACTOR a lump sum fee of \$[].

4.A.1) a. The CONTRACTOR fee for professional services shall be in accordance with the terms of this Contract and based on the scope of services contained in the Request for Proposals, dated [Month, Day, 20XX], including any subsequent Addenda.

4.A.1) b. The CONTRACTOR is authorized to proceed through completion of the Design Development Phase. The CONTRACTOR Fee is limited to \$[], until written instructions to proceed are provided by COUNTY.

4.A.2) No change in fee shall result from change orders to installation contracts unless such change is described as an Additional Service under Article 4.D. of this Contract and approved by COUNTY. When the CONTRACTOR's Design Report estimate indicates a revised project cost and such revision is approved by COUNTY, the amount of the lump sum fee may be renegotiated.

4.B. Reimbursable Expenses:

4.B.1) All expenses necessary to complete the services are included in the fixed fee stated in the Proposal submitted by the CONTRACTOR dated [Month, Day, 20XX]. No additional reimbursements for other actual or incidental expenses unless it is determined by COUNTY to be beyond the scope of the original Contract.

4.C. Additional Services:

4.C.1) The following services are in addition to but are not covered in Article 4.A. These services may be identified as part of the CONTRACTOR's fee proposal and included with the lump sum fee as such. Compensation for these additional services or other services must be requested by the CONTRACTOR, and subsequently approved by COUNTY PRIOR to proceeding with the work. If the additional services are requested after the Contract has been issued, such authorization shall be based on a written proposal delineating the nature of the services, the time involved, the estimated cost thereof, the effect on the project schedule and the individuals or firms involved. When authorized, an Contract Change Order will be used to modify the CONTRACTOR's Contract.

4.C.1) a. Revising previously approved drawings, specifications or other documents after written approval of Design Development Phase, to accomplish changes not initiated by the CONTRACTOR other than record documents and revisions normally to be expected or required to correct deficiencies in the approved drawings and specifications.

4.C.1) b. Preparing detailed models, perspective or renderings.

4.C.1) c. Providing services other than corrective design work and record documents, after final payment to the installer(s).

4.C.1) d. Participation in post-project evaluations.

4.D. Payments to the CONTRACTOR:

4.D.1) Payments of the CONTRACTOR's lump sum fee will be made monthly, in proportion to services performed as confirmed by COUNTY, to increase the compensation to the following percentages of the lump sum fee at the completion of each phase of the work.

[REDACTED]	[REDACTED]	[XX]%
[REDACTED]	[REDACTED]	[XX]%
[REDACTED]	[REDACTED]	[XX]%
[REDACTED]	[REDACTED]	100%

4.D.2) No more than ninety percent (90%) of the CONTRACTOR's lump sum fee shall be paid out prior to substantial completion of the project. When COUNTY confirms that development of punch lists, review of Operating & Maintenance Manuals, submittal of record documents, has been satisfactorily completed by the CONTRACTOR, COUNTY will determine how and when the remaining lump sum fee is disbursed.

4.D.3) Payments for COUNTY-approved Reimbursable Expenses as defined in Article 4.B. and Additional Services of the CONTRACTOR as defined in Article 4.C., will be made monthly upon request.

4.D.4) An CONTRACTOR whose work is found deficient or fails to conform to the requirements set forth in the Contract, is not entitled to further payments, until corrected to the satisfaction of COUNTY.

4.D.4) a. Payments to the CONTRACTOR may be withheld for damages sustained by COUNTY due to error, omission, unauthorized changes or negligence

on the part of the CONTRACTOR. COUNTY will notify the CONTRACTOR in writing of the alleged, specific damages and amounts involved, on a timely basis.

- 4.D.5) If the project is suspended for more than three (3) months in whole or in part, the CONTRACTOR will be paid fees for services performed prior to receipt of written notice from COUNTY of the suspension, together with Reimbursable Expenses then due and reasonable expenses resulting from this suspension, as approved by COUNTY. If the project is resumed after being suspended for more than three (3) months, the CONTRACTOR's compensation will be subject to renegotiation.

5. ARTICLE 5: ACCOUNTING RECORDS

- 5.A. Records of the CONTRACTOR's direct personnel, consultants, and reimbursable expenses pertaining to the project shall be kept in accordance with Generally Accepted Accounting Principles (GAAP) and shall be available to COUNTY or an authorized representative throughout the term of this Contract and for at least three (3) years after final payment to the CONTRACTOR.

6. ARTICLE 6: TERMINATION OF CONTRACT

- 6.A. This Contract may be terminated by COUNTY without cause upon ten (10) calendar days written notice to the CONTRACTOR. In the event of termination, the CONTRACTOR will be paid fees for services performed to termination date, reimbursable expenses then due, and termination expenses as approved by COUNTY. Work performed prior to the date of termination shall be in accordance with the terms and conditions of this Contract. Upon termination, the results of such work shall immediately be turned over to the COUNTY Project Manager and is a condition precedent to further payment by COUNTY.
- 6.B. In the event the Contract between the CONTRACTOR and any consultant on this project is terminated, the results of work by that consultant shall immediately be turned over to the CONTRACTOR.

7. ARTICLE 7: OWNERSHIP OF DOCUMENTS

- 7.A. All drawings and specifications, renderings, models, scale details, approved copies of shop drawings and other such documents prepared by the CONTRACTOR or any consultant pursuant to this Contract shall become the property of COUNTY on completion and acceptance of any of the CONTRACTOR's work, or upon termination of the Contract, and shall be delivered to COUNTY upon request.
- 7.B. Documents prepared under this Contract may be used by COUNTY for informational purposes without additional compensation to the CONTRACTOR.
- 7.C. Specifications and isolated, detail drawings inherent to the architectural / engineering design of the project, whether provided by the COUNTY or generated by the CONTRACTOR, shall be available for future use by the parties to this Contract and other parties, each at their own risk.

8. ARTICLE 8: LIABILITY-HOLD HARMLESS AND INDEMNIFICATION

- 8.A. CONTRACTOR shall indemnify, hold harmless and defend COUNTY, its boards, commissions, agencies, officers, employees and representatives against any and all liability, loss (including, but not limited to, property damage, bodily injury and loss of

life), damages, costs or expenses which COUNTY, its officers, employees, agencies, boards, commissions and representatives may sustain, incur or be required to pay by reason of CONTRACTOR furnishing the services required to be provided under this Contract, provided, however, that the provisions of this paragraph shall not apply to liabilities, losses, charges, costs, or expenses caused or resulting from the acts or omissions of COUNTY, its agencies, boards, commissions, officers, employees or representatives. The obligations of CONTRACTOR under this paragraph shall survive the expiration or termination of this Contract.

9. ARTICLE 9: PROFESSIONAL LIABILITY INSURANCE

9.A. The CONTRACTOR and its consultants retained under the terms of this Contract shall procure and maintain professional liability insurance providing for payment of the insured's liability for errors, omissions or negligent acts arising out of the performance of the professional services required under this Contract. The CONTRACTOR shall provide up-to-date, accurate professional liability information on the CONTRACTOR's Data Record, including amount of insurance, deductible, carrier and expiration date of coverage. Upon request by COUNTY, the CONTRACTOR shall furnish COUNTY with a Certificate of Insurance showing the type, amount, deductible, effective date and date of expiration of such policy. Such certificate shall also contain substantially the following statement: "The insurance covered by this certificate shall not be canceled, the coverage changed or reduced by endorsement, by the insurance company, except after thirty (30) calendar days written notice has been received by COUNTY." The CONTRACTOR shall not cancel or materially alter this coverage without prior written approval by COUNTY. The CONTRACTOR shall be responsible for consultants maintaining professional liability insurance during the life of their Contract.

10. ARTICLE 10: OTHER INSURANCE

10.A. The CONTRACTOR and its consultants retained under terms of this Contract shall:

10.A.1) CONTRACTOR shall provide Builder's Risk policy.

10.A.2) Maintain Worker's Compensation Insurance:

10.A.2) a. Procure and maintain Worker's Compensation Insurance as required by State of Wisconsin Statutes for all of the CONTRACTOR's and consultant's employees engaged in work associated with the project under this Contract.

10.A.2) b. Maintain Employer's Liability Insurance with a policy limit of not less than 100,000/500,000/100,000 per occurrence.

