REQUEST FOR PROPOSALS
DEMOLITION OF STRUCTURES and REMOVAL OF CONCRETE AND DEBRIS

CORALVILLE

City of Coralville, Iowa

NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that sealed proposals for the demolition, removal and disposal of structures located at 309 First Avenue as requested by the City of Coralville, Iowa.

Sealed proposals must be received in the Office of the City Clerk, 1512 7th Street, Coralville, Iowa 52241, no later than **2:00 o'clock p.m. on Thursday, September 12, 2019**. The envelope(s) shall be clearly marked "FORMER HAWKEYE READY MIX PLANT DEMOLITION PHASE I."

By making a proposal on this Project, the bidder represents that the bidder has examined the properties in question. The property will be open for inspection on Friday, September 6 from 9:00 – 11:00 a.m.

Any questions about the meaning or intent of the specifications must be submitted three business days prior to the opening of the proposals. Questions can be directed to Sherri Proud, Director of Parks and Recreation at sproud@coralville.org or 319-248-1750. Persons intending to bid on the project should register intention at same e-mail address so answers to receive answers to any questions submitted

The bidder who is awarded the contract shall execute a City Demolition Services Agreement in a form attached to these specifications.

All work is to be done in strict compliance with these plans and specifications.

All work to be completed under this proposal shall be completed no later than November 15, 2019.

Each proposal shall be completed on the form furnished by the City in this Request for Proposal.

Quotes will be opened Thursday, September 12 at 2:00 p.m. at Coralville City Hall with the intention of including on the agenda for Council consideration at the September 24 City Council meeting.

The City Council reserves the right to reject any and all bids, to waive technicalities or irregularities and to enter into such contract as it shall deem to be to the best interests of the City. The City Council reserves the right to defer acceptance of any proposal for a period not to exceed thirty (30) days from the date of the bid.

SPECIAL TERMS AND CONDITIONS

A. Scope of Work

The primary purpose of this work is to demolish and haul away debris from the demolition of the Hawkeye Ready Mix plant, Phase I area, located at 309 First Avenue. (See attached aerial depiction). The Contractor understands and agrees that demolition and debris removal in the most expeditious manner possible is of the utmost importance and it will make every effort to complete all requirements of this Contract in the shortest time possible.

The work to be performed under this Contract shall consist of demolition and removal of the structure and part of the fencing at 309 First Avenue, all concrete removal indicated on mapping in accordance with these specifications, fill and top soil placement and establish final grade, and erection of temporary fence with two gates.

Testing reports are included in this bid package. Contractor shall follow recommended procedures indicated in the Soils and Groundwater Management Plan for the site. Information is also provided in the Asbestos and Hazardous Materials Report. The City will have all items removed from the property that the Asbestos and Hazardous Materials Report recommends by the time of award of contract.

The Contractor shall maintain all work sites to appropriate use standards, safety standards, and regulatory requirements. All materials shall be removed, hauled, and disposed according to applicable federal, state and local requirements. The site is next to a busy street and dust mitigation may be necessary during project.

The Contractor shall be responsible for compliance with all federal, state and local requirements related to structure demolition and removal.

B. Utility Disconnects

The Contractor shall be responsible for coordinating with private utility companies for disconnection of services, including, but not limited to electricity, natural gas, cable television and internet.

A. Water Service Disconnects. As part of the Project, the Contractor shall be responsible for the disconnection of the water service at the main ***prior to demolition*** of the structure. There are two water services at this site. A four inch plastic line which can be killed and a two inch copper line which should remain but the old service will disconnected on the cold side of the stop box and marked. The valve box for the four inch line is in the sidewalk along

First Avenue so a panel or two of concrete will have to be removed, and the 4" line should have a plug installed on the cold side of the valve with the valve box and backfilled with ¾" granular ballast. Contractor will need to coordinate with the) Coralville Water Superintendent before beginning work to kill this water service. The Contractor shall not backfill the area prior to inspection by the Water Superintendent or his designed.

Those water services controlled by a corporation cock valve on the water main shall be disconnected at the main by closing the cock valve and disconnecting the service lines. A cap or corporation nut shall be placed on the corporation cock valve.

B. Sanitary Sewer Disconnects. As part of the Project, the Contractor shall be responsible for the disconnection of the sanitary sewer service at the main ***prior to demolition*** of the structure. Sanitary sewer abandonment shall be performed according to SUDAS Standard Specifications Section 4010, 3.08. The location of the sanitary sewer main, if know, will be provided by the City to the best of its knowledge. Methods of Work on the sanitary sewer mains and service lines shall be subject to prior approval of the Coralville Wastewater Superintendent and inspection.

The sanitary sewer service lines shall be cut off at the sanitary sewer main at the back of curb and shall be tightly and permanently sealed with a plug of mortar. The plug shall be subject to approval of the Wastewater Superintendent prior to backfilling. The Contractor shall keep a temporary plug in the sanitary sewer line to prevent storm water and debris from infiltrating the sanitary sewer line prior to constructing the final plug.

C. Securing the Site

The Contractor shall take all necessary steps to secure the site in a manner to prevent access by the general public during demolition.

D. Debris Ownership and Hauling Responsibilities

Once the Contractor begins an activity on a site, all debris and items of personal property on the site is the property of the Contractor and the Contractor is solely responsible for all aspects related to the debris, including, but not limited to, the hauling and disposal of the debris.

E. Debris Disposal

1. The Contractor acknowledges, represents and warrants to the City that it is familiar with all laws relating to disposal of the materials as stated herein and is familiar with and will comply with all guidelines, requirements, laws, regulations, and any other federal, state or local agencies or authorities.

2. Contractor acknowledges and understands that any disposal, removal, transportation or pick-up of any materials not covered under the scope of work shall be at the sole risk of the Contractor. Contractor understands that it will be solely responsible for any liability, fees, fines, claims, etc., which may arise from its handling of materials not covered by the scope of work.

3. The Contractor is responsible for determining and complying with applicable requirements for securing loads while in transit and that all trucks have a solid tailgate made out of metal. Contractor shall assure that all loads are properly secured and transported without threat of harm to the general public, private property and public infrastructure.

4. The Contractor shall insure that all vehicles transporting debris are properly equipped to prevent further spread of debris while hauling debris away.

F. Equipment

1. The Contractor shall be equipped with the normal tools of the trade and shall furnish all labor, tools, and other items necessary for and incidental to executing and completing al required work.

2. All equipment and vehicles utilized by the Contractor shall meet all the requirements of federal, state and local regulations, including, without limitation, all USDOT, Iowa DOT and safety regulations, and are subject to approval of the City. All loads must be secured and tailgates must be used on all loads. Sideboards must be sturdy and may not extend more than two feet above the metal sides of the truck or trailer. Trucks shall carry a supply of absorbent to be used to pickup any oil spilled from loading or hauling vehicles.

G. Property Damage

The Contractor shall be responsible for all damages to public and private property. The Contractor shall be responsible for having one responsible person at the job site. Contractor shall keep a report of all damage. If public or private property is damaged by the Contractor and is not repaired in a timely manner as determined by the City, the City has the option of having the damage repaired at the Contractor's expense to be reimbursed to the City or withheld from future payments of the Contractor.

H. Conflict of terms

If there is a conflict between the terms of these Special Terms and Conditions and the Demolition Agreement, the Special Terms and Conditions shall prevail.

I. Award Criteria

Award of the proposal shall be made to the lowest responsive, responsible bidder in accordance with Iowa law and the City Purchasing Policy. **One bidder will be selected to perform the entire scope of the project.** In addition to price, the City may use the additional following criteria to determine responsibility and responsiveness:

1. Adherence to specifications
2. Company's reputation and financial status
3. Company's ability to meet City's insurance requirements
4. Past experience with bidder
5. Reference Checks

The City reserves the right to accept or reject any or all bids, to request re-bids, to accept Only portions of the work by structure, award multiple contracts, and waive irregularities and technicalities in the bids, all in the best interest of the City.

J. Tax Exempt

The City of Coralville is a government body and therefore tax exempt. The project should be quoted excluding tax and contractor and all sub-contractors will be issued tax exempt certificates. Contractor must provide with contract a list of sub-contractors, addresses, and federal tax ID numbers in order to be issued tax exempt certificates.

DETAILED SPECIFICATIONS

1. The site is a partially fenced site. Part of the fence will be demolished as indicated on the mapping. This fencing can be re-used to construct the temporary fencing and gates to be installed on the south side of the demolition property.

2. Access to the MidAmerican substation must be maintained as a clear pathway at all times as indicated on the map.

3. The Hawkeye Ready Mix Plant will be removed in its entirety. The foundation, footings, and slab will also be removed by the contractor. See Special Terms and Conditions section regarding utilities.

4. The area indicted in diagonal lines on the map shall be dug out to a depth of 12 inches, or down to native soil, and replaced with clean fill and six inches of top soil. The soil will be reasonably free of rocks or other debris.

5. The site will be brought to the elevation of 657 feet which is the same as the elevation of the current slab for the plant and sloped as is currently in the area on the east side of the plant.

6. The concrete in the areas indicated on the map will be saw cut to create a 28 foot drive to the rear fences.

7. Demolished concrete and removal of rock must be hauled off site. Any remaining product or equipment within the designated area on the map is the property of the contractor and may be used for salvage or reuse. The City of Coralville is not liable for any reused property used by the contractor.

8. Appropriate protections of stormwater drains and runoff must be installed and maintained throughout project.

9. The City of Coralville will be responsible for seeding at the conclusion of the project.

COST AND CONTRACT SUMMARY

A. The undersigned agrees to complete the project by November 15, 2019 for the base bid stated below. All aspects of project work to be completed in accordance with the attached specifications after formal notification to proceed from the City of Coralville.

Base Bid Price: _____

B. References: Provide two references and contact information for similar projects.

C. Name of Firm:_____

Address:_____

Phone Number:_____Fax Number:_____

E-Mail Address: _____

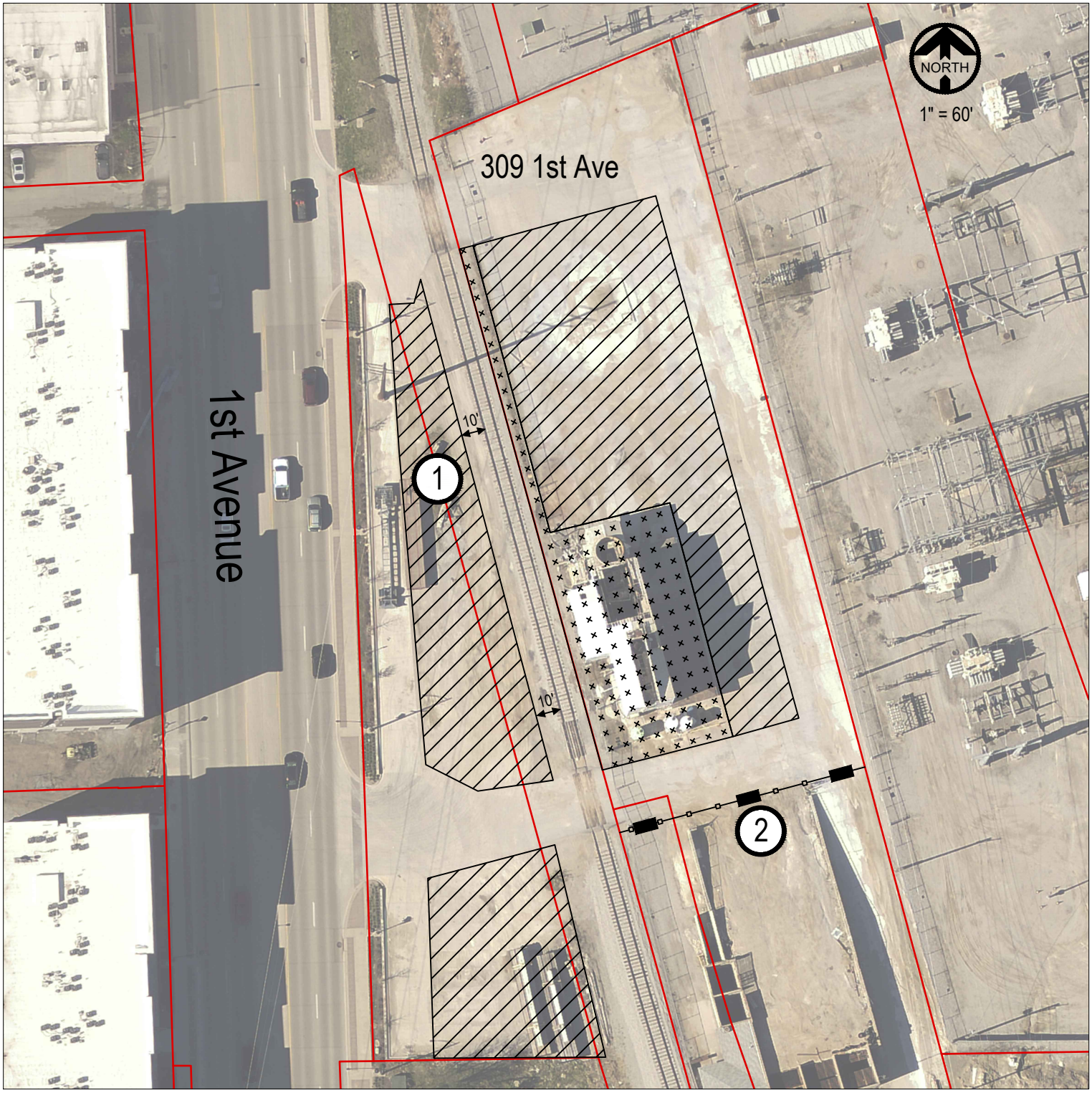
Name & Title of Representative:_____

D. Contract Award

It is the intent of the City of Coralville to make an award within twenty (20) working days of the quote due date. An example of the City Demolition Services Agreement has been provided as an example with this RFP.

AUTHORIZING SIGNATURE:_____

BY: (Print name) _____ DATE:_____



Remove pavement and gravel to underlying soil. Backfill with approved, clean material and 6 inches of topsoil to match exisitng grade.

Remove batch plant, office building, foundations, and fencing. Backfill with approved, clean material and 6 inches of topsoil to match existing grade.

1 Cut and cap pipes to 12 inches below grade.

2 Install temporary fence with minimum 10' wide gates at each rectangle. Existing onsite fencing that is removed may be used for the temporary fence. If new fence material will be used, please provide cost with bid.

Note: Site shall be left with remaining pavement areas swept and all topsoil areas graded to match surrounding grades. Final seeding, erosion control, and landscaping will be performed by the City of Coralville.

CITY OF CORALVILLE DEMOLITION AGREEMENT

THIS AGREEMENT, made and entered this _____ day of _____, 2019, by and between the City of Coralville, a Municipal Corporation, 1512 7th Street, P.O. Box 5127, Coralville, IA 52241-0127, hereinafter referred to as the "CITY," and INSERT CONTRACTORS NAME AND ADDRESS hereinafter referred to as the "CONTRACTOR."

WHEREAS, the City Council of the City of Coralville, Johnson County, Iowa, to protect the public health and safety, has heretofore deemed it necessary and desirable to proceed with the demolition of certain properties within the City, namely the buildings/structures located at the former location of Hawk-I Ready Mix on 1st Avenue in Coralville (the "Project"); and

WHEREAS, the bid of the CONTRACTOR is the lowest responsible quotation for this Project; and

WHEREAS, the CONTRACTOR is capable of implementing said Project; and

WHEREAS, it is now necessary and appropriate to memorialize the agreement between the CITY and the CONTRACTOR as follows:

NOW, THEREFORE, THE CITY AND THE CONTRACTOR, FOR CONSIDERATION HEREINAFTER SET FORTH, DO MUTUALLY AGREE TO THE TERMS AND CONDITIONS SET FORTH BELOW.

