ADDENDUM NO. 1

ROCK RIVER WATER RECLAMATION DISTRICT Dewatering Building Basement Renovations Capital Project No. 1850

This Addendum Number 1, dated March 20, 2017, for the above referenced project, supersedes all contrary and conflicting information in the specifications and contract documents, which are hereby supplemented or revised as follows:

PRE-BID MEETING

- 1. The minutes and attendance sheet from the mandatory Pre-Bid Meeting held March 12, 2018 are attached. Questions, comments, discussion, information, and clarifications included in the minutes are hereby considered part of the Contract Documents.
- 2. The "Asbestos, Thermal Insulation, and Lead-Based Paint Inspection Report", prepared by EnviroNET, Inc. and dated April 18, 2016, is hereby included in the Contract Documents. The prospective Bidder's attention is directed towards samples and testing completed on the "Seal Tank Room", which coincides with the "Hopper Room" as described in this project. No asbestos-containing material (ACM) was found in the Hopper Room as a result of this testing.
- 3. After the meeting, five (5) paint samples were taken in the Hopper Room and the Dewatering Building basement to check for the presence of lead-based paint. The locations of the samples have been identified on the revised Plan Sheet 7. All samples tested positive for lead content but were below the Illinois EPA regulatory threshold of 0.06% lead content. However, due to the miniscule lead content lead-safe work practices shall be utilized by the Contractor when any painted surfaces are disturbed during the project (specific requirements in accordance with OSHA 29 CFR 1926.62).

PROJECT SPECIFICATION REVISIONS AND ADDITIONS

Section 1, Article 2 Instructions to Bidders

- 1. PART 3.8 STATEMENT OF QUALIFICATIONS: Replace the entire section with the following: "Each proposal must be accompanied by a Statement of Qualifications certifying that the bidder is registered to do business in the State of Illinois, has a permanent business office within 150 (onehundred-fifty) miles of the District office at 3501 Kishwaukee Street in Rockford, IL, and provides documentation that the bidder possesses the appropriate financial, material, equipment, facility and personnel resources and expertise necessary to meet all contractual obligations. The District reserves the right to request additional information as needed to evaluate bids prior to making an award.
- 2. PART 3.10.2 EVALUATION OF RESPONSIBILITY: Delete 3.10.2.f.

Section 1, Article 3 Detailed Specifications

- 1. PART 14, REMOVE AND REPLACE DOOR AND DOOR FRAME: Clarification the dimensions of the existing door are 36" W x 82-1/2" H. The dimensions of the existing frame are 40-1/4" W x 86" H. The replacement door shall match the existing dimensions.
- 2. NEW SPECIFICATION SECTION, 22 REMOVE MISCELLANEOUS PIPING AT THE DIRECTION OF THE ENGINEER: Please find the attached specification section for the addition of the REMOVE MISCELLANEOUS PIPING AT THE DIRECTION OF THE ENGINEER pay item.

Section II, Contract Forms

1. PROPOSAL: Replace the entire section with the attached revised Proposal.

PROJECT PLAN REVISIONS AND CLARIFICATIONS

- 1. The following plan sheets have been revised. Revised plan sheets are attached and shall replace original plan sheets:
 - a. Sheet 2/7 LEGEND, GENERAL NOTES, & SUMMARY OF QUANTITIES: Summary of Quantities has been updated to reflect the addition of REMOVE MISCELLANEOUS PIPING AT THE DIRECTION OF THE ENGINEER pay item.

b. Sheet 7/7 – Detail views have been updated to identify the location of the paint samples that were submitted for lead testing.

This information shall be taken into consideration when preparing your bid. This addendum will be E-mailed to all plan holders as well as posted to the District's website at <u>www.rrwrd.dst.il.us</u>.

END OF ADDENDUM NO. 1

Issued March 20, 2018 Rock River Water Reclamation District

Christopher T. Baer, P.E. Engineering Manager

ROCK RIVER WATER RECLAMATION DISTRICT DEWATERING BUILDING BASEMENT RENOVATIONS CAPITAL PROJECT #1850

MANDATORY PRE-BID MEETING - OFFICIAL MINUTES

10:00 AM, March 12, 2018 at RRWRD Graceffa Administration Building 3501 Kishwaukee Street, Rockford IL

I. General

- A. Attendance Sheet please see attached.
- B. Project Description.

The Dewatering Building Basement Renovations, Capital Project No. 1850 is a deconstruction and renovation project located in the basement of the Sludge Dewatering Building at the Rock River Water Reclamation District's main treatment plant that involves the removal of previously decommissioned equipment, ductwork, piping, storage tanks, material hoppers, and pumps, removal of concrete curbing, concrete equipment bases, and delaminated concrete, removal and replacement of floor drains, and variable depth concrete patching.

II. Contract

- A. Bids are due at 10:00 A.M. on Friday March 23, 2018 at the District's office at which time they will be read aloud.
 - 1. Bids will only be accepted from Contractors that are in attendance at the Pre-Bid Meeting.
 - 2. Submitted Bids shall include all items listed in the bid packet, including:
 - a. Completed Proposal.
 - b. Bid Bond (10%) on District form provided in the Specifications.
 - c. Fair Employment Practices Affidavit on District form provided (must include Illinois Department of Human Rights Registration number).
 - d. Contractor Statement of Qualifications (Art. 2, Part 3.8). Requirement that "the bidder shall document no less than three (3) contracts for sanitary sewer system within the past five (5) years having equal or greater value to the bid being submitted" will not apply to this Contract and will be removed via formal Addendum.
- B. This is a Unit-Price Contract. Unit prices shall be submitted on the document contained within the Proposal.
- C. Tentative bid award date is the March 26, 2018 RRWRD Board Meeting.
- D. Project Completion: All work is to be completed by June 29, 2018. Liquidated damages are \$300 per calendar day. A construction schedule shall be submitted upon project award.
- E. Insurance and Bonding documentation shall be provided to the District no more than 10 calendar days after the Notice of Award is issued.
- F. Submittals: Required submittals are listed in the applicable sections of Article 3: Detailed Specifications. The submittal process is outlined in Article 3, Section 1.2.
- G. Progress Payments: On a monthly basis, Progress Payments must be accompanied by certified payrolls and waivers of lien. Documentation shall be submitted to the District no later than the 5th day of the month for consideration at that month's Board meeting. If approved, payment will be made by the 5th day of the following month.
- H. Project Review Meetings: Anticipate bi-weekly meetings at the project site to review schedule, submittals, and coordination.

III. Access and Utilities

- A. District will provide a FOB for plant gates, and key to access the Dewatering Building. Contractor shall return FOB and key to Plant Operations at completion of the project.
- B. Work hours shall be 7:00 AM to 5:00 PM Monday through Friday (excluding District holidays). No work can be performed outside of the designated work hours without written approval from the District.

- C. Contractor parking and storage areas shall only be in designated areas as shown on Plan Sheet 2. If the Contractor desires a field office, the location shall be coordinated with the District (Contractor will be responsible for temporary power connection and will be charged District rates for electricity supplied). An indoor, temperature controlled small storage area will be provided at the Contractor's request for storage of temperature sensitive materials.
- D. Contractor shall maintain access to Plant Operations at all times throughout the duration of the project.
- E. Access to the Dewatering Building as outlined on the Plans shall be strictly adhered to.
- F. Water supply is available via the hose bid near the sump pit. Should the Contractor wish to use this water source, it will be billed at \$6.67/CCF and deducted from the final payment.
- G. Limited electric supply (120 Volt) is available in the Dewatering Building basement. Any additional electric needs beyond that shall be provided by the Contractor at no additional cost to the District.
- H. Contractor shall provide and maintain temporary sanitary facilities for all employees for the duration of the project.

IV. General and Project Specific Construction

- A. Record drawings for original building construction and subsequent additions are available upon request:
 - 1. TPI C 1966 Record Drawings
 - 2. TPI J, K, L 1978 Record Drawings
 - 3. TPI T 1978 Record Drawings
- B. All existing equipment shall be protected from damage of any kind.
- C. The Dewatering Building is in use daily with plant operations and as such the Contractor shall implement dust control methods to protect the building from dust migration.
- D. There are 5 pumps in the basement that are operational and cannot be shut down during construction. The pumps shall be protected from dust, water, and any other type of damage.
- E. The sump pit and floor drain system shall be used for clean water discharge only.
- F. The garage door and hatch above the hopper room are the approved portals for transporting materials into and out of the building.
- G. The materials to be salvaged are outlined in the Detailed Specifications (Art. 3, Section 2.1). All other equipment, materials, and items shown to be removed shall be disposed of or recycled by the Contractor in accordance with all applicable regulatory requirements. The Contractor shall provide the District will all manifests, landfill records, and/or certificates of destruction from removed materials as applicable.
- H. The Dewatering Building basement currently requires hard hats to be worn at all times due to the delaminated concrete in the ceiling.
- I. All items to be removed have been identified with red marking paint.
- J. Ferric Chloride material data sheet is included in the Contract for reference.
- K. The following submittals are required to be approved by the District prior to any work beginning:
 - 1. Detailed Project Schedule/Sequencing Plan
 - 2. Detailed Interior Deconstruction Plan
 - 3. Site Safety Plan

V. Facility Walk-Through: Summary of items discussed is listed below under VI. Questions.

VI. Questions

In addition to the above, below is a summary of questions, comments, discussion, and further clarifications that were provided during the Facility Walk-Through.

- 1. <u>Access Hatch (Above the Hopper Room)</u>: the District will have all loose and miscellaneous equipment and materials and the overhead pipe stub removed from the hatch area above the hopper room prior to work beginning. The overhead wire chases will remain as they contain live wiring. The wood planks will be removed by the Contractor prior to work beginning, and at completion of work shall be replaced with the salvaged planks or new boards to match existing, per the *Special Considerations* contained in Article 2.1 of the *Detailed Specifications*.
- 2. <u>Hopper Room Piping Removal</u>: All overhead ceiling drain pipes identified at the meeting shall be removed in full and cut off at the ceiling. Costs to remove these drain

pipes shall be included in the Contractor's bid for Pay Item 3 "REMOVE PIPING, WATER FILTER, & HVAC DUCTS AND APPURTENANCES".

- 3. <u>Remaining Material in Pipes</u>: The Contractor is advised that there may be water, sludge, and/or residual materials remaining in the pipes labeled to be removed. The District will flush all pipes that contained Ferric Chloride prior to removal work beginning.
- 4. <u>Capping of Removed Pipes</u>: All pipes to be removed shall be cut off flush to the wall and/or ceiling. The only pipe that shall be capped is the "Scum & Grease" pipe identified in Detail 19 on Plan Sheet 7; a Victaulic blind flange shall be installed to match the existing pipe diameter.
- 5. <u>Site Safety Plan</u>: A "Site Safety Plan" will need to be approved by the District prior to any work beginning. Said "Site Safety Plan" shall indicate how the Contractor's proposed means, methods, and types of equipment contained in the approved "Detailed Work Plan" and "Detailed Interior Deconstruction Plan" will be in compliance with all pertinent OSHA and/or EPA requirements (per Article 2.2 of the *Detailed Specifications*).
- 6. <u>Ventilation and Dust Control</u>: The HVAC duct identified to be removed in Detail 18 on Plant Sheet 7 is available for temporary ventilation use by the Contractor during construction. However, the Contractor shall have another means of temporary ventilation available beyond this duct should the fan not function properly. Proper notification to the District of the intent to use this duct for temporary ventilation purposes shall be given via the Contractor's Site Safety Plan submittal.
- 7. <u>Removal of Delaminated Concrete</u>: The intent of Pay Item 18 "*REMOVAL OF DELAMINATED CONCRETE*" is that the Contractor will remove and dispose of delaminated, unsound, and/or loose concrete in the building ceiling in order to mitigate the falling concrete hazard. No patching, shotcrete, or repairs of any kind are included in this Pay Item.
- 8. <u>Sump Pit Concrete Repair</u>: As observed during the facility walk-through, there is currently groundwater entering the sump pit via the floor drain network. The rate of groundwater infiltration varies depending on the height of the surrounding water table; however the Contractor shall be aware that there will likely be water entering the sump pit throughout the duration of construction. Thus, the Contractor shall be responsible to implement a means of controlling the water flow for a sufficient period of time to allow for the concrete repairs to be completed. Such means could involve plugging the inlet pipe, pumping the water to the functioning sump pit in the hopper room, or other methods submitted for District approval.
- 9. <u>Presence of Asbestos Containing Materials</u>: Under a previous District construction project, the area referred to as the hopper room was sampled and tested and was found to be clear of any Asbestos Containing Materials. A copy of the inspection report is hereby included with these minutes; please see the enclosed "Asbestos, Thermal Insulation and Lead-Based Pain Inspection Report", dated April 18, 2016 and prepared by EnviroNET, Inc. The Contractor's attention is drawn to the samples and test results taken from the area referred to as the "Seal Tank Room" in this report; that room coincides to the hopper room as referenced in this project's *Detailed Specifications*.

PRE-BID MEETING ATTENDANCE SHEET

Project: <u>Dewatering Building Basement Renovations, Cap. Project #1850</u>

Name of Individual	Company	Company Address	Phone #	Email
Tyler Nelson	Rock River Water	3501 Kishwaukee St.	815-387-7651	TNelson@rrwrd.dst.il.us
	Reclamation District	Rockford, IL 61126		
Kyle Gruhn	Rock River Water	3501 Kishwaukee St.	815-621-2932	<u>KGruhn@rrwrd.dst.il.us</u>
	Reclamation District	Rockford, IL 61126		
Warren Adam	Rock River Water	3501 Kishwaukee St.	815-871-0787	WAdam@rrwrd.dst.il.us
	Reclamation District	Rockford, IL 61126		
Greg Cassaro	Rock River Water	3501 Kishwaukee St.	815-354-9586	<u>GCassaro@rrwrd.dst.il.us</u>
	Reclamation District	Rockford, IL 61126		
Larry McFall	Rock River Water	3501 Kishwaukee St.	815-387-7584	LMcFall@rrwrd.dst.il.us
Reclamation District		Rockford, IL 61126		
Christopher Baer	Rock River Water	3501 Kishwaukee St.	815-387-7678	CBaer@rrwrd.dst.il.us
	Reclamation District	Rockford, IL 61126		
Collin	Sjostrom & Sons,	1129 Harrison Ave.	815-226-0330	CMartinovich@sjostromconstructio
Martinovich	Inc.	Rockford, IL 61104		<u>n.com</u>
Wayne Blocker	Geostar Mechanical	27 Airport Drive	815-494-5206	WBlocker@geostarinc.com
		Rockford, IL 61109		
Darin Baughman	Civil Constructors	2283 Route 20 East	815-297-8540	DBaughman@civilinc.com
		Freeport, IL 61032		
Nate Kawlewski	Balestrieri	1538 Country Club Parkway	262-743-2800	<u>NKawlewski@balestrierigroup.com</u>
		Elkhorn, WI 53121		
Nazim Agushi	Balestrieri	1538 Country Club Parkway	262-215-9561	
		Elkhorn, WI 53121		
Jamin Unger	Stenstrom	2422 Center Street	815-398-3478	Excavator@rstenstrom.com
		Rockford, IL 61108		

Inspector Qualifications and Licenses and Professional Engineering Certifications

Incinerator Building Renovation Project Capital Project No. 1508

I hereby certify that the documents listed below were prepared by me or under my direct personal supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Illinois.

