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

MEMORANDUM

REPLY TO THE ATTENTION OF:

SUBJECT: Request for Approval and Funding for a Time-Critical Removal Action at the Allied Smelting Site, 5000-5116 W. Lincoln Avenue, West Allis, Milwaukee County, Wisconsin (Site ID #C56Z)

FROM: Kathy Halbur, On-Scene Coordinator
Emergency Response Section 1

THRU: Jason H. El-Zein, Chief
Emergency Response Branch 1

TO: Margaret M. Guerriero, Acting Director
Superfund Division

I. PURPOSE

The purpose of this memorandum is to request and document your approval to expend up to $444,308 to conduct a time-critical removal action at the Allied Smelting Site (or the Site), located in the Cites of West Allis and Milwaukee, Milwaukee County, Wisconsin 53219. The response actions proposed herein are necessary to mitigate threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances at the Site. The Site contains lead in surface soils downwind and adjacent to the former Allied Smelting Corporation, located at 5000-5116 W. Lincoln Avenue, West Allis, Wisconsin.

This Action Memorandum seeks approval to take actions described herein to abate the imminent and substantial endangerment posed by elevated lead levels at the Site. EPA proposes to remove the contaminated soils pursuant to Section 104(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604(a)(1), and 40 C.F.R. §300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

The uncontrolled conditions of the hazardous substances present at the Site, and the potential threats they present require that EPA classify this removal action as time-critical. EPA's response actions described in this Action Memorandum will require an estimated 25 on-site working days to complete.

There are no nationally significant or precedent setting issues associated with the Site. The Site is not on the National Priorities List (NPL).

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID: WIP000509222
RCRA ID: SHWIMS 241321080
STATE ID: BRRTS 241321080
Category: Time-Critical Removal

A. Site Description

The Allied Smelting Site includes eight properties adjacent to and downwind of the former Allied Smelting Corporation (Site Figure, Attachment 2). Allied Smelting Corporation was a secondary lead smelter located at 5000-5116 W. Lincoln Avenue, West Allis, WI 53219. The source property was initially developed as the Grey Iron Foundry in 1945. Allied Smelting Corporation operated the property from 1950-1975 as a secondary lead smelter that recycled waste lead/acid batteries.

Nearby residents regularly filed complaints about Allied Smelting's operations, noting fires in smokestacks and discharges of sulfuric acid fumes (Administrative Record (AR), Documents 1 & 5). Aerial photos show that Allied Smelting stored lead/acid batteries in outside storage areas (AR, Document 5).

Allied Smelting Corporation owned the property until 1980. Many of the buildings used by Allied Smelting were razed between 1980-1982. In 1982, new buildings were constructed on the Site. Currently, the former Allied Smelting property is occupied by a window company (Wasco) and a maintenance facility for the neighboring bakery (Grebe's).

The Wisconsin Department of Natural Resources (WDNR) investigated waste remaining at the Site from 1997-2015. Waste fill at the Site consisted of foundry sand, cinders, and slag. The highest detected concentrations of lead and arsenic in the on-site soil/waste material were 210,000 ppm and 450 ppm respectively. In 2001, the Site was published in an American Journal of Public Health Report entitled *Discovering Unrecognized Lead-Smelting by Historical Methods*. In response, WDNR completed a Pre-CERCLIS Screening under the Site name CRC Wasco in 2004. This screening did not include any off-site evaluation. WDNR closed the source property as an historic fill site in 2015, requiring institutional controls, including a cap over the contaminated area. A copy of the closure packet is available in the AR (Document 4).

In April, 2014, the Site was included in USA Today's articles entitled *Ghost Factories – Poison in the Ground* (AR, Document 3). USA Today analyzed 44 samples from 14 properties near Allied Smelting and interviewed neighbors. Seven samples exceeded 400 ppm, the recognized soil-lead hazard value for bare soil in play areas.

Based on the article, WDNR initiated a second Pre-CERCLIS Screening in 2014 and a Preliminary Assessment (PA)/Site Investigation (SI) in 2015. During the SI, WDNR collected nineteen surface samples (0-6" below ground surface, bgs) from the prevailing downwind direction of the Site to assess airborne emission fallout from the facility. This allowed for comparison of the SI Results to the USA Today data. WDNR's sampling in the downwind

neighborhood was limited to curbside public right-of-ways. The highest concentration of lead detected off-site was 1,700 ppm. The SI Report (dated July 11, 2016) is available in the AR (Document 5).

The results of the SI prompted the involvement of the EPA Removal Program. WDNR officially requested EPA Emergency Response Branch assistance on October 18, 2016 (AR, Document 6).

1. Removal site evaluation

The area evaluated during the Removal Site Assessment is depicted in Attachment 2. This area, a 750' downwind radius, is based on the height of Allied Smelting's former stack, complaints registered during Allied Smelting's operations, and WDNR's SI results. The Removal Site Assessment area is bisected by the City line between West Allis and Milwaukee.

The West Allis Health Department and Milwaukee Health Department assisted EPA with outreach to the residents and businesses in the investigation area (AR, Document 7). Initial sampling was conducted on December 7-8, 2016. Access had been granted for four residences, one apartment complex, two businesses, and the City of Milwaukee right-of-way in the investigation area. Sampling efforts were hindered by extreme cold temperatures and winter conditions.

Lead was detected at concentrations exceeding EPA's Removal Management Level (RML) in surface soils (0-6" bgs) at two residential and two commercial properties. The highest residential concentration detected was 1,850 ppm. This is presumed to be from historic airborne deposition. The highest lead concentration on commercial property was 13,000 ppm. This is presumed to be waste material spilled onto the neighboring property. The cap required by WDNR's site closure does not extend onto the neighboring property (AR, Document 4). Arsenic was not detected at levels of concern. The Site Assessment Report is available in the AR (Document 8).

Of the four residential properties sampled in December 2016, the two properties closest to the former Allied Smelting Corporation were above the RML and the two properties furthest down the block were below the RML. Additional outreach efforts were undertaken to better define the extent of contamination and impacted residences.

A second round of sampling was conducted April 3-5, 2017. Five additional residential properties were sampled and supplementary samples (up to 2' bgs) were collected from the properties identified with elevated levels during the December 2016, sampling event to assess the depth of contamination. Lead concentrations above 400 ppm were identified at four additional residential properties and the extent of contamination was determined to be within one foot bgs. The residual waste material at the adjacent property was consistently found 0-2' bgs, with lead concentrations as high as 247,328 ppm and TCLP 980 mg/L. The Removal Site Assessment Addendum Report is available in the AR (Document 13).

