



# **Superfund Record of Decision:**

## **Metal Working Shop, MI**

## **NOTICE**

The appendices listed in the index that are not found in this document have been removed at the request of the issuing agency. They contain material which supplement, but adds no further applicable information to the content of the document. All supplemental material is, however, contained in the administrative record for this site.



EPA/ROD/R05-92/199  
Metal Working Shop, MI  
First Remedial Action - Final

Abstract (Continued)

present contamination based on historical dumping. This ROD provides a final action, and no additional OUs or additional separate actions are planned. No site-related organic contamination was identified during the RI and inorganic constituents approximated background levels; therefore, there are no contaminants of concern onsite.

The selected remedial action for this site includes no further action because no significant levels of contaminants exist onsite. No additional action is necessary to protect human health or the environment. There are no costs associated with this no action remedy.

PERFORMANCE STANDARDS OR GOALS: Not applicable.

**Record of Decision  
Remedial Alternative Selection**

**SITE NAME AND LOCATION:**

Metal Working Shop, Lake Ann, Benzie County, Michigan

**STATEMENT OF BASIS AND PURPOSE:**

This decision document presents the selected remedial action for the Metal Working Shop Site, in Lake Ann, Benzie County, Michigan, which was chosen in accordance with the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the administrative record for the site.

The State of Michigan concurs with the selected remedy.

**DESCRIPTION OF THE SELECTED REMEDY:**

U.S. EPA has selected "No Action".

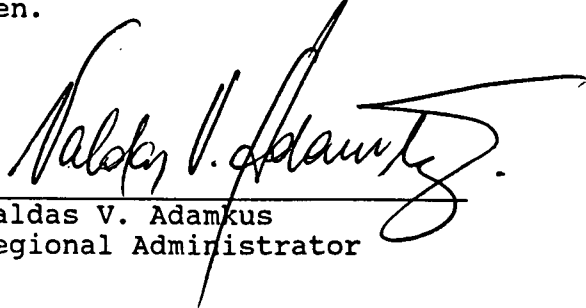
**DECLARATION:**

U.S. EPA has determined that inorganic constituents exist at the site in concentrations comparative to background levels. No organic contamination exists at the site. The presence of inorganic constituents detected at the site does not appear to pose an unacceptable risk to human health or the environment.

U.S. EPA has determined that no further remedial action is necessary at this site. Therefore, the site now qualifies for inclusion in the Sites Awaiting Deletion subcategory of the Construction Completion category of the National Priorities List.

As this is a decision for "No Action", the statutory requirements of CERCLA Section 121 for remedial actions are not applicable and no five year review will be undertaken.

*to*  
June 30, 1992  
Date

  
Valdas V. Adamkus  
Regional Administrator

**METAL WORKING SHOP**

**LAKE ANN, MICHIGAN**

**SUMMARY OF REMEDIAL ALTERNATIVE SELECTION**

**JUNE 1992**

## **DECISION SUMMARY**

### **SITE DESCRIPTION**

The Metal Working Shop (MWS) site, occupying approximately 2.77 acres, is located in central Almira Township, Benzie County, Michigan, approximately 12 miles west of Traverse City Michigan. Metal Working Shop is located at 6892 N. Reynolds Road between Lake View and Lake Ann along the northwest corporate boundary of Lake Ann Village (Figure 1).

### **INTRODUCTION**

This Record of Decision provides information on the final remedy selected by the U.S. Environmental Protection Agency (U.S.EPA) and the Michigan Department of Natural Resources (MDNR). The U.S.EPA and MDNR selected "No Action" at the Metal Working Shop (MWS) site and recommend that the site be removed from the National Priorities List (NPL). This Record of Decision is for a final action (i.e. no action) and no operable units or additional separate actions are contemplated. The recommendation is based on the findings of a Superfund Remedial Investigation (RI) conducted in-house by the U.S.EPA as the lead agency with MDNR as the support agency.

Based on the RI data, U.S. EPA has determined that no cleanup action at the MWS site is necessary to ensure protection of human health and the environment. Section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the federal Superfund law, requires that a plan explaining proposed actions at Superfund sites be developed and presented for public review and comment. The public comment period provided an opportunity for the public to comment on this plan. The public comment period was from May 11, 1992 to June 9, 1992. A public meeting was held on May 28, 1992 in Lake Ann, Michigan. A responsiveness summary is attached to this ROD responding to comments received during the public meeting and comment period.

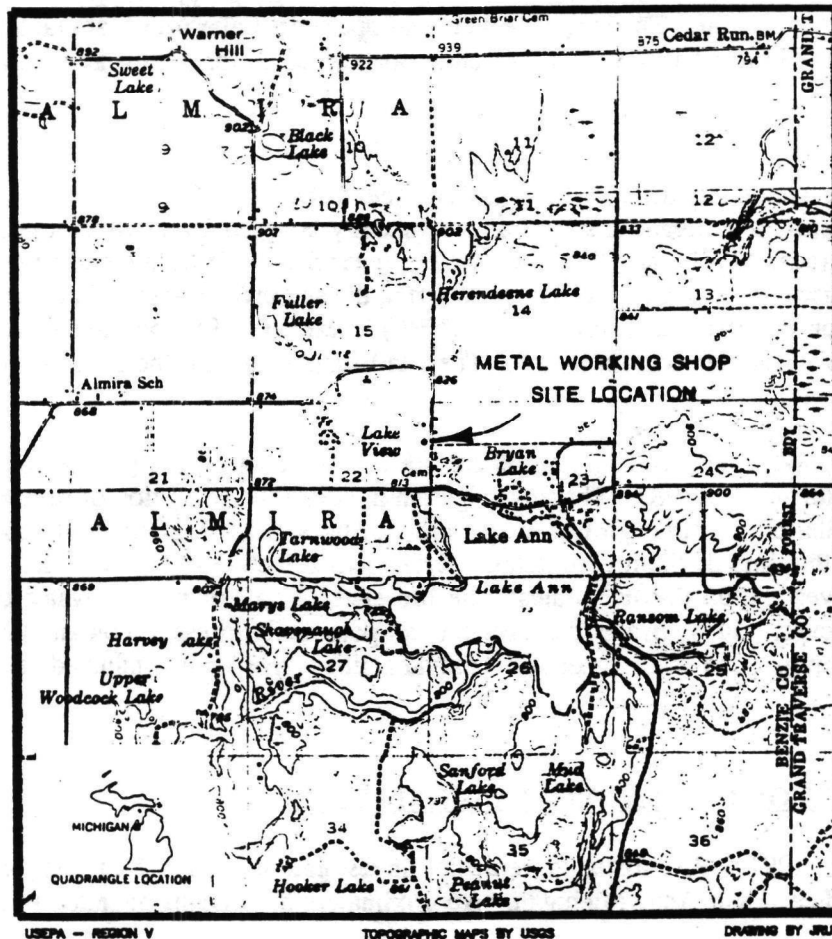
### **SITE HISTORY AND ENFORCEMENT ACTIVITIES**

The MWS site occupies 2.77 acres along Reynolds road outside the northwest village limit of Lake Ann, Michigan. The site is situated between three nearby lakes, Lake View to the north, Bryan Lake to the east, and Lake Ann south of the site. The surrounding land use is characterized as residential, recreational, agriculture, and timberland. Several summer resorts are located in the area. Both Lake View and Lake Ann have summer resorts located on their shores. Depth to ground water beneath the site is approximately 60 feet. The aquifer consists of glacial sands and gravel. Surrounding residents are currently using private well systems for drinking water.

