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January 1998

EPA Superfund Record of Decision:

Scrap Processing Co., Inc.
Medford, WI
9/30/1997

DECLARATION

SELECTED REMEDIAL ALTERNATIVE
FOR THE
SCRAP PROCESSING SITE
Medford, Wisconsin

Statement of Basis and Purpose

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

Assessment of the Site

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action in this Record of Decision (ROD), may present an imminent and substantial endangerment to public health, welfare, or the environment.

Description of the Selected Remedy

The purpose of this remedy is to eliminate or reduce migration of contaminants to the groundwater and to reduce risks associated with exposure to the contaminated soils.

The major components of the selected remedy include:

- Excavation of lead-contaminated soils;
- Off-site disposal of excavated soils at a solid waste landfill;
- Use of institutional controls (such as fencing and groundwater & land use restrictions) on site property to limit land and groundwater use;
- Installation of additional groundwater monitoring wells in the source area next to the battery cracking building; and
- Monitoring of groundwater to ensure effectiveness of the remedial action (soil removal) and determine if there is need for future active groundwater remediation.

Statutory Determinations

The selected remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost effective.

Because this remedy will result in hazardous substances remaining on the site above health-based levels, a review will be conducted within five years after commencement of the remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

State Concurrence

The State of Wisconsin has indicated that it is in agreement with the selection of Alternative E with a contingency for groundwater monitoring and remediation, if needed, for remediation of the Scrap Processing Site and will provide U.S. EPA with a letter of concurrence.

Wm. E. Muno
William E. Muno
Superfund Division Director

9/30/97
Date

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SUMMARY OF REMEDIAL ALTERNATIVE SELECTION

Scrap Processing

A. SITE LOCATION AND DESCRIPTION

The Scrap Processing Site (the site) is a salvage yard and former battery cracking facility that now operates as a scrap dealership and recycler. The site is located at 510 West Allman Street in Medford, Taylor County, Wisconsin. The site covers approximately 15 acres and is located east of the Black River and city of Medford property. See Figure 1.

B. SITE HISTORY AND ENFORCEMENT ACTIVITIES

The Scrap Processing Site is owned and operated by Mark and Pat Potaczek. They are sons of the deceased original scrap yard owner and operator, Julius Potaczek. In the mid-1950s, scrap yard operations began with activities that included crushing cars and large appliances. From the 1950s until 1974, battery cracking occurred at a rate of 8,000 to 10,000 batteries per month. After that time, the battery cracking allegedly was reduced, and finally ceased in the early 1980s.

In 1972, the Wisconsin Department of Natural Resources (WDNR) put the owner on notice for mishandling batteries. As a result of citizen complaints that battery acid was being released onto the ground and into the Black River, WDNR conducted site inspections throughout the 1970s. In 1979, WDNR directed the owner of the Scrap Processing site to cease battery cracking operations. Despite WDNR's directive, cracking operations continued until the early 1980s.

WDNR obtained a 1983 court order requiring that the site owner hire an environmental consulting firm to conduct site cleanup activities. The site owner retained Midstate Environmental Consultants to conduct cleanup activities. Field activities began 18 months after the order was issued. Detailed information is not available about the scope and objectives of the removal, time and money spent, or the nature and extent of contamination. Additional removals and sampling efforts took place over the next few years. In 1987, the last of the excavated contaminated soil was disposed properly off-site.

In 1984, the Scrap Processing Site was officially placed on the National Priorities List (NPL) and designated a Superfund site. In 1993, U.S. EPA requested that the site owners clean up the site. The owners responded that it was financially impossible for them to comply with U.S. EPA's request. In September 1993, U.S. EPA conducted an

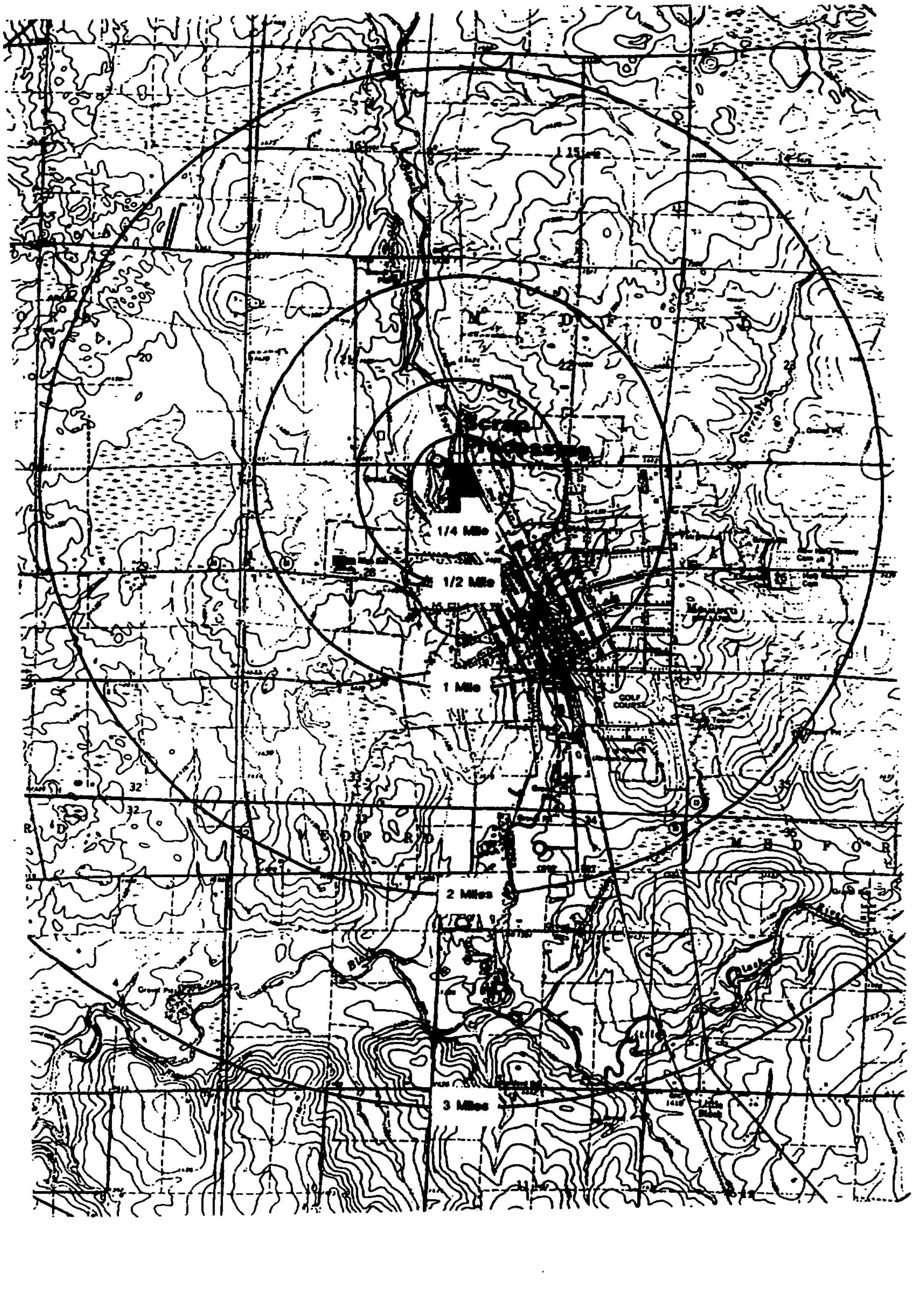

Figure 1 - Site Location

emergency removal action in the area immediately surrounding the battery cracking building (see Figure 2). Soil confirmed to have high concentrations of lead and polychlorinated biphenyls (PCBs) was excavated from the south side of the battery-cracking building. The outside wall of the battery cracking building, stained with PCB-contaminated oil, was scarified with an air powered chisel. The excavated soil piles were sent off site for proper disposal. The excavated areas were sampled to confirm that the PCB-contaminated soils had been removed. The confirmatory samples showed that the removal action had achieved the cleanup goals. U. S. EPA had originally intended to address this site using its removal authorities. However, as site activities progressed, U.S. EPA concluded that it was more appropriate to complete a focused remedial investigation/ feasibility study (Focused RI/FS) for this site. That Focused RI/FS was initiated in May 1992 and completed in August 1997. A proposed plan was issued for public comment on August 25, 1997 for a period of 30 days. The Focused RI/FS and proposed plan are both in the Administrative Record.

C. COMMUNITY PARTICIPATION

The Responsiveness Summary in Section M discusses the involvement of the community during the Focused RI/FS and remedy selection process and shows that the public participation requirements of CERCLA Sections 113(k)(2)(i-v) and 117 have been met at this site. This Record of Decision is based on the Administrative Record, which is attached. In addition to the Responsiveness Summary several other activities were done to keep the public informed and involved. Those activities include:

- Fact Sheets dated May 1992, September 1992, November 1993, and August 1997.

- Update letters to the mailing list dated September 1, 1992, August 31, 1993, March 7, 1994, April 15, 1994, June 30, 1994, and March 6, 1997.

- Public meetings held on May 12, 1992, September 16, 1992, November 16, 1993, and September 16, 1997. In addition, EPA representatives attended a meeting sponsored by Taylor County on April 15, 1991.

- Press releases were sent to Medford and Wausau-area media and display advertisements were placed in the Medford Star News prior to all public meetings.

- Information repository maintained at the Medford Public Library since January 1992.

- Community Relations Plan completed in August 1992.

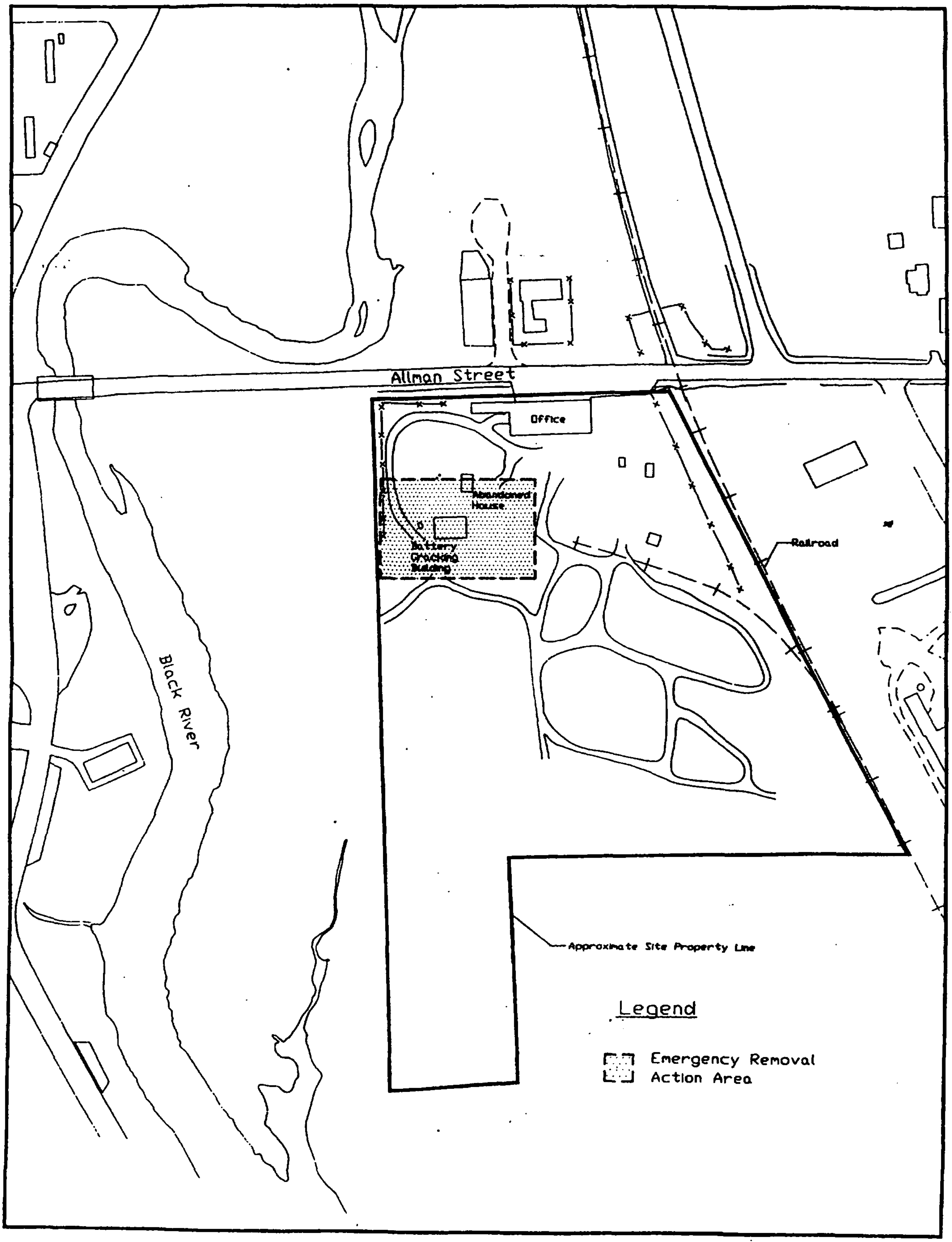

Figure 2 - Emergency Removal Area Map

D. SUMMARY OF CURRENT SITE CONDITIONS

The Focused RI/FS Report documents the results of the remedial investigation at the site. Additional information concerning site conditions may be found in that document, which is in the Administrative Record.

The Scrap Processing site consists of a railroad spur, a cinder block building that houses the office and indoor operations, a storage building where battery cracking took place, an abandoned home, a shed, many miscellaneous piles of scrap metals, and junked automobiles. The study area, which includes the facility property and adjacent city property, covers about 15 acres. Land cover includes weedy vegetation, piles of scrap materials, and unvegetated soil (see Figure 3).

Site topography is fairly flat, with some areas of irregular terrain. The western portion of the study area slopes downhill, to city of Medford property and the Black River. This area is swampy and lightly wooded. Several conveyances carry drainage and surface runoff from the facility into the Black River (see Figure 3). The facility is outside the 500 year floodplain. Figure 4 is a site topography map.

