



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

US EPA RECORDS CENTER REGION 5



FEB 28 2019

REPLY TO THE ATTENTION OF:

MEMORANDUM

SUBJECT: ACTION MEMORANDUM - Request for Approval and Funding of a Time-Critical Removal Action at the Crescent Forge and Shovel Site, Havana, Mason County, Illinois (Site ID # C5KU)

FROM: Kristina Miller, On-Scene Coordinator (OSC)
Emergency Response Branch 2/Emergency Response Section 3

THRU: Samuel Borries, Chief
Emergency Response Branch 2

TO: Thomas Richard Short Jr., Acting Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document your approval to expend up to \$1,761,376 to conduct a time-critical removal action at the Crescent Forge and Shovel Site ("Site"), in Havana, Mason County, Illinois. The time-critical removal action proposed herein is necessary to mitigate threats to public health, welfare, and the environment posed by the release of uncontrolled hazardous substances, pollutants or contaminants at the Site. This site is not listed on the National Priorities List (NPL).

Removals involving asbestos, when it is the principal contaminant of concern, have been designated as nationally-significant. The removal at this site will follow precedents and protocols set by other asbestos cleanups.

This Action Memorandum serves as approval for expenditures by the U. S. Environmental Protection Agency (EPA), as the lead technical agency, to take actions described herein to abate the imminent and substantial endangerment posed by the hazardous substances, pollutants and contaminants at the Site. The proposed removal of the hazardous substances, pollutants and contaminants will be taken pursuant to Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S. Code (U.S.C.) § 9604, and Section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 Code of Federal Regulations (C.F.R.) § 300.415.

II. SITE CONDITIONS AND BACKGROUND

SSID: C5KU

SEMS ID: ILN000507969

Category: Time-Critical Removal Action

Site Location: 405 West Tinkham Street, Havana, Mason County, Illinois 62644

The Crescent Forge and Shovel Site is located in Havana, Mason County, Illinois. The Site formerly operated as a steel tillage tool facility from around 1902-2008. The buildings on Site were improperly demolished to remove and scrap metal and materials and the Site has been the location of several fires. As a result, the Site has piles of building rubble containing asbestos and other physical hazards as shown in the photographs in Attachment 5. Figure 2 delineates the footprints of the debris piles at the Site. Portions of buildings are still standing but appear to be unstable. Samples by the Illinois Environmental Protection Agency (Illinois EPA) and EPA documented the presence of asbestos-containing material (ACM) at the Site (Eisenbrandt, July 13, 2017) (Tetra Tech, Inc., 2018). The Site also has abandoned containers and drums as well as an exposed machine pit containing an oil/water mixture as shown in Photo D in Attachment 5.

A. Site Description

1. Removal Site Evaluation

Illinois EPA conducted an initial site inspection on April 25, 2017. During this visit, the inspector observed several razed building and debris piles at the Site, but no equipment, vehicles, or workers. The razed office building contained demolition debris including “dimensional lumber, brick, floor tile, insulation, roofing material” and other debris (Eisenbrandt, July 13, 2017). Some of the debris were “common building products known to possibly contain asbestos fibers, especially considering the age of the building” (Eisenbrandt, July 13, 2017). Open debris piles were also observed at the Site containing suspect asbestos materials. In addition to the suspected asbestos material, the inspector noted other concerns including several drums, tires, buckets, and an open basin containing “unknown chemicals” (Eisenbrandt, July 13, 2017).

Illinois EPA returned to the Site on May 4, 2017 to sample the suspected ACM identified during the April 25, 2017 inspection. During this sampling event, 32 samples were collected and analyzed for asbestos using Polarized Light Microscopy (PLM) technique. Analytical results showed that numerous samples contained ACM, as defined in the EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) Regulations (TEM Environmental, 2017). Illinois EPA documented each sample taken and determined the ACM was friable or non-friable in the Digital Photographs Log and the July 13, 2017 memorandum to the file from the May 2017 sampling event (Eisenbrandt, July 13, 2017). Of the 32 samples collected, 16 came back as positive for containing asbestos fibers greater than one percent (TEM Environmental, 2017).

The following samples collected by Illinois EPA came back as ACM and were also determined to be friable. A full summary table of the data collected by Illinois EPA during the May 4, 2017 sampling event can be found in Table 1.

Table 1

| <u>Sample ID</u> | <u>Description</u> | <u>Color</u> | <u>ACM?</u> | <u>Result</u> | <u>Asbestos Type</u> | <u>Friable/Non-Friable*</u> |
|------------------|------------------------------|--------------|-------------|---------------|----------------------|-----------------------------|
| GRK-005 | Concrete Coating | Black | Yes | 1-2% | Chrysotile | Friable |
| GRK-012 | Gray 9x9 Ft w/ Black Mastic | Gray/Black | Yes | 3-5% | Chrysotile | Friable |
| GRK-013 | Green 9x9 FT 2/ Black Mastic | Green/Black | Yes | 3-5% | Chrysotile | Friable |
| GRK-026 | Black/Gray Fibrous Coating | Black | Yes | 20-30% | Chrysotile | Friable |
| GRK-027 | Gray/Black Roof Flashing | Black | Yes | 20-30% | Chrysotile | Friable |
| GRK-032 | Greenish Insulation Material | Black | Yes | 3-5% | Chrysotile | Friable |

*Friable/Non-Friable are displayed as listed in the Illinois EPA Inspection Report and Photo Documentation Log

N/D=Not Detected

ACM= Asbestos Containing Material

On January 29, 2018, Illinois EPA referred the Crescent Forge and Shovel Site to EPA and requested an On-Scene Coordinator be assigned to the Site to evaluate the Site for a time-critical removal action (Everetts, January 2018). Illinois EPA documented hazards at the Site, including friable asbestos released to the environment, and did not believe the owner had sufficient financial resources to address the Site.

On May 22, 2018, EPA conducted a limited removal evaluation at the Crescent Forge and Shovel property in Havana, Illinois to assess the Site and collect additional samples to further delineate the extent of contamination. The goal of the site assessment was to assess conditions of debris piles from razed buildings and confirm the presence of ACM at the Site as well as assess any other potentially hazardous substances, pollutants or contaminants associated with the machine pit and containers documented by Illinois EPA. EPA observed that most of the Site buildings had been razed and debris piles were out in the open, exposed to the environment. Photos A-E in Attachment 5 show the debris piles containing ACM released to the environment. Due to the improper demolition and other factors, the structural integrity of the remaining portions of the buildings at the Site was unclear. Therefore, no assessment work was conducted near these buildings.

EPA conducted assessment categorization of suspected ACM at the Site in accordance with the NESHAP at 40 CFR, Parts 61.141 and 61.145.

- Category I Non-Friable ACM is defined as ACM packing, gaskets, resilient floor covering, and asphalt roofing products containing more than 1-percent asbestos. Generally, Category I building materials would not create an airborne release of asbestos fibers during normal demolition activities. However, the debris at the Site is the result of improper demolition, thereby creating Regulated ACM (RACM).

- Category II Non-Friable ACM is defined as any material, excluding Category I non-friable ACM, containing more than 1-percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to a powder by hand pressure. An example of this ACM is asbestos cement board. Generally, Category II non-friable building materials would create an airborne release of asbestos fibers during normal demolition activities.
- Regulated ACM (RACM) is defined as (1) friable ACM; (2) Category I Non-Friable ACM that has become friable; (3) Category I Non-Friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading; or (4) Category II Non-Friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by forces expected to act on the material in the course of demolition or renovation operations regulated under Subpart 61.141 of 40 CFR, Part 61 (NESHAP Revision; Final Rule).