The site has been used for a variety of metal finishing and tool and die operations over the past 26 years. The basis of environmental concern dates back to the period of October 1975 to February 1977, when the operator conducted metal finishing operations using an iron phosphate treatment process. The process consisted of five steps, each performed in a separate tank

# REGIONAL TOPOGRAPHIC MAP

## Lake Ann, Michigan



### METAL WORKING SHOP SITE

USGS Thompsonville & Maple City  
Michigan Quadrangles  
1956 & 1957 Respectively

Scale: 1:62,500  
Contour Interval 20 Feet



FIGURE 1

approximately three feet on a side with a capacity of approximately 200 gallons. First, the metal parts were cleaned in a heated sodium hydroxide solution. Following a rinsing step in ordinary water, the parts were treated in a heated hydrochloric acid solution containing iron phosphate. After a second rinse in ordinary water, the parts were dipped in a bath containing a water-soluble oil. It is reported that water from the two rinse tanks only, was then disposed of on the ground surface at the site. The largest and current operator, Lake Ann Manufacturing, occupied the facility in 1983 and has assembled mechanical shaft seals for pumps and compressors since that time.

The site was evaluated by the U.S.EPA in December 1984. U.S.EPA identified three suspected areas of disposal, the alleged disposal area (currently covered by a warehouse), the alternate disposal area (near MW1), and the septic system (near SB4). No samples were collected at that time but historical information was gathered during the site investigation. The site was proposed to be placed on the National Priorities List (NPL) in January 1987 on the basis of its potential for causing groundwater contamination. The site became final on the NPL in February 1990.

A soil and ground water investigation of the site was performed by a private contractor for the current operator in May 1987. This investigation included the collection of several soil samples and the installation of three ground water monitoring wells. MDNR split samples with the contractor at the time of the investigation. Evaluated collectively, the analytical data from the May 1987 investigation did not indicate the presence of soil or ground water contamination; neither, however, did it prove the absence of potentially present contamination based on historical dumping. No enforcement or removal actions have been conducted at the MWS site.

### HIGHLIGHTS OF COMMUNITY PARTICIPATION

On April 23, 1991 EPA hosted a remedial Investigation Kick-off meeting at the Almira Township Office, Lake Ann, Michigan. Approximately 50 citizens attended this meeting.

The Proposed Plan was released to the public for comment on May 11, 1992. The public comment period concluded June 9, 1992. The Proposed Plan provided the public with the opportunity to attend a Public Meeting to discuss the RI findings and proposed alternative. The Proposed Plan public meeting was held on May 28, 1992 with nine citizens in attendance.

The public participation requirements of CERCLA section 113(k)(2)(B)(i-v) and 117 have been met in the remedy selection process. This decision document presents the selected remedial action for the MWS site, in Michigan, chosen in accordance with CERCLA, as amended by SARA and, to the extent practicable, the NCP. The decision for this site is based on the administrative record.

## **SCOPE & ROLE OF RESPONSE ACTION**

U.S. EPA and MDNR recommend "No Action" at the Metal Working Shop. No site related organic compounds were found during the RI, however, inorganic constituents similar to background levels were found during the RI. Levels of inorganic constituents present in site soils and ground water do not pose an unacceptable risk to human health or the environment.

The findings of the MWS RI showed no organic or inorganic constituents that exceed any federal standards or drinking water criteria, except for beryllium, in filtered ground water samples. Beryllium exceeded its MCL of 1.0 ug/L in residential well RW01-01 upgradient of the site. This beryllium detection is most likely from naturally occurring soil constituents and not site related.

The risk level associated with beryllium is  $6.6 \times 10^{-5}$  which is within the acceptable U.S. EPA risk range of  $1 \times 10^{-4}$  and  $1 \times 10^{-6}$ .

U.S. EPA informed the Michigan Department of Public Health of this beryllium detection for evaluation and possible future monitoring consideration even though this residential well is not used for drinking water purposes.

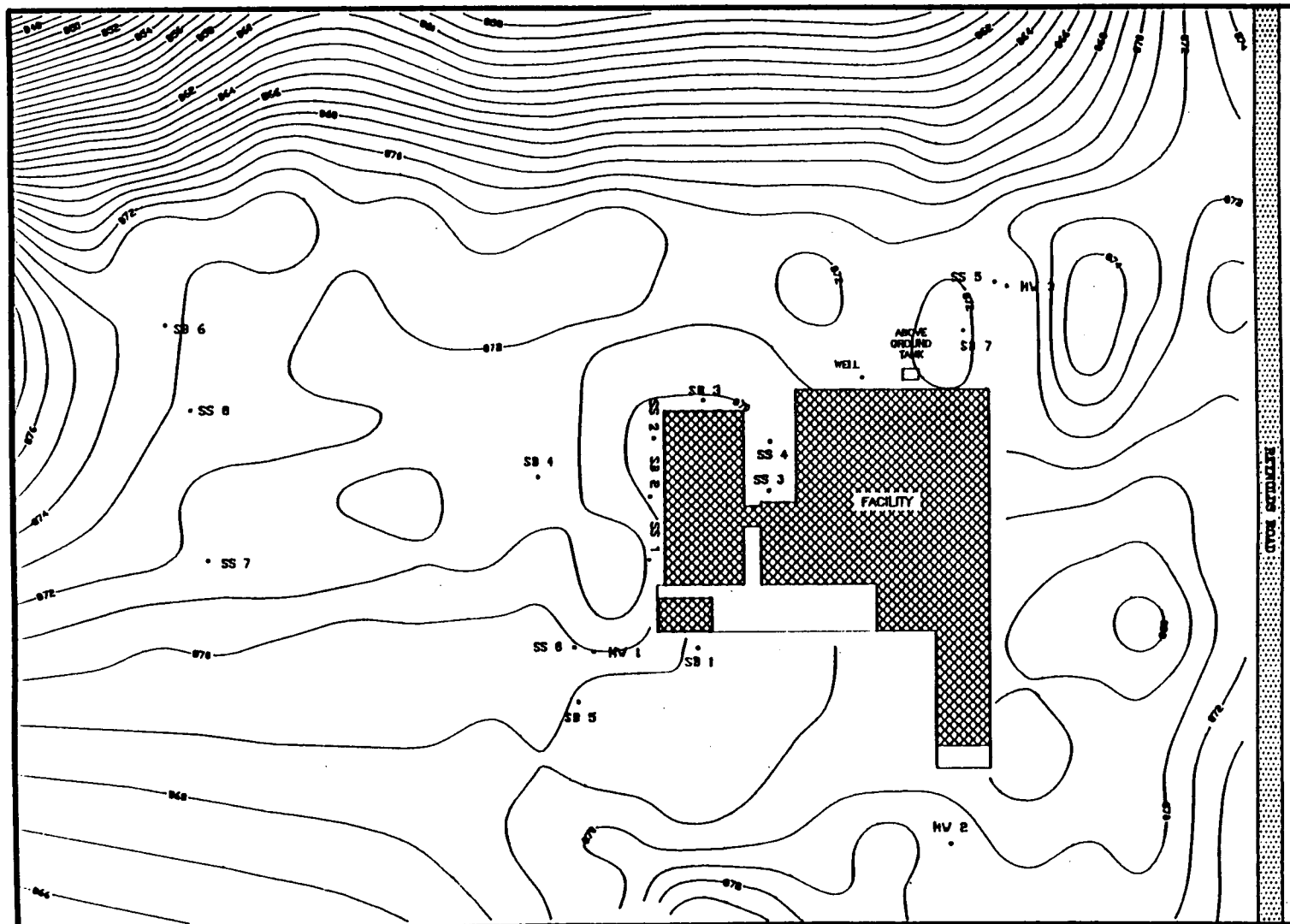
U.S. EPA and MDNR concur that all necessary action has been completed at the MWS site. Because this remedy will not result in hazardous substances remaining on site above health based levels, the 5 year review will not apply to this action.