Sewer, storm water, and water lines exist along Allman Road, which is north of the facility property. Power lines run along Allman Road, north of the site, and into a substation. Power lines also run along the railroad tracks immediately east of the site. A gas pipeline runs north of Allman Road.

Available geologic information indicates that the bedrock is primarily early to middle Proterozoic crystalline igneous and metamorphic rock of the North American Pre-cambrian shield. Numerous northeast-southwest trending faults are prominent in the shield. Sedimentary rock units above the present-day bedrock were eroded and removed by streams and glaciers, until no record of them remains in the region today.

The bedrock is in direct contact with overlying Pleistocene glacial moraine and outwash deposits and recent alluvial deposits. In Taylor County, unconsolidated Pleistocene and recent deposits (overburden) are up to 280 feet thick. The overburden is typically thickest in northern Taylor County. In many places, no overburden is present, and bedrock is exposed at the ground surface.

Surface water drainage throughout the region is poorly developed in the glacial terrain. The region is characterized as geomorphically young. Area topography consists of low rolling hills with many swampy areas in the valleys between the hills.

Streams in this region vary greatly in size and direction of flow. The south-flowing Black River comes within about 100 feet of the northwest corner of the site. The Black River is a tributary to the Mississippi River.

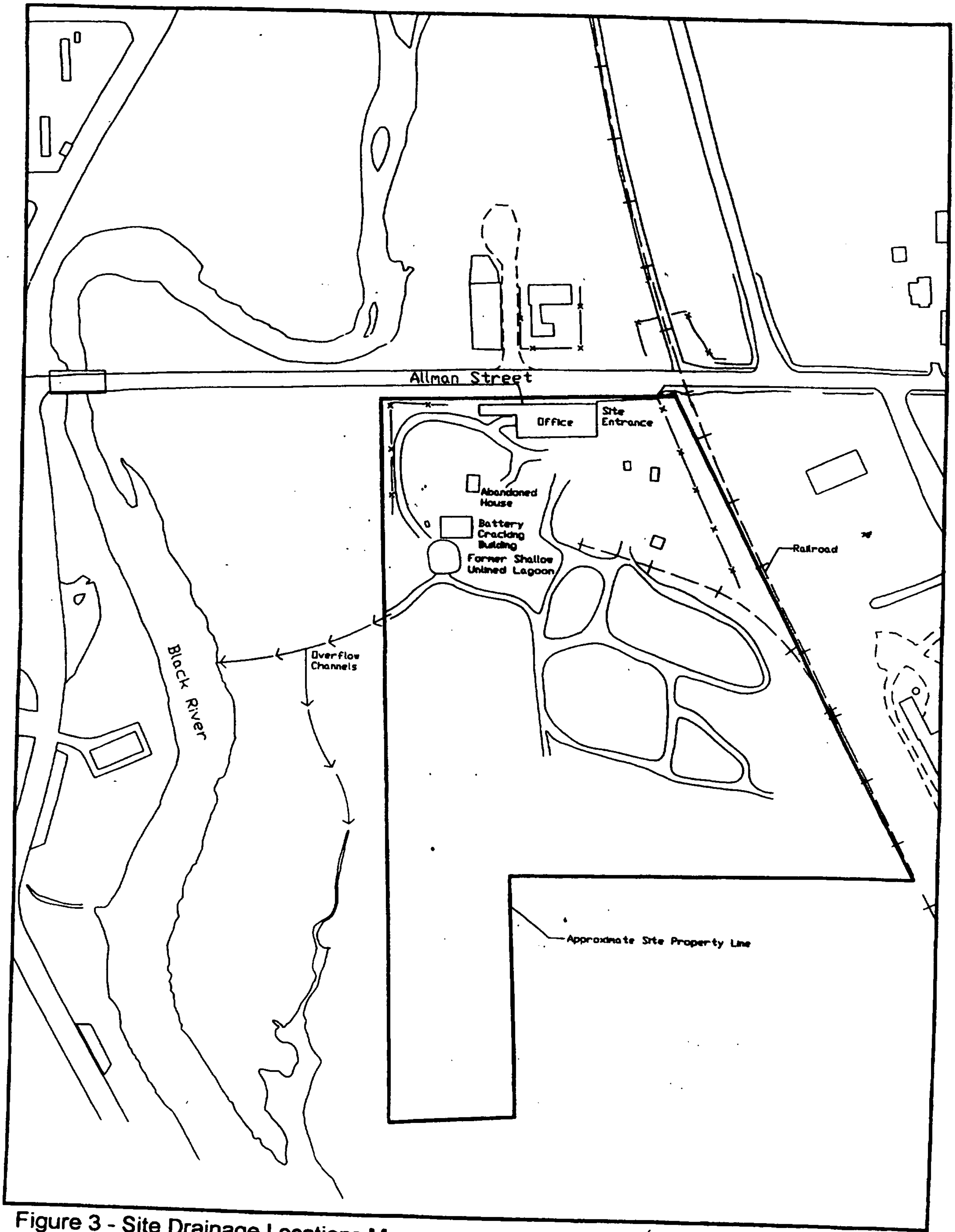

Figure 3 - Site Drainage Locations Map

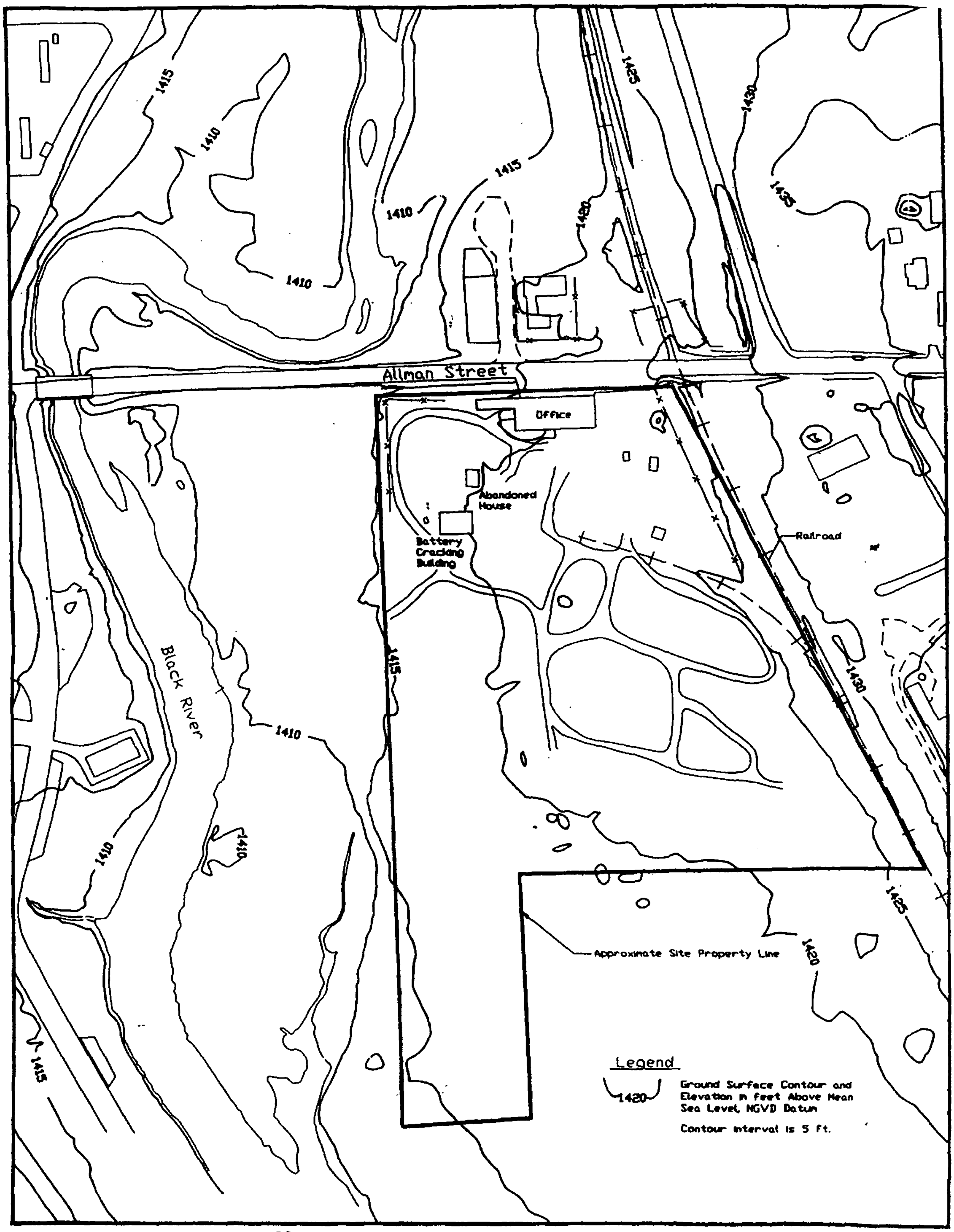

Figure 4 - Topographic Map

On-site overburden consists of glacial ground moraine (till), with local outwash deposits of sand and gravel. On-site borings encountered discontinuous clay, silt, sand and gravel units in the glacial sediments. Clay and silt units are predominant.

Based on the distribution of grain sizes beneath the site, two overburden aquifers are identified. A shallow sand and gravel aquifer extends from the surface to a depth varying from 15 to 25 feet below ground surface and behaves as a water table aquifer. The groundwater flow direction in this aquifer is to the west-northwest based on the October 1995 groundwater readings. This aquifer is not used as a potable water source on site or downgradient from the site. The shallow sand and gravel aquifer is separated from a deeper overburden aquifer by a tight clay that serves as a confining layer. The potentiometric surface of the deep overburden aquifer is above ground level. The groundwater flow direction within the deeper aquifer is to the southwest based on the October 1995 groundwater readings. This aquifer is used as a potable water source onsite and at several homes near the site.

The higher total head in the deeper aquifer in addition to the tight clay between the two aquifers will minimize downward leakage of water from the upper aquifer into the deeper aquifer.

Based on the fact that the shallow aquifer is unconfined and that the deep aquifer potentiometric surface is higher than the shallow groundwater level, vertical flow of contaminants to the deep aquifer is unlikely. Additionally, it is possible that the Black River may be acting as a "groundwater divide" preventing shallow groundwater flow from migrating west past the river.

Most surrounding land use from the project site is recreational; however, some land use is residential and light industrial. Medford City Park is along the Black River, west of the site. The park has ball fields, concession stands, picnic tables, grills, paths, playground equipment, and camping areas. From the park, people fish and wade in the Black River. The city of Medford, population 4,025, lies within a 2-mile radius of the site.

A mobile home park is northwest of the site; a power substation is directly north of the site; the Medford Rail/Trail path is northeast of the site. Walkers, joggers, and bicyclists use this 30-mile-long trail most of the year; snowmobilers use it in the winter months.

East of the site are railroad tracks and small industrial facilities mixed with residences. An apartment building is east of the path's entrance.

The WDNR Bureau of Endangered Resources indicates a natural area exists along the Black River within 15 miles downstream from the site. Natural Heritage Inventory records from the early 1980s show that, at that time, this area contained high quality examples of northern mesic forest and flood plain forest communities. Recently, the area has been logged, and the effects of tree removal in the natural communities are unknown.

Area drinking water sources include municipal and private wells; however, most Medford residents rely on the municipal water system. Municipal wells are upgradient from the site.

Surface and Subsurface Soils

The surface soil samples at the Scrap Processing site were field screened during the pre-remedial investigation. Twenty-six surface soil samples with suspected benzene, ethylbenzene, toluene, xylene (BETX) or polynuclear aromatic hydrocarbons (PAH) contamination were collected and analyzed for target compound list (TCL) constituents. Additionally, 12 surface soil samples that were suspected to contain metals contamination were collected and analyzed for target analyte list (TAL) constituents. No background samples were collected for laboratory analysis during the pre-remedial investigation; therefore, these surface sample results are compared to the subsurface background samples.

Forty-two subsurface soil samples, collected from 20 soil borings during remedial investigation field activities in 1993, were analyzed for TAL and TCL constituents using Contract Laboratory Program (CLP) protocols. Ten samples were taken from an interval less than 2 feet below ground surface; the remaining samples were taken from various depths, up to 18-feet deep. All soil samples were collected above the shallow groundwater surface. Five subsurface soil samples were collected from five additional borings drilled in the northwestern corner of the site in 1994. These samples were analyzed for Volatile Organic Compounds (VOCs) and Base Neutral Acids (BNAs) using CLP protocols. Two background samples also were obtained from boring SB01 north of the site. Background samples were analyzed for CLP TAL constituents. Figure 5 shows soil boring sampling locations and results.

Fifteen surface soil samples and three subsurface soil samples were collected from residential properties surrounding the site in October 1995. The samples were collected to determine whether residents near the site have been exposed to lead and other metals that may have migrated off site with airborne dust. The samples were analyzed for TAL constituents using CLP protocols. A background sample (SS13) was collected about 0.3 mile southwest of the site. Figure 6 shows locations of residential soil samples. Table 1 summarizes the analytical results of the residential soil samples. The table shows all lead concentrations in the soil samples. Those samples indicated that the nearby residences are not being impacted by the site.