Documents

Bidding Requirements – All pages Contract Forms - All pages Appendix - All pages



Signature:

Robert J. Meyer

Engineer Name: **Robert G. Meyer, PE** Date of Documents: April 2016 Engineer License Number: 062.030140 Engineer Renewal Date: November 30, 2017 Licensed Asbestos Project Designer IDPH License Renewal Date: May 15, 2017

LOCATION	ABATEMENT METHOD	SIZE	QUANTITY
BASEMENT	WRAP	8 INCH DIA.	1 EACH
1ST FLOOR	GLOVE BAG	3/4 TO 3 INCH DIA.	100 L. F.
1ST FLOOR	GLOVE BAG	3/4 TO 3 INCH DIA.	8 EACH
	GLOVE BAG OR		
2ND FLOOR	WRAP AND CUT	UP TO 24 INCHES SQUARE/DIA	36 SQ. FT.*
	GLOVE BAG OR		
3RD FLOOR	WRAP AND CUT	ABOUT 12 INCHES DIA./ROUND	30 SQ. FT.*
	CAREFUL WETTED		
ROOF	REMOVAL	6 TO 24 INCHES IN DIA.	800 SQ. FT.*
	LOCATION BASEMENT 1ST FLOOR 1ST FLOOR 2ND FLOOR 3RD FLOOR ROOF	ABATEMENT METHODLOCATIONMETHODBASEMENTWRAP1ST FLOORGLOVE BAG1ST FLOORGLOVE BAG OR2ND FLOORWRAP AND CUTGLOVE BAG ORGLOVE BAG OR3RD FLOORWRAP AND CUTCAREFUL WETTEDROOFREMOVAL	ABATEMENT METHODSIZEBASEMENTWRAP8 INCH DIA.1ST FLOORGLOVE BAG3/4 TO 3 INCH DIA.1ST FLOORGLOVE BAG3/4 TO 3 INCH DIA.1ST FLOORGLOVE BAG3/4 TO 3 INCH DIA.1ST FLOORGLOVE BAG OR3/4 TO 3 INCH DIA.2ND FLOORWRAP AND CUTUP TO 24 INCHES SQUARE/DIA3RD FLOORWRAP AND CUTABOUT 12 INCHES DIA./ROUNDCAREFUL WETTED ROOFREMOVAL6 TO 24 INCHES IN DIA.

TABLE 1 ASBESTOS ABATEMENT INFORMATION

* MEASURED USING DIMENSIONS OF ASBESTOS MATERIAL

NON-ASBESTOS THERMAL INSLUATION ABATEMENT INFORMATION				
DESCRIPTION	LOCATION	ABATEMENT METHOD	SIZE / Description	QUANTITY
	BASEMENT		3/4" to 3" PIPES	1118
WATER & STEAM and exterior PIPING walls to 3rd Fl.		GLOVE BAG	Mostly 1" coated fiber insulation, mostly in basement, but water hydrant lines extend to Level 3; includes fittings.	
	1ST FLOOR & 2ND FLOOR		20"	41 LF
HOT GAS PIPING & DUCT WORK		GLOVE BAG OR WRAP & CUT	HAR vertical by furrnaces. 3" fiber insulation. Straight sections jacketed with AL wrap. Elbows and fittings, plastered.	
			20" and bigger	58 LF
HOT GAS PIPING & DUCT WORK	3RD FLOOR	GLOVE BAG OR WRAP & CUT	HAR and Exhaust/ Rcirc on top of furnaces. 3" fiber Insulation. Straight sections jacketed. Elbows & Fittings, plastered.	
Total LF				1217

TABLE 2

HAR = Hot Air Return

AL = Aluminum

ASBESTOS, THERMAL INSULATION AND LEAD-BASED PAINT INSPECTION REPORT

INCINERATOR BUILDING RENOVATION PROJECT CIP # 1508



Prepared for:

ROCK RIVER WATER RECLAMATION DISTRICT 3501 KISHWAUKEE STREET ROCKFORD, IL 61126-7480

Prepared by: ENVIRONET, INC. 1225 EAST RIVER DRIVE #130 DAVENPORT, IA 52803



April 18, 2016

REPORT OF ASBESTOS, LEAD BASED PAINT INSPECTIONS

Enviro**NET**, Inc. (Enviro**NET**) was contracted by Rock River Water Reclamation District (the DISTRICT or RRWRD) to identify asbestos containing materials (ACM) and lead-based paint (LBP) prior to de-construction of industrial equipment located inside the incinerator portion of the building as shown on the attached schematic maps and photographs. Plan view maps are provided depicting areas included in scope of work. The inspection was performed in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAPs) requirements; the scope included industrial equipment within the building in addition to building materials.

On February 5th, RRWRD provided access to the secured building. Maps and Plans developed by others were utilized together with site observation to create CADD drawings, three dimensional depictions of equipment, and the relationships of the process piping, motors, air induction fans, hot air return ducts, furnaces and auxiliary equipment. Mapping and inventory tools as used for this ACM / LBP assessment will be utilized to assess progress of the contractor(s) selected to abate ACM hazards, non-ACM thermal insulation, and LBP hazards, going forward.

This report itemizes materials and sample locations, analytical methods, and results of analytical tests. The locations, conditions, approximate quantities of regulated materials are provided in a table format. Information in the tables can be cross-referenced to schematic drawings, maps and laboratory analytical reports, attached. Also attached are photographs, chain-of-custody forms, and credentials of the site inspector.

Plan drawings or Sheets 1 through 4 are attached to document the locations of "regulated" materials testing positive for more than 1% ACM on each floor, and the Roof. Also, non-thermal ACM has been quantified and categorized herein as mineral-wool insulation and/ or fiberglass insulation. Refer to Sheet 001 for the Basement Level (BM), Sheet 002 of the First Level (L1), Sheet 003 of the 2nd Level (L2), Sheet 004 of the 3rd Level (L3) and Sheet 005 for the Roof (RF). Annotations on Sheets 001 through 006 are limited to the items or materials that tested positive for ACM.

Refer to Sheets 006 and 007 for General Site layout and perimeter of the work area shown, respectively.

Description of the Buildings in the Scope of Work

The building of interest is known as the "former incinerator building" scheduled for renovation and reuse. It is connected to other operational areas through a common stairway, but has been secured separately with management clearance required for access.

The former incinerator building is described with the following attributes:

- Three stories tall with full basement, and with internal stairway between basement and 2nd level.
- Each floor accessed on the North side through common area stairwell.
- Approximately 5040 SF per floor for a total of 20,160 SF under roof (not including adjacent stairwell, Seal Water Room, Grit Room and Control Room as they are outside the area of the Scope of Work).

- Poured, reinforced concrete foundation with perimeter structural support provided by steel columns, and brick veneered masonry walls that extend to the second level.
- The first floor (L1) has poured concrete decking which is contoured to accommodate three cylindrical-shaped furnaces that are supported from the basement, and rise to vent through the roof. L1 exterior walls contain ten (10) aluminum-louvered ventilation panels, approximately 4'X 8.'
- Accommodations for a 4th furnace remain vacant, therefore, L1, Level 2 (L2) and Level 3 (L3) have a floor opening of approximately 1000 SF separated from floor decking with a safety railing.
- The two uppermost levels have metal slip-resistant open grating for the floor deck. It allows for movement of air other materials through the grating.
- Two isolated areas of the grated floor deck appear deteriorated on the 2nd level. Caution is advised regarding these two areas and others where the grating may be likewise deteriorated, or loose, or misaligned. The interior stairs from L2 to L3 have been removed.
- Exterior siding is of sheet metal secured to the building's steel structure that also supports the roof deck.
- The roof is a flat to low-pitch with four to six *inches of poured concrete slab over steel decking*. The concrete is covered with approximately three inches of tar and rock ballast. Rolled asphaltic sheeting is used as flashing around roof penetrations: three primary air intakes, three exhaust gas stacks, three emergency by-pass stacks and four roof-mounted exhaust fans. Also, scuppers on the roof provide drainage to interior pipes.
- No internal cranes or provisions for rigging of materials were observed or reported.
- Lighting fixtures in place were observed to be original and not necessarily functional on all floors. Some 110V receptacles are functional. Contractors should make provisions for electrical power, air and water.

Inspection Summary

The building was unoccupied at the time of the inspection, and has been for several years. Inspections took place in keeping with industry standards; ACM or LBP unidentified by our team, if present, is limited to inaccessible areas and outside the scope of this work effort, or will be identified when deconstruction of equipment is planned.

The scope of inspection included the building materials and the interior elements, piping and process equipment. Specific components, equipment and piping within the building are slated to be disassembled, cleaned, and sold. Final disposition for some materials has not yet been determined, but thermal insulation and abatement of hazards associated with peeling paint are addressed herein.

Gaskets were assessed and one tested positive for ACM. The "positive" gasket is associated with an "orphan" pipe located on the floor near the northeast corner of the basement. The pipe was acquired some time ago from an off-site source as reported by management. It was staged within the building because of potential for future use. A detailed assessment of flanges and gaskets in various types of process piping will be completed when piping is disassembled.

With the acknowledgement that additional assessment will be required consistent with de-construction, test results of targeted materials have been quantified and mapped. The scope of this inspection did not

include a comprehensive assessment of the interior elements of the furnaces, or incidental debris on the floor.

Nomenclature

Sample locations are identified numerically by location. The basement is identified as Level B or BM; First floor is Level 1 or L1; Second floor is Level 2 or L2; Third floor is Level 3 or L3; the Roof is addressed separately as RF. Labels have been affixed to selected equipment within the building. The furnaces are referred to as Furnace #1 or FN1, Furnace #2 or FN2 and Furnace #3 or FN3.

Asbestos

During the asbestos inspection and sampling events, one or more representative samples were collected from each homogeneous area. The asbestos inspection was conducted in accordance with OSHA regulation 29 CFR 1926.1101. Random samples were collected from thermal insulation on many types of process piping including supply and discharge, from typical industrial processing components, and from "heated" elements including warm-air-return ducts. A total of **78** ACM samples were analyzed by the laboratory including those with multiple layers. EPA Dispersion Staining Method 600/R-93/116 and Polarized Light Microscopy (PLM) were utilized for analysis of the bulk samples. Regulatory thresholds for ACM include products or thermal insulation with more than 1% ACM as determined by specific laboratory analyses.

Area	Number	Material Description	Friable / Non- Friable	Additional Descriptions	Asbestos Content/Type
	B-ST-T-01	2" Mudded "T" connected to seal tank	N/A	Seal Tank Room Gray Mineral Wool	Not Detected (NAD)
	B-ST-T1-01	Thermal insulation on 2" pipe near seal tank, typical	N/A	Seal Tank Room Fiberglass/ confirmed	NAD
Room	B-ST-Elbow- 01 Mudded "T" 2" pipe, typical	N/A	Seal Tank Room Mineral Wool Blue water pipe	NAD	
ıl Tank]	B-ST-T-02- Wrap Thermal insulation On 6" pipe, core attempted	N/A	Seal Tank Room 90% Cellulose Blue water pipe	NAD	
See	B-ST-T-02- Insulation	-02- ion Thermal Insulation On 6" pipe, core attempted	N/A	Seal Tank Room	NAD
	B-ST-T-02- Compound	Thermal Insulation On 6" pipe, core attempted	N/A	Seal Tank Room Blue water pipe	NAD
	B-ST-T1-02	Thermal insulation on 6" pipe typical	N/A	Seal Tank Room Blue water pipe	NAD

Laboratory Analytical Results for Suspect Asbestos Containing Materials are provided below:

Area	Number	Material Description	Friable / Non- Friable	Additional Descriptions	Asbestos Content/Type
	B-1 Layer 1	H20 effluent 6" pipe joint horizontal/typical	N/A		NAD
	B-1 Layer 2	H20 effluent 6" pipe joint horizontal /typical	N/A	NE Corner Blue Pipe	NAD
	B-1 Layer 3	H20 effluent 6" pipe joint horizontal /typical	N/A		NAD
	B-2 Layer 1	H20 effluent 6" pipe insulation horizontal /typical	N/A	NE Corner	NAD
	B-2 Layer 2	H20 effluent 6" pipe insulation horizontal /typical	N/A	Blue Pipe	NAD
	B-3 Layer 2	H20 effluent 6" pipe hangar joint horizontal /underneath	N/A	NE Corner On Blue Pipe	NAD
Corner er	B-4 Layer 1	H20 effluent 6" pipe hangar joint horizontal /top side	N/A		NAD
B-4 Layer 2	H20 effluent 6" pipe hangar joint horizontal /top side	N/A	NE Corner Basement	NAD	
ment No Northe	B-4 Layer 3	H20 effluent 6" pipe hangar joint horizontal /top side	N/A		NAD
Base	B-5 Layer 1	Wrap on H20 effluent line; 6" pipe donut flange/ joint mud/typical	N/A	NE Corner	NAD
	B-5 Layer 2	Insulation under wrap on 6" donut flange/ joint.	N/A	H20 effluent 6" pipe donut joint	NAD
	B-5 Layer 3	Compound layers on H20 effluent 6" pipe donut flange	N/A	mudded/typical	NAD
	B-6	H20 effluent 6" pipe elbow typical	N/A	NE Corner	NAD
	B-7 Layer 1	Wrap on Perimeter H2O Line "T" typical	N/A	NE Corner	NAD
	B-7 Layer 2	Insulation Compound under wrap Perimeter H2O Line "T" typical	N/A	Perimeter H2O Line "T" typical	NAD
	B-8 Layer 1	Wrap on Perimeter H2O line horizontal lateral/typical	N/A	NE Corner Perimeter H2O line Blue	NAD

Area	Number	Material Description	Friable / Non- Friable	Additional Descriptions	Asbestos Content/Type
	B-8 Layer 2	Insulation under wrap on Perimeter H2O line	N/A	horizontal lateral/typical	NAD
	B-9	Gasket from 10" pipe terracotta color	N/A	NE Corner	NAD
ıtinued p Area	B- 10	Pump area "T" valve debris from manifold/typical	N/A	Agitator Pump Area	NAD
tt Con Pumj	B-11 Layer 1	Wrap on Pump area "T" valve	N/A	Agitator Pump Area "T" valve	NAD
emen Itator	B-11 Layer 2	Compound under wrap on "T" valve	N/A	vertical area on "T"	NAD
Bas Agi	B- 12	Pump area "6" labral between pumps	N/A	Agitator Pump Area	NAD
	B-13	Hopper 3 - debris on floor/remnant end or pipe	N/A	Ash Hopper Area	NAD
	B-14	Hopper area 1 & 3 gasket on floor between hoppers	N/A	Ash Hopper Area	NAD
ontinued r Area	B-15 Gasket	Hopper area; gasket (laminated) on floor "8" pipe – orphan pipe	Friable	Flex-Seal type spiral wound gasket in Ash Hopper Area	20% Chrysotile
ement Co sh Hoppe	B-16 Layer 1	Wrap on Area Line from perimeter H ₂ O to Pump 1A /vertical/typical	N/A	Ash Hopper Area	NAD
Bas A	B-16 Layer 2	Pump 1A area line from perimeter H2O/vertical/typical	N/A		NAD
	B-17 Layer 1	Wrap on 1" vertical pipe T1 sampled between joints	N/A	North WALL 1" vertical Blue pipe	NAD
	B-17 Layer 2	Insulation on 1" vertical pipe	N/A	joints	NAD
00r 1	101	Thermal insulation	N/A	Furnace #1 (FN1) Hot Air Return	NAD
rst Flo Jevel	102	Firebrick	N/A	Furnace #2 (FN2) Hearth #6	NAD
Fin	103	Mortar on brick	N/A	Furnace #1 (FN1) Hearth #6	NAD

