→ file

CORRESPONDENCE/MEMORANDUM STATE OF WISCONSIN

Date: June 8, 1989 *File Ref:* 4440

To: Mr. Robert Hunter - DOJ

From: James Reyburn - Lake Michigan District, DNR

Subject: Better Brite - Zinc Shop Facility Inspection

On Wednesday, May 31, 1989, I inspected the Zinc Shop located at 315 S. 6th Street, De Pere, WI. I met with Mr. David Gunns, the plant manager, who provided the following information:

John Zenner had instructed Mr. Gunns to consolidate all pretreatment and cooker sludge waste on site into a maximum of 28 55-gallon drums. Mr. Gunns was in the process of doing this at the time of the inspection and expected the consolidation to be completed by the following week. When I asked him what would happen if there were more than 28 drums of waste, he replied that there would not be. When pressed, he said that he was not going to put any waste on his pickup truck. Apparently this magical number of 28 drums of waste was the amount on site when John Zenner took over operation of the facility.

Mr. Gunns said they had not generated any waste at this facility since my last visit. He went on to explain that the only tanks ever cleaned were the rinse water tanks, which was done when the sludge in the bottom of the tank accumulated to the point of touching the parts. The liquid fraction would then be pumped off, the sludge removed, and the rinse water returned. The sludge was then added to the cooker soap tank. By adding the rinse sludge to the cooker tank, he claimed that the sludge was not a waste, but was a part of the process stream. Mr. Gunns stated that the cooker tank had not been cleaned since he had been there. He did say that rinse water was added to the cooker tank for evaporation purposes. I have spoken to other platers who indicate that it is possible to operate the plating tanks indefinitely without removing spent plating solution. By adding additional new plating solution the tank can continue to operate.

When I inspected the facility, I found all the tanks to be inactive and no plating production taking place. Mr. Gunns said that the only employees at the facility at this time were himself and one other worker. Business was poor because the customers were concerned about losing parts if the facility were to suddenly close down. There was waste in containers and waste spilled on the floor over a large majority of the

facility, but I did not observe any liquid leading outside the building.

The following is my best attempt to inventory the waste on site at this time:

On the production floor, I observed 9 elongated plating tanks; 8 of which were full of liquid and 1 which was empty. At the end of these tanks was a square, smaller tank used for the cooker soap which was full of liquid and sludge. Across the aisle from these tanks were 2 elongated tanks (1 400-gallon tank and 1 800-gallon tank), both of which contained untreated wastewater and/or plating solution. Next to this was 1 (white plastic 1500-gallon) tank of untreated rinse water and 1 (green plastic 1500-gallon) tank of treated wastewater. In the southeast corner of the facility is the automatic plating line which was full of plating liquid and plating salt. The wastewater pretreatment system tanks included the 2 overhead tanks; 1 square tank on the ground; and 1 low, round, white plastic tank. All of these pretreatment tanks were full of liquid/sludge waste. Scattered around the pretreatment system were 4 blue plastic 55-gallon drums that I was told contained unused chlorine product. The lab room associated with the pretreatment system had an assortment of 1-gallon containers of sodium cyanide, sulfuric acid, silver nitrate, and ammonium hydroxide. Scattered around the main floor, I found the following 55-gallon containers: 9 full, 5 half-full, and 4 ¼-full. There were also 2 new, full plastic 55-gallon drums labeled "Muriatic Acid" that I was told were also product.

In the back room, I counted the following full 55-gallon drums: 8 of the original gray tomato paste drums and 8 red plastic drums into which waste had been recontainerized. There were 2 open-head drums that contained filter bags, and 29 empty drums that had previously contained waste. There were approximately 12 red, empty 55-gallon plastic containers into which additional waste was to be repackaged.

Also in the back room, there were 2 full 55-gallon plastic drums containing unknown material. One of these unknowns was a black plastic drum referred to as Everett's mixture into which Everett Hintz poured a variety of chemicals, and the other drum was a cardboard drum that had been damaged by water. The two 500-gallon plastic tanks above the filter-bag rack were also full of liquid. In one corner of the back room, there were 12 drums that I was told contained product. This product included detergent (cooker) soap, sodium nitrate, oils, and sodium cyanide.

If you have any questions regarding this inspection, please contact me at (414) 497-4397.

JR:cm

cc. Pflug

Site Inspection Report

United States
Environmental Protection
Agency

Office of Emergency and
Remedial Response
Washington, DC 20460

EPA Form 2070-13
July, 1981

EPA

Potential Hazardous Waste Site

Site Inspection Report

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

EPA

I. IDENTIFICATION
01 STATE: WI | 02 SITE NUMBER: 006132088

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
The (Better-Brite) Zinc Shop, Inc.	315 S. Sixth Street				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
De Pere	WI	54115	Brown	009	08

09 COORDINATES: LATITUDE 44 26 38 | LONGITUDE 88 05 31

10 TYPE OF OWNERSHIP (Check one): [X] A. PRIVATE [ ] B. FEDERAL [ ] C. STATE [ ] D. COUNTY [ ] E. MUNICIPAL [ ] F. OTHER [ ] G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
07 26,27, 88 (MONTH DAY YEAR)	[X] ACTIVE [ ] INACTIVE	1963 (BEGINNING YEAR) Present (ENDING YEAR) [ ] UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

[ ] A. EPA [ ] B. EPA CONTRACTOR _____ (Name of firm) [ ] C. MUNICIPAL [ ] D. MUNICIPAL CONTRACTOR _____ (Name of firm)
[X] E. STATE [ ] F. STATE CONTRACTOR _____ (Name of firm) [ ] G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Annette Weissbach	Hydrogeologist	WDNR	(414) 497-3151
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Jim Reyburn	Hydrogeologist	WDNR	(414) 497-4397
Al Nass	Env. Specialist	WDNR	(414) 497-3579
Terry Hegeman	Safety Officer	WDNR	(414) 497-3055
Ray Tierney	Hydrogeologist	WDNR	(608) 267-2465
Tom Sturm	Env. Specialist	WDNR	(414) 497-4061