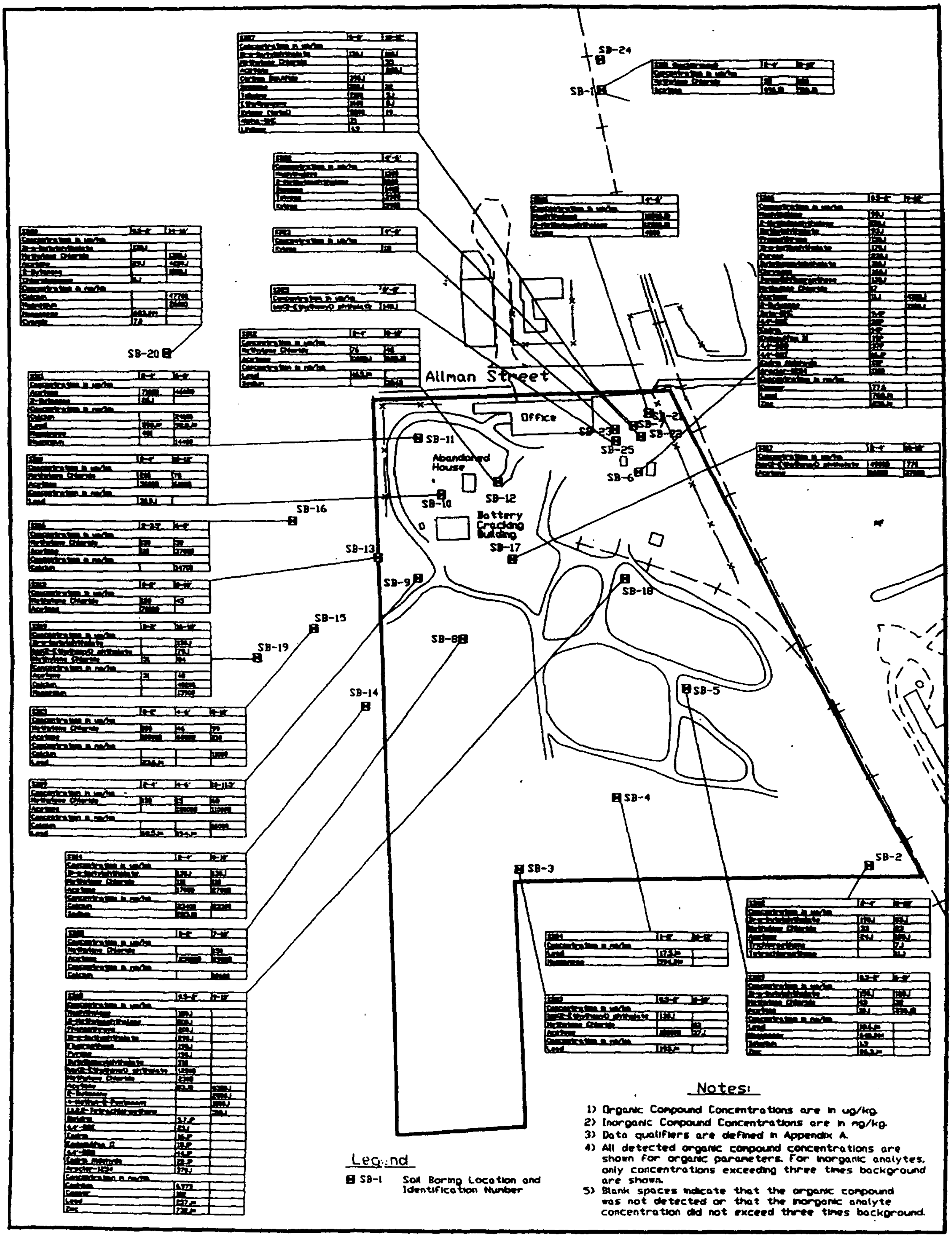

Figure 5 - Soil Boring Locations and sample Results Map

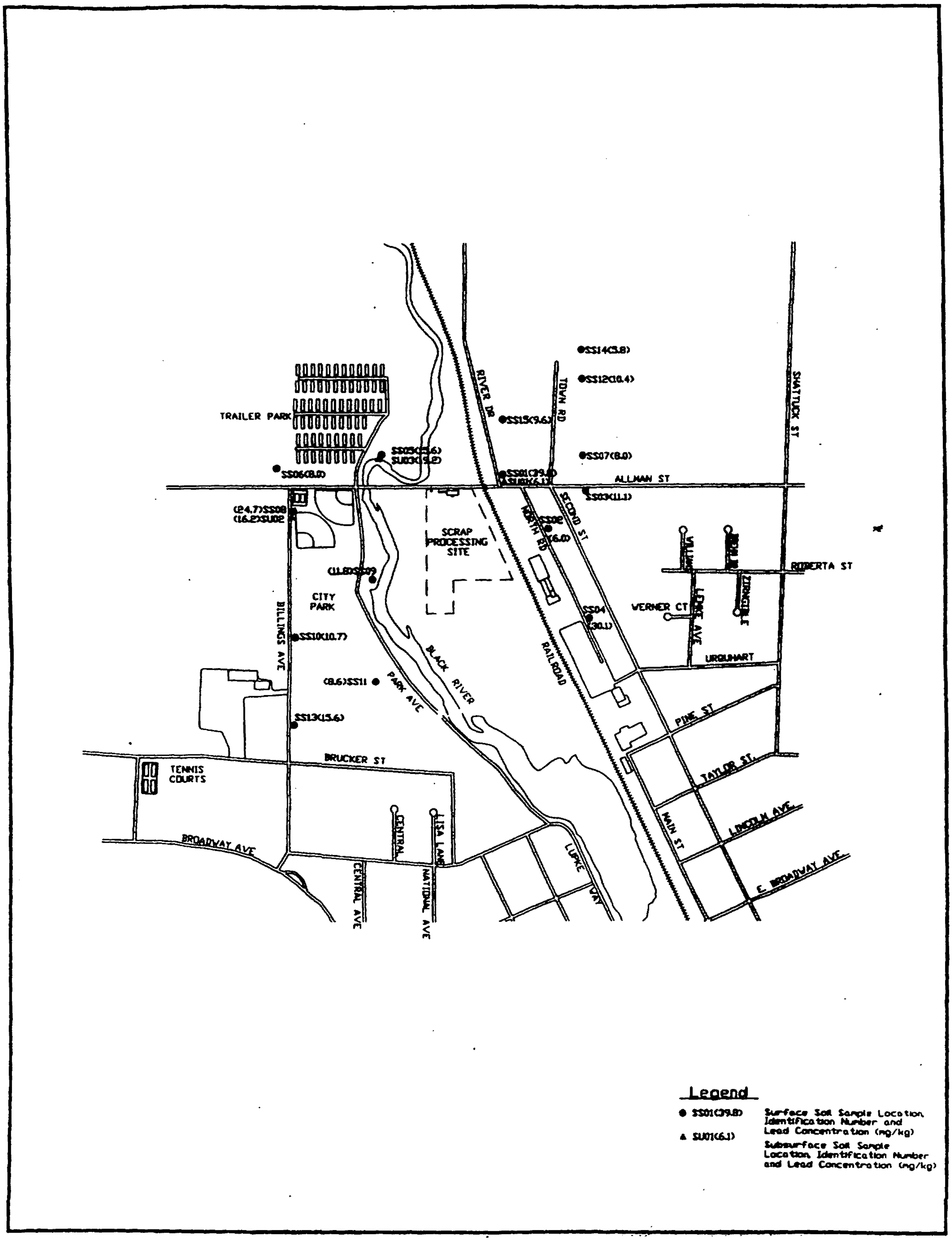

Figure 6 - Residential Soil Sampling Locations Map

Several organic compounds that were detected in low concentrations may be laboratory artifacts. Acetone, 2-butanone, and toluene, all laboratory solvents, were detected in about half of the on-site samples. Figure 7 summarizes the analytical results of pre-remedial investigation on-site surface soil samples. The figure shows inorganics that exceed background; it also shows detected organics. Subsurface soils in the northeastern corner of the site are contaminated with VOCs, semi volatile organic compounds (SVOCs), and pesticides. The predominant organics in this area are BETX and PAH compounds. This contamination was caused by a leaking leaded gasoline Underground Storage Tank (UST) removed in 1990 and is clearly separated from the contamination caused by battery cracking operations; it will be addressed under the Wisconsin UST program. Organic compounds were detected in other on-site sampling locations, but are not very prevalent.

Relatively low levels of organic compounds were detected in on-site surface soils. These compounds, primarily consisting of PAHs, phthalates, and to a lesser extent VOCs, are present at various locations across the site and are most prevalent in the northeastern section. This area, near the front gate, is a high traffic area for customers and site activities. The removed UST location, the excavated soil pile from that removal, and an existing UST are within this section of the site. Subsurface soil samples taken from locations all over the site indicate contamination from several inorganics. Lead is the most common contaminant, found mostly in samples taken near the ground surface. Contamination found in the surface soil samples does not appear to be migrating deeper, into subsurface soils. Residential surface soil samples indicate acceptable levels of inorganic substances. Contamination in the on-site surface soil samples does not appear to be migrating into off-site residential surface soils.

Sediment and Surface Water

Nine river sediment samples were collected and analyzed for TAL and TCL constituents. Background sample BS01, collected several hundred feet upstream from the site, had the following detected organic compounds: di-n-butylphthalate, carbon disulfide, 2-butanone, toluene, and delta-BHC. Toluene and 2-butanone, detected in all but one sample, are common laboratory artifacts. Organic compounds detected in any sample above the contract required quantitation limit are considered contamination. Table 2 summarizes the analytical results of Black River sediment samples. The table shows inorganics whose concentrations exceed three times background; it also shows detected organics.

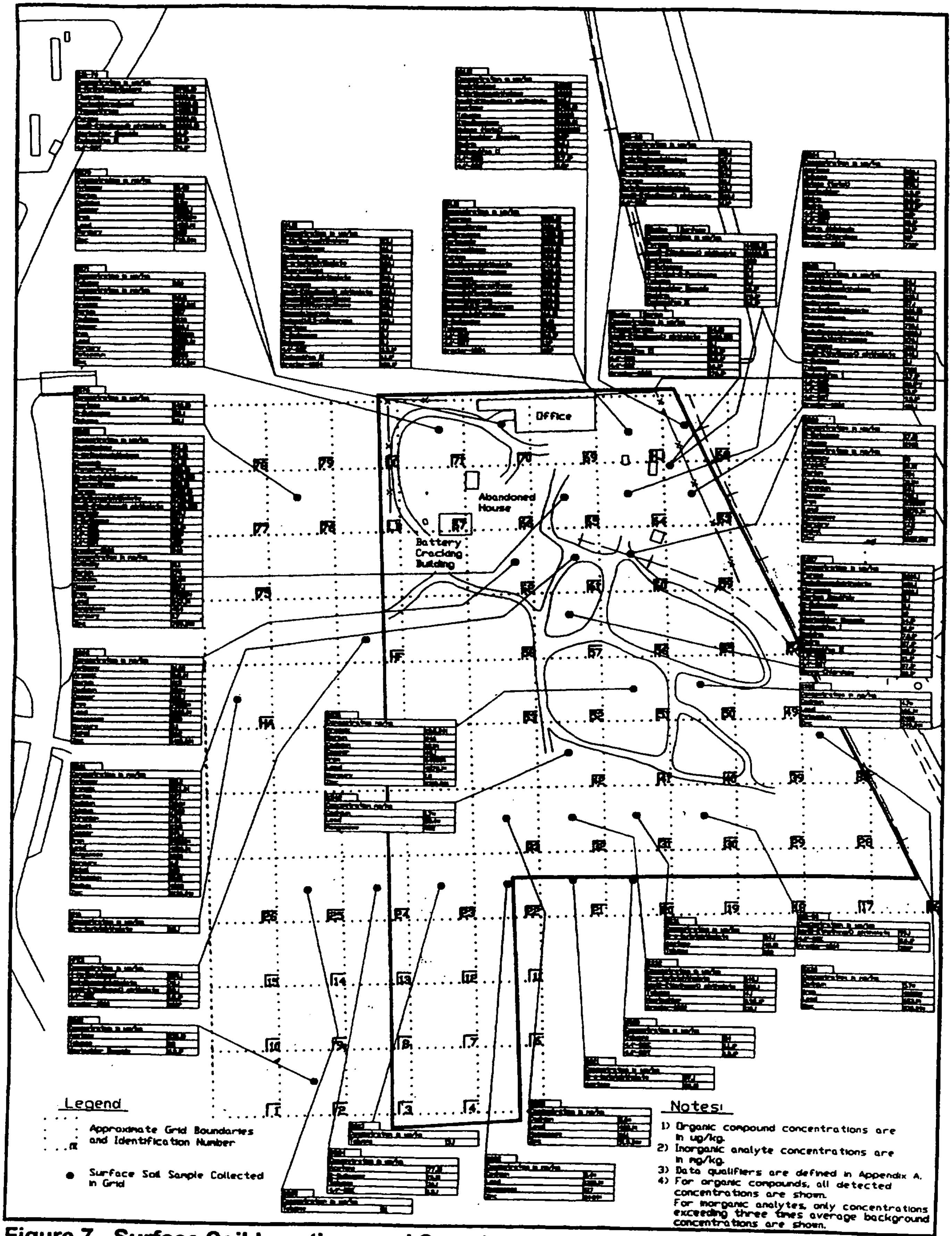

Figure 7 - Surface Soil Locations and Sample Results Map

Table 1- Residential Soil samples Results

Sample Location	Lead Concentration (mg/kg)
SS01	39.8
SS02	6.0
SS03	11.1
SS04	30.1
SS05	15.6
SS06	8.0
SS07	8.0
SS08	24.7
SS09	11.8
SS10	10.7
SS11	8.6
SS12	10.4
SS13	15.6
SS14	5.8
SS15	9.6
SU01	6.1
SU02	16.2
SU03	19.2

Six river water samples were collected and analyzed for TAL and TCL constituents. Background sample BW01, collected several hundred feet upstream from the site, had no detectable organic compounds. Table 3 summarizes the analytical results of Black River water samples. The table shows inorganics whose concentrations exceed three times background; it also shows detected organics. Figure 8 shows sampling locations for surface river water and river sediment samples.