Of the seven samples collected by EPA that were analyzed for asbestos-containing material, four came back containing asbestos (Tetra Tech, Inc., 2018). All four of these samples are categorized as RACM by the licensed inspector as that term is defined at 40 CFR 61.141. A summary of these samples can be found below, and the analytical results can be found in the Removal Assessment Report (Tetra Tech, Inc., 2018).

| SAMPLE ID | MATERIAL DESCRIPTION | ASBESTOS TYPE | CATEGORY | LOCATION |
|---------------------|--------------------------------------|--|----------|---|
| CFS-AS-WS-01-052218 | 9" X 9" Blue floor tile with backing | 6% Chrysotile asbestos in floor tile layer | RACM | In the old office and throughout the site |
| CFS-AS-WS-02-052218 | 9" X 9" Gray floor tile with backing | 6% Chrysotile asbestos in floor tile layer | RACM | In the old office and throughout the site |
| CFS-AS-WS-03-052218 | Roofing material | 59% Chrysotile asbestos | RACM | Throughout Piles 1 through 3 |
| CFS-AS-WS-06-052218 | 6" Cementitious pipe | 16% Chrysotile asbestos | RACM | Scattered on building footprint on the eastern side of the site |

Notes:

": Inches
 %: Percent
 AS: Asbestos sample
 CFS: Crescent Forge and Shovel

ID: Identification
 RACM: Regulated Asbestos-Containing Material
 WS: Waste Sample

Although the focus of the removal evaluation was related to asbestos, EPA inspected the property to evaluate any other potential hazardous substances, pollutants or contaminants present at the Site in some of the abandoned drums and containers as well as the open machine pit. During this inspection, EPA collected several samples for analytical testing. A sample collected from the open machine pit showed the presence of multiple metals including: aluminum, barium, beryllium, calcium, cobalt, copper, iron, and lead (Tetra Tech, Inc., 2018). A sludge sample taken from an abandoned drum at the Site also showed the presence of metals including

aluminum, barium, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, silver, sodium, vanadium, and zinc. Concentrations of metals found in the drum sample can be found in the removal assessment report (Tetra Tech, 2018). Further assessment of the contents of the containers is necessary during the proposed removal action to properly characterize the waste material.

2. Physical location

The Site is located at 405 West Tinkham Street, Havana, Mason County, Illinois 62644. The geographic coordinates of the Site are 40.289806 degrees north and -90.065912 degrees west. The Site location can be found in Figure 1. The Site occupies approximately 3.26 acres in the southwestern portion of the city. The Site encompasses multiple parcels that used to make up the Crescent Forge and Shovel facility. The property is bordered to the north and east by active industrial and commercial properties, to the south by residential properties, and to the west by one business and several residential properties. At least ten residential properties are located within 200-350 feet of the Site (Everetts, January 2018). A railroad line bisects the southern portion of the property with a former building residing on the southern side of the railroad tracks. Trains on this line reportedly go to and from the large grain elevator terminal located north of the Site. Most of the buildings on the Site have been partially, if not fully, razed. This has led to several piles of demolition debris around the Site and in the footprints of former buildings. A figure of the Site Layout can be found in Figure 2. Access to the Site is currently unrestricted.

3. Site Characteristics

The Crescent Forge and Shovel Co. began business in 1902, according to their website¹. The company specialized in high carbon steel tillage tools including plow blades, shares, shins, lister furrows, and planter runners. The company was incorporated on September 21, 2000 and went through an involuntary dissolution on December 20, 2010 (Eisenbrandt, 2017).

In 2014, the President of Crescent Forge and Shovel, entered into a contract with H & C Copper Plus, Inc. to remove and scrap metal and materials from the Site. The contract stated that H & C Copper Plus, Inc. was supposed to obtain all necessary permits and licenses required for the demolition work. H & C Copper Plus did not demolish structures in accordance with ACM demolition practices leaving behind ACM.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Asbestos is designated as a hazardous substance under 40 C.F.R. § 302.4. The presence of a hazardous substance existing at the Site has been documented by samples collected by both Illinois EPA and EPA. These samples were detailed in the "Removal Site Evaluation" section of this Action Memorandum. ACM has been released to the environment as approximately 80% of the building structures have already been razed and demolition debris piles containing ACM are present at the Site. A release or threat of release of hazardous substances, pollutants, or contaminants is present at the Site. As shown the photos in Attachment 5 and the Removal

¹ <http://members.peak.org/~crescentforge/>

Assessment Report (TetraTech, 2018), the ACM has been released to the environment and debris piles are exposed to the elements. ACM may also be transported offsite through wind, tracking by trespassers, or precipitation.

5. NPL status

This Site is not on the NPL and has not been proposed for listing.

6. Maps, pictures and other graphic representations

Figure 1: Site Location Map

Figure 2: Site Layout Map

Attachment 5: Site Photographs

7. Environmental Justice Analysis

An Environmental Justice (EJ) analysis for the site is contained in Attachment 4. Screening of the surrounding area used Region 5's EJ Screen Tool. Region 5 has reviewed environmental and demographic data for the area surrounding the Site at 405 W. Tinkham St., Havana, Mason County, Illinois and determined there is a high potential for EJ concerns at this site.

B. Other Actions to Date

1. Previous actions

Illinois EPA conducted site inspections at the Site on April 25, 2017 and May 4, 2017. Illinois EPA referred the Site to EPA on January 29, 2018 (Everetts, January 2018). EPA conducted a removal site evaluation at the property on May 22, 2018. These inspections are documented more thoroughly in the "Removal Site Evaluation" section of this Action Memorandum.

2. Current actions

No activities are currently being conducted at the Site.

C. State and Local Authorities' Roles

1. State and local actions to date

Illinois EPA conducted two site inspections at the Site. The second site inspection, conducted in May 2017, included an asbestos sampling event.

2. Potential for continued state/local response

Illinois EPA referred the Site to EPA on January 29, 2018 for a time-critical removal action since they did not believe the owner had the resources to conduct a cleanup at the property. Based on information currently available, neither the property owner at the time of the release, the current

property owner (Mason County Trustee), the City of Havana, nor the State of Illinois have the funds or resources to address the conditions at the Site.

III. THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

EPA's assessment indicates that conditions at the Site present an imminent and substantial threat to the public health, or welfare, and the environment and meet the criteria for a time-critical removal action as provided for in 40 C.F.R. § 300.415(b)(1), based on factors in § 300.415(b)(2) of the NCP. These factors include, but are not limited to, the following:

§ 300.415(b)(2)(i) - Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

Sampling results from both Illinois EPA's inspection and EPA's removal site evaluation show the presence of friable asbestos at the Site in the debris piles, exposed to the environment. Illinois EPA's data supports these criteria by itself, but EPA collected additional samples at the property to further assess and delineate potential contamination at the Site. The Site is located near residences to the south and west of the property. The Site is completely unsecured and trespassers could easily enter the property and be exposed to the contaminants. The Site is also bordered to the north and east by active commercial and industrial properties. As shown in the photos in Attachment 5, the debris piles containing ACM are exposed to the environment and asbestos could migrate off the property due to wind, rain, or foot traffic from trespassers.

ACM that was determined to be non-friable at the time could become friable if the material later becomes damaged due to trespassing or weathering. Given the unsecured nature of the Site and exposure of ACM debris to the environment, this is a plausible outcome.

Asbestos is designated as a hazardous substance under CERCLA at 40 C.F.R. § 302.4. Asbestos exposure is a health concern because individuals can breathe in the fibers and "some of the fibers will be deposited in the air passages and on the cells that make up your lungs" (ATSDR, 2001). Many fibers are expelled quickly, however ones that are deposited into the deep part of lungs will take longer to be removed. People exposed to asbestos can develop asbestosis, which can lead to shortness of breath and a cough. Asbestosis "can eventually lead to disability or death in people exposed to high amounts of asbestos over a long period" (ATSDR, 2001). Exposure to asbestos can also lead to lung cancer and mesothelioma. Further, "lung cancer is usually fatal, while mesothelioma is almost always fatal" (ATSDR, 2001).

§ 300.415(b)(2)(iii) - Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release;

Inspections of the Site have showed the presence of at least 21 drums and several other containers at the Site. The drums and containers are spread throughout the property and are not secured within a building. Although these drums and containers still need to be characterized,

they are exposed to the environment and could pose a threat of release of hazardous substances, pollutants and contaminants if they were to become punctured or fractured. The containers are weathered from exposure to the environment.

EPA collected a sample from one of the drums and a machine pit on Site that showed the presence of several metals (Tetra Tech, 2018) below Removal Management Levels (RMLs). Based on this limited assessment and historical knowledge of operations at the Site, further assessment and potential disposal is needed during the removal action to further characterize the contents of the containers and drums on Site.

§ 300.415(b)(2)(v) - Weather conditions that may cause hazardous substances, pollutants, or contaminants to migrate or be released;

The asbestos at the Site is completely exposed to the environment and is not contained within intact structures at the property. As shown in Attachment 5 photos, the debris piles are exposed to rain, snow, and wind. There is not sufficient building cover to protect the debris from deterioration. Additionally, containers and drums on site show signs of weathering.

Weather conditions at the Site could cause the asbestos present in the debris piles to migrate off Site via wind or rain. Weather could also cause additional non-friable ACM to become friable. ACM within the debris piles observed during the site assessment may present a threat to the public health or welfare or the environment through migration as windblown particles or suspended in rainwater runoff.