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
[X] PERMISSION [ ] WARRANT	26 July 88 8-10 AM 27 July 88 8-14[00]	26 July Sunny 75° 2-3 mph winds, variable 27 July Cloudy 70° 0-3 mph, variable, lt rain

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Annette Weissbach	Wisconsin-DNR Lake Michigan Dist.	(414) 497-3151

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Same				02, 20, 89 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WI	006132088

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☒ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☒ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE *(Measures of waste quantities must be independent)*

TONS _____

CUBIC YARDS _____

NO. OF DRUMS 30-50 plating sludge

03 WASTE CHARACTERISTICS *(Check all that apply)*

- ☒ A. TOXIC
- ☒ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☒ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☒ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☒ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	30-50	drums	electro plating sludge
OLW	OILY WASTE			
SOL	SOLVENTS	unknown		leaking floor drains / dumping
PSD	PESTICIDES	unknown		?
OCC	OTHER ORGANIC CHEMICALS	unknown		" " "
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	unknown		leaking floor drains / dumping

IV. HAZARDOUS SUBSTANCES *(See Appendix for most frequently cited CAS Numbers)*

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	chromium	7738-94-5	spillage / leakage	295,000	ug/liter
"	"	"		2,910	mg/kg
MES	Barium	7440-39-3	" "	2,970	mg/kg
MES	Lead	7439-92-1	" "	1,500	mg/kg
MES	Mercury	7439-97-6	" "	1.2	mg/kg
MES	Zinc	7440-66-6		13,600	mg/kg
"	"	"	" "	158	ug/liter
OCC	Cyanide		" "	227.9	ug/liter
OCC	"		" "	600.9	mg/kg
SOL	1,1,1-Trichloroethane	25323-89-1	" "	est. 500.0	ug/liter
SOL	1,1 Dichloroethane	75-34-3	" "	37.0	ug/liter
SOL	1,1 Dichloroethene			29.0	ug/liter
SOL	carbontetrachloride	56-23-5		62.0	ug/liter
PSD	4,4-DDT			420.0	mg/kg
PSD	4,4-DDE			190.0	mg/kg

V. FEEDSTOCKS *(See Appendix for CAS Numbers)*

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

→ PSD 4,4 DDD 55 mg/kg

Site Screening inspection - prepared by WDNR Feb 89

EPA FORM 2070-13 (7-81)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
WI	006132088

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 46,400
02 ☒ OBSERVED (DATE: 6/87 & 7/88) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Chromium, zinc, cyanide, volatiles, antimony (?)
295,000 158.0 227.9 500 est 4420
(all results in ug/liter)
Studies indicate upper and lower aquifers are interconnected. All population relies on groundwater for use.

01 ☐ B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 0
02 ☒ OBSERVED (DATE: 4/83) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
5600 ug/liter zinc in a sample of spill waters in storm sewer inlet (4/83).

01 ☐ C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: ~
02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
There are residences immediately adjacent to the site. Heavy metals observed at surface on eastside of Building (see section 4.3.1 in SSI)

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: ~50
02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
good potential for fire or explosion. Electrical system is very old and extensively corroded. 3 huge transformers on power pole directly outside of Building. High power distribution line connected to shop serves entire southwest area of Defere.

01 ☐ E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: ~50
02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
The site is not fenced, heavy metals observed at surficial soils. Site operation is still active

01 ☐ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 1/2 to 1 Acre (Acres)
02 ☒ OBSERVED (DATE: 4/83, 9/85, 2/88) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION 10/86, 6/87, 7/88
Highly contaminated soils on east and south side of building, contamination probably very heavy directly under building to a depth of 12-15 feet
→ chromium, zinc, cyanide, lead, barium, sodium

01 ☐ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 46,400
02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Unconsolidated material beneath site contaminated, top surface of dolomite bedrock contaminated. Studies indicate upper and lower aquifer are interconnected see SSI for further detail.

01 ☐ H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: 4-6
02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
working conditions must be atrocious!

01 ☐ I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: ~50
02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: WI | 02 SITE NUMBER: 006132088

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: 7/1988) — POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Stressed vegetation observed around perimeter of building (grasses mainly)

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
surface water runoff reaching Fox River

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: 5/83, 9/85, 10/86, 2/87) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~50 — 04 NARRATIVE DESCRIPTION
storage of plating sludge inside B building open topped 55 gallon drums (30-50)

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☒ OBSERVED (DATE: 7/88) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
soil contamination on two adjacent properties
see SSI for more details

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☒ OBSERVED (DATE: 4/83) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
spill reported to DNR, runoff to storm sewer. (see SSI)
Wastewater treatment plant refused to take effluent from operations due to lack of pretreatment and poorly functioning pretreatment once installed.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☒ OBSERVED (DATE: 7/88) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
samples taken revealed high zinc and chromium concentrations near entrance door, worker claimed boiler failure but looked like dumping of plating wastes. (see SSI for details

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
please read SSI for complete details

III. TOTAL POPULATION POTENTIALLY AFFECTED: 46,400

IV. COMMENTS
please read SSI for complete details

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
Screening Site Inspection, see also list of references in SSI

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WI	006132088

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND	30-50	55gal
☒ D. TANK, ABOVE GROUND	11	500-3000 gal.
☐ E. TANK, BELOW GROUND	alledged	?
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☒ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER

☐ A. BUILDINGS ON SITE

1

06 AREA OF SITE

(Acres)

