



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7**

11201 Renner Boulevard  
Lenexa, Kansas 66219

Jul 19, 2022

**MEMORANDUM**

**SUBJECT:** Site-Specific Sampling and Analysis Plan (SSAP) for 413 10<sup>th</sup> Avenue South and 1000 South 4<sup>th</sup> Street, Clinton, Iowa - Approved

**FROM:** Diane Harris, Regional Quality Assurance Manager  
Laboratory Services and Applied Science Division

**DIANE  
HARRIS**

Digitally signed by DIANE  
HARRIS  
Date: 2022.07.19  
11:47:21 -05'00'

**TO:** Jennifer Morris, EPA Project Manager  
Brownfields, SMM, P2 and Redevelopment Branch  
Land, Chemical and Redevelopment Division

The review of the subject document prepared by Blackstone Environmental, Inc. for East Central Intergovernmental Association and dated June 15, 2022, has been completed according to "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations," EPA QA/R-5 March 2001. This document is a Property Specific Sampling and Analysis Plan to the Generic Quality Assurance Project Plan, United States Environmental Protection Agency-Region 7, Brownfields Assessment Grant: BF97782001 approved on March 22, 2021 (R7QAO Document No. 2021077) and includes an additional building to the previously approved Phase II ESA Work Plan, 1000-1006 South 4th Street, Clinton, Iowa approved on October 12, 2018 (R7QAO Document No. 2019003).

The document is approved. It complies with R-5 and addresses the key issues satisfactorily.

If you have any questions, please contact Rebecca Estep, Lead Reviewer, at x7598 or me at x7258.

R7QAO Document Number: 2022129



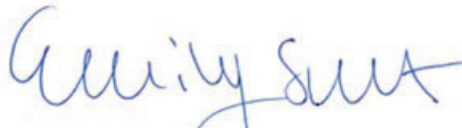
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**Site-Specific Sampling and Analysis Plan (SSAP)**  
**For**  
**Quality Assurance Project Plan**  
**EPA Region 7**  
**BROWNFIELDS ASSESSMENT GRANT**  
**ECIA**

June 15, 2022

**I. APPROVALS**

**Ia. BLACKSTONE  
PROJECT MANAGER**



June 15, 2022

EMILY SMART

DATE

**Ib. BLACKSTONE  
QA/QC REVIEWER**

  
KRISTA BRODERSEN

June 15, 2022

DATE

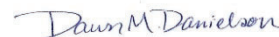
**Ic. ECIA  
QUALITY ASSURANCE OFFICER**

  
ELIZABETH KEMP

6/16/2022

DATE

**Id. ECIA  
PROJECT MANAGER**

  
DAWN DANIELSON

6/16/2022

DATE

**Ie. USEPA REGION 7  
PROJECT OFFICER**

JENNIFER MORRIS

Digitally signed by JENNIFER  
MORRIS

Date: 2022.06.22 10:47:36 -05'00'

JENNIFER MORRIS

DATE

**If. USEPA REGION 7  
QUALITY ASSURANCE MANAGER**

DIANE HARRIS

Digitally signed by DIANE  
HARRIS

Date: 2022.07.19 11:51:31 -05'00'

DIANE HARRIS

DATE

**RECEIVED**

06/22/2022  
2022129

## II. THIS QAPP AMENDMENT TO BE USED WITH:

**Project Plan:** BF97782001

**Data Quality Objectives and Generic Quality Assurance Project Plan dated April 7, 2021**

### **Attachments to the SSAP:**

1. Contractor Certifications
2. Contractor Health and Safety Plan (HASP)
3. Contractor Standard Operating Procedure (SOP)
4. Site Map
5. Anticipated Project Schedule
6. Example Chain-of Custody Forms

## III. IN-PROCESS ADJUSTMENTS, CLARIFICATIONS & CORRECTIVE ACTIONS

		Checklist Modification Location		Adjuster		Approval	
Date	QA/QC Notation No.	Section	Page	Initials	Date	Initials	Date
	1						
	2						

## IV. PROPERTY IDENTIFICATION

1. Facility (Property) Name:  
Keis Property
2. Parcel Numbers:  
8059700000  
Common Address:  
413 10<sup>th</sup> Avenue South and  
1000 South 4<sup>th</sup> Street  
Clinton, Iowa 52732
3. Project ID Number:  
3280
4. Access Agreement Signed by Owner(s):  
Yes

5. Have Property Conditions changed since Phase I ESA?

At the time of the 2018 Phase I ESA, the portion of the property addressed as 1000 South 4<sup>th</sup> Street was used for siding storage and had debris and old equipment within. The building is currently not occupied. The building located at 413 10<sup>th</sup> Avenue South was not assessed during the 2018 Phase I ESA. A Phase I ESA for both locations is currently underway.

Primary Land Use Categories: The subject property is developed with two buildings. One building is a 6,660 square foot metal warehouse that was constructed in 1976 that is occupied by Central Siding Company (home improvement distributor). The second building was constructed between 1864 and 1900 and is approximately 4,400 square feet in area, two-stories, and was formerly used for retail purposes on the first floor and apartments on the second floor. Plans for the property are to raze the buildings and redevelop the property.

## **V. PREVIOUS ACTIVITIES**

A Phase I ESA and a Phase II ESA were conducted in 2018. The reports investigated properties addressed as 1000 – 1006 South 4<sup>th</sup> Street in Clinton, Iowa. The reports include the Site building located along South 4<sup>th</sup> Street that was formerly addressed as 1000 South 4<sup>th</sup> Street. They do not, however, include the building addressed as 413 10<sup>th</sup> Avenue South.