§ 300.415(b)(2)(vii) - The availability of other appropriate federal and state response mechanisms to respond to the release;

There is no other federal or state response mechanisms available to address the situation at the Crescent Forge and Shovel Site. Illinois EPA referred the Site to EPA in January 2018. Based on information currently available, neither the property owner at the time of the release, the current property owner (Mason County Trustee), the City of Havana, nor the State of Illinois have the funds or resources at this time to address the conditions at the Site.

IV. ENDANGERMENT DETERMINATION

Given the site conditions, the nature of the known and suspected hazardous substances, pollutants or contaminants on site, and the potential exposure pathways described in Sections II and III, actual or threatened releases of hazardous substances, pollutants or contaminants from the Site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

The response actions described in this memorandum directly address actual or potential releases of hazardous substances at the Site, which may pose an imminent and substantial endangerment to public health, or welfare, or the environment. Removal activities on-site will include:

- a) Develop and implement a site Health and Safety Plan, a Site Emergency Contingency Plan, and an Air Monitoring/Sampling Plan;
- b) Establish and implement an ACM debris management plan, including appropriate control mechanisms (e.g., wetting);
- c) Conduct structural integrity assessments of remaining buildings and address any unsafe conditions to ensure worker safety, as necessary;
- d) Characterize and segregate, when possible, ACM waste from non-ACM waste;
- e) Remove asbestos-contaminated debris and soil in and around the Site that presents an unacceptable risk to public health and the environment;
- f) Characterize contents of abandoned containers, drums, and on-site pits at the Site and dispose of its hazardous substances, pollutants or contaminants, as needed;
- g) Load, transport and dispose of ACM, or identified hazardous substances, pollutants, ACM-impacted wastes, or contaminants at an EPA-approved disposal facility in accordance with EPA Off-site Rule (40 C.F.R. § 300.440); and
- h) Decontaminate Site as necessary, including concrete pads and equipment.

The response action proposed herein will mitigate the threats at the Site by properly identifying, consolidating, and packaging hazardous substances, pollutants and contaminants on-site. The consolidated materials will be removed and ultimately disposed of off-site. This response action will be conducted in accordance with Section 104(a)(1) of CERCLA, 42 U.S.C. § 9604(a)(1) and Section 300.415 of the NCP, 40 C.F.R. § 300.415, to abate or eliminate the immediate threat posed to public health and/or the environment by the presence of the hazardous substances.

The removal action will be conducted in a manner not inconsistent with the NCP. At this time, the OSC does not intend to institute post-removal Site controls (PRSCs) consistent with the provisions of the NCP at 300.415(l), as the removal of hazardous substances is expected to eliminate the need for post-removal site control.

2. Contribution to remedial performance

The proposed action will not impede future actions based on available information. However, no long-term remedial actions are anticipated for this Site.

3. Engineering Evaluation/Cost Analysis (EE/CA)

Not Applicable. 40 C.F.R. 300.415(a)(4) does not require an EE/CA when less than a 6-month planning period exists before the on-site response must be initiated.

4. Applicable or relevant and appropriate requirements (ARARs)

Applicable or relevant and appropriate requirements (ARARs) of Federal and State law identified in a timely manner will be complied with to the extent practicable considering the exigencies of the situation.

Federal

In terms of Federal ARARs, EPA National Emissions Standards for Hazardous Air Pollutants at 40 C.F.R. § 61, Subparts A and M apply. In addition, 49 C.F.R. Parts 171 and 172 address requirements for transportation of asbestos waste, including waste containment and shipping papers.

While it is not an ARAR, all hazardous substances, pollutants or contaminants removed off-site pursuant to this removal action for treatment, storage, and disposal will be treated, stored, or disposed of at a facility in compliance, as the EPA determines, with the Off-Site Rule, 40 C.F.R. § 300.440.

State

EPA sent a request for ARARs to Illinois EPA on August 17, 2018 (Miller, 2018). Illinois EPA sent a response identifying applicable ARARs on August 21, 2018 (Everetts, August 2018). Illinois EPA identified several ARARs related to the classification of the waste, generator identification numbers, special waste hauling requirements, and on-site management of wastes.

All Illinois ARARs identified by the August 2018 letter listed in the Administrative Record will be complied with to the extent practicable during this removal action.

5. Project schedule

The removal activities identified in this action memorandum are expected to require 55 on-site working days to complete.

6. Estimated costs

| REMOVAL ACTION PROJECT CEILING ESTIMATE | |
|---|--------------------|
| <u>Extramural Costs:</u> | |
| <u>Regional Removal Allowance Costs:</u> | |
| Total Cleanup Contractor Allowance Costs (This cost category includes estimates for ERRS, subcontractors, Notices to Proceed, and Interagency Agreements with Other Federal Agencies. Includes a 20% contingency) | \$1,322,083 |
| <u>Other Extramural Costs Not Funded from the Regional Allowance:</u> | |
| Total START, including multiplier costs | \$145,730 |
| Subtotal Extramural Costs | \$1,467,813 |
| Extramural Costs Contingency (20% of Subtotal) | \$293,563 |
| TOTAL REMOVAL ACTION PROJECT CEILING | \$1,761,376 |

The response actions described in this memorandum directly address the actual or threatened release of hazardous substances, pollutants or contaminants at the Site which may pose an imminent and substantial endangerment to public health or welfare or to the environment. These response actions do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

All hazardous substances, pollutants or contaminants removed off-site pursuant to this removal action for treatment, storage and disposal shall be treated, stored, or disposed at a facility in compliance, as determined by EPA, with the EPA Off-Site Rule, 40 C.F.R. § 300.440.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Given the site conditions, the nature of the hazardous substances on-site, the potential exposure pathways to nearby populations described in Sections II, III, and IV above, and the actual or threatened release of hazardous substances from the Site, failing to take or delaying action may present an imminent and substantial endangerment to public health, welfare or the environment.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

EPA has determined that the PRPs are no longer in business, cannot be located, do not have liability under CERCLA, or did not contribute to the release of ACM contamination at the Site. The Region 5 removal enforcement team anticipates a fund-lead removal action at the Site and will proceed with additional PRP search activities and cost recovery efforts after completion of the removal action.

For administrative purposes, information concerning the enforcement strategy for this site is contained in the Enforcement Confidential Addendum.

$$(\$1,761,376 + \$40,000) + (55.39\% \times \$1,801,376) = \$2,799,158$$

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$2,799,158².

IX. RECOMMENDATION

This decision document represents the selected removal action for the Crescent Forge and Shovel Site in Havana, Mason County, Illinois. This document has been developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site, see Attachment II. Conditions at the Site meet the NCP section 300.415(b) criteria for a time-critical removal action and I recommend your approval.

The total removal project ceiling, if approved, will be \$1,761,376. Of this, an estimated \$1,615,646 may be used for the cleanup contractor costs. You may indicate your decision by signing below.

Approve:  _____ Date 2/28/2019
Thomas Richard Short Jr., Acting Director
Superfund Division

Disapprove: _____ Date _____
Thomas Richard Short Jr., Acting Director

² Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgement interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States right to cost recovery.

Superfund Division

Enforcement Addendum

Figures:

Figure 1: Site Location Map

Figure 2: Site Layout Map

Tables:

Table 1: Summary of Illinois EPA Asbestos Sampling Data

Attachments:

- 1: Detailed Cleanup Contractor Estimate
- 2: Independent Government Cost Estimate (IGCE)
- 3: Administrative Record Index
- 4: Environmental Justice (EJ) Screen
- 5: Site Photographs

cc: S. Ridenour, U.S. EPA, 5104A/B452E

(Ridenour.Steve@epa.gov)

L. Nelson, U.S. DOI, **w/o Enf. Addendum**, (Lindy_Nelson@ios.doi.gov)

Jerry Willman, Illinois EPA **w/o Enf. Addendum** (Jerry.Willman@Illinois.gov)