I. SCOPE OF SERVICES.

The CONTRACTOR shall perform in a timely and satisfactory demolition and debris removal services, in strict compliance with the specifications attached hereto as Exhibit “A.”

II. TIME OF COMPLETION.

The CONTRACTOR shall complete the Project in an expeditious manner, but in no event later than 30 days after the notice to proceed has been given to the CONTRACTOR. The CONTRACTOR does hereby expressly acknowledge and agree that TIME IS OF THE ESSENCE of this Agreement, and, thus, failure by the CONTRACTOR to timely render and perform services hereunder shall constitute a material breach of the agreement.

III. GENERAL TERMS AND PROVISIONS.

A. The CONTRACTOR shall not commit any of the following employment practices in connection with or while rendering services hereunder and does hereby expressly agree to prohibit the following practices from being committed by any subcontractors engaged by the CONTRACTOR in connection with the Project. Upon request, the CONTRACTOR shall provide the CITY with a copy of the relevant provisions of any agreement entered into by the CONTRACTOR and a subcontractor in connection with the Project to confirm to the satisfaction of the CITY that the requirements under this Subparagraph III(B) have been met.

1. To discharge or refuse to hire any individual because of their race, color, religion, sex, national origin, disability, age, marital status, sexual orientation or gender identity.

2. To discriminate against any individual in terms, conditions or privileges of employment because of their race, color, religion, sex, national origin, disability, age, marital status, sexual orientation or gender identity.

B. The CITY may terminate this Agreement, with or without cause, upon seven days (7) written notice thereof. In the event that the CITY does so terminate this Agreement, the CONTRACTOR shall be paid for all work and services performed up to the time of said termination upon submission to the CITY of a final billing statement and review and approval thereof by the Coralville City Council at the next regularly scheduled Council Meeting; provided, however, that any such sum shall not be greater than the total amount to be paid for services rendered hereunder as set forth in Article IV below; and further provided that, in the event the CITY terminates this Agreement with cause, the CITY may, in its sole discretion, elect to withhold payment of an amount sufficient to engage a third party to properly complete the Project in accordance with the terms of this Agreement.

C. This Agreement shall not be assigned or in any manner transferred by the CONTRACTOR, without the express written consent of the Coralville City Council.

D. It is hereby expressly acknowledged and agreed by both parties hereto that the engagement of the CONTRACTOR by the CITY in connection with the Project shall be as an independent contractor and shall be exclusive; provided, however, that the Contractor may retain the services of subcontractors for the purpose of performing its obligations and responsibilities under this Agreement so long as the CONTRACTOR has first obtained the written approval of same from the CITY; and further provided that, should the CONTRACTOR so engage subcontractors under the terms of this Subparagraph III(D), the CONTRACTOR shall be solely responsible for compensating any such subcontractors.

E. The CITY shall make all demolition criteria, design and construction standards, and information regarding the CITY's requirements for the Project available to

the CONTRACTOR upon reasonable request by the CONTRACTOR therefor. The CITY shall furnish reasonable assistance to the CONTRACTOR in the use of said information and documentation at the request of CONTRACTOR.

F. It is further agreed that neither party to this Agreement shall perform contrary to any federal or state law, rule or regulation, or the Coralville City Code of Ordinances. Without negating the generality of the foregoing, this expressly includes all federal, state and local laws pertaining to demolition and removal of hazardous materials, if any. CONTRACTOR acknowledges that any penalties levied in connection with the Project shall be the sole responsibility of the CONTRACTOR.

G. CONTRACTOR shall provide and maintain insurance throughout said Project in the following minimum amounts:

1. Workman's Compensation and occupational disease insurance in accordance with the laws of the State of Iowa covering all employees who perform any of the obligations under this Agreement

2. Public liability and property damage liability insurance covering all operations under the Agreement, limits for bodily injury or death not less than one million dollars ($1,000,000.00) for one person and two million dollars ($2,000,000.00) for each accident; for property damage not less than one million dollars ($1,000,000.00) for each accident and two million dollars ($2,000,000.00) aggregate during such policy period. Said insurance shall name the City of Coralville as an Additional Insured under the policy.

3. Automobile liability insurance on all self-propelled vehicles used in connection with the Agreement, whether its own, non-owned or hired; public liability limits of not less than five hundred thousand dollars ($500,000.00) for one person and one million dollars ($1,000,000.00) for each accident; property damage limit of two hundred fifty thousand dollars ($250,000.00) for each accident or a combined single limit of one million dollars ($1,000,000.00)

CITY shall have the right at any time to require public liability insurance and/or property damage liability insurance greater than that specified in the above paragraphs. If required, the additional premiums shall be added to the bid price.

The CONTRACTOR shall furnish Certificates of Insurance to the CITY made in favor of the CITY prior to commencing work showing compliance with the foregoing requirements. Insurance shall provide notice of cancellation or revocation.

IV. COMPENSATION FOR SERVICES.

The CITY shall compensate the CONTRACTOR for demolition services for the amount of not-to-exceed $INSERT BID PRICE. CONTRACTOR expressly acknowledges and

confirms that this Agreement is a COMPLETION DATE CONTRACT, and that the CONTRACTOR does hereby acknowledge and confirm the CONTRACTOR's understanding that TIME IS OF THE ESSENCE and that the timely completion of demolition in its entirety constitute material terms of this Agreement without which the CITY would not have engaged CONTRACTOR. Accordingly, the CONTRACTOR acknowledges that:

A. No payment shall be made to the CONTRACTOR hereunder if the Project is not completed in a timely manner.

B. Under no circumstances shall the CITY compensate CONTRACTOR for work that has not yet been completed. Accordingly, the CONTRACTOR shall not be entitled to compensation hereunder for any portion of the Project until that portion is completed as determined by the Monitor.

C. In any event, no payment hereunder shall become due and payable until submission to the CITY by the CONTRACTOR of a billing statement therefor and review and approval of the billing statement by the Coralville City Council at its next regularly scheduled meeting.

V. WARRANTY, INDEMNIFICATION AND GUARANTEE.

A. The CONTRACTOR agrees to fully indemnify, defend, save and hold the CITY, its officers, representatives, agents, contractors, subcontractors and employees, harmless from any and all liability (including reimbursement of reasonable legal fees and costs) arising directly or indirectly from the acts, errors or omissions of the CONTRACTOR, its officers, representatives, agents, contractors, subcontractors or employees in connection with the PROJECT.

VI. HAZARDOUS MATERIALS.

A. The CONTRACTOR hereby warrants and represents that the CONTRACTOR (i) has not created nor contributed to the creation or existence, (ii) nor will it create or contribute to the creation or existence of any type of hazardous or toxic wastes, materials, chemical compounds, or substances, or any other type of environmental hazard or pollution, whether latent or patent, at the premises of the Project, or in connection with or related to the Project. Without limiting the generality of Article V(a) above, the CONTRACTOR does hereby fully indemnify, defend, save and hold harmless the CITY, its officers, employees and agents from and against any and all debts, claims, causes of action, administrative orders and notices, costs (including but not limited to, response and/or remedial costs), personal injuries, losses, damages, liabilities, demands, interest, fines, penalties and expenses, including reasonable legal fees and expenses, consultants' fees and expenses, court costs and all other out-of-pocket expenses, suffered or incurred by the CITY, its officers, representatives, agents, contractors, subcontractors, employees and grantees as a result of any breach of this Provision VI(a).

VII. INTERPRETATION.

Both parties hereto acknowledge and agree that to the extent, if at all, the explicit terms and conditions of this Agreement are in conflict with the generally accepted standards of Construction referenced in Article III(E) above, said explicit terms and conditions of this Agreement shall control in the event of a dispute between the parties hereto.

VIII. SURVIVAL.

All express representations or indemnifications made in or given in this Agreement shall survive the completion of the demolition services to by rendered by the CONTRACTOR hereunder or the termination of this Agreement for any reason.

IX. CONTROLLING LAW.

This Agreement is to be governed by the laws of the State of Iowa. The parties hereto agree that any action, suit or proceeding based upon any matter, claim or controversy arising under this Agreement shall be brought solely in the state courts located in Johnson County, Iowa or the federal courts located in Linn County, Iowa. The parties hereto hereby irrevocably waive objection to the venue of the above-mentioned courts, including any claim that such action, suit or proceeding has been brought in an inconvenient forum. Both parties hereto expressly acknowledge and agree that nothing contained in this Agreement shall be construed to require the parties to submit to mandatory arbitration or mediation in the event of a breach or dispute hereunder.

X. HEADINGS.

The headings of sections of this Agreement are for convenient reference only and shall not be deemed to limit, construe, affect, modify or alter the meaning of such sections.

XI. SEVERABILITY.

If any section, subsection, term or provision of this Agreement (inclusive of Exhibits) or the application thereof is in conflict with any other section, subsection, term or provision of this Agreement (inclusive of Exhibits) or the application thereof, the section, subsection, term or provision placing the more stringent duty, obligation, responsibility or requirement on the CONTRACTOR shall control. If any section, subsection, term or provision of this Agreement or the application thereof to the CONTRACTOR, the CITY or a particular circumstance shall, to any extent, be invalid or unenforceable, the remainder of said section, subsection, term or provision of this Agreement or the application of same to the CONTRACTOR, the CITY or particular circumstances other than that for which it was held invalid or unenforceable, shall not be affected thereby and each remaining section, subsection, term or provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

XII. AUTHORITY.

The persons signing this Agreement warrant and represent that they have the

authority to sign as, or on behalf of, the party for whom they are signing.

XIII. EXECUTION.

This Agreement may be executed by the parties hereto in counterparts. Accordingly, each partially-executed original signature page shall hereby be deemed fully integrated and incorporated into this document.

XIV. FINAL AGREEMENT.

Both the CONTRACTOR and the CITY hereby expressly acknowledge and agree that this Agreement is intended to set forth the entire agreement between the parties regarding the demolition services to be rendered by the CONTRACTOR to the CITY in connection with the Project, that there are no other considerations or monies contingent upon or resulting from the execution of this Agreement, and that no other monies or considerations have been solicited. No waiver, change, modification or amendment of this Agreement shall be binding upon either party hereto unless in writing and signed by both the CONTRACTOR and the CITY. The waiver by either party hereto of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach of that provision or of any other provision or condition in this Agreement.

ACCEPTED & AGREED:

CONTRACTOR:	**CITY OF CORALVILLE:**
_____	_____ John A. Lundell, Mayor
_____ **Print name and title**	**ATTEST:**
	_____ Thorsten J. Johnson, City Clerk

Soil and Groundwater Management Plan

Former Hawkeye Ready-Mix and CRANDIC Sites
309 1st Avenue
Coralville, Iowa

EPA Region 7 Brownfields Assessment Grant
Cooperative Agreement #BF-97764301

June 28, 2019
Terracon Project No. 06177109C

Prepared for:
City of Coralville
Coralville, Iowa

Prepared by:
Terracon Consultants, Inc.
Cedar Rapids, Iowa

terracon.com

Terracon

Environmental ■ Facilities ■ Geotechnical ■ Materials

June 28, 2019

City of Coralville
1512 7th Street
PO Box 5127
Coralville, IA 52241-5127

Attn: Ms. Hannah Neel
P: (319) 248-1720
E: brownfields@coralville.org

RE: Soil and Groundwater Management Plan
Former Hawkeye Ready-Mix and CRANDIC Sites
309 1st Avenue
Coralville, Iowa
Terracon Project No. 06177109C

Dear Ms. Neel:

Terracon Consultants, Inc. (Terracon) is pleased to provide this Soil and Groundwater Management Plan for the former Hawkeye Ready-Mix and CRANDIC sites to support redevelopment activities that may involve management of soil and groundwater. Terracon understands redevelopment may include a pedestrian bridge across Clear Creek, canoe or kayak access, a playground, public parking, restrooms and green space.

In 2018, the United States Environmental Protection Agency (EPA) awarded the City of Coralville (City) EPA Brownfields Assessment Grant (BF #97764301) that includes funding for both hazardous substances and petroleum qualifying sites. On April 24, 2019, Deborah Kennedy, Brownfield Project Officer, determined the Property covered by this Soil and Groundwater Management Plan (collectively 309 1st Avenue in Coralville, Iowa) to be eligible for assessment using both hazardous and petroleum funds under the Brownfield Assessment Grant. The current and past EPA Brownfield Assessment Grants have been instrumental in assisting the City of Coralville, other stakeholders and the public to address the adverse impacts associated with a number of brownfield properties located in Coralville, Iowa.

Potential soil and groundwater impacts were previously investigated at the former Hawkeye Ready Mix and CRANDIC sites during 2006, 2011 and 2012. These investigations were funded both by prior EPA Brownfield Assessment Grants and by the City of Coralville directly.

Terracon appreciates this opportunity to provide environmental services to the City of Coralville. Should you have any questions or require additional information, please contact either of the undersigned at (319) 366-8321.

Sincerely,

Terracon Consultants, Inc.

Kirk R. Johnson, P.G., CGP
Senior Project Manager

Kurt S. Nilsson, CHMM
Senior Project Manager

KRJ/KSN:

Copies to : Addressee (PDF)

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SOIL AND GROUNDWATER MANAGEMENT PLAN
Former Hawkeye Ready-Mix and CRANDIC Sites
Coralville, Iowa

Terracon Project No. 06177109C
June 28, 2019

1.0 INTRODUCTION

This Soil and Groundwater Management Plan has been prepared for the former Hawkeye Ready Mix and CRANDIC sites located northwest of the confluence of Clear Creek and the Iowa River in the City of Coralville. The site location is shown on Figure 1 and the site boundary is shown on Figure 2. The western portion of the site has been used as a concrete batch plant since the 1960s, and the eastern portion of the site was apparently filled with materials from unknown sources during the 1960s through the 1990s.

Potential soil and groundwater impacts were previously investigated at the site during 2006, 2011 and 2012. Soil and groundwater samples were collected for laboratory analysis at the approximate locations shown on Figure 3, and areas of potential residual soil and groundwater impacts are shown on Figure 4. While the property has been previously investigated, it is possible that contamination is present at areas outside of those shown on Figure 4. Therefore, contractors should remain aware of the potential to encounter contaminated materials throughout the construction process.

Based on historical property uses in the area and results of the previous soil and groundwater investigations, this Soil and Groundwater Management Plan was prepared to assist developers and construction contractors with advance planning for hazard recognition, suggested soil excavation, storage, characterization and disposal procedures, and dewatering management and disposal procedures.

2.0 PURPOSE

The purpose of this Soil and Groundwater Management Plan is to inform contractors and construction personnel of potential residual contaminants that could be encountered in soil and groundwater during redevelopment. This Soil and Groundwater Management Plan identifies work practices that could be used to reduce the potential for exposure to minor concentrations of residual chemicals in soils and groundwater, if encountered. This Soil and Groundwater Management Plan is intended to assist contractors in understanding and plan for the potential for of residual contamination at the site. It is not intended to direct activities or supersede practices and procedures that are part of the Contractors operating procedures.

2.1 Contractor Notification

Contractors are hereby notified that some soil and groundwater they encounter could contain elevated concentrations of chemicals resulting from historical operations of the site and/or nearby sites. Exposure and thereby potential hazard can be avoided if certain work precautions are practiced.

2.2 Worker Safety

This Soil and Groundwater Management Plan provides contractors information for use in executing employer obligations for employee-right-to-know and worker safety and provides general guidelines for reducing potential exposures of workers to potentially impacted soil and groundwater. This Soil and Groundwater Management Plan provides general considerations and procedures for modification and incorporation by employers into their existing worker safety programs.