2. Physical location

The Site is located in a mixed residential, commercial, and industrial area adjacent to and south of 5000-5116 W. Lincoln Avenue, West Allis, WI 53219. The Site includes properties on W. Lincoln Avenue and S. 52nd Street in the City of West Allis and properties on S. 51st Street in the City of Milwaukee. The Site is bordered to the South by S. Hayes Avenue. All properties are in Milwaukee County, WI. The former Allied Smelting Corporation was located at 43° 0'11.94" North latitude and -87°58'38.85" West longitude. A site map is available in Attachment 2.

An Environmental Justice (EJ) analysis for the Site is contained in Attachment 3. 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 5000-5116 W. Lincoln Avenue, West Allis, WI, and determined there is a high potential for EJ concerns at the Site based on every high priority variable.

3. Site Characteristics

In total, the removal assessment identified eight off-site properties impacted by Allied Smelting's operations. Four properties are believed to be Tier 2 and four are Tier 3, based on what is currently known about their occupancies and use.

According to EPA's Superfund Lead-Contaminated Residential Sites Handbook (August, 2003), Tier 2 properties have either sensitive populations (children up to seven years old or pregnant women) and soil lead concentrations in surface soils between 400 ppm and 1,200 ppm, or no sensitive populations and surface lead concentrations above 1,200 ppm, but not both. Tier 3 properties have surface soil concentrations below 1,200, but above 400 ppm, and no sensitive populations present. Note that residential properties can move into a different tier if conditions change (e.g., small children or pregnant women move into a house). Also note that one of the properties contains residual hazardous waste with very high concentrations, not contemplated by the Handbook. At the residential properties, the depth of the elevated concentrations are limited to the top foot bgs. The only property with deeper concentrations is the bakery property adjacent to the source property. Attachment 5 contains representative photos of impacted properties.

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

Elevated lead levels (400 ppm - 247,328 ppm) were identified in surface soils at eight properties adjacent to and downwind of the former Allied Smelting operation. Lead is designated as a hazardous substance in 40 CFR §302.4.

5. NPL status

This Site is not on the National Priorities List (NPL) and has not been proposed for listing on the NPL. WDNR conducted a PA/SI for this Site and referred it to the Removal Program for action. No additional remedial activities are anticipated after the removal action proposed in this Action Memo.

6. Maps, pictures and other graphic representations

Attachment 1: Administrative Record Index
Attachment 2: Site Location Map
Attachment 3: Environmental Justice Analysis
Attachment 4: Sample Results Summary
Attachment 5: Photo Log
Attachment 6: Detailed Cleanup Contractor Cost Estimate
Attachment 7: Independent Government Cost Estimate

B. Other Actions to Date; State and Local Authorities' Roles

1. Previous actions

WDNR has been investigating the source property since 1997, including a Pre-CERCLIS Screening (under the Site name CRC Wasco) in 2004. WDNR closed the source property as an historic fill site in 2015 (AR, Document 4), requiring institutional controls, including a cap over the contaminated area. WDNR initiated a second Pre-CERCLIS Screening in 2014 and a Preliminary Assessment (PA)/Site Investigation (SI) to evaluate off-site impacts of Allied Smelting's operations in 2015. The results of the SI (AR, Document 5) prompted the involvement of the EPA Removal Program. WDNR officially requested EPA Emergency Response Branch assistance on October 18, 2016 (AR, Document 6).

WDNR, the West Allis Health Department, Milwaukee Health Department, and WI Department of Health Services assisted EPA with public outreach and site background information during the removal site assessment. All property owners have been advised of their results and to cover bare soils. Mulch is provided by the City at no cost to the property owners (Attachment 5, photo 4). The West Allis Health Department is offering free blood lead testing. A copy of the information sheets provided to impacted property owners is available in the AR (Documents 7, 9, & 11).

2. Potential for continued State/local response

WDNR will continue to monitor the institutional control requirements for the source property (AR, Document 4). Any additional contaminated properties that also require institutional controls will be added to the WI GIS Registry. UP Railroad owns property adjacent to the source property to the north that has not yet been assessed due to access restrictions. WDNR will notify UPRR of potential contamination on their property.

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

The conditions at the Allied Smelting Site present an imminent and substantial threat to public health or welfare, and the environment, and meet the criteria for a time-critical removal action provided for in 40 C.F.R. § 300.415 (b)(2) of the NCP. These factors include, but are not limited to, the following:

Actual or potential exposure of nearby human populations, animals, or the food chain to hazardous substances or pollutants or contaminants;

Concentrations of lead in surface soils (0-12" bgs) exceed EPA's Removal Management Level for lead (400 ppm & 1,200 ppm). The highest concentration identified downwind from airborne deposition was 1,850 ppm. The adjacent property, a bakery, has residual waste from the smelting operation in surface soils with concentrations as high as 169,107 ppm (TCLP, 980 mg/L). Lead is designated as a hazardous substance in 40 CFR §302.4. The lead poses a direct contact risk to property owners and visitors. All property owners have been advised to cover bare soils with mulch (Attachment 5, photo 4; AR, Documents 9 & 11). Mulch is provided by the City at no cost to the property owners.

According to the Agency for Toxic Substances and Disease Registry's (ATSDR) "ToxFAQ for Lead" (AR, Document 2), lead can affect almost every bodily organ and system. The main target of lead toxicity is the nervous system in both adults and children. Long-term exposure of lead in adults can result in decreased performance in some tests that measure nervous system functions and cause weakness in fingers, wrists, and ankles. Lead exposure can also cause small increases in blood pressure, especially in middle-aged and older people, and anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults and children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level lead exposure in men can damage the organs responsible for sperm production.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate;

EPA identified residual waste from the smelting operation in the top two feet of soil at the property adjacent to the former Allied Smelting. TCLP analysis of the samples collected from this property for lead revealed concentrations as high as 980 mg/L. TCLP is a soil sample extraction method that simulates leaching. Lead concentrations greater than 5 mg/L are considered to be hazardous waste (D008) because of their potential to migrate.

Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

The Milwaukee area experienced an unusually warm 2016-2017 winter, which resulted in minimal snow cover. Snow cover offers a protective cover to contaminated soil. Additionally, 2017 Spring has been exceptionally wet, with more than 6" of rain in April alone. These factors are resulting in muddy conditions, impaired grass cover, and additional tracking at the impacted properties.

The availability of other appropriate federal or state response mechanisms to respond to the release;

Local officials, WDNR, and WDHS have requested EPA assistance evaluating and removing the off-site contamination from the former Allied Smelting operations. Allied Smelting is no longer

in operation and the source property was redeveloped many years ago. There are no other known mechanisms to address the identified contamination.

IV. ENDANGERMENT DETERMINATION

Based on the Site conditions, the nature of the known and suspected hazardous substances, pollutants or contaminants onsite, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances, pollutants or contaminants from this 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

EPA proposes response actions to directly address actual or potential releases of hazardous substances on Site that may pose an imminent and substantial endangerment to public health, or welfare, or the environment. EPA will:

1. Develop site plans, including a Work Plan, site-specific HASP, Site Security Plan, and Emergency Contingency Plan;

2. Develop an air monitoring plan and conduct dust control measures to ensure worker and public health protection;

3. Excavate surficial soils at six residential parcels where lead is equal to or exceeds 400 mg/kg and two commercial parcels where lead is equal to or exceeds 1,200 mg/kg. In total, an estimated 150 cubic yards of contaminated soil will be excavated to eliminate direct contact and inhalation threats. Excavation will not exceed two feet bgs at any property and will cease if lead concentrations are less than 400 mg/kg using in-field XRF screening. Areas utilized by children under seven years of age will be prioritized during the removal action.

4. Replace excavated soil with clean soil, including six inches of top soil to maintain the original grade. Each yard will be restored as close as practicable to its pre-removal condition. Once the parcels are sodded or seeded, removal site control of the sod or seed, including, watering, fertilizing, and cutting, will be conducted for 30 days. After the initial 30 day period, property owners will be responsible for the maintenance of their own yards. The aforementioned work shall be documented in a Work Plan and the excavation access agreement for each property;

5. Transportation and disposal off-site of any hazardous substances, pollutants and contaminants at a CERCLA-approved disposal facility in accordance with EPA's Off-Site

Rule (40 CFR § 300.440). Excavated material that fails toxicity characteristic leaching procedure (TCLP) for lead may be treated with a fixation agent prior to disposal.

6. Provide a drinking water filter certified by NSF International for lead reduction to six impacted residential property owners for use during the excavation activities; and

7. Pursue establishing institutional controls for residual waste at impacted commercial properties.

EPA will conduct its removal action in a manner not inconsistent with the NCP. The OSC has initiated planning for provision of post-removal Site control consistent with the provisions of Section 300.415(l) of the NCP. However, eliminating all threats that hazardous substances and/or pollutants or contaminants present is expected to minimize the need for post-removal Site control.

2. Contribution to Remedial Performance

The proposed action will not impede future actions based on available information.

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

Not Applicable.

4. Applicable or relevant and appropriate requirements (ARARs)

EPA will comply with all applicable or relevant and appropriate requirements (ARARs) to the extent practicable. On June 19, 2017, EPA sent a letter to John Sager of the WDNR asking for any State of Wisconsin ARARs which may apply to or be relevant and appropriate at the Site (AR, Document 12).

5. Project Schedule:

EPA's response action described in this Action Memorandum will require an estimated 25 working days to complete.

B. Estimated Costs

The detailed cleanup contractor cost is presented in Attachment 6 and the Independent Government Cost Estimate is presented in Attachment 7. Estimated project costs are summarized below:

REMOVAL ACTION PROJECT CEILING ESTIMATE	
Extramural Costs:	
Regional Removal Allowance Costs:	
Total Cleanup Contractor Costs	$320,257

(This cost category includes estimates for ERRS and subcontractors. Includes a 15% contingency)	
Other Extramural Costs Not Funded from the Regional Allowance:	$50,000
Total START, including multiplier costs	$370,257
Subtotal Extramural Costs	
Extramural Costs Contingency (20% of Subtotal, Extramural Costs rounded to nearest thousand)	$74,051
TOTAL REMOVAL ACTION PROJECT CEILING	$444,308

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

Given the Site conditions, the nature of the hazardous substances and pollutants or contaminants documented on Site, and the potential exposure pathways to nearby populations described in Sections II, III and IV above, the actual or threatened release of hazardous substances and pollutants or contaminants from the Site presents an imminent and substantial endangerment to public health, welfare or the environment if EPA does not take this action. This will increase the potential that hazardous substances will be released, thereby threatening the adjacent population and the environment. Delayed or non-action may result in increased likelihood of external exposure, inhalation, ingestion or direct contact to human populations trespassing at or near the Site.

VII. OUTSTANDING POLICY ISSUES

Not applicable.

VIII. ENFORCEMENT

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

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 $800,581.[1]

Direct Costs	+ Indirect Costs	= Estimated EPA Costs for Removal Action
($444,308 + $50,000)	+ (61.96%) x ($494,308)	($800,581)

[1] 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-judgment 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.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Allied Smelting Site, West Allis and Milwaukee, Milwaukee County, WI, 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 (Attachment 1). Conditions at the Site meet the NCP Section 300.415(b)(2) criteria for a removal and I recommend your approval of the removal action proposed in this Action Memorandum.

The total project ceiling if approved will be $444,308, of which an estimated $394,308 may be used for cleanup contractor costs. You may indicate your approval by signing below.

