



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

July 21, 2020

REPLY TO THE ATTENTION OF:

S-6J

MEMORANDUM

SUBJECT: Request for Approval and Funding for a Time-Critical Removal Action and Exemption from the 12-Month Statutory Limit at the Antique Chrome Shop - Former Hoyt Machine Shop OU1, 1544 Samoa Street, Indianapolis, Marion County, Indiana (Site ID #C553_OU1)

FROM: Shelly Lam, On-Scene Coordinator
Emergency Response Section 1

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

TO: Douglas Ballotti, Director
Superfund & Emergency Management Division

I. PURPOSE

This memorandum requests and documents your approval to expend up to \$1,716,152 to conduct a time-critical removal action and for an exemption from the 12-month statutory limit at the Antique Chrome Shop - Former Hoyt Machine Shop OU1 (the Site) in Indianapolis, Marion County, Indiana.

The proposed response actions are necessary to mitigate threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances at the Site. The U.S. Environmental Protection Agency (EPA) documented the presence of hazardous substances at the Site, as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601(14).

The time-critical removal action proposed herein is to develop and implement site-specific plans; treat soil contaminated with volatile organic compounds (VOC) *in situ*; conduct pre- and post-treatment sampling and monitoring; excavate soil above action levels that remains in the top two feet following treatment; backfill excavations; sample residential properties for vapor intrusion; install vapor mitigation systems, as necessary; conduct post-installation proficiency sampling; consolidate and package hazardous substances, pollutants and contaminants for transportation and off-site disposal in accordance with the

EPA Off-Site Rule, 40 C.F.R. § 300.440; and take any other response actions to address any release or threatened release of a hazardous substance, pollutant or contaminant that the EPA On-Scene Coordinator (OSC) determines may pose an imminent and substantial endangerment to the public health or the environment.

Response actions will be conducted in accordance with Section 104(a)(1) of 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), to abate or eliminate the immediate threat posed to public health and/or the environment by the presence of the hazardous substances at the Site. The uncontrolled conditions of the hazardous substances present at the Site, and the potential threats they present require that this action be classified as a time-critical removal action. EPA's actions will require approximately 120 working days to complete. *In situ* treatment, soil excavation, and post-treatment sampling will take approximately 70 days on-site. Vapor mitigation and sampling are estimated to take an additional 50 days over 12 or more months.

There are no nationally significant or precedent-setting issues associated with the Site.

II. SITE CONDITIONS AND BACKGROUND

SEMS ID: INN000510598
RCRA ID: IND984877670
Category: Time-Critical Removal Action

A. Site Description

The Site is the Antique Chrome Shop - Former Hoyt Machine Shop OU1 Site. EPA conducted an emergency removal action to remove plating waste at the Antique Chrome Shop in 2011. In 2019, the City of Indianapolis referred the Site to EPA as the Former Hoyt Machine Shop.

The Site is located at 1544 Samoa Street in Indianapolis, Indiana, 46201 (Figure 1). It is located at the intersection of Massachusetts Avenue and Samoa Street. Historically, the Site also had mailing addresses of 1925 Massachusetts Avenue and 1552 Samoa Street.

The facility is located approximately two miles northeast of downtown Indianapolis. The Marion County Property Assessor lists the property as Parcel 49-07-31-219-053.000-101, which is 0.54 acres in area (Administrative Record [AR] #5).

There are two dilapidated buildings, including a garage/warehouse and an abandoned residence, located along the southeastern property boundary (Figure 2 and Photos 1-3). The Site previously contained two additional buildings that were demolished in 2012 (AR #5, 12).

The property slopes to the southeast with the highest elevation to the northeast near Massachusetts Avenue at approximately 744 feet above mean sea level (AMSL) and the lowest point to the southeast in the alley by Samoa Street at approximately 734 feet AMSL. The two remaining buildings serve as retaining walls for soil and fill material on-site.

1. Site Background

Historical information in a Phase I Environmental Site Assessment Report documents that the Site was developed as early as 1915 (AR #12). A 1915 Sanborn Fire Insurance Map shows a single-story dwelling on the east side of the property at 1552 Samoa Street. In 1950, 1965, and 1967 fire insurance maps, Hoyt Machine Co. occupied the property. Three buildings were present during those years including a machine shop at 1552 Samoa Street and a warehouse and two-story dwelling at 1544 Samoa Street.

A Baist Real Estate Atlas map from 1916 available on the IndyBrownfields website¹ shows a single structure similar to the dwelling in the 1915 fire insurance map. The 1927 Baist map depicts a machine shop and one other structure in the east corner of the property, where the two-story dwelling is located in 1950-1967 fire insurance maps. The 1941 Baist map shows a machine shop along with structures in the eastern corner and along the southeastern property boundary.

City directory searches for 1925 Massachusetts Avenue list Antique Polishing occupying the property in 2005. Hoyt Machine Co. was listed at 1925 Massachusetts Avenue between 1934 and 1997. The 1989 city directory indicates that Hoyt Machine Co was a division of Omni Technology Corporation. Universal Construction and an individual were listed as the property owners in 1934. In 1929, Charles D. Hoyt (screw products) and Universal Construction Co. occupied the property. 1552 Samoa Street was listed in 1914, 1919, and 1924 city directories.

The Phase I Environmental Site Assessment report documents property ownership from 1979-2019. The City of Indianapolis is the current owner and acquired the property in 2017 because of tax delinquency on the part of the previous owner, who owned the property from 2010-2017. Another individual owned the property from 2004-2010. Omni Technology Corporation was the owner from 1985-2004. Hoyt Machine Co. (or Hoyt Machine, Co.) owned the property from 1979-1985. Additional information on property ownership is contained in the Confidential Enforcement Addendum.

Based on the above information, the Site appears to have been a residential property until the mid to late 1920's. The Site was used for industrial purposes beginning in the mid to late 1920's by Charles D. Hoyt, then later Hoyt Machine, Universal Construction Co, Omni Technology Corporation, and various metal plating businesses. Records available through the Indiana Department of Environmental Management's (IDEM) Virtual File Cabinet² document that the Site was operated as a plating shop from 2003 until 2011. The plating shop had various names including Big R Plating & Polishing, Best Antique Polishing and Buffing, Antique Chrome Shop, and Antique Polishing and Buffing.

2. Removal Site Evaluation

EPA reviewed data and analytical results provided by the City of Indianapolis collected during sampling events in 2017 and 2018. Additionally, EPA conducted a site assessment May 18-22, 2020. Figure 3 shows soil and groundwater sample locations. Figure 4 shows

¹ <http://maps.indy.gov/MapIndy/index.html?theme=Brownfields>

² <https://vfc.idem.in.gov/DocumentSearch.aspx?xAIID=17071>

soil gas sample locations. Results above EPA's May 2020 Removal Management Levels (RML) and October 2019 Vapor Intrusion Screening Levels (VISL) are discussed below and presented in Tables 1-3.

City of Indianapolis Assessment

The City of Indianapolis and their contractor IWM Consulting Group (IWM) collected soil and groundwater samples during a Phase II environmental site assessment conducted in November 2017 and Further Site Investigation (FSI) conducted in February 2018. Reports documenting these investigations are included in the Administrative Record (AR #12, 13).

Soil Results

IWM collected 25 soil samples during the Phase II investigation and 25 soil samples during the FSI for laboratory analysis including VOCs, semi-volatile organic compounds (SVOC), metals including hexavalent chromium, and cyanide. No soil samples had metals, SVOC, or cyanide results above RMLs.

Volatile Organic Compounds

During two investigations, IWM collected 44 soil samples from 22 locations for VOC analysis. Trichloroethene (TCE) was detected in two soil samples above the RML of 56 milligrams per kilogram (mg/kg). TCE was detected at 77.5 mg/kg in sample HM-GP10-SB1 (2-4') and 79.3 mg/kg in sample HM-GP10-SB2 (8-10').

Groundwater Results

IWM collected 11 groundwater samples during the Phase II investigation and nine groundwater samples during the FSI for laboratory analysis including VOC, SVOC, metals including hexavalent chromium, and cyanide.