The Phase I ESA was conducted by Impact 7G for the City of Clinton and was dated February 28, 2018. The report stated that the building addressed as 1000 South 4<sup>th</sup> Street was constructed in approximately 1864. A vent pipe and fill port typically associated with underground storage tanks (USTs) was observed in the basement of the building. Information regarding the date of installation or use was not identified, but it was assumed to be a heating oil UST. A brick-lined well or cistern was also identified in the basement that was filled with historic debris. The suspected UST and cistern were identified as RECs. The report also identified 413 10<sup>th</sup> Avenue South as a REC as it was identified as a former auto repair/auto sales shop from 1987 through 1992. Additional investigation was recommended to assess the identified RECs.

The Phase II ESA was conducted by Impact 7G for ECIA to assess the RECs in the Phase I ESA and was dated December 12, 2018. According to the report, due to Site constraints, soil samples were not collected from the area of the UST and cistern. Two borings were advanced near 1000 South 4<sup>th</sup> Street to the east and west of the building. The borings were advanced to 11 feet below ground surface (bgs) when refusal was encountered. Groundwater was not encountered in the borings. Soil samples were collected from the borings at depths of between 0 and 2 feet bgs for the analysis of Resource Conservation and Recovery Act (RCRA) 8 metals and 7 to 9 feet bgs for the analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and total extractable hydrocarbons (TEH). VOCs, SVOCs, and TEH were not detected at concentrations above the laboratory detection limit. RCRA 8 metals were detected in the

samples at concentrations below the Iowa Statewide Standards. No further action was recommended.

## **VI. PURPOSE OF SAMPLING**

The City of Clinton is seeking redevelopment opportunities for the property and is planning to demolish the two buildings. In support of this initiative, the presence of asbestos containing material (ACM) will be assessed at the buildings.

## **VII. PROPERTY-SPECIFIC SAMPLING DESIGN(S)**

Asbestos survey field methods will follow procedures specified in the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations; Guidance for Controlling Asbestos Containing Materials in Buildings and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA). Survey data will be recorded in a field logbook or on field forms, and photographs will be taken to document suspect ACM.

ACM will be sampled on both the interior and exterior of the structure by an AHERA Certified Asbestos Inspector. Sampling of the roofing material is anticipated at this time as the buildings are planned for demolition. The samples will be properly preserved and stored until they reach the laboratory by placing the materials into individual labeled and sealed plastic bags. ACM material testing areas will not be repaired. Based on the size of the buildings, it is anticipated that approximately 85 samples will be collected for laboratory analysis. The samples will be sent to a National Voluntary Laboratory Accreditation Program (NVLAP) lab for analysis. Analysis of the samples will be performed using polarized light microscopy (PLM) with dispersion staining. Samples that are found to contain <1% asbestos will be further analyzed by 1000-point count in accordance with the EPA test method for determination of asbestos in bulk samples, EPA/600/R-93/116. Samples that contain >1% asbestos do not require further analysis and will be considered ACMs for purposes of future abatement.

See Attachment 3 for Standard Operating Procedures.

## **VIII. CHEMICAL ANALYSES SAMPLE PARAMETERS/BOTTLES**

Bulk ACM samples will be placed into individual labeled and sealed plastic bags. The bulk samples will be submitted to EMLab P&K in Arvada, Colorado. EMLab P&K is accredited by the American Industrial Hygiene Association (AIHA), laboratory number 102297, and is certified through the EPA National Voluntary Laboratory Accreditation Program (NVLAP) for Bulk Asbestos Fiber Analysis (NVLAP Lab Code 500031-0). Samples will be analyzed by Polarized Light Microscopy (PLM) as outlined in the EPA 600/R-93/116 Method. The laboratory provides the approximate percentage of asbestos fibers in the sample and identifies the crystal form of the asbestos. Samples that are found to contain <1% asbestos fibers will be further analyzed by 1000-point count in accordance with the EPA test method.

An example Chain-of-Custody form is provided in Attachment 6.

#### **IX. EQUIPMENT LIST**

Special equipment is not anticipated beyond the use of standard hand tools. Sampling personnel will wear clean nitrile gloves for the collection of samples. Gloves will be changed between sample locations.

#### **X. HEALTH AND SAFETY**

See Attachment 2.

#### **XI. UNANTICIPATED DEVIATIONS FROM DQO/QAPP REFERENCED**

**Variance:** None

**Necessity To Brownfields Study:** The proposed efforts are consistent with the approved Data Quality Objectives and Quality Assurance Project Plan (DQO/QAPP) objectives to evaluate the risk and feasibility of redevelopment options for the subject property.

#### **XII. FIELD OPERATIONS**

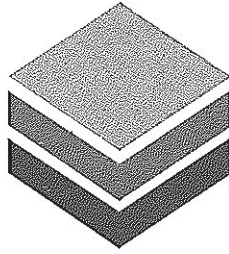
See Attachment 3.

#### **XIII. QUALITY CONTROL CHECKS**

Typical QA/QC procedures do not directly apply to asbestos sampling due to the nature of the analyses. Use of a certified laboratory is intended to address data quality concerns as indicated in the generic QAPP text.

See Attachment 1 for Contractor Certifications.