07 COMMENTS above ground tank inventory from TAT 10-29-86, Weston-Sher 10/86

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☐ C. INADEQUATE, POOR ☒ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

55gal. Drums are stored inside Bldg., contain = solid plating sludge 26-30
unknow solid 5
NaOCL 5

The tank are vats and contain = caustic, CN, acid rinse water, CN w/grease, soap solution, acid, CN and treated effluent

10/86 Weston

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☐ NO

02 COMMENTS drums and vats are inside building, probably locked at night?

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Screening Site Inspection, WDNR 2/89

EPA FORM 2070-13 (7-81)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WI	006132088

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☐	B. ☒	A. ☒	B. ☐	C. ☒	A. .057 (mi)
NON-COMMUNITY	C. ☐	D. ☒	D. ☒	E. ☐	F. ☐	B. ~ 1/2-1 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER 46,400

03 DISTANCE TO NEAREST DRINKING WATER WELL .057 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
4-5 (ft)	shallow - northwest deeper - northeast	~30 (ft)	4-15 (gpd)	☒ YES ☐ NO

09 DESCRIPTION OF WELLS (Including useage, depth, and location relative to population and buildings)
private wells tend to be cased to dolomite aquifer w/ Boreholes extending to sandstone. municipal wells draw from sandstone. Municipal wells in vicinity mix water and distribute to all communities w/in three miles. Upper and Lower aquifers are interconnected

10 RECHARGE AREA		11 DISCHARGE AREA	
☒ YES ☐ NO	COMMENTS: studies indicate recharge occurs to the west of the site as well as vertically through overburden	☐ YES ☐ NO	COMMENTS: Surficially to Fox River via storm sewer or ravine

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☐ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☒ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

Paper mills require process waters, fishing + recreation

02 AFFECTED/~~POTENTIALLY AFFECTED~~ BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Fox River	☐	1/4 to 1/2 (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 4640 NO. OF PERSONS	B. ~ NO. OF PERSONS	C. 464000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: .014 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: the site is in an urban/residential area

04 DISTANCE TO NEAREST OFF-SITE BUILDING: .014 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)
The site is in a primarily residential area surrounded or mixed with light industrial activity. Within 1 1/2 miles agricultural activity abounds. (west)

EPA FORM 2070-13 (7-81)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WI	006132088

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE *(Check one)*

☒ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK *(Check one)*

☐ A. IMPERMEABLE *(Less than 10^{-6} cm/sec)* ☐ B. RELATIVELY IMPERMEABLE *($10^{-4} - 10^{-6}$ cm/sec)* ☒ C. RELATIVELY PERMEABLE *($10^{-2} - 10^{-4}$ cm/sec)* ☐ D. VERY PERMEABLE *(Greater than 10^{-2} cm/sec)*

dolomite overlying sandstone

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
30 (ft)	0-14 (ft)		

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
~1.0 (in)	2.2 (in)	1.0 %	Northeast	1.8 %

09 FLOOD POTENTIAL

SITE IS IN N/A YEAR FLOODPLAIN

10 N/A ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS *(5 acre minimum)*

ESTUARINE	OTHER
A. N/A (mi)	B. N/A (mi)

12 DISTANCE TO CRITICAL HABITAT *(of endangered species)*

_____ (mi)

ENDANGERED SPECIES: see SSI report sec 5.3

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AGRICULTURAL LANDS AG LAND
A. .038 (mi)	B. .038 (mi)	C. _____ (mi)	D. 2 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

please see description in SSI report (section 3.5.1) (section 2.1)

VII. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

Screening site Inspection Report 2/89

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WI	006132008

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ~~ESTIMATED DATE~~ RESULTS AVAILABLE IN
GROUNDWATER	6		SS1
SURFACE WATER		Organics:	
WASTE		PEI Associates, Inc	
AIR		Cincinnati, Ohio	
RUNOFF		Inorganics:	
SPILL		Environmental Protection Systems	
SOIL	5	Pensacola, Florida	SS1
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HnuPI 101	
Oxygen, H_2S	
methane, pH	
temp, specific	
conductance	

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☒ AERIAL

02 IN CUSTODY OF WDNR-SS1 report A. Weissbach
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS SS1

V. OTHER FIELD DATA COLLECTED *(Provide narrative description)*

general weather conditions
see SS1

VI. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

Site Screening Inspection Feb 1989

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
WI	006132088

II. CURRENT OWNER(S) BUILDING / PROPERTY — LEASEE (If applicable)

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
Everett Hintz		John Zenner	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
519 Lande Street		2984 Albert Drive	

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
Green Bay	WI	54115	Green Bay	WI	54311

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first) — IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

WDNR District Files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WI	006132088

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
John Zenner	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
315 S. Sixth Street	

05 CITY	06 STATE	07 ZIP CODE
De Pere	WI	54115

08 YEARS OF OPERATION	09 NAME OF OWNER
86 to present	same

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
John Zenner			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
315 S. Sixth Street			

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
De Pere	WI	54115			

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
84? - 86	Everett Huntz

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
Everett Huntz			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
315 S. Sixth Street			

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
De Pere	WI	54115			

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
1963 - 84	

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

WDNR - District files

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WI	006132088

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
John Zenner present generator	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE

Everett Hintz past generator

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

Site Inspection Report
WDNR District files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WI	006132688

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE 1989 — 03 AGENCY _____
04 DESCRIPTION Oil sorb placed on spill

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER

II PAST RESPONSE ACTIVITIES *(Continued)*

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED ? — 02 DATE 5-1986 — 03 AGENCY _____
04 DESCRIPTION " Installation of un-ground sewer lines that dont leak" statement (in a letter) made by John Zenner

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

WDNR District Files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
WI	D006132088

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

Please refer to Site Inspection Report
There is also a chronicle of events (several pages) in length available at the District Office

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

WDNR District Files
SSI February 1989

EPA FORM 2070-13 (7-81)

SUPERFUND SITE INSPECTION
SITE AND SAFETY PLAN

Site: Better-Brite Zinc Shop

WID#: 006132088

Location: NW, NE Section 28, T23R, R20E, City of De Pere, Brown County, Wisconsin. The street address is 315 S. Sixth Street.