Area	Number	Material Description	Friable / Non- Friable	Additional Descriptions	Asbestos Content/Type
	104 Layer 1	Thermal insulation (Wrap)	N/A		NAD
	104 Layer 2	Thermal insulation (Insulation)	N/A	Furnace #3 (FN3) Hot Air Return	NAD
	104 Layer 3	Thermal insulation (Fitting)	N/A		NAD
	105 Layer 1	Thermal insulation (Wrap)	N/A	Furnace #2 (FN2)	NAD
	105 Layer2	Thermal insulation (Fitting)	N/A	Hot Air Return	NAD
_	106-A	Green gasket from stainless steel strainer	N/A	One of a kind between Furnace #1 FN1 & Furnace #3 FN3	NAD
ontinuec 1	106 Layer 1	Thermal insulation (Wrap) Red elbow gas	N/A	Pipe in NE Corner	NAD
Floor C Level	106 Layer 2	Thermal insulation (Fitting) Red elbow gas	N/A	supply)	NAD
First	Lirst 107	Thermal insulation Orange "gas" pipe North Wall	Friable	Vertical (actual Condensation return line)	20% Amosite
	<mark>108</mark>	Thermal insulation Molded debris on floor	Friable	North Wall next to 107 (Condensation return)	20% Amosite
	109 Layer 1	Thermal insulation Peripheral H ₂ O pipe	N/A	Vertical	NAD
	109 Layer 2	Thermal insulation Peripheral H ₂ O pipe	N/A	Blue Pipe	NAD
	110 Layer 1	Thermal insulation on red pipe	N/A	Red pipe "T" by	NAD
	110 Layer 2	Thermal insulation on red pipe	N/A	door Lateral Steam Supply	NAD
l Floor el 2	201 Layer 1	Wrap on Vibration Dampener (Rubber membrane)	N/A	Eurnace #1 (EN1)	NAD
Second	201 Layer 2	Insulation on Vibration Dampener Gray fabric	Friable		50% Chrysotile

Area	Number	Material Description	Friable / Non- Friable	Additional Descriptions	Asbestos Content/Type
	202	Vibration dampener	N/A	Furnace #1 (FN1) Flex fan joints discharge	NAD
	203 Layer 1	Wrap on Vibration Dampener (Rubber membrane)	N/A	Furnace #2 (FN2)	NAD
	203 Layer 2	Insulation on Vibration Dampener Gray fabric	Friable		50% Chrysotile
	204	Vibration dampener	N/A	Furnace #2 (FN2) Flex joint to air manifold	NAD
	205	Wrap on Vibration			
	Layer 1	Dampener (Rubber membrane)	N/A	Furnace #3 (FN3)	NAD
ued	<mark>205</mark> Layer 2	Insulation on Vibration Dampener Gray fabric	Friable		50% Chrysotile
: Contir el 2	206 Contin Tevel 2 207	Vibration dampener	N/A	Furnace #3 (FN3) Flex joint to air manifold	NAD
nd Flooi Lev		Thermal Insulation	N/A	Hot air return behind corrugated cover	NAD
Seco	208 Laver 1	Thermal Insulation	N/A	Blue peripheral H ₂ O	NAD
	208 Layer 2	Thermal Insulation	N/A	vertical elbow	NAD
	208.5	Fire brick	N/A	Furnace #3 hearth #2	NAD
	209	Fire brick	N/A	Furnace #2 hearth #2	NAD
[210	Fire brick	N/A	Furnace #1 hearth #2	NAD
	211	Refractory insulation Inside door	N/A	Furnace #2 (FN2) Hearth #2	NAD
	212	Vibration dampener air manifold inlet		Furnace #2 (FN2) Hearth #2	NAD
	213	Vibration dampener air manifold inlet	N/A	Furnace #3 (FN3) Hearth #1	NAD
	214	Thermal insulation blue peripheral H ₂ O	N/A	Spigot N. Wall	NAD
	215	Thermal inside door	N/A	Furnace #3 (FN3) Hearth #2	NAD

Area	Number	Material Description	Friable / Non- Friable	Additional Descriptions	Asbestos Content/Type
	216	Thermal insulation debris on floor grating	N/A	SW of Furnace #3 (FN3)	NAD
	301 Layer 1	Wrap on Thermal Insulation Hot air return (Elbow)	N/A	Elbow Furnace 1 (FN1)	NAD
/Level 3	301 Layer 2	Fitting on Thermal Insulation Hot air return	N/A Level 3 (L3)		NAD
iird Floor //	<mark>302</mark>	Vibration dampener induced fan draft (Typical)	Friable	Furnace #1 Induction Fan Vibration dampener (Three pairs of these)	60% Chrysotile
I	303 Layer 1	Wrap on Thermal insulation hot air return	N/A	Vertical furnace #1 Fiberglass over	NAD
	303 Layer 2	Thermal insulation hot air return	N/A	Mineral wool	NAD
	304	Collar on hot air	N/A	Furnace #1 (FN1) level #3 (13)	NAD
	305 Layer 1	Wrap on Thermal insulation	N/A	Remnant water pipe	NAD
	305 Layer 2	Thermal insulation (Fitting)	N/A	near Furnace #3	NAD
	306 Layer 1	Thermal insulation blue H ₂ O pipes (Wrap)	N/A	West wall	NAD
	306 Layer 2	Thermal insulation blue H ₂ O pipes (Fitting)	N/A	Blue H2O pipe	NAD
				Black Fibrous	
	RF-001	Asphalt Flashing around vent	No	around roof penetration	10% Chrysotile
	RF-002	Asphalt Flashing around base of Air Intake	No	Black Fibrous	15% Chrysotile
toof	<mark>RF-003</mark>	Tar Flashing at base of Air Intake	No	Black tar	10% Chrysotile
R	RF-004	Roof-top Core sample 3" of tar to substrate	N/A	Near Furnace #1	NAD
	<mark>RF-005</mark>	Roof Tar (Chunky and loose) on roof	No	Black Tar	10% Chrysotile
	RF-006	Multilayer asphaltic materials Flashing	No	Black	12% Chrysotile

Evaluation of pipes and fittings included approximately **1300** linear feet (LF) of piping that ranges in size from ³/₄ inches diameter to 8 inches in diameter, and approximately **350** fittings consisting of valves, wyes (Y's), "Ts", flanges, spigots, and elbows.

Process piping was used to supply water, to supply natural gas to heaters and furnaces, to supply steam to heaters, to collect condensation from steam units, and to convey sludge and ash through pumps and though the discharge process. Care was taken to collect random samples per industry guidance, and to take appropriate numbers of samples based on homogeneous areas and items characteristically typical of each industrial process.

Also, Non-ACM thermal insulation was tested and quantified as described following the description of ACM below. Thermal insulation was painted but did not exhibit peeling paint. Most un-insulated pipes were also painted, and observed to be peeling. The LBP report follows the discussion of thermal insulation.

Items testing positive for ACM are described further below:



Asbestos was identified in thermal insulation on a limited amount of piping known as steam return lines ("SR" or steam condensate lines as designated on the inventory of equipment). The SR lines are or were connected to unit heaters located on Level 2. The ACM insulation extends from the fittings and valves on the discharge end of the heaters to the first floor concrete deck.

The insulation on these pipes is painted orange. They are the only insulated pipes in the work area painted orange; thermal insulation on process piping and fittings painted other colors did not test positive for ACM. Samples 107 and 108 on the SR lines tested positive for 20% Amosite Asbestos.

Estimated LF of ACM piping: <u>100 LF (3/4" to 3" OD)</u> Estimated number of fittings: none



Asbestos was detected in one (the interior layer) of the two layers of materials identified as vibration dampeners on the second floor. The gray woven fabric layer tested Positive for ACM in each of the three furnace systems. The vibration dampener assembly for each of the three furnace systems includes bolted fasteners on *rectangular* ducts. The grey cloth material layer in samples 201, 203 and 207 tested positive for 50% Chrysotile Asbestos.

Estimated SF of ACM fabric: Less than 36 SF

Level 3 – 302

Asbestos was detected in material identified on a pair of vibration dampeners (also known as flexible connectors around the induced-draft (ID) fans) on each furnace, third floor. The three furnaces each have the gray fibrous material in its

flexible connectors. The vibration dampener assembly for each of the three furnace systems includes cinched metal band around *cylindrical* ducts. Each of the three furnaces were observed to be homogeneous with regard to the construction of draft induction units, therefore all three are to be managed as ACM with 50% Chrysotile Asbestos.

Estimated SF of ACM fabric: Less than 60 SF

Basement – B-15 Gasket Asbestos was also identified on one atypical gasket. It was picked up from a flange of an 8 inch pipe that was separated from its original location, and on the floor. Gaskets of several varieties were identified, but only the laminated variety (known as a Flex-Seal type spiral wound gasket) was identified as having ACM, 20% Chrysotile.

The total number of gaskets of this type is limited, and may be limited to just one. This type of gasket is easily recognized when compared to various types of neoprene gaskets also observed and tested. Refer to this report in its entirely for discussion, descriptions and details.

Roof – **RF 001**. 002,003,005 & 006

The roof had more than one layer and more than one-type of flashing material. Approximately three inches of tar was observed over concrete roof deck. The

poured tar did not test positive for ACM, but the other roof components did. For example, rolled asphalt flashing material, tar flashing material, and loose chucks of tar on the roof near the roof penetrations tested positive for 10 to 12% Chrysotile.

The size of the roof deck is approximately 5040 SF. Roof flashing was not observed around the perimeter roof decking, as it is trimmed with aluminum cap. The quantity of roof flashing materials around roof penetrations and up the side of the vents has been calculated to be approximately 800 SF. Removal of the flashing around the roof penetrations shall include all rolled asphalt materials and associated tar sealants.

ACM Disclaimer:

Interiors of the furnaces were not fully assessed and are not included in the scope of this abatement project. For this reason, additional evaluation and abatement of asbestos may be necessary prior to or during the deconstruction of piping systems and furnaces.

Non-ACM Thermal Insulation is described in the next section.

NON-ACM Thermal Insulation	Non-ACM Tabulation	Est. LF	Est. CF
	Hot Air Return duct work, exhaust & flues	58	291
	Hot Air Return fittings	41	41
	Water piping (blue)	471	37
	Water piping fittings (325 blue fittings)	325	325
	Steam Supply piping (red)	237	18
	Steam Supply fittings (85 red fittings)	85	85
	Total Estimated Quantities of non-ACM insulation:	1217	797
		LF	

The quantity of non-ACM thermal insulation was observed and quantified as follows:

Lead Based Paint

During the lead-based paint inspection and sampling event, one or more representative samples were collected from each homogeneous (color) surface. Paint was collected by gathering loose chips or scraping with a decontaminated tool. A total of **14** Lead Based Paint (LBP) samples were collected and assessed. The samples were delivered to an accredited laboratory, EMSL, for analysis. EPA Method SW 846 7000B flame atomic absorption was utilized for analysis of the paint samples.

Concentrations of LBP were identified above the threshold concentration of 0.5% on all but one sample. The light cream colored paint on the scrubbers in the basement tested positive for lead but below the regulatory threshold. The aerial extent of this cream colored paint was limited, and it may have tested less than 0.5% LBP (by weight) based on the quantity of primer or substrate collected along with the peeling paint chips. For this reason, Enviro*NET* recommends that all peeling paint within the facility be managed as LBP.

The paint, as observed, is in deteriorated condition and may become a work place hazard or at risk for environmental release if not managed together with the initial asbestos inspection operations. Locations of LBP have been documented to cover the furnaces, all three floors, the structural support columns, and limited amounts of un-insulated piping. Work within the incinerator building will require "lead-safe work practices" as required by under Occupational Safety and Health Administration (OSHA worker safety) requirements. The presence of deteriorated LBP also triggers Federal and State EPA requirements to employ abatement/ renovation practices that do not release LBP into the air, soil, or other matrices which could impact the environment. Loose paint is to be removed and collected using a High Efficiency Particulate Air (HEPA) filtration system. Paint chips and vacuumed debris must be profiled and disposed as characteristically hazardous for lead (TCLP lead test). Refer to this report in its entirely for discussion, descriptions and details.

Laboratory Analytical Results for regulated LBP are Provided below:

(NOTE: Results over 0.5% by weight are regulated; peeling paint surfaces are regulated as hazardous).

Sample Number	Material Description	Additional Descriptions	LBP % by Weight
101	Furnace #1 (FN1)	Yellow	18%
102	Furnace #2 (FN2)	Yellow and Black	1.2%
103	Furnace #2 (FN2)	Yellow only	10%
104	Furnace #3 (FN3)	Black & Yellow	2.0%
105	Interior Roof Drain	North Wall Brown	1.1%
106	Gas Scrubber Pipe/ Under Scrubber		0.02%
107	Structural Column from between Furnace 1 and 2	I beam	3.6%
201	Furnace #1 (FN1) on Level 2 (L2)	Yellow	1.3%
202	Furnace #2 (FN2) Level 2 (L2)	Yellow	5.0%
203	Furnace #3 (FN3)	Yellow	5.7%
204	Gas Line – Furnace #1	White Paint	6.0%
205	Structural Column from between Furnace #1 & #3	Yellow w/ Rusty substrate	0.96%
206	Railing near Open area	Gray Level 2	0.96%
301	Furnace 3 (FN3) Air Cleaner	Yellow/ off-white/ Level 3	1.0%

All surfaces tested have lead based paint; all peeling paint is classified as deteriorating and is to be managed as LBP.