10.A.3) Procure and maintain during the life of this Contract, and until one year after the completion of this Contract, Commercial General Liability Insurance, including Products and Completed Operations for all claims that might occur in carrying out the Contract. Minimum coverage shall be \$1,000,000 per occurrence, \$1,000,000 general aggregate, combined single limit for bodily injury, personal injury, and property damage. Such coverage shall be of the "occurrence" type form and shall include the employees of the CONTRACTOR as insureds.

10.A.4) Procure and maintain Commercial Automobile Liability Insurance for all owned, non-owned, and hired vehicles that are used in carrying out the Contract. Minimum coverage shall be \$1,000,000 per occurrence combined single limit for bodily injury and property damage.

10.A.5) Provide an insurance certificate indicating the above Commercial Liability Insurance and property damage coverage, countersigned by an insurer licensed to do business in Wisconsin, covering and maintained for the period of the Contract. Upon request by COUNTY, the insurance certificate is to be presented on or before execution of the Contract.

11. ARTICLE 11: MISCELLANEOUS PROVISIONS

- 11.A. CONTRACTOR warrants that it has complied with all necessary requirements to do business in the State of Wisconsin, that the persons executing this Contract on its behalf are authorized to do so.
- 11.B. Legal Relations. The CONTRACTOR shall comply with and observe federal and state laws and regulations and local zoning ordinances applicable to this project and in effect on the date of this Contract.
- 11.C. Approvals or Inspections. None of the approvals or inspections performed by COUNTY shall be construed or implied to relieve the CONTRACTOR from any duty or responsibility it has for its professional performance, unless COUNTY formally assumes such responsibility in writing from COUNTY so stating that the responsibility has been assumed.
- 11.D. Successors, Subrogees and Assigns. COUNTY and CONTRACTOR each bind themselves, their partners, successors, subrogees, assigns, and legal representatives to the other party to this Contract and to the partners, successors, subrogees, assigns and legal representatives of such other party with respect to covenants of this Contract.
- 11.E. Claims. The CONTRACTOR's project manager will meet with COUNTY's Project Manager to attempt to resolve claims, disputes and other matters in question arising out of, or relating to, this Contract or the breach thereof. Issues not settled are to be presented in writing to the COUNTY Assistant Public Works Director for review and resolution. The decision of the Assistant Public Works Director shall be final. Work shall progress during the period of any dispute or claim. Unless specifically agreed between the parties, venue will be in Dane County, Wisconsin.
- 11.F. Amendment of Contract. This Contract may be amended in writing by both COUNTY and CONTRACTOR.
- 11.G. It is expressly understood and agreed to by the parties hereto that in the event of any disagreement controversy between the parties, Wisconsin law shall be controlling. Venue for any legal proceedings shall be in the Dane County Circuit Court.
- 11.H. This Contract is intended to be an agreement solely between the parties hereto and for their benefit only. No part of this Contract shall be construed to add to, supplement, amend, abridge or repeal existing duties, rights, benefits or privileges of any third party or parties, including but not limited to employees of either of the parties.
- 11.I. The entire agreement of the parties is contained herein and this Contract supersedes any and all oral agreements and negotiations between the parties relating to the subject matter hereof. The parties expressly agree that this Contract shall not be amended in any fashion except in writing, executed by both parties.

ATTACHMENT B
PUBLIC WORKS CONSTRUCTION CONTRACT
CONTRACTOR PROPOSAL

Follows on subsequent page(s)

Sample

AIA[®] Document A312[™] – 2010

Performance Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

CONSTRUCTION CONTRACT

Date:

Amount:

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name _____
and Title: _____

(Any additional signatures appear on the last page of this Performance Bond.)

Signature: _____

Name _____
and Title: _____

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

Sample

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____

(Corporate Seal)

Company: _____

(Corporate Seal)

Signature: _____
Name and Title: _____
Address _____

Signature: _____
Name and Title: _____
Address _____

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.



AIA® Document A312™ – 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT

Date:

Amount:

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: None See Section 18

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name _____
and Title: _____

Signature: _____

Name _____
and Title: _____

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: _____

(Corporate Seal)

SURETY

Company: _____

(Corporate Seal)

Signature: _____

Name and Title: _____

Address _____

Signature: _____

Name and Title: _____

Address _____

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

EQUAL BENEFITS COMPLIANCE PAYMENT CERTIFICATION FORM

PURPOSE

25.016(8) of the Dane County Ordinance requires that each contractor receiving payment for contracted services must certify that he or she has complied fully with the requirements of Chapter 25.016 “Equal Benefits Requirement” of the Dane County Ordinances. Such certification must be submitted prior to the final payment on the contract.

This form should be included with a copy of the final contract invoice forwarded to your contract representative at Dane County.

CERTIFICATION

I, _____ certify that
Printed or Typed Name and Title

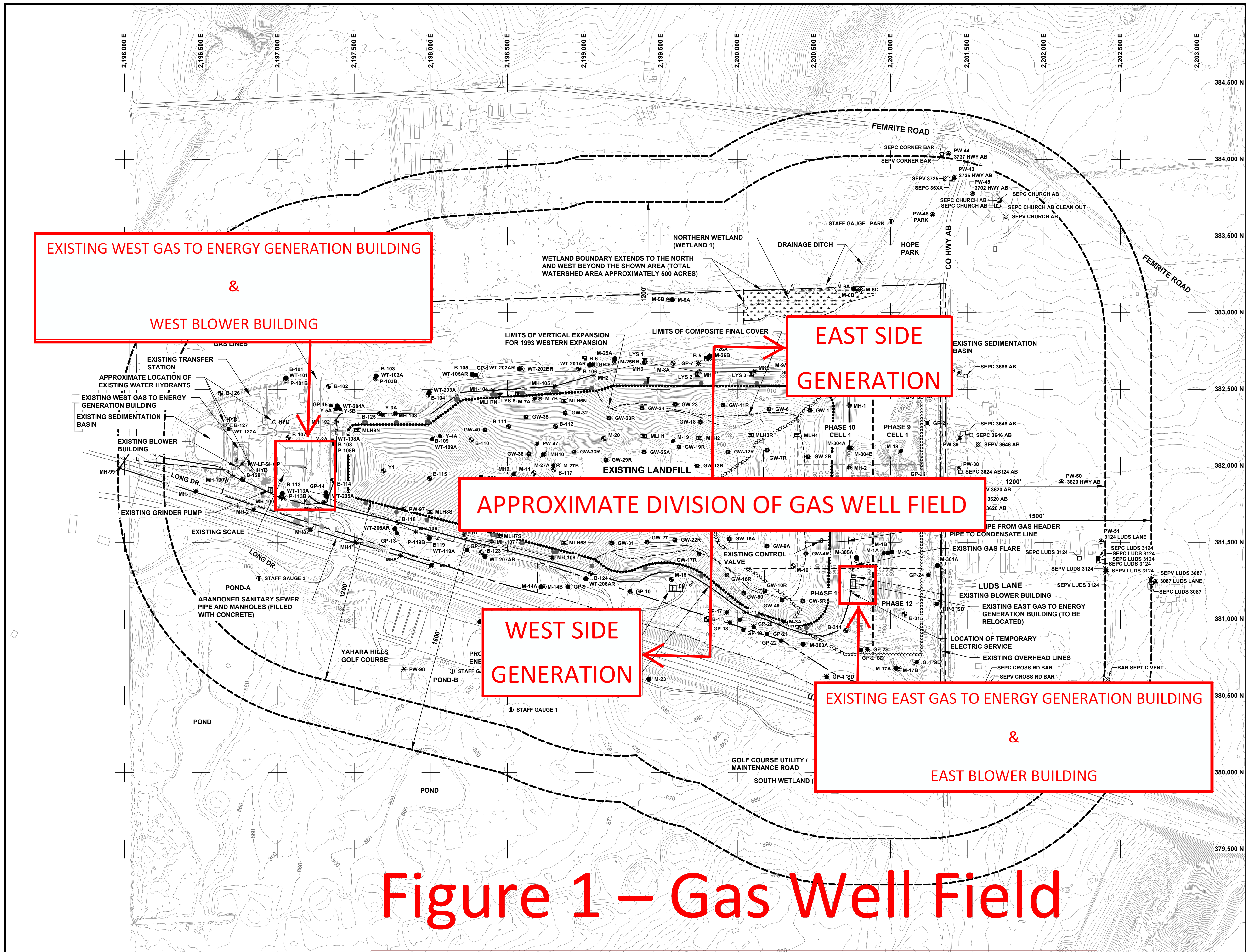
Printed or Typed Name of Contractor

has complied fully with the requirements of Chapter 25.016 of the Dane County Ordinances “Equal Benefits Requirements”.