**Attachment 1**  
**Contractor Certifications**



**M·E·T·A**  
Mayhew Environmental Training Associates  
**I N C O R P O R A T E D**

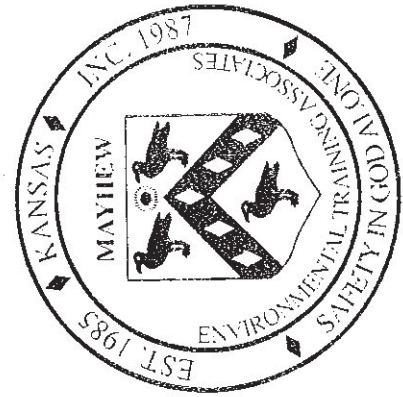
Certificate # O6FSK483HSTX

**Tyler Sundell**

has on 1/24/2020, in Lawrence, KS  
completed the requirements for asbestos accreditation under Section 206 of TSCA Title II, 15 USC 2646

**Asbestos Building Inspector Initial**

as approved by MO & the US EPA under 40 CFR 763 (AHERA) from 1/22/2020 to 1/24/2020  
and  
passed the associated exam on 1/24/2020 with a score of at least 70%

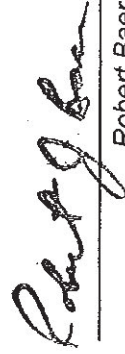


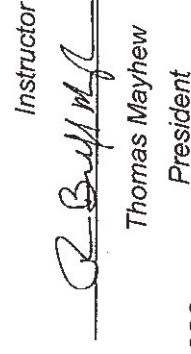
SSN: XXX-XX-9850

Expiration: 1/24/2021

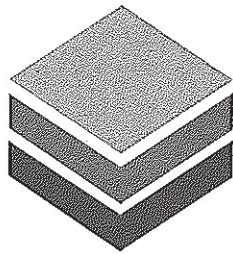
P.O. Box 786 - Lawrence, KS. 66044 - 800.444.6382

[www.metaenvironmental.net](http://www.metaenvironmental.net)

  
Robert Baer  
Instructor

  
Thomas Mayhew  
President





**M·E·T·A**  
Mayhew Environmental Training Associates  
I N C O R P O R A T E D

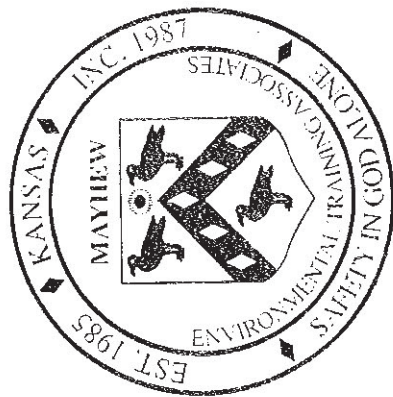
Certificate # CFHDDBM1LV1Q

**Tyler Sundell**

*has on 1/24/2020, in Lawrence, KS taken the*


## MO Asbestos Regulations Exam


*And passed the associated exam with a score of at least 70%*



SSN: XXX-XX-9850

P.O. Box 786 - Lawrence, KS. 66044 - 800.444.6382  
[www.metaenvironmental.net](http://www.metaenvironmental.net)

  
Robert Baer  
Instructor

  
Thomas Mayhew  
President



**M·E·T·A**  
Mayhew Environmental Training Associates  
I N C O R P O R A T E D

Certificate # 130XZLBYUVS

## Tyler Sundell

has on 3/23/2021, in Lawrence, KS via Zoom  
completed the requirements for asbestos accreditation under Section 206 of TSCA Title II, 15 USC 2646

### Asbestos Inspector Refresher

as approved by MO & the US EPA under 40 CFR 763 (AHERA) from 3/23/2021 to 3/23/2021  
and  
passed the associated exam on 3/23/2021 with a score of at least 70%



P.O. Box 786

SSN: XXX-XX-9850

Expiration: 3/23/2022

- Lawrence, KS. 66044

- 800.444.6382

[www.metaenvironmental.net](http://www.metaenvironmental.net)

Robert Brooks

Instructor

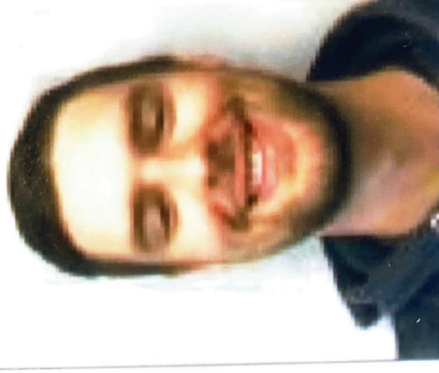
Thomas Mayhew

President

**JACK MURPHY**

**DOB: 07-20-1998**

**Issued: 01-14-2022**



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.



2200 Vandalla Street, Collinsville, IL 62234 \* Phone: 618-855-8764

Environmental and Occupational Safety & Health Training

*Does hereby certify*

**Jack Murphy**

16200 Foster Street, Overland Park, KS 66085



*Has successfully completed and passed the course examination with at least  
70% for accreditation under AHERA (Title II)*

**Asbestos Building Inspector Initial**

**Class Date:** 11/08-10/2021  
**Examination Date:** 11/10/2021  
**STC Certificate Number:** STC-20211110-000600ABII  
**Certification Expiration:** 11/10/2022

*David M. Mendoza*  
David M. Mendoza – President/Training Director  
Certified Environmental Specialist  
OSHA Authorized Instructor

This training course is accredited by the Illinois Department of Public Health and the Missouri Department of Natural Resources