TABLULATION OF DETERIORATED SURFACES WITH PEELING LBP

Item	Est. Surface	Comment
	area	
3 Furnaces	10,000 SF	The paint chip problem varies from none to
		extensive, from furnace to furnace and at various
		levels.
Painted piping	2,500 SF	Should be vacuumed to remove loose paint,
(painted thermal wrap not		observed to be "worse" at lower levels.
peeling – Not LBP concern)		
Structural steel	5,000 SF	Structural steel was observed with peeling paint.
Auxiliary Components	4,000 SF	Significant paint peeling on components in the
		basement level (BM)
Miscellaneous	3,000 SF	
Total Estimates LBP Area	24,500 SF	

Summary of Work Area Conditions and Observations:

- Lighting within the facility was augmented with hand-held instruments and other types of lights, during the assessment. Contractor must provide adequate lighting for abatement of ACM, thermal insulation and peeling LBP.
- Physical hazards include slip/ trip/ falls, and bumping one's head due to obstacles on the floor and equipment overhead.
- Physical hazards include the presence of asbestos at locations described above. Personal Protection Equipment (PPE) and associated training is required by regulation for specific tasks associated with asbestos abatement. The same PPE is required for LBP hazard abatement. PPE respirators are also required for this project during the abatement of non-ACM thermal insulation based on the American Conference of Governmental Industrial Hygienists (ACHIH) guidelines, and OSHA's Exposure Limits for general industry nuisance dust with time weighted averages (TWAs) for inert/ nuisance particulates such as mineral wool and fiberglass as follows: respirable fraction of 5 mg/m³; and total dust at 15 mg/m³.
- Although not regulated by law, physical (dermal) discomfort caused by exposure to mineral wool may be anticipated. PPE recommended for this work is the same as and consistent with abatement of the ACM hazard.
- The potential for chemical hazards from dust requires the use of PPE respirators, as previously described, during abatement activities.
- Chemical hazards include the potential for inhalation and ingestion of ash located on equipment and on the floor inside the former incinerator building as evidenced by sampling completed to date. Ash was observed on the floor beneath all three exhaust stacks. Evidence of ash has been observed on the basement floor, on components in the basement, inside the open hearth doors on the upper floors, and on equipment components. Measures to reduce the potential for incidental and accidental exposure to ash must be taken during hazard abatement activities. For instance, PPE fit tests, medical surveillance plans, and associated training is required for all contractors performing tasks associated with abatement of the ACM, LBP and thermal insulation. Proper use of PPE will prevent incidental inhalation or ingestion of ash.
- Additional information will be provided in the bid documents to the successful contractor regarding required safety protocols when working at the RRWRD and around the known and suspected hazards. This will include additional warning signs that will be posted.

EnviroNET will provide ACM and particulate background testing prior to abatement activities.

Signatures of Professional Inspector and ACM Project Designer

Based on the experience of the inspectors and the observations made, the conclusions of this report are believed to be accurate and true, despite the limitations as described above. All questions specific to the asbestos and lead based paint inspections, and the quantification of non-ACM thermal insulation should be addressed to Enviro*NET*.

This report has been prepared consistent with general guidelines and requirements specified in the National Emissions Standard for Hazardous Air Pollutants (NESHAPS) and OSHA 1926.1101.

Please call (563) 323-2262 if you have any questions related to this report. We appreciate the opportunity to provide environmental inspection services for RRWRD.

ENVIRONET, INC.

magylewell

Molly Arp Newell, PG, CHMM President/Project Manager Illinois ACM Inspector License #100-11397 Illinois LBP Risk Assessor License #015096



ENVIRONET, INC.

Robert J. Meyer

Robert G. Meyer, PE Project Engineer Licensed Asbestos Project Designer Illinois Department of Public Health

Attachments: Photographs Plan View Sheets 001 through 007 Lab Results Chain of Custody documentation Inspector Qualifications

PHOTOGRAPHS







NET







NE7

















Photo 45: 210 Fire Brick FN1H2

Photo 46: 211 FN2H2



Photo 47: 212 Air Manifold Inlet to Burner FN2H2

Photo 48: 213 Vib Damper Manifold Inlet FN3H1











NET






ACM LABORATORY ANALYTICAL REPORTS

AND

CHAIN OF CUSTODY DOCUMENTATION



4140 Litt Drive Hillside, IL 60162 Tel/Fax: (773) 313-0099 / (773) 313-0139 http://www.EMSL.com / chicagolab@emsl.com EMSL Order: 261600911 Customer ID: ENET85 Customer PO: 150158.1

Project ID:

 Phone:
 (563) 323-2262

 Fax:
 (563) 323-7797

 Received Date:
 02/10/2016 8:18 AM

 Analysis Date:
 02/12/2016

 Collected Date:

Project: 150128.1

Attention: Molly Arp Newell

EnviroNET Midwest

1225 East River Dr., Suite #130

Davenport, IA 52803-3701

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Asbestos		
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре
B-ST-T-01 261600911-0001	2" MUDDED T CONNECTED TO SEAL TANK -SEAL TANK ROOM	Gray Non-Fibrous Homogeneous	24% Min. Wool	76% Non-fibrous (Other)	None Detected
B-ST-T1-01 261600911-0002	THERMAL INSUL. ON 2" PIPE NEAR SEAL TANK TYPICAL	Yellow Fibrous Homogeneous	100% Glass		None Detected
B-ST-ELBOW-01	MUDDED T 2" PIPE TYPICAL	Gray Non-Fibrous Homogeneous	25% Min. Wool	75% Non-fibrous (Other)	None Detected
B-ST-T-02-Wrap	THERMAL INSUL. ON 6" PIPE , CORE ATEMPTED	Blue Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
B-ST-T-02-Insulation 261600911-0004A	THERMAL INSUL. ON 6" PIPE , CORE ATEMPTED	Yellow Fibrous Homogeneous	100% Glass		None Detected
B-ST-T-02-Compound 261600911-0004B	THERMAL INSUL. ON 6" PIPE , CORE ATEMPTED	Gray Non-Fibrous Homogeneous	25% Min. Wool	75% Non-fibrous (Other)	None Detected
B-ST-T1-02 261600911-0005	THERMAL INSUL ON PIPE (6") TYP	Various Fibrous Homogeneous	10% Cellulose 80% Glass	10% Non-fibrous (Other)	None Detected

Analyst(s)

Brian Jolly (7)

fam P. Hh

James Hahn, Laboratory Manager or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Hillside, IL NVLAP Lab Code 200399-0

Initial Report From: 02/12/2016 17:15:45



Asbestos Chain of Custody EMSL Order Number (Lab Use Only)

2101000911

Company : EnviroNET, Inc			lf I	EMSL Bill to is	-Bill to: Different note	Same Diffe	erent
Street: 1225 East River Drive Suite	#130		Third Party	Billing	reduires writ	tten authorizatior	n from third party
City: Davenport	State/Province: IA			Zip/Postal Code: 52803 Country: USA			SA
Report To (Name): Molly Newell	o (Name): Moliv Newell			63 323	3 2262	1) <u>- 12 - 17 - 17 - 1</u> - 1	
Email Address: mollv@environetmidwest.com			Fax #: 563 303	7707		Durahaaa	and an IEwed I
Project Name/Number: 150128.1		Please Provide	Resul	Its T Fa	Y M Email	nuer. 150158.1	
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🗋 w/ OSHA 8hr. TWA		OSH 7402			Wip	e - ASTM D64	80
PLM - Bulk (reporting limit)	EP	A Level II			🗋 Car	pet Sonication	(EPA 600/J-93/167)
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Comments/Special Instructions:							Dipo
							2012

Controlled Document - Asbestos COC - R6 - 4/11/2012

Page 1 of ____ pages



4140 Litt Drive Hillside, IL 60162 Tel/Fax: (773) 313-0099 / (773) 313-0139 http://www.EMSL.com / chicagolab@emsl.com EMSL Order: 261600908 Customer ID: ENET85 Customer PO: 150128.1 Project ID:

Project ID:

 Phone:
 (563) 323-2262

 Fax:
 (563) 323-7797

 Received Date:
 02/10/2016 8:18 AM

 Analysis Date:
 02/12/2016

 Collected Date:

Project: 150128.1

Attention: Molly Arp Newell

EnviroNET Midwest

1225 East River Dr., Suite #130

Davenport, IA 52803-3701

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Asbestos		
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре
B-NE-CORNER 1-Wrap 261600908-0001	H2O EFFLUENT 6" PIPE JOINT HORIZ/TYPICAL NE CORNER	White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 1-Insulation 261600908-0001A	H2O EFFLUENT 6" PIPE JOINT HORIZ/TYPICAL NE CORNER	Yellow Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 1-Compound 261600908-0001B	H2O EFFLUENT 6" PIPE JOINT HORIZ/TYPICAL NE CORNER	White Non-Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (Other)	None Detected
B-NE-CORNER 2-Wrap 261600908-0002	H2O EFFLUENT 6" PIPE INSUL HORIZ/TYPICAL NE CORNER	White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 2-Insulation 261600908-0002A	H2O EFFLUENT 6" PIPE INSUL HORIZ/TYPICAL NE CORNER	Yellow Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 3-Wrap 261600908-0003	H2O EFFLUENT 6" PIPE HANGAR JOINT HORIZ/UNDERNEAT H	White/Blue Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 3-Insulation 261600908-0003A	H2O EFFLUENT 6" PIPE HANGAR JOINT HORIZ/UNDERNEAT H	Yellow Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 4-Wrap 261600908-0004	H2O EFFLUENT 6" PIPE HANGAR JOINT HORIZ/TOP SIDE	White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 4-Insulation 261600908-0004A	H2O EFFLUENT 6" PIPE HANGAR JOINT HORIZ/TOP SIDE	Yellow Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 4-Compound	H2O EFFLUENT 6" PIPE HANGAR JOINT HORIZ/TOP	Gray Non-Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (Other)	None Detected
B-NE-CORNER 5-Wrap 261600908-0005	H2O EFFLUENT 6" DONUT JOINT MUD/TYPICAL	White/Blue Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 5-Insulation 261600908-0005A	H2O EFFLUENT 6" DONUT JOINT MUD/TYPICAL	Yellow Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected



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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре
B-NE-CORNER 5-Compound	H2O EFFLUENT 6" DONUT JOINT MUD/TYPICAL	Gray Non-Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (Other)	None Detected
B-NE-CORNER 6	H2O EFFLUENT 6" PIPE ELBOW	Gray Non-Fibrous	30% Min. Wool	70% Non-fibrous (Other)	None Detected
261600908-0006	TYPICAL	Homogeneous			
B-NE-CORNER 7-Wrap 261600908-0007	PERIMETER H2O LINE "T" TYPICAL	White/Blue Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 7-Compound	PERIMETER H2O LINE "T" TYPICAL	Gray Non-Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (Other)	None Detected
B-NE-CORNER 8-Wrap	PERIMTER H2O LINE NORIZ	White/Blue Fibrous	95% Cellulose	5% Non-fibrous (Other)	None Detected
261600908-0008 B-NE-CORNER 8-Insulation	LATERAL/TYPICAL PERIMTER H2O LINE NORIZ LATERAL/TYPICAL	Homogeneous Yellow Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
B-NE-CORNER 9	GASKET FROM 10" PIPE TERRACOTTA	Red Non-Fibrous		100% Non-fibrous (Other)	None Detected
261600908-0009 B-AGITATOR-10	COLOR PUMP AREA "T"	Homogeneous Gray	30% Min. Wool	70% Non-fibrous (Other)	None Detected
261600908-0010	FROM MANIFOLD/TYPICAL	Homogeneous			
B-AGITATOR-11-Wrap	PUMP AREA "T" VALVE VERTICAL	White Fibrous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B-AGITATOR-11-Compo und	ON T PUMP AREA "T" VALVE VERTICAL ON "T"	Gray Non-Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (Other)	None Detected
261600908-0011A		White /Dluce	OF% Callulate		None Detected
261600908-0012	LABRAL BETWEEN PUMPS	Fibrous Homogeneous	95% Cellulose	5% Non-Horous (Other)	None Delected
B-ASH HOPPER -13 261600908-0013	PER 3 AREA DEBRIS ON FLOOR /REMNANT END OR	Gray Non-Fibrous Homogeneous	30% Min. Wool	70% Non-fibrous (Other)	None Detected
B-ASH HOPPER -14	HOPPER AREA 1 & 3 GASKET ON FLOOR	Black Non-Fibrous	20% Synthetic	80% Non-fibrous (Other)	None Detected
261600908-0014	HOPPERS	Homogeneous			2021/ 01 11
B-ASH HOPPER -15 261600908-0015	HOPPER AREA GASKT (LAMINTAED) ON FLOOR 8" PIPES	Black Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
B-ASH PUMP-16-Wrap	PUMP 1A AREA LINE FROM PERIMETER	White/Blue Fibrous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B-ASH PUMP-16-Insulation 261600908-0016A	PUMP 1A AREA LINE FROM PERIMETER H2O /VERTICAL/TYP	Yellow Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected



EMSL Analytical, Inc. 4140 Litt Drive Hillside, IL 60162

Tel/Fax: (773) 313-0099 / (773) 313-0139 http://www.EMSL.com / chicagolab@emsl.com EMSL Order: 261600908 Customer ID: ENET85 Customer PO: 150128.1 Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Asbestos		
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре
B-NORTH WALL-17-Wrap	1" VERTICAL PIPE TI SAMPLED BETWEEN JOINS	White/Blue Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
261600908-0017					
B-NORTH WALL-17-Insulation	1" VERTICAL PIPE TI SAMPLED BETWEEN JOINS	Yellow Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
261600908-0017A		-			

Analyst(s)

Dahlia Zyhowski (30)

fam P. Hh

James Hahn, Laboratory Manager or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Hillside, IL NVLAP Lab Code 200399-0

Initial Report From: 02/12/2016 19:38:34



Asbestos Chain of Custody EMSL Order Number (Lab Use Only): 011

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ENSL ANA 1104. Htt. 200 Route 120 Month TONAMINSON NU 08077 FAX (836-195-5974