Date of Inspection: July 26-27, 1988

Inspection Leader: Annette Weissbach, Lake Michigan District, Department of Natural Resources

Other Site Personnel:		Init. *
	Jim Reyburn	JR
	Al Nass	AN
	Tom Sturm	TS
	Terry Hegeman	TH

Approvals:

A Weissbach, 7-11-88
Prepared by — date

Tom McCutcheon, 7-13-88
Approved by — date

Authority: Employees of the State of Wisconsin, under a cooperative agreement with the Environmental Protection Agency, are authorized to take action for the purpose of determining the need for a response (see section 14(e)(1), SARA of 1986).

* Initials indicate Site and Safety Plan has been read and will be abided by.

Attach: Heat Stress Monitoring Information

ADDENDUM

BETTER-BRITE ZINC SHOP SAMPLING PLAN

PROCEDURES FOR SOIL SAMPLING

Four soil samples will be analyzed for metals, cyanide and semi volatiles. This will consist of one 8 oz. wide-mouth jar for metals, one 8 oz. wide-mouth jar for cyanide, and one 8 oz. wide-mouth jar for semi volatiles. One additional sample (three 8 oz. jars) will be taken as a duplicate. The samples will be taken between 0 and 6 inches below the surface. The locations will be as follows:

1. The east side of the building, near Wells #2 and #2A
2. The south side of the building, near Wells #1 and #1A
3. The west side of the building between the side door and the side walk
4. A background sample will be taken near the garage of the Smet property
5. The duplicate will be taken at the south side of the building, near Wells #1 and #1A

Jim Reyburn will be taking the samples using a spade shovel. Between samples the spade will be decontaminated following the standard procedure described elsewhere in this sampling plan.

Thus, there will be a total of fifteen 8 oz. wide mouth jars containing soil samples.

(AD-75)

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: June 20, 1988 File Ref: 4430

To: Kim McCutcheon - SW/3

From: Annette Weissbach - LMD

Subject: Site Sampling and Safety Plan for the **Better-Brite Zinc Shop** Superfund Site Inspection WID#006132088

INTRODUCTION

This plan is being developed to finalize procedures used in obtaining environmental samples from the Better-brite Zinc Shop. A Preliminary Assessment (PA) was completed for this site on March 30, 1988 by WDNR. The site obtained a high priority assessment. Sites with medium or high priority assessments require a site inspection.

The inspection will be conducted under CERCLA Section 104(e)(i) as amended by Section 104(m) or SARA under Section 144.442(a), Wisconsin State Statutes.

BACKGROUND

The facility began operation in 1963, and expanded its operation to another site in the early 1970's. The site was added to CERCLIS in September 1981. Under the Wisconsin Environmental Repair Fund a study was conducted in June 1987 to determine the extent of contamination at the site. The study concluded "some form of remedial action ... is strongly recommended." The facility has a lengthy record of violations both in WDNR Hazardous Waste and Wastewater Management. Currently state enforcement action is underway regarding the improper storage of hazardous waste.

At one time, while using pretreatment, the facility discharged to the sanitary sewer but discontinued because of high levels of contamination in the effluent. An underground holding tank of questionable integrity was used to collect any waste or drainage waters created during the process. This was piped to the sanitary sewer; but often the line was clogged and flooded the loading dock. Huge puddles of wastewater formed in the yard and eventually flowed to the storm sewer. They have no authorized transporter of hazardous waste. DISPOSAL METHOD UNKNOWN.

The facility is leased for $1 and is currently involved in zinc plating. The property owner is bankrupt and 30-50 drums are stored on site. The leasee claims the drums belong to the owner.

The following chemicals have been found in groundwater and soil samples:

Chromium, Zinc, Lead, Cyanide, Cadmium, 1,1,1 Dichloroethane, 1,1 Dichloroethylene, 1,1,1 Trichloroethane, Trichloroethylene, and Tetrachloroethylene.

TOPOGRAPHY

In general, the site is relatively flat with elevations ranging from 601.9 ft to 603 ft MSL. Practically the entire property is black topped. The site is bounded to the west by Sixth Street, to the south by the Smet Property, and to the east the Progressive Farmers Cooperative. The area is primarily residential with light industry. The Fox River is located approximately 1/2 mile to the north and east.

GEOLOGY AND HYDROGEOLOGY

The site is underlain primarily by Lacustrine - Silty Clay (CL) with lenses and seams consisting of silts, silty sands, clayey sands, and gravels. Dolomite bedrock with some limestone and shale (Ordovician-Sinnepee Group), can be found approximately 30 feet from the surface. The piezometric surface of the bedrock aquifer dips about 5 feet across the site to the northeast. The water table surface has a slight slope to the northwest. There appear to be strong downward gradients in the silty clay. Also, even though the permeabilities of the soils are low (1.9×10^{-8} to 9.0×10^{-9} cm/sec), the clays are fractured and probably provide for secondary permeability. Significant chrome contamination was detected in both shallow and deep wells at the Zinc Shop.

SITE USE

The facility has been in operation since 1963 and continues to be active today. Work involves the zinc plating of metal objects. It is likely that chrome was plated in the early part of the operation.

OBJECTIVES

The objective of this operation is to collect groundwater and soil samples to verify releases of hazardous substances through the Contract Lab Program. The site may effect a potential population of 46,400 through a release to the groundwater.