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**NOT RELEVANT TO SELECTION
OF REMOVAL ACTION**

ENFORCEMENT ADDENDUM

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ENFORCEMENT CONFIDENTIAL

NOT SUBJECT TO DISCOVERY

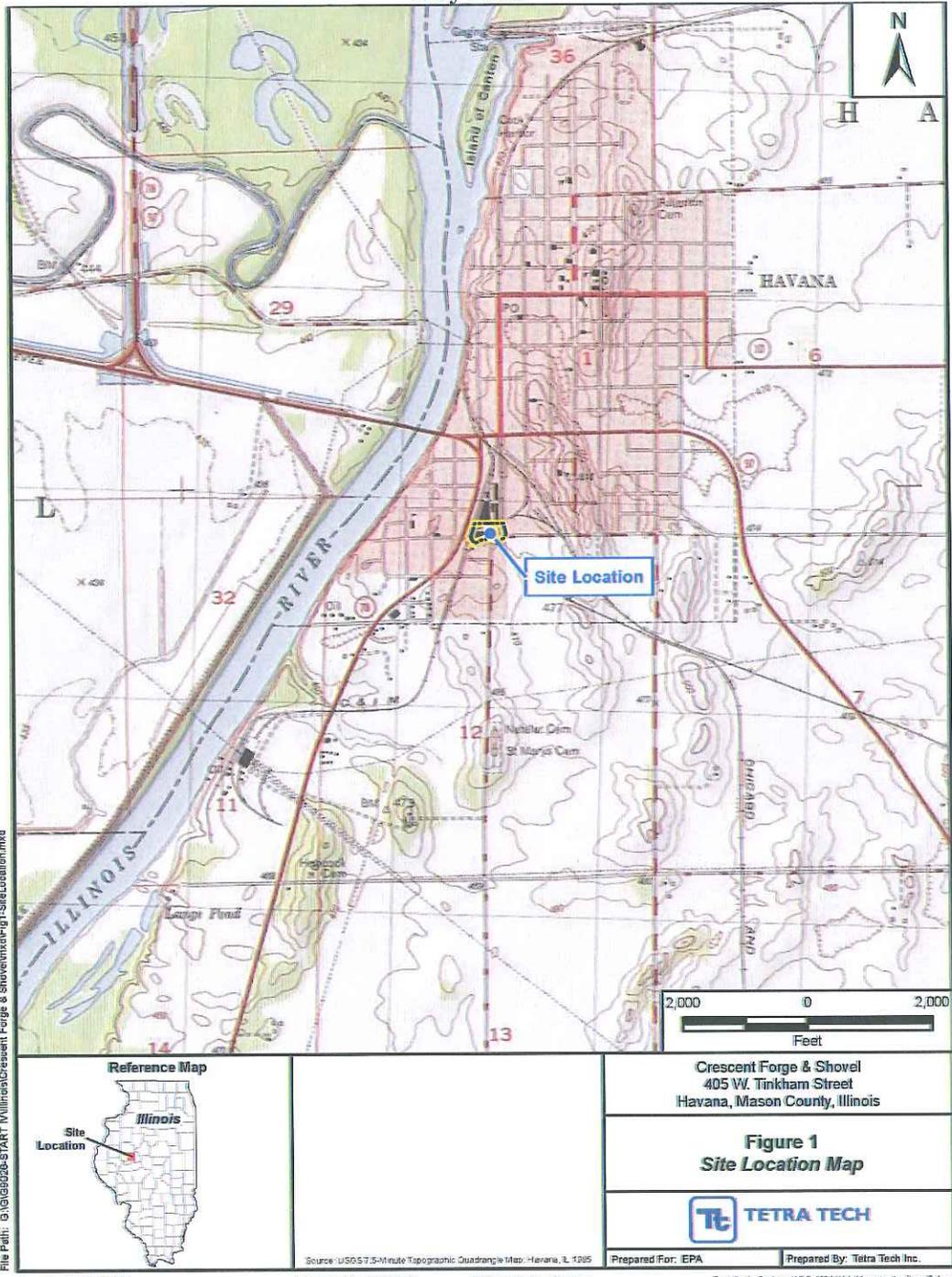
FOIA EXEMPT

NOT RELEVANT TO SELECTION

OF REMOVAL ACTION

FIGURE 1

SITE LOCATION MAP
Crescent Forge & Shovel Site
Havana, Mason County, Illinois
July 2018



File Path: G:\GIS\0928-START\Willis\0928-Crescent Forge & Shovel\Map\Fig1-SiteLocation.mxd

Date Saved: 5/10/2018

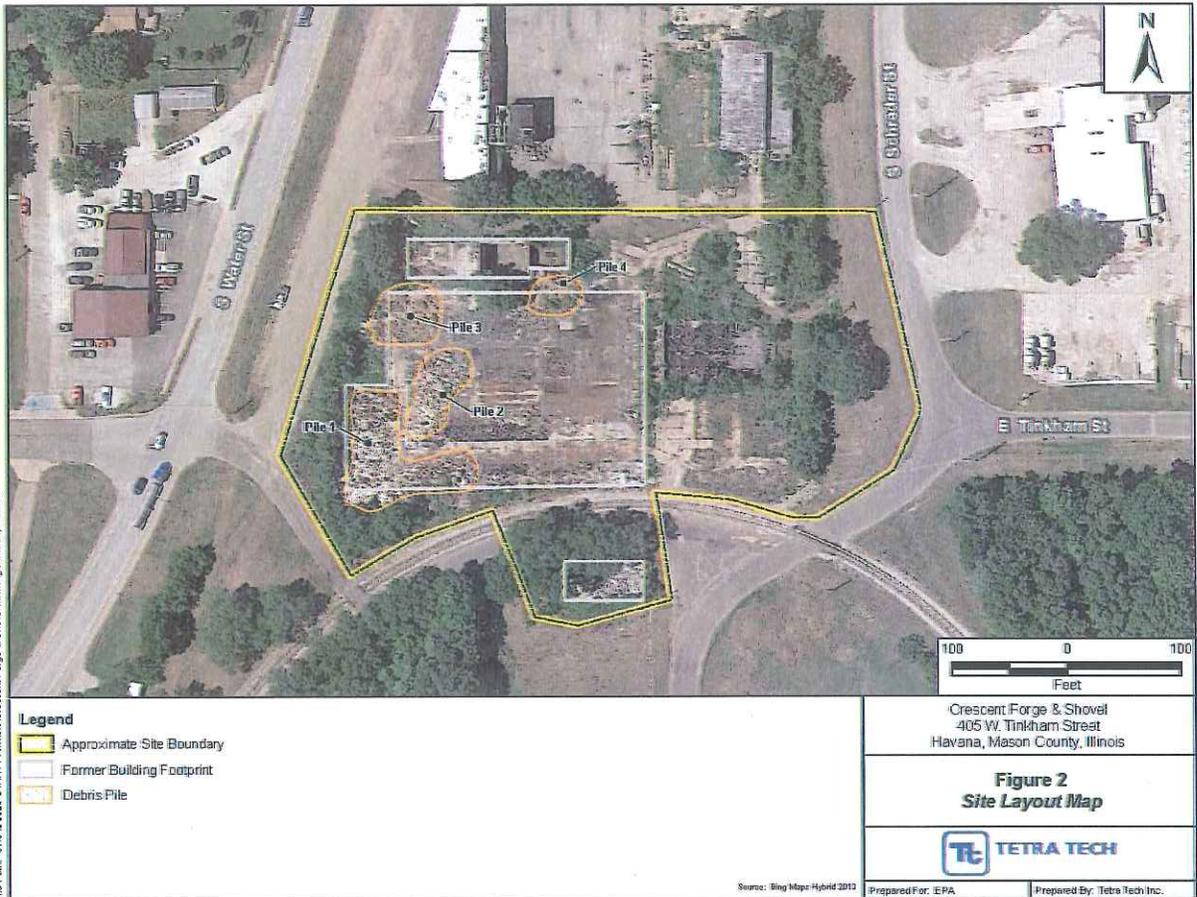
EPA Contract No.: EP-85-12-01

TGD No.: 505-001-1804-207

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
Projection: Mercator Auxiliary Sphere
Datum: WGS 1984

FIGURE 2

SITE LAYOUT MAP
Crescent Forge & Shovel Site
Havana, Mason County, Illinois
July 2018



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Date Saved: 6/28/2015

EPA Contract No.: EP-S513-01

TDD No.: 805-801-1804-207

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
Projection: Mercator Auxiliary Sphere
Datum: WGS 1984