	and a second second	EMOL D	IL An M Came Diffe	aront		
Company : EnviroNET, Inc		If Bill to is Diff	ferent note instructions in Com	ments**		
Street: 1225 East River Drive Suite	e #130	Third Party Billing red	quires written authorization	from third party		
City: Davenport	State/Province: IA	Zip/Postal Code: 52803	Zip/Postal Code: 52803 Country: USA			
Report To (Name): Molly Newell		Telephone #: 563 323 2	262			
Email Address: molly@environet	midwest.com	Fax #: 563 323 7797	Purchase O	rder:		
Project Name/Number: 150128.	1	Please Provide Results	: 🗌 Fax 🛛 Email			
U.S. State Samples Taken: Illinois		CT Samples: C Comme	ercial/Taxable 🔲 Resi	dential/Tax Exempt		
	Turnaround Time	(TAT) Options* – Please Che	ck			
*For TEM Air 3 br through 6 br please call	24 Hour 48 Ho abead to schedule *There is a	ur X 72 Hour A	96 Hour 1 Week	You will be asked to sign		
an authorization form for this service	ce. Analysis completed in acc	ordance with EMSL's Terms and Cor	nditions located in the Analyt	ical Price Guide.		
PCM - Air Check If samples are	from NY <u>TEM – Air</u>	4-4.5hr TAT (AHERA only)	TEM- Dust			
NIOSH 7400	AHERA -	40 CFR, Part 763	Microvac - ASTM I	D 5755		
🔲 w/ OSHA 8hr. TWA	NIOSH 7	402	Wipe - ASTM D64	80		
PLM - Bulk (reporting limit)	EPA Lev	el II	Carpet Sonication	(EPA 600/J-93/167)		
PLM EPA 600/R-93/116 (<1%)	🔲 ISO 103	12	Soil/Rock/Vermiculit	te		
PLM EPA NOB (<1%)	TEM - Bulk		PLM CARB 435	A (0.25% sensitivity)		
Point Count	TEM EPA	NOB	PLM CARB 435 -	B (0 1% sensitivity)		
□ 400 (<0.25%) □ 1000 (<0.1%)	NYS NOE	3 198 4 (non-friable-NY)	TEM CARB 435 -	B (0.1% sensitivity)		
Point Count w/Gravimetric	Chatfield	SOP	TEM CARB 435 -	C (0.01% sensitivity)		
□ 400 (<0.25%) □ 1000 (<0.1%)	🗌 TEM Mas	s Analysis-EPA 600 sec. 2.5	TEM Qual. via Filt	ration Technique		
NYS 198 1 (friable in NY)	TEM - Wate	<u>r:</u> EPA 100 2	EPA 100 2 I TEM Qual via Drop-Mount Techr			
NYS 198 6 NOB (non-friable-NY) Fibers >10µr	m 🔲 Waste 📋 Drinking	Other:			
□ NIOSH 9002 (<1%)	All Fiber Size	es 🗌 Waste 🗌 Drinking				
Check For Positive Stop – Clea	arly Identify Homogenou			1		
	in the indefinition of the second	is Group Filter Pore Size (/	Air Samples): 0.8	um 🔄 0.45µm		
	any identity fromogenou	is Group Filter Pore Size ()		<u>ມm []0.45µm</u> z_−ວຮ		
Samplers Name: Molly Newell		Samplers Signature:	Air Samples): 10.8	μm [_] 0.45μm こーのて		
Samplers Name: Molly Newell	Sample Desc	Samplers Signature:	ZONG Votume/Area (Air)	um ∐ 0.45µm 20% Deate/Fime Sampled		
Samplers Name: Molly Newell Sample #	Sample Desc	Samplers Signature:	Volume/Area (Air) HA # (Bulk)	um0.45µm 2_−⊂ જ DeterFime Sampled		
Samplers Name: Molly Newell Sample # B-NE CORN2R H20 EF	Sample Desc	Samplers Signature:	ZONG O ZONG O Votume/Area (Air) <u>HA # (Bulk)</u>	um 0.45µm 2-08 Deterrime Sampled NE CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNZR H20 EF B-NE CORNZR H20 EF	Sample Desc FLUENT 6"	Samplers Signature: ription PIPE JOINT HORI	ZOIGO ZOIGO Votume/Area (Air) HA# (Bulk) A/TYPICAL	um [] 0.45µm 2-08 Baterfinte Sampled NE CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNER H20 EF B-NE CORNER H20 EF 3	Sample Desc FLUENT 6" FFLUENT 6"	Samplers Signature: ription PIPE JOINT HORI INSUL HORI	ZOIGO ZOIGO Votume/Area (Air) <u>HA # (Bulk)</u> Z/TYPICAL	UM 0.45µm 2-0% Sampled NE CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNIZA H20 EF B-NE CORNIZA H20 E B-NE CORNER H20 E	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6"	Samplers Signature: ription PIPE JOINT HORI INSUL HORI PIPE HANGAR HOR	ZOIG O ZOIG O Votume/Area (Air) HA# (Bulk) A/TYPICAL TYPICAL TZ/UNDERNEA	UM 0.45µm 2-08 Determine Sampled NE CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNER H20 EF B-NE CORNER H20 E B-NE CORNER H20 E B-NE CORNER H20 EF B-NE CORNER H20 EF	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6"	Samplers Signature: ription PIPE JOINT HORI "INSUL HORI PIPE HANGAR HOR JOIN PIPE HANGAR HOR JOIN	ZOIG O ZOIG O Volume/Area (Air) <u>HA # (Bulk)</u> Z/TYPICAL Z/TYPICAL Z/UNDCRNCAT Z/UNDCRNCAT AT Z/TOP SIDE	um [] 0.45µm 2-08 <u>Baterfime</u> Sampled NE CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNER H20 EF B-NE CORNER H20 EF	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6"	Samplers Signature: Samplers Signature: ription PIPE JDINT HORIT "INSUL HORIT PIPE HANGAR HOR JOIN PIPE HANGAR HOR JOINT DONUT JOINT MU	Air Samples): [] 0.8 ZOIG O Votume/Area (Air) HA # (Bulk) A/TYPICAL TYPICAL TZ/ UNDERNER TZ/ UNDERNER D/TYPICAL D/TYPICAL	UM [] 0.45µm 2-0% Sampled NE CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNER H20 EF B-NE CORNER H20 EF	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6"	Samplers Signature: Samplers Signature: ription PIPE JOINT HORI INSUL HORI PIPE HANGAR HOR PIPE HANGAR HOR DONUT JOINT MU PIPE FIBOE	Air Samples): 10.8 ZOIG O Votume/Area (Air) HA # (Bulk) A/TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL D/TYPICAL D/TYPICAL D/TYPICAL	um [] 0.45µm 2-0% Sampled NE CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNER H20 EF B-NE CORNER H20 EF	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6"	Samplers Signature: Samplers Signature: ription PIPE JOINT HORIT "INSUL HORIT PIPE HANGAR HOR JOINT PIPE HANGAR HOR JOINT JOINT MU PIPE ELBOE	Air Samples): 0.0 ZOIG O Volume/Area (Air) <u>HA#(Bulk)</u> A/TYPICAL / TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL	UM [] 0.45µm 2-08 Deaterfrime Sampled NE CORNER TH		
Samplers Name: Molly Newell Sample # B-NE CORNER H20 EF B-NE CORNER H20 EF	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6"	Samplers Signature: ription PIPE JOINT HORIT "INSUL HORIT PIPE HANGAR HOR PIPE HANGAR HOR DONUT JOINT MU PIPE ELBOE NE "T"	AIr Samples): 0.0 2016 O Volume/Area (Air) HA # (Bulk) A/TYPICAL / TYPICAL / TYPICAL / TOP SIDE D/TYPICAL TYPICAL TYPICAL	UM [] 0.45µm 2-08 Deaterfine Sampled NE CORNER TH		
Samplers Name: Molly Newell Sample # B-NE CORNER H2O EF B-NE CORNER H2O EF	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6"	Samplers Signature: Samplers Signature: ription PIPE JDINT HORIT "INSUL HORIT PIPE HANGAR HOR PIPE HANGAR HOR DONUT JOINT MU PIPE ELBOE NE "T" E HORIZ LATURA	AIr Samples): 10.8 ZOIG O Votume/Area (Air) HA # (Bulk) A/TYPICAL / TYPICAL / TYPICAL / TYPICAL TYPICAL TYPICAL TYPICAL / TYPICAL	UM 0.45µm 2-0% Sampled NE CORNER TH		
Samplers Name: Molly Newell Sample # B-NE CORNER H20 EF B-NE CORNER H20 EF	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6 FFLUENT 6 FFFLUENT 6 FFFFLUENT 6 F	Samplers Signature: ription PIPE JOINT HORIT "INSUL HORIT PIPE HANGAR HOR PIPE HANGAR HOR PIPE HANGAR HOR DONUT JOINT MU PIPE ELBOE NE "T" DE HORIZ LATURAT	AIr Samples): 0.8 ZOIG O Volume/Area (Air) HA # (Bulk) A/TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TOTAL # of Samples:	UM [] 0.45µm 2-08 Sampled NE CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNER H2O EF B-NE CORNER H2O EF B-NE CORNER H2O E B-NE CORNE	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" NETER H20 LIN LICONSER -	Samplers Signature: Samplers Signature: ription PIPE JOINT HORIT "INSUL HORIT PIPE HANGAR HOR PIPE HANGAR HOR DONUT JOINT MU PIPE ELBOE NE "T" DE HORIZ LATURAT Date: 2/9/2016	AIr Samples): [] 0.8 ZOIG O Votume/Area (Air) HA # (Bulk) A/TYPICAL / TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TOTAL # of Samples: Time	UM [] 0.45µm 2-08 Sampled NE CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNER H2O EF B-NE CORNER H2O EF B-NE CORNER H2O E B-NE CORNE	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6 NETER H20 LIN LIRONERT -	Samplers Signature: Samplers Signature: ription PIPE JOINT HORIT "INSUL HORIT PIPE HANGAR HOR PIPE HANGAR HOR DONUT JOINT MU PIPE ELBOE NE "T" DE HORIZ LATURAT Date: 2/9/2016 Date: 2/9/2016	AIr Samples): 0.8 ZOIG O Volume/Area (Air) HA # (Bulk) A/TYPICAL / TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TOTAL # of Samples: Time Time	UM [] 0.45µm 2-08 Determine Sampled NE CORNER TH E CORNER CORNER CORNER CORNER CORNER		
Samplers Name: Molly Newell Sample # B-NE CORNER H2O EF B-NE CORNER H2O EF B-NE CORNER H2O E B-NE CORNE	Sample Desc FLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" FFLUENT 6" NETER H20 LIN LIRONSET LIRONSET LIRONSET	Samplers Signature: Samplers Signature: ription PIPE JDINT HORIT "INSUL HORIT PIPE HANGAR HOR PIPE HANGAR HOR DONUT JOINT MU PIPE ELBOE NE "T" DE HORIZ LATURAT Date: 2/9/2016 Date: 2/9/2016	AIr Samples): [] 0.8 ZOIG O Votume/Area (Air) HA # (Bulk) A/TYPICAL / TYPICAL	UM [] 0.45µm 2-08 Determine Sampled NE CORNER H E CORNER E C C C C C C C C C C C C C		
Samplers Name: Molly Newell Sample # B-NE CORNER H2O EF B-NE CORNER H2O EF B-NE CORNER H2O E B-NE CORNE	Sample Desc FLUENT 6" FFLUENT 6" FFLUEN	Samplers Signature: Samplers Signature: ription PIPE JOINT HORIT "INSUL HORIT PIPE HANGAR HOR PIPE HANGAR HOR DONUT JOINT MU PIPE ELBOE NE TT DE HORIZ LATURAT Date: 2/9/2016 Date: 2/9/2016	AIr Samples): 0.8 ZOIG O Volume/Area (Air) HA # (Bulk) A/TYPICAL / TYPICAL / TYPICAL / TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL TYPICAL (TYPICAL TYPICAL TYPICAL TIME Cft	UM [] 0.45µm 2-08 Deaterfine Sampled NE CORNER H E CORNER 1012-		

Controlled Document - Asbestos COC - R6 - 4/11/2012

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Asbestos Chain of Custody EMSL Order Number (Lab Use Only):

ELCI, ANA (* 1997) 1999 - REALTER (* 1997) 1999 - MINERA, March (* 1997) 1999 - REAL (* 1997) 1999 - REAL (* 1997) 1997 - REAL (* 1997)

Sample #	Sample Description	Volume/Arez (Air) HA@ (Bulk)	Date/Time Sampled
NE CORNER	GASKET FROM 10" PIPE TERRACOTTA COLO	R - REAL	MALE
AGITATOR	PUMP AREA "T"UALVE DEBRIS FR	OM MANIFOLI	/ TYPICAL
NGITATOR	PUMP ARAA "T" JALVE VERTICAL	0N"T"	TYPICAL
AGITATOR	PUMP APEA "6" LATERAL BETWEEN	J POMPS	
ASH HOT	PER 3 AREA - DEBRIS ON FLOOR /	REMNANT E	ND OF PIF
- ASH HOT	PERAREA 183 DETRESVON FLOOR	BETWEEN H	OPPERS
-ASH HOP	PER APER GASKET (LAMINATED) ON F	FLOOR S"PI	PES
- ASH PUT	IP IA AREA LINE FROM PERIMON	R HZO/VER	TICAL/TY:
NORTH JAL	L DI VERTICAL PIPE TI SAMPLED	BETWEEN	TOINS.
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omments/Special I	Instructions:		F

Page J of 2 pages

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Project ID:

 Phone:
 (563) 323-2262

 Fax:
 (563) 323-7797

 Received Date:
 02/17/2016 8:40 AM

 Analysis Date:
 02/20/2016

 Collected Date:

Project: 150128.1

Attention: Molly Arp Newell

EnviroNET Midwest

1225 East River Dr., Suite #130

Davenport, IA 52803-3701

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos			
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре	
T1-101-F1	THERMAL INSU.	White	35% Min. Wool	65% Non-fibrous (Other)	None Detected	
	FURNACE 1 HOT	Non-Fibrous				
26160109680001		Homogeneous			New Petersterd	
102	FIREBRICK	Beige Non-Fibrous		100% Non-fibrous (Other)	None Detected	
26160109680002	HEARTH # 6	Homogeneous				
103	MORTAR ON BRICK	Beige		100% Non-fibrous (Other)	None Detected	
	FURNACE # 1	Non-Fibrous				
2616010968000-	HEARTH # 6	Homogeneous				
104-Wrap	THERMAL INSUL	White	40% Glass	60% Non-fibrous (Other)	None Detected	
26160109680004	AIR RETURN	Homogeneous				
		Vellow	95% Glass	5% Non-fibrous (Other)	None Detected	
104-1113018(1011	FURNACE # 3 HOT	Fibrous	3570 01835		None Delected	
2616010968000AB	AIR RETURN	Homogeneous				
104-Fitting	THERMAL INSUL	White	30% Min. Wool	70% Non-fibrous (Other)	None Detected	
	FURNACE # 3 HOT	Non-Fibrous				
2616010968000A3	AIR RETURN	Homogeneous				
105-Wrap	THERMAL INSUL	White	40% Glass	60% Non-fibrous (Other)	None Detected	
26160109680004	AIR RETURN	Homogeneous				
105-Fitting		White	30% Min Wool	70% Non-fibrous (Other)	None Detected	
100-i ittilig	FURNACE # 2 HOT	Non-Fibrous				
261601096&004B	AIR RETURN	Homogeneous				
106A	GREEN GASKET	Green	40% Cellulose	20% Non-fibrous (Other)	None Detected	
	FROM STAINLESS	Fibrous	40% Wollastonite			
26160109680006	STEEL STRAINER	Homogeneous				
	DETWEEN - FURN # 1+ #3					
106-Wran	THERMAL INSUL	Red	70% Cellulose	30% Non-fibrous (Other)	None Detected	
	RED ELBOW GAS	Fibrous				
26160109680005	PIPE IN NE CORNER	Homogeneous				
106-Fitting	THERMAL INSUL	White	30% Min. Wool	70% Non-fibrous (Other)	None Detected	
	RED ELBOW GAS	Non-Fibrous				
26160109680005B	PIPE IN NE CORNER	Homogeneous			000/ 4	
107		White Non Eibrous		80% Non-fibrous (Other)	20% Amosite	
2616010968000P	NE CORNER	Homogeneous				
	VERTICAL	g				
108	THERMAL INSUL	White		80% Non-fibrous (Other)	20% Amosite	
	MOLDED DEBRIS	Non-Fibrous				
26160109680009	ON FLOOR NORTH	Homogeneous				
	WALL					
109-Wrap		White/Silver/Blue	85% Cellulose	15% Non-fibrous (Other)	None Detected	
26160109680010	VERTICAL	Homogeneous				
109-Insulation	THERMAL INSUI	Yellow	95% Glass	5% Non-fibrous (Other)	None Detected	
	PERI H2O PIPE	Fibrous				
26160109680010B	VERTICAL	Homogeneous				