**Attachment 2**  
**Contractor HASP**

**SITE-SPECIFIC HEALTH AND SAFETY PLAN****Project No.** 3280**Client:** ECIA**Date** June 15, 2022**Address** 413 10<sup>th</sup> Avenue South and 1000  
South 4<sup>th</sup> Street  
Clinton Iowa, Iowa 52732**Site Contact** Dawn Danielson**Office/Cell Phone No.** (563) 690-5772**Job Location** 413 10<sup>th</sup> Avenue South and 1000 South 4<sup>th</sup> Street, Clinton, Iowa 52732**Work Objectives** Asbestos survey**Key Individuals: Project Manager** Krista Brodersen**Site Health and Safety** Tyler Sundell**Prepared by** Jack Murphy**Reviewer/Approver**Krista Brodersen**Hospital/Clinic** MercyOne Clinton Medical Center**Phone No.** (563) 244-5555**Address:** 1410 North 4<sup>th</sup> Street, Clinton, Iowa 52732**Paramedic** 911 **Fire Dept.** 911 **Police Dept.** 911**Emergency/Contingency Plans:** In the event of an emergency, dial 911. Provide first aid, transport to hospital or request ambulance, depending on severity of injury. Also notify Krista Brodersen or Megan Ostrand.**15 Minute Eyewash** \_\_\_\_\_ **Fire Extinguisher** required **First Aid Kit** required**Site Control Measures:** Wear reflective vests and mark work zone with safety triangles/cones. Blackstone anticipates performing fieldwork in a USEPA Level D work uniform consisting of hard hats, safety glasses, protective gloves, and steel-toed boots. Asbestos sampling will be conducted while wearing a half-face National Institute for Occupational Safety and Health (NIOSH)-approved respirator for asbestos exposure.**Personal Decontamination Procedures:** If needed, soap and water cleaning on non-disposable personal protective equipment (PPE) and clothing. Proper disposal of other PPE, such as sampling gloves.**Sampling Equipment Decontamination Procedures:** Sampling equipment will be decontaminated before beginning the investigation and between each sampling point using a non-phosphate soap wash followed by a potable water rinse.

### EMERGENCY CONTACT INFORMATION

**911**

LOCAL LAW ENFORCEMENT
Name: <u>Clinton Police Department</u> Address: <u>113 6<sup>th</sup> Avenue South</u> City: <u>Clinton</u> State: <u>Iowa</u> Telephone: <u>(563) 243-1458</u>
LOCAL FIRE DEPARTMENT
Name: <u>Clinton Fire Department</u> Address: <u>344 3<sup>rd</sup> Avenue South</u> City: <u>Clinton</u> State: <u>Iowa</u> Telephone: <u>(563) 242-0125</u>
NEAREST HOSPITAL or MEDICAL FACILITY
Name: <u>MercyOne Clinton Medical Center</u> Address: <u>1410 North 4<sup>th</sup> Street</u> City: <u>Clinton</u> State: <u>Iowa</u> Telephone: <u>(563) 244-5555</u> <b>MAP with DIRECTIONS is attached</b>
HAZ MAT
<b>1-800-424-8802</b>
POISON CONTROL
<b>1-800-955-9119</b>
OSHA (In case of emergency call)
<b>1-800-321-OSHA</b>
CLIENT CONTACT
<div style="display: flex; justify-content: space-between;"> <span><b>Name: Dawn Danielson</b></span> <span><b>Phone #: (563) 690-5772</b></span> </div>
BLACKSTONE PROJECT MANAGER
<div style="display: flex; justify-content: space-between;"> <span><b>Name: Krista Brodersen</b></span> <span><b>Phone #: (309) 798-3487</b></span> </div>
BLACKSTONE FIELD MANAGER/SITE HEALTH AND SAFETY
<div style="display: flex; justify-content: space-between;"> <span><b>Name: Tyler Sundell</b></span> <span><b>Phone #: (573) 528-0949</b></span> </div>





## Job Safety Analysis and PPE Assessment

Complete a "hazard assessment" of the workplace to identify and control chemical, physical, biological, and other health hazards.

Job Safety Analysis and PPE Assessment Form			
Task Type (Check all that apply)	Engineering Services	Task Description (include estimate of task duration in hours/day) Asbestos	Location or Project: 413 10 <sup>th</sup> Avenue South and 1000 South 4 <sup>th</sup> Street Clinton, Iowa
			Date: June 15, 2022
			Project #: 3280
Analysis Team Member		Position Title	Reviewed by
Jack Murphy		Environmental Scientist	Krista Brodersen Senior Project Manager
Tyler Sundell		Environmental Geologist	
Special Training Required: HAZWOPER 40-hour Asbestos Inspector Certification			

Job Task Step	Potential Environmental and Personal Hazards	Critical Actions	PPE Required
1. Pre-Mobilization	Standard office protocols for COVID-19. Review Blackstone Asbestos Program, and Ladders and Stairways Protocol.	Review Blackstone COVID-19 Protocol. Determine if additional state or local protocols are applicable.	Mask, gloves, disinfectant, and hand sanitizer, as appropriate.