2.3 Hazard Recognition

This Soil and Groundwater Management Plan provides a process for identification of conditions that may differ significantly from those observed during prior investigations and provides a process for identifying potential hazardous conditions.

2.4 Soil and Groundwater Management

This Soil and Groundwater Management Plan provides suggested procedures for contractors to control soil and groundwater (or other material) removed from the site that may contain residual contaminants. It is important to remember that contaminants in soil and groundwater at concentrations below the Iowa Department of Natural Resources (IDNR) statewide standards are not considered impacted. However, soil and groundwater with chemical impacts below statewide standards may exhibit staining or odors and not require special management. Typical personal protective equipment such as gloves, work shirts, and dust/splash control can prevent exposures.

If contaminant levels are greater than IDNR statewide standards, IDNR has strict requirements regarding the disposal of soil and groundwater. Therefore, suspect excavated soil should be stored and controlled until it can be tested.

3.0 HAZARD ASSESSMENT

Disturbance of soil and groundwater could potentially expose workers to chemicals at the locations and depths previously evaluated. The reported concentrations of these contaminants pose a minimal hazard for unprotected skin. The primary exposure hazards are expected to be

accidental ingestion or inhalation. It is common for soil with residual chemical concentrations to exhibit odors without exceeding the statewide standard, and odors are not an effective indicator of the determining the risk of exposure associated with suspect "contamination." Alternatively, certain types of contaminants at concentrations above acceptable risk thresholds do not emit significant odors. Use of good personal hygiene practices and gloves will reduce the potential for exposure by the dermal and ingestion pathways.

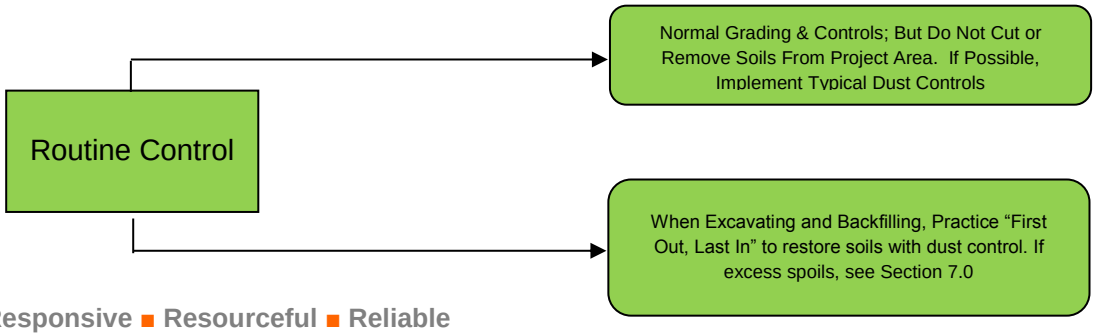
Groundwater was generally observed at depths from 8 to 15 feet during the previous subsurface investigations, and groundwater may be encountered during excavations required at this site. Additionally, Terracon is aware of subsurface structures on the site that may require removal as part of this project. Suspect contamination may be encountered during removal of these structures. Use of safe work practices to generally avoid groundwater contact and accidental contact in open excavations will reduce the potential for exposure by the ingestion pathway. Inhalation of vapors during excavation and subsequent construction should also be avoided.

4.0 CONTAMINANT EXPOSURE PRECAUTIONS

Redevelopment may disturb soil and groundwater, and unplanned or yet unknown construction activities might expose workers to the chemicals identified in soil or groundwater. This Soil and Groundwater Management Plan provides workers with precautionary measures to recognize and address potential impacts. Suggested methods for environmental management of soils do not preclude or supersede any of the OSHA requirements incumbent on contractors for worker safety during excavation activities or practices and policies the Contractor may have in place. Suggested soil management procedures should be revised when necessary for consistency with OSHA requirements and Contractor policies. The City and Terracon accept no responsibility for the Contractor's OSHA obligations.

4.1 Routine Control

Unnecessary disturbance of soil and groundwater should be avoided. Earthwork should be planned to minimize disturbance of soil and groundwater from original locations and original elevations. Soil disturbed during excavation should be restored to original elevations when possible. The Contractor should work to minimize the amount of groundwater that has to be removed from excavations and the handling (storage, discharge or disposal) of this groundwater should be planned before the groundwater is removed.



During routine operations involving soil and groundwater, workers should use normal construction safety apparel of their respective contractor's safety program. The contractor should consider including gloves and rubberized safety footwear or safety footwear with disposable latex covers to reduce soil contact. For work beyond routine operations, a site-specific health and safety plan should be considered.

4.2 Dust Control Measures

Dust control measures should be considered and if contamination is suspected, soil stockpiles should be placed on and covered with polyethylene sheeting to reduce potential emissions. If dust becomes a concern, a water spray may be used to dampen surface materials, however over-spraying should be avoided to prevent runoff and muddy work surfaces.

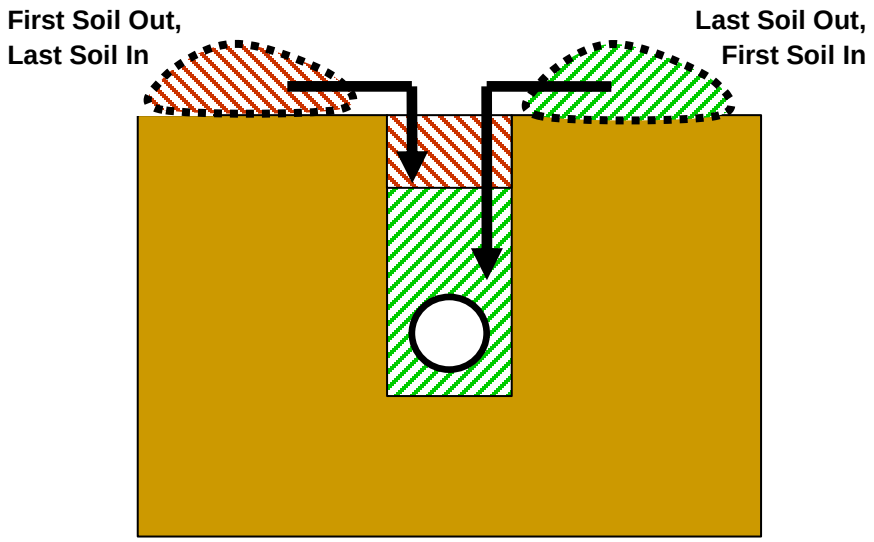
4.3 Surface Grading

Workers should minimize the movement of surface soils from their original locations to other areas of the site. Work should be planned to account for minimal soil movement and to adapt the types and application of grading equipment, and soils should be restored to original conditions when practical.

4.4 Excavation, Trenching and Removal of Existing Structures

Excavations that disturb the vertical positions of soils should be backfilled by returning soils to their original depths using a "last out, first in" process. Soils from the shallow portions of excavations should be the last soils returned to the excavation during backfill, and soils removed from depth should be replaced first.

Installation of utilities or other subgrade structures may result in excess soils. Excess soils that cannot be reincorporated into construction on the site may require special handling and disposal as discussed in Section 7.0 - Disposition of Excess Soils.



4.5 Waste Minimization

To the extent practical, measures should be taken to minimize the volume of excess soils and to prevent contact between storm water and impacted soils. Excavations should be completed and backfilled promptly to minimize exposure. Excavated areas should be protected from storm water accumulation by diversionary structures to direct water into proper storm water conveyances. A construction Storm Water Pollution Prevention Plan (SWPPP) should be prepared to comply with the IDNR National Pollutant Discharge Elimination System General Permit No. 2 - Storm Water Discharge Associated with Construction Activities.

5.0 PERSONAL PROTECTION

5.1 Skin Protection

Construction contractors are responsible for identifying and providing appropriate personal protective equipment for their workers. OSHA recommends Level D work uniform[1] for minimal protection against nuisance contamination as follows:

- Coveralls
- Gloves
- Boots/shoes, chemical-resistant steel toe and shank
- Outer boots, chemical-resistant (disposable)

[1] 29 CFR 1910.120, Appendix B - General description and discussion of the levels of protection and protective gear.

- Safety glasses or chemical splash goggles
- Hard hat
- Escape mask and face shield, if needed

5.2 Personal Hygiene

Workers are advised to use good personal hygiene practices during activities that disturb soil or groundwater in the areas of apparent impacts. It is recommended that hands, face and forearms be washed with soap and water prior to eating, drinking, smoking, or using restroom facilities. Personnel should avoid chewing gum and tobacco, and refrain from any other behavior that could increase the possibility of hand-to-mouth transfer of potentially contaminated soil and groundwater.

5.3 Cleaning

Shovels or brushes can be used to remove excess soils prior to transporting equipment from work areas. A high-pressure washer may also be used if contaminated soils are suspected. Excess soils should be removed from footwear before leaving the site, and worker decontamination should consist of thorough washing of hands, forearms and face before eating, drinking, or smoking.

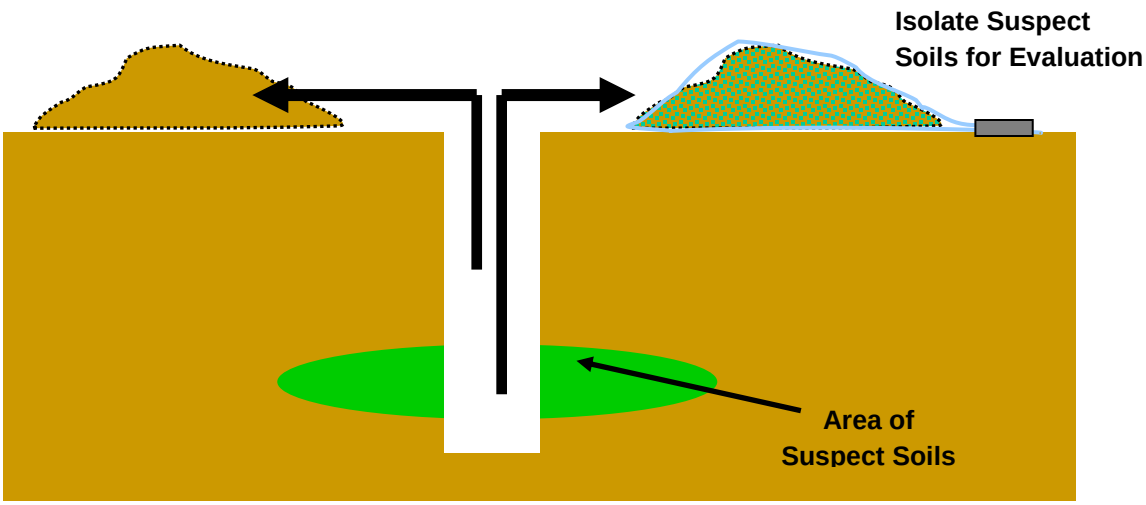
6.0 CHANGED CONDITIONS

As described in Section 1.0, reasonable efforts have been made to identify and investigate possible areas of soil and groundwater impact at the site, however it is possible that other, undefined contaminants are present. Regardless of the location where work is being performed, if chemical odors, stained soils, a sheen on water in excavations, or other evidence of potential impact is encountered, workers should notify their site safety representative. Contractors should consider upgrading construction safety attire and provide sufficient open air ventilation consistent with their safety plan. Terracon can assist contractors with additional field screening and air monitoring in the breathing zone if needed during construction.

6.1 Isolate Suspect Soils

Contractors should be aware of the regulatory implications of improper management or disposal of contaminated soils. The IDNR has taken the position that soils with chemical concentrations below statewide standards are not considered contaminated for the purposes of soils management. It is therefore essential to have laboratory analyses of samples of suspected contaminated soils to document proper management and disposal. Soils with contaminant concentrations above IDNR statewide standards may be disposed at an approved landfill as provided in Section 7.0.

Stockpiling of excess contaminated soils while awaiting laboratory analyses may contribute to airborne contaminants and contaminated storm water runoff. The suspect soils should be isolated from contact and disturbance by rain and wind until laboratory results may be evaluated. Suspect soils should be placed on and covered with plastic sheeting. The plastic sheeting should be weighted down with planks or sandbags as indicated in the figure below.



6.2 Containerize Suspect Groundwater

If the Contractor suspects groundwater is contaminated, the City should be contacted for assistance. Testing can be completed that determines the level of contamination present. It may be necessary to containerize the groundwater in drums, totes, or tanks however that are strategies that may avoid these options (see Section 8.0).

7.0 DISPOSITION OF EXCESS SOILS

Excess soils may have varying degrees of chemical impact. In the locations and under the conditions evaluated by the previous assessments, these chemical impacts do not pose excessive health risk. If soils leave their original locations, the onsite conditions that allow control of exposures may no longer apply. If excess soils are generated that cannot be restored to original depths, they may require special management. If the Contractor encounters soils that re suspected on being contaminated at different locations, the materials should be segregated and sampled separately. Contractors should plan to document the location and elevations of the sources of suspected contaminated soils and to segregate suspect soils so that they can be tested and potentially disposed separately. Excess soils that cannot be reused onsite may require offsite management as discussed in Section 7.2.

7.1 On-Site Disposition

Excess soil that do not exhibit evidence of petroleum or chemical impacts will not require testing before reuse on other portions of the site. If soils are suspect, laboratory testing can be requested through the City or Terracon. If the laboratory testing indicates that chemical concentrations are less than applicable IDNR statewide standards, the excess soil can be reincorporated into the project as fill material.

7.2 Off-Site Removal

Excess soils that are not eligible for on-site redistribution must be removed from the site in a manner consistent with IDNR requirements. Excess soils with elevated concentrations of contaminants are not recommended for onsite redistribution and should be transported to a permitted disposal facility. The contractor may seek guidance from the City or Terracon regarding soil testing prior to offsite disposal.

Review of field services to date and results of available laboratory data indicate that some soils may exhibit detectable concentrations of contaminants that measure below IDNR standards. These materials may still exhibit odors and may require removal from the site.

8.0 GROUNDWATER MANAGEMENT

Groundwater was previously observed at depths of 8 to 15 feet, and planned foundations, utility trenches or excavation of existing subsurface structures may encounter groundwater. Dewatering of excavations due to groundwater infiltration or storm water accumulation should comply with this section as well as the construction SWPPP (see Section 4.5). Storm water that contacts impacted soils may not pose an unacceptable hazard to construction workers but could transport contaminants as sediment. Standard contractor procedures for storm water management during earthwork and grading should sufficiently address sediment control. Modifications to the SWPPP may be necessary to account for the diversion of storm water from impacted materials.

Groundwater encountered during excavation or storm water in contact with contaminated soil should be contained for testing to determine proper disposal. Characterization of excess water may include analysis for volatile organic compounds, semivolatile organic compounds, extractable petroleum hydrocarbons and metals or as required by the disposal facility. Sampling frequency will be determined based on the anticipated volume of water to be disposed. The results of laboratory analysis will determine whether accumulated water should be disposed at a wastewater treatment facility, managed onsite according to the SWPPP, or discharged to the sanitary sewer if approved by the City of Coralville.