TABLE 1

**Summary of Illinois EPA Asbestos Sampling Data
Crescent Forge & Shovel Site
Havana, Mason County, Illinois
May 2017**

| <u>Sample ID</u> | <u>Description</u> | <u>Color</u> | <u>ACM?</u> | <u>Result</u> | <u>Asbestos Type</u> | <u>Friable/Non-Friable*</u> |
|------------------|--------------------------------|--------------|-------------|---------------|----------------------|-----------------------------|
| GRK-001 | Black Built-up Roofing | Black | Yes | 3-5% | Chrysotile | Non-Friable |
| GRK-002 | Corrugated Siding w/ Felt | Black | Yes | 20-30% | Chrysotile | Non-Friable |
| GRK-003 | Floor Mastic & Tile | White/Black | No | N/D | N/D | Friable |
| GRK-004 | Transite-like Material | Gray | Yes | 10-15% | Chrysotile | Non-Friable |
| GRK-004 | Transite-like Material | Gray | Yes | 5-10% | Crocidolite | Non-Friable |
| GRK-005 | Concrete Coating | Black | Yes | 1-2% | Chrysotile | Friable |
| GRK-006 | Built-up Roofing Material | Black | No | N/D | N/D | Non-Friable |
| GRK-007 | Transite-like Material | Gray | Yes | 10-15% | Chrysotile | Non-Friable |
| GRK-007 | Transite-like Material | Gray | Yes | 5-10% | Crocidolite | Non-Friable |
| GRK-008 | Black Built-up Roofing | Black | No | N/D | N/D | Non-Friable |
| GRK-009 | Black Built-up Roofing | Black | No | N/D | N/D | Non-Friable |
| GRK-010 | Off-white w/ Speckles Material | White | No | N/D | N/D | Friable |
| GRK-011 | Wool Insulation | Beige | No | N/D | N/D | Friable |
| GRK-012 | Gray 9x9 Ft w/ Black Mastic | Gray/Black | Yes | 3-5% | Chrysotile | Friable |
| GRK-013 | Green 9x9 FT 2/ Black Mastic | Green/Black | Yes | 3-5% | Chrysotile | Friable |
| GRK-014 | 12x12 Ceiling Tile | Brown | No | N/D | N/D | Friable |
| GRK-015 | Stucco-like Material | White | No | N/D | N/D | Non-Friable |
| GRK-016 | Chalk-like Material w/ Mastic | White/Black | No | N/D | N/D | Non-Friable |
| GRK-017 | Chalk-like Material w/ Roofing | White/Black | Yes | 1-2% | Chrysotile | Non-Friable |
| GRK-018 | Black Built-up Roofing | Black | No | N/D | N/D | Non-Friable |
| GRK-019 | Chalky Material w/ Roofing | White/Black | Yes | 3-5% | Chrysotile | Non-Friable |
| GRK-020 | Chalky Material w/ Roofing | White/Black | Yes | 1-2% | Chrysotile | Non-Friable |

| | | | | | | |
|---------|-----------------------------------|--------------|-----|--------|------------|-------------|
| GRK-021 | Chalky Material w/ Roofing | White/Black | No | N/D | N/D | Non-Friable |
| GRK-022 | Chalky Material w/ Roofing | White/Black | Yes | 2-3% | Chrysotile | Non-Friable |
| GRK-023 | Black Built-up Roofing | Black | No | N/D | N/D | Non-Friable |
| GRK-024 | Roofing or Flashing Material | Black | Yes | 20-30% | Chrysotile | Non-Friable |
| GRK-025 | Yellow Foam/Black Tar Paper | Yellow/Black | No | N/D | N/D | Friable |
| GRK-026 | Black/Gray Fibrous Coating | Black | Yes | 20-30% | Chrysotile | Friable |
| GRK-027 | Gray/Black Roof Flashing | Black | Yes | 20-30% | Chrysotile | Friable |
| GRK-028 | Black Built-up Roofing | Black | No | N/D | N/D | Non-Friable |
| GRK-029 | Black Built-up Roofing | Black | No | N/D | N/D | Non-Friable |
| GRK-030 | Water Proofing on Cinder Block | Black | Yes | 10-20% | Chrysotile | Non-Friable |
| GRK-031 | Black Built-up Roofing | Black | No | N/D | N/D | Non-Friable |
| GRK-032 | Greenish Insulation Material | Black | Yes | 3-5% | Chrysotile | Friable |

*Friable/Non-Friable are displayed as listed in the Illinois EPA Inspection Report and Photo Documentation Log

N/D=Not Detected

ATTACHMENT 1

DETAILED CLEANUP CONTRACTOR ESTIMATE

HAS BEEN REDACTED – ONE PAGE

NOT RELEVANT TO SELECTION

OF REMOVAL ACTION

ATTACHMENT 2

**INDEPENDENT GOVERNMENT COST
ESTIMATE HAS BEEN REDACTED – FOUR
PAGES
NOT RELEVANT TO SELECTION
OF REMOVAL ACTION**

ATTACHMENT 3

**ADMINISTRATIVE RECORD
FOR THE
CRESCENT FORGE & SHOVEL NSITE
HAVANA, MASON COUNTY, ILLINOIS**

**ORIGINAL
AUGUST, 2018
SEMS ID: ILN000507969**

| <u>NO.</u> | <u>SEMS ID</u> | <u>DATE</u> | <u>AUTHOR</u> | <u>RECIPIENT</u> | <u>TITLE/DESCRIPTION</u> | <u>PAGES</u> |
|-------------------|-----------------------|--------------------|----------------------------------|---------------------------|---|---------------------|
| 1 | 941166 | 9/1/2001 | ATSDR | File | Toxicological Profile For Asbestos | 44 1 |
| 2 | 941480 | 4/25/2017 | Everetts, B., IL EPA | Ribordy, M., U.S. EPA | Crescent Forge & Shovel - (Attached W/Cover Letter) | 18 |
| 3 | 941481 | 5/4/2017 | IL EPA | File | Digital Photographs | 32 |
| 4 | 941479 | 5/10/2017 | TEM Environmental | File | Bulk Asbestos Sample Evaluation - Polarized Light Microscopy (PLM) Technique | 12 |
| 5 | 941484 | 7/6/2018 | Binz, T., Tetra Tech, Inc. | Miller, K., U.S. EPA | Removal Assessment Report | 10 2 |
| 6 | 941483 | 8/17/2018 | Miller, K., U.S. EPA | Everetts, B., IL EPA | Letter Re: ARARs for Crescent Forge & Shovel Site | 2 |
| 7 | 941485 | 8/21/2018 | Everetts, B., IL EPA | Miller, K., U.S. EPA | Letter Re: Crescent Forge & Shovel | 3 |
| 8 | 941482 | Undated | IL EPA | File | Chain Of Custody | 4 |
| 9 | - | - | Miller, K. U.S. EPA | Ballotti, D., U.S. EPA | Action Memorandum Re: Request for a Removal Action at the Crescent Forge & Shovel Site | - |

ATTACHMENT 4

ENVIRONMENTAL JUSTICE ANALYSIS Crescent Forge & Shovel Site Havana, Mason County, Illinois August 2018

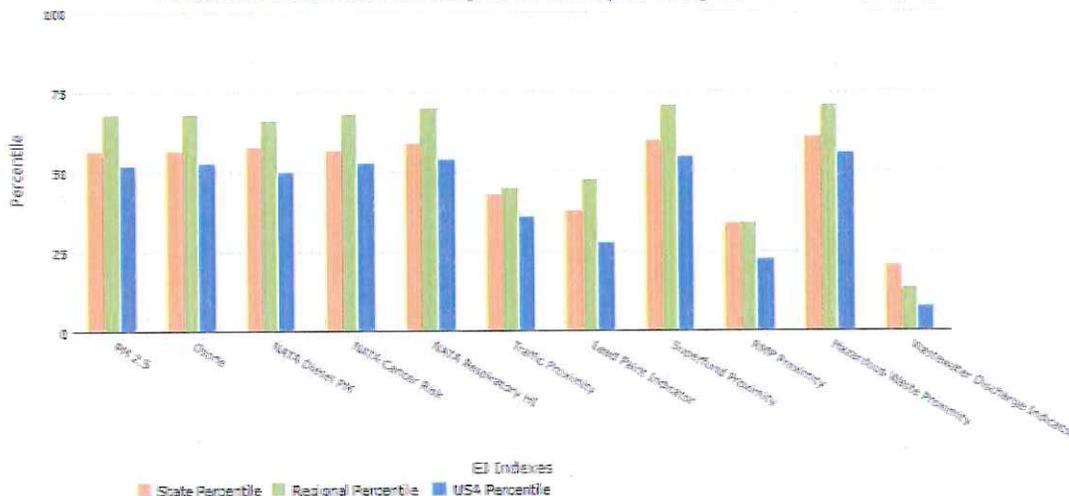


EJSCREEN Report (Version 2018)
1 mile Ring Centered at 40.289320, -90.065349
ILLINOIS, EPA Region 5
Approximate Population: 1,851
Input Area (sq. miles): 3.14