Job Task Step	Potential Environmental and Personal Hazards	Critical Actions	PPE Required
		<p>Stay up to date on COVID-19 infection rates/situation for area where project is located.</p> <p>Contact parties involved to ensure adherence to strict COVID-19 protocols.</p> <p>Gather appropriate PPE for project including additional PPE for COVID-19 protection.</p>	
2. Mobilization	Standard Blackstone travel protocols for COVID-19.	<p>If using a shared vehicle, follow protocols for disinfecting vehicle prior to use.</p> <p>Wear masks if more than one Blackstone team member or if with clients traveling to project site.</p>	Mask, gloves, disinfectant, and hand sanitizer, as appropriate. Sunglasses.
3. Asbestos Inspection/Sampling	<p>Slip/trip/fall</p> <p>Cold stress</p> <p>Chemical exposure – inhalation of asbestos</p>	<p>Survey work area for hazards.</p> <p>Wear layers of loose-fitting, insulating clothing, waterproof if necessary.</p> <p>Wear protective clothing and NIOSH-approved respirator while collecting asbestos samples for laboratory analysis.</p>	<p>Head: Hard hat</p> <p>Body: Work clothes and High-Vis Vest</p> <p>Foot: Steel-toed boots</p> <p>Hand: Nitrile gloves</p> <p>Eyes: Safety glasses</p> <p>Face: Half-face respirator</p>

### CHEMICAL HAZARDS

Chemical	Exposure Routes	PEL/ TLV	Hazard
Dust and particulates	Inhalation, skin, and/or eye contact	PEL: TWA 15 mg/m <sup>3</sup> (total) TWA 5 mg/m <sup>3</sup> (resp)	Irritation eyes, skin, throat, and upper respiratory system. Avoid visible emissions.
Asbestos	Inhalation	TWA 0.1 fiber/m <sup>3</sup> (8 hours)  EL 1.0 fiber/m <sup>3</sup> (30 min)	Long-term exposure to asbestos can cause lung cancer and mesothelioma, asbestosis, and Pleural disease.

### PHYSICAL HAZARDS

☒ Heat      ☒ Slip, Trip, Fall      ☐ Excavations/Trench  
☒ Cold      ☐ Electrical Hazards      ☐ Moving Equipment  
☒ Wet      ☐ Underground Hazards      ☐ Confined Space  
  
☐ Noise      ☐ Overhead Hazards  
☐ Other

### PERSONAL PROTECTIVE EQUIPMENT

R = Required

A = As Needed

☒ A Hard Hat      ☒ R Safety Eye gear: glasses  
☒ R Safety Boots      ☒ A Respirator (Type): Full-face ☐ Half-face ☒ X  
☒ R Reflective Vest      ☒ A Filter Type: Organic vapor ☐ HEPA ☒ X  
☒ A Hearing Protection      ☒ R Gloves (Type): Neoprene ☐ PVC ☒ Nitrile  
☐ Tyvek Coveralls      ☒ R Other: Mobile phone  
☐ 5 Minute Escape Respirator

### MONITORING/SAMPLELINE EQUIPMENT

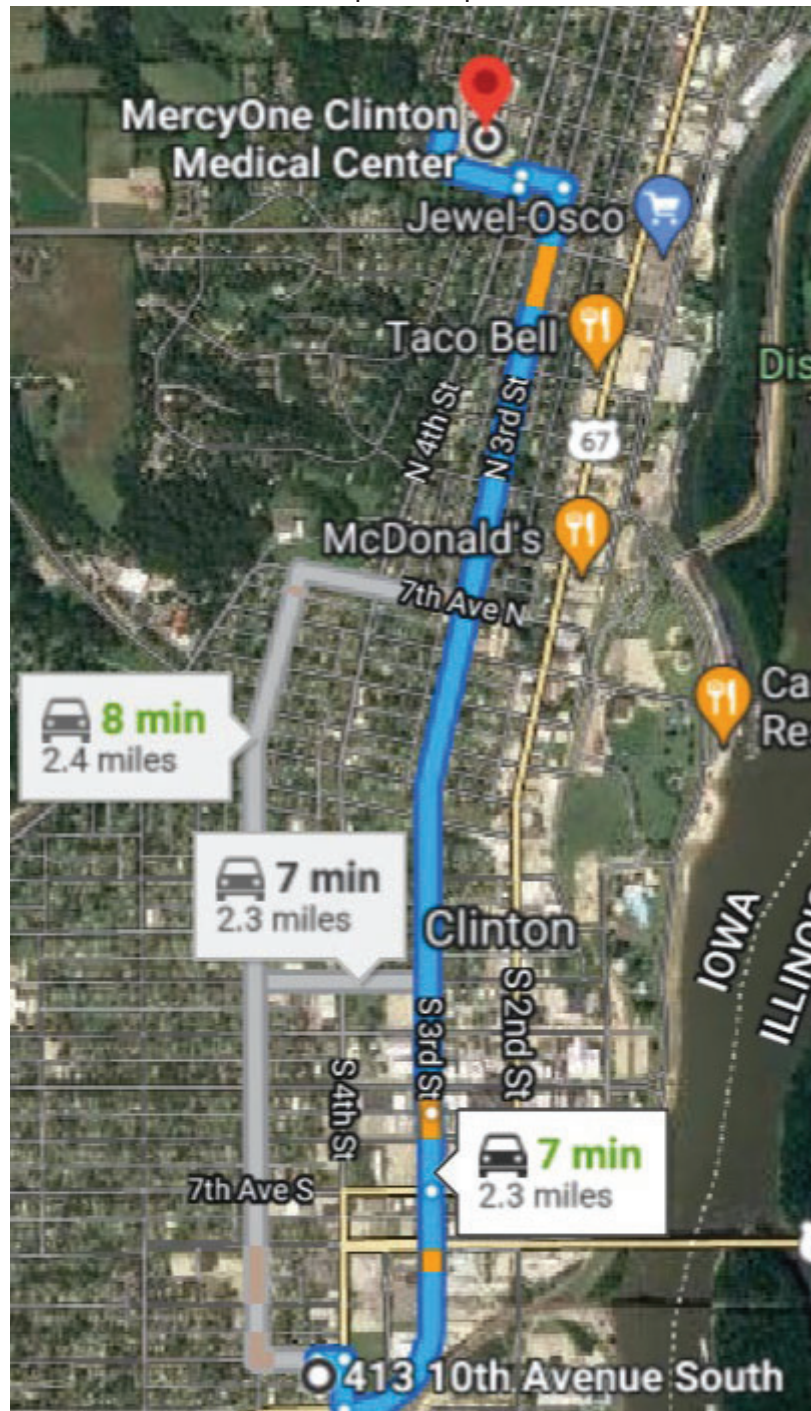
☐ Organic Vapor      ☐ PID with lamp of \_\_\_\_\_  
☐ Analyzer (FID)  
☐ Oxygen Meter      ☐ Detector Tube (specify) \_\_\_\_\_  
☐ Combustible Gas      ☐ Passive Dosimeter  
☐ Meter  
☐ H<sub>2</sub>S Meter      ☐ Air Sampling Pump  
☐ W. B. G. T.      ☐ Filter Media \_\_\_\_\_  
☐ Olympus Delta Hand-Held XRF