APPENDICES – FIGURES

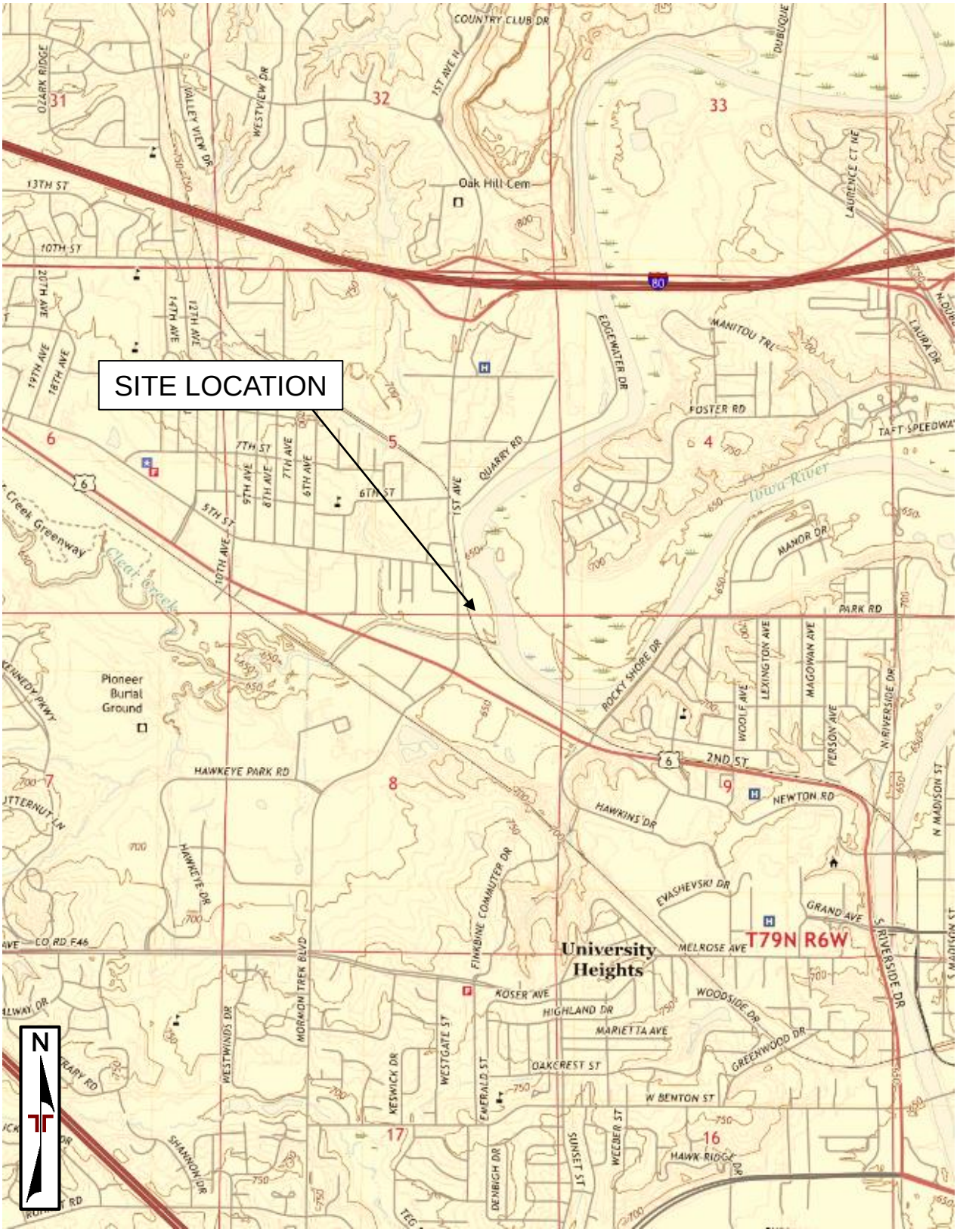


DIAGRAM IS FOR APPROXIMATE LOCATIONS ONLY

Project Manager: KSN	Project No. 06177109C	Terracon Consulting Engineers & Scientists	SITE LOCATION	FIGURE
Drawn by: KRJ	Scale: NTS	2640 12th Street SW Cedar Rapids, Iowa 52404	HAWKEYE READY-MIX AND CRANDIC	1
Checked by: KSN	File Name: FIGURE 1	PH. (319) 366-8321 FAX. (319) 366-0032	CORALVILLE, IOWA	
Approved by: KSN	Date: June 2019			

DIAGRAM IS FOR APPROXIMATE LOCATIONS ONLY

Project Manager: KSN	Project No. 06177109C	Terracon Consulting Engineers & Scientists	SITE DIAGRAM
Drawn by: KRJ	Scale: NTS	2640 12th Street SW Cedar Rapids, Iowa 52404	HAWKEYE READY-MIX AND CRANDIC CORALVILLE, IOWA
Checked by: KSN	File Name: FIGURE 2	PH. (319) 366-8321 FAX. (319) 366-0032	FIGURE 2
Approved by: KSN	Date: June 2019		

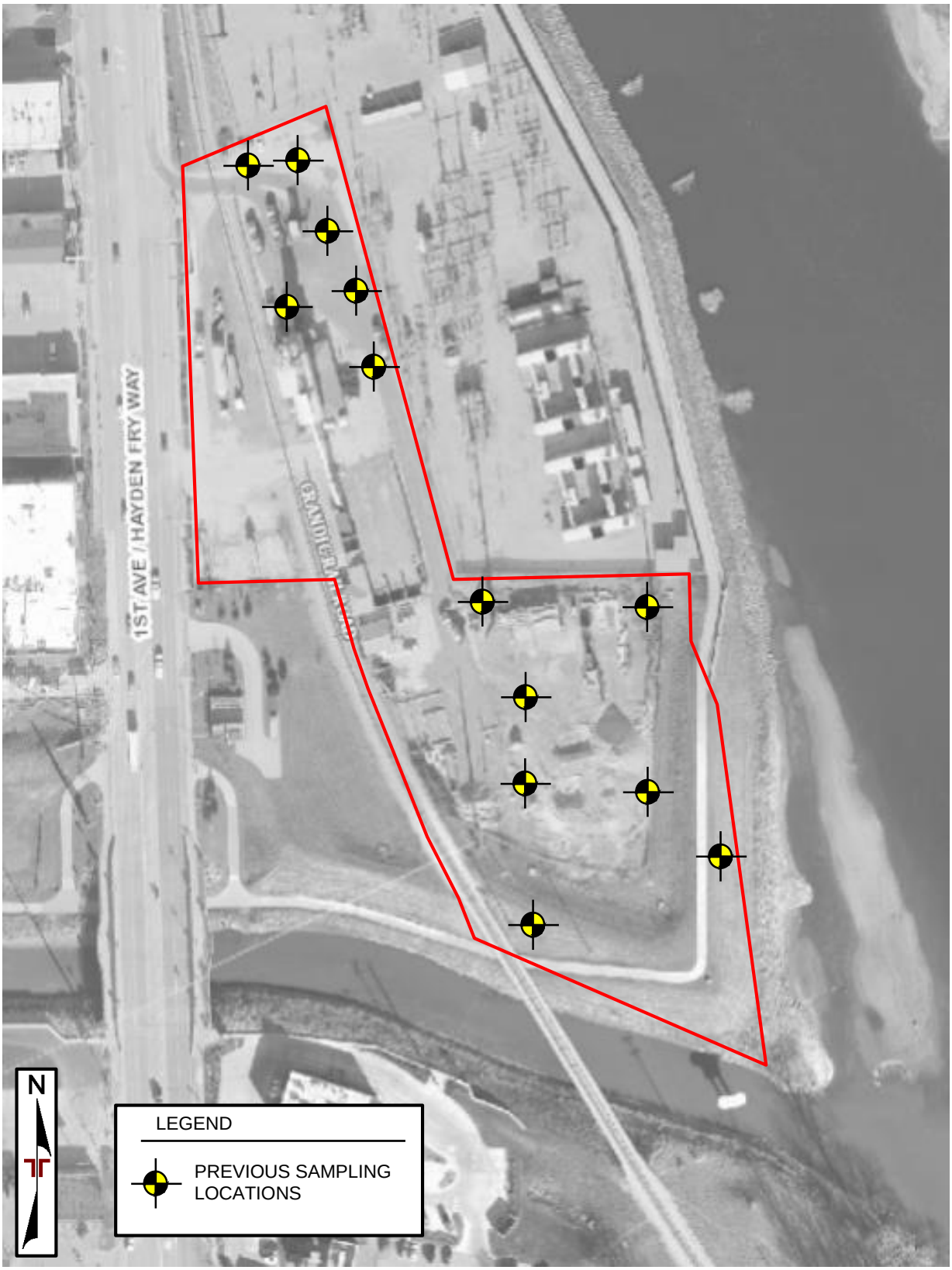


DIAGRAM IS FOR APPROXIMATE LOCATIONS ONLY

Project Manager: KSN	Project No. 06177109C	Terracon Consulting Engineers & Scientists	PREVIOUS SAMPLING LOCATIONS
Drawn by: KRJ	Scale: NTS	2640 12th Street SW Cedar Rapids, Iowa 52404	HAWKEYE READY-MIX AND CRANDIC CORALVILLE, IOWA
Checked by: KSN	File Name: FIGURE 3	PH. (319) 366-8321 FAX. (319) 366-0032	FIGURE 3
Approved by: KSN	Date: June 2019		

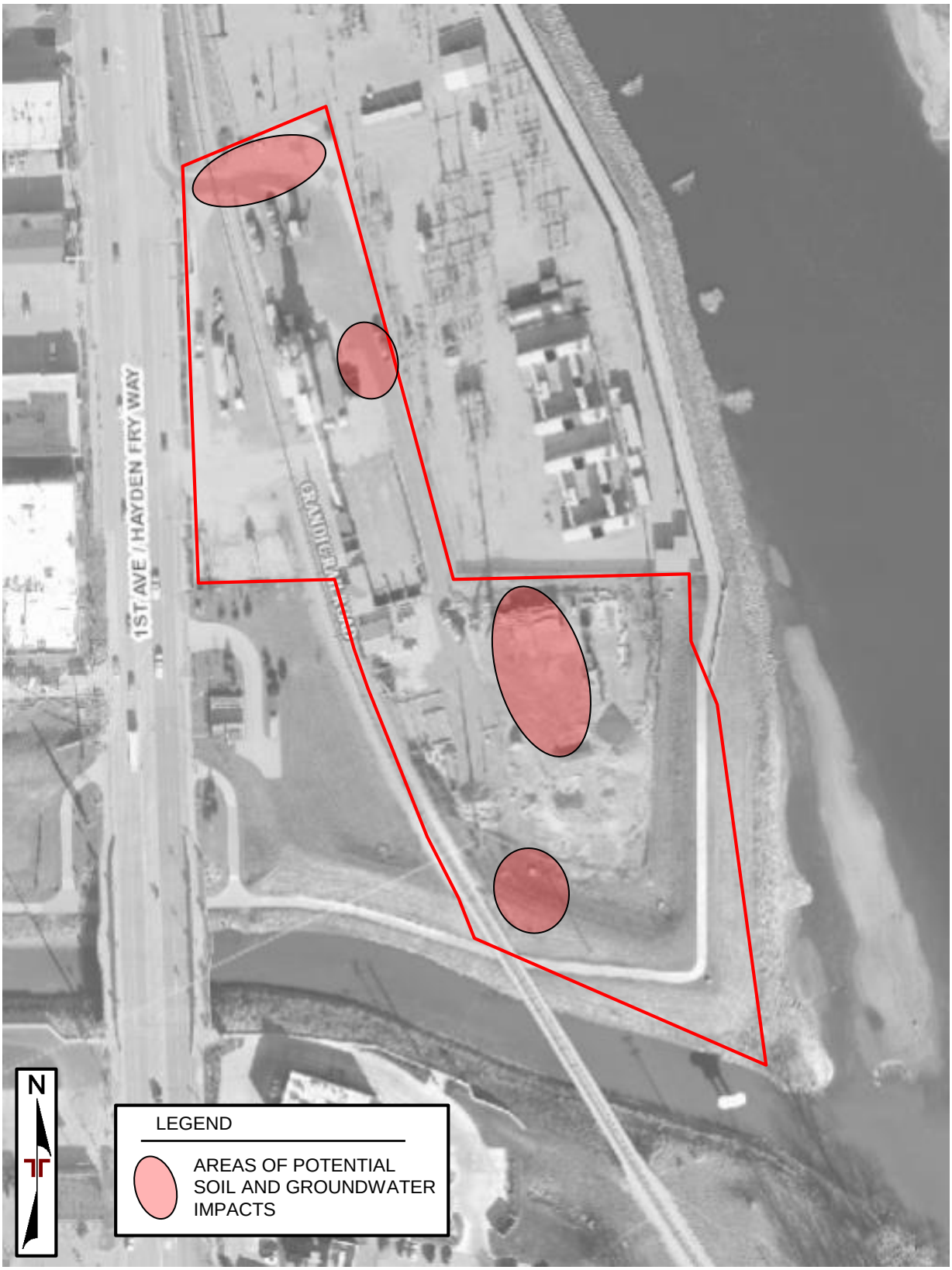


DIAGRAM IS FOR APPROXIMATE LOCATIONS ONLY

Project Manager: KSN	Project No. 06177109C	Terracon Consulting Engineers & Scientists	AREAS OF POTENTIAL IMPACTS	FIGURE
Drawn by: KRJ	Scale: NTS	2640 12th Street SW Cedar Rapids, Iowa 52404	HAWKEYE READY-MIX AND CRANDIC	4
Checked by: KSN	File Name: FIGURE 4	PH. (319) 366-8321 FAX. (319) 366-0032	CORALVILLE, IOWA	
Approved by: KSN	Date: June 2019			

Asbestos and Hazardous Materials Survey

Former Hawkeye Ready Mix
309 1st Avenue
Coralville, Iowa 52241

May 15, 2019
Terracon Project No. 06177109C

Prepared for:
City of Coralville, Iowa
Coralville, Iowa

Prepared by:
Terracon Consultants, Inc.
Cedar Rapids, Iowa

May 15, 2019

City of Coralville IA
1512 7th Street
P.O. Box 5127
Coralville, IA 52241-5127

Attn: Mr. Dan Holderness, P.E.
P: (319) 351-1266
E: dholderness@coralville.org

Re: Asbestos and Hazardous Materials Survey
Former Hawkeye Ready-Mix
309 1st Avenue
Coralville, Iowa 52241
Terracon Project No. 06177109C

Dear Mr. Holderness:

Terracon Consultants, Inc. (Terracon) is pleased to submit the attached survey report on behalf of the City of Coralville, Iowa (the City) for the property located at 309 1st Avenue, Coralville, Johnson County, Iowa. The purpose of this survey report is to present the results of an asbestos and hazardous materials survey performed on May 7, 2019. This survey was conducted in accordance with Terracon Proposal No. P06197002 dated January 31, 2019 and the associated City Engineering Services Agreement; subsequently, the project was deemed eligible for hazardous funding in accordance with the City's Environmental Protection Agency (EPA) Brownfield Grant Fund (#97764301). We understand that this survey was requested due to the planned demolition of the buildings.

A concentration of less than 1% asbestos was identified in wall panel adhesive in the main building on the property. Other regulated materials, empty and partially filled industrial containers and household hazardous wastes were also identified in and around the buildings.

Terracon appreciates the opportunity to provide this service to the City. If you have any questions regarding this report, please contact Eric Harris at 319-221-7315.

Sincerely,
Terracon Consultants, Inc.