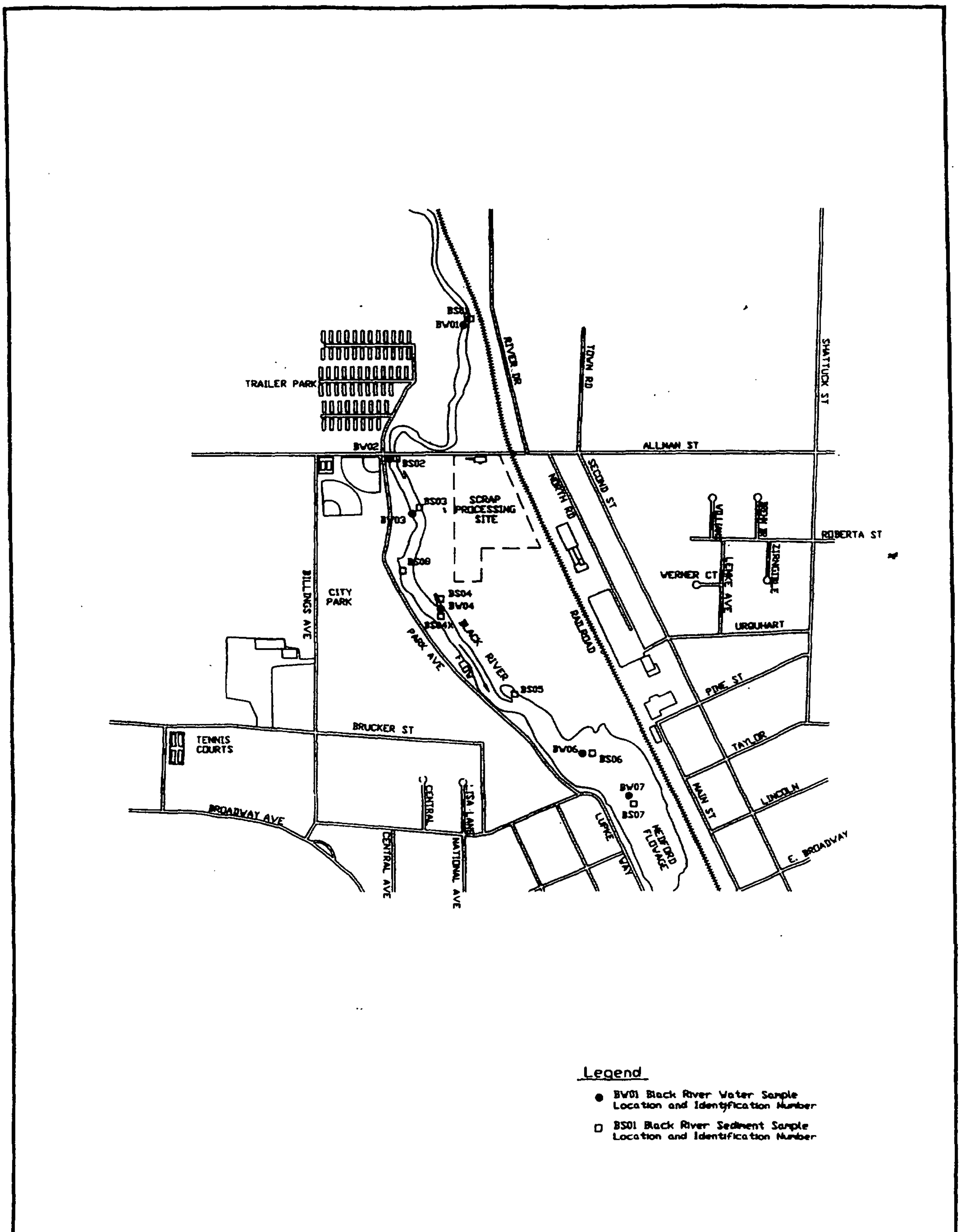

Figure 8 - Black River Surface Water and Sediment Sample Locations

Table 2 - Black River Sediment Samples Results

Contaminants	Sample Location							
	BS04X	BS08	BS02	BS03	BS04	BS05	BS06	BS07
Acetone		36						
Acenaphthylene						140		
Diethylphthalate	22			21		68		30
Fluorene						28		
Phenantrene						590		
Anthracene						220		
Di-n-buthylphthalate	62	54	30	51		43	67	42
Fluoranthene	30	23				2400	74	52
Pyrene		37				1600	61	29
Benzo(a)Anthracene						1200		
Chrysene		29				1100		
bis(2-Ethylhexyl)phthalate						37		250
Benzo(b)fluoranthene						860		
Benzo(k)fluoranthene						930		
Benzo(a)pyrene		26				920		
Indeno(1,2,3-cd)pyrene						410		
Benzo(g,h,i)perylene						410		
2-Butanone	68		5	6	60	11	30	26
Toluene	350	4	3	8	7	170	340	1500
Delta-BHC	1.3					1.5	2.8	
Dieldrin							1.0	
4,4'-DDE						1.6		
4,4'-DDD						3.4		
Endosulfan Sulfate						2.0	1.2	
Ethylbenzene								2
Methoxychlor							5.2	
Alpha-Chlordane		0.49				0.34		
Aluminum								
Barium				121	124			
Cadmium					7.5			
Copper					19.6			
Lead	11.6	9.3		16.8	18.7	14.1	13.9	
Mercury					0.15			
Potasium							502	
Zinc				107	127			

Notes
1 [illegible]
2 [illegible]

Table 3 - Black River Surface Water Samples Results

Contaminants	Sample Location	
	BW03	BW06
Toluene	1	
Aluminum	436	190

Notes:

1. Sample concentrations are in ug/kg for organics and mg/kg for inorganics
2. For organic compounds, all detected concentrations are shown. For inorganics only concentrations exceeding three times background are shown.

Sampling data indicate the Black River sediments are contaminated with a variety of VOCs, semivolatile organic compounds (SVOCs), and pesticides. Contamination increases from sediment sample BS03, downstream to sediment sample BS08. Contamination increases again further downstream (sediment sample BS05). This contamination is not consistent with onsite surface soil contamination; therefore, it may not be site related. Black River water does not appear to be contaminated with organic compounds. Toluene, detected in one river water sample, may be a laboratory artifact.

Several metals are present in Black River sediments. Lead appears in elevated concentrations in samples downstream from the site, except in sediment sample BS07. Inorganic contaminants are highest in sediment samples BS03 and BS04. However, these detections cannot be attributed to the site, since inorganic contaminants were detected in the background sample too. Inorganic concentrations are lower at other sampling locations. The evaluation of this data indicated that these conditions would not pose adverse impacts to the biological resources at the site and adjacent habitats. Black River water does not appear to be contaminated with inorganics. Aluminum was detected in one river water sample at an elevated concentration.

<u>Groundwater</u>

In December 1992, efforts to sample existing monitoring wells MBS, MBD, MW1S, MW2S, MW2D, and MP1-MP4 were partially successful. The deep wells, screened in an artesian aquifer, were completely frozen shut in the casing. In October 1993, the deep wells MBD, MW1D, and MW2D, were sampled. Two new shallow wells, MP5 and MP6, also were sampled at this time. A second round of sampling was conducted in April 1994. Monitoring well samples were analyzed for TAL and TCL constituents using CLP protocols. Figure 9 summarizes the analytical results of both groundwater sampling efforts and identifies monitoring well locations. The figure shows inorganics with concentrations exceeding three times background; it also shows detected

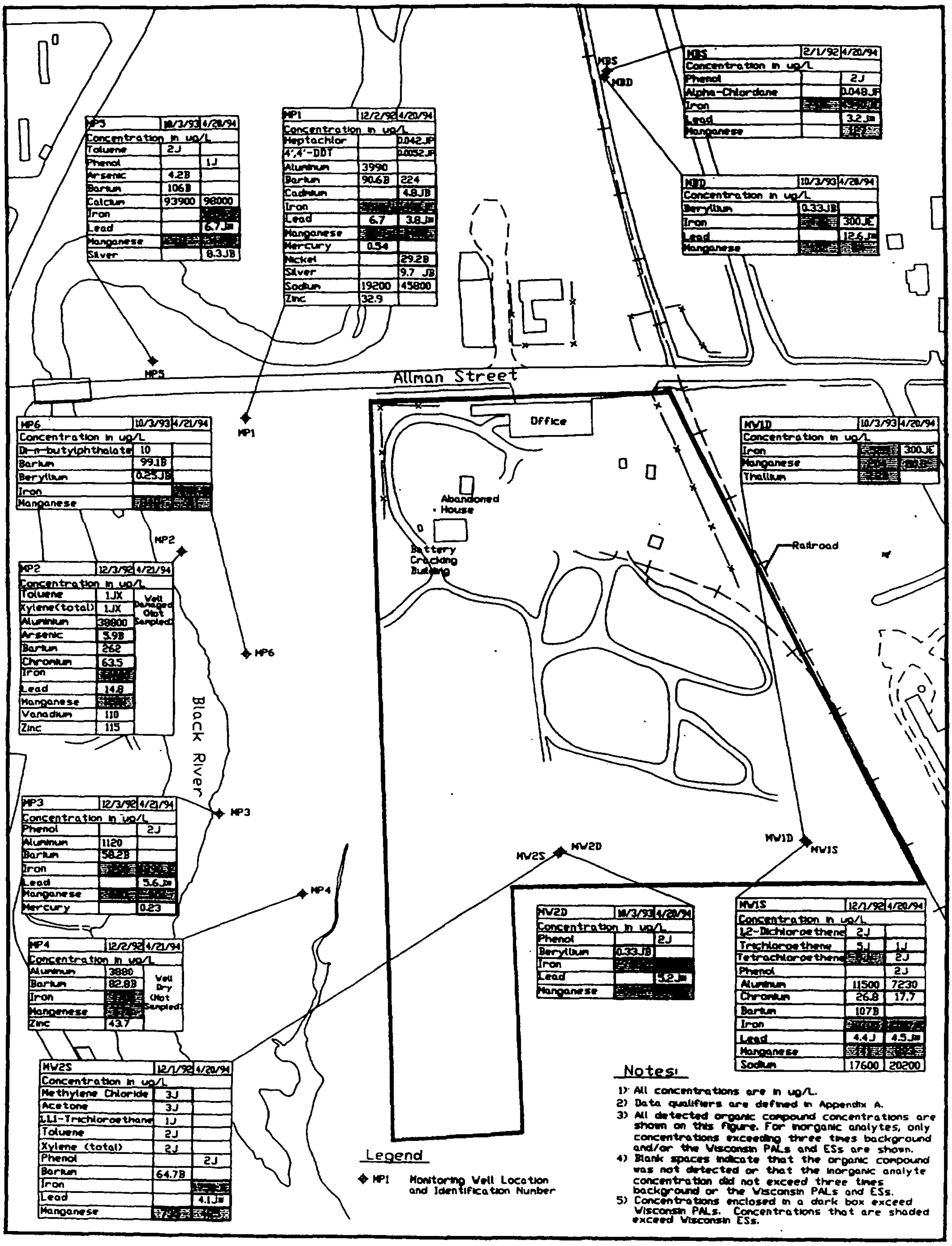

Figure 9 - Monitoring Wells Location and Sample Results Map

organics. The shallow monitoring wells include wells MBS, MW1S, MW2S, and MP1 through MP6. Deep monitoring wells include MBD, MW1D and MW2D.

Three municipal wells, three private domestic wells, a Medford City Park well, and the Scrap Processing facility well were sampled. The facility well sample was analyzed for TCL and TAL groundwater parameters while the other well samples were analyzed for TCL and TAL drinking water constituents. The wells are northeast and northwest of the site. Figure 10 shows residential well locations. Table 4 below summarizes the analytical results of residential well sampling. The table shows inorganics with concentrations exceeding three times background; it also shows detected organics.

Based on the sample results from the currently installed monitoring wells it does not appear that the shallow groundwater is contaminated with organic compounds above NR 140 standards. However, the currently installed groundwater monitoring system was not designed to specifically address the potential impacts to groundwater associated with the leaking UST site. Two on-site monitoring well samples had concentrations of chlorinated solvents below the quantitation limit. No organic compounds were detected in the shallow background well sample. Acetone and methylene chloride, common laboratory artifacts, also were detected at low concentrations in the MW2S sample. During the 1993 sampling event, two organic compounds were detected in low concentrations. Di-n-butylphthalate, detected in the rinsate blank and in MP6, may not be attributed to the site and could be a laboratory artifact. Toluene, detected in MP5, could be related to the UST contamination, which will be addressed by the state UST program. Deep well samples do not indicate contamination by organic compounds. Residential wells do not appear to be contaminated by organic compounds. In one sample, 4,4'-DDT was detected below the contract required quantitation limit.

