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TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

Mr. Duane Heaton
Deputy Project Officer
Emergency Support Section, 5 HS-12
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

September 26, 1990

TAT-05-G2-02123

Re: Kenco Plating Company, Wyandotte, Michigan
TDD# 5-9002-31

Dear Mr. Heaton:

On February 27, 1989, the United States Environmental Protection Agency (U.S. EPA) tasked the Technical Assistance Team (TAT) to respond to a report of a chemical release from the Kenco Plating Company (Kenco) in Wyandotte, Wayne County, Michigan (Figure 1). This letter report summarizes the TAT involvement pursuant to this task.

Kenco is owned by Ken Porter and is involved in the dyeing and plating of metal parts. The Kenco site is located in a mixed residential and light industrial area at 2140 Seventh Street and is bordered by Cedar Street to the south, Seventh Street to the east, Mt. Carmel Cemetery to the west, and an industrial/commercial building to the north (Figure 2). Several private residences are located directly south of Kenco on the south side of Cedar Street. Railroad tracks are located approximately 600 feet east of the site.

According to Michigan Department of Natural Resources (MDNR) files, the Wayne County Department of Public Services (WCDPS) received a complaint in May, 1989 from a resident who lives near the Kenco site. The complainant reported that an oily, greenish-black material was being discharged from two holes in the south wall of the facility. The complainant claimed that such releases have occurred periodically during the last few years.

Subsequent to the complaint, Dan Helm of the WCDPS, conducted a site investigation at the Kenco site and observed stressed vegetation, two holes in the south wall of the facility which had been patched with tar, and brown stains along the north side of Cedar Street. The stains extended along the street toward a sewer. During the inspection, Ron Martin, plant manager at Kenco, informed Mr. Helm that a release had occurred in April, 1989, when a sump overflowed due to a malfunctioning air compressor. Mr. Helm recommended that Mr. Martin collect two soil samples from the area