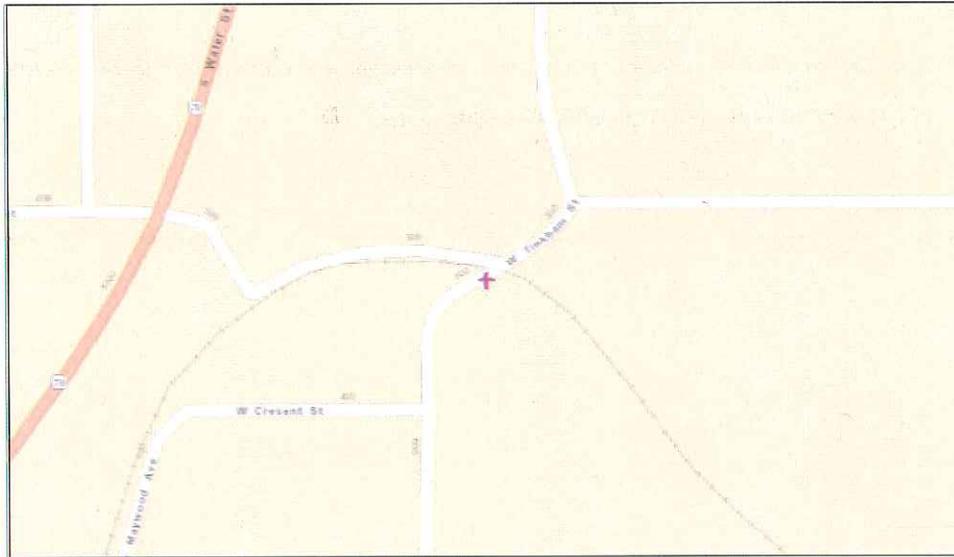


| Selected Variables | Percentile in State | Percentile in EPA Region | Percentile in USA |
|---|---------------------|--------------------------|-------------------|
| EJ Indexes | | | |
| EJ Index for Particulate Matter (PM 2.5) | 57 | 58 | 52 |
| EJ Index for Ozone | 57 | 60 | 53 |
| EJ Index for NATA Diesel PM | 58 | 66 | 50 |
| EJ Index for NATA Air Toxics Cancer Risk | 57 | 68 | 53 |
| EJ Index for NATA Respiratory Hazard Index | 59 | 70 | 54 |
| EJ Index for Traffic Proximity and Volume | 43 | 45 | 35 |
| EJ Index for Lead Paint Indicator | 38 | 48 | 28 |
| EJ Index for Superfund Proximity | 60 | 71 | 55 |
| EJ Index for RMP Proximity | 34 | 34 | 23 |
| EJ Index for Hazardous Waste Proximity | 61 | 71 | 56 |
| EJ Index for Wastewater Discharge Indicator | 21 | 14 | 8 |

EJ Index for the Selected Area Compared to All People's Blockgroups in the State/Region/US



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g. the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.