Signed _____

Date _____

For questions on this form, please contact Chuck Hicklin at 608-266-4109 or your contract representative at Dane County.



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE RIGHT-OF-WAY
- GRID LOCATION
- EXISTING PAVED ROAD
- EXISTING UNPAVED ROAD
- EXISTING FENCE
- EXISTING BUILDING
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING TREES AND/OR BRUSH
- EXISTING WET AREA AND WETLAND LIMITS
- EXISTING EDGE OF WATER
- EXISTING OVERHEAD LINES
- DRAINAGE DITCH
- EXISTING APPROVED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- PROPOSED PHASE DELINEATION LINE
- PROPOSED CELL DELINEATION LINE
- EXISTING LEACHATE FORCEMAIN LINE
- EXISTING LEACHATE GRAVITY DRAIN LINE
- EXISTING SANITARY SEWER LINE
- LIMITS OF COMPOSITE FINAL COVER
- LIMITS OF VERTICAL EXPANSION FOR 1993 WESTERN EXPANSION
- EXISTING SURVEY CONTROL MONUMENT
- EXISTING MONITORING WELL LOCATION
- EXISTING PIEZOMETER LOCATION
- EXISTING BORING LOCATION
- EXISTING GAS MONITORING PROBE LOCATION
- EXISTING PRIVATE WELL LOCATION
- EXISTING LYSIMETER LOCATION
- EXISTING MANHOLE LOCATION
- EXISTING CLEANOUT LOCATION
- EXISTING LEACHATE HEAD WELL
- EXISTING SEPTIC COVER
- EXISTING SEPTIC VENT
- EXISTING STAFF GAUGE LOCATION
- EXISTING WATER HYDRANT
- EXISTING GRINDER PUMP
- ABANDONED PRIVATE WELL LOCATION
- ABANDONED MONITORING WELL LOCATION
- ABANDONED PIEZOMETER LOCATION
- ABANDONED MANHOLE LOCATION

- NOTES**
- REFER TO PLAN SHEET 2 OF THIS PLAN SET FOR BASEMAP LEGEND AND GENERAL NOTES.
 - REFER TO PLAN SHEET 2 OF THIS PLAN SET FOR LOCATIONS AND ELEVATIONS OF EXISTING CONTROL MONUMENTS.

SCALE: 1"=300'

NOTE: THESE PLANS ARE ACCOMPANIED BY A REPORT OF THE SAME TITLE. THESE DOCUMENTS ARE INTERRELATED AND ARE INTENDED TO BE USED TOGETHER. THESE DOCUMENTS ARE INTENDED TO BE USED FOR REGULATORY PURPOSES ONLY.

NOT FOR CONSTRUCTION

NO.	BY	DATE	REVISION	APPD.
3				
2				
1				

PROJECT: **DANE COUNTY NO. 2 (RODEFELD) LANDFILL PLAN OF OPERATION - EASTERN EXPANSION DANE COUNTY, WISCONSIN**

SHEET TITLE: **EXISTING CONDITIONS MAP**

DRAWN BY: RNOLDEN	SCALE: AS SHOWN	PROJ. NO: 194528.0003.0000
CHECKED BY: --	DATE PRINTED: --	FILE NO: 194528.SHT03-EX.dwg
APPROVED BY: --	DATE: FEBRUARY 2014	SHEET 3 OF 33

CTRC 708 Heartland Trail Suite 3000 Madison, WI 53717 Phone: 608.826.3600

APPENDIX A - LANDFILL GAS LABORATORY RESULTS



TEST REPORT FOR LANDFILL GAS TESTING
Laboratory Services Report No: 64-29427_GASTESTING_V0

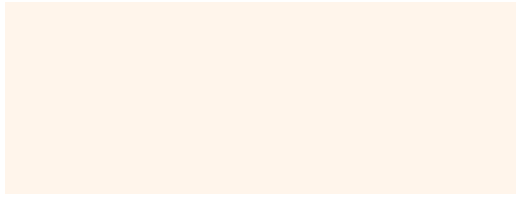
Performed for:
DANE COUNTY PUBLIC WORKS
1919 Alliant Energy Center Way
Madison, WI 53713

Pertaining to a Field Sampling Project Performed for :
DANE COUNTY LANDFILL SITE 2

Customer Reference No: 20161993-00
Laboratory Services Project No: 29427
Revision 0: 11/15/2016

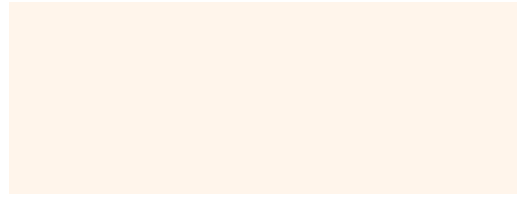
To the best of our knowledge, the laboratory report nor the results provided have in any way been reproduced or altered except in full without prior written approval of the lab. The laboratory results presented in this report are accurate, complete, error free, legible and representative of the samples per the analysis described here-in. The lab retains the unaltered final copy for comparison purposes upon request.

Submitted by,



Eric Ewing
Title: Safety Leader – Laboratory Services
Ph: 847-654-4519
Email: eewing@cleanair.com

Reviewed by,



Douglas D. Rhoades
Title: Team Leader – Laboratory Services
Ph: 847-654-4504
Email: drhoades@cleanair.com

REVISION HISTORY

**FIELD TEST REPORT FOR LANDFILL GAS TESTING
LABORATORY SERVICES REPORT NO: 64-29427_GASTESTING_V0**

FINAL REPORT REVISION HISTORY

Revision:	Date	Pages	Comments
0	11/15/2016	All	Final version of original document.

CONTENTS

1 CERTIFICATE OF ANALYSIS 1-1

2 ANALYTICAL CASE NARRATIVE 2-1

INTRODUCTION..... 2-1

 Key Project Participants 2-1

 Table 2-2: Pertinent Personnel..... 2-1

DISCUSSION OF ANALYTICAL RESULTS 2-2

3 METHODOLOGY..... 3-1

 Table 3-2: List of Analytical Methodology..... 3-1

 GC Analyses 3-1

 Hydrocarbon Dew Point Calculation 3-1

 Description of Sampling Location 3-1

 Description of Sampling System..... 3-2

 Figure 3-1: Diagram of Sampling System Used. 3-2

 Description of Sampling Location 3-3

4 APPENDIX..... 4-1

LABORATORY DATA I

FIELD DATA II

HYDROCARBON DEWPOINT DATA..... III

CERTIFICATE OF ANALYSIS

1-1

Gas Property	Value
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia) (BTU/ft ³)	565.3
Hydrogen Sulfide (ppmv)	430
Total Sulfur (ppmv)	435
Oxygen (% by volume)	0.32%
Carbon Dioxide (% by volume)	37.4%
Nitrogen (% by volume)	6.56%
Water Vapor (lb/1x10 ⁶ ft ³)	1381
Gas Temperature (°F)	123
Hydrocarbon Dew Point, 15.01psia (°F)	-151
Pressure (psig)	0.307

Note: This is a summary table. Results for all individual components can be found in Appendix I of this report.

End of Section 1 – Certificate of Analysis

ANALYTICAL CASE NARRATIVE

2-1

INTRODUCTION

Dane County Public Works contracted Clean Air Laboratory Services to perform testing on a landfill gas line. This testing took place on 11/10/2016 at Dane County Landfill Site 2 and included the following measurements:

- Sampling using a canister to determine gaseous components
- Moisture determination by Modified EPA Method 4
- Temperature and pressure measurements

This report shall in no way be reproduced except in full without the prior written approval of Clean Air Laboratory Services.

Key Project Participants

Individuals responsible for coordinating and conducting the test program were:

**Table 2-2:
Pertinent Personnel**

Personnel	Affiliation
Allison Hackner	Dane County Public Works
Eric Ewing	CleanAir Engineering

ANALYTICAL CASE NARRATIVE

2-2

DISCUSSION OF ANALYTICAL RESULTS

A previous mobilization occurred on 11/3/2016. Moisture, temperature, and pressure data were collected during this mobilization, but were not reported as the canister sample was compromised. The second mobilization occurred on 11/10/2016 to perform all of the same measurements.