PROCEDURES

Groundwater samples will be taken from four (4) monitoring wells, one house sump, and one municipal well . Sampling will be performed in the following order (representing least to most Chromium and VOC contaminated from sampling round in summer 1987):

	Location	Total VOC	Cr (ug/l)	Zn (ug/l)
1.	Well #2	-	< 3 (Jan 87)	< 20
2.	Smet sump	-	5800 (Jun 86)	80
3.	W-3	ND	2,300	68
4.	W-3A	789	40,000	< 20
5.	W-1A	183.5	180,000	120
6.	W-2A	10.2	310,000	31

The following field measurements will also be taken and recorded: pH, specific conductance, water elevation, and water temperature.

The monitoring wells will be purged using a 1.66 inch O.D. teflon or stainless steel bailer. Groundwater elevations will be taken prior to bailing as will a reading with the HNU meter of head space in the well. The volume of water in the well will be computed using table 5 of WDNR groundwater sampling procedures outlines PUBL WR-168 87. Most wells are screened into the relatively impermeable clays and may be bailed dry. Purged water will be collected and contained in the calibrated 5-gallon plastic pail and contents discarded into the approved sanitary sewer inlet. The teflon bailer is being used to minimize absorption of the VOCs and reduce introduction of contaminants. 1/8" 4SB Nylon rope (nonreuseable) will be used to lower the bailer. The bailers are not dedicated and, between wells, will be triple rinsed with distilled water, acetone and 10% nitric acid rinse.

One field blank of distilled water, one rinse blank and one field duplicate sample will be taken along with appropriate matrix duplicates for QA/QC purposes. All samples will be analyzed for volatiles, semi-volatiles, and metals.

EQUIPMENT AND SUPPLIES

The following equipment will be used:

Have Packed

Safety Equipment

have packed

Air Escape Masks
~~Fire Extinguishers~~
First-Aid Kit
~~Portable Eye/Face Wash Unit~~
~~two-way communication system~~
Exotox Model 40 Tri-gas Meter
- Oxygen
- Hydrogen Sulfide
- Flammable gas (LEL methane)

HNU meter, model PI 101

Personnel Clothing and Equipment -- LEVEL D --

Aprons (for Post-SI lab work)
Boots (neoprene safety/steel toe and shank)
Tyvek Suits (one piece/disposable)
Gloves (neoprene or suitable composition)
~~Hard Hats~~
Latex Gloves (disposable)
Outer Boot Covers
Safety Glasses
Tool Kit
Masking tape

Sampling Equipment

0.45 micron Filters and Prefilters
Bailer Cord (nylon)
Bailers (teflon, stainless steel)
Calibrated Buckets
Easy troll down rigger/step ladder
Geofilter Apparatus
Peristaltic Pump
pH Meter and Buffers (4, 7, and 10)
Plastic Sheeting (for ground cover)
Rinse Bottles
Silicone Tubing
Transfer Bottles
YSI Model 3000 T-L-C Meter
- Temperature
- water level
- self-correcting conductivity

Support Equipment and Office Supplies

Air Bills
Chain-of-Custody Forms
Field Book
Camera
Calculator
Coolers
Drinking Water Dispenser

___	___	~~Sampling Van~~
✓	___	Ice
___	✓	Indelible markers, pens, and pencils
___	✓	Overhead Tarp (with rope and stakes)
✓	✓	Polyethylene Bags (various sizes for bottles)
✓	___	Receipts for Samples
✓	___	Sample Label Tags
___	✓	Tape (masking, cellophane, and strapping)
✓	___	Traffic Reports
✓	___	Vermiculite

Decontamination Equipment

___	✓	Aluminum Foil
___	✓	Brushes
___	✓	Edit (detergent)
___	___	~~Garbage Cans~~
✓	___	Hand and Face Soap
___	✓	Hudson Sprayer
___	✓	Paper Toweling
___	✓	Trash Bags
___	✓	Wash Tubs
___	✓	Acetone Rinse
___	✓	10% Nitric Acid Rinse
___	✓	Carboys (distilled-quantity 4, tap-quantity 2)

All monitoring wells will be bailed and sampled using teflon and stainless steel bailers. The bailer will be cleaned prior to use, using acetone as described on page 51 of publication 168. In the field it will be decontaminated using methods specified in the same section. In the lab after sampling is completed, the bailers will also be rinsed with a 10% nitric acid solution. A 6 x 6 piece of 4-mill plastic will be centered around the well to reduce introduction of contaminants. The bailer is bottom loading; a specially designed bottom-emptying-device will be inserted in the bottom to transfer the sample to containers and therefore minimize volatilization of contaminants.

Sampling will comply with Chapter 1, Sections C-J, of the ground-water monitoring procedures guidelines and Chapter 2, Sections C-I, for private water supply wells. The sample containers are provided by the contract laboratory. We will expect that they will comply with exhibit F of the QAPP. Likewise, chain of custody in document control will be according to exhibit G of this reference.

Equipment will be cleaned in the decontamination area where practical. Rinse water will be emptied into the sanitary sewer inlet at a nearby site. Discarded items (ie. Tyvek

suits, masking tape, etc..) will be placed in plastic trash bags, removed from the site and disposed of in a dumpster at the office.
After sample bottles are filled, they will be preserved (if necessary per the groundwater sampling procedure guidelines), sealed, rinsed to clean them, labeled, tagged, and placed on ice. All appropriate information such as field measurements, sample I.D. numbers, person obtaining and handling samples, etc., will be recorded in the sampling field notebook or other documents.

LOGISTICS

Equipment and personnel will be transported to the site from LMD HQ in a state-owned, full-sized station wagon. Personnel and equipment from the Central Office will be transported to the site in a state-owned, full sized station wagon. Samples will be taken to Appleton and sent via federal express to the contract laboratory. The federal express office is located in the Outagamie County Airport, telephone number 414-738-7010. This office is open until 7:30 p.m.