## **SITE CHARACTERISTICS**

U.S.EPA performed field activities during the remedial investigation beginning in April 1991. These activities included a ground penetrating radar survey, evaluations and sampling of existing monitoring wells, surface and sub-surface soil sampling, surface water and sediment sampling, permeability test of the aquifer, and natural gamma logging of the monitoring wells. U.S.EPA completed the remedial investigation report in February 1992 which should be referenced for details involving the components of the remedial investigation. Sample locations, site features, and topography of the MWS site are shown in Figure 2. A generalized cross-section of the local stratigraphy is given in Figure 3. Significant results from sample analyses are discussed below.

### **Soil Samples**

In general the inorganic constituent concentrations in site soil samples were detected at low levels and in similar concentrations to background soil samples. Review of all collected soil samples by a U.S.EPA toxicologist resulted in selecting two inorganic constituents, (lead and arsenic) to be carried through the Risk Assessment process. Maximum concentrations for these two constituents are summarized in the following table and discussed below in greater detail for surface soil samples and sub-surface soil samples.



USEPA - REGION V

TOPOGRAPHIC SURVEY BY JU, SB, SP

BASEMAP BY JRU



SS = Surface Soil  
SB = Soil Boring  
MW = Monitoring Well

# TOPOGRAPHIC AND SAMPLING LOCATION MAP METAL WORKING SHOP SITE LAKE ANN, MICHIGAN

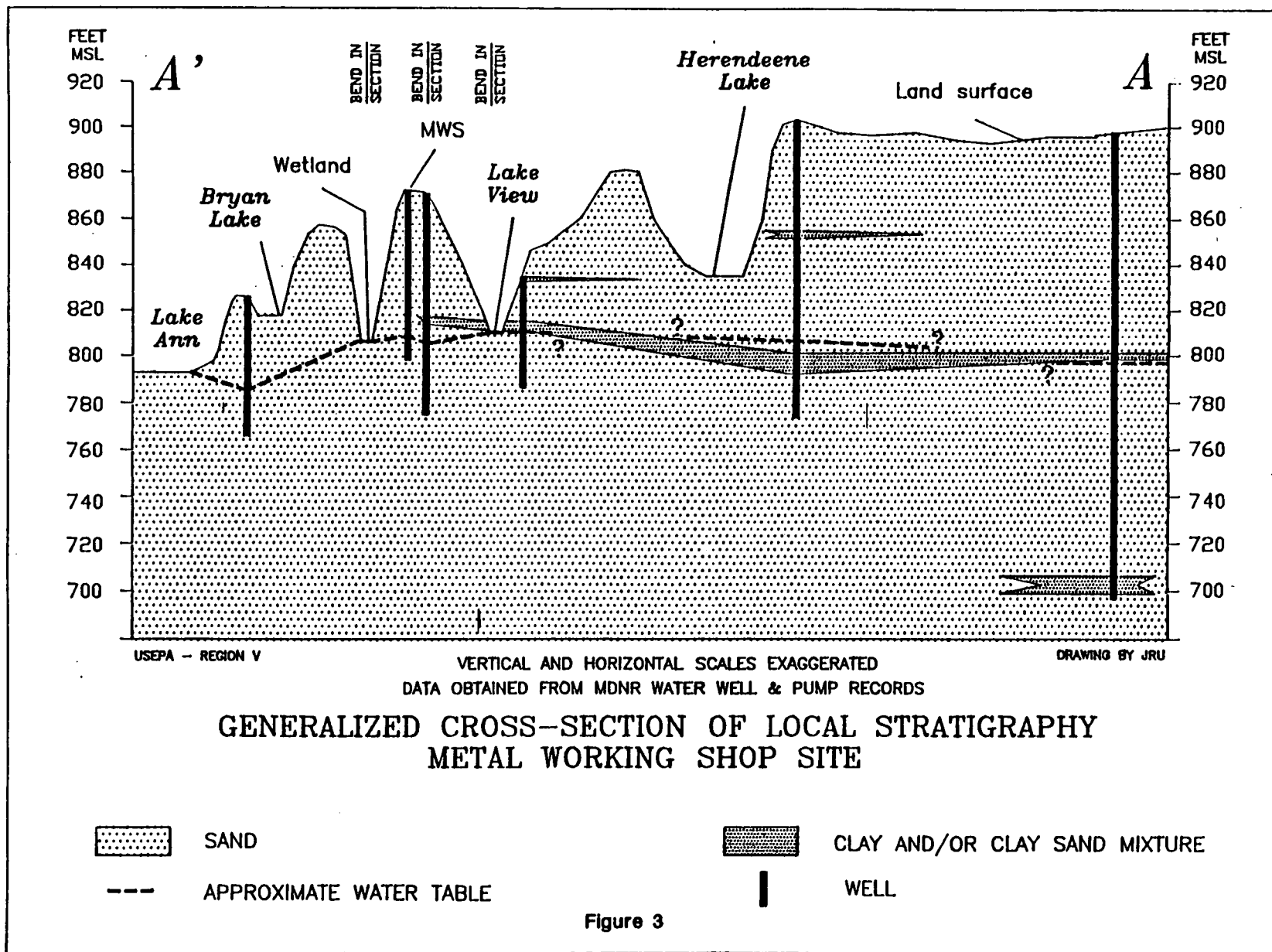
CONTOUR INTERVAL = 1 FOOT  
ELEVATION DATUM MSL