Results reported in the Certificate of Analysis are not inclusive. All results for individual components can be found in Appendix I of this report.

End of Section 2 – Analytical Case Narrative

METHODOLOGY

3-1

Table 3-2, below, summarizes the reference methods to the analytical procedures performed and their respective sources.

**Table 3-2:
List of Analytical Methodology**

<u>Title 40 CFR Part 60 Appendix A</u> U.S. EPA Method 4 (Modified)	“Determination of Moisture Content in Stack Gases”
<u>Compendium of Method for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/655/R-96/010b)</u> Compendium Method TO-15	“Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry”

EPA Method 4 can be found online at
<https://www.epa.gov/sites/production/files/2016-06/documents/m-04.pdf>

Compendium Method TO-15 can be found online at
<https://www3.epa.gov/ttnamti1/files/ambient/airtox/to-15r.pdf>

GC Analyses

All GC analyses were subcontracted through ALS Environmental through their Simi Valley, CA facility.

Hydrocarbon Dew Point Calculation

The hydrocarbon dew point calculation was subcontracted through Clean Air Engineering’s Consulting Group.

Description of Sampling Location

The sampling location was a 2” long sampling port located on the side of the duct. The duct measured 8” in diameter with disturbances located 20” and 48” away, upstream and downstream respectively, from the sampling port. The sampling port was ~ 7ft above ground level. The test port is downstream from a “chilling” process used to knockout moisture.

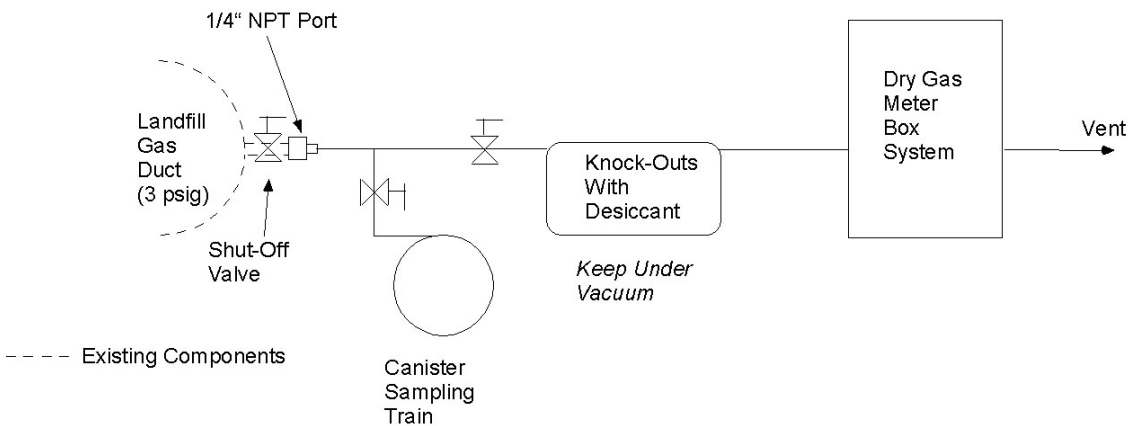
METHODOLOGY

3-2

Description of Sampling System

A diagram of the sampling train used for all sampling can be found in Figure 3-1 below.

Figure 3-1: Diagram of Sampling System Used.



The sampling train was comprised of a length of sulfinert tubing connected to a 1/4" NPT port located on the side of the landfill gas pipeline. Sulfinert tubing was used to prevent loss of sulfur components prior to the canister. This line was then split to allow for simultaneous moisture and canister sampling.

The line going to the moisture sampling train was converted to 3/8" Teflon line after the 1/4" shut-off valve to allow for proper sampling rate. Three knock-out jars were used to determine moisture content (water, drierite, and silica gel). This is a modification of Method 4 which calls for two water impingers, an empty impinger, and a silica gel impinger. While sampling, the moisture sampling train was kept under vacuum to prevent pressure buildup in the knockouts. A one hour test run was used for moisture sampling.

The canister sampling train consisted of the canister and a flow controller. The flow controller allowed the canister to fill over a 30 minute interval. Both of these were silonite coated to prevent reaction with the gas.

For temperature determinations, the sulfinert sampling line was disconnected from the NPT port and was replaced with a 1/8" thermocouple. Temperature measurements were taken before any sampling occurred and after all sampling was completed.

Pressure measurements were taken after the shutoff valve leading to the moisture sampling train. This measurement was taken prior to moisture sampling.

METHODOLOGY

3-3

Description of Sampling Location

The sampling location was a 2” long sampling port located on the side of the duct. The duct measured 8” in diameter with disturbances located 20” and 48” away, upstream and downstream respectively, from the sampling port. The sampling port was ~ 7ft above ground level. The test port is downstream from a “chilling” process used to knockout moisture.

End of Section 3 – Methodology

APPENDIX

4-1

LABORATORY DATA..... I
FIELD DATA II
HYDROCARBON DEWPOINT DATA..... III

LABORATORY DATA

I



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

November 15, 2016

Eric Ewing
CleanAir Engineering, Inc.
500 W. Wood St.
Palatine, IL 60067

RE: DCPW / 29427

Dear Eric:

Enclosed are the results of the sample submitted to our laboratory on November 11, 2016. For your reference, this analysis has been assigned our service request number P1605275.

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

By Sue Anderson at 10:11 am, Nov 15, 2016

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: CleanAir Engineering, Inc.
Project: DCPW / 29427

Service Request No: P1605275

CASE NARRATIVE

The sample was received intact under chain of custody on November 11, 2016 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.

BTU and CHONS Analysis

The results for BTU and CHONS were generated according to ASTM D 3588-98. The following analyses were performed and used to calculate the BTU and CHONS results. This method is not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

C2 through C6 Hydrocarbon Analysis

The sample was analyzed according to modified EPA Method TO-3 for C2 through >C6 hydrocarbons using a gas chromatograph equipped with a flame ionization detector (FID). This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

Fixed Gases Analysis

The samples was also analyzed for fixed gases (hydrogen, oxygen/argon, nitrogen, carbon monoxide, methane and carbon dioxide) according to modified EPA Method 3C (single injection) using a gas chromatograph equipped with a thermal conductivity detector (TCD). This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

Hydrogen Sulfide Analysis

The samples was also analyzed for hydrogen sulfide per ASTM D 5504-12 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). Method ASTM D 5504-12 is included on the laboratory's NELAP scope of accreditation, however it is not part of the DoD-ELAP accreditation.



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

Client: CleanAir Engineering, Inc.
Project: DCPW / 29427

Service Request No: P1605275

CASE NARRATIVE

Volatile Organic Compound Analysis

The samples was also analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. The method was modified to include the use of helium as a diluent gas in place of zero-grade air for container pressurization. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The container was cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

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/lab/license/env.htm	AZ0694
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
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	977273
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)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413- 16-7
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	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.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: CleanAir Engineering, Inc.
 Project ID: DCPW / 29427

Service Request: P1605275

Date Received: 11/11/2016
 Time Received: 09:55

TO-3 Modified - C1C6+ Can
3C Modified - Fxd Gases Can
ASTM D5504-01 - H2S Can
TO-15 Modified - VOC Cans

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-3 Modified - C1C6+ Can	3C Modified - Fxd Gases Can	ASTM D5504-01 - H2S Can	TO-15 Modified - VOC Cans
Treatment Plant Run 1 11/10	P1605275-001	Air	11/10/2016	10:30	SSC00241	2.97	2.97	X	X	X	X