August 27, 2018
 + Digitized Point

1,257
 0 0.0017 0.0034 0.0051 0.0068 0.0085 0.0102 0.0119 0.0136 0.0153 0.0170 0.0187 0.0204 0.0221 0.0238 0.0255 0.0272 0.0289 0.0306 0.0323 0.0340 0.0357 0.0374 0.0391 0.0408 0.0425 0.0442 0.0459 0.0476 0.0493 0.0510 0.0527 0.0544 0.0561 0.0578 0.0595 0.0612 0.0629 0.0646 0.0663 0.0680 0.0697 0.0714 0.0731 0.0748 0.0765 0.0782 0.0799 0.0816 0.0833 0.0850 0.0867 0.0884 0.0901 0.0918 0.0935 0.0952 0.0969 0.0986 0.1003 0.1020 0.1037 0.1054 0.1071 0.1088 0.1105 0.1122 0.1139 0.1156 0.1173 0.1190 0.1207 0.1224 0.1241 0.1258 0.1275 0.1292 0.1309 0.1326 0.1343 0.1360 0.1377 0.1394 0.1411 0.1428 0.1445 0.1462 0.1479 0.1496 0.1513 0.1530 0.1547 0.1564 0.1581 0.1598 0.1615 0.1632 0.1649 0.1666 0.1683 0.1700 0.1717 0.1734 0.1751 0.1768 0.1785 0.1802 0.1819 0.1836 0.1853 0.1870 0.1887 0.1904 0.1921 0.1938 0.1955 0.1972 0.1989 0.2006 0.2023 0.2040 0.2057 0.2074 0.2091 0.2108 0.2125 0.2142 0.2159 0.2176 0.2193 0.2210 0.2227 0.2244 0.2261 0.2278 0.2295 0.2312 0.2329 0.2346 0.2363 0.2380 0.2397 0.2414 0.2431 0.2448 0.2465 0.2482 0.2499 0.2516 0.2533 0.2550 0.2567 0.2584 0.2601 0.2618 0.2635 0.2652 0.2669 0.2686 0.2703 0.2720 0.2737 0.2754 0.2771 0.2788 0.2805 0.2822 0.2839 0.2856 0.2873 0.2890 0.2907 0.2924 0.2941 0.2958 0.2975 0.2992 0.3009 0.3026 0.3043 0.3060 0.3077 0.3094 0.3111 0.3128 0.3145 0.3162 0.3179 0.3196 0.3213 0.3230 0.3247 0.3264 0.3281 0.3298 0.3315 0.3332 0.3349 0.3366 0.3383 0.3400 0.3417 0.3434 0.3451 0.3468 0.3485 0.3502 0.3519 0.3536 0.3553 0.3570 0.3587 0.3604 0.3621 0.3638 0.3655 0.3672 0.3689 0.3706 0.3723 0.3740 0.3757 0.3774 0.3791 0.3808 0.3825 0.3842 0.3859 0.3876 0.3893 0.3910 0.3927 0.3944 0.3961 0.3978 0.3995 0.4012 0.4029 0.4046 0.4063 0.4080 0.4097 0.4114 0.4131 0.4148 0.4165 0.4182 0.4199 0.4216 0.4233 0.4250 0.4267 0.4284 0.4301 0.4318 0.4335 0.4352 0.4369 0.4386 0.4403 0.4420 0.4437 0.4454 0.4471 0.4488 0.4505 0.4522 0.4539 0.4556 0.4573 0.4590 0.4607 0.4624 0.4641 0.4658 0.4675 0.4692 0.4709 0.4726 0.4743 0.4760 0.4777 0.4794 0.4811 0.4828 0.4845 0.4862 0.4879 0.4896 0.4913 0.4930 0.4947 0.4964 0.4981 0.4998 0.5015 0.5032 0.5049 0.5066 0.5083 0.5100 0.5117 0.5134 0.5151 0.5168 0.5185 0.5202 0.5219 0.5236 0.5253 0.5270 0.5287 0.5304 0.5321 0.5338 0.5355 0.5372 0.5389 0.5406 0.5423 0.5440 0.5457 0.5474 0.5491 0.5508 0.5525 0.5542 0.5559 0.5576 0.5593 0.5610 0.5627 0.5644 0.5661 0.5678 0.5695 0.5712 0.5729 0.5746 0.5763 0.5780 0.5797 0.5814 0.5831 0.5848 0.5865 0.5882 0.5899 0.5916 0.5933 0.5950 0.5967 0.5984 0.6001 0.6018 0.6035 0.6052 0.6069 0.6086 0.6103 0.6120 0.6137 0.6154 0.6171 0.6188 0.6205 0.6222 0.6239 0.6256 0.6273 0.6290 0.6307 0.6324 0.6341 0.6358 0.6375 0.6392 0.6409 0.6426 0.6443 0.6460 0.6477 0.6494 0.6511 0.6528 0.6545 0.6562 0.6579 0.6596 0.6613 0.6630 0.6647 0.6664 0.6681 0.6698 0.6715 0.6732 0.6749 0.6766 0.6783 0.6800 0.6817 0.6834 0.6851 0.6868 0.6885 0.6902 0.6919 0.6936 0.6953 0.6970 0.6987 0.7004 0.7021 0.7038 0.7055 0.7072 0.7089 0.7106 0.7123 0.7140 0.7157 0.7174 0.7191 0.7208 0.7225 0.7242 0.7259 0.7276 0.7293 0.7310 0.7327 0.7344 0.7361 0.7378 0.7395 0.7412 0.7429 0.7446 0.7463 0.7480 0.7497 0.7514 0.7531 0.7548 0.7565 0.7582 0.7599 0.7616 0.7633 0.7650 0.7667 0.7684 0.7701 0.7718 0.7735 0.7752 0.7769 0.7786 0.7803 0.7820 0.7837 0.7854 0.7871 0.7888 0.7905 0.7922 0.7939 0.7956 0.7973 0.7990 0.8007 0.8024 0.8041 0.8058 0.8075 0.8092 0.8109 0.8126 0.8143 0.8160 0.8177 0.8194 0.8211 0.8228 0.8245 0.8262 0.8279 0.8296 0.8313 0.8330 0.8347 0.8364 0.8381 0.8398 0.8415 0.8432 0.8449 0.8466 0.8483 0.8500 0.8517 0.8534 0.8551 0.8568 0.8585 0.8602 0.8619 0.8636 0.8653 0.8670 0.8687 0.8704 0.8721 0.8738 0.8755 0.8772 0.8789 0.8806 0.8823 0.8840 0.8857 0.8874 0.8891 0.8908 0.8925 0.8942 0.8959 0.8976 0.8993 0.9010 0.9027 0.9044 0.9061 0.9078 0.9095 0.9112 0.9129 0.9146 0.9163 0.9180 0.9197 0.9214 0.9231 0.9248 0.9265 0.9282 0.9299 0.9316 0.9333 0.9350 0.9367 0.9384 0.9401 0.9418 0.9435 0.9452 0.9469 0.9486 0.9503 0.9520 0.9537 0.9554 0.9571 0.9588 0.9605 0.9622 0.9639 0.9656 0.9673 0.9690 0.9707 0.9724 0.9741 0.9758 0.9775 0.9792 0.9809 0.9826 0.9843 0.9860 0.9877 0.9894 0.9911 0.9928 0.9945 0.9962 0.9979 0.9996 1.0013 1.0030 1.0047 1.0064 1.0081 1.0098 1.0115 1.0132 1.0149 1.0166 1.0183 1.0200 1.0217 1.0234 1.0251 1.0268 1.0285 1.0302 1.0319 1.0336 1.0353 1.0370 1.0387 1.0404 1.0421 1.0438 1.0455 1.0472 1.0489 1.0506 1.0523 1.0540 1.0557 1.0574 1.0591 1.0608 1.0625 1.0642 1.0659 1.0676 1.0693 1.0710 1.0727 1.0744 1.0761 1.0778 1.0795 1.0812 1.0829 1.0846 1.0863 1.0880 1.0897 1.0914 1.0931 1.0948 1.0965 1.0982 1.0999 1.1016 1.1033 1.1050 1.1067 1.1084 1.1101 1.1118 1.1135 1.1152 1.1169 1.1186 1.1203 1.1220 1.1237 1.1254 1.1271 1.1288 1.1305 1.1322 1.1339 1.1356 1.1373 1.1390 1.1407 1.1424 1.1441 1.1458 1.1475 1.1492 1.1509 1.1526 1.1543 1.1560 1.1577 1.1594 1.1611 1.1628 1.1645 1.1662 1.1679 1.1696 1.1713 1.1730 1.1747 1.1764 1.1781 1.1798 1.1815 1.1832 1.1849 1.1866 1.1883 1.1900 1.1917 1.1934 1.1951 1.1968 1.1985 1.2002 1.2019 1.2036 1.2053 1.2070 1.2087 1.2104 1.2121 1.2138 1.2155 1.2172 1.2189 1.2206 1.2223 1.2240 1.2257 1.2274 1.2291 1.2308 1.2325 1.2342 1.2359 1.2376 1.2393 1.2410 1.2427 1.2444 1.2461 1.2478 1.2495 1.2512 1.2529 1.2546 1.2563 1.2580 1.2597 1.2614 1.2631 1.2648 1.2665 1.2682 1.2699 1.2716 1.2733 1.2750 1.2767 1.2784 1.2801 1.2818 1.2835 1.2852 1.2869 1.2886 1.2903 1.2920 1.2937 1.2954 1.2971 1.2988 1.3005 1.3022 1.3039 1.3056 1.3073 1.3090 1.3107 1.3124 1.3141 1.3158 1.3175 1.3192 1.3209 1.3226 1.3243 1.3260 1.3277 1.3294 1.3311 1.3328 1.3345 1.3362 1.3379 1.3396 1.3413 1.3430 1.3447 1.3464 1.3481 1.3498 1.3515 1.3532 1.3549 1.3566 1.3583 1.3600 1.3617 1.3634 1.3651 1.3668 1.3685 1.3702 1.3719 1.3736 1.3753 1.3770 1.3787 1.3804 1.3821 1.3838 1.3855 1.3872 1.3889 1.3906 1.3923 1.3940 1.3957 1.3974 1.3991 1.4008 1.4025 1.4042 1.4059 1.4076 1.4093 1.4110 1.4127 1.4144 1.4161 1.4178 1.4195 1.4212 1.4229 1.4246 1.4263 1.4280 1.4297 1.4314 1.4331 1.4348 1.4365 1.4382 1.4399 1.4416 1.4433 1.4450 1.4467 1.4484 1.4501 1.4518 1.4535 1.4552 1.4569 1.4586 1.4603 1.4620 1.4637 1.4654 1.4671 1.4688 1.4705 1.4722 1.4739 1.4756 1.4773 1.4790 1.4807 1.4824 1.4841 1.4858 1.4875 1.4892 1.4909 1.4926 1.4943 1.4960 1.4977 1.4994 1.5011 1.5028 1.5045 1.5062 1.5079 1.5096 1.5113 1.5130 1.5147 1.5164 1.5181 1.5198 1.5215 1.5232 1.5249 1.5266 1.5283 1.5300 1.5317 1.5334 1.5351 1.5368 1.5385 1.5402 1.5419 1.5436 1.5453 1.5470 1.5487 1.5504 1.5521 1.5538 1.5555 1.5572 1.5589 1.5606 1.5623 1.5640 1.5657 1.5674 1.5691 1.5708 1.5725 1.5742 1.5759 1.5776 1.5793 1.5810 1.5827 1.5844 1.5861 1.5878 1.5895 1.5912 1.5929 1.5946 1.5963 1.5980 1.5997 1.6014 1.6031 1.6048 1.6065 1.6082 1.6099 1.6116 1.6133 1.6150 1.6167 1.6184 1.6201 1.6218 1.6235 1.6252 1.6269 1.6286 1.6303 1.6320 1.6337 1.6354 1.6371 1.6388 1.6405 1.6422 1.6439 1.6456 1.6473 1.6490 1.6507 1.6524 1.6541 1.6558 1.6575 1.6592 1.6609 1.6626 1.6643 1.6660 1.6677 1.6694 1.6711 1.6728 1.6745 1.6762 1.6779 1.6796 1.6813 1.6830 1.6847 1.6864 1.6881 1.6898 1.6915 1.6932 1.6949 1.6966 1.6983 1.7000 1.7017 1.7034 1.7051 1.7068 1.7085 1.7102 1.7119 1.7136 1.7153 1.7170 1.7187 1.7204 1.7221 1.7238 1.7255 1.7272 1.7289 1.7306 1.7323 1.7340 1.7357 1.7374 1.7391 1.7408 1.7425 1.7442 1.7459 1.7476 1.7493 1.7510 1.7527 1.7544 1.7561 1.7578 1.7595 1.7612 1.7629 1.7646 1.7663 1.7680 1.7697 1.7714 1.7731 1.7748 1.7765 1.7782 1.7799 1.7816 1.7833 1.7850 1.7867 1.7884 1.7901 1.7918 1.7935 1.7952 1.7969 1.7986 1.8003 1.8020 1.8037 1.8054 1.8071 1.8088 1.8105 1.8122 1.8139 1.8156 1.8173 1.8190 1.8207 1.8224 1.8241 1.8258 1.8275 1.8292 1.8309 1.8326 1.8343 1.8360 1.8377 1.8394 1.8411 1.8428 1.8445 1.8462 1.8479 1.8496 1.8513 1.8530 1.8547 1.8564 1.8581 1.8598 1.8615 1.8632 1.8649 1.8666 1.8683 1.8700 1.8717 1.8734 1.8751 1.8768 1.8785 1.8802 1.8819 1.8836 1.8853 1.8870 1.8887 1.8904 1.8921 1.8938 1.8955 1.8972 1.8989 1.9006 1.9023 1.9040 1.9057 1.9074 1.9091 1.9108 1.9125 1.9142 1.9159 1.9176 1.9193 1.9210 1.9227 1.9244 1.9261 1.9278 1.9295 1.9312 1.9329 1.9346 1.9363 1.9380 1.9397 1.9414 1.9431 1.9448 1.9465 1.9482 1.9499 1.9516 1.9533 1.9550 1.9567 1.9584 1.9601 1.9618 1.9635 1.9652 1.9669 1.9686 1.9703 1.9720 1.9737 1.9754 1.9771 1.9788 1.9805 1.9822 1.9839 1.9856 1.9873 1.9890 1.9907 1.9924 1.9941 1.9958 1.9975 1.9992 2.0009 2.0026 2.0043 2.0060 2.0077 2.0094 2.0111 2.0128 2.0145 2.0162 2.0179 2.0196 2.0213 2.0230 2.0247 2.0264 2.0281 2.0298 2.0315 2.0332 2.0349 2.0366 2.0383 2.0400 2.0417 2.0434 2.0451 2.0468 2.0485 2.0502 2.0519 2.0536 2.0553 2.0570 2.0587 2.0604 2.0621 2.0638 2.0655 2.0672 2.0689 2.0706 2.0723 2.0740 2.0757 2.0774 2.0791 2.0808 2.0825 2.0842 2.0859 2.0876 2.0893 2.0910 2.0927 2.0944 2.0961 2.0978 2.0995 2.1012 2.1029 2.1046 2.1063 2.1080 2.1097 2.1114 2.1131 2.1148 2.1165 2.1182 2.1199 2.1216 2.1233 2.1250 2.1267 2.1284 2.1301 2.1318 2.1335 2.1352 2.1369 2.1386 2.1403 2.1420 2.1437 2.1454 2.1471 2.1488 2.1505 2.1522 2.1539 2.1556 2.1573 2.1590 2.1607 2.1624 2.1641 2.1658 2.1675 2.1692 2.1709 2.1726 2.1743 2.1760 2.1777 2.1794 2.1811 2.1828 2.1845 2.1862 2.1879 2.1896 2.1913 2.1930 2.1947 2.1964 2.1981 2.1998 2.2015 2.2032 2.2049 2.2066 2.2083 2.2100 2.2117 2.2134 2.2151 2.2168 2.2185 2.2202 2.2219 2.2236 2.2253 2.2270 2.2287 2.2304 2.2321 2.2338 2.2355 2.2372 2.2389 2.2406 2.2423 2.2440 2.2457 2.2474 2.2491 2.2508 2.2525 2.2542 2.2559 2.2576 2.2593 2.2610 2.2627 2.2644 2.2661 2.2678 2.2695 2.2712 2.2729 2.2746 2.2763 2.2780 2.2797 2.2814 2.2831 2.2848 2.2865 2.2882 2.2899 2.2916 2.2933 2.2950 2.2967 2.2984 2.3001 2.3018 2.3035 2.3052 2.3069 2.3086 2.3103 2.3120 2.3137 2.3154 2.3171 2.3188 2.3205 2.3222 2.3239 2.3256 2.3273 2.3290 2.3307 2.3324 2.3341 2.3358 2.3375 2.3392 2.3409 2.3426 2.3443 2.3460 2.3477 2.3494 2.3511 2.3528 2.3545 2.3562 2.3579 2.3596 2.3613 2.3630 2.3647 2.3664 2.3681 2.3698 2.3715 2.3732 2.3749 2.3766 2.3783 2.3800 2.3817 2.3834 2.3851 2.3868 2.3885 2.3902 2.3919 2.3936 2.3953 2.3970 2.3987 2.4004 2.4021 2.4038 2.4055 2.4072 2.4089 2.4106 2.4123 2.4140 2.4157 2.4174 2.4191 2.4208 2.4225 2.4242 2.4259 2.4276 2.4293 2.4310 2.4327 2.4344 2.4361 2.4378 2.4395 2.4412 2.4429 2.4446 2.4463 2.4480 2.4497 2.4514 2.4531 2.4548 2.4565 2.4582 2.4599 2.4616 2.4633 2.4650 2.4667 2.4684 2.4701 2.4718 2.4735 2.4752 2.4769 2.4786 2.4803 2.4820 2.4837 2.4854 2.4871 2.4888 2.4905 2.4922 2.4939 2.4956 2.4973 2.4990 2.5007 2.5024 2.5041 2.5058 2.5075 2.5092 2.5109 2.5126 2.5143 2.5160 2.5177 2.5194 2.5211 2.5228 2.5245 2.5262 2.5279 2.5296 2.5313 2.5330 2.5347 2.5364 2.5381 2.5398 2.5415 2.5432 2.5449 2.5466 2.5483 2.5500 2.5517 2.5534 2.5551 2.5568 2.5585 2.5602 2.5619 2.5636 2.5653 2.5670 2.5687 2.5704 2.5721 2.5738 2.5755 2.5772 2.5789 2.5806 2.5823 2.5840 2.5857 2.5874 2.5891 2.5908 2.5925 2.5942 2.5959 2.5976 2.5993 2.6010 2.6027 2.6044 2.6061 2.6078 2.6095 2.6112 2.6129 2.6146 2.6163 2.6180 2.6197 2.6214 2.6231 2.6248 2.6265 2.6282 2.6299 2.6316 2.6333 2.6350 2.6367 2.6384 2.6401 2.6418 2.6435 2.6452 2.6469 2.6486 2.6503 2.6520 2.6537 2.6554 2.6571 2.6588 2.6605 2.6622 2.6639 2.6656 2.6673 2.6690 2.6707 2.6724 2.6741 2.6758 2.6775 2.6792 2.6809 2.6826 2.6843 2.6860 2.6877 2.6894 2.6911 2.6928 2.6945 2.6962 2.6979 2.6996 2.7013 2.7030 2.7047 2.7064 2.7081 2.7098 2.7115 2.7132 2.7149 2.7166 2.7183 2.7200 2.7217 2.7234 2.7251 2.7268 2.7285 2.7302 2.7319 2.7336 2.7353 2.7370 2.7387 2.7404 2.7421 2.7438 2.7455 2.7472 2.7489 2.7506 2.7523 2.7540 2.7557 2.7574 2.7591 2.7608 2.7625 2.7642 2.7659 2.7676 2.7693 2.7710 2.7727 2.7744 2.7761 2.7778 2.7795 2.7812 2.7829 2.7846 2.7863 2.7880 2.7897 2.7914 2.7931 2.7948 2.7965 2.7982 2.8000 2.8017 2.8034 2.8051 2.8068 2.8085 2.8102 2.8119 2.8136 2.8153 2.8170 2.8187 2.8204 2.8221 2.8238 2.8255 2.8272 2.8289 2.8306 2.8323 2.8340 2.8357 2.8374 2.8391 2.8408 2.8425 2.8442 2.8459 2.8476 2.8493 2.8510 2.8527 2.8544 2.8561 2.8578 2.8595 2.8612 2.8629 2.8646 2.8663 2.8680 2.8697 2.8714 2.8731 2.8748 2.8765 2.8782 2.8799 2.8816 2.8833 2.8850 2.8867 2.8884 2.8901 2.8918 2.8935 2.8952 2.8969 2.8986 2.9003 2.9020 2.9037 2.9054 2.9071 2.9088 2.9105 2.9122 2.9139 2.9156 2.9173 2.9190 2.9207 2.9224 2.9241 2.9258 2.9275 2.9292 2.9309 2.9326 2.9343 2.9360 2.9377 2.9394 2.9411 2.9428 2.9445 2.9462 2.9479 2.9496 2.9513 2.9530 2.9547 2.9564 2.9581 2.9598