IndianaMap³ shows that there are no downgradient water wells near the Site. As such, there is no potential exposure through the drinking water pathway. Therefore, the following discussion of groundwater results only includes volatile compounds, such as VOCs and mercury, that may pose a threat to human health via the vapor intrusion pathway. Cyanide and metals, with the exception of mercury, are not sufficiently volatile to pose an inhalation risk via the vapor intrusion pathway. Additionally, SVOCs did not exceed vapor screening levels.

Volatile Organic Compounds

VOC results were compared to EPA's VISL target groundwater concentrations for residential scenarios due to the proximity of residential properties. EPA used a Hazard Quotient (HQ) of 3, except for TCE which had a HQ of 1, and Target Risk (TR) of 1×10^{-4} .

- Benzene was detected in the sample collected from GP7 at a concentration of 315 micrograms per liter ($\mu\text{g/L}$), above the VISL of 159 $\mu\text{g/L}$.

³ <https://maps.indiana.edu/>

- TCE was above the VISL of 5.18 µg/L in seven samples from six locations, including GP4, GP6, GP8, GP10, GP17, and GP18. Concentrations ranged from 8.0 to 91.5 µg/L.
- Vinyl chloride exceeded the VISL of 14.7 µg/L in samples collected from GP14 and GP15 at concentrations of 33.6 and 70.3 µg/L.

Mercury

Mercury results were compared to EPA's VISL target groundwater concentrations for residential scenarios. EPA used a HQ of 3 and TR of 1×10^{-4} . Mercury was detected in the sample from GP6 at a concentration of 52.2 µg/L, which is above the VISL of 11.2 µg/L.

EPA Site Assessment

Between May 18 and 22, 2020, EPA collected soil samples at the Site and soil gas samples in a downgradient residential community. Laboratory and data validation reports are included in the administrative record (AR #23-26).

Soil Results

EPA advanced soil borings at 30 locations (Photo 4) using a Geoprobe 6620DT direct push machine. EPA field screened the top two feet of soil in six-inch intervals with a photo-ionization detector (PID) for VOCs and x-ray fluorescence (XRF) detector for metals (Photo 5). EPA submitted intervals with high field screening results for laboratory analysis. EPA submitted 26 samples, including duplicates, from 22 locations. Of these, 14 samples were analyzed for metals and 12 samples were analyzed for VOCs.

Metals Results

The soil sample collected from the 0-6 inch interval of SS19 had a lead concentration of 1,600 milligrams per kilogram (mg/kg), which exceeded the RML for lead in industrial soil of 800 mg/kg.

VOC Results

Two soil samples contained TCE at concentrations above the RML of 56 mg/kg. TCE was detected in the sample from the 0-6 inch interval of SS01 at a concentration of 150 mg/kg. The sample collected from 18-24 inches of SS26 had TCE at 1,700 mg/kg.

Soil Gas Results

EPA installed 19 temporary soil gas implants in a residential neighborhood south of the Site (Photos 6-8). Samples could not be collected from three implants because of the presence of water. EPA collected samples for mercury (Photo 9) and VOC analysis (Photo 10).

Metals Results

EPA collected 11 samples for mercury analysis. All results were non-detect.

VOC Results

EPA collected 18 soil gas samples, including duplicates, for VOC analysis. Two samples had TCE concentrations above the VISL of 70 micrograms per cubic meter (µg/m³).

TCE was detected in the sample from SG01 at a concentration of 24,000 $\mu\text{g}/\text{m}^3$ and in the sample from SG02 at a concentration of 92 $\mu\text{g}/\text{m}^3$.

3. Physical Location

The Antique Chrome Shop - Former Hoyt Manufacturing Shop OU1 Site is located at 1544 Samoa Street in Indianapolis, Indiana, 46201 (Figure 1). It is located at the intersection of Massachusetts Avenue and Samoa Street. The geographical coordinates for the Site are 39.7882° north latitude and 86.1268° west longitude.

The Site is located in a mixed-use area. The property is bounded by Massachusetts Avenue to the northeast, beyond which are commercial/industrial properties; residential properties to the east and south; and commercial and residential properties to the west. The closest residential property is approximately 30 feet from the Site's southern property boundary. Approximately 10,000 people live within one mile of the Site (AR #4). Pogue's Run, a tributary of the White River, is located 0.15 miles south of the Site.

EPA conducted an Environmental Justice (EJ) analysis for the Site (see Attachment I). EPA used Region 5's EJ Screen Tool to screen the surrounding area. Region 5 has reviewed environmental and demographic data for the area surrounding the Antique Chrome Shop Site and determined there is high potential for EJ concerns at this location.

4. Site Characteristics

The Site was historically operated as a manufacturing facility for screw machine equipment, then later as a metal plating shop. The City of Indianapolis owns the Site, which is currently inactive.

EPA conducted an emergency removal action in 2011 at the Antique Chrome Shop Site to remove and dispose of abandoned drums and other containers from plating operations. Information on the 2011 removal action is provided in the Action Memorandum (AR #9) and Pollution Reports (AR #6-8, 10-11).

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

A release or threat of release of hazardous substances, pollutants, or contaminants is present at the Site. Hazardous substances at the Site include benzene, lead, mercury, TCE, and vinyl chloride.

Hazardous substances, pollutants, or contaminants are present in surface soil, subsurface soil, and groundwater. Exposure routes consist of incidental soil ingestion; dermal absorption of contaminants from soil; inhalation of fugitive dust; and inhalation of contaminated air that may have migrated through subsurface soil or groundwater, i.e. vapor intrusion. Potential human receptors include nearby residents, trespassers, Site visitors, and future Site workers.

6. NPL status

The Site is not on the National Priorities List (NPL). It is not known if EPA will propose the Site for the NPL in the future.

7. Maps, pictures and other graphic representations

Photographs and maps are included as attachments to the Action Memorandum.

B. Other Actions to Date

The following sections discuss previous and current actions at the Site.

1. Previous actions

EPA conducted an emergency response action at the Antique Chrome Shop Site in 2011 that consisted of disposing of drums and other containers of plating waste and encapsulating high concentrations of chromium in the concrete of the former machine shop (AR #6-8, 10-11).

2. Current actions

No actions are currently being conducted at the Site.

C. State and Local Authorities' Roles

On December 18, 2019, the City of Indianapolis requested EPA's assistance in investigating and cleaning up the Site (AR #17). The City used Brownfields funding to investigate the nature and extent of contamination at the Site. The City does not have the resources to clean up the Site.

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

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

40 C.F.R. § 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;

Hazardous substances, pollutants, and contaminants are present in surface soil, subsurface soil, and groundwater. Hazardous substances represent an actual or potential exposure threat to nearby human populations. Exposure routes consist of incidental soil ingestion; dermal absorption of contaminants from soil; inhalation of fugitive dust; and inhalation of contaminated air that may have migrated through subsurface soil and groundwater, i.e. vapor intrusion. Potential human receptors include nearby residents, trespassers, Site visitors, and future Site workers.

Analytical results from the Site Assessment indicate that hazardous substances, as defined by CERCLA § 101(14), are present at the Site and represent an actual or potential exposure threat to nearby human populations. Hazardous substances include benzene, lead, mercury, TCE, and vinyl chloride. Information on the toxicological effects of each are discussed below and referenced in the Administrative Record (Attachment II).

Benzene: Breathing very high levels of benzene can result in death, while high levels can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness.

Eating or drinking foods containing high levels of benzene can cause vomiting, irritation of the stomach, dizziness, sleepiness, convulsions, rapid heart rate, and death. The major effect of benzene from long-term exposure is on the blood. Benzene causes harmful effects on the bone marrow and can cause a decrease in red blood cells leading to anemia. It can also cause excessive bleeding and can affect the immune system, increasing the chance for infection. Some women who breathed high levels of benzene for many months had irregular menstrual periods and a decrease in the size of their ovaries, but it is not known for certain that benzene caused the effects. It is not known whether benzene will affect fertility in men. Long-term exposure to high levels of benzene in the air can cause leukemia, particularly acute myelogenous leukemia, often referred to as AML. This is a cancer of the blood-forming organs. The Department of Health and Human Services (DHHS) has determined that benzene is a known carcinogen. The International Agency for Research on Cancer (IARC) and EPA have determined that benzene is carcinogenic to humans (AR #3).