0 5 15 30



SCALE IN FEET

FIGURE 2



<u>Surface Samples (mg/kg)</u>			<u>Sub-Surface Samples (mg/kg)</u>	
<u>Background Sample</u>	<u>Characterization Sample</u>	<u>Inorganic Constituent</u>	<u>Background Sample</u>	<u>Characterization Sample</u>
1.0	3.9	Arsenic	1.8	1.3
2.7	11.2	Lead	0.8	23.0

The maximum concentration of lead for surface soil characterization samples was 11.2 mg/kg in duplicate sample SS03 (characterization sample SS03 detected a concentration of 7.0 mg/kg). A lead concentration of 2.7 mg/kg was found in background sample SS07. Arsenic was found at a maximum of 3.9 mg/kg in surface soil sample SS05. In background sample SS07 arsenic was found at a concentration of 1.0 mg/kg. —

Analysis of site inorganic sub-surface samples show maximum concentrations of lead at 23.0 mg/kg in SB01 and arsenic at 1.3 mg/kg in SB05. Corresponding background results revealed lead at 1.8 mg/kg and arsenic at 0.8 mg/kg in SB06. In summary, analytical results indicate inorganic constituents exist on-site at low levels. However, site characterization concentrations are similar to background concentrations for inorganic constituents.

Only two organic compounds were detected in soil samples, 2-butanone and bis(2-ethylhexyl)phthalate. The maximum concentration of 2-butanone detected was 1500 ug/kg and the maximum concentration of bis(2-ethylhexyl)phthalate detected was 450 ug/kg. Both of these organic compounds can be attributed to laboratory contamination as common artifacts of the analytical techniques employed and are not considered to be site derived.

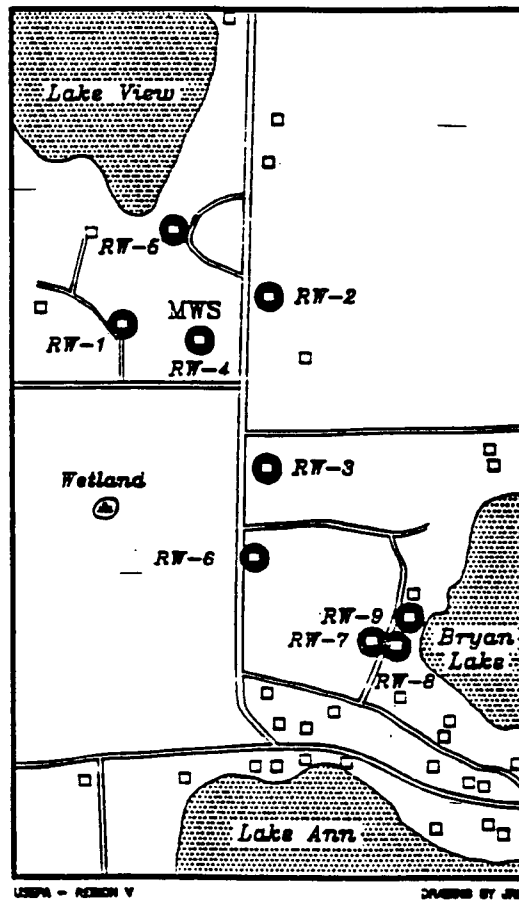
#### **Ground Water Samples**

Inorganic constituents exist in all of the ground water samples collected and analyzed. Both filtered and unfiltered samples were collected from the three site monitoring wells. From the ground water samples collected on-site, a U.S. EPA toxicologist identified two inorganic constituents of concern (lead and arsenic) to be carried through the risk assessment process.

Beryllium was found upgradient of the site ground water flow at a concentration of 1.2 ug/L in one residential well sample (RW01), which exceeds the Federal Maximum Contaminant Level (MCL) of 1.0 ug/L (see Figure 4 for residential well locations). Historically, beryllium has not been a contaminant of concern at the MWS site, however beryllium was carried through the risk assessment process even though it is most likely naturally occurring. Beryllium was not found in any other groundwater sample.

The average ground water flow velocity is approximately 255 feet/year traveling in a southeasterly direction. Ground water flow direction is shown in Figure 5.