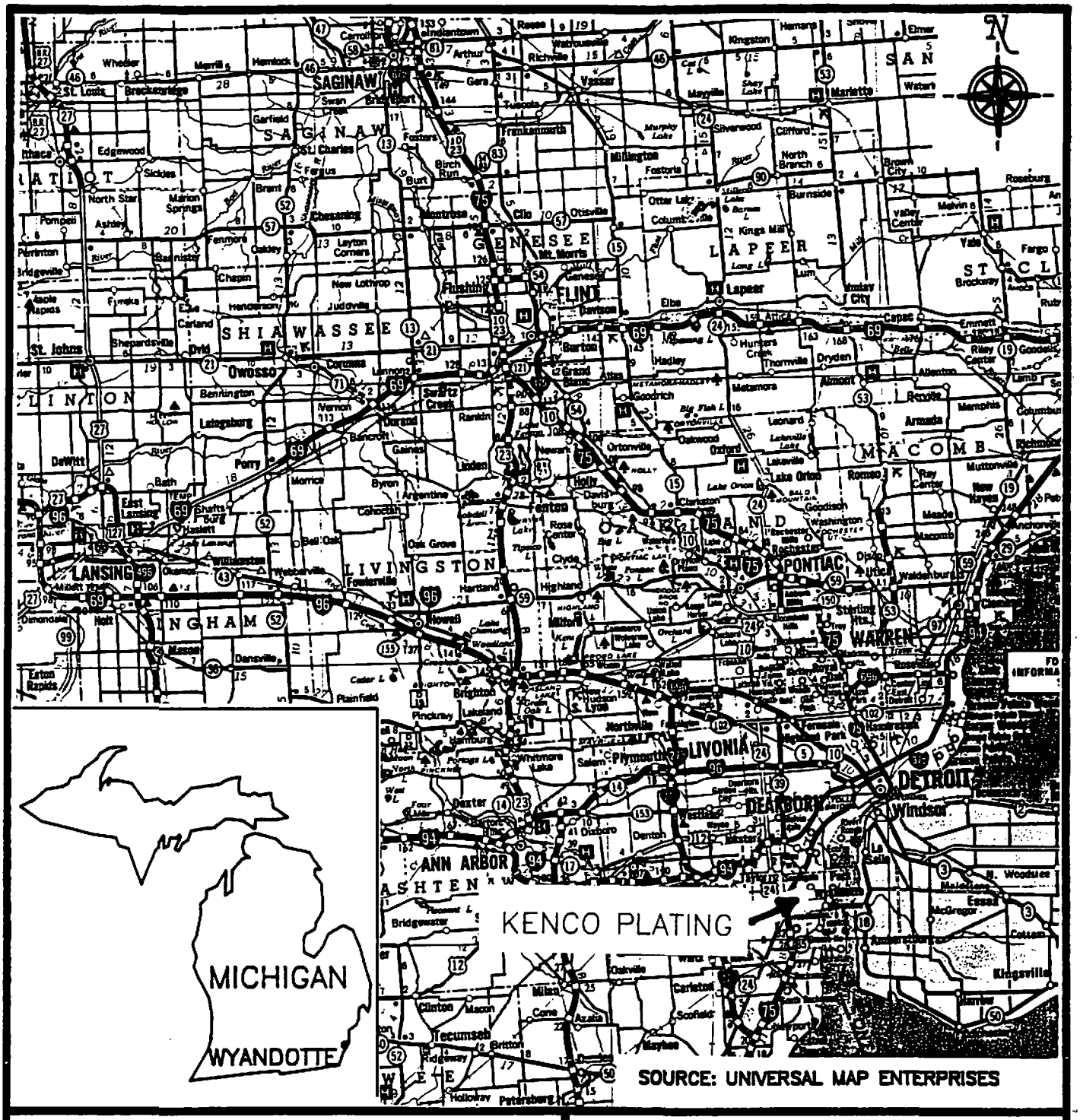

FIGURE 1

SITE LOCATION MAP

KENCO PLATING

WYANDOTTE, MICHIGAN

SCALE: 1 INCH = 14 MILES

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REGION V TECHNICAL ASSISTANCE TEAM