Lead: Lead can affect almost every organ and system in the body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of lead for adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people, and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level exposure in men can damage the organs responsible for sperm production. There is no conclusive proof that lead causes cancer in humans. Kidney tumors have developed in rats and mice that had been given large doses of some kind of lead compounds. DHHS has determined that lead and lead compounds are reasonably anticipated to be human carcinogens and the EPA has determined that lead is a probable human carcinogen. IARC has determined that inorganic lead is probably carcinogenic to humans and that there is insufficient information to determine whether organic lead compounds will cause cancer in humans (AR #15).

Mercury: The nervous system is sensitive to metallic mercury. Exposure to very high levels of metallic mercury vapor can cause brain, kidney, and lung damage and may seriously harm a developing fetus. Exposure to mercury vapor concentrations high enough to produce such serious effects might also cause coughing, chest pains, nausea, vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation. Exposure to lower levels of airborne mercury for prolonged periods of time could produce more subtle effects, such as irritability, sleep disturbances, excessive shyness, tremors, coordination problems, changes in vision or hearing, and memory problems. Most of the effects of mercury resulting from prolonged lower-level exposure are reversible, once exposure is terminated and the mercury has left the body (AR #1).

Trichloroethene (TCE): Exposure to moderate amounts of TCE may cause headaches, dizziness, and sleepiness; large amounts may cause coma and even death. Eating or breathing high levels of TCE may damage some of the nerves in the face. Exposure to high levels can also result in changes in the rhythm of the heartbeat, liver damage, and evidence of kidney damage. Skin contact with concentrated solutions of TCE can cause skin rashes. There is strong evidence

that TCE can cause kidney cancer in people and some evidence for TCE-induced liver cancer and malignant lymphoma. Lifetime exposure to TCE resulted in increased liver cancer in mice and increased kidney cancer and testicular cancer in rats. DHHS considers TCE to be a known human carcinogen. IARC classified TCE as carcinogenic to humans. EPA has characterized TCE as carcinogenic to humans by all routes of exposure (AR #16).

Vinyl chloride: Breathing high levels of vinyl chloride can cause a person to feel dizzy or sleepy. Breathing very high levels can cause someone to pass out, and breathing extremely high levels can cause death. Some people who have breathed vinyl chloride for several years have had changes in the structure of their livers. People are more likely to develop these changes if they breathe high levels of vinyl chloride. DHHS has determined that vinyl chloride is a known carcinogen. Studies of workers who have breathed vinyl chloride over many years showed an increased risk of liver, brain, and lung cancer. Some cancers of the blood have also been observed in these workers (AR #2).

40 C.F.R. § 300.415(b)(2)(iv) – High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate;

Assessment results indicated the presence of high concentrations of hazardous substances, pollutants, or contaminants in surface soils. High concentrations of hazardous substances were also detected in subsurface soils and groundwater, indicating that hazardous substances have migrated and may continue to migrate. There is potential for vapor-forming compounds in groundwater and soil gas to enter nearby homes through cracks or openings in walls or building foundations, i.e. vapor intrusion.

40 C.F.R. § 300.415(b)(2)(v) – Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

Weather conditions could cause hazardous substances to migrate or be released. High winds could cause dispersion of contaminated surface soils. Additionally, heavy rains could cause runoff or overland flow of soil into nearby residential yards or into the storm sewer, which discharges into Pogue's Run.

40 C.F.R. § 300.415(b)(2)(vii) - The availability of other appropriate federal or State response mechanisms to respond to the release;

The City of Indianapolis has requested assistance from EPA because they do not have the resources to mitigate the threat of release.

IV. EXEMPTION FROM STATUTORY LIMITS

Section 104(c) under CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA), limits a Federal response action to 12 months and \$2 million unless response actions meet emergency and/or consistency exemptions.

The OSC anticipates that installation of vapor mitigation systems may be warranted to mitigate the vapor intrusion pathway. The *OSWER Technical Guide for Assessing and Mitigation the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air* recommends monitoring to demonstrate that performance standards are met by the vapor mitigation system. The guidance recommends monitoring in two phases: (1) an initial phase following construction, and (2) a

subsequent phase to document that performance standards continue to be met. The scope of work described in Section VI includes performance sampling in an initial phase at approximately 30 days post-construction, and a subsequent phase of 120, 210, and 300 days following construction to account for seasonal variations in indoor air concentrations. As such, the OSC anticipates that post-installation proficiency sampling may exceed the 12-month statutory limit. The conditions at the Antique Chrome Shop - Former Hoyt Machine Shop OUI Site warrant the 12-month exemption based on the emergency exemption.

Emergency Exemption:

A. Continued response actions are immediately required to prevent, limit, or mitigate an emergency;

Hazardous substances if present in the indoor air of residential properties constitute an imminent threat to human health. As documented in Section III, breathing in vapor-forming hazardous substances can have deleterious effects on human health ranging from dizziness, sleepiness, or headaches to nerve damage, cancer, or death. Response actions may be required to mitigate exposure of residents to hazardous substances through the vapor intrusion pathway. The response actions will both prevent and mitigate threats to human health.

B. There is an immediate risk to public health or welfare or the environment;

Concentrations of hazardous substances in indoor air may represent an immediate risk to public health. Hazardous substances with concentrations above a Target Risk greater than 1×10^{-4} require immediate action.

C. Assistance will not otherwise be provided on a timely basis.

The City of Indianapolis requested assistance from EPA to address the threats posed by the Site (AR #25). The City does not have the resources to clean up the Site and conduct investigation and mitigation of the vapor intrusion pathway. Without a time-critical removal action by EPA, assistance will not otherwise be provided on a timely basis.

V. ENDANGERMENT DETERMINATION

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

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

EPA proposes to undertake the actions described below to mitigate threats posed to the public health, welfare, and environment by the presence of hazardous substances, pollutants or contaminants at the Site. The actions will allow for future redevelopment and

productive use of the property in accordance with Objective 1.3 of EPA's 2018-2022 Strategic Plan to revitalize land and prevent contamination.

EPA plans to conduct *in situ* treatment of soils that are source material for vapor intrusion. *In situ* treatment will reduce TCE concentrations in soil and VOC concentrations in groundwater. EPA has selected zero valent iron (ZVI) as the *in situ* treatment technology. ZVI degrades chlorinated compounds, like TCE, primarily by abiotic reduction.

Additionally, EPA may excavate soil above the industrial RML that remains in the top two feet following treatment. Soil excavation will reduce the direct-contact threat.

The vapor intrusion pathway is partially complete based on assessment results. The proposed actions include additional investigation of the vapor intrusion pathway and mitigation of residential properties if the pathway is complete.

The OSC proposes the following actions to mitigate the threats presented by the Site.

1. Develop and implement site-specific plans, including a health and safety plan, work plan, community involvement plan, and air monitoring plan;
2. Treat TCE-contaminated soil *in situ* with ZVI;
3. Conduct pre- and post-treatment sampling and monitoring;
4. Excavate soil above the industrial RML that remains in the top two feet following treatment;
5. Backfill excavated areas with soil that is below industrial RMLs, as determined by laboratory analysis;
6. Sample sub-slab (or crawl space) and indoor air at approximately nine residential properties, including several duplex units, within 100 feet of soil gas samples above VISLs.
7. Perform vapor mitigation at residential properties where indoor air action levels are found to be exceeded;
8. Conduct post-installation proficiency sampling 30, 120, 210, and 300 days after mitigation system installation;
9. Consolidate and package hazardous substances, pollutants and contaminants for transportation and off-site disposal in accordance with the EPA Off-Site Rule, 40 C.F.R. § 300.440; and
10. Take any other response actions to address any release or threatened release of a hazardous substance, pollutant or contaminant that the OSC determines may pose an imminent and substantial endangerment to the public health or the environment.