Eric Harris
Environmental Department Manager

Cindy A. Baldwin, CIH, FAIHA
Senior Industrial Hygienist

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APPENDIX E PHOTOGRAPHIC DOCUMENTATION

MS/EWH/CAB: \\cedarrapids1\data\projects\2017\06177109c\project documents (reports-letters-drafts to clients)\asbestos_haz mat survey report\06177109c.51519. hawkeye.309 1st ave. asbestos.hazardous materials survey report.docx

ASBESTOS AND HAZARDOUS MATERIAL SURVEY
Former Hawkeye Ready-Mix
309 1st Avenue
Coralville, Iowa

Terracon Project No. 06177109C
May 15, 2019

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted an asbestos and hazardous material survey at the property located at 309 1st Avenue, Coralville, Johnson County, Iowa. The survey was conducted on May 7, 2019. This survey was conducted in accordance with Terracon Proposal No. P06197002 dated January 31, 2019 and the associated City Engineering Services Agreement; subsequently, the project was deemed eligible for hazardous funding in accordance with the City's Environmental Protection Agency (EPA) Brownfield Grant Fund (#97764301). Interior and exterior building components were surveyed and homogeneous areas of suspect asbestos-containing materials (ACM) were visually identified and documented. The hazardous materials survey included identification of stored regulated/ hazardous materials, as well as building components and equipment that may contain regulated materials.

Although reasonable effort was made to survey accessible suspect materials, additional suspect but unsampled materials could be located in walls, in voids, or in other concealed areas. Suspect ACM samples were collected in accordance with the sampling protocols outlined in United States Environmental Protection Agency (USEPA) 40 Code of Federal Regulations (CFR) Part 763-Asbestos, Subpart E-Asbestos-Containing Materials in Schools (known as the Asbestos Hazard Emergency Response Act [AHERA]). Samples were delivered to an accredited laboratory for analysis by polarized light microscopy (PLM).

At the time of the assessment, the materials bin area/tunnel area was underwater and was not accessible. Based on our limited observations and the construction of this structure, we do not anticipate suspect ACMs are present. If suspect materials are uncovered during the course of demolition of this structure, they should be sampled to determine if they contain asbestos.

1.1 Project Objectives

Asbestos survey services were conducted at the site to satisfy requirements of the EPA regulations under 40 CFR Part 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), which apply when buildings are renovated or demolished.

Disposal of PCB-containing fluorescent light ballasts, caulks, transformers, and oils is regulated by EPA under 40 CFR 761 Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions. Disposal of mercury-containing fluorescent light tubes as universal waste is regulated under 40 CFR 273 Standards for Universal Waste Management. Disposal of mercury from other sources is regulated under 40 CFR 260-262 Hazardous Waste standards.

Although regulations requiring pre-demolition surveys do not exist for mercury-containing light tubes and equipment or PCB-containing equipment, contractors should be notified of the presence of these materials in areas where demolition activities might result in potential employee exposure to mercury, PCBs, or other hazardous materials, so that they can take the necessary actions to comply with Occupational Safety and Health Administration (OSHA) requirements and EPA disposal requirements.

2.0 BUILDING DESCRIPTIONS

The site is occupied by an approximately 3,260 square-foot (SF), one-story office building with asphaltic shingled roof built in 1984 and connecting three-story concrete batch plant with metal siding. An approximately 1,120 SF building (the south building) and an 800 SF garage (the garage) are located on the south side of the property. Heating is generally provided by forced air furnaces in the main and south buildings. A site map is provided in Appendix D. Photographs are provided in Appendix E.

3.0 FIELD ACTIVITIES

3.1 Asbestos Survey

The survey was conducted by Mr. Alex Davis, and Ms. Miranda Stelmach, state of Iowa licensed asbestos inspectors (license #s 18-1108, and 18-1191, respectively). Copies of their asbestos inspector licenses are attached as Appendix A. The survey was conducted in accordance with the sample collection protocols established in EPA 40 CFR 763.86, Sampling. A summary of survey activities is provided below.

3.1.1 Asbestos Visual Assessment

Survey activities were initiated with visual observation of the interior and exterior of the buildings to identify homogeneous areas of suspect ACM. A homogeneous area (HA) consists of building materials that appear similar throughout in terms of color and texture with consideration given to the date of application.

3.1.2 Asbestos Physical Assessment

A physical assessment of each HA of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the USEPA as a material that can be crumbled, pulverized, or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials.

3.1.3 Asbestos Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in accordance with EPA sampling protocols. Samples of suspect materials were collected from randomly selected locations in each homogeneous area. Bulk samples were collected using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

The selection of sample locations and frequency of sampling were based on Terracon's observations and the assumption that like materials in the same area are homogeneous in content. Terracon collected 63 bulk samples from 29 HAs of suspect ACM from the buildings. A summary of suspect ACM samples collected during the survey is included on the chains of custody (COC) and is provided in Table 1 in Appendix B. The lab reports and the COCs are provided in Appendix C.

3.1.4 Asbestos Sample Analysis

Bulk samples were submitted under COC to EMSL Analytical, Inc. (EMSL) in Indianapolis, Indiana for analysis by PLM with dispersion staining techniques per EPA's *Method for the Determination of Asbestos in Bulk Building Materials* (600/R-93-116). EMSL is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP Accreditation No. 101048-0). The percentage of asbestos, if present, was determined by microscopic visual estimation. EMSL separated multi-layered samples; in total, 117 individual layers were analyzed.

Upon receipt of the analytical results and in accordance with the proposal, Terracon instructed EMSL to conduct a 400-point count analysis of adhesive associated with wood paneling.

3.2 Hazardous Building Materials/Equipment Assessment

3.2.1 Mercury (Hg)

Accessible areas of the buildings were visually assessed to quantify potential Hg-containing devices. Several of the light fixtures could not be reached due to their elevated positions and were assumed to contain Hg.

3.2.2 Polychlorinated Biphenyls (PCBs)

Terracon conducted a representative visual assessment of interior light fixtures to characterize PCB content. Typically, ballasts manufactured prior to 1979 are presumed to contain PCBs unless clearly marked as containing "No PCBs." Ballasts that do not contain a "No PCBs" label are presumed to be PCB-containing. Based on the age of the structure, PCBs were not readily identified.

3.2.3 Chlorofluorocarbons (CFCs)

Chlorofluorocarbons are organic compounds that consist of carbon, hydrogen, chlorine, and fluorine. Many CFCs have been used widely as refrigerants, propellants, and solvents. Accessible areas of the site buildings were visually assessed to quantify potential CFC-containing devices (air conditioners and refrigeration units).

3.2.4 Batteries

Batteries containing nickel-cadmium and lead-acid can be found in emergency lighting, exit signs, and alarm systems and are considered toxic. Accessible areas of the site buildings were visually assessed to quantify potential battery-containing devices.

3.2.5 Other Regulated Materials Assessment

Terracon performed a visual survey for other potentially hazardous materials present in and around the buildings prior to demolition. Any unwanted/used products should be disposed or recycled according to applicable federal, state, and local regulations.

4.0 REGULATORY OVERVIEW

4.1 Asbestos

The Iowa Department of Natural Resources (IDNR) and Iowa Workforce Development (IWD), through the Iowa Division of Labor, regulate asbestos activities in Iowa. IDNR enforces the asbestos NESHAP (40 CFR Part 61, Subpart M) as adopted by reference at Iowa Administrative Code (IAC) 567-23.1(3). Subpart M regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification of existing building materials prior to demolition or renovation activity. Under NESHAP, asbestos-containing building materials are classified as friable, Category I nonfriable, or Category II nonfriable ACM. Friable materials are those that, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. Category I nonfriable ACM includes packings, gaskets, resilient floor coverings, and asphalt roofing

products containing more than 1% asbestos. Category II nonfriable ACMs are any materials other than Category I materials that contain more than 1% asbestos.

Regulated ACM (RACM) must be removed before renovation or demolition activities that will disturb the materials. RACM includes:

- Friable ACM;
- Category I nonfriable ACM that has become friable or will be subjected to drilling, sanding, grinding, cutting, or abrading; and
- Category II nonfriable ACM that could be crumbled, pulverized, or reduced to powder during renovation or demolition activities.

IAC 875-155 Asbestos Removal and Encapsulation requires that any asbestos-related activity conducted in a public building be performed by personnel licensed or permitted by the IWD. Inspections for ACM must be conducted by IWD-licensed inspectors. Asbestos abatement must be performed by IWD-permitted asbestos abatement contractors. Management plans developed for the in-place management of asbestos-containing materials must be developed by an IWD-licensed management planner. When an abatement project design is prepared, it must be prepared by an IWD-licensed project designer.

IAC 875-10 adopts the OSHA asbestos standard for construction (29 CFR 1926.1101) by reference. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below the permissible exposure limits (PELs) of 0.1 asbestos fiber per cubic centimeter of air (0.1 f/cc) as an 8-hour time-weighted average (8-hr TWA) and 1.0 f/cc as a 30-minute excursion limit. The OSHA standard classifies construction and maintenance activities that could disturb ACM and specifies work practices and precautions that employers must follow when engaging in each class of regulated work.

4.2 Mercury

Metallic mercury is a silver-white liquid at room temperature. Elemental and inorganic mercury compounds are used in the manufacture of scientific instruments, electric equipment, and mercury vapor and fluorescent electric lamps. Mercury-containing equipment, such as fluorescent light tubes, must be sent to an approved recycling facility that recovers mercury. EPA considers mercury a hazardous waste.

EPA regulates disposal of mercury-containing fluorescent light tubes as universal waste under 40 CFR 273. Disposal of mercury from other sources is regulated under 40 CFR 260-262.

OSHA regulates occupational exposure to mercury under 29 CFR 1910.1000 Air Contaminants, Table Z-1 – Limits for Air Contaminants. The PEL for mercury is 0.1 milligrams per cubic meter (mg/m^3) as an 8-hr TWA.

4.3 Polychlorinated Biphenyls

PCBs are clear, oily liquids to white or yellowish waxy solids, depending on the degree of chlorination. They are stable, thermoplastic, and nonflammable materials that were used in hundreds of industrial and commercial applications including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, caulks, plastics, and rubber products; in pigments, dyes, and carbonless copy paper and many other applications. EPA regulates transportation, disposal, and spill cleanup of PCB-containing ballasts under the Toxic Substances Control Act (TSCA), which can be found in 40 CFR 761. Fluorescent light ballasts are assumed to contain PCBs unless clearly marked as containing NO PCB.

OSHA regulates occupational exposure to PCBs under 29 CFR 1910.1000 Air Contaminants, Table Z-1 – Limits for Air Contaminants. The PEL for chlorodiphenyl (42% chlorine) is 1.0 mg/m^3 and for chlorodiphenyl (54% chlorine) is 0.5 mg/m^3, both as 8-hr TWAs.

4.4 Chlorofluorocarbons (CFCs)

EPA regulates the use, release, and disposal of CFCs and hydrochlorofluorocarbons (HCFCs) under Section 608 of the Clean Air Act. Section 608 prohibits individuals from intentionally venting ozone-depleting refrigerants (including CFCs and HCFCs) and their substitutes (such as hydrofluorocarbons [HFCs]), while maintaining, servicing, repairing, or disposing of air conditioning or refrigeration equipment.

4.5 Other Regulated Materials

Disposal of other materials depends on the type and composition of the material. Many regulated materials can be disposed of through Iowa's Household Hazardous Materials Program. Batteries are considered universal wastes and should be recycled.

5.0 FINDINGS

5.1 Asbestos Survey Findings

The analytical laboratory identified an asbestos concentration of less than 1% (<1%) asbestos in adhesive associated with the wood wall paneling in the main office building. The <1% material is indicated in italics in Table 1 in Appendix A. Materials containing less than 1% asbestos are not considered ACMs under the EPA NESHAP regulations, but are regulated by the OSHA Construction Standard, 29 CFR 1926.1101.

EMSL's laboratory analytical reports are included in Appendix C.

As stated in other sections of this document, suspect ACMs may be present in inaccessible areas such as in electrical equipment/wiring, in attics, and behind walls; additional ACMs may be discovered during demolition activities. If such materials are uncovered during demolition activities, they should be sampled prior to disturbance.

5.2 Hazardous Building Materials/Equipment Findings

5.2.1 Mercury Survey Findings

Terracon identified fluorescent light tubes, compact fluorescent bulbs, and one mercury containing thermostat in the buildings. Please refer to Table 2 in Appendix B for a summary of the devices.

5.2.2 Polychlorinated Biphenyls Survey Findings

Terracon counted approximately 41 ballasts associated with the fluorescent tube fixtures in the buildings. Terracon inspected representative ballasts and found NO PCBs labels on them. Terracon did observe pad- or pole-mounted transformers or capacitors during the survey, but these have been assumed to be the responsibility of the utility company. Please refer to Table 2 in Appendix B for additional information.

5.2.3 Chlorofluorocarbons (CFCs) Findings

We observed an air conditioner condensing unit located on the south building and a refrigerator in the main building that likely contain CFCs.

5.2.4 Batteries

Batteries were not readily identified on the subject property.

5.2.5 Other Regulated Materials Findings

Terracon observed potentially hazardous materials including, but not limited to, aerosols, tires, hot water heaters, aboveground plastic storage units containing various products related to concrete production, tote tanks, et al., in the buildings as well as scattered throughout the property. It should be noted that this summary is not all inclusive; please refer to Table 2 in Appendix B for additional information.

6.0 RECOMMENDATIONS

Terracon recommends that a qualified contractor remove and dispose of the mercury devices in accordance with local, state, and federal regulations. Written evidence should be provided by the disposal company certifying that the hazardous waste treatment, storage, or disposal facility is approved for mercury disposal by the EPA and state or local regulatory agencies. Disposal of mercury-containing fluorescent light tubes as universal waste is regulated under 40 CFR 273. Disposal of mercury from other sources is regulated under 40 CFR 260-262.

For other regulated materials, Terracon recommends one of the following:

1. Contact the previous tenant to have them remove the stockpiled (unaffixed) items listed in Table 2 in Appendix B;
2. Have City staff collect and properly dispose of the listed items in Table 2 in Appendix B; or
3. Retain an environmental contractor to collect and properly dispose of the listed items in Table 2 in Appendix B.

For the above ground storage tanks, a “clean tank certificate” may be required for proper disposal/recycling of the vessel.

7.0 LIMITATIONS/GENERAL COMMENTS

This survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions, and recommendations expressed in this report are based on conditions observed during our survey of the site. Determining the contents of the items listed in Table 2 in Appendix B is outside of the scope of services for this project. At the time of the assessment, the materials bin area/tunnel area was underwater and was not accessible. Based on our limited observations and based on the construction of this structure, we do not anticipate suspect ACMs are present. If suspect materials are uncovered during the course of demolition of this structure, they should be sampled to determine if they contain asbestos.

The information contained in this report is relevant to the date on which this survey was performed and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by the City of Coralville, Iowa for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories, or other third parties supplying information that may have been used in the preparation of this report. No warranty, express or implied is made.

APPENDIX A

ASBESTOS INSPECTOR LICENSES

ALEXANDER DAVIS

DOB: 09-17-1990

Issued: 09-21-2018

This person is licensed to perform asbestos work in the State of Iowa. ID card is intended for official use only and must be present on jobsite.

License Type	Number	Expires
SUPERVISOR	18-1107	09-13-2019
INSPECTOR	18-1108	09-12-2019

DIVISION OF IOWA LABOR

Asbestos

Michael A. Mauro
Labor Commissioner

MIRANDA STELMACH

DOB: 05-16-1994

Issued: 10-12-2018

This person is licensed to perform asbestos work in the State of Iowa. ID card is intended for official use only and must be present on jobsite.