SAMPLING REPORT

A sampling report will be prepared by Annette Weissbach after completion of sampling. This report will summarize personnel present, equipment used, problems encountered, deviations from the sampling plan, and other appropriate information. Two copies will be sent to Robin Schmidt-SW/3. The original will be kept in the District Superfund Inspection File.

SITE SAFETY:

Inspection Leader

Annette Weissbach, Superfund Hydrogeologist, Lake Michigan District

Planned Site Activities

Department employees have been granted access to the site by the Trustee. The owners of adjacent properties containing monitoring wells have also granted access. The site is well known and all members of the site inspection team are familiar with it. The Department has received permission from the City of De Pere Wastewater Treatment Plant to dispose of bail and rinse waters into the sanitary inlet on a nearby site. SI personnel will not enter any on-site buildings.

Logistics

A Central Office station wagon and a LMD station wagon will be used to transport equipment to the site.

A meeting will be held prior to the site inspection to discuss among all personnel the following:

1. Assignment of duties
2. Inspection procedures
3. The nearest medical facilities
4. Emergency procedures
5. Restriction, hygiene

Safety

All people entering the exclusion zone or contaminant reduction zone will wear Level D.

Level D was chosen based on the following rationale:

1. The Site is known to all SI personnel
2. Groundwater and soil samples have been taken over the past several years
3. Contaminant concentrations are documented

Protective Equipment

At a minimum the following will be worn:

Boots (neoprene safety/steel toe and shank)
Tyvek Suits (one piece/disposable)
Gloves (neoprene or suitable composition)
Hard Hats
Latex Inner Gloves (disposable)
Outer Boot Covers (disposable)
Safety Glasses
Full Face Shields for personnel involved in groundwater sampling

Anticipated Hazards

-risk of splash when taking samples
-slip, trip, and fall are most likely
-risk of acid burns from preserving samples
-heat exhaustion if temperatures are very hot

Monitoring Requirements

A Hnu PID with 11.7 eV probe will be used for ambient air monitoring for organics.

A Exotox Model 40 Tri gas meter will be used for oxygen, combustible gases, and hydrogen sulfide (not expected to be found).

Readings will be taken from ambient air every hour and from head space in each monitoring well immediately after cap removal.

If Hnu readings 5 ppm above background are encountered in ambient air at breathing level, work will cease. Likewise, if combustible gas levels of 25% LEL are encountered, work will cease. If levels are between 10% to 25% caution will be exercised.

Due to the anticipated hot weather, SI personnel will be instructed to be aware of heart rate and body temperature. The safety officer will be instructed to recognize signs associated with heat rash, heat cramps, heat exhaustion, and heat stroke. Rest breaks will be taken whenever necessary to assure the well being of all personnel. Gator aid and water will be available at all times. Arrangements will be made to offer shade and an air conditioned car will also be available.

Team Organization

Team member	Responsibilities	
Annette Weissbach	Site manager gw sampling	
Jim Reyburn	soil sampling gw sampling	
Al Nass	gw sampling photo documentation	
Terry Hegeman	air sampling safety officer* back up	off-site
Tom Sturm	sample preservation and packing decontamination	off-site
C.O. staff	to be determined	

*The safety officer is not permitted in the exclusion zone since he did not have the opportunity to take the required 8 hour refresher course. However, he can serve as safety officer for the following reasons:

1. All monitoring wells are within 50 feet of the exclusion boundary
2. On-site personnel can easily be observed from an off-site location

Initial Procedure

- locate nearest telephone
- confirm location of emergency numbers and route to hospital
- designate vehicle for emergency use
- determine prevailing wind direction and establish support zone, contaminant reduction zone, and exclusion zone
- zero monitoring instruments up wind off site
- perform site inspection

Work Limitations

- no eating, drinking, or smoking on site
- no ignition sources
- buddy system in effect at all times in exclusion zone
- no entry into confined spaces
- no drugs or alcohol during or prior to work
- gloves must be worn until sample bottles thoroughly decontaminated
- work restricted to daylight hours
- no working if thunder or lightning observed
- continuous air monitoring to occur while in exclusion zone

Decontamination Procedures

- wash and rinse outer gloves (repeat as necessary)
- tear away tyvek suit (place in plastic garbage bag)
- wash and rinse boots
- remove latex inner gloves and place in garbage bag
- wash hands and face thoroughly

Disposal Practices

- all wash and rinse water will be disposed of in the designated sanitary sewer inlet
- garbage will be wrapped and disposed of in dumpster at LMD HQ

Emergency Information

a. St. Vincent Hospital - Emergency Center (433-8383) located at 835 S. Van Buren Street, Green Bay

b. City of De Pere Fire Department and Emergency Rescue Squad can be contacted by dialing 911