The OSC will conduct removal actions in a manner not inconsistent with the NCP. The OSC has initiated planning for post-removal site control consistent with the provisions of the NCP at 40 C.F.R. § 300.415(1). Institutional controls, such as soil or groundwater use restrictions, will protect human health and the environment by applying land use restrictions that limit activity, use, or access to minimize exposure to contamination. EPA will coordinate with the City of Indianapolis and IDEM to implement post-removal site control measures, including an environmental restrictive covenant

(ERC) for any contamination remaining on-site. IDEM and the Indiana Brownfields Program will determine appropriate institutional controls based on contamination remaining after the removal action.

On January 28, 2020, the OSC requested that IDEM sign an Operation & Maintenance (O&M) Agreement for post-removal site control related to vapor mitigation systems (AR #19). IDEM indicated that they are willing to consider the request pending the receipt of additional information, including anticipated O&M costs (AR #20). If an O&M agreement cannot be negotiated with IDEM, the OSC will obtain O&M agreements for vapor mitigations systems from each homeowner. Monthly electrical costs for vapor mitigation systems will be the responsibility of the homeowner.

The threats posed by uncontrolled substances considered hazardous meet the criteria listed in the NCP at 40 C.F.R. § 300.415(b)(2), and the response actions proposed herein are consistent with any long-term remedial actions which may be required. Elimination of hazardous substances, pollutants and contaminants that pose a substantial threat of release is expected to minimize substantial requirements for post-removal Site controls.

The estimated costs to complete the activities outlined above are summarized below. These activities will require an estimated 120 on-site working days to complete. Soil treatment, post-treatment sampling, and excavation will take approximately 70 days on-site. Vapor mitigation and sampling are estimated to take an additional 50 days over 12 or more months.

Detailed cleanup contractor costs are presented in Attachment III.

2. Contribution to remedial performance

The proposed action should not impede future remedial performance.

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

Not applicable

4. Applicable or relevant and appropriate requirements (ARAR)

On January 28, 2020, the OSC sent a letter requesting ARARs to IDEM (AR #18). IDEM identified the following ARARs in a letter dated January 30, 2020 (AR #20). EPA will comply with ARARs to the extent practicable. However, as set forth at Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), actions conducted on-site are exempt from permitting requirements.

Action Specific:

- If this action will result in leaving contamination in place such that unrestricted land use is not permitted (i.e., residential land use remediation objectives are not achieved), an ERC should be recorded for the property per Indiana Code (IC) 13-25-4-24.
- Pursuant to 326 Indiana Administrative Code (IAC) 6-4-2(4), visible fugitive dust must not cross an adjacent property line.
- Pursuant to 326 IAC 6-4-4, any vehicle driven on any public right of way must not allow its contents to escape and form fugitive dust.

- 327 IAC 2-11-1 through 327 IAC 2-11-9 maintains and protects the quality of Indiana's groundwater. For example, no person shall cause the groundwater in a drinking water supply well (327 IAC 2-11-2(e)) or nondrinking water supply well (327 IAC 2-11-2(f)) to have contaminant concentrations that renders the well unusable for its current use.

Chemical Specific:

- 329 IAC 3.1 regulates the management of hazardous wastes. Indiana rule 329 IAC 3.1-1-1 adopts Resource Conservation and Recovery Act (RCRA) regulations of 40 C.F.R. 260 through 40 C.F.R. 270. More specifically:
 - 40 C.F.R. § 262.11 requires a proper hazardous waste determination must be made on all wastes generated from removal actions including substances in containers, drums, pits, waste piles and tanks along with any decontamination washes or rinsates.
 - 40 C.F.R. § 262.12 requires a generator not to treat, store, dispose of, or offer for transportation, hazardous waste without receiving an U.S. EPA identification number. A generator must not offer hazardous waste to transporters or treatment, storage, or disposal facilities that have not received an U.S. EPA identification number.
 - 40 C.F.R. Part 261, Subpart B requires that all hazardous waste must be properly packaged, with labels, markings and placards prior to transport (see also 40 C.F.R. Part 262, Subpart C; 40 C.F.R. § 262.30 - packaging; 40 C.F.R. § 262.31 - labeling; 40 C.F.R. § 262.32 - marking; and 40 C.F.R. § 263.33 - placarding).
 - 40 C.F.R. Part 261, Subpart B requires hazardous waste must be manifested as such for transport to a permitted treatment, storage, or disposal facility (TSDF) in accordance with 40 C.F.R. Part 262, Subpart B.
 - For all hazardous waste related equipment, structures and pads, remove or decontaminate all hazardous waste residues, contaminated containment components, contaminated soils, and structures and equipment contaminated with waste and manage them as hazardous waste unless 40 C.F.R. § 261.3(d) applies.
 - 40 C.F.R. § 262.34 requires that hazardous waste containers shall not be accumulated on-site for greater than 90 days without a hazardous waste permit for storage.
 - Excavated contaminated soils must not be placed back on the ground so as to create a waste pile as defined in 40 C.F.R. Part 264, Subpart L. Covered roll-offs may be used.
 - 40 C.F.R. § 265.17 includes general requirements for ignitable, reactive, or incompatible wastes.
 - Hazardous waste in containers shall be managed in accordance with the standards of 40 C.F.R. Part 265, Subpart I.
 - 40 C.F.R. Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.
- 329 IAC 3.1 establishes standards for identifying hazardous waste as well as standards for hazardous waste management procedures for generators, transporters, and owner and operators of hazardous waste facilities.
- 329 IAC 10 regulates the management of solid wastes.
 - 329 IAC 10-7.2-1 requires all wastes to undergo a waste determination, and if found to be nonhazardous, be disposed of in a permitted solid waste disposal facility.

To Be Considered:

- The State of Indiana does not have promulgated rules or regulations that apply to vapor intrusion. However, the IDEM Remediation Closure Guide (RCG) is a Non-rule Policy Document (NPD) that provides guidance for the investigation, remedy selection and closure of contaminated sites. As a NPD, the RCG does not have the effect of law. If a conflict exists between the RCG and state or federal rules and statutes, the rules and statutes will prevail. The RCG may provide helpful information and guidance for the nature and extent of investigation. The RCG is available at:
http://www.in.gov/idem/cleanups/files/remediation_closure_guide.pdf

In addition to the federal and state ARARs identified by IDEM, the OSC identified the following federal ARAR.

Location Specific:

- The National Register of Historic Places map viewer⁴ shows that the Site is located within the Indianapolis Park and Boulevard System. The Indianapolis Park and Boulevard System is a group of parks, parkways, and boulevards in Indianapolis that was designed by landscape architect George Edward Kessler in the early part of the 20th century. Also known as the Kessler System, the district includes 3,474 acres. On January 31, 2020, the OSC sent a letter to the Indiana State Historic Preservation Office requesting a Section 106 consultation under the National Historic Preservation Act, Section 106 (16 U.S.C. §§ 470 et seq.) and 36 C.F.R. Part 800 (AR #21). However, on February 17, 2020, the City of Indianapolis notified EPA that the Site is located outside the boundary of the Indianapolis Park and Boulevard System historic district (AR #22). As such, this ARAR does not apply to the Site.

5. Project schedule

The time-critical removal action will require approximately 120 working days to complete. Soil excavation and *in situ* treatment will take approximately 70 days on-site. Vapor mitigation and sampling are estimated to take an additional 50 days over 12 or more months.

B. Estimated Costs:

<u>Regional Removal Allowance Costs:</u>	
Total Cleanup Contractor Costs (Includes a 15% contingency)	\$1,207,777
<u>Other Extramural Costs Not Funded from the Regional Allowance</u>	
Total START, including multiplier costs	\$222,350
Subtotal, Extramural Costs	\$1,430,127

⁴ <https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466>

Extramural Costs Contingency (20% of Subtotal, Extramural Costs)	\$286,025
TOTAL REMOVAL ACTION PROJECT CEILING	\$1,716,152

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.

VII. 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, IV, and V above, actual or threatened releases of hazardous substances and 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, increasing the potential that hazardous substances will be released, thereby threatening the adjacent population and the environment.