2655 Park Center Drive, Suite A
 Simi Valley, California 93065
 Phone (805) 526-7161
 Fax (805) 526-7270

Air - Chain of Custody Record & Analytical Service Request

Page _____ of _____

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		ALS Project No. D1605275
Company Name & Address (Reporting Information) Clean Air Engineering 500 W Wood St Palatine IL 60067		ALS Contact: <i>Sve Anderson</i>
Project Name DCPW	Project Number 29427	Analysis Method TO-3 (Mol) EPA X (Mol) BTU (including full Inlet list)
Project Manager Eric Ewing Phone 847-654-4519 Email Address for Result Reporting eewing@cleanair.com	P.O. # / Billing Information 06493-64-65700	Comments e.g. Actual Preservative or specific instructions
Sampler (Print & Sign) Eric Ewing	Flow Controller ID (Bar code # - FC #) SF000161	
Laboratory ID Number 29427-002	Date Collected 11/10/16	Sample Volume 6L
Client Sample ID Treatment Plant Run 1 11/10	Time Collected 10:00-10:30	
Laboratory ID Number 29427-003	Date Collected 11/10/16	Sample Volume 6L
Client Sample ID Treatment Plant Run 2 11/10	Time Collected 11:01-11:30	
		Canister Start Pressure "Hg -17.33
		Flow Controller ID (Bar code # - FC #) SF000161
		Canister End Pressure "Hg/psig -17.41
		Canister Start Pressure "Hg -17.33

Relinquished by: (Signature) *E. Ewing*
 Date: 11/10/16
 Time: 16:00

Received by: (Signature)
 Date:
 Time:

Report Tier Levels - please select
 Tier I - Results (Default, in not specified)
 Tier II (Results + QC Summaries)
 Tier III (Results + QC & Calibration Summaries)
 Tier IV (Date Validation Package) 10% Surcharge

Project Requirements (MRLs, GAPP)
 Chain of Custody Seal: (Circle)
 INTACT BROKEN ABSENT

**ALS Environmental
Sample Acceptance Check Form**

Client: CleanAir Engineering, Inc.

Work order: P1605275

Project: DCPW / 29427

Sample(s) received on: 11/11/16

Date opened: 11/11/16

by: KKELPE

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | | Yes | No | N/A |
|----|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 | Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 | Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 | Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 | Were custody seals on outside of cooler/Box/Container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9 | Do containers have appropriate preservation , according to method/SOP or Client specified information? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | Is there a client indication that the submitted samples are pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 | Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 | Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1605275-001.01	6.0 L Silonite Can					
P1605275-002.01	6.0 L Silonite Can					

Explain any discrepancies: (include lab sample ID numbers): _____

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Treatment Plant Run 1 11/10
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P1605275-001

Test Code: ASTM D3588-98
 Analyst: Mike Conejo/Adam McAfee
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00241

Date Collected: 11/10/16
 Date Received: 11/11/16

Canister Dilution Factor: 1.55

Components	Result Volume %	Result Weight %	Data Qualifier
Hydrogen	< 0.01	< 0.01	
Oxygen	0.32	0.38	
Nitrogen	6.56	6.72	
Carbon Monoxide	< 0.01	< 0.01	
Methane	55.65	32.62	
Carbon Dioxide	37.39	60.13	
Hydrogen Sulfide	0.04	0.05	
C2 as Ethane	< 0.01	< 0.01	
C3 as Propane	< 0.01	< 0.01	
C4 as n-Butane	< 0.01	< 0.01	
C5 as n-Pentane	< 0.01	< 0.01	
C6 as n-Hexane	< 0.01	< 0.01	
> C6 as n-Hexane	0.02	0.08	
TOTALS	99.99	99.99	

Components	Mole %	Weight %
Carbon	23.02	40.91
Hydrogen	55.10	8.22
Oxygen	18.63	44.10
Nitrogen	3.24	6.72
Sulfur	< 0.10	< 0.10

Specific Gravity (Air = 1)		0.9448
Specific Volume	ft3/lb	13.87
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	565.3
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	509.1
Gross Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	553.8
Net Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	498.7
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	7,840.1
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	7,059.8
Compressibility Factor "Z" (60 F, 14.696 psia)		0.9971

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Treatment Plant Run 1 11/10
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P1605275-001

Test Code: EPA TO-3 Modified
 Instrument ID: HP5890 II/GC8/FID
 Analyst: Adam McAfee
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00241

Date Collected: 11/10/16
 Date Received: 11/11/16
 Date Analyzed: 11/11/16
 Volume(s) Analyzed: 0.10 ml(s)

Canister Dilution Factor: 1.55

Compound	Result ppmV	MRL ppmV	Data Qualifier
C ₂ as Ethane	ND	7.8	
C ₃ as Propane	29	7.8	
C ₄ as n-Butane	8.8	7.8	
C ₅ as n-Pentane	10	7.8	
C ₆ as n-Hexane	11	7.8	
C ₆₊ as n-Hexane	180	16	

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.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Method Blank
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P161111-MB

Test Code: EPA TO-3 Modified
 Instrument ID: HP5890 II/GC8/FID
 Analyst: Adam McAfee
 Sampling Media: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 11/11/16
 Volume(s) Analyzed: 1.0 ml(s)

Compound	Result ppmV	MRL ppmV	Data Qualifier
C ₂ as Ethane	ND	0.50	
C ₃ as Propane	ND	0.50	
C ₄ as n-Butane	ND	0.50	
C ₅ as n-Pentane	ND	0.50	
C ₆ as n-Hexane	ND	0.50	
C ₆₊ as n-Hexane	ND	1.0	

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.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Lab Control Sample
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P161111-LCS

Test Code: EPA TO-3 Modified
Instrument ID: HP5890 II/GC8/FID
Analyst: Adam McAfee
Sampling Media: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 11/11/16
Volume(s) Analyzed: NA ml(s)

Compound	Spike Amount ppmV	Result ppmV	% Recovery	ALS Acceptance Limits	Data Qualifier
Ethane	1,020	1,050	103	85-117	
Propane	1,040	1,120	108	85-116	
n-Butane	1,010	1,100	109	84-114	
n-Pentane	1,000	1,050	105	85-124	
n-Hexane	1,010	1,150	114	84-132	

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Treatment Plant Run 1 11/10
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P1605275-001

Test Code: EPA Method 3C Modified
 Instrument ID: HP5890 II/GC1/TCD
 Analyst: Adam McAfee
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00241

Date Collected: 11/10/16
 Date Received: 11/11/16
 Date Analyzed: 11/11/16
 Volume(s) Analyzed: 0.10 ml(s)

Canister Dilution Factor: 1.55

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	Hydrogen	ND	0.16	
7782-44-7	Oxygen*	0.322	0.16	
7727-37-9	Nitrogen	6.56	0.16	
630-08-0	Carbon Monoxide	ND	0.16	
74-82-8	Methane	55.7	0.16	
124-38-9	Carbon Dioxide	37.4	0.16	

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.

* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Method Blank
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P161111-MB

Test Code: EPA Method 3C Modified
 Instrument ID: HP5890 II/GC1/TCD
 Analyst: Adam McAfee
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 11/11/16
 Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	Hydrogen	ND	0.10	
7782-44-7	Oxygen*	ND	0.10	
7727-37-9	Nitrogen	ND	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
74-82-8	Methane	ND	0.10	
124-38-9	Carbon Dioxide	ND	0.10	

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.

* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Lab Control Sample
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P161111-LCS

Test Code: EPA Method 3C Modified
 Instrument ID: HP5890 II/GC1/TCD
 Analyst: Adam McAfee
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 11/11/16
 Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount ppmV	Result ppmV	% Recovery	ALS Acceptance Limits	Data Qualifier
1333-74-0	Hydrogen	50,000	50,500	101	94-105	
7782-44-7	Oxygen*	50,000	52,700	105	97-108	
7727-37-9	Nitrogen	50,000	52,600	105	89-113	
630-08-0	Carbon Monoxide	50,000	52,100	104	98-108	
74-82-8	Methane	50,000	50,000	100	94-111	
124-38-9	Carbon Dioxide	50,000	50,100	100	94-104	

* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Treatment Plant Run 1 11/10
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P1605275-001

Test Code: ASTM D 5504-12
 Instrument ID: Agilent 6890A/GC13/SCD
 Analyst: Mike Conejo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00241

Date Collected: 11/10/16
 Time Collected: 10:30
 Date Received: 11/11/16
 Date Analyzed: 11/11/16
 Time Analyzed: 11:38
 Volume(s) Analyzed: 0.10 ml(s)