ATTACHMENT 5

**SITE PHOTOGRAPHS
Crescent Forge & Shovel Site
Havana, Mason County, Illinois
May 2018**

Photo A

Date: 5/22/18

Source of Photo:
Crescent Forge &
Shovel Removal
Assessment
Report (Tetra
Tech, 2018)

Description: Pile
of debris on site
containing ACM
released to the
environment
located on the
western portion of
the property.



Photo B

Date: 5/22/18

Source of Photo:
Crescent Forge &
Shovel Removal
Assessment
Report (Tetra
Tech, 2018)

Description:
View of remnants
of damaged
building on
eastern portion of
the site



Photo C

Date: 5/22/18

Source of Photo:
Crescent Forge &
Shovel Removal
Assessment
Report (Tetra
Tech, 2018)

Description:

View of pile
containing ACM
on northern
portion of Site



Photo D

Date: 5/22/18

Source of Photo:
Crescent Forge &
Shovel Removal
Assessment
Report (Tetra
Tech, 2018)

Description:

Open concrete vat
located at the
northwestern
portion of the Site



Photo E

Date: 5/22/18

Source of Photo:
Crescent Forge &
Shovel Removal
Assessment
Report (Tetra
Tech, 2018)

Description:

View of debris
pile containing
ACM on
southwestern
portion of Site