# METAL WORKING SHOP SITE RESIDENTIAL WELL SAMPLING LOCATIONS



DATE OF SAMPLING: APRIL 24, 1991

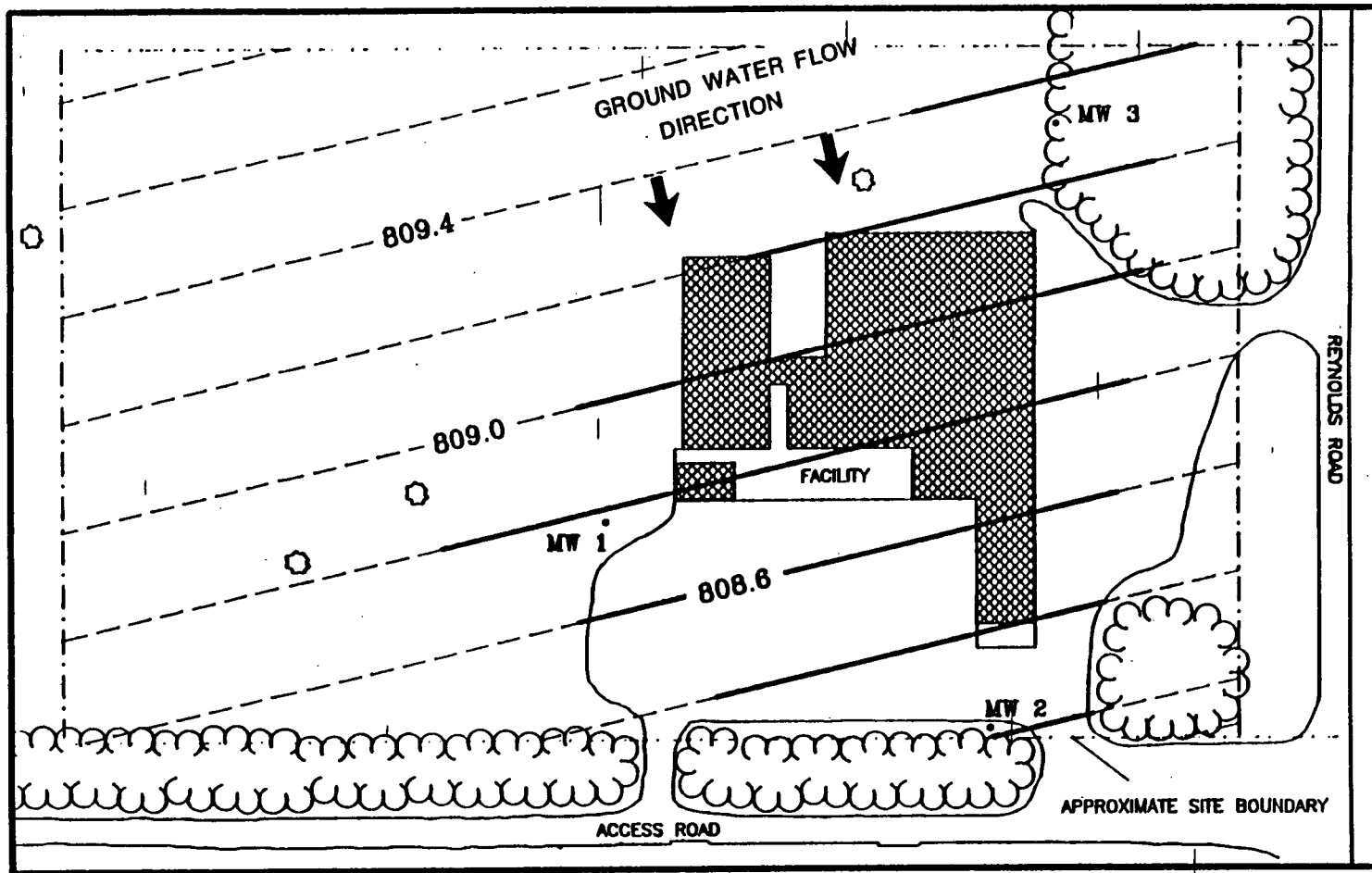
## LEGEND

- ROADS
- BUILDING
- LOCATION OF RESIDENTIAL WELL SAMPLED
- RW-1 SAMPLE NUMBER



0 125 250 500  
APPROXIMATE  
SCALE IN FEET

Figure 4



USEPA - REGION V

DATA INTERPRETATION BY LV

BASEMAP BY JRU



GROUND WATER CONTOUR MAP  
METAL WORKING SHOP  
APRIL 23, 1991  
LAKE ANN, MICHIGAN

0 5 15 30  
SCALE IN FEET

DASHED LINES = EXTRAPOLATED DATA

CONTOUR INTERVAL = 0.2 FEET

FIGURE 5

Maximum concentrations for constituents of concern are summarized in the table below:

Monitoring Well Samples (ug/L)

Residential Well Samples (ug/L)

<u>Background Sample</u>	<u>Characterization Sample</u>	<u>Inorganic Constituent</u>	<u>Background Sample</u>	<u>Characterization Sample</u>
ND	3.0	Arsenic	ND	ND
ND	ND	Beryllium	ND	1.2
ND	2.0	Lead (filtered)	2.0	3.0
10.0	12.0	Lead (unfiltered)	NA	NA

ND = Not Detected

NA = Not Applicable

Lead was detected at low levels (below the MCL of 5.0 ug/L) in several residential wells. The maximum concentration of lead detected in residential wells was 3.0 ug/L in samples RW04 and RW08. The residential well background sample RW02, detected lead at a concentration of 2.0 ug/L. Arsenic was not found in any residential well sample.

Lead was detected in all of the unfiltered monitoring well samples but only two of the filtered monitoring well samples. The site unfiltered samples had visible sediment present within the sample whereas the filtered samples did not have visible sediment present in the sample. The maximum concentration of lead detected in the filtered monitoring well samples was 2.0 ug/L in both MW2 and MW1. Lead was detected in all unfiltered monitoring well samples with the maximum concentration of 12.0 ug/L in monitoring well MW1.

EPA believes the 12.0 ug/L detection of lead in MW1 is the result of soil constituents (sediment) being present within the sample for laboratory analysis and not entirely due to the dissolved concentration of lead in the water. This is evident in the fact that MW1's filtered sample had a lead concentration of 2.0 ug/L which is more representative of area drinking water.

Arsenic was detected in one unfiltered monitoring well sample, MW1, at a concentration of 3.0 ug/L. Arsenic was not detected in any other groundwater sample, residential or monitoring well. Arsenic does not exceed its MCL of 50.0 ug/L but was still selected as a constituent of concern by the EPA because of its toxicity.

Remaining ground water inorganic constituents that were detected do not exceed their respective MCLs for monitoring well and residential well samples. Sporadic occurrences of cadmium and manganese exist in the residential well samples. Cadmium was detected in RW06 at a concentration of 0.4 ug/L. Manganese was found in RW02 at a concentration of 80.4 ug/L. Remaining inorganic constituents that were detected in the residential wells occur more frequently but at variable levels. Monitoring well samples detected inorganic constituents frequently, but at variable levels except for antimony, arsenic, copper, nickel, potassium,

vanadium and zinc which had sporadic occurrences. U.S.EPA believes these inorganic constituents are naturally occurring.

Organic analysis of all groundwater samples revealed the presence of two organic compounds, bis(2-ethylhexyl)phthalate and methylene chloride. Bis(2-ethylhexyl)phthalate is a semivolatile compound which was detected in monitoring well MW3 at a concentration of 4.0 ug/L. The field blank detected the highest concentration of bis(2-ethylhexyl)phthalate which was estimated at 220 ug/L. One volatile organic compound (methylene chloride) was detected at an estimated concentration of 0.6 ug/L in monitoring well MW1. Methylene chloride was also detected in all pure water trip blanks at an estimated concentration of 0.5 to 0.6 ug/L. Both bis(2-ethylhexyl)phthalate and methylene chloride are common artifacts of the analytical method employed and are not considered to be site derived. Common artifacts can result from the chemical compounds used by the laboratory to analyze samples.

#### **Lake Samples**

The only constituents of significance found in the lake samples consist of inorganic constituents. Sample collection from four nearby lakes and a wetland consisted of shallow and deep samples (when sufficient water depth was allowable) at each sampling location to account for such differences potentially due to stratification or incomplete mixing. The surface water bodies sampled were Lake Herendeene (background location), Lake View, Bryan Lake, Lake Ann, and the small wetland area in the depression area south of MWS. Lake Ann was sampled at two separate locations.