Shallow groundwater appears to have elevated levels of several inorganic constituents, including lead. Comparison with the Wisconsin Preventive Action Limits (WPAL) and the Wisconsin Enforcement Standards (WES), public health groundwater quality standards, indicate WPALs are slightly exceeded for five metals in six wells while WES are not exceeded in any wells, except for iron and manganese which exceeded NR 140 WESs. However, it should be noted that iron and manganese were also detected at high levels in the background wells, indicating that the exceedances are probably related to natural groundwater quality. It should also be noted that the background wells slightly exceed the lead WPAL of 1.5 μg/l. The deep background well sample has the highest lead concentration of all well samples at 12.6 μg/l, while the shallow background well has a lead concentration of 3.2 μg/l. Well samples collected from MP5 and MP6 in October 1993 are the only filtered metals results. The samples were the only ones filtered because they were very turbid. Deep monitoring well samples do not indicate contamination with inorganic compounds. Lead concentrations in MBD

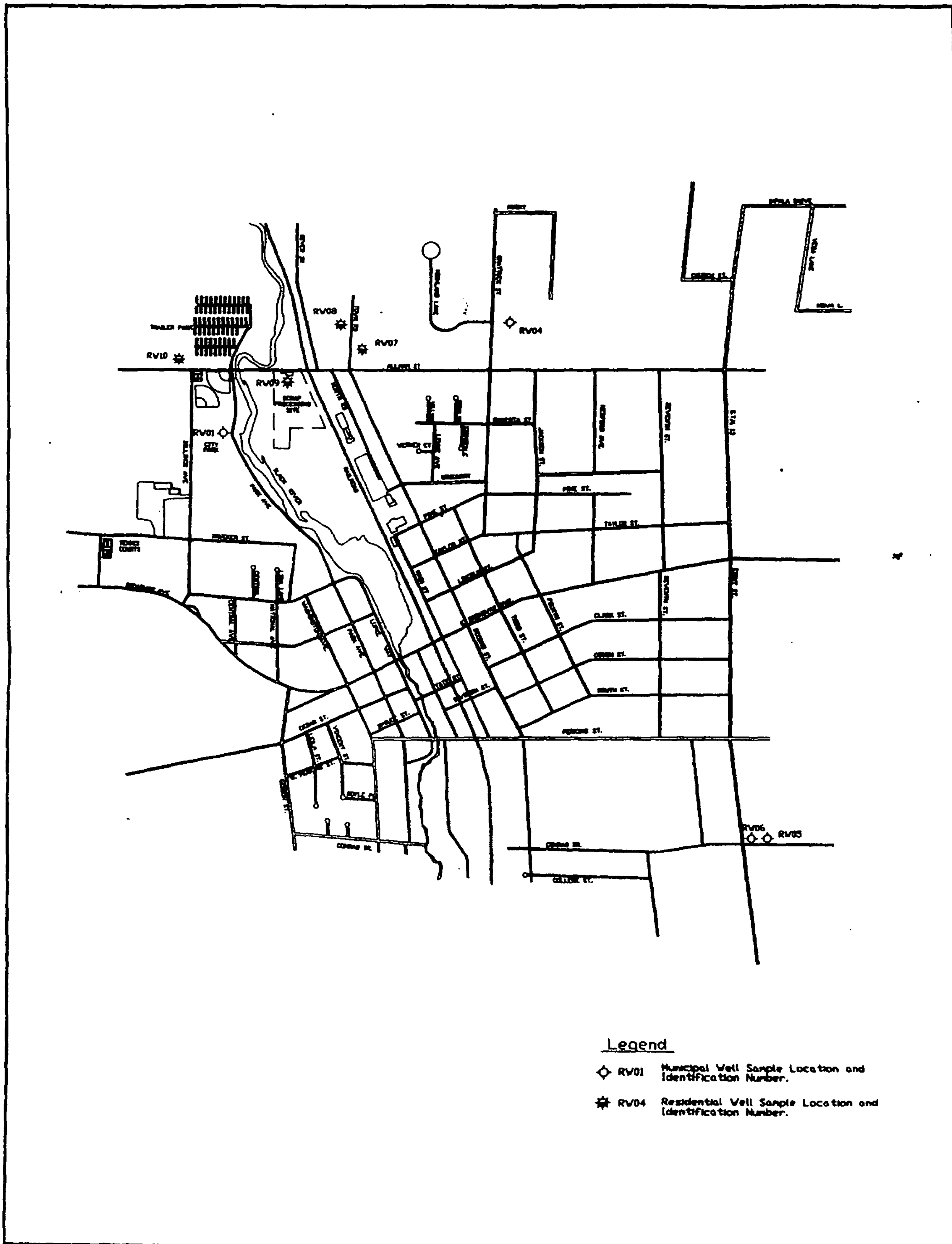

Figure 10 - Residential Wells Location Map

Table 4 - Residential Well Sample Results

Contaminants	Sampling Locations		
	RW-01	RW-09	RW-10
4,4'-DDD	0.0055		
4,4'-DDT			0.0048
Iron		4310	
Lead		6	
Manganese		176	

Notes:

1. Concentrations are in ug/l
2. For organic compounds, all detected concentrations are shown. For inorganic analytes, concentrations exceeding three times background or the WPALs and WESs are shown.
3. Concentratins highlited exceed either WPALs or WESs

(12.6 μg/l), the background well, and MW2D (5.2 μg/l) slightly exceeded the WPAL. Inorganic constituents were not detected in residential well samples.

E. SUMMARY OF SITE RISKS - (See Glossary in section N for definitions of terms used in this section)

Based on analytical data collected during the RI, a baseline risk assessment was performed using site related contaminants. The baseline risk assessment assumes no corrective action will take place and that no site use restrictions or institutional controls such as fencing, ground water use restrictions or construction restrictions will be imposed. The risk assessment determines actual or potential carcinogenic risks and/or toxic effects the chemical contaminants at the site pose under current and future land use assumptions using a four step process. The four step process includes: contaminant identification, health effects assessment, exposure assessment, and risk assessment.

1. Contaminant Identification

The levels of contamination found in different media at the Site can be found in Chapter 2.5 of the Focused RI/FS. Indicator parameters or chemicals of potential concern were selected based on their toxicities, level of concentration and widespread occurrence. The chemicals of potential concern are listed in Table 5.

Table 5 - Chemicals of Potential Concern

Semivolatile COPCs	Maximum	Minimum	Count	Average	Geometric Mean	95% UCL
4-Methylphenol	6000	175	18	1104	410	2354
Naphthalene	12000	22	18	1384	282	5387
2-Methylnaphthalene	16000	23	18	1605	285	6066
Diethylphthalate	6000	93	18	1165	413	2877
Fluorene	6000	71	18	1009	328	1961
4-Nitroaniline	15000	420	17	2744	948	5969
Phenanthrene	6000	66	18	1041	349	2347
Anthracene	6000	28	18	1136	369	3663
Carbazole	6000	175	18	1122	418	2465
Di-n-butylphthalate	6000	24	18	1044	282	4461
Fluoranthene	6000	51	18	1054	370	2293
Pyrene	5500	61	18	910	390	1951
Butylbenzylphthalate	5700	63	18	1176	448	3253
Benzo(a)Anthracene	6000	175	18	1080	399	2151
Chrysene	5500	100	18	813	363	1428
bis(2-Ethylhexyl) phthalate	5500	95	18	1222	582	3178
Benzo(b)fluoranthene	6000	130	18	1063	370	2181
Benzo(k)fluoranthene	6000	100	18	1063	368	2215
Benzo(a)pyrene	6000	110	18	1062	367	2202
Indeno(1,2,3-cd)pyrene	6000	120	18	1061	365	2202
Benzo(g,h,i)perylene	6000	64	18	1059	355	2346

Volatile COPCs	Maximum	Minimum	Count	Average	Geometric Mean	95% UCL
Methylene Chloride	3600	5.5	20	284	26	1439
Acetone	25000	4	20	2524	62	200415
2-Butanone	3600	2.5	20	224	10	286
Toluene	8800	2	20	532	27	3154
Xylene (total)	360000	5.5	20	18022	15	7832

Pestcide/PCB COPCs	Maximum	Minimum	Count	Average	Geometric Mean	95% UCL
Heptachlor	6	0.9	20	2	1	2
Aldrin	6	0.45	20	2	1	2
Heptachlor Epoxide	14	0.9	20	2	1	3
Endosulfan I	11	0.9	21	2	1	3
Dieldrin	11.5	1.25	20	3	3	4
4,4'-DDE	32	1.1	21	7	4	13
Endrin	37	1.75	20	6	3	9
Endosulfan II	22	1.1	20	5	3	9
4,4'-DDD	44	1.8	21	11	5	23
4,4'-DDT	97	1.3	21	11	4	20
Endrin Aldehyde	22	1.75	20	5	3	7
Gamma-Chlordane	20	0.9	20	3	1	4
Aroclor-1254	1100	18.5	20	122	44	204
Aroclor-1260	940	17.5	21	132	43	259

Metal COPCs	Maximum Concentration (mg/kg)
Antimony	28.2
Arsenic	35.1
Barium	977
Beryllium	1.1
Cadmium	39.1
Chromium	73.1
Cobalt	36
Copper	971
Lead	4570
Manganese	661
Mercury	6.2
Nickel	262
Selenium	2
Silver	1.4
Thallium	1
Zinc	8130
Cyanide	0.7

Table 6 - Health Effects of Site Contaminants Of Concem

Chemical Name	Health Effects
Acetone	Increase in kidney and liver weight
2-Butanone	Suspected skin carcinogen, teratogenic effects
Methylene Chloride	Lung and liver tumors
Toluene	Not enough evidence of health effects
PAHs	Skin carcinogens, Affects kidneys and liver.
Aluminum	No information available
Arsenic	Liver necrosis, pulmonary edema, poison.
Barium	Gastroenteritis, muscular paralysis, ventricular fibrillation.
Beryllium	B2 probable human carcinogen
Cadmium	Toxic
Chromium	Not enough information available
Cobalt	Dermatitis, hypersensitivity, interstitial pneumonitis
Copper	gastroenteritis, impaired liver function.
Iron	No information available
Lead	Affects central nervous system, bioaccumulates
Manganese	Moderate acute and chronic toxicity
Mercury	Toxic, affects the kidney and central nervous system
Nickel	Dermatitis, low acute and chronic oral toxicity
Vanadium	Poisonous
Zinc	Bone changes, joint afflictions, lamenesss

2. Human Health Effects

The health effects for the contaminants of concern may be found in Table 6 above.

3. Exposure Assessment

The baseline risk assessment examined potential pathways of concern to human health under both current and future land-use scenarios for the immediate site property and surrounding area.

Pathways were selected for detailed evaluation under the following current-use and future-use scenarios:

- Current and future site worker exposure to site surface soil contaminants through incidental ingestion of soil, dermal contact, and inhalation of dust-borne contaminants.

- Current and future site worker exposure to groundwater through ingestion, dermal contact, and inhalation.

- Current and future site trespasser exposure to site surface soil contaminants through incidental ingestion of soil, dermal contact, and inhalation of dust-borne contaminants.

- Current and future resident exposure to groundwater from the Cook Well (off-site residential well) through ingestion, dermal contact, and inhalation.

- Current and future child recreational visitor playing in the off-site area; exposure to off-site and shoreline surface soil through incidental ingestion of soil, dermal contact, and inhalation of dust-borne contaminants.

- Current and future adult recreational visitor walking the shoreline with exposure to shoreline surface soil through incidental ingestion of soil, dermal contact, and inhalation of dust-borne contaminants.

- Current and future child and adult recreational visitor fishing with exposure to shoreline surface soil through incidental ingestion of soil, dermal contact, and inhalation of dust-borne contaminants.

- Current and future child and adult recreational visitor fishing with exposure to Black River water and sediment contaminants through dermal contact.

- Future exposure of on-site residents to contaminants in surface soil through incidental ingestion of soil, dermal contact, and inhalation of dust-borne contaminants.

- Future exposure of on-site residents to contaminants in groundwater through ingestion, dermal contact, and inhalation.

4. **<u>Risk Characterization (see Glossary in section N for definitions of risk terms used in this section)</u>**

For each potential human receptor, site-specific contaminants from all relevant routes of exposure were evaluated. Both non-carcinogenic health effects and carcinogenic risks were estimated. Additionally, a lead risk characterization was performed. U.S. EPA does not provide toxicity data for lead because of unique considerations related to the toxicology of this element. As an alternative to the traditional risk assessment approach, U.S. EPA recommends modeling blood-lead levels and comparing them to acceptable blood-lead concentrations. The Integrated Exposure Uptake Biokinetic Model (IEUBK) and the expanded methodology presented in the EPA Technical Review Workgroup for Lead (TRW) "Review of a Methodology for Establishing Risk-Based Soil Remediation Goals for Commercial Areas of the California Gulch Site", Leadville, Colorado (California Gulch) were evaluated. The recommendations in the latter review report have since been formalized in a more cohesive form in the EPA TRW report "Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil".

a. Non-Carcinogenic Health Risks

The hazard index for current and future site worker and future on-site resident exceed the acceptable hazard index of 1.0. The combined hazard index for soil and groundwater exposure is 2.1 for current and future site workers. The combined hazard index for soil and groundwater exposure pathways for a future on-site resident is 6.0.

b. Carcinogenic Health Risks

The potential excess lifetime cancer risk posed by the site exceeds the acceptable risk range of 1×10^{-4} to 1×10^{-6} for the soil exposure pathways under the future resident use scenario. Risks from soil exposure pathways present carcinogenic risks in the range of 2×10^{-4}. Carcinogenic effects are not a concern for any of the off-site populations.

c. Lead Risk Evaluation

Because it was not possible to include lead in the risk estimates, lead concentrations in soil were compared with levels recommended by the State of Wisconsin NR 720. The reasonable maximum exposure (RME) lead concentrations observed in on-site soils (4,570 mg/kg) and off-site soils (1,300 mg/kg) are above the recommended soil cleanup level of 500 mg/kg. The Black River water had lead concentrations of 2.1 ug/L. Lead was not detected in any of the deep groundwater wells. In addition, the IEUBK and the recommendations in the TRW Review of a Methodology for Establishing Risk-Based Soil Remediation Goals for Commercial Areas at California Gulch were evaluated.

To determine if the IEUBK model would be utilized, additional surface soil sample collection was required to determine whether lead had migrated off-site via transport by airborne dust. The results of this sampling effort were also used to determine whether dust analysis of indoor and outdoor air was required which would be utilized in the IEUBK model calculations. If off-site soil concentrations exceeded the background soil concentrations, this would indicate that lead has migrated off site and that the dust analysis would be warranted to support the use of the IEUBK model and the methodology used at California Gulch to determine soil cleanup levels. If the off-site soil concentrations did not exceed the background concentration, then the current on-site surface soil results would be used solely to determine cleanup levels with an expansion of the methodology used at the California Gulch Superfund Site. The IEUBK model is used to model lead exposure to a child while the methodology used at California Gulch is used to model exposure to the fetus of a female worker exposed on site.

Off-site surface soil sampling was conducted to determine if off-site migration of lead had occurred. The highest off-site concentration was found to be 39 parts per million (ppm) and the national background concentration is 50 ppm in soil. Based on this sampling event and the background concentrations, no additional sampling is required to support the use of the IEUBK model since it is not required to determine offsite cleanup levels.