VIII. OUTSTANDING POLICY ISSUES

None

IX. ENFORCEMENT

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

Using the estimated extramural cost calculation (\$1,716,152), an estimate of EPA's direct intramural costs (\$93,600), and 79.65% as the regional indirect cost rate, the total estimated EPA costs for the removal are listed below. The total EPA costs of this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$3,251,220⁵.

$$(\$1,716,152 + \$93,600) + (79.65\% \times \$1,809,752) = \$3,251,220$$

⁵ 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.

X. RECOMMENDATION

This decision document represents the selected removal actions for the Antique Chrome Shop - Former Hoyt Machine Shop OU1 Site located in Indianapolis, Marion County, Indiana, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the Site (Attachment II).

Conditions at the Site meet the NCP at 40 C.F.R. § 300.415(b)(2) criteria for a time-critical removal action. The total project ceiling, if approved, will be \$1,716,152, of which, as much as \$1,493,802 may be used from the Regional removal allowance. I recommend your approval of the proposed removal action. You may indicate your decision by signing below.

7/21/2020

APPROVE: X  DATE: July 21, 2020
Douglas Ballotti, Director
Superfund & Emergency Management Division
Signed by: DOUGLAS BALLOTTI

DISAPPROVE: X _____ DATE: _____
Douglas Ballotti, Director
Superfund & Emergency Management Division

Enforcement Addendum

Figures:

- 1 – Site Location Map
- 2 – Site Layout Map
- 3 – Soil and Groundwater Sample Locations Map
- 4 – Soil Gas Sample Locations Map

Tables:

- 1 – Soil Results
- 2 – Groundwater Results
- 3 – Soil Gas Results

Photographs

Attachments:

- I. Environmental Justice Analysis
- II. Administrative Record Index
- III. Detailed Cleanup Contractor Estimate
- IV. Independent Government Cost Estimate

cc: Steve Ridenour, U.S. EPA, 5104A (**Ridenour.Steve@epa.gov**)
John Nelson, U.S. DOI, w/o **Enf. Addendum** (**john_nelson@ios.doi.gov**)
Rex Osborn, IDEM w/o **Enf. Addendum** (**rosborn@idem.in.gov**)

BCC PAGE HAS BEEN REDACTED

**NOT RELEVANT TO SELECTION
OF REMOVAL ACTION**

**ENFORCEMENT ADDENDUM
HAS BEEN REDACTED – THREE
PAGES**

**ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY
FOIA EXEMPT**

**NOT RELEVANT TO SELECTION
OF REMOVAL ACTION**

FIGURES

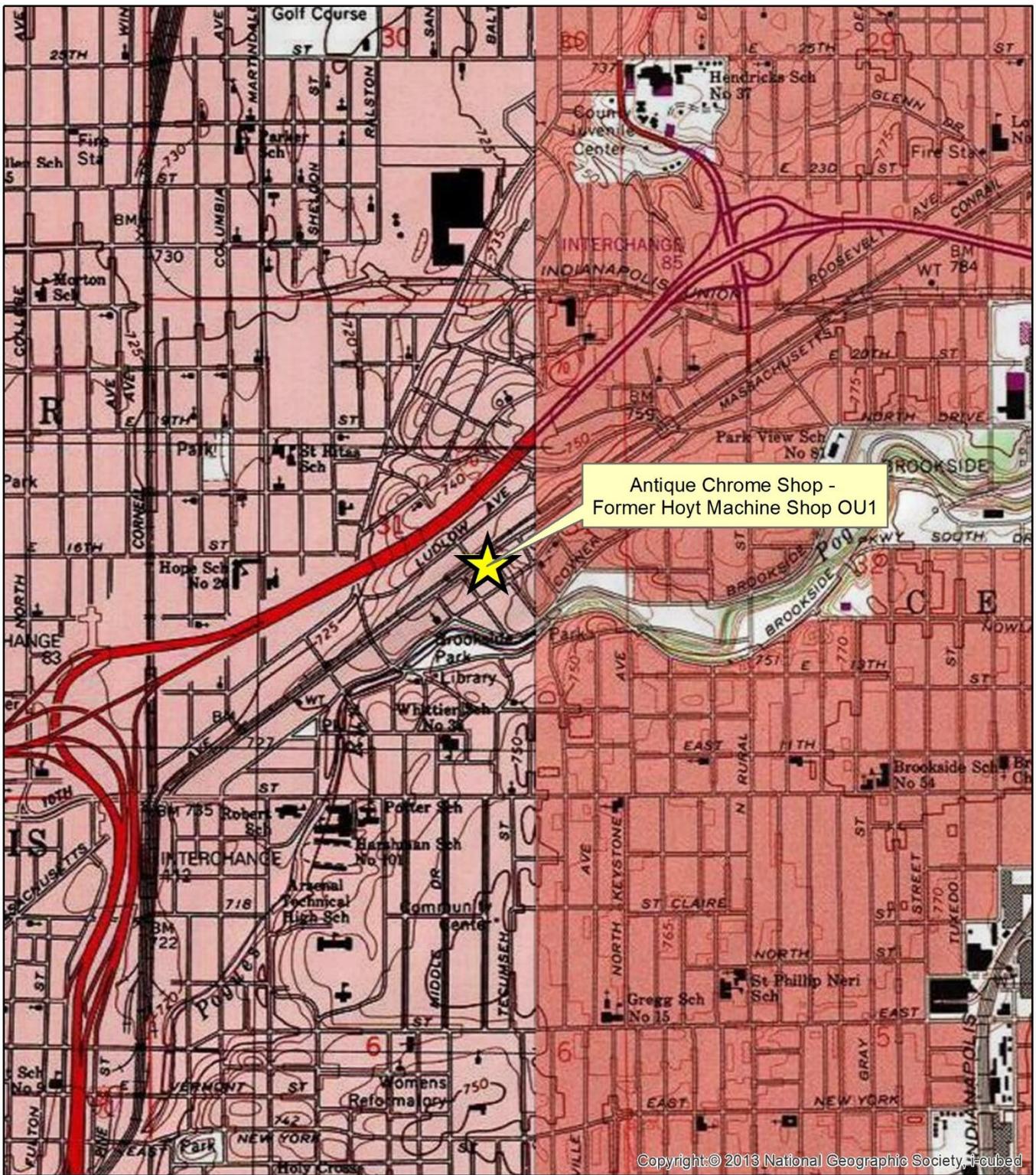


FIGURE 1
 SITE LOCATION MAP
 ANTIQUE CHROME SHOP - FORMER HOYT MACHINE SHOP OU1 SITE
 INDIANAPOLIS, MARION COUNTY, INDIANA