The maximum inorganic concentrations detected above background levels for both surface water samples and sediment samples are listed below in units of ug/L for water samples and mg/kg for sediment samples:

<u>Surface Water Samples (ug/L)</u>			<u>Sediment Samples (mg/kg)</u>	
<u>Background Sample</u>	<u>Characterization Sample</u>	<u>Inorganic Constituent</u>	<u>Background Sample</u>	<u>Characterization Sample</u>
84.90	96.20	Aluminum	5730	7540
9.40	22.30	Barium	43.90	118
1.50	2.60	Beryllium	ND	ND
27,800	42,600	Calcium	39,000	337,000
170	2970	Iron	11,300	12,800
ND	ND	Lead	57.50	96.70
5780	8590	Magnesium	3490	4040
18.90	445	Manganese	255	486
665	2560	Potassium	ND	ND
950	2090	Sodium	ND	ND
ND	ND	Vanadium	ND	29.80
ND	ND	Zinc	208	211

No obvious pattern of site related inorganic constituents exists in surface water or sediment samples collected near the MWS site. Due to the absence of proven site related constituents between the site and surface water bodies, and the fact that natural variation from lake to lake is expected, the constituents appear to be naturally occurring. The small wetland has the highest levels of inorganic constituents above background in both the surface water sample and sediment sample. Because of the inherent nature of wetland chemistry, it is difficult to compare these samples with the background samples from Lake Herendeene. Inorganic compounds such as iron, manganese, and potassium are commonly elevated in wetlands such as the one sampled near the site. The reducing environment, stagnant water, and organic content of the wetland can result in elevated concentrations of naturally occurring metals. Since water samples from the wetland were unfiltered, these elevated concentrations may also be due to high particulate matter in the wetland surface water. Therefore, EPA believes the higher concentrations of inorganics in the wetland are naturally occurring.

### RISK ASSESSMENT

During the RI, an analysis was conducted to estimate the health and environmental threats, if any, that could result if contamination at MWS was not addressed in some manner. This analysis is commonly referred to as a baseline risk assessment. In the Superfund Program, a baseline risk assessment is generally conducted on all sites at the time of the remedial investigation. The baseline risk assessment is an analysis of potential health risks to the public that would exist at a site if no action were taken. The routes of exposure evaluated in the exposure assessment, based on contaminated media, current land use, and potential future land use, are as follows:

- 1.) Direct exposure to contaminated soils through ingestion;
- 2.) Exposure via groundwater through ingestion and vapor inhalation.

Various media at the MWS site were sampled and underwent several analyses. Although nearly all of the results showed "non-detects" or low levels of inorganic constituents, arsenic, beryllium and lead underwent a quantitative risk assessment. A screening type of assessment was performed to see if the highest detects in the future residential land use scenario (ingestion of potable water and soil and inhalation of beryllium), the most conservative scenario, would produce a significant risk. Listed below are the maximum concentrations of the three constituents of concern at the MWS site.

<u>Constituent</u>	<u>Maximum Concentrations</u>	
	<u>soil (mg/kg)</u>	<u>ground water (ug/L)</u>
Arsenic	3.9	3
Lead	23	12 (unfiltered)
Beryllium	0.2	1.2

The National Contingency Plan (NCP) established a range of acceptable carcinogenic risk for determining appropriate level of cleanup and whether a remedial action is warranted. Generally, where the baseline risk assessment indicates a cumulative site risk to an individual that exceeds 1 in 10,000 lifetime excess cancer risk, action under Superfund is generally warranted. At sites where the cumulative site risk is less than 1 in 10,000, based on protectiveness, action is generally not warranted. The NCP indicates that on those sites where action is warranted, the ultimate cleanup for carcinogens will be within the range of 1 in 10,000 ( $1 \times 10^{-4}$ ) excess lifetime cancer risk to 1 in 1,000,000 ( $1 \times 10^{-6}$ ) excess lifetime cancer risk.

The current risk for ingesting potable water was evaluated for the resident whose upgradient well showed 1.2 ppb beryllium. Beryllium showed a carcinogenic risk through potable water, soil ingestion and inhalation in the future residential land use scenario of  $6.6 \times 10^{-5}$ . The estimated inhalation risk from beryllium is  $2.8 \times 10^{-11}$ , well below any risk levels of concern.

The  $6.5 \times 10^{-5}$  risk figure is based on a conservative risk scenario from a detection of 1.2 ppb in nearby upgradient residential well. The risk is within the acceptable range of  $1 \times 10^{-4}$  to  $1 \times 10^{-6}$  upper bound lifetime cancer risk indicating no remedial action is necessary. Furthermore, since beryllium was detected in an upgradient residential well and no other ground water sample, EPA believes the beryllium to be an isolated local anomaly. However, for the sake of determining any possible risk and wanting to favor a conservative risk approach, beryllium was carried through the risk assessment process. Under the Superfund program no remedial action is necessary for this risk level, however, EPA did notify the Michigan Department of Public Health (MDPH) of this beryllium detection for possible future monitoring.

Exposure to contaminants that result in a noncarcinogenic risk are also calculated in the baseline risk assessment. These risks are calculated by comparing an exposure level (dose) over a specific period of time with an established "reference dose" derived for a similar exposure time period for that contaminant. If the exposure level dose exceeds that of the reference dose, an unacceptable risk may exist at the site. This comparison is represented by a ratio whereby if the resulting number is one (1.0) or greater, an action may be warranted at the site. For site contaminants (inorganics) at MWS, the maximum noncarcinogenic risk from arsenic and beryllium in both the soil and ground water is 0.16.

Lead exposure was evaluated through the Uptake/Biokinetic Model. The purpose of the model is to estimate the total lead uptake in humans that results from diet, inhalation and ingestion of soil, dust, and paint and to predict a blood level based upon total lead uptake. The current lead program estimates lead uptake and blood lead levels in children of ages 0 to 6 years old. The lead risk predicted through the Lead Uptake Biokinetic Model indicated that 99.97% of the most sensitive population, children, were below the level of concern, 10 ug/deciliter, an estimated insignificant risk.

### **EXPLANATION OF SIGNIFICANT CHANGES**

There are no significant changes from the recommended alternative described in the May 1992 Proposed Plan.

### **STATUTORY AUTHORITY FINDING**

U.S. EPA and MDNR have determined that conditions at the site pose no current or potential threat to human health or the environment. No site related organic contamination was found during the RI, however, inorganic constituents comparable to background levels were found during the RI. Levels of inorganic constituents present in site soils and ground water do not pose an unacceptable risk to human health or the environment. Accordingly, no action is necessary at the MWS site.

As this is a decision for "Action Completion", the statutory requirements of CERCLA Section 121 for remedial actions are not applicable and no five year review will be undertaken.