**BIOLOGICAL HAZARDS**

- ☐ Insects (e.g., mosquitos, chiggers, spiders, bees, wasps)
- ☐ Poisonous Plants (poison ivy, poison oak)
- ☐ Animals (Rabid Animals, Dogs)
- ☒ Other COVID-19

**REVIEW COVID-19 TRAVEL AND HOTEL PROTOCOLS INCLUDED AS AN ATTACHMENT  
TO THIS DOCUMENT**

Map to Hospital



## DIRECTIONS




**7 min** (2.3 miles)

via S 3rd St

Fastest route now due to traffic conditions

**413 10th Ave S**

Clinton, IA 52732

-  Head east on 10th Ave S toward S 4th St  
9 s (210 ft)
-  Follow S 3rd St to 14th Ave N  
7 min (2.1 mi)
-  Continue on 14th Ave N to your destination  
49 s (0.2 mi)

**MercyOne Clinton Medical Center**

1410 N 4th St, Clinton, IA 52732



**ASBESTOS SURVEY  
ONSITE SAFETY MEETING ATTENDEES**

[illegible]

# ASBESTOS

## I. INTRODUCTION

Asbestos is a naturally occurring mineral found throughout the world. The mineral is concentrated in a few areas in the world and was mined in those areas extensively. Asbestos and asbestos containing materials (ACM) have excellent insulation properties, sound absorbing properties and heat resistant properties. Asbestos has been used for thousands of years but its use greatly increased with the advent of the industrial revolution. The most common forms of asbestos are:

1. Chrysotile, a serpentine form
2. Amosite, an amphibole form
3. Crocidolite, an amphibole form

Three other forms of asbestos are Anthopholite, Actinolite, and Tremolite. All three of these forms are of the Amphibole form.

Asbestos was processed into many forms and uses. Asbestos materials and ACM can be found in hundreds of applications including building insulation, fire proofing materials, gaskets, fire blankets, electrical wiring, caulk, and cementitious materials such as siding. In this society and after decades of removal efforts, asbestos and ACM are still present and occupational exposure is always a potential health threat. Each person must be aware of the uses of asbestos and if they suspect ACM is present, do not disturb the material and notify your supervisor.

## II. TYPES OF ACM

ACM is categorized as friable and non-friable. Friable ACM can be easily crushed by the hand. This form generates thousands of fibers and can result in elevated exposure to the person breathing the air with the fibers. Non-friable ACM cannot be crushed easily with the hand. Cementitious materials, floor tile and mastic are examples of non-friable ACM. Friable ACM will release fibers when disturbed. A disturbance can be by gravity, wind, vibration and physical contact. As friable ACM ages, it becomes more friable and releases more fibers over time.



### **III. EXPOSURE AND HEALTH THREATS**

Asbestos fibers are very small and can easily enter the body by inhalation. Currently, the greatest health threat is by inhalation with a small threat by ingestion. Asbestos fibers are known to cause asbestosis, lung cancer and mesothelioma, another form of cancer. Asbestos fibers can also cause pleural plaque which is a scarred tissue on the lining of the lung. These diseases can have a latency period of 30-50 years. A person can be exposed to asbestos fibers and the disease can set in 30-50 years after the exposure.

### **IV. SAFEGUARDS FOR HANDLING ACM**

It is important to handle ACM properly to prevent fiber release. In order for personnel to handle ACM properly, there are several training topics to be covered. Among these are:

- Health Impacts
- Routes of Exposure
- Personal Protective Equipment
- Proper handling
- Exposure monitoring
- Respiratory protection and selection
- Abatement procedures
- Transportation procedures
- Regulatory Requirements

### **V. TRAINING**

Training must be conducted to educate personnel on recognition, handling, and avoidance of ACM. Management must learn the regulatory requirements and insure that employees meet the requirements. For employees that may encounter ACM, the minimum training will be a two-hour session on awareness of the hazards of asbestos, avoidance of ACM and reporting of suspect or known ACM as well as the topic listed above in Section IV. For employees who will participate in assessing the presence of asbestos (commonly referred to as an inspection) or removal of ACM (commonly called abatement), the training will meet the EPA and State requirements. Asbestos related training will be given before an employee begins field work. The awareness training will be provided annually.