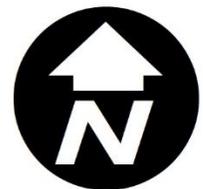
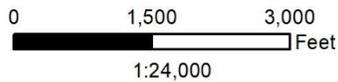
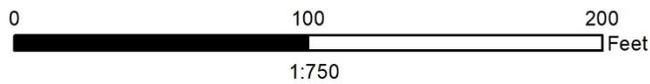
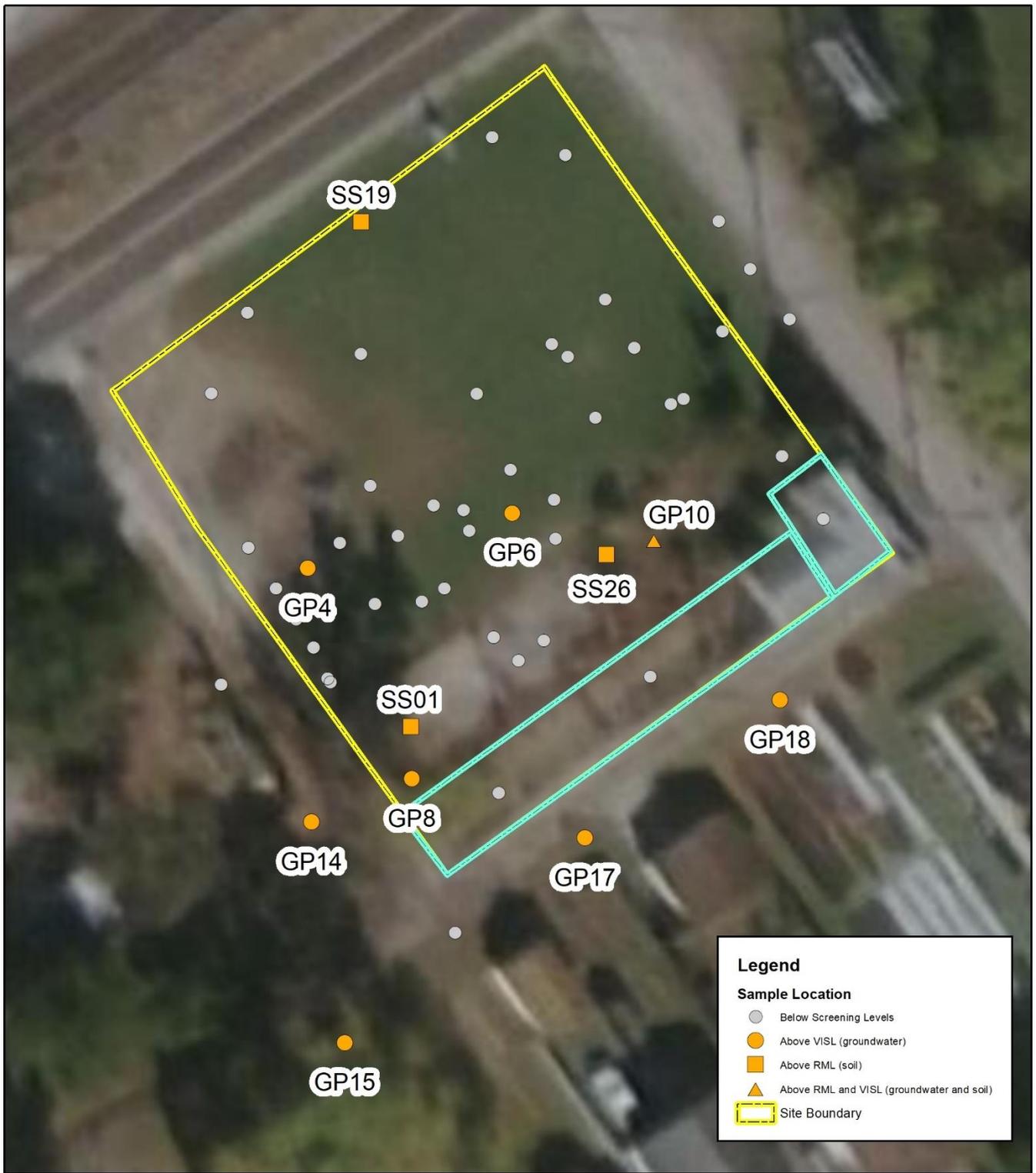




FIGURE 2
SITE LAYOUT MAP
ANTIQUÉ CHROME SHOP - FORMER HOYT MACHINE SHOP OU1 SITE
INDIANAPOLIS, MARION COUNTY, INDIANA



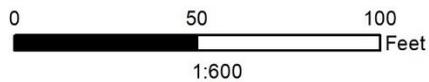


Legend

Sample Location

- Below Screening Levels
- Above VISL (groundwater)
- Above RML (soil)
- ▲ Above RML and VISL (groundwater and soil)
- Site Boundary

FIGURE 3
 SOIL AND GROUNDWATER SAMPLE LOCATIONS
 ANTIQUE CHROME SHOP - FORMER HOYT MACHINE SHOP OU1 SITE
 INDIANAPOLIS, MARION COUNTY, INDIANA



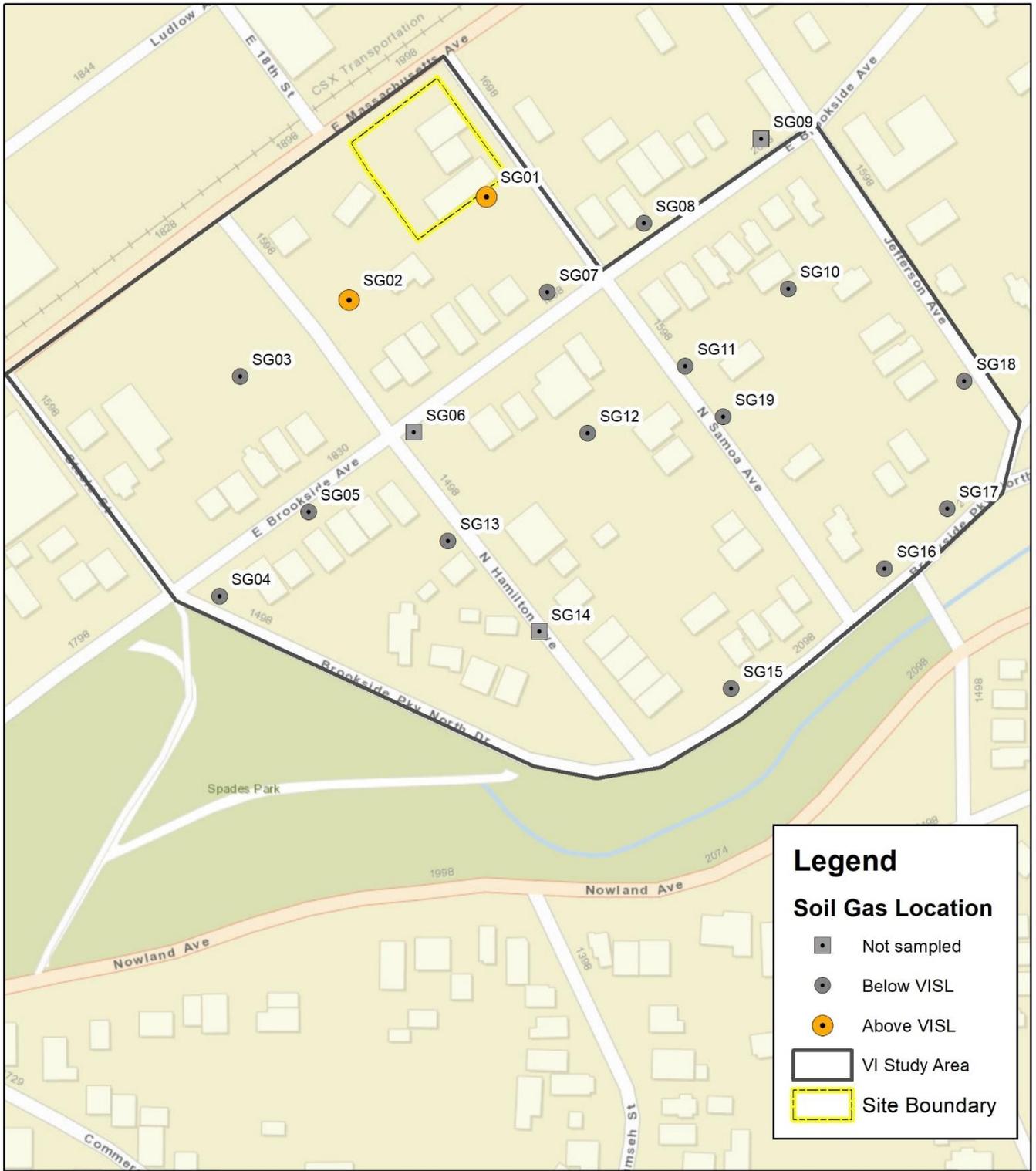
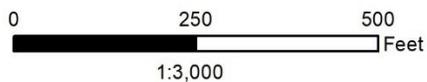


FIGURE 4
 SOIL GAS SAMPLE LOCATIONS
 ANTIQUE CHROME SHOP - FORMER HOYT MACHINE SHOP OU1 SITE
 INDIANAPOLIS, MARION COUNTY, INDIANA



TABLES

**TABLE 1
SOIL RESULTS**

Sample Location	Date Collected	Sample Depth	TCE	Lead
		(feet)	(mg/kg)	
Removal Management Level			56	800
HM-GP10-SB1	11/8/2017	2-4	77.5	252
HM-GP10-SB2	11/8/2017	8-10	79.3	591
SS01	5/19/2020	0-0.5	150	460
SS19	5/20/2020	0-0.5	NS	1,600
SS26	5/20/2020	1.5-2	1,700	130