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## RESPONSIVENESS SUMMARY

### Metal Working Shop Site Lake Ann, Michigan

The U.S. Environmental Protection Agency (U.S. EPA) has gathered information on the types and extent of constituents found, and has recommended actions to address the Metal Working Shop Superfund Site located along the northwest village limit of Lake Ann, Benzie County, Michigan. As part of the remedial action process, a public meeting was held at the Almira Township Hall on May 28, 1992, and was attended by nine people. The purpose of the meeting was to explain the intent of the project, to describe the results of the Remedial Investigation Study (RI), and to receive comments from the public. A court reporter was present to record the proceedings of the public meeting. A copy of the transcript is included in the Administrative Record.

Public participation in Superfund projects is required by the Superfund Amendments and Reauthorization Act of 1986 (SARA). Comments received from the public are considered in the selection of the remedial action for the site. The Responsiveness Summary serves two purposes: To provide the U.S. EPA with information about the community preferences and concerns regarding the remedial alternatives and to show members of the community how their comments are incorporated into the decision-making process.

This document summarizes the oral comments received at the May 28, 1992 public meeting and written comments received during the public comment period which ran from May 11, 1992 through June 9, 1992.

The comments from the community have been summarized and responded to as follows:

#### Comment #1

One commentor pointed out that the site history, with its numerous small shop/manufacturing operations, had the potential to cause soil/ground water contamination triggering (and justifying) an evaluation of the site. However, the 1984 U.S. EPA evaluation did not define the presence of a real or potential problem at the site. Furthermore, there is no excuse for not collecting soil boring samples or existing water well samples during the 1984 evaluation by the U.S. EPA and that two years later in 1987 proposing to place the site on the National Priorities List (NPL) was based entirely on conjecture.

#### Response:

U.S. EPA agrees with the first part of this comment in which the site history had a potential to cause soil/ground water contamination. In response to the concern that the 1984 U.S. EPA evaluation did not define a real or potential problem and that without any sampling the site was placed on the NPL simply on conjecture, U.S. EPA believes a potential problem was defined after

reviewing site records and interviewing site owner/operators which, even in the absence of sample data, permitted the site to be scored under the Hazard Ranking Score (HRS) system and proposed to be placed on the National Priorities List (NPL).

Comment #2

A comment was received stating that even after Lake Ann Manufacturing (LAM) conducted a hydrogeological investigation of the site, splitting samples with the MDNR and having the split samples analyzed by MDNR laboratories, which did not find soil or ground water contamination, the site was still listed on the NPL in 1990 based on the not accurate speculation that contamination might be present at the site.

Response:

U.S. EPA believes that the hydrogeological investigation conducted by LAM and the MDNR in 1987 did not completely confirm the absence of potential soil contamination at the site, therefore, at the request of the State of Michigan and the approval of the U.S. EPA the site advanced from being listed on the proposed NPL to being listed on the final NPL.

Comment #3

One commentor stated that the April 1991 - February 1992 investigation of the site by the U.S. EPA appears, without exception, to have substantiated and confirmed the results and findings of Lake Ann Manufacturing's May 1987 investigation. Additionally, the U.S. EPA investigation ran the risk assessment process on constituents which were at background levels and therefore not site specific and that the 1984 constituents have since discharged into Lake Ann.

Response:

The U.S. EPA investigation not only confirmed the results and findings of LAM's May 1987 investigation, but also by conducting a more in depth investigation of site soils than the LAM investigation it alleviated all doubts that contamination may be present at the site above health based risk levels. In response to the second part of this comment it is U.S. EPA policy to conduct a risk assessment on all sites that undergo remedial investigations and since no constituents were found above background levels U.S. EPA had to select constituents at background levels to conduct the risk assessment. In response to the third concern of this comment, the commentor is correct, that the constituents suspected in 1984 would have since discharged into Lake Ann. However, if the investigation would have discovered a source of contamination, a constant source of contaminants discharging into Lake Ann could have been a possibility. Fortunately no such source of contamination was found to exist at the site.

## Comment #4

A comment was received concerning the detection of arsenic at 3 parts-per-billion (ppb) which is at 6% of its level of concern 50 ppb. The commentor would like to know if it was pertinent of the EPA toxicologist to select arsenic since it was a single anomaly in one unfiltered monitoring well sample and that while arsenic is toxic per se, will it cause any toxic response to consumers at such a concentration.

Response:

Even though arsenic was only detected in one sample at a low concentration the U.S. EPA toxicologist selected it to run through the risk assessment process based on its widely known and accepted toxicity. The inclusion of arsenic in the risk assessment process was to prevent any unnecessary public concern. The answer to the last concern of the comment is no, arsenic will not cause any toxic response to consumers at such a low concentration on its own, but in addition to other possible contaminants, it could have been a contributor to an unacceptable risk at the site. The level of concern is more than 10 times the level detected at the site. See also response to comment #6 concerning arsenic.

## Comment #5

A comment was received concerning the organic compounds detected in soil and ground water samples. It was stated that while these compounds were detected as a result of analytic materials/methods/procedures and not site derived, why was this extraneous information included in the fact sheet.

Response:

The inclusion of the organic data in the Fact Sheet was intended to show what organic compounds were detected during the investigation and that no organic contaminants of concern were found to be contributing to the site.

## Comment #6

A comment was received stating that nearly all of the results showed non-detects or low levels of inorganics. The commentor would like to know why, what purpose, and what justification is there for arsenic, beryllium, and lead to be evaluated in the quantitative risk assessment process.

Response:

As stated in the remedial investigation risk assessment lead was the only constituent which required an evaluation. Lead was detected at a maximum concentration of 12.0 ppb in one unfiltered monitoring well sample. This is slightly higher than the Maximum Contaminant Level (MCL) of 5.0 ppb for drinking water. Arsenic was

selected because of its known toxicity value and not an exceedence of any level of concern. Beryllium was selected because of its MCL exceedence in one upgradient residential well. U.S. EPA believes that these three constituents, arsenic, beryllium, and lead, would be the preferred constituents to be carried through the risk assessment process even though the concentrations were, for the most part, found at background levels. See response to comments #3 and #4.

Comment #7

A comment was received concerning the length of time involved with making a final decision on the site. The commentor expressed concern about the site going on for so long and that people and the U.S. EPA put money into the site, and people worried about the effects the site had on their residences.

Response:

U.S. EPA acknowledges that the Superfund process can be lengthy and expensive, but in this case, both the time and money spent were far below the national site average. U.S. EPA streamlined the investigation and used no contractor support to conduct the RI, hence reducing the expense of time and money. U.S. EPA understands the concern of residents neighboring a Superfund site and is pleased in this case, to be able (based on site data) to recommend the no action alternative and propose that the site be removed from the NPL, therefore alleviating the concerns of all involved.

To: Dan Corza

June 24, 1992

From: Claudia Kubaewy

Re: Metal Working Shop

I wanted to let you know that MDNR agrees with the decision for no further action to be taken at the Metal Working Shop Superfund site. We will be sending a concurrence letter as soon as we can get it through the process. I hope to have a copy faxed to you by June 30, 1992. Please proceed with the ROD signature process.