The TRW recommendations to the California Gulch methodology were utilized to determine an on-site soil cleanup level for lead. Risk based remediation goals were calculated using an expansion of the methodology used at the California Gulch Superfund Site. Based on site-specific information, several parameters were varied, and it was determined that an individual geometric standard deviation (GSDi) of 1.7 and a soil and dust ingestion rate of 50 and 100 mg/day, and an absolute absorption fraction of 0.1 and 0.12 would be most applicable to the Scrap Processing site. These parameters provide risk based remediation goals (RBRGs) in the range of 768 - 2148 mg/kg. If a conservative GSDi value of 1.8, an intermediate absorption value of 0.1 (10%), and a conservative ingestion rate of 100 mg/day is used, a RBRG of 922 mg/kg is obtained. This value is considered to be appropriate for use at the Scrap Processing Superfund Site. The calculated RBRG exceeds the recommended soil clean up level of 500 mg/kg for lead in the State of Wisconsin NR 270, and the final site RBRG is based on Wisconsin ARARs.

The RBRG was used to identify the need to take a response action at the site. The primary risk at the site is due to lead exposure. While the Hazard Index (HI) and carcinogenic risk calculations indicate elevated risk levels, the scenario that drives these levels is the future on-site residential use scenario. Future on-site residential use of the property would not be the reasonably expected future land use at a currently operating industrial facility. As such, the basis for an action at the site is derived from the fact that soils at the site exceed the RBRG calculated for future industrial use.

d. Environmental Risks

An ecological risk assessment was conducted to characterize the biological resources at the site and adjacent habitats, and to identify actual and potential impacts to these resources associated with releases of hazardous substances from the site.

F. RATIONALE FOR ACTION AND SCOPE OF THE SELECTED REMEDY

This ROD addresses the final remedy for the site. The contaminated soil at the site is considered low level threat waste. The selected remedial alternative will address the low level threat waste at the site. However, groundwater also appears to be impacted and is being addressed by the inclusion of a contingency remedy for groundwater.

G. DESCRIPTION OF ALTERNATIVES

ALTERNATIVE A: No Action

Under the no-action alternative, the site would be left "as is" and no action would be taken to meet the remedial action objectives. This alternative is required by the NCP and serves as a baseline against which other alternatives can be compared.

Alternative B: Consolidation and On-Site Landfill Disposal

Alternative B involves excavation, consolidation, and capping of the lead contaminated soils in a solid waste landfill constructed on site. Drainage controls, vegetation, and a security fence would be provided to minimize erosion and limit disturbances. Deed restrictions would be placed on the site to limit future land uses. It is estimated that approximately 7,740 cubic yards of contaminated soil would be excavated, which represents the volume of soil with lead levels over 500 mg/kg. 500 mg/kg is the cleanup standard for lead in soil for an industrial scenario under Wisconsin's NR 720. Long-term inspection and maintenance programs would be implemented to verify and maintain the integrity of the cap, fencing, and drainage controls. Long-term groundwater and leachate monitoring programs would be implemented to monitor the effectiveness of the cap, liner system, and overall long-term groundwater quality. Excavated site areas would be backfilled with clean soil and revegetated.

Alternative C: Excavation and On-Site Treatment by Metal Recovery Process

Alternative C involves excavation of 7,740 cubic yards of lead contaminated soils and on-site treatment using an innovative lead removal process developed by Brice Environmental Services Corporation (BESCORP). The lead removal process is an innovative technology that leaches lead from contaminated soils by using a leaching solution and recovers the lead from the solution after it is separated from the soil. A metals recovery process, such as solvent extraction, resin ion exchange, or direct reduction, would remove lead ions from the solution. The leaching solution would be reused, and recovered lead would be recycled. Treated soil would be neutralized and tested to ensure that soil lead concentrations have been reduced to 500 mg/kg. 500 mg/kg is the cleanup standard for lead in soil for an industrial scenario under Wisconsin's NR 720. Treated soil would be returned to excavated areas. A long-term groundwater monitoring program also would be implemented as part of this alternative to assess effectiveness of the soil cleanup, the overall groundwater quality in the vicinity of the site, and the need for additional future actions.

Alternative D: Consolidation and On-Site Containment by Concrete Paving

Alternative D involves excavation and consolidation of 7,740 cubic yards of lead-contaminated soils, and construction of permanent concrete paving over the consolidated soils. It is estimated that approximately 7,740 cubic yards of contaminated soil would be excavated, which represents the volume of soil with lead levels over 500 mg/kg. 500 mg/kg is the cleanup standard for lead in soil for an industrial scenario under Wisconsin's NR 720. The lead-contaminated surface soils in the southern and western portions of the site would be excavated and relocated to the northern half of the site, where the majority of the lead contaminated soil is present. The northern half of the site would then be paved with wire-reinforced concrete to prevent direct contact with contaminated soil, minimize infiltration to the shallow aquifer, and provide a stable working surface for the current site operations. Additionally, drainage controls, security fencing, deed restrictions, and inspection and maintenance programs would be implemented to protect and maintain the concrete paving. Excavated areas would be backfilled with clean soil and revegetated. A long-term groundwater monitoring program also would be implemented as part of this alternative to assess effectiveness of the soil cleanup, the overall groundwater quality in the vicinity of the site, and the need for additional future actions.

Alternative E: Excavation and Off Site Landfill Disposal

Alternative E involves excavation of lead-contaminated soils and their transport to an offsite solid waste landfill for disposal. It is estimated that approximately 7,740 cubic yards of contaminated soil would be excavated, which represents the volume of soil with lead levels over 500 mg/kg. 500 mg/kg is the cleanup standard for lead in soil for an industrial scenario under Wisconsin's NR 720. Sampling would be required to verify that the excavated soils meet solid waste landfill requirements. Excavated site areas would be backfilled with clean soil and revegetated. Revegetation is used to prevent surface run-off and soil erosion. A site security fence and deed restrictions would be implemented. A long term groundwater monitoring program also would be implemented as part of this alternative to assess effectiveness of the soil cleanup, the overall groundwater quality in the vicinity of the site, and the need for additional future actions.

ADD-ON OPTIONS

1) Treatment by Stabilization

As part of the 1993 removal action performed by U.S. EPA, soils that failed toxicity characteristic leaching procedure (TCLP) testing were removed. Therefore, the lead-contaminated soils remaining on site are anticipated to be classified as nonhazardous. However, it is still possible that some lead-contaminated soils remaining on site may fail TCLP testing. If soils are determined to be Resource Conservation and Recovery Act (RCRA) hazardous by toxicity characteristic, on-site stabilization could be added to alternatives B, D, and E as necessary to treat soils and render them nonhazardous.

This add-on option uses either on-site or off-site (whichever is more cost effective) exsitu stabilization to immobilize contaminants. The stabilized matrix would be tested for TCLP lead to verify the effectiveness of the stabilization process. The stabilized matrix would be contained or disposed as specified in alternatives B, D, or E.

2) Long-Term Groundwater Monitoring and Assessment Program

Active intervention in the spread of groundwater contamination will not be done until there is an opportunity to evaluate the ability of the source control measures to provide protection of human health and the environment. A long-term groundwater monitoring program will be implemented along with the soil remedial action. The program will include modifications to the existing monitoring well network, groundwater sampling and analysis on a quarterly basis, and data interpretation and evaluation. At the completion of contaminated soil excavation, as outlined in Alternatives B, C, D, and E, groundwater monitoring wells will be installed in the area of the former battery cracking operations and several existing damaged wells will be replaced. Groundwater samples will be collected from each of the monitoring wells on a quarterly basis for a minimum of two rounds. These samples will be analyzed for the full TCL, TAL, and PCB/pesticide parameter lists using CLP or central regional laboratory (CRL) laboratories and protocols. The laboratory methods selected should provide detection limits that provide data suitable to be compared to Wisconsin's Administrative Code NR 140 WPALs groundwater standards. At the conclusion of the initial two rounds of sampling, a report will be prepared to present an evaluation of the collected data. If no compounds of concern (other than those directly related to petroleum product release) are found to exceed NR 140 WPALs, further monitoring will be discontinued and further groundwater remedial actions will not be performed by U.S. EPA. If any NR 140 WPALs are exceeded for the compounds of concem, quarterly monitoring will be continued for the full parameter list for an additional six rounds, providing quarterly data for two full years.

At the end of the two years of quarterly sampling another decision point will be reached. At that time a report presenting the collected information will be prepared. U.S. EPA and WDNR will jointly evaluate the groundwater sampling data. Again, should the NR 140 WPALs not be exceeded at all sampling points for compounds of concern, further monitoring will be discontinued and an active groundwater remedy will not be implemented. Should WPALs or WES be exceeded monitoring will be continued. However, U.S. EPA in consultation with WDNR will determine if the analytical parameter list can be reduced and if the monitoring frequency or number of sampling points can be reduced. If it is apparent that groundwater conditions are not improving or if the contaminant plume is migrating off site, U.S. EPA and WDNR shall evaluate the advantages or disadvantages of implementing an active remediation system at this time.

If it is determined that further monitoring is necessary at the end of the two-year period, monitoring will be performed on a semi-annual basis at a minimum. Monitoring will continue for an additional three years, providing a total of five years of groundwater sampling data. As part of U.S. EPA's five-year review process, this data will be evaluated by U.S. EPA and WDNR. Should concentrations of compounds of concern at all sampling points be below NR 140 WPALs at the end of the five-year period, further monitoring will be discontinued and no active remediation measures will be taken. If concentrations of contaminants of concern are above the WPALs, a more detailed evaluation of the data will be required to determine whether there is a need for additional remedial actions to reduce cleanup times. The five-year review may also evaluate the technical impracticability of attaining WPALs in the groundwater. At this time there is not enough information to make such a determination. To the extent U.S. EPA's five-year review indicates that it is not technically or economically feasible to achieve WPALs, NR 140.28 provides for substantive standards for granting exemptions from the requirement to achieve WPALs. Such exemption levels may not be higher than the WESs. If U.S. EPA in consultation with WDNR determines that it is technically impracticable to achieve WPALs or other standards, and for some reason the exemption allowed within NR 140.28 is not appropriate, a Technical Impracticability applicable or relevant and appropriate requirements (ARAR) waiver under CERCLA may be granted for the site.

Completion of the selected source control alternative, addressing the impacted soils, is considered an initial step in addressing the identified groundwater impacts. Evaluation of groundwater data obtained from existing monitoring wells and additional wells as proposed in the focused RI/FS will be used by U.S. EPA in consultation with WDNR to evaluate the effectiveness of the source remedial action in affecting the quality of the groundwater. This effectiveness evaluation will be part of U.S. EPA's five-year review process.

The evaluation of the groundwater conditions and the effectiveness of the source control remedial alternative will be based on the following:

1) Comparison of existing contaminant levels throughout the plume to NR 140 WPALs and WESs or Maximum Contaminant Levels (MCLs).
2) Trends in contaminant concentrations, if present.
3) Migration of the contaminated groundwater plume.

At the end of the five-year monitoring period, several options to address the situation will be available based on the groundwater quality at the site. The options available are:

1) Discontinue further monitoring and decide not to install an active groundwater remediation system (**No Further Action**).
2) Postpone installation of an active groundwater system (**Continued Monitoring**).
3) Install an active groundwater remediation system (**Active Remediation**).

The following will be taken into account at the end of the initial five-year review when it appears that concentrations are decreasing but cleanup goals are not yet met.

1) If based on the trend of the contaminant concentrations, it can be demonstrated (using appropriate statistical analysis) that remaining impacts will be at concentrations less than the WPALs within an additional five-year period, then **Continued Monitoring** to document the decrease would be selected and performed.

   a) If after the additional five years of monitoring, contaminant concentrations are found to be above NR 140 WESs **Active Remediation** would be implemented.

   b) If after the additional five years, the remaining groundwater contamination plume is limited in extent (and within the Scrap Processing property boundary), not migrating toward a receptor and concentrations are below NR 140 WESs (but above WPALs) **Continued Monitoring** would be performed, as well as developing a new estimate on when the cleanup goals would be reached. Monitoring would be continued until the NR 140 WPALs are reached or concentrations become asymptotic.

2) If based on the contaminants of concern concentrations in groundwater it is demonstrated that cleanup goals cannot be reached within an additional five-year period (for example, if it is shown that it would take 50 years to reach WPALs) **Active Remediation** would be implemented. As part of the five-year review process, an evaluation will be conducted to determine whether it is not technically or economically feasible to achieve WPALs. NR 140.28 provides for substantive standards for granting exemptions from the requirement to achieve WPALs. Such exemption levels may not be higher than the WESs. If the exemption is inappropriate, and U.S. EPA in consultation with WDNR determines that it is technically impracticable to achieve WPALs, a Technical Impracticability waiver under CERCLA may be granted for the site.

The following system may be designed and installed should it be determined, based on the above criteria, that active groundwater remediation would be implemented:

The system may consist of the construction of groundwater collection trenches or installation of extraction wells. Treatment of collected groundwater to meet discharge requirements includes such methods as reverse osmosis or the use of activated carbon. The discharge may be directed to the Black River after meeting state discharge standards (this is considered an on-site discharge, so no state Wisconsin Pollution Discharge Elimination System (WPDES) permit would be required, but the substantive requirements of such permit would be met) or to the Medford sewage treatment facility after meeting applicable pretreatment standards. It is recognized that it may be necessary to issue an Explanation of Significant Differences (ESD) document to describe any significant variations in the active system design. If an alternative treatment system becomes available that is more cost effective it will be implemented. If U.S. EPA, in consultation with WDNR, determines that a fundamental change is appropriate to the active remediation system, a ROD amendment would be necessary.

H. Summary of Comparative Analysis of Alternatives

The relative performance of each remedial alternative was evaluated in the focused RI/FS and using the following nine criteria set forth in the NCP at 40 C.F.R. §300.430. An alternative providing the "best balance" of tradeoffs with respect to the nine criteria is determined from this evaluation.

Threshold Criteria

1. Overall Protection of Human Health and the Environment

Overall protection of human health and the environment addresses whether a remedy eliminates, reduces, or controls threats to human health and to the environment.