Notes:

1. Results and screening levels are provided in milligrams per kilogram (mg/kg).
2. TCE - Trichloroethene
3. Bolded results exceed EPA's Removal Management Level (RML) for industrial soil.
4. NS - Not sampled

**TABLE 2
GROUNDWATER RESULTS**

Sample Location	Date Collected	Benzene	TCE	Vinyl chloride	Mercury
		(ug/L)			
Vapor Intrusion Screening Level		159	5.18	14.7	11.2
HM-GP4-GW1	11/9/2017	<5.0	53.4	10.4	0.56 J
HM-GP6-GW1	11/10/2017	13.2	91.5	2.1	52.2
HM-GP7-GW1	11/10/2017	315	2.2 J	<10.0	<2
HM-GP8-GW1	11/9/2017	<5.0	8.0	12.7	<2
HM-GP10-GW1	11/9/2017	<5.0	39.0	<2.0	0.67 J
HM-GP10-GW1*	11/9/2017	<5.0	38.1	<2.0	0.62 J
HM-GP14-GW1	2/14/2018	NS	<5.0	33.6	NS
HM-GP15-GW1	2/14/2018	NS	<5.0	70.3	NS
HM-GP17-GW1	2/14/2018	NS	11.4	<2.0	NS
HM-GP18-GW1	2/14/2018	NS	23.6	<2.0	NS

Notes:

1. Results and screening levels are provided in micrograms per liter (ug/L).
2. TCE - Trichloroethene
3. Bolded results exceed EPA's Vapor Intrusion Screening Level (VISL) target groundwater concentrations.
4. * - Duplicate sample
5. J - Estimated value
6. NS - Not sampled

TABLE 3
SOIL GAS RESULTS

Sample Location	Date Collected	TCE
		$\mu\text{g}/\text{m}^3$
Vapor Intrusion Screening Level		70
SG01	5/21/2020	24,000
SG02	5/21/2020	92

Notes:

1. Results and screening levels are provided in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).
2. TCE - Trichloroethene
3. Bolded results exceed EPA's Vapor Intrusion Screening Level (VISL) target soil gas concentrations.

PHOTO LOG



Number	1
Description	North and central parts of site, looking northeast
Photographer	S. Lam
Date	5/18/2020



Number	2
Description	Central and southern parts of site, looking southeast
Photographer	S. Lam
Date	5/18/2020



Number	3
Description	South end of the site showing the warehouse and residence; residential garden in foreground, looking north
Photographer	S. Lam
Date	5/18/2020



Number	4
Description	Advancing soil boring, looking west
Photographer	S. Lam
Date	5/20/2020



Number	5
Description	Field screening soil samples with PID, looking south
Photographer	S. Lam
Date	5/20/2020



Number	6
Description	Drilling soil gas sample location with residences in background, looking west
Photographer	S. Lam
Date	5/18/2020



Number	7
Description	Soil gas sample location, looking south
Photographer	S. Lam
Date	5/18/2020



Number	8
Description	Leak testing soil gas sample location, looking south
Photographer	S. Lam
Date	5/21/2020



Number	9
Description	Collecting soil gas sample for mercury analysis, looking south
Photographer	S. Lam
Date	5/21/2020



Number	10
Description	Collecting soil gas sample for VOC analysis, looking south
Photographer	S. Lam
Date	5/22/2020

ATTACHMENT I

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION**

**ENVIRONMENTAL JUSTICE ANALYSIS
FOR
ANTIQUA CHROME SHOP - FORMER HOYT MACHINE SHOP OU1 SITE
INDIANAPOLIS, MARION COUNTY, INDIANA**

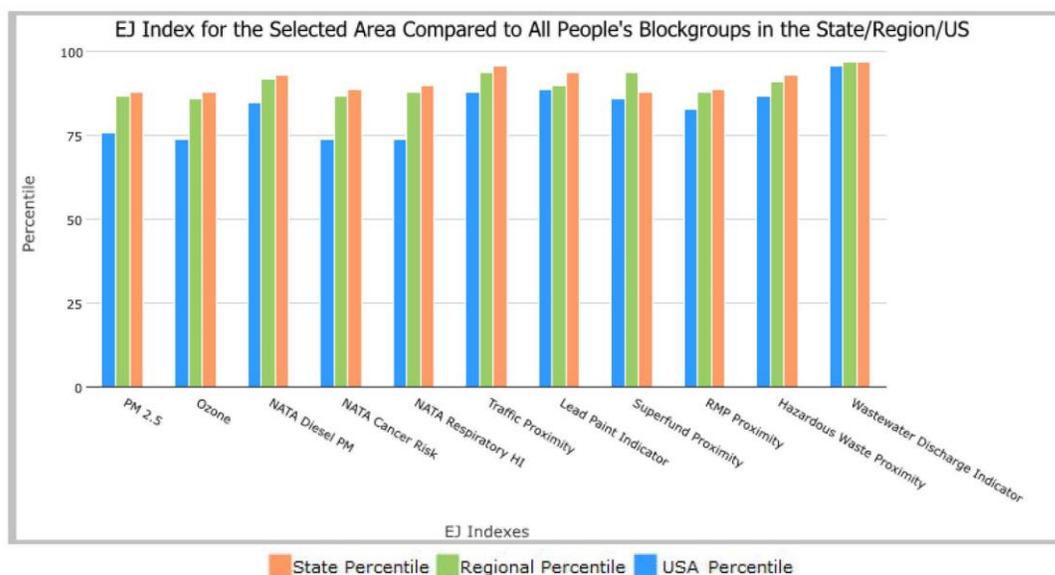
1 miles Ring Centered at 39.787389,-86.125699, INDIANA, EPA Region 5

Approximate Population: 10,491

Input Area (sq. miles): 3.14

Former Hoyt Machine Shop

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	88	87	76
EJ Index for Ozone	88	86	74
EJ Index for NATA* Diesel PM	93	92	85
EJ Index for NATA* Air Toxics Cancer Risk	89	87	74
EJ Index for NATA* Respiratory Hazard Index	90	88	74
EJ Index for Traffic Proximity and Volume	96	94	88
EJ Index for Lead Paint Indicator	94	90	89
EJ Index for Superfund Proximity	88	94	86
EJ Index for RMP Proximity	89	88	83
EJ Index for Hazardous Waste Proximity	93	91	87
EJ Index for Wastewater Discharge Indicator	97	97	96



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.