APPROVE _____ DATE: 7/7/2017
Margaret M. Guerriero, Acting Director
Superfund Division

DISAPPROVE _____ DATE: _____
Margaret M. Guerriero, Acting Director
Superfund Division

Enforcement Addendum
Attachments

1. Administrative Record Index
2. Site Location Map
3. Environmental Justice Analysis
4. Sample Results Summary
5. Photo Log
6. Detailed Cleanup Contractor Cost Estimate
7. Independent Government Cost Estimate

cc: B. Schlieger, U.S. EPA, 5104A, (email: Brian Schleiger/DC/USEPA/US)
L. Nelson, U.S. DOI, **w/o Enf. Addendum** (email: lindy_nelson@ios.doi.gov)
J. Sager, Wisconsin Department of Natural Resources, **w/o Enf. Addendum** (email: john.sager@wisconsin.gov)
S. Mueller, Wisconsin Department of Natural Resources, **w/o Enf. Addendum** (email: steve.mueller@wiscsonin.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

ATTACHMENT 1

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR THE
ALLIED SMELTING SITE
WEST ALLIS & MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN

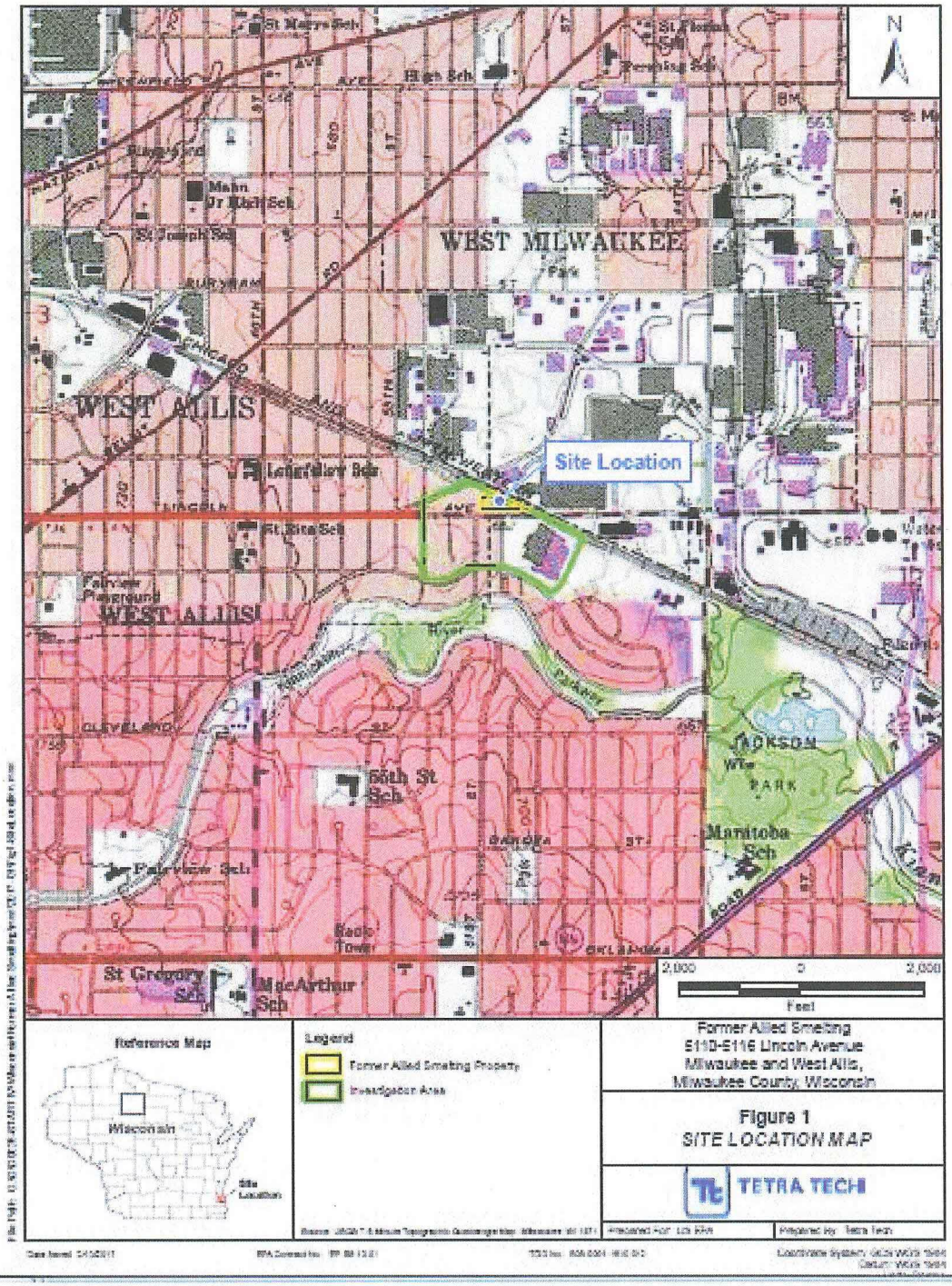
ORIGINAL
JUNE, 2017

NO.	SEMS ID	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES

1. Environmental Assessment Report, 10/95
2. ATSDR Lead ToxFAQS, 8/07
3. USA Today, 4/20/12
4. WDNR Registry Packet, 6/24/15
5. WDNR SI Report, 7/11/16
6. WDNR Request for Removal Assistance, 10/18/16
7. Allied Smelting Site Public Information Flyer, 11/16
8. Removal Site Assessment Report, 2/17/17
9. WDHS Information Sheet, 2/22/17
10. Grey Iron 104e letter, 5/5/17
11. WDHS Information Sheet, 5/24/17
12. ARAR Letter, 6/19/17
13. Removal Site Assessment Addendum Report, pending
14. Action Memo, pending

ATTACHMENT 2

SITE LOCATION MAP
ALLIED SMELTING SITE
WEST ALLIS & MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN
JULY 2017



Reference Map

Legend

- 750-ft Radius from Former Allied Smelting
- Former Allied Smelting Property
- Investigation Area
- City Boundary

Source: USGS 7.5 Minute Topographic Quadrangle Map: Milwaukee, WI 1971

Former Allied Smelting
5110-5116 Lincoln Avenue
Milwaukee and West Allis,
Milwaukee County, Wisconsin

Figure 2

Site Layout Map

TETRA TECH

Prepared for: USEPA

Prepared by: Tetra Tech, Inc.