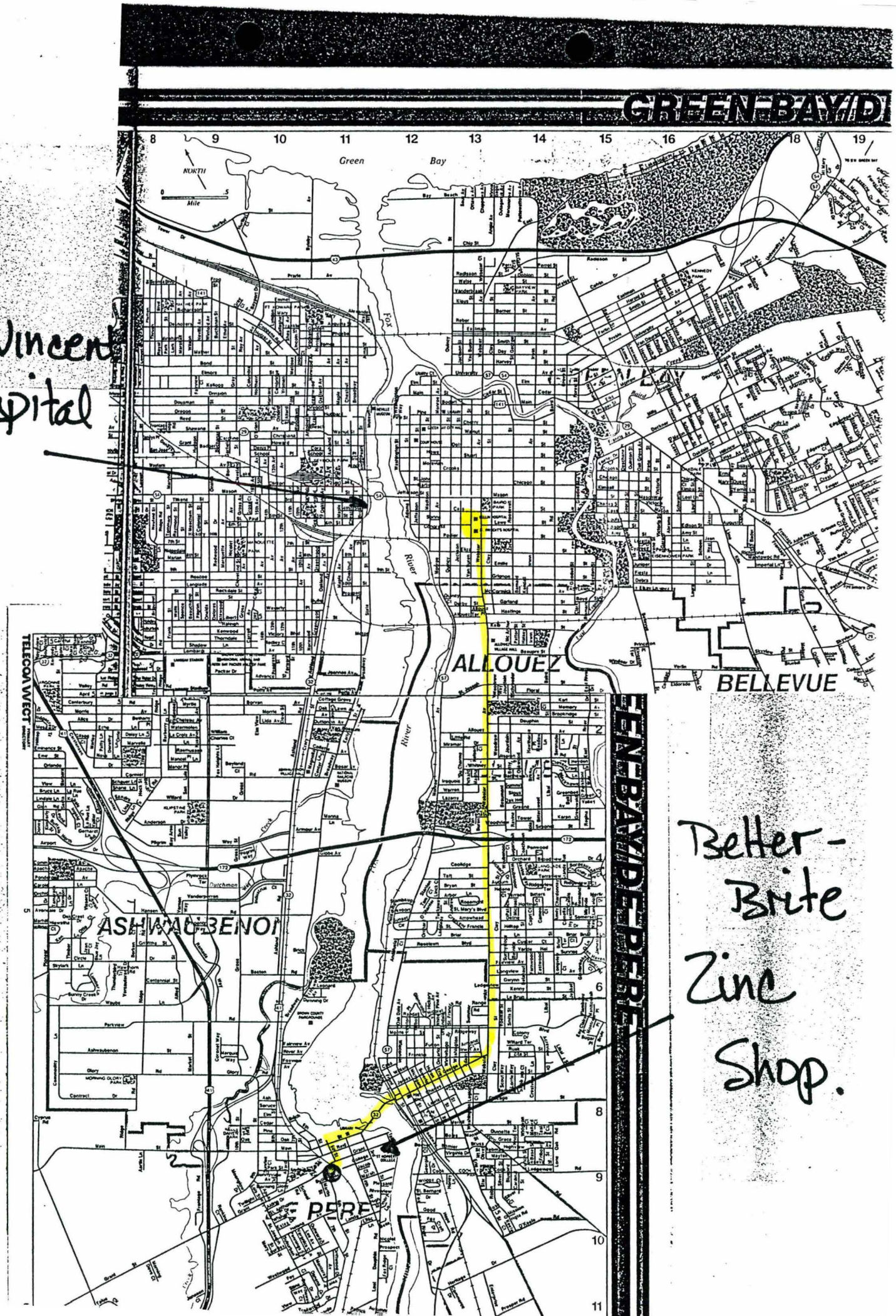
c. The Poison Control Center is also located at 835 S. Van Buren Street and can be contacted by dialing (433-8100)

Emergency Routes

See attached map

Prepared by, 6-24-88

Prepared by Date


GREEN BAY/DE PERE
Green Bay
NORTH
Mile
Fox River
ALLOUEZ
BELLEVUE
ASHWAUBENON
DE PERE
TELECOM WEST
St. Vincent Hospital
Better-Brite Zinc Shop.

State of Wisconsin
Department of Natural Resources

GROUNDWATER MONITORING WELL INFORMATION FORM

Chapter 144, Wis. Stats.
Form 4400-89

2-84

Facility Name	Facility ID Number	Date	Completed By (Name and Firm)
Better Brite Plating- Zinc Site		Aug. 31, 1987	Paula Lejer-Engelhardt, STS Consulants, Ltd.

Well Name	Well ID Number (DNR No.)	Well Location	N	S	E	W	Date Established	Well Casing Diam.	Well Casing Type	Elevations: Top of Well Casing	Elevations: Ground Surface	Elevations: Screen Top	Reference: MSL (✓)	Reference: Site Datum (✓)	Screen: Length	Screen: Material	Well Depth	Type of Well (✓): PIEZ	OW	PW	LYS	Other
W-1		931	X				6-1-87	2"	P	605.09	603.1	577.1	X		5'	PVC	31.0'	X				
		1060			X																	
W-1A		931	X				6-1-87	2"	P	605.07	603.1	599.3	X		15'	PVC	18.8'		X			
		1064			X																	
W-2		957	X				6-2-87	2"	P	604.85	602.8	577.7	X		5'	PVC	30.1'	X				
		1132			X																	
W-2A		952	X				6-2-87	2"	P	604.77	602.8	597.7	X		15'	PVC	20.1'		X			
		1132			X																	
W-3		1008	X				6-2-87	2"	P	602.52	602.6	577.4	X		5'	PVC	30.2'	X				
		1021			X																	
W-3A		1008	X				6-2-87	2"	P	602.53	602.8	598.2	X		15'	PVC	19.6'		X			
		1017			X																	

Wells to be sampled.