License Type	Number	Expires
INSPECTOR	18-1191	08-07-2019
SUPERVISOR	18-1288	09-14-2019

DIVISION OF IOWA LABOR

Asbestos

Michael A. Mauro
Labor Commissioner

APPENDIX B

TABLES

TABLE 1 – ASBESTOS SAMPLE SUMMARY

TABLE 2 – MERCURY AND OTHER POTENTIALLY REGULATED MATERIALS SURVEY SUMMARY

APPENDIX B

ASBESTOS AND HAZARDOUS MATERIAL SURVEY
Former Hawkeye Ready-Mix
309 1st Avenue
Coralville, Iowa

Table 1 - Asbestos Sample Summary

HA #	Sample #	Material Description	General Area Present	Sample Location	Lab Results
Main Building					
01	01-CA2-001	White door caulk	Exterior of doors	East main entrance door	None detected
	01-CA2-002				None detected
02	02-CA1-003	Black window caulk	Exterior windows	West center window	None detected
	02-CA1-004			South window	None detected
03	03-CA3-005	White wall caulk	Exterior walls of building	South side of building – behind the power box	None detected
	03-CA3-006				None detected
04	04-RF3-007	Shingle – grey, tan, and black	Roof	North- center side of roof	None detected
		Shingle – white, red, and black			None detected
		Black felt			None detected
	04-RF3-008	Shingle – brown, grey, and black		South- center side of roof	None detected
		Shingle – white, red, and black			None detected
		Black felt			None detected
05	05-FC1-009	Brown and tan sheet flooring with paper backing	Reception, office #1 and #2	North- center side of reception	None detected
	05-FC1-010			Southeast side of office #1	None detected
06	*06-MG8-011*	*Yellow wall adhesive associated with wood wall panel adhesive*	*Reception, office #1 and #2*	*West side of office #1 entrance*	*[1]0.25% Chrysotile (400-point count)*
	06-MG8-012			*West wall closet of office #2*	*None detected*

[1] By EPA's definition, this material does not meet the criterion for ACM; however, OSHA asbestos regulations apply due to the reported concentration of asbestos.

HA #	Sample #	Material Description	General Area Present	Sample Location	Lab Results
07	07-WB4-013	White drywall with texturing	Reception, office #1 and #2	Center ceiling of reception area	None detected
		Joint compound			None detected
		Tape			None detected
	07-WB4-014	White drywall with texturing		West ceiling side of reception area	None detected
		Joint compound			None detected
		Tape			None detected
	07-WB4-015	White drywall with texturing		Center of office #1 ceiling	None detected
		Joint compound			None detected
		Tape			None detected
08	08-WB4-016	White drywall with texturing	Reception, restroom, office #1 and #3, and breakroom	Wall in front of southeast entrance	None detected
		Joint compound			None detected
		Tape			None detected
	08-WB4-017	White drywall with texturing		Ceiling south of southeast entrance	None detected
		Joint compound			None detected
		Tape			None detected
	08-WB4-018	White drywall with texturing		Center ceiling of bathroom	None detected
		Joint compound			None detected
		Tape			None detected
	08-WB4-019	White drywall with texturing		West side wall of entrance to office #3	None detected
		Joint compound			None detected
		Tape			None detected
	08-WB4-020	White drywall with texturing		East wall of breakroom	None detected
		Joint compound			None detected
		Tape			None detected
09	09-AW2-021	Tan insulation	Reception, office areas, and restroom	Center of reception area	None detected
		White insulation			
	09-AW2-022	Brown and white insulation		Center of restroom	None detected
10	10-FC3-023	Grey cove base	Southeast hallway and restroom	West side of southeast hallway	None detected
		Tan mastic			
	10-FC3-024	Grey cove base		Southeast corner of restroom	None detected
		Tan mastic			

HA #	Sample #	Material Description	General Area Present	Sample Location	Lab Results
11	11-FC3-025	Black cove base	Office #3 and breakroom	North wall of office #3	None detected
		Tan and yellow mastic			
	11-FC3-026	Black cove base		South wall of breakroom	None detected
		Tan mastic			
12	12-SC6-027	White sink undercoating	Breakroom sink	Underneath sink in breakroom	None detected
	12-SC6-028			Underneath sink in breakroom	None detected
13	13-PM2-029	Green Gasket	Plant area	West wall of plant area	None detected
	13-PM2-030			West wall of plant area	None detected
14	14-MI5-031	Silver wrap	Plant area	West wall of second floor plant	None detected
		Yellow and silver foam insulation			
	14-MI5-032	Silver wrap		Ceiling of third floor in plant	None detected
		Yellow and silver foam insulation			
15	15-MI5-033	Black foam insulation	Plant area	Pipe on southeast side of plant	None detected
	15-MI5-034	Black foam insulation		Pipe on southeast side of plant	None detected
16	16-PI4-035	Silver and white pipe wrap – fiberglass	Plant area	West side of plant area	None detected
	16-PI4-036	Silver and white pipe wrap – fiberglass	Plant area	North side of plant area on second floor	None detected
17	17-PM2-037	Brown gasket	Plant area	West side of plant area	None detected
	17-PM2-038	Brown gasket	Plant area	West side of plant area	None detected

HA #	Sample #	Material Description	General Area Present	Sample Location	Lab Results
South Building					
18	18-CA3-039	White wall caulking	South building – exterior	West side of west wall	None detected
	18-CA3-040	White wall caulking		West side of west wall	None detected
19	19-CA2-041	White door caulking	Doors of south building – exterior	North side of north wing entrance	None detected
	19-CA2-042	White door caulking		South side of west wing entrance	None detected

HA #	Sample #	Material Description	General Area Present	Sample Location	Lab Results
South Building					
20	20-RF3-043	White, black, and green shingle	Roof	North side of roof	None detected
		Grey and black shingle			
		Black felt			
	20-RF3-044	White and black shingle	Roof	South side of roof	None detected
		Brown, grey, and black shingle			
		Black felt			
21	21-CA3-045	Clear roof caulking	Roof lining	North wall of concrete lining	None detected
	21-CA3-046	Clear roof caulking		Center of east wall	None detected
22	22-AW2-047	White blown in insulation	Throughout entire ceiling	East side of west wing	None detected
	22-AW2-048	White blown in insulation		East side of west wing	None detected
23	[2]23-FC3-047	Beige cove base	East wing	West wall of east wing	None detected
		Tan mastic			
	23-FC3-048	Beige cove base	East wing	East wall of east wing	None detected
		Tan mastic			
24	24-WB4-049	Texture	Throughout entire building	Center of west wing	None detected
		Drywall			
		Joint compound			
		Tape			
	24-WB4-050	Texture		Northeast ceiling of east wing	None detected
		Drywall			
		Joint compound			
		Tape			
	24-WB4-051	Texture		Center of north wing	None detected
		Drywall			
		Joint compound			
		Tape			

[2] Error in sample sequence. Same sample numbers were utilized

HA #	Sample #	Material Description	General Area Present	Sample Location	Lab Results
South Building					
25	25-WB1-052	Drywall	East and west wing	Southwest corner of west wing	None detected
		Joint			
		Tape			
	25-WB1-053	Drywall		Northeast corner of east wing	None detected
		Joint			
		Tape			

HA #	Sample #	Material Description	General Area Present	Sample Location	Lab Results
Garage					
26	32-RF3-054	White, black, and green shingle	Roof	Center- north of roof	None detected
		Grey and black shingle			None detected
		Black felt			
	32-RF3-055	White and black shingle	Roof	Center- south of roof	None detected
		Black shingle			None detected
		Black felt			None detected
27	27-RF4-056	Grey and black penetration tar	Roof	Northeast side of roof	None detected
	27-RF4-057			Southeast side of roof	None detected
28	28-WB5-58	White paneling	South wall	South- center wall	None detected
		Tan and yellow mastic			
	28-WB5-59	White paneling		South- center wall	None detected
		Tan and yellow mastic			
29	29-PM2-60	Red and brown gasket	Various pipes inside the garage	Southeast pipelines in the garage	None detected
	29-PM2-61			Southeast pipelines in the garage	None detected

Table 2 – Mercury And Other Potentially Regulated Materials Survey Summary

Product Name, Equipment, or Chemical Name	Location	Estimated Quantity	Unit of Measure / Container Type
4' to 8' fluorescent light tubes and bulbs	Main building	103	Each
	Concrete filling station	6	Each
	South building	90	Each
	Garage	6	Each
Ballasts (assumed to be non-PCB containing)	Main building	32	Each
	South building	8	Each
	Garage	1	Each
Refrigerator (large) – containing refrigerant (Freon)	Main building- breakroom	1	Unit
Water heater – 20 gallons	Main building- storage closet leading to plant area	1	Unit
Fire extinguisher	Main building	6	Cans
Husky - Fast Drying High Gloss Floor Finish	Restroom of main building	1	Gallon / jug
Husky - Extra Heavy-Duty Stripper	Restroom of main building	1	Gallon / jug
Husky - Super Charged Rinse Free Floor Stripper	Restroom of main building	1	Gallon / jug
Essential Industries - Pureshine 25 High Gloss	Restroom of main building	1	Gallon / jug
Conspec - Orange Peel	Restroom of main building	1	Gallon / can
Conspec - Solvent 101	Restroom of main building	1	Gallon / can
Minwax - Wood Finish	Restroom of main building	1	32 oz. / can
Trewax - Instant Wax Stripper	Restroom of main building	1	32 oz. / jug
Iowa Paper & Chemical - Crystal Care Jewel Floor Finish	Restroom of main building	1	Gallon / jug
Increte Systems, Inc. - High Gloss Wax	Restroom of main building	1	Gallon / jug
Marvel - Air Tool Oil	Plant area	1	12 oz. / jug
Transchem - Muriatic Acid	Plant area - northwest corner, near stairs	0.5	Gallon / jug
Grace - Mira 62, Mid-Range Water Reducer (aboveground storage tank [AST])	Plant area - second floor, south	Remnants	800 Gallon / AST X2
Grace - Adva-Cast 573	Plant area - second floor, south	Remnants	500 Gallon / AST

Product Name, Equipment, or Chemical Name	Location	Estimated Quantity	Unit of Measure / Container Type
Grace - Recover Hydration Stabilizer	Plant area - second floor, south	Remnants	500 Gallon / AST
Grace - Tera Pave AEA	Plant area - second floor, south	Remnants	500 Gallon / AST
Grace - Duraset 400	Plant area - second floor, south	Remnants	500 Gallon / AST
Grace - Mira 110 Superplasticizer	Plant area - second floor, south	Remnants	500 Gallon / AST
Grace - DCI Corrosion Inhibitor	Behind (south) of main building	Empty	2,000 Gallon / AST X2
Grace - Duraset 400	Behind (south) of main building	Empty	1,500 Gallon / AST
Legacy - Deglosser Flattening Agent Additive	South building - north wing	150	Grams / plastic container)
Brickform - Tinta Seal	South building - north wing	3	16 oz. / can
Day 1 - Finishing Aid	South building - north wing	4	Gallon / jug
Solomon Colors - Concrete Cleaner	South building - north wing	0.5	Gallon / jug
Chemtech, Inc. - Concrete CT9501 Remover	South building - north wing	0.25	Gallon / bucket
Brickform - Poly-Seal 650	South building - north wing	0.25	Gallon / bucket)
Consolideck - Saltguard Water and Salt Barrier	South building - north wing	1	Gallon / bucket
Certified (label unreadable)	Garage	14	Gallon / 55 gallon drum
Concure Systems Admixture	South of garage	140	Gallon / 275-gallon tote tank
Barrier One International- Moisture Vapor Reduction Admixture	South of garage	Empty	Gallon / 275-gallon tote tank
Grace - Mira 62	South of garage	140	Gallon / 275-gallon tote tank
Grace - Adva Cast 572	South of garage	Empty	Gallon / 275-gallon tote tank X2
SIKA - AEA 14 US	South of garage	Empty	Gallon / 275-gallon tote tank
Arrow Magnolia - Klean and Shine Liquid Concrete Remover	South of garage and east of south building	10	Gallon / 330-gallon tote tank
Arrow Magnolia - Klean and Bright Supreme	South of garage and east of south building	1	Gallon / 275-gallon tote tank
Air conditioner condensing unit (Freon – refrigerant)	South building	1	Unit

Product Name, Equipment, or Chemical Name	Location	Estimated Quantity	Unit of Measure / Container Type
Tires	Gravel ramp / tunnel	24	Units
	South of south building	8	Units
	South of garage	1	Unit
Printer	South building	1	Unit
Furnace	Main building	1	Unit
	South building	1	Unit
Mercury containing thermostat	South building	1	Unit
No label / unknown (crushed)	Southeast of garage	Empty	Gallon / 250-gallon tote tank X4
No label / unknown	East of garage	4	Gallon / 275-gallon tote tank

APPENDIX C

ASBESTOS LABORATORY ANALYTICAL REPORT AND COC

EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250

Tel/Fax: (317) 803-2997 / (317) 803-3047

http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 161908657
Customer ID: ACON77
Customer PO: 06197002
Project ID:

Attention: Kurt Nilssan
Terracon Consultants, Inc.
2640 12th Street Southwest
Cedar Rapids, IA 52404

Phone: (319) 366-8321
Fax: (319) 366-0032
Received Date: 05/08/2019 9:05 AM
Analysis Date: 05/10/2019
Collected Date: 05/07/2019

Project: 06177109C / Hawk-I Ready Mix 309 1st Avenue, Coralville, Iowa

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**	**% Type**
01-CA2-01 *161908657-0001*	East Main Entrance Door - Main Building Doors - Exterior - White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01-CA2-02 *161908657-0002*	East main Entrance Door - Main Building Doors - Exterior - White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02-CA1-03 *161908657-0003*	West Center Window - Main Building Windows - Exterior - Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02-CA1-04 *161908657-0004*	South Window - main Building Windows - Exterior - Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03-CA3-05 *161908657-0005*	South Side Of Building Behind Power Box - Main Building - Exterior - White Wall Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03-CA3-06 *161908657-0006*	South Side Of Building Behind Power Box - main Building - Exterior - White Wall Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04-RF3-07-Shingle *161908657-0007*	North Center Side Of Roof - Main Building Roof - Exterior - Black Roofing Shingles w/Tar Paper	Gray/Tan/Black Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
04-RF3-07-Shingle *161908657-0007A*	North Center Side Of Roof - Main Building Roof - Exterior - Black Roofing Shingles w/Tar Paper	White/Red/Black Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
04-RF3-07-Felt *161908657-0007B*	North Center Side Of Roof - Main Building Roof - Exterior - Black Roofing Shingles w/Tar Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
04-RF3-08-Shingle *161908657-0008*	South Center Side Of Roof - Main Building Roof - Exterior - Black Roofing Shingles w/Tar Paper	Brown/Gray/Black Fibrous Heterogeneous	25% Cellulose	10% Quartz 65% Non-fibrous (Other)	None Detected
04-RF3-08-Shingle *161908657-0008A*	South Center Side Of Roof - Main Building Roof - Exterior - Black Roofing Shingles w/Tar Paper	White/Red/Black Fibrous Heterogeneous	20% Cellulose	10% Quartz 70% Non-fibrous (Other)	None Detected

Initial report from: 05/10/2019 13:56:20

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Tel/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 161908657
Customer ID: ACON77
Customer PO: 06197002
Project ID:

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

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
04-RF3-08-Felt *161908657-0008B*	South Center Side Of Roof - Main Building Roof - Exterior - Black Roofing Shingles w/Tar Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
05-FC1-09 *161908657-0009*	North Center Side Of Reception - Main Building - Reception - Office #1 & #2 - Tan/Brown Sheet Flooring w/Paper Backing	Gray/Tan Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
05-FC1-10 *161908657-0010*	Southeast Side Of Office #1 - Main Building - Reception - Office #1 & #2 - Tan/Brown Sheet Flooring w/Paper Backing	Gray/Tan Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
06-MG8-11 *161908657-0011*	West Side Of Office #1 Entrance - Main Building - Throughout Reception - Office #1 & #2 - Wood Paneling Wall Adhesive - Yellow	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06-MG8-12 *161908657-0012* *The sample group is not homogeneous*	West Wall Closet Of Office #2 - Main Building - Throughout - Office #1 & #2 - Wood Paneling Wall Adhesive - Yellow	Tan Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
07-WB4-13-Drywall *161908657-0013*	Center Ceiling Of Reception Area - Main Building - Throughout Reception - Office #1 & #2 - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Brown/White Fibrous Heterogeneous	30% Cellulose 5% Glass	60% Gypsum 5% Non-fibrous (Other)	None Detected
07-WB4-13-Joint Compound *161908657-0013A* *Inseparable paint / coating layer included in analysis*	Center Ceiling Of Reception Area - Main Building - Throughout Reception - Office #1 & #2 - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07-WB4-13-Tape *161908657-0013B*	Center Ceiling Of Reception Area - Main Building - Throughout Reception - Office #1 & #2 - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected

Initial report from: 05/10/2019 13:56:20

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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**	**% Type**
07-WB4-14-Drywall *161908657-0014*	West Ceiling Side Of Reception Area - Main Building - Throughout Reception - Office #1 & #2 - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Brown/White Fibrous Heterogeneous	30% Cellulose 5% Glass	60% Gypsum 5% Non-fibrous (Other)	None Detected
07-WB4-14-Joint Compound *161908657-0014A* *Inseparable paint / coating layer included in analysis*	West Ceiling Side Of Reception Area - Main Building - Throughout Reception - Office #1 & #2 - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07-WB4-14-Tape *161908657-0014B*	West Ceiling Side Of Reception Area - Main Building - Throughout Reception - Office #1 & #2 - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
07-WB4-15-Drywall *161908657-0015*	Center Of Office #1 Ceiling- Main Building - Throughout - Reception - Office #1 & #2 - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Brown/White Fibrous Heterogeneous	60% Cellulose 5% Glass	30% Gypsum 5% Non-fibrous (Other)	None Detected
07-WB4-15-Joint Compound *161908657-0015A* *Inseparable paint / coating layer included in analysis*	Center Of Office #1 Ceiling- Main Building - Throughout - Reception - Office #1 & #2 - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07-WB4-15-Tape *161908657-0015B*	Center Of Office #1 Ceiling- Main Building - Throughout - Reception - Office #1 & #2 - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
08-WB4-16-Drywall *161908657-0016*	Wall In Front Of Southeast Entrance - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Brown/White Fibrous Heterogeneous	20% Cellulose 5% Glass	70% Gypsum 5% Non-fibrous (Other)	None Detected

Initial report from: 05/10/2019 13:56:20

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EMSL Order:	161908657
Customer ID:	ACON77
Customer PO:	06197002
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**	**% Type**
08-WB4-16-Joint Compound *161908657-0016A*	Wall In Front Of Southeast Entrance - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
08-WB4-16-Tape *161908657-0016B*	Wall In Front Of Southeast Entrance - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Fibrous Homogeneous	90% Glass	10% Non-fibrous (Other)	None Detected
08-WB4-17-Drywall *161908657-0017*	Ceiling South Of Southeast Entrance - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Brown/White Fibrous Heterogeneous	20% Cellulose 15% Glass	60% Gypsum 5% Non-fibrous (Other)	None Detected
08-WB4-17-Joint Compound *161908657-0017A*	Ceiling South Of Southeast Entrance - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
08-WB4-17-Tape *161908657-0017B*	Ceiling South Of Southeast Entrance - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Fibrous Homogeneous	90% Glass	10% Non-fibrous (Other)	None Detected
08-WB4-18-Drywall *161908657-0018*	Center Ceiling Of Bathroom - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Brown/White Fibrous Heterogeneous	40% Cellulose 5% Glass	50% Gypsum 5% Non-fibrous (Other)	None Detected

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http://www.EMSL.com / indianapolislab@emsl.com

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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**	**% Type**
08-WB4-18-Joint Compound *161908657-0018A*	Center Ceiling Of Bathroom - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
08-WB4-18-Tape *161908657-0018B*	Center Ceiling Of Bathroom - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
08-WB4-19-Drywall *161908657-0019*	West Side Of Entrance To Office #3 - Wall - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Brown/White Fibrous Homogeneous	20% Cellulose 10% Glass	60% Gypsum 10% Non-fibrous (Other)	None Detected
08-WB4-19-Joint Compound *161908657-0019A*	West Side Of Entrance To Office #3 - Wall - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
08-WB4-19-Tape *161908657-0019B*	West Side Of Entrance To Office #3 - Wall - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
08-WB4-20-Drywall *161908657-0020*	East Wall Of Breakroom - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Brown/White Fibrous Heterogeneous	20% Cellulose 5% Glass	70% Gypsum 5% Non-fibrous (Other)	None Detected

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Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
08-WB4-20-Joint Compound *161908657-0020A*	East Wall Of Breakroom - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
08-WB4-20-Tape *161908657-0020B*	East Wall Of Breakroom - Main Building - Throughout Restroom - Office #3 And Breakroom - White Ceiling/Wall Texture w/Drywall, Joint Compound & Tape	Tan Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
09-AW2-21-Insulation *161908657-0021*	Center Of Reception Area - Throughout Main Office Areas - White/Yellow Blown-In Insulation	Tan Fibrous Homogeneous	95% Min. Wool	5% Non-fibrous (Other)	None Detected
09-AW2-21-Insulation *161908657-0021A*	Center Of Reception Area - Throughout Main Office Areas - White/Yellow Blown-In Insulation	White Fibrous Homogeneous	98% Min. Wool	2% Non-fibrous (Other)	None Detected
09-AW2-22 *161908657-0022*	Center Of Restroom - Throughout Main Office Areas - White/Yellow Blown-In Insulation	Brown/White Fibrous Homogeneous	98% Min. Wool	2% Non-fibrous (Other)	None Detected
10-FC3-23-Cove Base *161908657-0023*	West Side Of Southeast Hallway - Southeast Hallway & Restroom Of Main Building - Grey Cove Base w/Yellow/Tan Mastic	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-FC3-23-Mastic *161908657-0023A*	West Side Of Southeast Hallway - Southeast Hallway & Restroom Of Main Building - Grey Cove Base w/Yellow/Tan Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-FC3-24-Cove Base *161908657-0024*	Southeast Corner Of Restroom - Southeast Hallway & Restroom Of Main Building - Grey Cove Base w/Yellow/Tan Mastic	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-FC3-24-Mastic *161908657-0024A*	Southeast Corner Of Restroom - Southeast Hallway & Restroom Of Main Building - Grey Cove Base w/Yellow/Tan Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
11-FC3-25-Cove Base *161908657-0025*	North Wall Of Office #3 - Main Building - Office #3 & Breakroom - Black Cove Base w/Yellow/Tan Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-FC3-25-Mastic *161908657-0025A*	North Wall Of Office #3 - Main Building - Office #3 & Breakroom - Black Cove Base w/Yellow/Tan Mastic	Tan/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-FC3-26-Cove Base *161908657-0026*	South Wall Of Breakroom - Main Building - Office #3 & Breakroom - Black Cove Base w/Yellow/Tan Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-FC3-26-Mastic *161908657-0026A*	South Wall Of Breakroom - Main Building - Office #3 & Breakroom - Black Cove Base w/Yellow/Tan Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-SC6-27 *161908657-0027*	Under Sink In Breakroom - White Sink Under Coating	White Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
12-SC6-28 *161908657-0028*	Under Sink In Breakroom - White Sink Under Coating	White Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
13-PM2-29 *161908657-0029*	West Wall Of Plant Area - Main Building - Green Gasket	Green Fibrous Homogeneous	20% Cellulose 15% Glass 5% Fibrous (Other)	60% Non-fibrous (Other)	None Detected
13-PM2-30 *161908657-0030*	West Wall Of Plant Area - Main Building - Green Gasket	Green Fibrous Homogeneous	20% Cellulose 15% Glass	65% Non-fibrous (Other)	None Detected
14-M15-31-Wrap *161908657-0031*	West Wall Of Second Floor Of Plant - Main Building - Yellow/Silver Foam Insulation	Silver Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
14-M15-31-Insulation *161908657-0031A*	West Wall Of Second Floor Of Plant - Main Building - Yellow/Silver Foam Insulation	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-M15-32-Wrap *161908657-0032*	Ceiling Of Third Floor In Plant - Main Building - Yellow/Silver Foam Insulation	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-M15-32-Insulation *161908657-0032A*	Ceiling Of Third Floor In Plant - Main Building - Yellow/Silver Foam Insulation	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15-M15-33 *161908657-0033*	Pipe On Southeast Side Of Plant - Main Building - Black Foam Insulation	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
15-M15-34 *161908657-0034*	Pipe On Southeast Side Of Plant - Main Building - Black Foam Insulation	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-P14-35-Wrap *161908657-0035*	West Side Of Plant Area - Main Building - Silver/White Pipe Wrap - Fiberglass	Silver Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
16-P14-35-Insulation *161908657-0035A*	West Side Of Plant Area - Main Building - Silver/White Pipe Wrap - Fiberglass	Yellow Fibrous Homogeneous	98% Glass	2% Non-fibrous (Other)	None Detected
16-P14-36-Wrap *161908657-0036*	North Side Of Plant Area On Second Floor - Main Building - Silver/White Pipe Wrap - Fiberglass	Silver Fibrous Homogeneous	60% Cellulose 15% Glass	25% Non-fibrous (Other)	None Detected
16-P14-36-Insulation *161908657-0036A*	North Side Of Plant Area On Second Floor - Main Building - Silver/White Pipe Wrap - Fiberglass	Yellow Fibrous Homogeneous	98% Glass	2% Non-fibrous (Other)	None Detected
17-PM2-37 *161908657-0037*	West Side Of Plant Area - Main Building - Brown Gasket	Brown Fibrous Homogeneous	60% Cellulose 10% Glass	30% Non-fibrous (Other)	None Detected
17-PM2-38 *161908657-0038*	West Side Of Plant Area - Main Building - Brown Gasket	Brown Fibrous Homogeneous	70% Cellulose 5% Glass	25% Non-fibrous (Other)	None Detected
18-CA3-39 *161908657-0039*	West Side Of Brick Wall - South Building Exterior - Brick Wall Caulking - White Wall Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-CA3-40 *161908657-0040*	West Side Of Brick Wall - South Building Exterior - Brick Wall Caulking - White Wall Caulking	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-CA2-41 *161908657-0041*	North Side Of North Wing Entrance - Doors Of South Building - Exterior - White Door Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-CA2-42 *161908657-0042*	South Side Of West Wing Entrance - Doors Of South Building - Exterior - White Door Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-RF3-43-Shingle *161908657-0043*	North Side Of Roof - Roof Of South Building - Black Roof Shingles w/Tar Paper	White/Black/Green Fibrous Heterogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
20-RF3-43-Shingle *161908657-0043A*	North Side Of Roof - Roof Of South Building - Black Roof Shingles w/Tar Paper	Gray/Black Fibrous Heterogeneous	10% Glass	90% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
20-RF3-43-Felt *161908657-0043B*	North Side Of Roof - Roof Of South Building - Black Roof Shingles w/Tar Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
20-RF3-44-Shingle *161908657-0044*	South Side Of Roof - Roof Of South Building - Black Roof Shingles w/Tar Paper	White/Black Fibrous Heterogeneous	20% Glass	10% Quartz 70% Non-fibrous (Other)	None Detected
20-RF3-44-Shingle *161908657-0044A*	South Side Of Roof - Roof Of South Building - Black Roof Shingles w/Tar Paper	Brown/Gray/Black Fibrous Heterogeneous	15% Glass	10% Quartz 75% Non-fibrous (Other)	None Detected
20-RF3-44-Felt *161908657-0044B*	South Side Of Roof - Roof Of South Building - Black Roof Shingles w/Tar Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
21-CA3-45 *161908657-0045*	North Wall Concrete Lining Of Roof - Roof Lining Of South Building - Clear Roof Caulking	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-CA3-46 *161908657-0046*	Center Of East Wall On Roof - Roof Lining Of South Building - Clear Roof Caulking	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27-AW2-47 *161908657-0047*	East Side Of West Wing - Throughout Ceiling Of South Building - White Blown-In Insulation	White Fibrous Homogeneous	95% Min. Wool	5% Non-fibrous (Other)	None Detected
27-AW2-48 *161908657-0048*	East Side Of West Wing - Throughout Ceiling Of South Building - White Blown-In Insulation	White Fibrous Homogeneous	95% Min. Wool	5% Non-fibrous (Other)	None Detected
23-FC3-47-Cove Base *161908657-0049*	West Wall Of East Wing - South Building - White Cove Base w/Tan/Yellow Mastic	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23-FC3-47-Mastic *161908657-0049A*	West Wall Of East Wing - South Building - White Cove Base w/Tan/Yellow Mastic	Tan/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23-FC3-48-Cove Base *161908657-0050*	East Wall Of East Wing - South Building - White Cove Base w/Tan/Yellow Mastic	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23-FC3-48-Mastic *161908657-0050A*	East Wall Of East Wing - South Building - White Cove Base w/Tan/Yellow Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-WB4-49-Texture *161908657-0051*	Center Of West Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Inseparable paint / coating layer included in analysis

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
24-WB4-49-Drywall *161908657-0051A*	Center Of West Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	Brown/White Fibrous Heterogeneous	30% Cellulose 5% Glass	60% Gypsum 5% Non-fibrous (Other)	None Detected
24-WB4-49-Joint Compound *161908657-0051B*	Center Of West Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-WB4-49-Tape *161908657-0051C*	Center Of West Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
24-WB4-50-Texture *161908657-0052* *Inseparable paint / coating layer included in analysis*	Northeast Ceiling Of East Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-WB4-50-Drywall *161908657-0052A*	Northeast Ceiling Of East Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	Brown/White Fibrous Heterogeneous	35% Cellulose 5% Glass	55% Gypsum 5% Non-fibrous (Other)	None Detected
24-WB4-50-Joint Compound *161908657-0052B*	Northeast Ceiling Of East Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-WB4-50-Tape *161908657-0052C*	Northeast Ceiling Of East Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	Brown/Gray Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
24-WB4-51-Texture *161908657-0053* *Inseparable paint / coating layer included in analysis*	Center Of North Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-WB4-51-Drywall *161908657-0053A*	Center Of North Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	Brown/White Fibrous Heterogeneous	30% Cellulose 5% Glass	65% Gypsum	None Detected