DRAWN BY	DATE	PCS #
BDV	2/28/90	2635
APPROVED BY	DATE	TDD #
D. CAPONE	9/19/90	5-8001-31

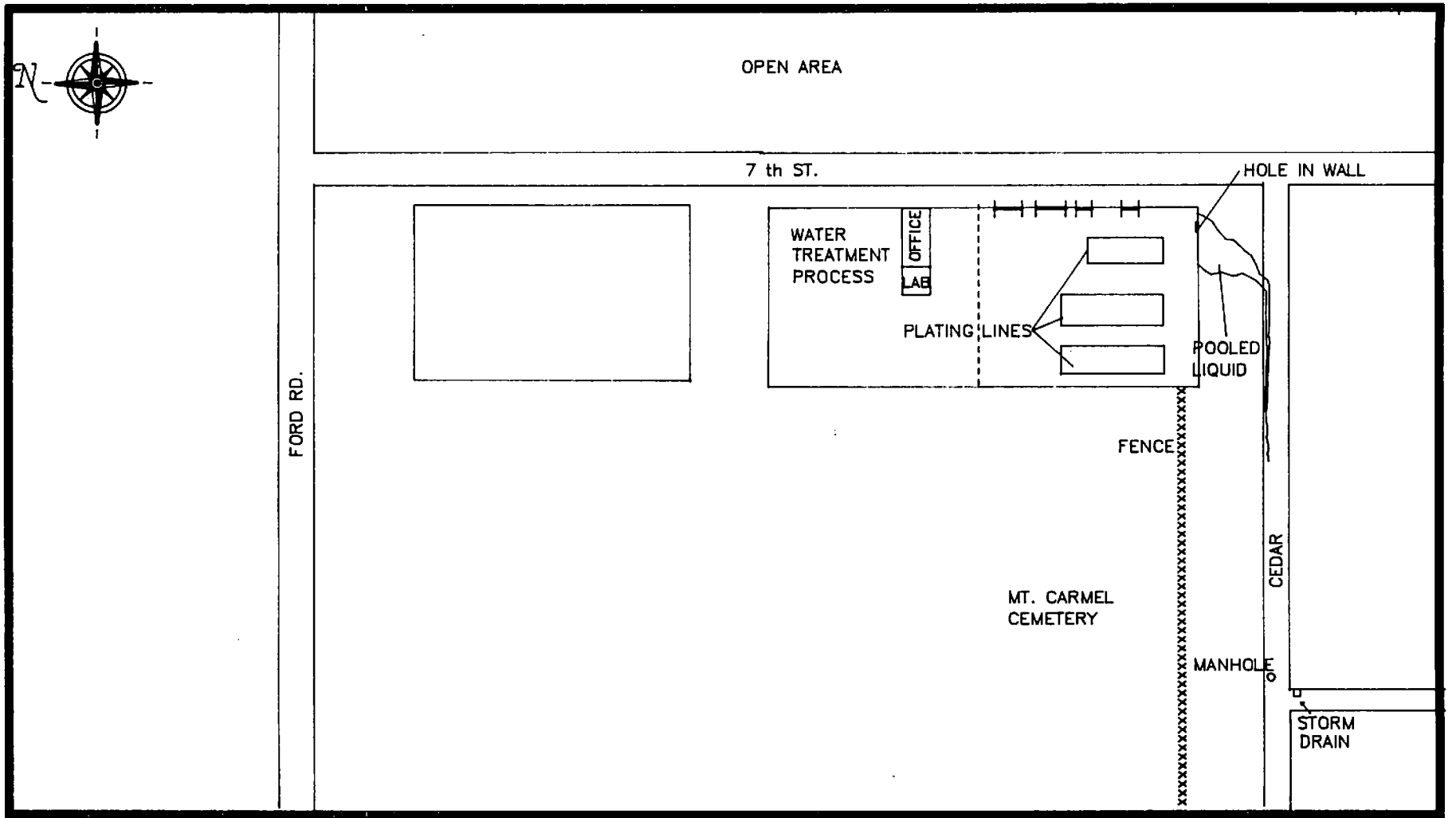

FIGURE 2

SITE MAP

KENCO PLATING

WYANDOTTE, MICHIGAN

NOT TO SCALE

WESTON MANAGERS DESIGNERS/CONSULTANTS

MAJOR PROGRAMS DIVISION

REGION V TECHNICAL ASSISTANCE TEAM

DRAWN BY DSD	DATE 2-28-90	PCS # 2635
APPROVED BY D. CAPONE	DATE 9/19/90	TDD # 5-9001-31

of stressed vegetation at the south side of the facility, and submit the samples for analysis.

Analytical results of samples collected by Mr. Martin dated July 1989, indicated the presence of cyanide at levels of 32 and 16 parts per million (ppm) in two soil samples collected from the area of stressed vegetation. Mr. Martin informed the TAT that soils were excavated following receipt of the analytical results and the excavated area was backfilled with soils obtained from the nearby cemetery.

On the morning of February 27, 1990, the Emergency and Enforcement Response Branch (EERB) of the U.S. EPA received an anonymous complaint reporting the release of a green liquid waste from Kenco. In response to the complaint, U.S. EPA On-Scene Coordinator (OSC) Partap Lall notified the Wyandotte Police Department (WPD). The WPD then notified the Wyandotte Fire Department (WFD), who arrived at the Kenco site at approximately 1030 hours. The WFD then contacted the U.S. EPA for further assistance.

TAT members Dan Capone, Cheryl Kreindler, and Ann Benda responded to the site of the release at 1200 hours. The WFD was at the site and had delineated the release area with hazard tape. The plating facility ceased production and its water supply valve was shut off. The TAT observed a small pool of bright yellow liquid at the south side of the building near a hole in the wall of the facility. The liquid had migrated approximately 200 feet west of the facility along Cedar Street toward a storm drain. The liquid was not being released at the time of the TAT investigation and standing snow on the ground appeared to temporarily control further flow of the liquid toward the sewer. The liquid appeared to have originated from a hole (approximately six inches in diameter) in the cement block wall of the facility at ground level. A second hole, located a few feet to the west of the discharge hole, had apparently been cemented over.

Lieutenant John Gregurich (WFD) informed the TAT that Mr. Martin had claimed that the discharged liquid had accumulated in the southeast corner of the plating facility. The TAT was also informed that the hole in the wall was made to allow drainage of the liquid from the facility.

A nearby resident showed OSC Lall and the TAT photographs of liquid releases from Kenco which he had obtained during the previous summer and stated that liquid releases have occurred periodically since spring of 1989.

The TAT and OSC Lall then entered the plant to speak with Mr. Martin. Discussions between OSC Lall and Mr. Martin revealed that the plant has had difficulty locating the ultimate source of the release from within the plant. A plumber had recently investigated and updated certain components of their system, but the problem was not rectified. Mr. Martin further stated that the release occurs only when the water supply valve is open, regardless of whether the plant processes are in operation.

Air monitoring readings were taken just above the liquid and in the immediate vicinity of the release using a photoionization detector (HNU), a combustible gas indicator (CGI), and a radiation meter. All readings were at background levels.