Location Coordinates Are:

☒ Grid System

State Plane Coordinate
☐ Northern
☐ Central

Received In:

District: _____ Area: _____ Bureau: _____

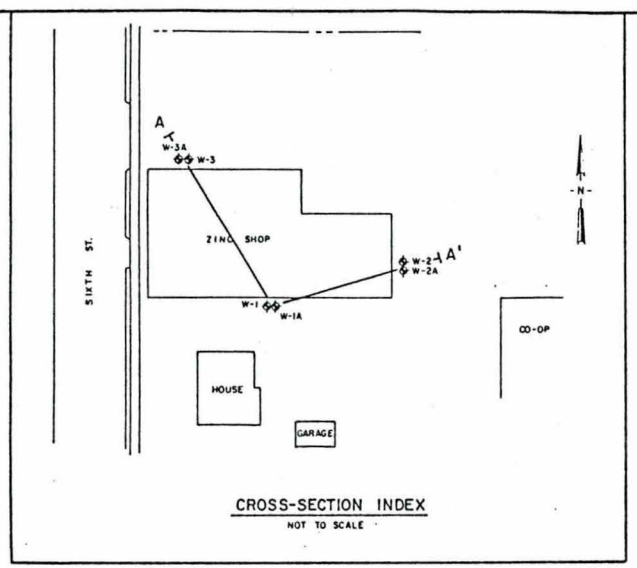
By: _____

SMS Use:

File Maint. Completed: _____ Date

Other: _____

Belkobrite Zinc Shop
STS report Oct 21, 1987

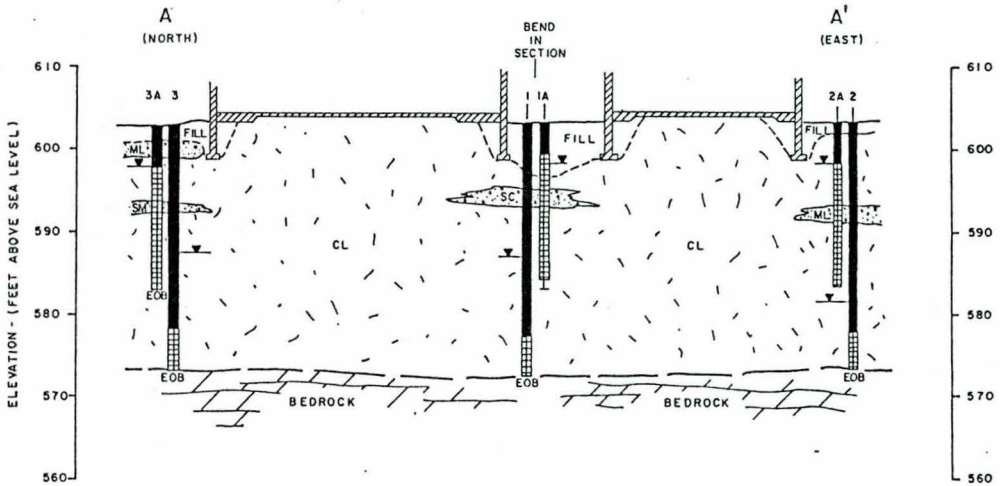


CROSS-SECTION INDEX
NOT TO SCALE

LEGEND

SYMBOL	UNIFIED CLASSIFICATION	DESCRIPTION
	CL	LACUSTRINE - SILTY CLAY
	ML, SM, SC, GC	LACUSTRINE - SILTS, SILTY SANDS, CLAYEY SANDS AND GRAVELS. FOUND AS ISOLATED LENSES AND SEAMS.

GEOLOGIC CROSS-SECTION A-A'



C. Heat Stress Monitoring

For monitoring the body's recuperative ability to excess heat, one or more of the following techniques should be used as a screening mechanism. Monitoring of personnel wearing protective clothing should commence when the ambient temperature is 70 degrees Fahrenheit or above. Frequency of monitoring should increase as the ambient temperature increases or if slow recover rates are indicated. When temperatures exceed 80 degrees F workers must be monitored for heat stress after every work period.

- Heart rate (HR) should be measured by the radial pulse for 30 seconds as early as possible in the resting period. The HR at the beginning of the rest period should not exceed 110 beats per minute. If the HR is higher, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest period stays the same. If the pulse rate is 100 beats per minute at the beginning of the next rest period, the following work cycle should be shortened by 33%.

- Body temperature should be measured orally with a clinical thermometer as early as possible in the resting period. Oral temperature (OT) at the beginning of the rest period should not exceed 99 degrees Fahrenheit. If it does, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest period stays the same. However, if the OT exceeds 99.7 degrees Fahrenheit at the beginning of the next period, the following work cycle should be further shortened by 33%. OT should be measured again at the end of the rest period to make sure that it has dropped below 99 degrees Fahrenheit.

- Body water loss (BWL) due to sweating should be measured by weighing the worker in the morning and in the evening. The clothing worn should be similar at both weighings; preferably the worker should be nude. The scale should be accurate to plus or minus 1/4 lb. BWL should not exceed 1.5% of the total body weight. If it does, workers should dbe instructed to increase their daily intake of fluids by the weight lost.

Ideally, body fluids should be maintained at a constant level during the work day. This requires replacement of salt lost in sweat as well.

Good hygienic standards must be maintained by frequent change of clothing and daily showering. Clothing should be permitted to dry during rest periods. Persons who notice skin problems should immediately consult medical personnel.

D. Effects of Heat Stress

If the body's physiological processes fail to maintain a normal body temperature because of excessive heat, a number of physical reactions can occur ranging from mild (such as fatigue, irritability, anxiety, and decreased concentration, dexterity, or movement) to fatal. Standard reference books should be consulted for specific first aid treatment. Medical help must be obtained for the more serious conditions.

Heat-related problems are:

- Heat rash: caused by continuous exposure to heat and humid air and aggravated by chafing clothes. Decreases ability to tolerate heat as well as being a nuisance.

- Heat cramps: caused by profuse perspiration with inadequate fluid intake and chemical replacement (especially salts). Signs: muscle spasm and pain in the extremities and abdomen.

- Heat exhaustion: caused by increased stress on various organs to meet increased demands to cool the body. Signs: shallow breathing; pale; cool; moist skin; profuse sweating; dizziness and lassitude.

- Heat stroke: the most severe form of heat stress. Body must be cooled immediately to prevent severe injury and/or death. Signs: red, hot, dry skin; no perspiration; nausea; dizziness and confusion; strong, rapid pulse; coma. Medical help must be obtained immediately.