With the exception of the no-action alternative, each of the remedial action alternatives would address the lead-contaminated soil in some fashion and monitor groundwater to provide protection to human health and the environment. Alternative A would not reduce or control the potential for exposure or migration of contaminated soil because no action would be taken; therefore, this alternative would not provide adequate protection of human health or the environment. Alternatives B and D would protect human health and the environment by isolating the contaminated soil using engineering and institutional controls, thereby reducing the potential for direct contact with and migration of the contaminants. However, some long term residual risk would be associated with these alternatives because the contaminated soil would remain on-site and would only be contained rather than treated or destroyed.

Alternative E is similar to Alternative B, except that the landfilling is performed off site. Removing the contaminated soil from the site would eliminate the potential for exposure or contaminant migration through all pathways, thereby protecting human health and the environment at the site. Protection of human health and the environment at the off-site disposal location under Alternative E would be similar to the protection of human health and the environment on-site under Alternative B.

Alternative C would recover and recycle the lead in the site soils, thus providing an additional measure of permanence not achieved by the other alternatives. All of the alternatives, except Alternative A, would be protective of human health and the environment.

2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

This criterion evaluates whether an alternative meets ARARs set forth in federal, or more stringent state, environmental standards pertaining to the site or proposed actions.

Alternative A would not comply with chemical-specific ARARs because lead concentrations in the site soils would remain above the state soil cleanup standard without any remedial action. The on-site disposal cell in Alternative B would not meet some of Wisconsin's solid waste landfill location standards because the disposal cell would be located within 1,200 feet of public and private water supply wells and, unless the subbase for the disposal cell is built up, the separation distance between the seasonal high water table and the bottom of the clay liner would be less than the minimum requirement of 10 feet. Waivers would be required from the state solid waste management regulations for the on-site disposal cell. If some of the contaminated soils are determined to be hazardous by characteristic, alternatives B, D, and E would require the add-on stabilization option to meet Wisconsin's hazardous waste requirements. Alternatives C, D, and E would comply with ARARs if they are designed and implemented properly.

Primary Balancing Criteria

3. Long-Term Effectiveness and Permanence

This criterion refers to expected residual risk and the ability of an alternative to maintain reliable protection of human health and the environment over time once cleanup levels have been met.

Alternative A would not provide any long-term effectiveness or permanence because no remedial activities would occur. The other alternatives include excavation and containment, treatment, or removal of the contaminated soil, thus reducing the potential for human exposure or contaminant migration and protecting human health and the environment. Some residual risk is associated with all the alternatives because the lead cleanup goal is based on an industrial land-use classification. Access and deed restrictions are included with all the alternatives, except Alternative A, to manage the risk. Because contaminated soil would remain untreated and on-site under Alternatives B and D, more long-term residual risk is associated with these options. This risk would be minimized through proper design, construction, maintenance, and monitoring of the solid waste disposal cell or concrete pavement. The disposal cell (Alternative B) and concrete pavement (Alternative D), however, would have estimated finite design lives and require post remedial action site control measures to inspect and maintain them.

Alternative C incorporates treatment as part of the remedial action; therefore, it would provide a higher degree of long-term protection. Alternatives C and E provide solutions that would remove the contaminants from the site. Alternative C would be the most effective because the lead would essentially be reclaimed and recycled. Alternative E would remove the contaminants from the site; however, potential long-term liability is associated with disposing of the contaminated soil in an off-site landfill. As noted above, steps would be taken to ensure that any soils that fail TCLP will be stabilized prior to landfilling.

All alternatives, except Alternative A, require post remedial action site control for security fence maintenance and to conduct the long-term groundwater monitoring program. Alternative D requires additional post remedial site control measures to inspect and to maintain the concrete pavement. Alternative B would require the most post remedial action site control measures.

4. Reduction of Toxicity, Mobility, or Volume through Treatment

This criterion evaluates treatment technology performance in the reduction of chemical toxicity, mobility, or volume. This criterion addresses the statutory preference for selecting remedial actions which include, as a principal element, treatment that permanently and significantly reduces the volume, toxicity, or mobility of the hazardous substances, pollutants, and contaminants.

Alternative A would not provide any reduction in toxicity, mobility, or volume of the contamination in the site soils. Alternatives B, D, and E would provide for containment of the lead-contaminated soils, thereby reducing the potential for exposure or contaminant migration and indirectly reducing contaminant mobility. Under alternatives B and D, the contaminants would remain on site at their present concentrations and would not be treated; therefore, the contaminant toxicity and volume would not be reduced. Under Alternative E, the contaminated soil would be disposed off site, thereby reducing the contaminant volume and mobility at the site.

Alternative C incorporates treatment as part of the remedial action and reduces mobility and volume. Alternative C would reclaim lead from the soils in a concentrated form suitable for recycling; therefore, this option would reduce contaminant volume and eliminate the possibility of contaminant migration. The toxicity would not be reduced directly because the contaminants are not destroyed; however, the potential for exposure or migration on-site would be eliminated because the contaminants are removed from the site.

5. Short-Term Effectiveness

Short-term effectiveness considers the time to reach cleanup objectives and the risks an alternative may pose to site workers, the community, and the environment during remedy implementation until cleanup goals are achieved.

Implementation of Alternative A would not create any short-term risks to workers or to the community because no remedial activities would occur. Alternatives B, C, D, and E would create similar risks to the community and environment during construction and implementation because all of these alternatives include contaminated soil excavation. Potential short-term effects associated with these alternatives include the release of dust and air pollutants during excavation and handling of the contaminated soil, increased noise levels, increased traffic around the site, and surface-water runoff during excavation. However, these risks would be controlled through air monitoring, the use of dust suppressants, and surface-water run on and runoff control measures, such as berms and ditches. Alternative D would create the least short-term risks because it involves excavation of only a portion of the contaminated soil. The short-term risks associated with Alternatives B and C would be slightly greater than Alternative E because those alternatives involve more construction activities and/or on-site treatment. Alternative E, however, would create the potential for contaminant release during transportation of soil to an off-site disposal facility; this would be minimized by placing tarps over filled trucks and using a state-licensed solid waste collection and transportation contractor. Additionally, a plan will be in place to address any spills associated with the transport of contaminated soils. Workers could potentially be exposed to contamination during implementation of any of the alternatives, but risks would be minimized through adherence to Occupational Safety and Health Administration guidelines and requirements.

6. Implementability

This criterion addresses the technical and administrative feasibility of implementing an alternative, and the availability of various services and materials required for its implementation.

The Implementability criterion is not applicable to Alternative A because no remedial activities would occur. Alternative B would be relatively simple to implement. The on-site disposal cell would be constructed using conventional methods. Equipment, materials, and personnel are readily available. Disposal cells have been constructed on a large scale. Alternative B would be more difficult to implement if waivers from the state solid waste landfill location standards are necessary, since such waivers cannot be obtained without adequate technical justification.

Alternative D would be relatively simple to implement technically but not very simple administratively. It would be easier to construct than Alternative B because less soil would be excavated. The concrete pavement would be constructed using conventional methods. Equipment, materials, and personnel would be readily available. However, inspections and maintenance of a concrete cover at an active salvage yard may be difficult to carry out consistently over time, given the legal and physical problems associated with gaining access to the site to perform inspections and maintenance.

Alternative E also would be technically and administratively easy to implement. Off-site landfilling is a proven method for waste containment and disposal. Suitable state-licensed solid waste disposal facilities have been identified in the State of Wisconsin.

Alternative C would be the most difficult alternative to implement. This alternative involves the use of an innovative technology to remove lead from the soil. Because the process is a relatively new technology, it does not have an extensive track record, and unforseen technical difficulties could affect its effectiveness and implementability. However, the process has been successful at the bench scale level on soils from several sites and has been implemented on a full-scale basis with positive results at a Superfund site. The process is unusable at freezing temperatures, so the schedule would have to be coordinated accordingly to avoid delays. Also, this innovative technology requires specialized processes and personnel available from only a few contractors; therefore, contractor availability to perform the work could affect the schedule.

All alternatives include deed restrictions; they would have to be coordinated through the local jurisdictions and might be difficult to obtain. Post remedial action site control measures for all alternatives would be conducted by a local contractor.

7. Cost

This criterion compares the capital, operation and maintenance (O&M), and present worth costs of implementing the alternatives at the site. Table 7 shows the cost summary.

TABLE 7 - SUMMARY OF COSTS

COSTS	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Capital Cost	$ 0	$ 2,399,000	$ 4,112,000	$ 1,989,000	$ 1,508,000
O&M/yr (30yrs.)	$ 0	$ 104,000	$ 47,600	$ 64,000	$ 47,600
Present Worth	$ 0	$ 3,998,000	$ 4,844,000	$ 2,973,000	$ 2,240,000

Modifying Criteria

8. State Acceptance

The State of Wisconsin has indicated to be in agreement with the selection of Alternative E with a contingency for groundwater monitoring and remediation, if needed, for remediation of the Scrap Processing Site and will provide U.S. EPA with a letter of concurrence.

9. Community Acceptance

Comments have been submitted by the community, local government officials, and potentially responsible parties (PRPs). Comments and responses to those comments are described in the Responsiveness Summary, Section M.

I. The Selected Remedy

Based upon considerations of the requirements of CERCLA, the NCP and balancing of the nine criteria, U.S. EPA has determined that Alternative E is the most appropriate remedy for the site. The components of the selected remedy are:

Excavation and Off-Site Landfill Disposal - Approximately 7,740 cubic yards of lead-contaminated soils would be excavated and transported to an off-site solid waste landfill for disposal. Before excavating the soil, sampling and analysis would be conducted to verify the waste characteristics meet landfill requirements. Excavated site areas would be backfilled with clean soil and revegetated. Revegetation is used to prevent surface run-off and soil erosion.

Groundwater Monitoring - A groundwater monitoring program shall be designed and implemented to detect changes in concentration of site-related contamination near the site. The program would include modifications to the existing monitoring well network, groundwater sampling and analysis on a quarterly basis, and data interpretation and evaluation. Active intervention in the spread of groundwater contamination will not be made until there is an opportunity to evaluate the ability of the source control measures to provide protection of human health and the environment for groundwater. An evaluation of groundwater information gathered at the five-year review will be used to determine whether or not there is a need for additional actions to reduce cleanup times. The five-year review may also evaluate the technical impracticability of attaining WPALs in the groundwater. To the extent U.S. EPA's five-year review indicates that it is not technically or economically feasible to achieve WPALs, NR 140.28 provides for substantive standards for granting exemptions from the requirement to achieve WPALs. Such exemption levels may not be higher than the WESs. If U.S. EPA in consultation with WDNR determines that it is technically impracticable to achieve WPALs, and the exemption is inappropriate, a Technical Impracticability ARAR waiver under CERCLA may be granted for the site. A detailed description of the monitoring program is provided above, in section G, add-on option 2 of this decision document.

Active Groundwater Remediation - Based on the results of the groundwater monitoring, it may be necessary to design and implement an active groundwater remediation system. Should that be found to be necessary using the criteria outlined in Section G, add-on option 2 of this ROD, the system may consist of the construction of groundwater collection trenches or installation of extraction wells. Treatment of collected groundwater to meet discharge requirements includes such methods as reverse osmosis or the use of activated carbon. The discharge may be directed to the Black River after meeting state discharge standards (this is considered an on-site discharge, so no state WPDES permit would be required, but the substantive requirements of such permit would be met) or to the Medford sewage treatment facility after meeting applicable pretreatment standards. It is recognized that it may be necessary to issue an ESD document to describe the minor variations in the active system design. If an alternative treatment system becomes available that is more cost effective it will be implemented.

Access Restrictions and Institutional Controls - Access restrictions and institutional controls would be implemented, which include installation of a fence around the Site to limit site access and deed restrictions limiting the site's future land use as well as restrictions on groundwater use in the site vicinity. The on-site residential well will be abandoned.

J. Documentation of Significant Changes

U.S. EPA released a Proposed Plan for public comment on August 25, 1997. The Proposed Plan identified excavation of lead-contaminated soils and their transportation to an off-site solid waste landfill for disposal, institutional controls such as site fencing and groundwater and land-use restrictions, and long-term groundwater monitoring to determine effectiveness of site cleanup and the need for possible future actions as the preferred remedy for the site. There are no significant changes to the proposed remedy, which this ROD selects.

K. Statutory Determinations

U.S. EPA's primary responsibility at Superfund sites is to undertake remedial actions that protect human health and the environment. Section 121 of CERCLA has established several statutory requirements and preferences. These include the requirement that the selected remedy, when completed, must comply with all ARARs imposed by Federal and State environmental laws, unless the invocation of a waiver is justified. The selected remedy must also provide overall effectiveness appropriate to its costs, and use permanent solutions and alternative treatment technologies, or resource recovery technologies, to the maximum extent practicable. Finally, the statute establishes a preference for remedies which employ treatment that significantly reduces the toxicity, mobility or volume of contaminants.

1. Protection of Human Health and the Environment

Implementation of the selected remedy will protect human health and the environment by reducing the risk of exposure to hazardous substances present in surface soils at the site. Excavation and off-site landfill disposal of lead-contaminated soils will reduce the direct contact risk of exposure to hazardous substances present in soil at the site. Additionally, it will reduce the risk that hazardous substances, pollutants, and contaminants present in the soil will migrate and contaminate the aquifer. Groundwater monitoring will be required to provide early warning against the risk that the hazardous substances present in the soil may migrate and contaminate the aquifer. Institutional controls will be imposed to restrict uses of the site to prevent exposure to hazardous substances and contaminants in the soil and groundwater. No unacceptable short-term risks will be caused by implementation of the remedy. The community and site workers may be exposed to dust and noise nuisances during excavation and off-site disposal of lead-contaminated soil. Mitigative measures will be taken during remedy construction activities to minimize such impacts of construction upon the surrounding community and environs. Ambient air monitoring will be conducted and appropriate safety measures will be taken if contaminants are emitted.

2. Compliance with ARARs

The selected remedy will comply with all identified applicable or relevant and appropriate federal requirements, and with those state requirements which are more stringent, unless a waiver is invoked pursuant to Section 121(d)(4)(B) of CERCLA.