## **VI. EXPOSURE MONITORING**

Exposure monitoring is the process in which the potential exposure to asbestos fibers in the work area is determined. Exposure monitoring is conducted with battery operated pumps and a filter type cassette. The sampling is normally conducted over a full shift of 8 hours. The results of the personnel exposure monitoring will be conducted with the current OSHA Permissible Exposure Level (PEL) which is 0.1 fibers per cubic centimeter (f/cc) time-weighted-averaged over 8 hours in year 2015. Air monitoring procedures will meet OSHA Method ID-160 or NIOSH Method 7400 or 7402.

For short term exposure the excursion value of 1 f/cc time-weight-averaged over 30 minutes will be used for regulatory comparison.

Air monitoring records shall be kept and not destroyed for the lifetime of the company.

## **VII. PERSONAL PROTECTIVE EQUIPMENT**

Personal protective Equipment (PPE) refers to clothing and safety equipment and respirators.

Respirator protection consisting of a half face or full-face air purifying respirator will be used when exposure to asbestos is possible. Type 100 cartridges will be used. If an employee uses a respirator, the company must have a written respiratory protection program, the employee must be involved in a medical surveillance program and annual fit testing and training must be completed.

The company will comply with the respiratory regulation 29 CFR 1910.134 or 29 CFR 1926.1101.

If the employee may be in contact with ACM, the employee shall wear protective clothing consisting of 1) a woven suit or a polycoated suit, 2) boots and 3) gloves. The suit and gloves will be disposable. If protective clothing is used, decontamination shall be implemented.

## **VIII. DECONTAMINATION**

If PPE is used, then decontamination must occur. The decontamination process depends on the PPE used. Decontamination may range from disposal of a suit, gloves, and washing the boots and respirator to a full decontamination process. Before any

person enters a controlled area where ACM is suspected or known to be present, a decontamination line must be created and built. The factors affecting a decontamination line creation are given in the applicable regulations.

## **IX. MEDICAL SURVEILLANCE**

All employees who will be working with suspected or known ACM must participate in a medical surveillance program. The medical examinations shall be provided to the employees at no cost to the employee. Medical examines will be provided annually. A licensed physician shall guide the examination and may provide the examination. An examination shall be provided at the beginning of employment which may involve exposure to ACM, periodically during employment and at the end of employment of exposure to ACM. The physician and company health and safety officer shall determine the medical test to be completed. Medical tests required by the regulations shall be completed. These tests may include medical test of the respiratory system, cardiovascular system, digestive tract, chest x-ray, and a pulmonary function test. A medical questionnaire will be completed by the employee for the physician's evaluation.

The company will provide the physician with information about the employee's job tasks, the potential exposure to ACM, and the PPE worn by the employee.

The physician shall provide a written, signed opinion regarding the examination including at least 1) the employee's ability to perform the job tasks, 2) any limitations on the employee, and 3) the employee's use of a respirator. The written opinion must state that the employee has been informed of the results of the examination by the physician. The written opinion may not disclose any medical condition.

Medical records must be kept until 30 years after the start of employment.

## **APPENDIX B**

### **BLACKSTONE COVID-19 TRAVEL AND HOTEL PROTOCOL**

#### **I. INTRODUCTION**

Coronavirus disease (COVID-19) is an infectious disease caused by a new virus. The disease causes respiratory illness with symptoms such as a cough, fever, and in more severe cases, difficulty breathing. Coronavirus spreads primarily through contact with an infected person when they cough or sneeze. It also spreads when a person touches a surface or object that has the virus on it, then touches their eyes, nose, or mouth. You can protect yourself by washing your hands frequently, avoiding touching your face, and avoiding close contact (6 feet) with people. Blackstone has implemented this protocol to limit the exposure of employees while traveling and staying in hotels for company business. This protocol will be re-evaluated and updated often as new information about the disease, travel guidelines and other public health measures is released.

#### **II. TRAVEL PROTOCOLS**

##### **A. Travel Safety**

Blackstone employees will follow the following best practices while traveling for Blackstone related business:

- Work with the Blackstone Health and Safety Officer to prepare a site-specific health and safety plan for each project prior to initiating field work;
- Blackstone personnel will either travel in separate vehicles to project sites or will wear masks while traveling in a vehicle together to project sites;
- For those sharing work vehicles, it is important to follow appropriate disinfecting guidelines which involve wiping down vehicle surfaces such as door handles, steering wheels, controls, etc. with disinfecting wipes or some other type of COVID-19 killing disinfectant spray (see Section C) both before use and after use, just to make sure we are taking all appropriate precautions;
- Always wear PPE (mask and nitrile gloves) where there is an elevated potential to contract the virus;
- Limit public interaction as much as possible and maintain a 6-foot distance when interactions are unavoidable;

**Attachment 3**  
**Contractor SOP**

## **Standard Operating Procedures - Asbestos Containing Materials Survey**

### **Asbestos Containing Materials (ACM) Survey**

Asbestos survey field methods will follow procedures specified in the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations; Guidance for Controlling Asbestos Containing Materials in Buildings and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA). Survey data will be recorded in a field logbook or on field forms, and photographs will be taken to document suspect ACM.

An AHERA Certified Asbestos Inspector will conduct a building asbestos inspection. Based on the size of the buildings, it is anticipated that up to 85 samples will be collected for laboratory analysis. The samples will be preserved and stored until they reach the laboratory. The samples will be sent to a National Voluntary Laboratory Accreditation Program (NVLAP) laboratory for analysis. Analysis of the samples will be performed using polarized light microscopy (PLM) with dispersion staining in accordance with the Environmental Protection Agency (EPA) test method for determination of asbestos in bulk samples, EPA/600/R- 93/116.