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Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
24-WB4-51-Joint Compound *161908657-0053B*	Center Of North Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-WB4-51-Tape *161908657-0053C*	Center Of North Wing - Throughout South Building - White Ceiling Texture w/Drywall Joint Compound & Tape	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
25-WB1-52-Drywall *161908657-0054*	Southwest Corner Of West Wing - East & West Wing Of South Building - White Drywall w/Joint Compound & Tape	Brown/White Fibrous Heterogeneous	30% Cellulose 5% Glass	60% Gypsum 5% Non-fibrous (Other)	None Detected
25-WB1-52-Joint Compound *161908657-0054A*	Southwest Corner Of West Wing - East & West Wing Of South Building - White Drywall w/Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-WB1-52-Tape *161908657-0054B*	Southwest Corner Of West Wing - East & West Wing Of South Building - White Drywall w/Joint Compound & Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
25-WB1-53-Drywall *161908657-0055*	Northeast Corner Of East Wing - East & West Wing Of South Building - White Drywall w/Joint Compound & Tape	Brown/White Fibrous Heterogeneous	25% Cellulose 5% Glass	60% Gypsum 10% Non-fibrous (Other)	None Detected
25-WB1-53-Joint Compound *161908657-0055A* *Inseparable paint / coating layer included in analysis*	Northeast Corner Of East Wing - East & West Wing Of South Building - White Drywall w/Joint Compound & Tape	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-WB1-53-Tape *161908657-0055B*	Northeast Corner Of East Wing - East & West Wing Of South Building - White Drywall w/Joint Compound & Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
26-RF3-54-Shingle *161908657-0056*	Center North Of Roof - Garage (South) - Black roofing Shingle w/Tar Paper	White/Black/Green Fibrous Heterogeneous	30% Glass	70% Non-fibrous (Other)	None Detected
26-RF3-54-Shingle *161908657-0056A*	Center North Of Roof - Garage (South) - Black roofing Shingle w/Tar Paper	Gray/Black Fibrous Heterogeneous	10% Glass	10% Quartz 80% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
26-RF3-54-Felt *161908657-0056B*	Center North Of Roof - Garage (South) - Black roofing Shingle w/Tar Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
26-RF3-55-Shingle *161908657-0057*	Center South Of Roof - Garage (South) - Black roofing Shingle w/Tar Paper	White/Black Fibrous Heterogeneous	30% Glass	10% Quartz 60% Non-fibrous (Other)	None Detected
26-RF3-55-Shingle *161908657-0057A*	Center South Of Roof - Garage (South) - Black roofing Shingle w/Tar Paper	Black Fibrous Heterogeneous	20% Glass	10% Quartz 70% Non-fibrous (Other)	None Detected
26-RF3-55-Felt *161908657-0057B*	Center South Of Roof - Garage (South) - Black roofing Shingle w/Tar Paper	Black Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
27-RF4-56 *161908657-0058*	North/East Side Of Roof - Grage (South) - Black Roofing Penetration Tar	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27-RF4-57 *161908657-0059*	Southeast Side Of Roof - Garage (South) - Black Roofing Penetration Tar	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-WB5-58-Paneling *161908657-0060*	South - Center Wall - Garage Wall (South) - Milk Board - Offwhite w/Adhesive	White Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
28-WB5-58-Mastic *161908657-0060A*	South - Center Wall - Garage Wall (South) - Milk Board - Offwhite w/Adhesive	Tan/Yellow Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
28-WB5-59-Paneling *161908657-0061*	North - Center Wall - Garage Wall (South) - Milk Board - Offwhite w/Adhesive	White Fibrous Homogeneous	15% Glass	85% Non-fibrous (Other)	None Detected
28-WB5-59-Mastic *161908657-0061A*	North - Center Wall - Garage Wall (South) - Milk Board - Offwhite w/Adhesive	Tan Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
Result includes a small amount of inseparable attached material					
29-PM2-60 *161908657-0062*	Southeast Side Of Garage Pipelines - Garage (South) - Red/Brown Gasket	Red Non-Fibrous Homogeneous	5% Glass	95% Non-fibrous (Other)	None Detected
29-PM2-61 *161908657-0063*	Southeast Side Of Garage Pipes - Garage (South) - Red/Brown Gasket	Red Non-Fibrous Homogeneous	5% Glass	95% Non-fibrous (Other)	None Detected

Initial report from: 05/10/2019 13:56:20

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Tel/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order:	161908657
Customer ID:	ACON77
Customer PO:	06197002
Project ID:	

Analyst(s)

Amanda Straw (48)
Ross Matlock (69)

Richard Harding, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. 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 or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. 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. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN NVLAP Lab Code 200188-0, AZ0939, CA 2575, CO AL-15132, TX 300262, LA 04135

Initial report from: 05/10/2019 13:56:20

Terracon

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 1619086 57

Select a Laboratory:

Lab Location: Indianapolis, IN 200188-0

Cedar Rapids: 2640 12th St., SW, Cedar Rapids, IA 52404 (319) 366 8321

Project Name:	Hawk-I Ready-Mix	Project Number:	~~06197002~~ 06177109C	Project Manager:	Kurt Nilsson
Project Address:	309 1st Avenue	City/State / Zip:	Coralville, Iowa	Email Results To:	Kurt.Nilsson@terracon.com

Site/Building: Hawk Ready Mix Buildings

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification[1]	Notes/Physical Condition[2]
01 - CA2 - 01	East main entrance door	Main Building - Doors - Exterior	white caulk	20 LF	F C1 (C2)	(G) D SD
01 - CA2 - 02	East main entrance door					
02 - CA1 - 03	West center window	Main Building - Windows - Exterior	Black window caulk	80 LF	F C1 (C2)	(G) D SD
02 - CA1 - 04	South window					
03 - CA3 - 05	South side of building behind power box	Main Building - Exterior	white wall caulk	20 LF	F C1 (C2)	(G) D SD
03 - CA3 - 06	South side of building behind power box					
04 - RF3 - 07	North-center side of roof	Main Building - Roof Exterior	Black Roofing shingles w/ tar paper	800 SF	F (C1) C2	G (D) SD
04 - RF3 - 08	South-center side of roof					
05 - FC1 - 09	North-center side of reception	Main building - Reception, office #1 + #2	Tan/Brown sheet flooring w/ paper backing	400 SF	F C1 C2 RACM	G (D) (SD)
05 - FC1 - 10	Southeast side of office #1					

Sampling Date: 5-7-19 Collected by (print): Alex Davis Inspector's Signature: [signature]

Relinquished by: Date/Time: Received by: [signature] Date/Time: 5/8/19 905

Analysis: PLM EPA 600/R-93/116 ☒ PLM 400 Point Count ☒ TEM ☐ Other _____ Instructions: Point Count less than or = to 3%

Turnaround Time (circle): 6 Hrs 24 Hrs 2 Days 3 Days (5 Days) Other _____ Terracon ARMS: ☐ Stop Positive: ☐ Number of samples: _____

[1] F = Friable; C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable: any materials other than Cat. I containing >1% asbestos

[2] G = Good (<1%); D = Damaged (<10% distributed or >25% localized); or SD = Significantly Damaged (>10% distributed or >25% localized)

OrderID: 161908657

Terracon

Asbestos Bulk Sample and Chain of Custody Form

Cedar Rapids: 2640 12th St., SW, Cedar Rapids, IA 52404 (319) 366 8321

Lab Order ID: 8657

Select a Laboratory:

Lab Location: Indianapolis, IN 200188-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
06-MG8-11	West side of office #1 entrance	Main Building - Throughout reception, office #1 + #2	Wood paneling wall adhesive - yellow	≈ 650 SF	F C1 (C2)	(G) D SD
06-MG8-12	West wall closet of office #2					
- -						
07-WB4-13	Center ceiling of reception area	Main Building Throughout reception, office #1 + #2	White ceiling texture w/ Drywall, joint compound + tape	400 SF	F C1 (C2)	G (D) SD
07-WB4-14	West ceiling side of reception area					
07-WB4-15	Center of office #1 ceiling					
08-WB4-16	Wall infront of southeast entrance	Main building - Throughout restroom, office #3, and Breakroom	White ceiling/wall texture w/ Drywall, joint compound + tape	~~400 SF~~ MS 1,100 SF	F C1 (C2)	G (D) SD
08-WB4-17	Ceiling south of southeast entrance					
08-WB4-18	Center ceiling of Bathroom					
08-WB4-19	West side of entrance to office #3 - wall	↓	↓	↓	F C1 (C2)	G (D) SD
~~08-WB4-20~~	~~East wall of Rec~~ Break room	MS				
- ~~21~~ MS						
09-AW2-21	Center of reception area	Throughout main office areas	White/yellow brown in insulation	800 SF	F C1 C2 RACM	G (D) SD
09-AW2-22	Center of restroom					
- -						
10-FC3-23	West side of southeast hallway	Southeast hallway + restroom of main building	Grey cove base w/ yellow/tan mastic	55 LF	F (C1) C2	(G) D SD
10-FC3-24	Southeast corner of restroom					
- -						

OrderID: 161908657

Terracon

Asbestos Bulk Sample and Chain of Custody Form

Cedar Rapids: 2640 12th St., SW, Cedar Rapids, IA 52404 (319) 366 8321

Lab Order ID: 8657

Select a Laboratory:

Lab Location: Indianapolis, IN 200188-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
11 - FC3 - 25	North wall of office #3	Main building - office #3 + breakroom	Black cove base w/ yellow/tan mastic	75 LF	F (C1) C2	(G) D SD
11 - FC3 - 26	South wall of breakroom					
12 - SC6 - 27	under sink in breakroom	Breakroom sink	White sink under coating	1 unit ~~(unknown quantity)~~ ms	F C1 (C2)	(G) D SD
12 - SC6 - 28	under sink in breakroom					
13 - PM2 - 29	West wall of plant area	Plant area of Main Building	Green Gasket	2 units (unknown quantity)	F C1 C2 RACM	(G) D SD
13 - PM2 - 30	West wall of plant area					
14 - M15 - 31	West wall of second floor of plant	Plant area of Main Building	yellow/silver foam insulation	7,000 SF	F C1 C2 RACM	G (D) SD
14 - M15 - 32	Ceiling of third floor in plant					
15 - M15 - 33	Pipe on southeast side of plant	Plant area of main building	Black foam insulation	50 LF	F C1 C2 RACM	G (D) SD
15 - M15 - 34	Pipe on southeast side of plant					
16 - P14 - 35	~~East~~ West side of plant area	Plant area of main building	~~Brown Gasket~~ Silver/white pipe wrap - Fiberglass	~~1 unit (unknown quantity)~~ ms 400 LF	F C1 C2 RACM	G (D) SD
16 - P14 - 36	North side of plant area on second floor					

OrderID: 161908657

Terracon

Asbestos Bulk Sample and Chain of Custody Form

Cedar Rapids: 2640 12th St., SW, Cedar Rapids, IA 52404 (319) 366 8321

Lab Order ID: 8657

Select a Laboratory:

Lab Location: Indianapolis, IN 200188-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
17 - PM2 - 37	West side of Plant area	Plant area of Main Building	Brown Gasket	1 unit visible	F C1 C2 RACM	G (D) SD
17 - PM2 - 38	West side of Plant area					
18 - CA3 - 39	West side of brick wall	South building exterior brick wall caulking	White wall caulking	10 LF	F C1 (C2)	(G) D SD
18 - CA3 - 40	West side of brick wall					
19 - CA2 - 41	North side of north wing entrance	Doors of south building Exterior	White door caulk	40 LF	F C1 (C2)	(G) D SD
19 - CA2 - 42	South side of west wing entrance					
20 - RF3 - 43	North side of roof	Roof of south building	Black roof shingles w/tar paper	750 LF	F (C1) C2	(G) D SD
20 - RF3 - 44	South side of roof					
21 - CA3 - 45	North wall concrete lining on roof	Roof lining of south building	Clear roof caulking	55 LF	F C1 (C2)	(G) D SD
21 - CA3 - 46	center of east wall on roof					
22 - AW2 - 47	East side of west wing	Throughout ceiling of south building	White blown in insulation	750 LF	F C1 C2 RACM	(G) D SD
22 - AW2 - 48	East side of west wing					

OrderID: 161908657

Terracon

Asbestos Bulk Sample and Chain of Custody Form

Cedar Rapids: 2640 12th St., SW, Cedar Rapids, IA 52404 (319) 366 8321

Lab Order ID: 8657

Select a Laboratory:

Lab Location: Indianapolis, IN 200188-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
23 - FC3 - 47	West wall of east wing	South building - East wing	White covebase w/ tan/yellow mastic	70 LF	F (C1) C2	G (D) SD
23 - FC3 - 48	East wall of east wing					
24 - WB4 - 49	Center of west wing	Throughout south building	White ceiling ~~wall~~ texture w/ Drywall joint compound + tape	750 SF	F C1 (C2)	(G) D SD
24 - WB4 - 50	Northeast ceiling of east wing					
24 - WB4 - 51	Center of North wing					
25 - WB1 - 52	Southwest corner of west wing	East + West wing of South building	white drywall w/ joint compound + tape	1,000 SF	F C1 (C2)	(G) D SD
25 - WB1 - 53	Northeast corner of east wing					
26 - RF3 - 54	Center north of roof	Garage (South)	Black roofing shingle w/ tar paper	575 SF	F (C1) C2	(G) D SD
26 - RF3 - 55	Center south of roof					
27 - RF4 - 56	~~East~~ North/ side of roof	Garage (south)	Black roofing penetration tar	5 LF	F (C1) C2	(G) D SD
27 - RF4 - 57	Southeast side of roof					
28 - WB5 - 58	South-center wall	Garage wall (south	MILK board - off white w/ adhesive	1,200 SF	F C1 (C2)	(G) D SD
28 - WB5 - 59	North-center wall					

OrderID: 161908657

Terracon

Asbestos Bulk Sample and Chain of Custody Form

Cedar Rapids: 2640 12th St., SW, Cedar Rapids, IA 52404 (319) 366 8321

Lab Order ID: 8657

Select a Laboratory:

Lab Location: Indianapolis, IN 200188-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
29-PM2-60	Southeast side of garage pipelines	garage (south)	Real/Brown gasket	4 units visible	F C1 C2 RACM	G D SD
29-PM2-61	Southeast side of garge pipes					
– –						
– –					F C1 C2	G D SD
– –						
– –						
– –					F C1 C2	G D SD
– –						
– –	ms					
– –					F C1 C2	G D SD
– –						
– –						
– –					F C1 C2	G D SD
– –						
– –						
– –					F C1 C2	G D SD
– –						
– –						

OrderID: 161908657

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Phone/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 161908657
Customer ID: ACON77
Customer PO: 06197002
Project ID:

Attention: Kurt Nilssan
Terracon Consultants, Inc.
2640 12th Street Southwest
Cedar Rapids, IA 52404

Phone: (319) 366-8321
Fax: (319) 366-0032
Received: 05/08/2019 9:05 AM
Analysis Date: 05/10/2019
Collected: 05/07/2019

Project: 06177109C / Hawk-I Ready Mix 309 1st Avenue, Coralville, Iowa

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure

			Non-Asbestos		Asbestos	
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**	
06-MG8-12 *161908657-0012*	West Wall Closet Of Office #2 - Main Building - Throughout - Office #1 & #2 - Wood Paneling Wall Adhesive - Yellow	Tan Non-Fibrous Homogeneous		99.75% Non-fibrous (Other)	**0.25%**	**Chrysotile**

Point Count performed on NOB material without gravimetric reduction at client request. Asbestos results may be under-reported.

Analyst(s)

Ross Matlock (1)

Richard Harding, Laboratory Manager
or other approved signatory

Disclaimer:Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government . EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis.The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN

Initial report from: 05/10/2019 16:50:11

APPENDIX D

SITE MAP

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager: KSN	Project No. 06177109C	Terracon Consulting Engineers & Scientists	Site Map
Drawn by: MMS	Scale: NTS	870 40th Avenue Bettendorf, Iowa 52722	Former Hawkeye Ready Mix
Checked by: MMS	File Name: --	PH. (563) 355 0707 FAX. (563) 355 4789	309 1st Avenue
Approved by: KSN	Date: MAY 2019		Coralville, Iowa

APPENDIX

D

APPENDIX E

PHOTOGRAPHIC DOCUMENTATION

Photo 1: Main office building and concrete batch plant.

Photo 2: Reception area inside the main office building.

Photo 3: Materials bin/ramp.

Photo 4: Tunnel in the loading structure, which was under water and could not be safely accessed.

Photo 5: Western side of the south building.

Photo 6: Garage building.

Photo 7: Area south of garage with tote tanks.

Photo 8: Two aboveground storage tanks south of the main building.

Photo 9: Aboveground storage tank and a tote tank east of the concrete ramp.

Photo 10: Tires stockpiled on the site.

Photo 11: Tires stored behind the south building.