Canister Dilution Factor: 1.55

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	600,000	110	430,000	78	
463-58-1	Carbonyl Sulfide	1,700	190	690	78	
74-93-1	Methyl Mercaptan	2,000	150	1,000	78	
75-08-1	Ethyl Mercaptan	630	200	250	78	
75-18-3	Dimethyl Sulfide	990	200	390	78	
75-15-0	Carbon Disulfide	310	120	100	39	
75-33-2	Isopropyl Mercaptan	10,000	240	3,200	78	
75-66-1	tert-Butyl Mercaptan	490	290	130	78	
107-03-9	n-Propyl Mercaptan	320	240	100	78	
624-89-5	Ethyl Methyl Sulfide	ND	240	ND	78	
110-02-1	Thiophene	8,600	270	2,500	78	
513-44-0	Isobutyl Mercaptan	ND	290	ND	78	
352-93-2	Diethyl Sulfide	ND	290	ND	78	
109-79-5	n-Butyl Mercaptan	ND	290	ND	78	
624-92-0	Dimethyl Disulfide	ND	150	ND	39	
616-44-4	3-Methylthiophene	ND	310	ND	78	
110-01-0	Tetrahydrothiophene	ND	280	ND	78	
638-02-8	2,5-Dimethylthiophene	ND	360	ND	78	
872-55-9	2-Ethylthiophene	ND	360	ND	78	
110-81-6	Diethyl Disulfide	ND	190	ND	39	

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.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Method Blank
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P161111-MB

Test Code: ASTM D 5504-12
 Instrument ID: Agilent 6890A/GC13/SCD
 Analyst: Mike Conejo
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Time Collected: NA
 Date Received: NA
 Date Analyzed: 11/11/16
 Time Analyzed: 07:21
 Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

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.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Sample ID: Lab Control Sample
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
ALS Sample ID: P161111-LCS

Test Code: ASTM D 5504-12
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Mike Conejo
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 11/11/16
Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS Acceptance Limits	Data Qualifier
7783-06-4	Hydrogen Sulfide	1,000	970	97	75-148	
463-58-1	Carbonyl Sulfide	1,000	948	95	70-137	
74-93-1	Methyl Mercaptan	1,000	911	91	72-139	

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: CleanAir Engineering, Inc.
Client Sample ID: Treatment Plant Run 1 11/10
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P1605275-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Cory Lewis
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00241

Date Collected: 11/10/16
 Date Received: 11/11/16
 Date Analyzed: 11/14/16
 Volume(s) Analyzed: 0.0030 Liter(s)

Canister Dilution Factor: 1.55

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/m ³	ppbV	ppbV	
115-07-1	Propene	8,300	260	4,800	150	
75-71-8	Dichlorodifluoromethane (CFC 12)	1,500	260	300	52	
74-87-3	Chloromethane	ND	260	ND	130	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	260	ND	37	
75-01-4	Vinyl Chloride	870	260	340	100	
106-99-0	1,3-Butadiene	ND	260	ND	120	
74-83-9	Bromomethane	ND	260	ND	67	
75-00-3	Chloroethane	ND	260	ND	98	
64-17-5	Ethanol	8,100	2,600	4,300	1,400	
75-05-8	Acetonitrile	340	260	200	150	
107-02-8	Acrolein	ND	1,000	ND	450	
67-64-1	Acetone	9,600	2,600	4,000	1,100	
75-69-4	Trichlorofluoromethane	ND	260	ND	46	
67-63-0	2-Propanol (Isopropyl Alcohol)	8,100	2,600	3,300	1,100	
107-13-1	Acrylonitrile	ND	260	ND	120	
75-35-4	1,1-Dichloroethene	ND	260	ND	65	
75-09-2	Methylene Chloride	ND	260	ND	74	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	260	ND	83	
76-13-1	Trichlorotrifluoroethane	ND	260	ND	34	
75-15-0	Carbon Disulfide	ND	2,600	ND	830	
156-60-5	trans-1,2-Dichloroethene	ND	260	ND	65	
75-34-3	1,1-Dichloroethane	ND	260	ND	64	
1634-04-4	Methyl tert-Butyl Ether	ND	260	ND	72	
108-05-4	Vinyl Acetate	ND	2,600	ND	730	
78-93-3	2-Butanone (MEK)	14,000	2,600	4,600	880	

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.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: CleanAir Engineering, Inc.
Client Sample ID: Treatment Plant Run 1 11/10
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P1605275-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Cory Lewis
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00241

Date Collected: 11/10/16
 Date Received: 11/11/16
 Date Analyzed: 11/14/16
 Volume(s) Analyzed: 0.0030 Liter(s)

Canister Dilution Factor: 1.55

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	940	260	240	65	
141-78-6	Ethyl Acetate	1,600	520	450	140	
110-54-3	n-Hexane	3,000	260	860	73	
67-66-3	Chloroform	ND	260	ND	53	
109-99-9	Tetrahydrofuran (THF)	6,900	260	2,300	88	
107-06-2	1,2-Dichloroethane	370	260	91	64	
71-55-6	1,1,1-Trichloroethane	ND	260	ND	47	
71-43-2	Benzene	2,400	260	760	81	
56-23-5	Carbon Tetrachloride	ND	260	ND	41	
110-82-7	Cyclohexane	1,800	520	510	150	
78-87-5	1,2-Dichloropropane	ND	260	ND	56	
75-27-4	Bromodichloromethane	ND	260	ND	39	
79-01-6	Trichloroethene	480	260	90	48	
123-91-1	1,4-Dioxane	ND	260	ND	72	
80-62-6	Methyl Methacrylate	ND	520	ND	130	
142-82-5	n-Heptane	4,200	260	1,000	63	
10061-01-5	cis-1,3-Dichloropropene	ND	260	ND	57	
108-10-1	4-Methyl-2-pentanone	2,000	260	490	63	
10061-02-6	trans-1,3-Dichloropropene	ND	260	ND	57	
79-00-5	1,1,2-Trichloroethane	ND	260	ND	47	
108-88-3	Toluene	38,000	260	10,000	69	
591-78-6	2-Hexanone	ND	260	ND	63	
124-48-1	Dibromochloromethane	ND	260	ND	30	
106-93-4	1,2-Dibromoethane	ND	260	ND	34	
123-86-4	n-Butyl Acetate	1,000	260	220	54	

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.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 3 of 3

Client: CleanAir Engineering, Inc.
Client Sample ID: Treatment Plant Run 1 11/10
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P1605275-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Cory Lewis
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: SSC00241

Date Collected: 11/10/16
 Date Received: 11/11/16
 Date Analyzed: 11/14/16
 Volume(s) Analyzed: 0.0030 Liter(s)

Canister Dilution Factor: 1.55

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	3,700	260	780	55	
127-18-4	Tetrachloroethene	1,200	260	180	38	
108-90-7	Chlorobenzene	ND	260	ND	56	
100-41-4	Ethylbenzene	20,000	260	4,500	59	
179601-23-1	m,p-Xylenes	34,000	520	7,800	120	
75-25-2	Bromoform	ND	260	ND	25	
100-42-5	Styrene	1,600	260	370	61	
95-47-6	o-Xylene	12,000	260	2,700	59	
111-84-2	n-Nonane	11,000	260	2,100	49	
79-34-5	1,1,2,2-Tetrachloroethane	ND	260	ND	38	
98-82-8	Cumene	1,600	260	330	53	
80-56-8	alpha-Pinene	6,900	260	1,200	46	
103-65-1	n-Propylbenzene	1,500	260	310	53	
622-96-8	4-Ethyltoluene	2,300	260	470	53	
108-67-8	1,3,5-Trimethylbenzene	2,000	260	410	53	
95-63-6	1,2,4-Trimethylbenzene	5,000	260	1,000	53	
100-44-7	Benzyl Chloride	ND	260	ND	50	
541-73-1	1,3-Dichlorobenzene	ND	260	ND	43	
106-46-7	1,4-Dichlorobenzene	2,300	260	380	43	
95-50-1	1,2-Dichlorobenzene	ND	260	ND	43	
5989-27-5	d-Limonene	29,000	260	5,200	46	
96-12-8	1,2-Dibromo-3-chloropropane	ND	260	ND	27	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ND	35	
91-20-3	Naphthalene	980	260	190	49	
87-68-3	Hexachlorobutadiene	ND	260	ND	24	

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.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: CleanAir Engineering, Inc.

Client Sample ID: Method Blank

Client Project ID: DCPW / 29427

ALS Project ID: P1605275

ALS Sample ID: P161114-MB

Test Code: EPA TO-15 Modified

Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Received: NA

Analyst: Cory Lewis

Date Analyzed: 11/14/16

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/m ³	ppbV	ppbV	
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

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.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: CleanAir Engineering, Inc.