ATTACHMENT 3

ENVIRONMENTAL JUSTICE SCREEN
ALLIED SMELTING SITE
WEST ALLIS & MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN
JULY 2017

EPA United States Environmental Protection Agency

EJSCREEN Report (Version 2016)

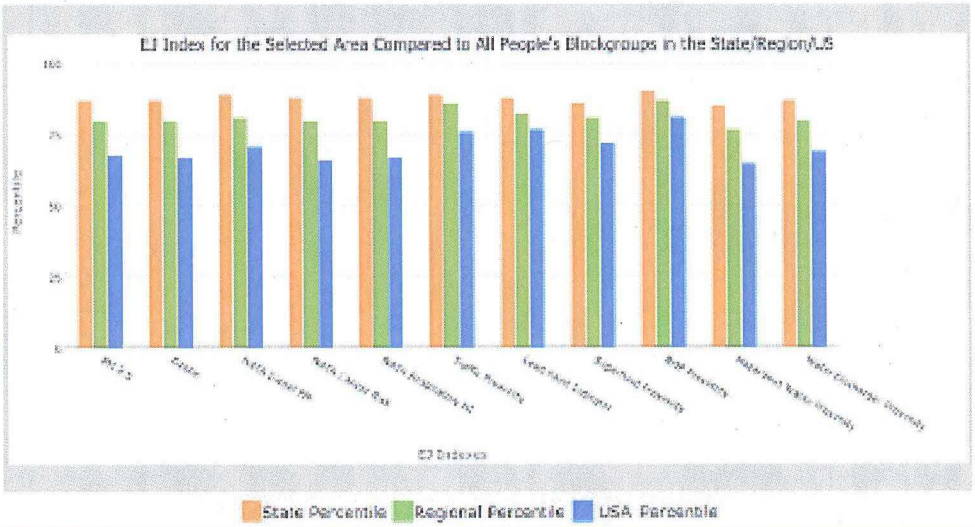
0.5 mile Ring Centered at 43.002917,-87.975681, WISCONSIN, EPA Region 5

Approximate Population: 3,432

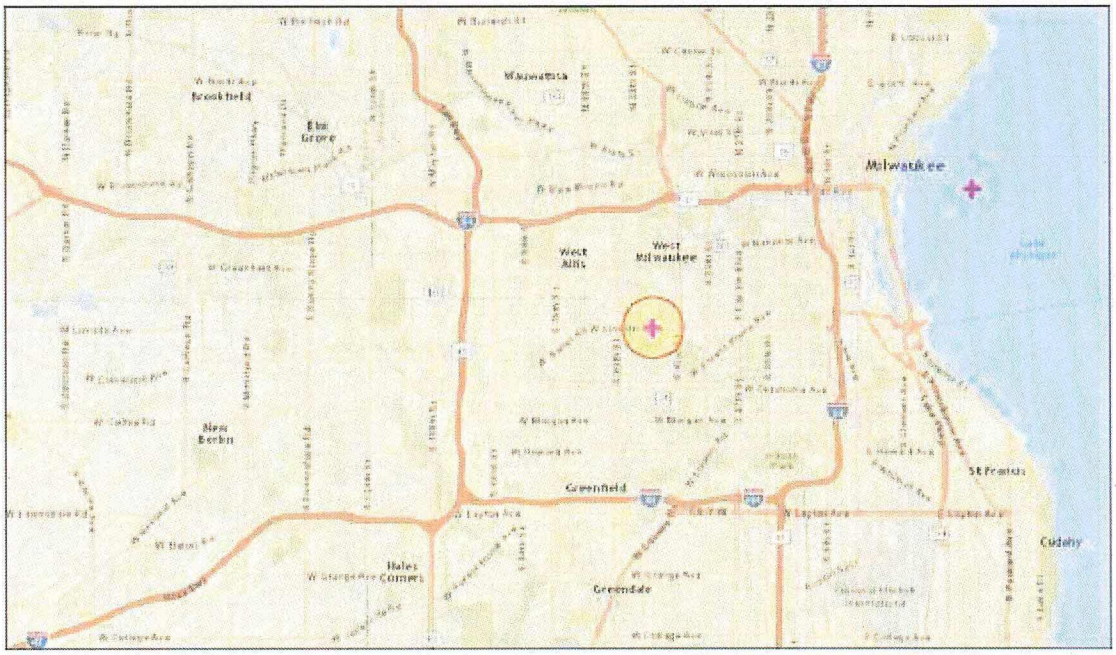
Input Area (sq. miles): 0.79

Allied Smelting Site

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	87	80	68
EJ Index for Ozone	87	80	67
EJ Index for NATA* Diesel PM	89	81	71
EJ Index for NATA* Air Toxics Cancer Risk	88	80	66
EJ Index for NATA* Respiratory Hazard Index	88	80	67
EJ Index for Traffic Proximity and Volume	89	86	76
EJ Index for Lead Paint Indicator	88	82	77
EJ Index for Superfund Proximity	86	81	72
EJ Index for RMP Proximity	90	87	81
EJ Index for Hazardous Waste Proximity*	85	77	65
EJ Index for Water Discharger Proximity	87	80	69



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.



Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	10.3	9.48	89	10.6	33	9.32	72
Ozone (ppb)	49	48.3	51	50.3	24	47.4	54
NATA* Diesel PM (µg/m^3)	1.24	0.656	91	0.931	70-80th	0.937	70-80th
NATA* Cancer Risk (lifetime risk per million)	35	29	83	34	50-60th	40	<50th
NATA* Respiratory Hazard Index	1.8	1.3	85	1.7	60-70th	1.8	50-60th
Traffic Proximity and Volume (daily traffic count/distance to road)	190	300	63	370	65	590	61
Lead Paint Indicator (% Pre-1960 Housing)	0.64	0.38	79	0.39	76	0.3	83
Superfund Proximity (site count/km distance)	0.067	0.12	48	0.12	56	0.13	53
RMP Proximity (facility count/km distance)	0.72	0.55	75	0.51	78	0.43	82
Hazardous Waste Proximity* (facility count/km distance)	0.06	0.087	55	0.11	47	0.11	44
Water Discharger Proximity (facility count/km distance)	0.18	0.29	60	0.31	54	0.31	58
Demographic Indicators							
Demographic Index	44%	24%	87	29%	80	36%	68
Minority Population	39%	17%	88	24%	78	37%	60
Low Income Population	49%	31%	84	33%	78	35%	75
Linguistically Isolated Population	2%	2%	80	2%	73	5%	58
Population With Less Than High School Education	15%	9%	82	11%	74	14%	64
Population Under 5 years of age	7%	6%	68	6%	67	6%	64
Population over 64 years of age	11%	14%	37	14%	40	14%	45

ATTACHMENT 4

SAMPLE RESULTS SUMMARY
ALLIED SMELTING SITE
WEST ALLIS & MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN
JULY 2017

Property ID	Highest Composite Lead Concentration	Proposed Depth of Excavation	Property Type
04	823 ppm	12"	Residential
05	1,312 ppm	6"	Commercial
06	1,850 ppm	12"	Residential
07	169,108 ppm	24"	Commercial
09	416 ppm	6"	Residential
10	533 ppm	12"	Residential
11	451 ppm	6"	Residential
12	683 ppm	12"	Residential