The TAT collected one sample of the pooled liquid (S61), one composite soil sample within the area of the release (S62), a sediment sample from the bottom of the liquid pool (S63), and a background soil sample from across Cedar Street (S64) (Figure 3). OSC Lall requested that the samples be analyzed for total metals, total cyanide, and pH. Additionally, he requested that the liquid sample be tested for flash point. Samples were analyzed by Analytic and Biological Laboratories in Farmington Hills, Michigan on February 28, 1990 under TAT Analytical Services TDD# 5-9002-L07. Analytical results of these samples are presented in Table 1.

Samples S61, S62, and S63 contained elevated levels of chromium and zinc. Cyanide was also detected in all three samples at concentrations ranging from 8.9 to 16.6 ppm. The flash point of the pooled liquid sample was greater than 200 degrees Fahrenheit.

As the TAT was completing sampling at the Kenco site, Mr. Martin and another Kenco employee collected the standing liquid from the puddles for storage inside the plant.

Subsequent TAT and OSC observations and discussions with Mr. Martin revealed the following:

- the stained soil area had been excavated to a depth of approximately six to eight inches on March 12, 1990;
- the excavated soil was being stored in five drums inside the plant which Mr. Martin agreed to properly dispose of;
- and the stained soil area was backfilled with soil on March 20, 1990.