Client Sample ID: Method Blank

Client Project ID: DCPW / 29427

ALS Project ID: P1605275

ALS Sample ID: P161114-MB

Test Code: EPA TO-15 Modified

Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Received: NA

Analyst: Cory Lewis

Date Analyzed: 11/14/16

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

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.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 3 of 3

Client: CleanAir Engineering, Inc.

Client Sample ID: Method Blank

Client Project ID: DCPW / 29427

ALS Project ID: P1605275

ALS Sample ID: P161114-MB

Test Code: EPA TO-15 Modified

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Analyst: Cory Lewis

Sample Type: 6.0 L Silonite Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 11/14/16

Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

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.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: CleanAir Engineering, Inc.
Client Project ID: DCPW / 29427

ALS Project ID: P1605275

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Cory Lewis
 Sample Type: 6.0 L Silonite Canister(s)
 Test Notes:

Date(s) Collected: 11/10/16
 Date(s) Received: 11/11/16
 Date(s) Analyzed: 11/14/16

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P161114-MB	98	101	111	70-130	
Lab Control Sample	P161114-LCS	99	101	114	70-130	
Treatment Plant Run 1 11/10	P1605275-001	99	99	112	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

Client: CleanAir Engineering, Inc.
Client Sample ID: Lab Control Sample
Client Project ID: DCPW / 29427

ALS Project ID: P1605275
 ALS Sample ID: P161114-LCS

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
 Analyst: Cory Lewis
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 11/14/16
 Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount µg/m ³	Result µg/m ³	% Recovery	ALS	Data Qualifier
					Acceptance Limits	
115-07-1	Propene	210	162	77	52-127	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	199	95	68-109	
74-87-3	Chloromethane	210	171	81	51-130	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	211	184	87	66-114	
75-01-4	Vinyl Chloride	210	176	84	61-125	
106-99-0	1,3-Butadiene	210	192	91	62-144	
74-83-9	Bromomethane	210	208	99	73-123	
75-00-3	Chloroethane	210	179	85	69-122	
64-17-5	Ethanol	1,060	789	74	62-124	
75-05-8	Acetonitrile	213	168	79	57-114	
107-02-8	Acrolein	212	190	90	62-116	
67-64-1	Acetone	1,060	825	78	57-117	
75-69-4	Trichlorofluoromethane	210	200	95	63-98	
67-63-0	2-Propanol (Isopropyl Alcohol)	424	369	87	66-121	
107-13-1	Acrylonitrile	213	194	91	68-123	
75-35-4	1,1-Dichloroethene	213	197	92	76-118	
75-09-2	Methylene Chloride	212	182	86	60-118	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	212	190	90	65-126	
76-13-1	Trichlorotrifluoroethane	212	203	96	73-114	
75-15-0	Carbon Disulfide	213	178	84	57-102	
156-60-5	trans-1,2-Dichloroethene	213	200	94	74-123	
75-34-3	1,1-Dichloroethane	212	183	86	69-111	
1634-04-4	Methyl tert-Butyl Ether	213	193	91	69-113	
108-05-4	Vinyl Acetate	1,060	1100	104	76-128	
78-93-3	2-Butanone (MEK)	212	204	96	63-127	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

Client: CleanAir Engineering, Inc.

Client Sample ID: Lab Control Sample

Client Project ID: DCPW / 29427

ALS Project ID: P1605275

ALS Sample ID: P161114-LCS

Test Code: EPA TO-15 Modified

Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Received: NA

Analyst: Cory Lewis

Date Analyzed: 11/14/16

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 0.125 Liter(s)

Test Notes:

CAS #	Compound	Spike Amount µg/m ³	Result µg/m ³	% Recovery	ALS	Data Qualifier
					Acceptance Limits	
156-59-2	cis-1,2-Dichloroethene	212	188	89	72-117	
141-78-6	Ethyl Acetate	426	405	95	68-127	
110-54-3	n-Hexane	213	158	74	55-116	
67-66-3	Chloroform	212	193	91	70-109	
109-99-9	Tetrahydrofuran (THF)	213	185	87	72-113	
107-06-2	1,2-Dichloroethane	212	204	96	69-113	
71-55-6	1,1,1-Trichloroethane	212	211	100	72-115	
71-43-2	Benzene	212	177	83	65-107	
56-23-5	Carbon Tetrachloride	213	220	103	71-113	
110-82-7	Cyclohexane	425	366	86	71-115	
78-87-5	1,2-Dichloropropane	212	176	83	71-115	
75-27-4	Bromodichloromethane	214	217	101	75-118	
79-01-6	Trichloroethene	212	210	99	68-114	
123-91-1	1,4-Dioxane	213	223	105	81-131	
80-62-6	Methyl Methacrylate	424	446	105	72-130	
142-82-5	n-Heptane	213	174	82	68-116	
10061-01-5	cis-1,3-Dichloropropene	210	215	102	77-126	
108-10-1	4-Methyl-2-pentanone	213	212	100	69-126	
10061-02-6	trans-1,3-Dichloropropene	213	226	106	79-125	
79-00-5	1,1,2-Trichloroethane	212	205	97	75-119	
108-88-3	Toluene	212	194	92	59-118	
591-78-6	2-Hexanone	213	211	99	69-129	
124-48-1	Dibromochloromethane	213	241	113	74-136	
106-93-4	1,2-Dibromoethane	212	226	107	73-131	
123-86-4	n-Butyl Acetate	216	212	98	69-130	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

Client: CleanAir Engineering, Inc.

Client Sample ID: Lab Control Sample

Client Project ID: DCPW / 29427

ALS Project ID: P1605275

ALS Sample ID: P161114-LCS

Test Code: EPA TO-15 Modified

Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Received: NA

Analyst: Cory Lewis

Date Analyzed: 11/14/16

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 0.125 Liter(s)

Test Notes:

CAS #	Compound	Spike Amount µg/m ³	Result µg/m ³	% Recovery	ALS	Data Qualifier
					Acceptance Limits	
111-65-9	n-Octane	212	175	83	66-120	
127-18-4	Tetrachloroethene	213	224	105	65-130	
108-90-7	Chlorobenzene	212	207	98	68-120	
100-41-4	Ethylbenzene	212	204	96	68-122	
179601-23-1	m,p-Xylenes	424	414	98	68-123	
75-25-2	Bromoform	212	255	120	69-130	
100-42-5	Styrene	212	242	114	71-133	
95-47-6	o-Xylene	212	206	97	68-122	
111-84-2	n-Nonane	212	170	80	65-120	
79-34-5	1,1,2,2-Tetrachloroethane	212	198	93	69-130	
98-82-8	Cumene	212	210	99	70-123	
80-56-8	alpha-Pinene	213	219	103	70-128	
103-65-1	n-Propylbenzene	214	208	97	69-125	
622-96-8	4-Ethyltoluene	212	231	109	67-130	
108-67-8	1,3,5-Trimethylbenzene	212	202	95	67-124	
95-63-6	1,2,4-Trimethylbenzene	212	214	101	67-129	
100-44-7	Benzyl Chloride	212	280	132	79-138	
541-73-1	1,3-Dichlorobenzene	212	234	110	65-136	
106-46-7	1,4-Dichlorobenzene	213	233	109	66-141	
95-50-1	1,2-Dichlorobenzene	212	231	109	67-136	
5989-27-5	d-Limonene	212	250	118	71-134	
96-12-8	1,2-Dibromo-3-chloropropane	212	257	121	73-136	
120-82-1	1,2,4-Trichlorobenzene	212	266	125	64-134	
91-20-3	Naphthalene	214	268	125	62-136	
87-68-3	Hexachlorobutadiene	213	252	118	60-133	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

FIELD DATA

II

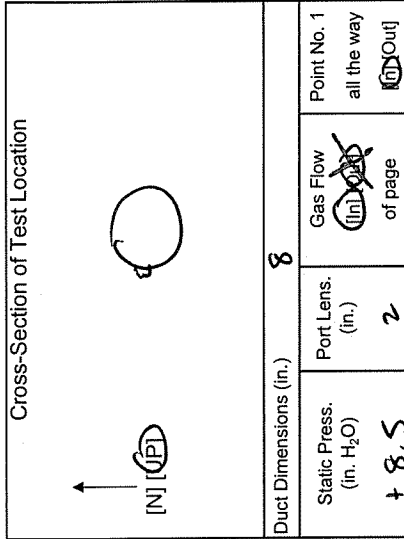
TEST LOCATION: Treatment Plant 11/10/16
CAE
CRATED
 UNIT: 1 RUN: 1
MOISTURE DETERMINATION
FIELD DATA SHEET