4140 Litt Drive Hillside, IL 60162 Tel/Fax: (773) 313-0099 / (773) 313-0139 http://www.EMSL.com / chicagolab@emsl.com EMSL Order: 261601096 Customer ID: ENET85 Customer PO: Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре	
110-Wrap	THERMAL INSUL RED PIPE "T" BY	Red Fibrous	85% Cellulose	15% Non-fibrous (Other)	None Detected	
26160109680011		Homogeneous			Name Detected	
26160109680011B	RED PIPE "T" BY	Fibrous Homogeneous	95% Min. Wooi	5% Non-librous (Other)	None Detected	
201-Rubber Membrane	VIBRATION	Tan		100% Non-fibrous (Other)	None Detected	
	DAMPENER	Non-Fibrous				
26160109680012	FURNACE #1 LEVEL 2	Homogeneous				
201-Pipe Wrap	VIBRATION	Gray	30% Cellulose	20% Non-fibrous (Other)	50% Chrysotile	
26160109680012B	DAMPENER FURNACE #1 LEVEL 2	Fibrous Homogeneous				
202	VIBRATION	Red	40% Glass	60% Non-fibrous (Other)	None Detected	
2616010968001-	DAMPENER FURNACE #1 FLEX FAN JOINT DISCH	Fibrous Homogeneous				
203-Rubber Membrane	VIBRATION	Tan		100% Non-fibrous (Other)	None Detected	
	DAMPENER	Non-Fibrous				
2616010968001A	FURNACE #2	Homogeneous				
203-Pipe Insulation	VIBRATION DAMPENER EURNACE #2	Gray Fibrous Homogeneous	30% Cellulose	20% Non-fibrous (Other)	50% Chrysotile	
201001090001745		Red	40% Glass	60% Non-fibrous (Other)	None Detected	
204	DAMPENER	Fibrous	40 /0 Glass		None Delected	
26160109680014	FURNACE #2 FLEX JOINT TO AIR - MANIFOLD	Homogeneous				
205-Rubber Membrane	VIBRATION	Black		100% Non-fibrous (Other)	None Detected	
	DAMPENER	Non-Fibrous				
26160109680016	FURNACE #3	Homogeneous				
205-Pipe Wrap	VIBRATION DAMPENER	Gray Fibrous	30% Cellulose	20% Non-fibrous (Other)	50% Chrysotile	
201001090800108		Rod	40% Class	60% Non fibrous (Othor)	None Detected	
26160109680015	DAMPENER FURNACE #3 FLEX JOINT TO AIR -	Fibrous Homogeneous	40 % Glass		None Delected	
207	THERMAI	Yellow	95% Glass	5% Non-fibrous (Other)	None Detected	
2616010968001P	INSULATION HOT AIR RTN BEHIND CORRUGATED - COVER	Fibrous Homogeneous				
208-Wrap	THERMAL INSULATION BLUE	Gray/White Fibrous	85% Cellulose	15% Non-fibrous (Other)	None Detected	
26160109680019	PERIPHERAL H2O VERTICAL - ELBOW	Homogeneous				
208-Fitting	THERMAL INSULATION BLUE	White Non-Fibrous	20% Min. Wool	80% Non-fibrous (Other)	None Detected	
26160109680019B	PERIPHERAL H2O VERTICAL - ELBOW	Homogeneous				
208.5	FIRE BRICK FURNACE # 3	Tan Non-Fibrous		100% Non-fibrous (Other)	None Detected	
26160109680020	HEARTH # 2	Homogeneous				
209	FIRE BRICK FURNACE # 3 HEARTH # 2	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected	
2010010300021	11LAN 111# Z	nomoyeneous				

(Initial Report From: 02/20/2016 18:37:20



4140 Litt Drive Hillside, IL 60162 Tel/Fax: (773) 313-0099 / (773) 313-0139 http://www.EMSL.com / chicagolab@emsl.com

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре
210	FURNACE #2 HEARTH # 2 FIRE	Gray Non-Fibrous		100% Non-fibrous (Other)	None Detected
211	REFRACTORY	Brown		100% Non-fibrous (Other)	None Detected
2616010968002-	INSUL. INSIDE DOOR FURNACE 2 HEARTH 2	Non-Fibrous Homogeneous			
212		Red	40% Glass	60% Non-fibrous (Other)	None Detected
2616010968002A	MANIFOLD INLET FURNACE 1 - HEARTH 1	Homogeneous			
213	VIBRATION DAMPENER AIR	Red Fibrous	40% Glass	60% Non-fibrous (Other)	None Detected
26160109680024	MANIFOLD INLET FURNACE 3 - HEARTH 1	Homogeneous			
214	THERMAL INSULATION BLUE	Gray Non-Fibrous	20% Min. Wool	80% Non-fibrous (Other)	None Detected
26160109680026	PERIPHERAL H2O SPIGOT N - WALL	Homogeneous			
215	THERMAL INSIDE DOOR FURNACE 3	Brown Non-Fibrous		100% Non-fibrous (Other)	None Detected
20100109080025		White		100% Non fibrous (Other)	None Detected
2616010968002P	INSULATION DEBRIS ON GRATE - SW OF FURN #3	Non-Fibrous Homogeneous			None Delected
301-Wrap		Gray/White	50% Glass	50% Non-fibrous (Other)	None Detected
26160109680029	ELBOW FURNACE 1 LEVEL 3	Homogeneous			
301-Fitting	THERMAL INSUL. HOT AIR RTN	White Non-Fibrous	25% Min. Wool	75% Non-fibrous (Other)	None Detected
261601096&0029B	ELBOW FURNACE 1 LEVEL 3	Homogeneous			
302	VIBRATION	Gray	30% Cellulose	10% Non-fibrous (Other)	60% Chrysotile
261601096800-0	DAMPENER INDUCED FAN DRAFT FURNACE 1	Fibrous Homogeneous			
303-Wrap		Gray/White	40% Glass	60% Non-fibrous (Other)	None Detected
261601096800-1	AIR RTN VERTICAL FURNACE 1	Homogeneous			
303-Fitting		White Non-Eibrous	30% Min. Wool	70% Non-fibrous (Other)	None Detected
261601096800-1B	AIR RTN VERTICAL FURNACE 1	Homogeneous			
304	COLLAR ON HOT AIR FURNACE 1	Gray Non-Fibrous		100% Non-fibrous (Other)	None Detected
201601096800-2	LEVEL 3	Proven		200/ Non fibrary (Othan)	Nono Dotastad
305-vvrap	REMINANT WATER	Brown Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
	FURNACE 3	nomogeneous			
305-Fitting	THERMAL INSUL REMINANT WATER	White Non-Fibrous	20% Min. Wool	80% Non-fibrous (Other)	None Detected
261601096800 B	PIPE NEAR FURNACE 3	Homogeneous			

Initial Report From: 02/20/2016 18:37:20



EMSL Analytical, Inc. 4140 Litt Drive Hillside, IL 60162

Tel/Fax: (773) 313-0099 / (773) 313-0139 http://www.EMSL.com / chicagolab@emsl.com EMSL Order: 261601096 Customer ID: ENET85 Customer PO: Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

		Non-Asbestos			Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре
306-Wrap	THERMAL INSUL BLUE H2O PIPES	Green Fibrous	80% Cellulose	20% Non-fibrous (Other)	None Detected
261601096800- A	WEST WALL	Homogeneous			
306-Fitting	THERMAL INSUL BLUE H2O PIPES	White Non-Fibrous	20% Min. Wool	80% Non-fibrous (Other)	None Detected
261601096800- AB	WEST WALL	Homogeneous			

Analyst(s)

Dahlia.Zyhowski.(AP)

fam P. Hh

James Hahn, Laboratory Manager or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Hillside, IL NVLAP Lab Code 200399-0

Initial Report From: 02/20/2016 18:37:20



EMSL ANALYTICAL, INC

EMSL ANALYTICAL ING 200 ROUTE 152 NOR11 CHINAMINSON AJ 85077 FHONE (805 220-3675 FAX: (855) 786-5974

		EMSL	till to: Same Diffe	rent
Company : EnviroNET, Inc		If Bill to is Dif	ferent note instructions in Com	ments**
Street: 1225 East River Drive Suite #130		Third Party Billing re	quires written authorization	from third party
City: Davenport State	Province: IA	Zip/Postal Code: 52803	Country: US	A
Report To (Name): Molly Newell		Telephone #: 563 323 2	2262	
Email Address: mall:@environetmidurat.		Eau # 562 222 7707		
Project Name/Number: 150128 1		Please Provide Results	E Fax Frail	ider
U.S. State Samples Taken: Illinois	a ala sana a sa sa	CT Samples: Comm	ercial/Taxable [] Resi	dential/Tax Exempt
Tur	naround Time (T	AT) Options* - Please Che	ick	
3 Hour 6 Hour 24 Hou For TEM Air 3 hr through 6 hr. please call ahead to s an authorization form for this service Analys.	r 48 Hour chedule.*There is a pi is completed in accord	remium charge for 3 Hour TEM AF dance with EMSL's Terms and Col	96 Hour 1 Week HERA or EPA Level II TAT. N nditions located in the Analyti	You will be asked to sign ical Price Guide.
PCM - Air Check if samples are from NY	TEM - Air	4-4.5hr TAT (AHERA only)	TEM- Dust	
NIOSH 7400	AHERA 40	CFR, Part 763	Microvac - ASTM [0 5755
🗇 w/ OSHA 8hr TWA	NIOSH 740	02	Wipe - ASTM D64	80
PLM-Bulk (reporting limit)	EPA Level	<u>11</u>	Carpet Sonication	(EPA 600/J-93/167)
PLM EPA 600/R-93/116 (<1%)	☐ ISO 10312		Soil/Rock/Vermiculit	<u>e</u>
DPLMEPA NOB (<1%)	TEM - Bulk		PLM CARB 435 - /	A (0.25% sensitivity)
Point Count	TEM EPA N	10B	PLM CARB 435 - 6	B (0 1% sensitivity)
☐ 400 (<0 25%) ☐ 1000 (<0.1%)	NYS NOB 1	198 4 (non-friable-NY)	TEM CARB 435 - I	B (0 1% sensitivity)
Point Count w/Gravimetric	Chatfield St	OP	TEM CARB 435 - 0	C (0 01% sensitivity)
☐ 400 (<0 25%) ☐ 1000 (<0 1%) —	TEM Mass	Analysis-EPA 600 sec. 2 5	TEM Qual. via Filtr	ation Technique
NYS 198.1 (friable in NY)	<u>TEM – Water:</u>	EPA 100 2	TEM Qual via Drop-Mount Technique	
NYS 198 6 NOB (non-friable-NY)	Fibers >10µm	U Waste U Drinking	Other:	
□ NIOSH 9002 (<1%)	All Fiber Sizes	UWaste UDrinking	<u> </u>	
Sample #	Sample Descrip	otion	Volume/Area (Air) HA # (Bulk)	Bate/Time-
101	<u> </u>			SUSPECT
TI-101-FI Thermon 1	NSUL. FUR	RNACE 1 HOTAL	A RETURN	Acm
102 FIREBRICK - FUNT	ALE 2 H	ts ARTH #6		LEVEL#1
103 MORTAR ON BRIC	K - FURN	JACE # 1 HEAN	att #6	5
104 THERMAL INSUL	- FURNA	UE # 3 HOTA	RRETURN	
105 THERMA INSUL	- FURNA	CE * 2 HOT	AIR RETURN	1 I
106 GASKET FROM	STAINLESS	STERL STRAWE	ONE OF AK	URN#1+H3
196 THERMAL INSUL	- RED E	GAS LROW PIPS 11	NERNER	J.
107 THERMAL INSUL	- ORAN	GE GAS	E CORNER	VERTICAL.
Client Sample # Ist	Janal	9	Total # of Samples	F.L
Relinquished (Client):	TP New	-0165 DO	02-16 Time:	PENEY
Received (Lab):	Det	2 17.11	Time	8:404 . 100
Comments/Special Instructions:	Jai	<u> </u>	11170:	D INT Great
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Controlled Document - Aspestos COC - R6 - 4/11/2012	Page 1 of 3	pages		
	Page 1 Of	3		

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):



LABORATORY . PRODUCTS .TR

Asbestos Chain of Custody EMSL Order Number (Lab Use Only)

ENISE ANALYTICAL ACC 200 ROUTE 150 MARTH CINNAMINSON NO 16077 PRONE 1807 201-0876 Fax: (266) 705-5974

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time
	MOLDED	No. Contraction	SUSPECT
108 THS	FUNAL INSUL - DEBRIS - ON FLOOR NO	RTH WALL (Acm
109 THE	AMAZ INSUL PERIPHERA H20 Pipe	- VERTICAL.	LEVEL #1
110 THS	RMAL INSUL RED PIPE "T" BY DO	OR- LATER	I V
201 118	LATION DAMPENER FURNACET LEVE	Z	SUSPECT
202 418	RATION DAMPENER FURNACE*1 FLEX	NE DISCH.	LEVEL #2
203 VIC	RATION DAMPENOR FURNACE #2		
204 118	RATION DAMPENER FURNACE Z TO	AIR MANIFOL	D
205 VI	PRATION DAMPENER FURNACE # 3		
206 V	BRATION DAMPSNER FURNACE#3 F	AIR MANIFO	5
207 TH	REMAR INSULATION HOT AIR RTN B	EHIND COVER	
208 TH	KRMAL INSULATION BLUE PERIPHERAT	H20 ELBOE	
208.5 FI	RE BRICK FURNACE # 3 HEARTH #2	11000	
209 F	RE BRICK FURNACE " Z HEARTH " Z		
210 F	RE BRICK FURNACE 2 HEARTH 2	FIRE BRIC	K
211 R	FRACTORY INSUL. INSIDE DOOR HEA	RTH Z	
212 V	IBRATION DAMPENER AIR MANIFOLD INLE	HEARTH 1	
213 1	IBPATION DAMPENER AIR MANIFOLD INLE	FURNACE 3	
214 T	HERMAL INSULATION BLUE PERIPHERAL	HZO N. WALL	
215 T	HERMAL INSIDE DOOR FURNACE 3	HEARTH Z	
216 1	HERMAL INSULATION DEBRIS ON GRAT	E FURN#3	-V
	SEENEXT PAGE FOR		
	LEVEL #3 Muster	M	

Page Z of 3 pages

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EMSL ANAL TELS. INC 200 ROUTE 101 NOATH CINNAMINEON T. 20077 PICINE (800 - 20-0675 PAK) (855 - 785-5974

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
301 TH	SEMACL INSUL HOT ALR RTNI FIRAFI F	DRNACEI	SUSPECT
302 VI	BRATION DAMPINER FAN FURNC		LWEL 3
303 TI	ERMAL INSULATION HOT AIR RIN	ERTICAL FURNACE I	
304 (OLLAR ON HOT AIR FURNA	CE 1	
305 4	ATER PIPE - NEAR FURNACE	3	
306 T	HERMAN INSUL. BLUE HZO PIPES-	WALL.	
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Comments/Speci	al Instructions:	Là	
	Page 3 of 3 pages		

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Page 3 Of 3



4140 Litt Drive Hillside, IL 60162 Tel/Fax: (773) 313-0099 / (773) 313-0139 http://www.EMSL.com / chicagolab@emsl.com EMSL Order: 261601900 Customer ID: ENET85 Customer PO:

Project ID:

 Phone:
 (563) 323-2262

 Fax:
 (563) 323-7797

 Received Date:
 03/17/2016 8:37 AM

 Analysis Date:
 03/21/2016

 Collected Date:

Project: 150128.1

Attention: Molly Arp Newell

EnviroNET Midwest

1225 East River Dr., Suite #130

Davenport, IA 52803-3701

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

		Non-Asbestos			Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре
RF-1 261601900-0001	ROOF NEAR FURNACE #1 ASPHALT FLASHING	Black Fibrous Heterogeneous	50% Cellulose	40% Non-fibrous (Other)	10% Chrysotile
	AROUND VENT				
RF-2	BASE AIR INTAKE ASPHALT FLASHING	Black Fibrous	50% Cellulose	35% Non-fibrous (Other)	15% Chrysotile
261601900-0002	FURNACE #1	Heterogeneous			
RF-3	BASE OF AIR INTAKE TAR	Black Non-Fibrous		90% Non-fibrous (Other)	10% Chrysotile
261601900-0003	FLASHING, FURNACE # 1	Heterogeneous			
RF-4	ROOF TOP CORE THROUGH BALLAST	Black Non-Fibrous	20% Cellulose	80% Non-fibrous (Other)	None Detected
261601900-0004	3" OF TAR TO SUBSTRATE CONCRETE NEAR FURNACE #1 AIR INTAKE	Heterogeneous			
RF-5	ROOF TAR (CHUNKY)	Black Non-Fibrous		90% Non-fibrous (Other)	10% Chrysotile
261601900-0005	COLLECTED NEAR EMERGENCY EXHUAST	Homogeneous			
RF-6	MULTI-LAYER ASPHALTIC	Black Fibrous	50% Cellulose	38% Non-fibrous (Other)	12% Chrysotile
261601900-0006	MATERIALS FLASHING	Heterogeneous			

Analyst(s)

Dahlia Zyhowski (6)

fam P. Hh

James Hahn, Laboratory Manager or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Hillside, IL NVLAP Lab Code 200399-0

Initial Report From: 03/21/2016 19:51:27



Asbestos Chain of Custody EMSL Order Number (Lab Use Only): 201009000

EMSL ANALYTICS 11, 200 REDTE 130 NORM CINAMOUSON, NJ 98077 P. 500 (800) 220-3675 F.M. (856) 786-5974

Min an							
Company : EnviroN	ET, Inc		EMSL-E If Bill to is Dif	Bill to: 🛛 Same 🔲 Diffe	erent ments**		
Street: 1225 East Ri	iver Drive Suite #130		Third Party Billing requires written authorization from third party				
City: Davenport	State/	Province: IA	Zip/Postal Code: 52803	Country: US	A		
Report To (Name):	Molly Newell		Telephone #: 563 323 2	2262			
Email Address: mo	lly@environetmidwest.c	om	Fax #: 563 323 7797	Purchase O	rder:		
Project Name/Numł	per: 150128.1		Please Provide Results	. 🗌 Fax 🛛 Email			
U.S. State Samples	Taken: Illinois		CT Samples: 🗍 Comm	ercial/Taxable 🔲 Resi	dential/Tax Exempt		
3 Hour	Turi 6 Hour 24 Hour gh 6 hr, please call ahead to so	naround Time (TA	T) Options* – Please Che 72 Hour	eck 96 Hour 🔲 1 Week HERA or EPA Level II TAT. N	ou will be asked to sign		
an authorization	form for this service. Analysis	s completed in accorda	ince with EMSL's Terms and Co	inditions located in the Analyti	cal Price Guide.		
	It samples are from INY		-4.5Nr IAI (AHERA only)	IEM-DUST	N 6766		
	WA.		унк, Рап 763 9		0 5755		
PIM - Bulk (reportin	an limit)						
PLM EPA 600/R-	13/116 (<1%)			Soil/Rock/Vermiculit	(EFA 000/J-93/10/)		
	(1%)	TEM - Bulk		D PIM CARB 435 - 4	L (0.25% sensitivity)		
Point Count	170))B	PIM CARB 435 - F	3 (0.1% sensitivity)		
□ 400 (<0.25%) □	1000 (<0.1%)	NYS NOB 19	8.4 (non-friable-NY)	│	3 (0.1% sensitivity)		
Point Count w/Gravin	netric	Chatfield SO	P	TEM CARB 435 - C (0 01% sensitivity)			
□ 400 (<0 25%) □	1000 (<0.1%)	TEM Mass A	nalysis-EPA 600 sec. 2.5	TEM Qual. via Filtration Technique			
NYS 198.1 (friabl	e in NY)	TEM - Water: E	PA 100.2	TEM Qual. via Drop-Mount Technique			
□ NYS 198.6 NOB	(non-friable-NY)	Fibers >10µm	🗌 Waste 🔲 Drinking	Other:			
NIOSH 9002 (<1	%)	All Fiber Sizes	Waste Drinking				
Check For Positi	ve Stop - Clearly Identif	v Homogenous G	roup Filter Pore Size (Air Samples): 0.8u	m 0 45um		
Samplers Name: Mr	liv Newell	· · · · · · · · · · · · · · · · · · ·	Samplers Signature:	ma Applew It	2		
	1		T sumpiero signature.	Volume/Area (Air)	Date/Time		
Sample #		Sample Descripti	ion	HA # (Bulk)	Sampled		
RF-1	Roof near furnace #1	. Asphalt flashing	around vent.		1		
RF-2	Base of air intake. As	phalt flashing, fu	mace #1.				
RF-3	Base of air intake. Ta	r flashing, furnace	e #1.	:=:=:			
	Roof top core throug	h ballast. 3" of tar	to substrate concrete				
RF-4	near furnace #1, air i	ntake.					
RF-5	Roof tar (chunky), co	llected near emer	gency exhaust.				
RF-6	Multi-layer asphaltic	materials flashing					
			2 ,				
No. of the local diversion of the							
	1 2						
Client Sample # (s):		· · · ·		Total # of Samples:	6		
onent oampie # (5).	Molly Newell .	10 .		rotar # or samples:	11.00		
Relinguished (Clien	1) gessica 1	Flomolro Date	: 31/6/10	Time:	14:00		
Received (Lab): . R	\mathcal{A} ,	Date	317116.	Time	(837)		
Comments/Special	Instructions:	Date		rune			
				4	-t+		

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Page 1 of ___ pages

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EnviroNET, Inc.			EMSL-Bill to:	Differ			
Company : 1225 Fast River Drive Ste #130		TL	Darty Billing cognized weitte	soucions in	ation from third p	artic	
Street: State/	Province: IA	Zip/Posta	I Code:	Co	ountry:	ar(y	
Report To (Name): Molly Arp Newell	<u>1911-1911</u>	Telephon	e#:	ana ang kang sa		-	
Email Address: molly@environetmidw	vest com	Fax #	• • • • • • • • • • • • • • •	PI	rchase Order:		
Project Name/Number: 150128.26 # RRWRD		Please Pr	rovide Results:	AX	E-mail	Mail	
U.S. State Samples Taken: Illinois		CT Samp	les: 🗌 Commercial/Taxa	able 🗌 R	tesidential/Tax	Exempt	
T 3 Hour 6 Hour 24 *Analysis complet	Urnaround Time (TA Hour 1 2 48 Hour ed in accordance with EM	AT) Option ur 77 ASL's ferms of	s* - Please Check Hour 96 Hour Conditions located in the I	Price Guide	Week 🗌 🗆	2 Week	
Matrix	Method		Instrument	Repo	orting Limit	Check	
Chips 🔳 % by wt. 🔳 mg/cm² 🗌 ppm	SW846-700	0B	Flame Atomic Absorption		0 01%	N	
Air	NIOSH 708	32	Flame Atomic Absorption	4	µg/filter		
	NIOSH 710)5	Graphite Furnace AA	0.0	3 µg/filter		
	NIOSH 7300 mc	odified	ICP-AES/ICP-MS	0.5	5 µg/filter		
Wipe* ASTM	SW846-700	0B	Flame Atomic Absorption	bsorption 10 µg			
non ASTM	SW846-6010B or C		ICP-AES) µg/wipe		
Wipe is assumed	SW846-7000B/7010		Graphite Furnace AA	0.07	5 µg/wipe		
TCLP	SW846-1311//000B	/SM 3111B -6010B or C	ICP-AES		ng/L (ppm) ng/L (ppm)		
Soil	SW846-700	0B	Flame Atomic Absorption	40 m	ig/kg (ppm)		
	SW846-701	10	Graphite Furnace AA	0.3 m	ıg/kg (ppm)		
	SW846-6010B	B or C	ICP-AES	2 m	g/kg (ppm)		
Wastewater Unpreserved	EPA 200 9 EPA 200 7		Graphite Furnace AA		mg/L (ppm)	H	
Preserved with $HNO_3 pH < 2$			ICP-AES	0.020 mg/L (ppm)			
Drinking Water Unpreserved	EPA 200.9	9	Graphite Furnace AA	0.003	3 mg/L (ppm)		
Preserved with $HNO_3 pH < 2$	EPA 200 8		ICP-MS	0.001 mg/L (ppm)			
TSP/SPM Filter	40 CFR Part 50		Graphite Furnace AA	3.6 up/filter			
Other:	is server and		all all and a second second second	<u>, , , , , , , , , , , , , , , , , , , </u>	- <u> </u>		
Name of Sampler:		Signa	ture of Sampler:				
Sample # Locat	ion		Volume/Area	1	Date/Time S	Sampled	
101 Furnace #1 Y	ellow paint	reddisł	n brown primer obse	2016 02	2-15		
102 Furnace #2 - Y	ellow & Black	ru	rusty primer observed		2016 02-15		
103 Europeo #2	Cellow only	rusty primer observed			2016 02-15		
100 Tuttace #2					2010 02-15		
Furnace #3 Bla	CK and Yellow	ru	rusty primer observed		2016 02	2016 02-15	
105 Roof Drain Nor	th wall Brown	brown & grey/ / black underneath 2016 02-1				2-15 r	
Client Sample #'s		0	Total # of !	Samples	· · · · · · · ·		
Relinquished (Client):	mp News	20	016.02.10 ime		what	tw	
			17.11-		8 404	FRI	
Received (Lab):	Date:	12-1	7 <u>14</u> Time:	-	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	<u>C1 51</u>	

Page 1 of <u>pages</u>

LEAD (Pb) CHAIN OF CUSTODY

EMSL ORDER ID (Lab Use Only).

 $\theta < \infty$

-102

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Location	Volume/Area	Date/Time Sampled
106	Gas Scrubber Pipe/ Under Scrubber	Furnace @2 area Off-white	2016 02-15
107	Structural Column from between Furnace 1 & 2	Yellow w rusty substrate	2016 02-15
201	Furnace #1 on Level 2 Yellow	rusty primer observed	2016 02-15
202	Furnace #2 Level 2 Yellow	rusty primer observed	2016 02-15
203	Furnace #3 Yellow	rusty primer observed	2016 02-15
204	Gas Line - Funace #1 white paint	rusty primer observed	2016 02-15
205	Structural Column from between Furnace 1 & 3	Yellow w rustry substrate	2016 02-15
206	Railing near Open area	Grey Level 2	2016 02-15
301	Furnace 3 Air Cleaner	yellow/ off-white/ Level 3	2016 02-15
Comments/S	pecial Instructions:		

Page 2 of 2 pages

EMSL	EMSL Analytical, In 4140 Litt Drive, Hillside, IL 60162 Phone/Fax: (773) 313-0099 / (77 http://www.EMSL.com	C. 73) 313-0139 <u>chicagolab@emsl.con</u>	1		EMSL Order: CustomerID: CustomerPO: ProjectID:	261601024 ENET85
Attn: Molly Arp I EnviroNET 1225 East Davenport	Newell ⁻ Midwest River Dr., Suite #130 , IA 52803-3701		Phone: Fax: Received: Collected:	(563) 323-2262 (563) 323-7797 02/17/16 8:40 Al	М	
Project: 150128.2b//	RRWRD					
Test Client Sample Description	Report: Lead in Pair	nt Chips by Fla	me AAS (S	W 846 3050E	3/7000B)*	Lead Concentration
101	261601024-0001 Site: FURNACE #1 YELLOW I Desc: REDDISH BROWN PR	2/19/2016 PAINT IMER OBSERVED				18 % wt
102	261601024-0002 Site: FURNACE #2 YELLOW &	2/19/2016 & BLACK				1.2 % wt
103	261601024-0003 Site: FURNACE #2 YELLOW (Desc: RUSTY PRIMER OBSE	2/19/2016 ONLY RVED				10 % wt
104	261601024-0004 Site: FURNACE #3 BLACK AN Desc: RUSTY PRIMER OBSE	2/19/2016 ND YELLOW RVED				2.0 % wt
105	261601024-0005 Site: ROOF DRAIN NORTH W Desc: BROWN & GREY/ BLA	2/19/2016 / ALL BROWN CK UNDERNEATH				1.1 % wt
106	261601024-0006 Site: GAS SCRUBBER PIPE/L Desc: FURNACE @2 AREA C	2/19/2016 JNDER SCRUBBER DFF WHITE				0.020 % wt
107	261601024-0007	2/19/2016				3.6 % wt

	Desc: FURNACE @2 AREA OFF WHITE	
107	261601024-0007 2/19/2016	3.6 % wt
	Site: STRUCTURAL COLUMN FROM BETWEEN FURNACE 1 & 2 Desc: YELLOW W RUSTY SUBSTRATE	
201	261601024-0008 2/19/2016	1.3 % wt
	Site: FURNACE #1 ON LEVEL 2 YELLOW Desc: RUSTY PRIMER OBSERVED	
202	261601024-0009 2/19/2016	5.0 % wt
	Site: FURNACE #2 LEVEL 2 YELLOW Desc: RUSTY PRIMER OBSERVED	
203	261601024-0010 2/19/2016	5.7 % wt
	Site: FURNACE #3 YELLOW Desc: RUSTY PRIMER OBSERVED	
204	261601024-0011 2/19/2016	6.0 % wt
	Site: GAS LINE-FURNACE #1 WHITE PAINT Desc: RUSTY PRIMER OBSERVED	

isa M. Odeshoo

Lisa Odeshoo, Lead Lab Manager or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, LLC, unless specifically indicated otherwise.

Samples analyzed by EMSL Analytical, Inc. Hillside, IL AIHA-LAP, LLC--ELLAP Accredited #102992

Initial report from 02/19/2016 08:19:32



isa M. Odeshoo

Lisa Odeshoo, Lead Lab Manager or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, LLC, unless specifically indicated otherwise.

Samples analyzed by EMSL Analytical, Inc. Hillside, IL AIHA-LAP, LLC--ELLAP Accredited #102992

Desc: GREY LEVEL 2

Site: FURNACE 3 AIR CLEANER Desc: YELLOW/OFF-WHITE/LEVEL 3

2/19/2016

261601024-0014

301

Initial report from 02/19/2016 08:19:32

1.0 % wt

INSPECTOR QUALIFICATIONS

And

LICENSES



ENDORSEMENTS

TC EXPIRES

INSPECTOR

1/5/2017

Alteration of this license shall result in legal action This license issued under authority of the State of Illinois Department of Public Health This license is valid only when accompanied by a valid training course certificate.