ATTACHMENT 5

PHOTO LOG
ALLIED SMELTING SITE
WEST ALLIS & MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN
JULY 2017

Photo 1: Representative impacted downwind properties (front yards)

Photo 2: Representative impacted downwind property (back yard)

Photo 3: Sensitive population at impacted downwind property

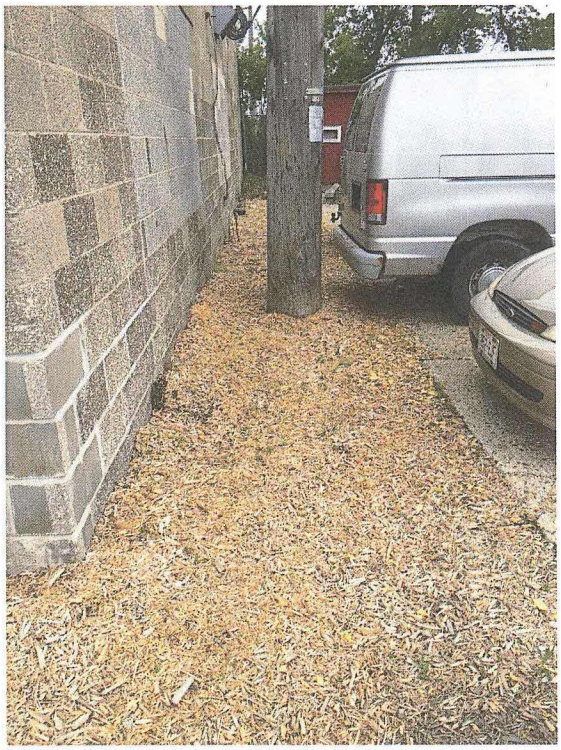


Photo 4: Mulch covering contaminated surface soils

ATTACHMENT 6

DETAILED CLEANUP CONTRACTOR ESTIMATE

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OF REMOVAL ACTION

ATTACHMENT 7

INDEPENDENT GOVERNMENT COST ESTIMATE

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OF REMOVAL ACTION

ATTACHMENT I

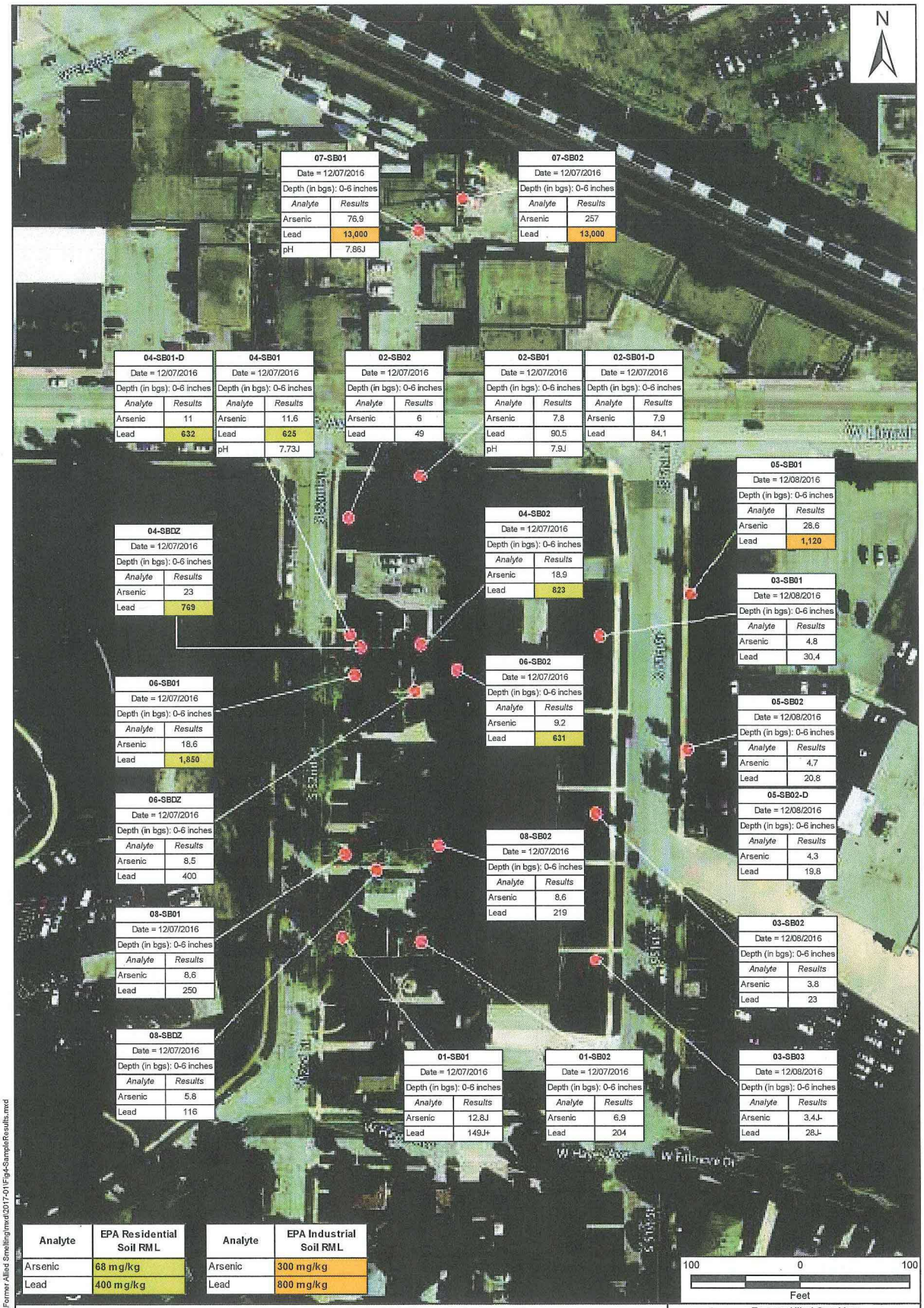
U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR THE
ALLIED SMELTING CORPORATION, FORMER
WEST ALLIS, MILWAUKEE COUNTY, WISCONSIN

ORIGINAL
JUNE, 2017
SEMS ID:

NO.	SEMS ID	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	934461	10/1/95	Fox Environmental Services, Inc.	Zidar, R., and Zida, S., Allied Smelting Corporation	Phase I Environmental Assessment Report ***(Redacted)***	81
2	934459	8/1/07	ATSDR	Public	Toxfaqs Fact Sheet - Lead - Cas #7439-92-1	2
3	932624	4/20/12	Young, A., USA Today	Public	Newsletter re: Some Neighborhoods Dangerously Contaminated by Lead Fallout	14
4	932623	6/24/15	Wisconsin Dept. of Natural Resources	File	Registry Packet	84
5	934460	7/11/16	Volkert, D., WDNR	U.S. EPA	Site Inspection Report ***(Redacted)***	491
6	934455	10/18/16	Sager, J., WDNR	Halbur, K., and Ribordy, M., U.S. EPA	Email Re: Request for EPA Assistance	2
7	934450	11/1/16	U.S. EPA	Public	Former Smelting Site Evaluation for Environmental Cleanup - Fact Sheet	1
8	934439	2/17/17	Knox, K., Tetra Tech, Inc.	U.S. EPA	Final Site Assessment Report ***(Redacted)***	1080
9	934456	2/22/17	Streiffer, A., Wisconsin Dept. of Health Services	File	Memo re: Guidance for Homeowners to Minimize Lead Exposure from Contaminated Soils	2

NO.	SEMS ID	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
10	934452	5/5/17	El-Zein, U.S. EPA	Girdaukas, G., Austin Grey Iron Foundry	Letter re: Request for Information Pursuant to Section 104(E)	17
11	934457	5/24/17	Wisconsin Department of Health Services	File	Memo Re: Edited Guidance for Homeowners to Minimize Lead Exposure from Contaminated Soils	2
12	934453	6/19/17	Halbur, K., U.S. EPA	Sager, J., WDNR	Letter re: ARARs for Allied Smelting Site	2
13	934464	6/27/2017	Knox, K., Tetra Tech, Inc.	U.S. EPA	Removal Site Assessment Addendum Report ***(Redacted)***	1342
14	-	-	Halbur, K., U.S. EPA	Guerriero, M., U.S. EPA	Action Memorandum re: Request for a Time-Critical Removal Action at the Allied Smelting Corporation, Former Site ***(Pending)***	-



Analyte	EPA Residential Soil RML
Arsenic	68 mg/kg
Lead	400 mg/kg

Analyte	EPA Industrial Soil RML
Arsenic	300 mg/kg
Lead	800 mg/kg

Sample Location

625J Concentration exceeds the EPA Regional Management Level for residential soil

1,120J Concentration exceeds the EPA Regional Management Level for industrial soil

Sample locations comprised of 5 aliquots with the exception of drip zone (DZ), comprised of 4 aliquots. Sample locations on figure denote central aliquot

All Results presented in units of milligrams per kilogram (mg/kg)

bgs = Below ground surface

D = Duplicate

J = The analyte was positively identified. The associated value is an approximate concentration.

J- = Analyte detected, associated value is an approximate concentration of the analyte in the sample and may be biased low.

J+ = Analyte detected, associated value is an approximate concentration of the analyte in the sample and may be biased high.

Source: Bing Maps Hybrid - 2013

Former Allied Smelting
5110-5116 Lincoln Avenue
Milwaukee and West Allis,
Milwaukee County, Wisconsin