Claudia Kubaewy

**NATURAL RESOURCES  
COMMISSION**

LARRY DEVUYST  
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JOHN ENGLER, Governor

**DEPARTMENT OF NATURAL RESOURCES**

Stevens T. Mason Building, P.O. Box 30028, Lansing, MI 48909

ROLAND HARMES, Director

July 7, 1992

Mr. Valdas V. Adamkus, R-19J  
Administrator, Region 5  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

Dear Mr. Adamkus:

The Michigan Department of Natural Resources (MDNR) has reviewed the U.S. Environmental Protection Agency's (EPA) proposed Record of Decision for the Metal Working Shop site in Lake Ann, Benzie County, Michigan. The MDNR concurs with the "No Action" alternative selected by the EPA.

Sincerely,

A handwritten signature in dark ink, appearing to read "James F. Cleary".

James F. Cleary  
Deputy Director  
517-373-7917

cc: Mr. James Mayka, EPA  
Ms. Rose Freeman, EPA  
Ms. Susan Louisnathan, EPA  
Mr. Sam Borries, EPA  
Mr. Alan J. Howard, MDNR  
Mr. Andy Hogarth, MDNR  
Mr. William Bradford, MDNR  
Ms. Claudia Kerbawy, MDNR  
Ms. Denise Gruben, MDNR  
Metal Working Shop File

ADMINISTRATIVE RECORD INDEX  
METAL WORKING SHOP  
LAKE ANN, MICHIGAN  
ORIGINAL  
04/07/92

FILE COPY

DOC# ----	DATE ----	AUTHOR -----	RECIPIENT -----	TITLE/DESCRIPTION -----	PAGES -----
1	03/23/87	Brown, J. Attorney	Myer, R., Director Hazard Site Control, USEPA	Comments in opposition to EPA's proposal	14
2	07/14/87	Brumbaugh, C., Gosling Czubak Assoc.	Sheffran, P., Lake Ann Mfg.	Letter re: Site	2
3	07/23/87	Lake Ann Mfg.	Myer, R., Dir. Hazardous Site Control, USEPA	Second Supplemental Opposition Comments	4
4	12/23/87	Pearson, D., MDNR	Work, T., MDNR	De-listing of Lake Ann Mfg.	2
5	09/30/88	ATSDR	USEPA	Preliminary Health Assessment	4
6	10/19/90	Borries, S., USEPA	File	RI Work Plan	32
7	03/26/91	USEPA	File	LAM GA Project Plan	80
8	04/11/91	Borries, S., USEPA	File	Field Sampling Plan	20
9	02/28/92	Borries, S., USEPA	File	Metal Working Shop (Lake Ann Mfg): Final RI Report	321

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UPDATE #1

METAL WORKING SHOP

LAKE ANN, MICHIGAN

06/17/92

DOC# ----	DATE ----	AUTHOR -----	RECIPIENT -----	TITLE/DESCRIPTION -----	PAGES -----
1	05/28/92	Northwest Reporting	U.S. EPA	Public Meeting: 5/28/92	25

# GUIDANCE DOCUMENTS

FOR

METAL WORKING SHOP

LAKE ANN, MICHIGAN

(These Documents May Be Viewed at Region V Offices)

06/25/92

DOC# ----	DATE ----	AUTHOR -----	Doc. # -----	TITLE/DESCRIPTION -----	PAGES -----
1	01/01/85	U.S. EPA	9285.2-01	Field Standard Operating Procedures Manual 04-Site Entry	29
2	04/01/85	U.S. EPA	9285.2-04	Field Standard Operating Procedures Manual 06-Work Zones	19
3	04/01/85	U.S. EPA	9285.2-05	Field Standard Operating Procedures Manual 09-Site Safety Plan	26
4	06/24/85	U.S. EPA		RCRA/CERCLA Decisions Made on Remedy Selection	3
5	09/01/85	Barcelona, N.J. Water Survey	EPA/600/2-85/104	Practical Guide for Ground-Water Sampling	175
6	06/01/86	U.S. EPA	9355.0-4A	Superfund Remedial Design and Remedial Action guidance	100
7	09/24/86	U.S. EPA	Federal Register 9/24/86	Guidelines for Carcinogen Risk Assessment	13
8	10/01/86	U.S. EPA	9285.4-1	Superfund Public Health Evaluation Manual	500
9	12/01/86	U.S. EPA	9355.1	Superfund Federal-Lead Remedial Project Mana- gement Handbook	179
10	12/01/86	U.S. EPA	9355.2-1	Superfund State-Lead Remedial Project Manage- ment Handbook	120
11	12/24/86	U.S. EPA	9355.0-19	Interim Guidance on Superfund Selection of Remedy	10
12	03/01/87	U.S. EPA	9355.0-07B	Data Quality Objectives for Remedial Response Activities Development Process	150
13	03/01/87	U.S. EPA	9355.0-07B	Data Quality Objectives for Remedial Response Activities Scenario: RI/FS Activities at a Site with Contaminated Soils and Groundwater	120

DOC# -----	DATE -----	AUTHOR -----	Doc. # -----	TITLE/DESCRIPTION -----	PAGES -----
14	05/01/87	Office of Water Regulations & Standards	EPA/440/5-86-001	Quality Criteria for Water 1986	325
15	05/21/87	U.S. EPA		EPA's Implementation of the Superfund Amendments and Reauthorization Act of 1986	4
16	04/01/88	U.S. EPA	9385.5-1	Superfund Exposure Assessment Manual	160
17	04/19/88	U.S. EPA		Information on Drinking Water Action Levels	17
18	06/01/88	U.S. EPA	9230.0-03B	Community Relations in Superfund: A Handbook	188
19	10/00/88	U.S. EPA	9355.3-01	Guidance for Conducting Remedial Investigations and Feasibility Studies (RI/FS) Under CERCLA	195
20	08/00/89	U.S. EPA	9234.1-01	CERCLA Compliance with Other Laws Manual, part 2: Clean Air Act and Other Environmental Statutes and State Requirements	176
21	06/04/90	U.S. EPA	9230.0-06	Superfund Responsiveness Summaries	190
22	08/28/90	U.S. EPA	9835.15	Performance of Risk Assessments in Remedial Investigation/Feasibility Studies	4
23	11/30/90	U.S. EPA	9230.0-20	Innovative Methods to Increase Public Involvement in Superfund Community Relations	5
24	12/03/90	U.S. EPA	9833.3A-1	Final Guidance on Administrative Record's for Selecting CERCLA Response Actions	110
25	04/22/91	U.S. EPA	9355.0-30	Role of the Baseline Risk Assessment in Superfund Remedial Selection Decisions	10