LEAD ID ISSUED 015096 10/19/2015

Molly A Newell 2312 East 11th Street Davenport, IA 52803



ILLINOIS LEAD PROGRAM Environmental Health

Alteration of this license shall result in legal action RISK ASSESSOR CERTIFICATE EXPIRES 10/22/2017

This license issued under authority of the State of Illinois -Department of Public Health

This license is valid only when accompanied by a valid training course certificate

If found return to 525 W.Jefferson St Springfield, IL 62761

SHEETS 001 – 007

DEPICTION OF LOCATIONS & MATERIALS TESTING POSITIVE FOR ACM

AND

GENERAL SITE LOCATION AND LAYOUT















RRWRD Incinerator Building Renovation Site View



RRWRD Incinerator Building Renovation Site View ZOOM



22 Remove Miscellaneous Piping at the Direction of the Engineer

22.1 General

This work shall consist of the complete removal of various sizes and types of piping that are not currently identified on the Plans or Specifications to be removed. The intent of this pay item is that as the Contractor proceeds with removal and deconstruction operations there may be additional piping identified that can be removed. At the direction of the Engineer the Contractor shall remove and properly dispose of all additional piping that is identified. This shall include the disassembly of items as needed for removal from the building.

Hoist anchors of any type will not be allowed to be installed on the Basement ceiling. Existing pipe supports shall be cut flush with the ceiling.

22.2 Required Submittals

Not Used

22.3 Measurement and Payment

This work will be measured for payment on a per Linear Foot basis. An estimated quantity is included in the Summary of Quantities for the purposes of bidding. The final quantity will be measured in the field after the piping is identified by the Engineer and prior to removal by the Contractor.

This work will be paid for at the Contract unit price per Linear Foot for **Remove Miscellaneous Piping at the Direction of the Engineer**.

Proposal

Project: Dewatering Building Basement Renovations, Capital Project No. 1850

Location: RRWRD Treatment Plant, 3333 Kishwaukee Street, Rockford, Illinois

Completion Date: June 29, 2018

Liquidated Damages: \$300/calendar day per each completion date deadline

To: Board of Trustees Rock River Water Reclamation District 3501 Kishwaukee Street Rockford, IL 61109

From:

(Individual, Partnership or Corporation, as case may be)

(Address of Individual, Partnership or Corporation)

Gentlemen:

I (We), the undersigned, hereby propose to furnish all materials, equipment, tools, services, labor, and whatever else may be required to construct and place in service the above subject Sanitary Sewer for the Rock River Water Reclamation District all in accordance with the plans and specifications, provided by the Rock River Water Reclamation District. The undersigned also affirms and declares:

- 1. That I (we), have, examined and am (are) familiar with all the related contract documents and found that they are accurate and complete and are approved by the undersigned.
- 2. That I (we), have carefully examined the site of the work, and that, from my (our) investigation, has satisfied myself (ourselves) as to the nature and location of the work, the character, quality, and quantity of materials and the kind and extent of equipment and other facilities needed for the performance of the work, the general and local conditions and all

difficulties to be encountered, and all other items which may, in any way, effect the work or its performance.

- 3. That this bid is made without any understanding, agreement or connection with any other person, firm, or corporation making a bid for the same purposes, and is in all respects fair and without collusion or fraud; and that I (we) are not barred from bidding as a result of a bid-rigging or bid-rotating conviction.
- 4. That accompanying the Proposal is a Bidder's Bond in the amount specified in Article 1, Notice to Bidders, payable to the Board of Trustees of the Rock River Water Reclamation District, which it is agreed, shall be retained as liquidated damages by said Rock River Water Reclamation District if the undersigned fails to execute the Contract in conformity with the contract documents incorporated in the contract documents and furnish bond as specified, within ten (10) days after notification of the award of the contract to the undersigned.
- 5. The Bidder is of lawful age and that no other person, firm or corporation has any interest in this Proposal or in the Contract proposed to be entered into.
- 6. The Bidder is not in arrears to the Rock River Water Reclamation District, upon debt or contract, and is not a defaulter, as surety or otherwise, upon any obligation to the Rock River Water Reclamation District.
- 7. No officer or employee or person whose salary is payable in whole or in part by the District is, shall be or become interested, directly or indirectly as a contracting party, partner, stockholder, surety of otherwise, in this Proposal, or in the performance of the Contract, or in the work to which it is relates, or in any portion of the profits thereof.
- 8. The Bidder which I represent complies with all applicable requirements of the Americans with Disabilities Act (ADA) and the Occupational Safety and Health Act (OSHA) and that if said bidder is awarded a contract, it will complete all OSHA-required or ADA-required employee and customer training, will make available all required information, and will hold harmless and indemnify the District and the District's representatives.

In regard to participation in an approved Apprenticeship program, upon request, Contractor will be required to provide written proof of participation.
- 9. The undersigned, as Bidder, declares that he has adopted and promulgated written sexual harassment policies in accordance with Public Act 99-093 and will make this information available upon request.
- 10. The undersigned, as Bidder, declares he will comply with prevailing wages in accordance with the Illinois Department of Labor Standards. The State of Illinois requires contractors and subcontractors on public works projects (including the Rock River Water Reclamation District) to submit certified payroll records on a monthly basis, along with a statement affirming that such records are true and accurate, that the wages paid to each worker are not less than the required prevailing rate and that the contractor is aware that filing false records is a Class B Misdemeanor. The successful Bidder shall be responsible for verifying the prevailing wages each month and notifying all subcontractors of the appropriate monthly rates. Prevailing wage rates may be found on the Illinois Department of Labor website at http://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx.

The certified payroll records must include the name, address, telephone number, social security number, job classification, hourly wages paid in each pay period, the number of hours worked each day, and the starting and ending time of work each day, for every worker employed on the project. Any contractor who fails to submit a certified payroll or knowingly files a false certified payroll is guilty of a Class B Misdemeanor. Certified payroll reports shall be submitted on industry standard forms such as IDOT Statement of Compliance (SBE 348) or other approved equal.

- 11. The undersigned, as Bidder, declares he will comply with the Federal Drug Free Workplace Act.
- 12. The undersigned, as Bidder, declares he will comply with Public Act 83-1030 entitled "Steel Products Procurement Act".
- 13. The undersigned, as Bidder, declares he will comply with Public Act 96-929 (30 ILCS 570) regarding Illinois residents employment.
- The undersigned, as Bidder, declares he will comply with non-discrimination in employment in accordance with the Illinois Fair Employment Practices Commissions Rules & Regulations.

15. The undersigned, as Bidder, declares that he currently participates in an apprenticeship or training program that is registered with the United States Department of Labor's Bureau of Apprenticeship and Training or other acceptable State of Illinois Department of Labor monitored program.

In submitting this bid, it is understood that the right is reserved by the Rock River Water Reclamation District to reject any and all bids. It is agreed that this bid may not be withdrawn for a period of sixty (60) days from the opening thereof.

The undersigned further declares that he (they) has (have) carefully examined the following items of work and that the cost of all the work to complete this project is given in this Proposal.

Item No.	Quan- tity	Unit	Description	Unit Price (In Writing)	Unit Price (In Figures)	Total Price (In Figures)
1	141	LF	Remove PCC Curb	(200 + 1 2 200 - 8)	(8)	
2	71	CU FT	Remove Equipment / Pipe Support Pad			
3	1	LS	Remove Piping, Water Filter, & HVAC Ducts and Appurtenances			
4	1	LS	Remove Manhole Structure			
5	1	LS	Remove Storage Tank			
6	5	EA	Seal Wall Penetration			
7	2	EA	Plate Wall Penetration			
8	1	LS	Remove Material Hoppers			
9	1	LS	Remove Water Tank, Pumps, & Appurtenances			
10	10	EA	Replace Column Base Plate Protection			
11	1	EA	Remove Door Frame			
12	1	EA	Remove & Replace Door & Door Frame			
13	9	EA	Remove Floor / Equipment Drain			
14	16	EA	Remove & Replace Floor Drain			
15	1	EA	Repair Floor Drain Piping			
16	201	SQ FT	Type 1 PCC Partial-Depth Patch			
17	58	SQ FT	Type 2 PCC Partial-Depth Patch			
18	600	SQ FT	Removal of Delaminated Concrete			
19	40	SQ FT	Sump Pit Concrete Repair			
20	20	LF	Remove Miscellaneous Piping at the Direction of the Engineer			
			TOTAL BID PRICE:	(In Writi	ng)	(In Figures)

The undersigned acknowledges receiving Addendum numbers _____, ____, and realizes that all Addenda are considered part of the contract.

By: _____

Name:	Title	Date [.]
		Bute.

	LEGEND		
EXISTING	PROPOSED		
		RIGHT OF WAY LINE	
		PROPERTY LINE	
		BUILDING	
		WATER EDGE	
		EASEMENT - SANITARY	
//		EASEMENT - TEMPORARY	
		BRUSH OR TREE LINE	
>	>	DITCH FLOWLINE	
		CONTOUR - MAJOR	DTL DETAIL DE
		CONTOUR - MINOR	
X	X	FENCE	SEC SHT
SF	SF	FENCE - SILT	
[][][][]	[][][][]	FENCE - TEMPORARY	DTL
		ROADWAY CENTERLINE	SHT
		EDGE OF PAVEMENT	SAN. = SANITARY
		CURB & GUTTER	MH = MANHOLE C.O. = CLEANOUT
OC		CABLE - OVERHEAD	LINCIPP = LINED WITH CU RCP = REINFORCED C
UC		CABLE - UNDERGROUND	DI = DUCTILE IRON $CMP = CORRUGATED$ $ABD = ABANDON(ED)$
OE		ELECTRIC - OVERHEAD	REM.= REMOVE(D) REPL.= REPLACE(D)
UE		ELECTRIC - UNDERGROUND	E.D.= EQUIPMENT DF F.D.= FLOOR DRAIN
FO		FIBER OPTIC	
G		GAS LINE	-
OT		TELEPHONE - OVERHEAD	
UT		TELEPHONE - UNDERGROUND	
TVETHH		PEDESTALS (CATV, ELEC, TELE), & HANDHOLE	
		SANITARY MANHOLE & SANITARY SEWER	XXX.XX
(<u>6</u> 6(—.(—.(- ● ુદુ—.(SANITARY SERVICE & CLEANOUT	HMA AGG.
FM	FM	SANITARY FORCEMAIN	CONC. TURF
		STORM SEWER	
	$\bigcirc \otimes \square \bigcirc \bigcirc$	STORM MANHOLE, CATCH BASIN, CURB INLET, INLET SPECIAL	
<		DRAINAGE CULVERT	
W	w	WATER MAIN & WATER MAIN VALVE	
		WATER SERVICE & WATER SERVICE VALVE	
$-\uparrow$	•	FIRE HYDRANT	
● BM 1		SOIL BORING	
		BENCHMARK	
Rock River RC	OCK RIVER WATER	No. DATE REVISION	
Reclamation District 3501	LAMATION DISTRICT KISHWAUKEE STREET	1 3/16/18 ADDED PAY ITEM PER ADD	ENDUM #1 KG
ROCK	FORD, ILLINOIS 61109 (815) 387-7660		

DEWATERING BLDG BASEMENT RENOVATIONS **CAPITAL IMPROVEMENT PROJECT #1850**

ESC.	= DETAIL OR SECTION IS O DESCRIPTION	SECTION #, SHEET DETAIL OR DRIGINATED FROM, N, AND SCALE.	GATE FOB REQ'D.
	= SECTION #,	SHEET SECTION IS SHOWN ON.	
	= DETAIL #, S AND POINT	HEET DETAIL IS SHOWN ON, OF VIEW.	1966 TPI-C BUILDING
AB	BREVIA	FIONS	
Y PIPE JRED IN PLAC CONCRETE P METAL PIPE RAIN	CE PIPE IPE	LF = LINEAR FEET FT = FEET SY = SQUARE YARD(S) EA = EACH CY = CUBIC YARD(S) LS = LUMP SUM PVMNT = PAVEMENT TY.= TYPE UNK.= UNKNOWN EL.= ELEVATION EX.= EXISTING PR.= PROPOSED	
LEGENI	<u>D</u>		
¢		UTILITY POLE W/ GUY WIRE & MAST ARM LIGHT POLE	tu .
\bigcirc	\ast	TREE (DECIDUOUS & CONIFEROUS)	
¢	*	BRUSH & SHRUB	POC4
	XXX.XX	SPOT ELEVATION	PILA
		EXISTING SURFACE TYPE (HOT-MIX ASPHALT, AGGREGATE, CONCRETE, TURF) DITCH CHECK	
	\bowtie	INLET OR PIPE PROTECTION	
		STABILIZED CONSTRUCTION ENTRANCE	
		EROSION CONTROL BLANKET	
		PAVEMENT REPLACEMENT	
		AGGREGATE REPLACEMENT	
		RIP RAP	

DEWATERING BLDG LAYOUT NOT TO SCALE CONTRACTOR PARKING & STORAGE AREA DEWATERING BLDG ARAGE DOOR ACCESS ABOVE HOPPERS FOR STAGING AREA



No.	ITEM	UNIT	QTY
1	REMOVE PCC CURB	LF	141
2	REMOVE EQUIPMENT / PIPE SUPPORT PAD	CU FT	71
3	REMOVE PIPING, WATER FILTER, & HVAC DUCTS AND APPURTENANCES	LS	1
4	REMOVE MANHOLE STRUCTURE	LS	1
5	REMOVE STORAGE TANK	LS	1
6	SEAL WALL PENETRATION	EA	5
7	PLATE WALL PENETRATION	EA	2
8	REMOVE MATERIAL HOPPERS	LS	1
9	REMOVE WATER TANK, PUMPS, & APPURTENANCES	LS	1
10	REPLACE COLUMN BASE PLATE PROTECTION	EA	10
11	REMOVE DOOR FRAME	EA	1
12	REMOVE & REPLACE DOOR & DOOR FRAME	EA	1
13	REMOVE FLOOR / EQUIPMENT DRAIN	EA	9
14	REMOVE & REPLACE FLOOR DRAIN	EA	16
15	REPAIR FLOOR DRAIN PIPING	EA	1
16	TYPE 1 PCC PARTIAL-DEPTH PATCH	SQ FT	201
17	TYPE 2 PCC PARTIAL-DEPTH PATCH	SQ FT	58
18	REMOVAL OF DELAMINATED CONCRETE	SQ FT	600
19	SUMP PIT CONCRETE REPAIR	SQ FT	40
20	REMOVE MISCELLANEOUS PIPING AT THE DIRECTION OF THE ENGINEER	LF	20

PROJECT LOCATION & ACCESS MAP

Sheet No. LEGEND, GENERAL NOTES, & SUMMARY OF QUANTITIES 2 OF 7 Date CONSTRUCTION 3/16/2018

















n RECLAMATION DISTRICT 1 3/16/18 ADDED LOCATIONS OF PAINT KG 3501 KISHWAUKEE STREET 1 3/16/18 ADDED LOCATIONS OF PAINT KG ROCKFORD, ILLINOIS 61109 1	ROCK RIVER WATER	No.	DATE	REVISION	INT.
ROCKFORD, ILLINOIS 61109	¹ RECLAMATION DISTRICT 3501 KISHWAUKEE STREET	1	3/16/18	ADDED LOCATIONS OF PAINT SAMPLES	KG
	ROCKFORD, ILLINOIS 61109 (815) 387-7660				









21 REM. HVAC DUCTS & PIPING 4 SCALE: NONE

DEWATERING BLDG BASEMENT RENOVATIONS CAPITAL IMPROVEMENT PROJECT #1850

20 REM. PIPING A SCALE: NONE







18 REM. HVAC DUCTS, PIPING, & CONTROL BOX





Sheet No. 7 OF 7

DETAILS

CONSTRUCTION

Date 3/16/2018