Figure 4
Sample Results Map

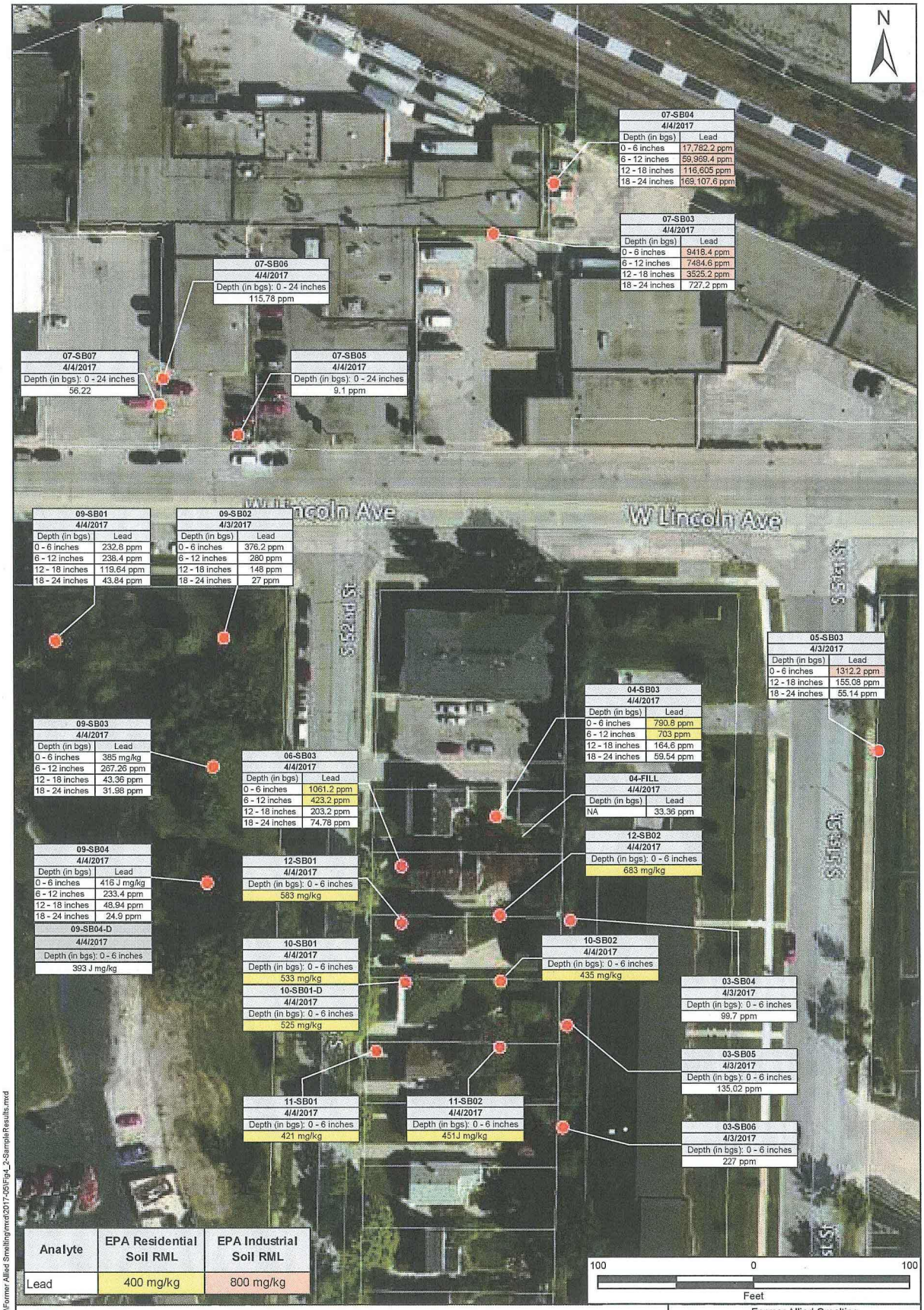
TETRA TECH

Prepared For: USEPA | Prepared By: Tetra Tech Inc.

File Path: G:\GIS\G9026-START IV\Wisconsin\Former Allied Smelting\mxd\2017-01\Fig4-SampleResults.mxd

Date Saved: 2/14/2017 | EPA Contract No.: EP-S5-13-01 | TDD No.: S05-0001-1610-012

Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Datum:North American 1983
Units: Meter


N
07-SB04
4/4/2017
Depth (in bgs) | Lead
0 - 6 inches | 17,782.2 ppm
6 - 12 inches | 59,969.4 ppm
12 - 18 inches | 116,605 ppm
18 - 24 inches | 169,107.6 ppm
07-SB03
4/4/2017
Depth (in bgs) | Lead
0 - 6 inches | 9418.4 ppm
6 - 12 inches | 7484.6 ppm
12 - 18 inches | 3525.2 ppm
18 - 24 inches | 727.2 ppm
07-SB06
4/4/2017
Depth (in bgs): 0 - 24 inches
115.78 ppm
07-SB07
4/4/2017
Depth (in bgs): 0 - 24 inches
56.22
07-SB05
4/4/2017
Depth (in bgs): 0 - 24 inches
9.1 ppm
W Lincoln Ave
W Lincoln Ave
S 52nd St
S 51st St
09-SB01
4/4/2017
Depth (in bgs) | Lead
0 - 6 inches | 232.8 ppm
6 - 12 inches | 238.4 ppm
12 - 18 inches | 119.64 ppm
18 - 24 inches | 43.84 ppm
09-SB02
4/3/2017
Depth (in bgs) | Lead
0 - 6 inches | 376.2 ppm
6 - 12 inches | 280 ppm
12 - 18 inches | 148 ppm
18 - 24 inches | 27 ppm
05-SB03
4/3/2017
Depth (in bgs) | Lead
0 - 6 inches | 1312.2 ppm
12 - 18 inches | 155.08 ppm
18 - 24 inches | 55.14 ppm
04-SB03
4/4/2017
Depth (in bgs) | Lead
0 - 6 inches | 790.8 ppm
6 - 12 inches | 703 ppm
12 - 18 inches | 164.6 ppm
18 - 24 inches | 59.54 ppm
09-SB03
4/4/2017
Depth (in bgs) | Lead
0 - 6 inches | 385 mg/kg
6 - 12 inches | 267.26 ppm
12 - 18 inches | 43.36 ppm
18 - 24 inches | 31.98 ppm
06-SB03
4/4/2017
Depth (in bgs) | Lead
0 - 6 inches | 1061.2 ppm
6 - 12 inches | 423.2 ppm
12 - 18 inches | 203.2 ppm
18 - 24 inches | 74.78 ppm
04-FILL
4/4/2017
Depth (in bgs) | Lead
NA | 33.36 ppm
12-SB02
4/4/2017
Depth (in bgs): 0 - 6 inches
683 mg/kg
09-SB04
4/4/2017
Depth (in bgs) | Lead
0 - 6 inches | 416 J mg/kg
6 - 12 inches | 233.4 ppm
12 - 18 inches | 48.94 ppm
18 - 24 inches | 24.9 ppm
09-SB04-D
4/4/2017
Depth (in bgs): 0 - 6 inches
393 J mg/kg
12-SB01
4/4/2017
Depth (in bgs): 0 - 6 inches
583 mg/kg
10-SB01
4/4/2017
Depth (in bgs): 0 - 6 inches
533 mg/kg
10-SB01-D
4/4/2017
Depth (in bgs): 0 - 6 inches
525 mg/kg
10-SB02
4/4/2017
Depth (in bgs): 0 - 6 inches
435 mg/kg
03-SB04
4/3/2017
Depth (in bgs): 0 - 6 inches
99.7 ppm
03-SB05
4/3/2017
Depth (in bgs): 0 - 6 inches
135.02 ppm
11-SB01
4/4/2017
Depth (in bgs): 0 - 6 inches
421 mg/kg
11-SB02
4/4/2017
Depth (in bgs): 0 - 6 inches
451J mg/kg
03-SB06
4/3/2017
Depth (in bgs): 0 - 6 inches
227 ppm
Analyte | EPA Residential Soil RML | EPA Industrial Soil RML
Lead | 400 mg/kg | 800 mg/kg
100 0 100
Feet
Soil Sample Locations
625J Concentration exceeds the EPA Removal Management Level for residential soil
1,120J Concentration exceeds the EPA Removal Management Level for industrial soil
Notes:
Sample locations comprised comprised of 5 aliquots with the exception of 04-FILL, 07-SB05, 07-SB06, and 07-SB07.
Sample locations on figure denote central aliquot.
XRF results are shown in units of ppm; laboratory analytical results are shown in units of mg/kg.
bgs = Below ground surface
D = Duplicate
J = The analyte was positively identified. The associated value is an approximate concentration.
mg/kg = Milligrams per kilogram
ppm = parts per million
RML = Removal Management Level
Source: Bing Maps Hybrid - 2013
Former Allied Smelting
5110-5116 Lincoln Avenue
Milwaukee and West Allis,
Milwaukee County, Wisconsin
Figure 4
Sample Results Map
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Prepared By: Tetra Tech Inc.
File Path: G:\GIS\6926-START IV\Wisconsin\Former Allied Smelting\mxd\2017-05\Fig4_2-SampleResults.mxd
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