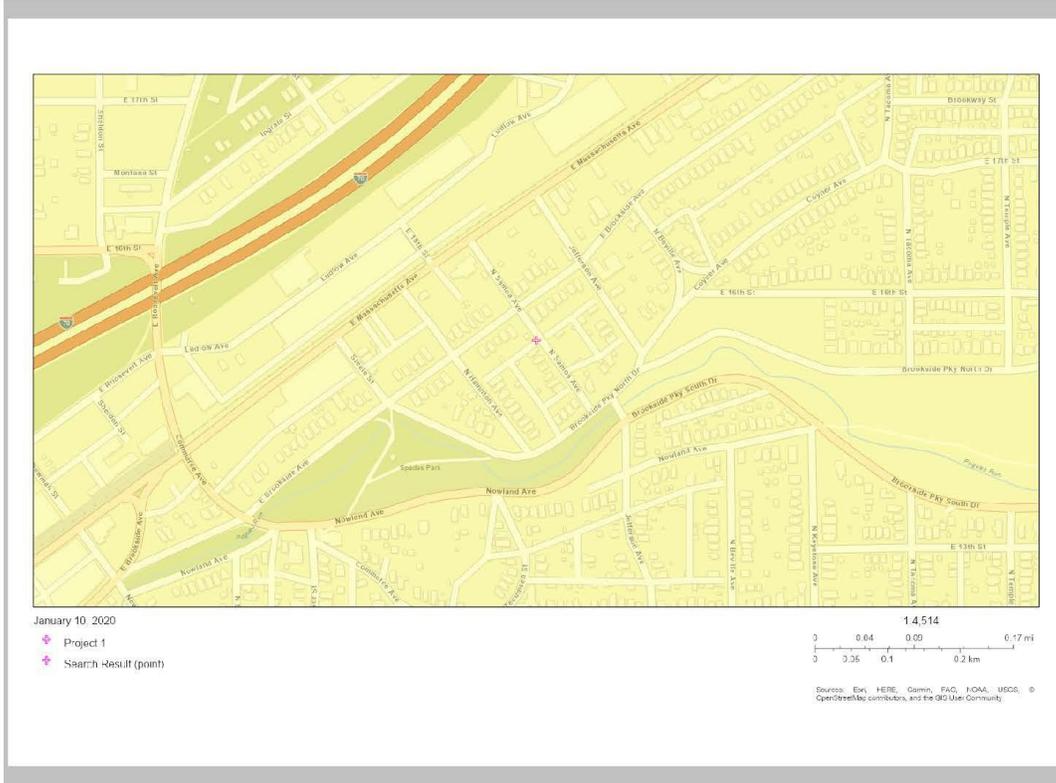


1 miles Ring Centered at 39.787389,-86.125699, INDIANA, EPA Region 5

Approximate Population: 10,491

Input Area (sq. miles): 3.14

Former Hoyt Machine Shop



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	2

EJSCREEN Report (Version 2019)



1 miles Ring Centered at 39.787389,-86.125699, INDIANA, EPA Region 5

Approximate Population: 10,491

Input Area (sq. miles): 3.14

Former Hoyt Machine Shop

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 $\mu\text{g}/\text{m}^3$)	9.86	9	98	8.63	95	8.3	87
Ozone (ppb)	42.9	43.9	12	43.4	26	43	44
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	1.09	0.449	99	0.446	95-100th	0.479	90-95th
NATA* Cancer Risk (lifetime risk per million)	33	26	96	26	80-90th	32	50-60th
NATA* Respiratory Hazard Index	0.47	0.34	97	0.34	90-95th	0.44	60-70th
Traffic Proximity and Volume (daily traffic count/distance to road)	1400	380	95	530	91	750	86
Lead Paint Indicator (% Pre-1960 Housing)	0.81	0.34	92	0.38	89	0.28	93
Superfund Proximity (site count/km distance)	0.21	0.17	81	0.13	87	0.13	86
RMP Proximity (facility count/km distance)	1.3	0.82	79	0.82	79	0.74	82
Hazardous Waste Proximity (facility count/km distance)	3.8	1.1	93	1.5	89	4	87
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.75	0.45	95	0.82	93	14	94
Demographic Indicators							
Demographic Index	60%	27%	92	28%	89	36%	82
Minority Population	54%	20%	89	25%	84	39%	69
Low Income Population	66%	33%	91	31%	92	33%	91
Linguistically Isolated Population	4%	2%	86	2%	82	4%	69
Population With Less Than High School Education	24%	12%	88	10%	90	13%	83
Population Under 5 years of age	8%	6%	68	6%	72	6%	69
Population over 64 years of age	9%	15%	22	15%	22	15%	27

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. 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. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

**ATTACHMENT II
U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION**

**ADMINISTRATIVE RECORD
FOR THE
ANTIQUÉ CHROME SHOP - FORMER HOYT MACHINE SHOP OU1 SITE
INDIANAPOLIS, MARION COUNTY, INDIANA**

ORIGINAL
FEBRUARY 2020
SEMS ID:

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	953211	3/1/01	Agency for Toxic Substances & Disease Registry (ATSDR)	General Public	Tox FAQs Fact Sheet - Metallic Mercury	2
2	953213	7/1/06	Agency for Toxic Substances & Disease Registry (ATSDR)	General Public	Tox FAQs Fact Sheet - Vinyl Chloride - CAS # 75-01-4	2
3	948436	8/1/07	Agency for Toxic Substances & Disease Registry (ATSDR)	General Public	Tox FAQs Fact Sheet - Benzene - CAS # 71-43-2	2
4	953204	1/1/10	U.S. EPA	-----	EJSCREEN Census 2010 Summary Report	1
5	953205	1/19/11	Indiana Assessor	-----	Indiana Property Record Card	5
6	394110	6/9/11	Lam, S., U.S. EPA	Distribution List	Pollution Report (Polrep) # 1 - Initial	9
7	394111	6/10/11	Lam, S., U.S. EPA	Distribution List	Pollution Report (Polrep) # 2 - Progress	9
8	406329	6/27/11	Simon, V., U.S. EPA	Distribution List	Pollution Report (Polrep) # 3 - Progress	6
9	389124	7/21/11	Lam, S. and Simon, V., U.S. EPA	Karl, R. and Nachowicz, L, U.S. EPA	Action Memorandum – Request for an Emergency Removal Action (Redacted)	31

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
10	478814	7/29/11	Simon, V., U.S. EPA	Distribution List	Pollution Report (Polrep) # 4 - Progress	10
11	411557	9/2/11	Simon, V., U.S. EPA	Distribution List	Pollution Report (Polrep) # 5 - Final	12
12	953212	9/20/17	IWM Consulting Group, LLC	City of Indianapolis Department of Metropolitan Development	Phase I Environmental Site Assessment	442
13	953216	12/20/17	IWM Consulting Group, LLC	Kirby, P., City of Indianapolis Department of Metropolitan Development	Phase II Environmental Site Assessment (Redacted)	471
14	953214	3/30/18	IWM Consulting Group, LLC	Kirby, P., City of Indianapolis Department of Metropolitan Development	Further Site Investigation Report	216
15	950630	5/1/19	Agency for Toxic Substances & Disease Registry (ATSDR)	General Public	Tox FAQs Fact Sheet - Lead	2
16	953170	6/1/19	Agency for Toxic Substances & Disease Registry (ATSDR)	General Public	Tox FAQs Fact Sheet - Trichloroethylene - CAS # 79-01-6	2
17	953208	12/18/19	Kirby, P., City of Indianapolis Department of Metropolitan Development	Brown, J., Augustyn, J., and Lam, S., U.S. EPA	Email re: Request for Assistance	1
18	953206	1/28/20	Lam, S., U.S. EPA	Osborn, R., Indiana Department of Environmental Management (IDEM)	Letter re: Request for Applicable or Relevant and Appropriate Requirements (ARARs)	2
19	953207	1/28/20	Lam, S., U.S. EPA	Osborn, R., Indiana Department of Environmental Management (IDEM)	Email re: Request for Applicable or Relevant and Appropriate Requirements (ARARs) and O & M Agreement	1

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
20	953209	1/30/20	Huxhold Fliss, J., Indiana Department of Environmental Management (IDEM)	Lam, S., U.S. EPA	Letter re: Applicable or Relevant and Appropriate Requirements (ARARs)	4
21	953210	1/31/20	Lam, S., U.S. EPA	McCord, B., Indiana Department of Historic Preservation & Archaeology	Letter re: Request for Section 106 Consultation	2
22	954789	2/17/20	Kirby, P., City of Indianapolis	Lam, S., U.S. EPA	City of Indianapolis email re: Indianapolis Park and Boulevard System Map	2
23	955961	5/31/20	Strasinger, D., ALS Environmental	Stamps, L., Tetra Tech	Analytical Data Report	12
24	955959	6/1/20	Whelton, C., ALS Environmental	Stamps, L., Tetra Tech	Report of Laboratory Analysis	103
25	955960	6/4/20	Anderson, S., ALS Environmental	Stamps, L., Tetra Tech	Laboratory Report	93
26	955962	6/25/20	Anagnostopoulos, S., Tetra Tech	Lam, S., U.S. EPA	Data Validation Report - Stage 3	170
27	-----	-----	Lam, S., U.S. EPA	-----	Action Memorandum (Pending)	-----

ATTACHMENT III

DETAILED CLEANUP CONTRACTOR ESTIMATE

HAS BEEN REDACTED – ONE PAGE

NOT RELEVANT TO SELECTION

OF REMOVAL ACTION

ATTACHMENT IV

INDEPENDENT GOVERNMENT COST ESTIMATE

HAS BEEN REDACTED – FOUR PAGES

NOT RELEVANT TO SELECTION

OF REMOVAL ACTION