PAGE 1 OF 1

Client	<u>DCPW</u>	Project No.	<u>64-0200</u>
Plant	<u>MADISON well</u>	Date	<u>11/10/16</u>
Meter Operator	<u>M. BANDAIA</u>		
Probe Operator	<u>---</u>		

Meter Box No.	<u>66-23</u>
Meter Y _d	<u>1.0024</u>

Leak Rate Before	<u>.002</u> (cfm) @ <u>15</u> (in. Hg)
Leak Rate After	<u>.001</u> (cfm) @ <u>15</u> (in. Hg)



Amb. Temp. (°F)	<u>56</u>	Bar. Press.	<u>21.00</u> [in. Hg] [mbar]
Liner Material	<u>SS</u>		

Balance ID	<u>1068</u>	Ref. Weight ID	
Ref. Weight Mass	<u>500</u>	Ref. Weight Reading	

Reference Weight Mass must agree with Reference Weight Reading to within ±0.5 g.

H ₂ O	<u>5.2</u> [g]	Silica Gel (gm)	<u>8.4</u>
Total V _{ic}	<u>29.8</u>		

Start Time:	<u>1000</u>	Stop Time:	<u>1100</u>
-------------	-------------	------------	-------------

+ REV DATE
16.4

Traverse Point Number	Min/pt Elapsed Time	Orifice Setting ΔH (in. H ₂ O)	Gas Sample Volume V _m Init. Vol. (ft ³) [L]	Stack Temp. T _s (°F)	Cond. Temp. T _c (°F)	DGM Inlet T _{m in} (°F)	DGM Outlet T _{m out} (°F)	Pump Vacuum (in. Hg)	Oxygen Indicator, approx (%.dv)	Notes
1-1	5	2.0	154.13	122	59	61	54	8.5	0.3	
	10		158.04		58	64	55	8.5	0.3	
	15		161.90		56	67	55	8.5	0.3	
	20		165.90		53	73	57	8.5	0.3	
	25		169.83		53	74	58	8.5	0.4	
	30		173.77		54	76	59	8.5	0.5	
	35		177.70		56	76	60	8.5	0.8	
	40		181.63		57	76	61	8.5	1.0	
	45		185.58		58	77	62	8.5	1.1	
	50		189.52		55	77	62	8.5	1.1	
	55		193.45		54	78	63	8.5	1.1	
	60		197.395	123	54	78	63	8.5	1.0	
Total			47.010			877	209			
Average		2.0000		122.5000		66.0933				

Circle correct bracketed units on data sheet.

QA/QC MD
Date 11/10/16



USEPA Method 4 Sampling, Velocity and Moisture Parameters

Run No.		1	Average
Date (2016)		Nov 10	
Start Time (approx.)		10:00	
Stop Time (approx.)		11:00	
Sampling Conditions			
Y_d	Dry gas meter correction factor	1.0024	
P_g	Static pressure (in. H ₂ O)	8.5000	8.5000
P_{bar}	Barometric pressure (in. Hg)	29.00	29.0000
V_{lc}	Total Liquid collected (ml)	29.80	
V_m	Volume metered, meter conditions (ft ³)	47.0100	
T_m	Dry gas meter temperature (°F)	66.0833	
T_s	Sample temperature (°F)	123	123
ΔH	Meter box orifice pressure drop (in. H ₂ O)	2.0000	
θ	Total sampling time (min)	60.0	
Flow Results			
V_{wstd}	Volume of water collected (ft ³)	1.4024	1.4024
V_{mstd}	Volume metered, standard (dscf)	46.0543	46.0543
P_s	Sample gas pressure, absolute (in. Hg)	29.6250	29.6250
P_v	Vapor pressure, actual (in. Hg)	3.6910	3.6910
B_{wo}	Moisture measured in sample (% by volume)	2.9551	2.9551
B_{ws}	Saturated moisture content (% by volume)	12.4589	12.4589
B_w	Actual water vapor in gas (% by volume)	2.9551	2.9551
ρ_w	Density water vapor, standard (lb/ft ³)	0.0467	0.0467
B_w	Actual water vapor in gas (ft ³ /10 ⁶ ft ³)	29,551	29,551
B_w	Actual water vapor in gas (lb/10 ⁶ ft ³)	1,381.0	1,381.0

Comments:

111516 131534

Average includes 1 run. * indicates that the run is not included in the average.

HYDROCARBON DEWPOINT DATA

III

Hydrocarbon Dewpoint
 Pressure Temperature
 PSia Degrees F
 15.007 -151.47

9: oxygen/nitrogen/methane/carbon dioxide/hydrogen sulfide: Saturation points (bubble and dew points at same composition) (0.38038/6.7268/32.652/60.19/0.050051)

Liquid Phase Temperature (°F)	Vapor Phase Temperature (°F)	Liquid Phase Pressure (psia)	Vapor Phase Pressure (psia)	Liquid Phase Density (kg/ft³)	Vapor Phase Density (kg/ft³)	Liquid Phase Mass Frac. (oxygen)	Liquid Phase Mass Frac. (nitrogen)
-274.32	-151.47	15.007	15.007	23.589	0.057148	0.0038038	0.067268

9: oxygen/nitrogen/methane/carbon dioxide/hydrogen sulfide: Saturation points (bubble and dew points at same composition) (0.38038/6.7268/32.652/60.19/0.050051)

Liquid Phase Mass Frac. (methane)	Liquid Phase Mass Frac. carbon dioxide	Liquid Phase Mass Frac. (hydrogen sulfide)	Vapor Phase Mass Frac. (oxygen)	Vapor Phase Mass Frac. (nitrogen)	Vapor Phase Mass Frac. (methane)	Vapor Phase Mass Frac. (carbon dioxide)	Vapor Phase Mass Frac. (hydrogen sulfide)
0.32652	0.6019	0.00050051	0.0038038	0.067268	0.32652	0.6019	0.00050051

APPENDIX B – DANE COUNTY PROPRIETARY INFORMATION

All restrictions on the use of data contained within a proposal and all confidential information must be clearly stated on the attached “Designation of Confidential and Proprietary Information” form. Proprietary information submitted in a proposal, or in response to the RFP, will be handled in accordance with the applicable Wisconsin State Statute(s).

To the extent permitted by law, it is the intention of Dane County to withhold the contents of the proposal from public view until such times as competitive or bargaining reasons no longer require non-disclosure, in the opinion of Dane County. At that time, all proposals will be available for review in accordance with the Wisconsin Open Records Law.

Designation of Confidential and Proprietary Information

The attached material submitted in response to this Proposal includes proprietary and confidential information which qualifies as a trade secret, as provided in Sect 19.36(5), Wisconsin State Statutes, or is otherwise material that can be kept confidential under the Wisconsin Open Records law. As such, we ask that certain pages, as indicated below, of this proposal response be treated as confidential material and not be released without our written approval. Attach additional sheets if needed.

Section	Page Number	Topic

Check mark : This firm is not designating any information as proprietary and confidential which qualifies as trade secret.

Prices always become public information when proposals are opened, and therefore cannot be designated as confidential.

Other information cannot be kept confidential unless it is a trade secret. Trade secret is defined in Sect. 134(80)(1)(c) Wis. State Statutes, as follows: "Trade secret" means information, including a formula, pattern, compilation, program, device, method technique or process to which all of the following apply:

1. The information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use.
2. The information is the subject of efforts to maintain its secrecy that are reasonable under the circumstances.

In the event the Designation of Confidentiality of this information is challenged, the undersigned hereby agrees to provide legal counsel or other necessary assistance to defend the Designation of Confidentiality.

Failure to include this form in the proposal response may mean that all information provided as part of the proposal response will be open to examination or copying. The County considers other markings of confidential in the proposal document to be insufficient. The undersigned agree to hold the County harmless for any damages arising out of the release of any material unless they are specifically identified above.

Signature

Title

Name (type or print)

Date