For a complete list of ARARs and to be considered (TBCs) for all of the alternatives at this site, see Tables 3-2, 3-3, and 3-4 of the Focused RI/FS Report. A discussion of the key ARARs for the selected remedy follows.

RCRA

1. Not applicable, but relevant and appropriate

RCRA requirements are not applicable because the wastes were disposed of prior to November 19, 1980. RCRA requirements which have been delegated to the State of Wisconsin would be relevant and appropriate because lead-contaminated soils may exhibit characteristic toxicity. Listed contaminants have not been identified as having been disposed of at the site. The selected remedy will comply with this ARAR.

RCRA Action-specific

1. Land Disposal Restrictions

This regulation has been delegated to the State of Wisconsin. Land disposal restrictions will be applicable if it is determined during the pre-design activities that the lead-contaminated soil to be disposed of exhibits characteristic toxicity. If these restrictions are determined to be applicable, the selected remedy will comply with them.

Clean Air Act

Air quality goals called National Ambient Air Quality standards (NAAQS) are established for criteria pollutants under Sections 108 and 109 of the Clean Air Act (CAA). Under the CAA, each state must adopt a state implementation plan to demonstrate how it will meet its statutory obligation to attain and maintain NAAQS. Emission standards called New Source Performance Standards (NSPS) are promulgated under the regulatory authority of Section 111 of the CAA. The emissions threshold for a major source is 100 tons per year for areas that have not attained the NAAQS. Major new sources must meet Lowest Achievable Emission Requirements (LAERs). If emissions from the site exceed 100 tons of VOCs, LAERs will be relevant and appropriate to the site, and the selected remedy will comply with them.

Executive Order 11990 - Protection of Wetlands

The requirements of Executive Order 11990 are applicable because the selected remedy either affects or may affect wetlands adjacent to or downstream of the site. Executive Order 11990 requires that actions at the site be conducted in a manner minimizing the destruction, loss, or degradation of wetlands. The selected remedy will be implemented in a manner such that it does not have an adverse impact on nearby wetlands.

Wisconsin Groundwater Standards (NR 140)

NR 140 establishes groundwater remediation goals for Wisconsin's groundwaters. Groundwater will be monitored to determine the effectiveness of the soil remedial action. Based on the criteria outlined in Section G, add-on option 2, above, the results of this monitoring program will be used to determine if active groundwater remediation is needed. This groundwater contingency plan meets the intent of ch. NR 140, Wis. Adm. Code.

Wisconsin Soil Cleanup Standards (NR 720)

NR 720 establishes cleanup standards for the remediation of soil contamination that are protective of public health, safety, welfare, and the environment. Soil contamination will be addressed by the remedial action. The cleanup standard for lead in soil for the direct contact exposure route at an industrial scenario is 500 ppm. Specific soil residual contaminant levels (RCL) numbers for the groundwater pathway were not developed. However, it is expected that the groundwater contingency plan will address the groundwater pathway, and providing a clean soil vegetated cover over excavated and backfilled areas will address the potential for impacts to surface water from runoff. Additionally, an RCL for PCBs was not calculated due to the previous removal of PCB impacted soils and the use of deed restrictions as a performance standard.

3. Cost Effectiveness

Cost effectiveness compares the effectiveness of an alternative in proportion to its cost of providing environmental benefits. Costs associated with the implementation of the selected remedy are listed below.

Total estimated costs for the selected remedy at the Scrap Processing Site:

Alternative	Total Capital Cost	Total O&M/Yr.	Total Present Worth
E	**$1,508,000**	**$47,600**	**$2,240,000**

The selected remedy for this site is cost effective because it provides the greatest overall effectiveness proportionate to its costs when compared to the other alternatives evaluated, the net present worth being $2,240,000. The estimated cost of the selected remedy is comparable to Alternative D, and assures a high degree of certainty that the remedy will be effective in the long term due to significant reduction of the mobility of the contaminants achieved through excavation and off-site disposal of the source material. Alternative D leaves the source on site. The uncertain effectiveness of a concrete cap in preventing migration of contaminants to the groundwater does not justify the additional cost for this alternative.

4. Utilization of Permanent Solutions and Alternative Treatment Technologies or Resource Recovery Technologies to the Maximum Extent Practicable

The selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be used in a cost-effective manner at this site. Of those alternatives that are protective of human health and the environment and that comply with ARARs, U.S. EPA has determined that the selected remedy provides the best balance in terms of long-term effectiveness and permanence, reduction of toxicity, mobility, or volume of contaminants, short-term effectiveness, implementability, and cost, taking into consideration State and community acceptance.

The excavation and off-site disposal at a solid waste landfill of lead-contaminated soils, groundwater monitoring and subsequent remediation if needed, and restriction of site access through installation of a fence and institutional controls, will provide the most permanent solution practicable, proportionate to the cost.

5. Preference for Treatment as a Principal Element

Based on current information, U.S. EPA and the State of Wisconsin believe that the selected remedy is protective of human health and the environment and utilizes permanent solutions and alternative treatment technologies to the maximum extent possible. The remedy, however, does not satisfy the statutory preference for treatment of the hazardous substances present at the site as a principal element because such treatment was not found to be practical or cost effective. However, it is still possible that some lead-contaminated soils remaining on site may fail TCLP testing. If soils are determined to be RCRA hazardous by toxicity characteristic, on-site stabilization could be added as necessary to treat soils and render them nonhazardous, thereby satisfying this preference.

L. Summary

The selected remedy will satisfy the statutory requirements established in Section 121 of CERCLA, as amended by SARA, to protect human health and the environment, will comply with ARARs, will provide overall effectiveness appropriate to its costs, and will use permanent solutions and alternate treatment technologies to the maximum extent practicable.

Treatment is not a component of the selected remedy since hazardous substances present at the site in soils are considered low level threat wastes. Consistent with the NCP, low level threat wastes should be contained since treatment is generally not considered practical or cost effective.

M. RESPONSIVENESS SUMMARY

The public participation requirements of CERCLA sections 113 (k) (2) (i-v) and 117 of CERCLA have been met during the remedy selection process. Section 113(k)(2)(B)(iv) and 117(b) of CERCLA requires the U.S. EPA to respond "...to each of the significant comments, criticisms, and new data submitted in written or oral presentations" on a proposed plan for a remedial action. The Responsiveness Summary addresses concerns expressed by the public, potentially responsible parties (PRPs), and governmental bodies in written and oral comments received by U.S. EPA and the State regarding the proposed remedy for the Scrap Processing site.

Background

U.S. EPA issued a fact sheet to the public in May 1992, at the beginning of the remedial investigation. The Agency also hosted a public meeting on May 12, 1992, to provide background information on the Scrap Processing site, explain the Superfund process, and provide details of the upcoming investigation. The remedial investigation was completed in August 1995. In September 1992 and November 1993, U.S. EPA issued additional fact sheets to summarize the results of the investigation. U.S. EPA also hosted public meetings on September 16, 1992 and November 16, 1993 to discuss the results of the investigation in greater detail, and answer any questions.

The Focused RI/FS reports and the Proposed Plan for the Scrap Processing site were released to the public for review in August 1997. The information repository has been established at the following location: Medford Public Library, 104 East Perkins Street, Medford. The Administrative Record has been made available to the public at the U.S. EPA Docket Room in Region 5 and at the information repository.

A public meeting was held on September 16, 1997 to discuss the Focused RI/FS and the Proposed Plan. At this meeting, representatives from the U.S. EPA and WDNR answered questions about the site and the remedial alternatives under consideration. Formal oral comments on the Proposed Plan were documented by a court reporter. A verbatim transcript of this public meeting has been placed in the information repository and Administrative Record. Written comments were also accepted at this meeting. The meeting was attended by approximately five local residents.

The Focused RI/FS and Proposed Plan were available for public comment from August 25 through September 24, 1997. Comments received during the public comment period and the U.S. EPA's responses to those comments are included in the attached Responsiveness Summary, which is a part of this ROD. A display advertisement announcing the availability of the Proposed Plan and start of the comment period was published in the Medford Star News.

During the comment period, U.S. EPA received one written submittal of comments and three oral comments concerning the proposed plan.

Summary of Significant Comments

Comment 1: One person said that the community of Medford needs Scrap Processing and that he would not like to see the salvage yard financially burdened in the future, because this may cause it to go out of business and the community needs the salvage and recycling services it provides.

Response: CERCLA as amended by SARA requires the U.S. EPA to determine the financial ability of the PRPs to undertake investigative and remediative actions at Superfund sites. At the Scrap Processing site the PRP search performed by the U.S. EPA has not identified PRPs that are financially capable of implementing the cleanup plan at the site. U.S. EPA will use federal monies available from the Superfund to implement the cleanup actions for the site; therefore at this time, the owners of Scrap Processing will not be financially burdened. However, if circumstances at the site change, or it is otherwise warranted, U.S. EPA reserves the right to reconsider this enforcement decision.

Comment 2: Another person proposed to select No Action as the preferred response action for the site.

Response: The remedial investigation indicated that there is widespread lead contamination in the site soils. The risk assessment performed using the results from the remedial investigation indicated that the site conditions may pose a threat to human health and the environment in the long term. Because of the future threat posed by the site soils to human health and the environment, No Action is not an acceptable way of addressing the risks posed by the site.

Comment 3: Another person stated that although the site does not present an imminent threat, it should be cleaned up. Additionally, he expressed similar concerns with respect to possible groundwater contamination.

Response: U.S. EPA selected the cleanup plan outlined in this ROD to address the risks posed by the site. Additionally, groundwater monitoring will be implemented to determine if the groundwater is contaminated and if there is a need for future active remediation.

Comment 4: A written comment requested the placement of additional groundwater monitoring wells in the source area to determine if groundwater is contaminated.

Response: As part of the groundwater monitoring program selected for the site in this ROD, new monitoring wells will be installed in and near the source area.

Comment 5: The same person had concerns with how long the project has taken and expected it to proceed faster in this next phase.

Response: This project will be financed using Federal funds. Those funds are limited. Sites needing Federal funding have to compete nationally to obtain it. The implementation of the cleanup plan may be delayed if the site does not get funded in the near future.

N. GLOSSARY

Applicable or Relevant and Appropriate Requirements.

Section 121 (d) of CERCLA requires that remedial actions meet legally applicable or relevant and appropriate requirements (ARARs) of other environmental laws. Legally "applicable" requirements are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations promulgated under Federal or State law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstances at a CERCLA site. "Relevant and appropriate" requirements are those requirements that, while not legally applicable to the remedial action, address problems or situations sufficiently similar to those encountered at the site that their use is well suited to the remedial action.

Non-promulgated advisories or guidance documents issued by federal or state governments ("to-be-considered or TBCs") do not have the status of ARARs; however, where no applicable or relevant and appropriate requirements exist, or for some reason may not be sufficiently protective, non-promulgated advisories or guidance documents may be considered in determining the necessary level of clean up for protection of human health and the environment.

Baseline Risk Assessment

The baseline risk assessment is an analysis of the potential adverse health effects caused by hazardous substance releases from a site in the absence of any actions to control or mitigate these releases. The baseline risk assessment assumes no corrective action will take place and no site-use restrictions or institutional controls such as fencing, ground water use restrictions or construction restrictions will be imposed. There are four steps in the baseline risk assessment process: data collection and analysis; exposure assessment; toxicity assessment; and risk characterization.

Cancer Potency Factors (CPFs)

Cancer potency factors (CPFs) have been developed by EPA's Carcinogenic Assessment Group for estimating excess lifetime cancer risks associated with exposure to potentially carcinogenic chemicals. CPFs, which are expressed in units of (mg/kg-day)$^{-1}$, are multiplied by the estimated intake of a potential carcinogen, in mg/kg-day, to provide an upper-bound estimate of the excess lifetime cancer risk associated with exposure at that intake level. The term "upper bound" reflects the conservative estimate of the risks calculated from the CPF. Use of this approach makes underestimation of the actual cancer risk highly unlikely. Cancer potency factors are derived from the results of human epidemiological studies or chronic animal bioassays.

Excess Lifetime Cancer Risks

Excess lifetime cancer risks are the sum of all excess cancer lifetime risks for all contaminants for a given scenario. Excess Lifetime Cancer Risks are determined by multiplying the intake level by the cancer potency factor for each contaminant of concern and summing across all relevant chemicals and pathways. These risks are probabilities that are generally expressed in scientific notation (e.g. $1 X 10^{-6}$). An excess lifetime cancer risk of 1×10^{-6} indicates that a person's chance of contracting cancer as a result of site related exposure averaged over a 70-year lifetime may be increased by as much as 1 in one million.

Hazard Index (HI)

The Hazard Index (HI), an expression of non-carcinogenic toxic effects, measures whether a person is being exposed to adverse levels of non-carcinogens. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across multiple media. The HI for non-carcinogenic health risks is the sum of all contaminants for a given scenario. Any Hazard Index value greater than 1.0 suggests that a non-carcinogen potentially presents an unacceptable health risk.

Reference Doses (RfDs)

Reference doses (RfDs) have been developed by U.S. EPA for indicating the potential for adverse health effects from exposure to chemicals exhibiting non-carcinogenic effects. RfDs, which are expressed in units of mg/kg-day, are estimates of average daily exposure levels for humans, including sensitive individuals. Estimated intakes of chemicals from environmental media (e.g., the amount of a chemical ingested from contaminated drinking water) can be compared to the RfD. RfDs are derived from human epidemiological studies or animal studies to which uncertainty factors have been applied (e.g., to account for the use of animal data to predict effects on humans). These uncertainty factors help ensure that the RfDs will not underestimate the potential for adverse non-carcinogenic effects to occur.

ADMINISTRATIVE RECORD INDEX

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
SCRAP PROCESSING, INC

MEDFORD, WISCONSIN

June 18, 1993

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U.S. ENVIRONMENTAL PROTECTION AGENCY
REMEDIAL ACTION

ADMINISTRATIVE RECORD
FOR
SCRAP PROCESSING SITE
MEDFORD, TAYLOR COUNTY, WISCONSIN

UPDATE #1
AUGUST 25, 1997

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