The team will use various tools such as box cutters, screwdrivers, hammers, a ladder, and pocketknives to collect ACM samples using the wet method for friable materials. Non-disposable sampling equipment will be decontaminated between sampling locations.

During the inspection, presumed ACM will be assessed for friability and physical condition when sampled. Each sample collected will be recorded and include which of the following three categories the sampled material falls into:

1. Surfacing Materials – Interior ACM that has been sprayed on, troweled on, or otherwise applied to surfaces for acoustical, decorative, fireproofing, or other purposes.
2. Thermal System Insulation (TSI) – Insulation used to control heat transfer or prevent condensation on pipes and pipe fittings, boilers, breeching, tanks, ducts, and other parts of hot- and cold-water systems, and heating, ventilation, and air conditioning (HVAC).
3. Miscellaneous Materials – Other, mostly non-friable products and materials found on structural components, structural members or fixtures, such as floor tile, ceiling tile, construction mastic for floor and ceiling materials, sheet flooring, fire doors, etc.

In accordance with NESHAPs, the sampler's discretion will be used to determine the number of samples to be collected of suspect ACM.

A floor map annotating the locations of the collected ACM samples will be provided. Measures will be taken by the asbestos inspector during the asbestos sampling to prevent an asbestos release. The asbestos inspector shall follow necessary regulatory sampling protocols to prevent asbestos fibers being released into the air.

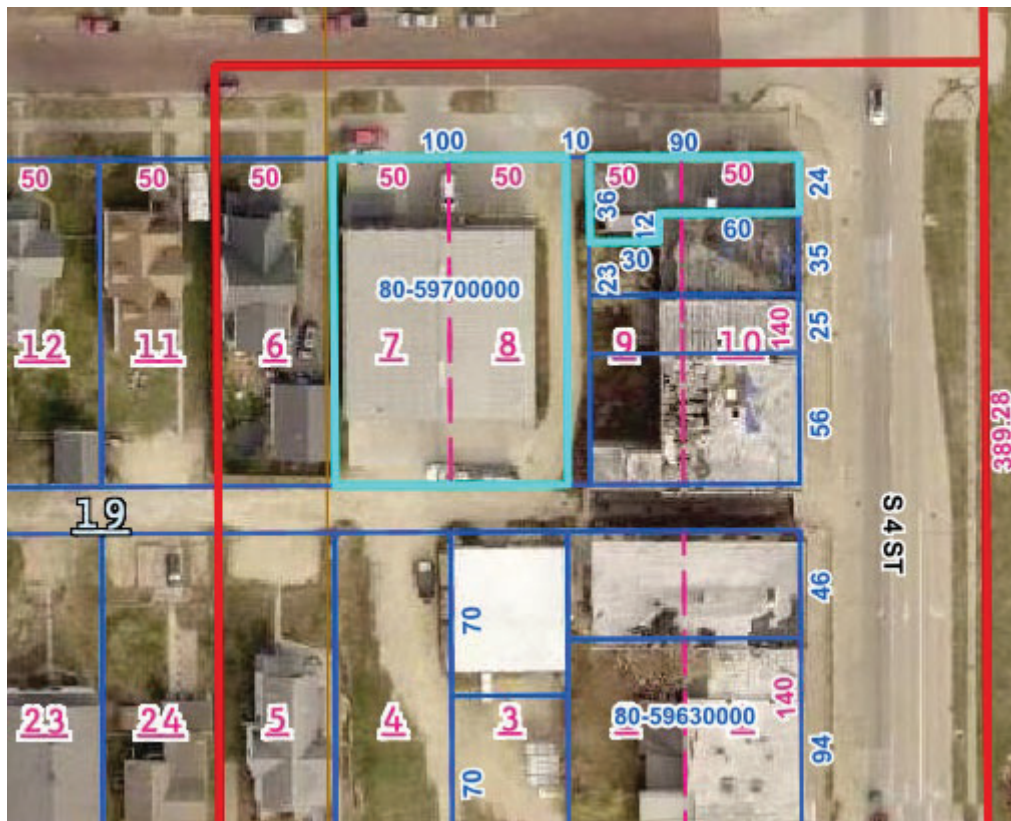
An Operations and Maintenance Plan (O&M) Plan will be prepared for the Site under the following conditions:

- If suspect ACM cannot be sampled due to an inaccessible location, it is not planned for renovation or demolition, or other reason.
- If ACM is identified through sampling but is not able to be abated due to its location (e.g., pipe wrap, inside boiler, etc.) or not planned for renovation or demolition.

The suspect ACM/confirmed ACM will be assumed to contain asbestos and included in the O&M Plan.

The O&M Plan will detail a plan of training, cleaning, work practices, and surveillance to maintain suspect and known ACM within the building in good condition. The O&M Plan will include work practices to maintain ACM in good condition, ensure cleanup of asbestos fibers previously released, prevent future releases, and monitor the suspect and known ACM condition.

Attachment 4  
Site Map



**Attachment 5**  
**Anticipated Project Schedule**

- 1. Field Sampling Completed within three weeks of EPA approval**
- 2. Receipt of Analytical Data within two weeks of sampling**
- 3. ACM Report Issued within two weeks of receiving final analytical results**



**Attachment 6**  
**Example Chain-of-Custody**

## ASBESTOS ANALYSIS

**REQUESTED SERVICES** (Check boxes below)

1

PLMPLM

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OtherDATE & TIMERECEIVED BYDATE & TIMERELINQUISHED BY

## SAMPLE TYPE CODES

A - Air	W - Wipe
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B - Bulk	T - Tape
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D – Dust	R – Rock
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SO - Soil	0 - Other:

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