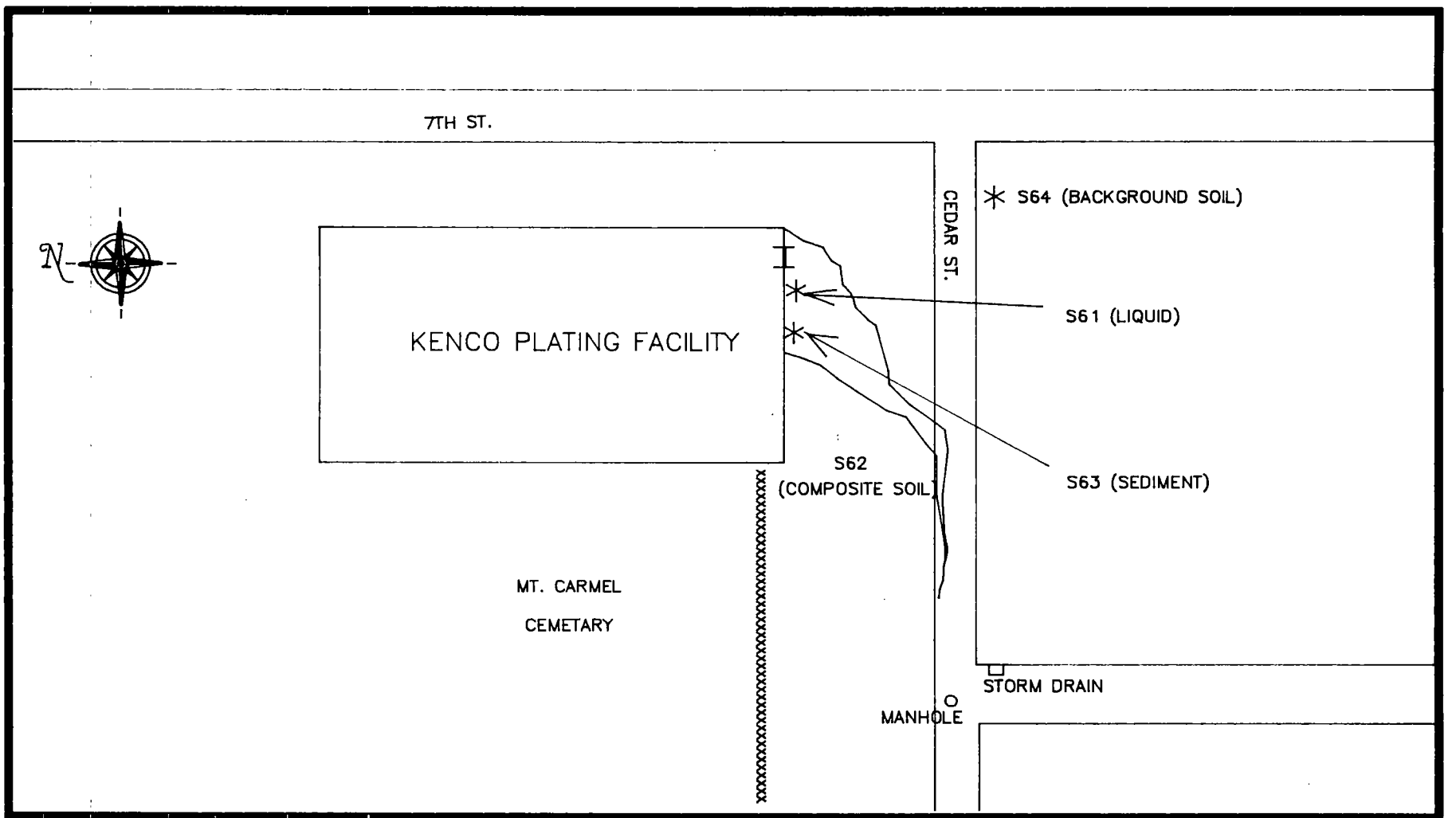

FIGURE 3

TAT SAMPLE LOCATION MAP – 2/27/90

KENCO PLATING

WYANDOTTE, MICHIGAN

NOT TO SCALE

WESTON MANAGERS DESIGNERS/CONSULTANTS MAJOR PROGRAMS DIVISION

REGION V TECHNICAL ASSISTANCE TEAM

DRAWN BY BDV	DATE 3/1/90	PCS # 2635
APPROVED BY D. CAPONE	DATE 9/19/90	TDD # 5-9001-31

TABLE 1
ANALYTICAL RESULTS OF SAMPLES COLLECTED BY TAT[a]
TOTAL METALS, TOTAL CYANIDE, pH, FLASH POINT
KENCO PLATING SITE
WYANDOTTE, MICHIGAN
February 27, 1990

(All results in parts per million unless otherwise indicated.)

PARAMETER	POOLED LIQUID (S61)	ON-SITE COMPOSITE SOIL (S62)	SEDIMENT UNDER LIQUID (S63)	BACKGROUND SOIL (S64)
METALS				
ALUMINUM	4.66	3720	3210	2340
BARIUM	0.146	21.2	16.6	29.8
BERYLLIUM	ND	0.194	0.236	0.226
CADMIUM	10.2	9.8	84.8	ND
CALCIUM	96.8	20,500	31,500	11,600
CHROMIUM	177	370	1670	10.4
COBALT	ND	2.64	2.58	2.2
COPPER	28.6	108	392	7.12
IRON	71.6	7260	10,700	3980
LEAD	ND	10.1	33.4	25
MAGNESIUM	67	7240	10,300	4260
MANGANESE	4.38	140	172	228
NICKEL	ND	4.92	9.1	4.86
POTASSIUM	59	418	782	424
SODIUM	1540	1820	1920	432
ZINC	248	842	5180	39.4
TOTAL CYANIDE	11.59	16.56	8.86	ND
pH (UNITS)	7.19	9.82	6.07	8.18
FLASH POINT (°F)	>200	NA	NA	NA

a - Analysis performed by Analytic and Biological Laboratories, Inc., Farmington Hills, Michigan.
ND - Not detected at method detection limits.
NA - Not analyzed.

On July 12, 1990, the TAT was informed that the soils were properly disposed of at Chem-Met Services, Inc., in Wyandotte, Michigan. Copies of the paperwork were submitted to the TAT and to the U.S. EPA documenting this disposal.

Should you have any questions, or require additional information, please feel free to contact us.

Very truly yours,

ROY F. WESTON, INC.

Sally Matz

FOR Ann Benda
Environmental Scientist

William R Doyle

William R. Doyle
Technical Assistance Team
Leader, Region V

AB/jj
Attachment
cc: P.C. Lall, OSC

ATTACHMENT A

SITE PHOTOGRAPHS

PHOTOGRAPH NUMBER: 1
SITE: KENCO PLATING
DATE/TIME: 2/27/90 1400
DIRECTION: NORTHWEST
PHOTOGRAPHER: A. BENDA A. Benda
CAMERA: KODAK 35 MM
SUBJECT: SOUTH SIDE OF KENCO PLATING FACILITY. HOLE IN CINDER BLOCK IS LOCATED JUST ABOVE GROUND LEVEL.

PHOTOGRAPH NUMBER: 2
SITE: KENCO PLATING
DATE/TIME: 2/27/90 1400
DIRECTION: NORTH
PHOTOGRAPHER: A. BENDA A. Benda
CAMERA: KODAK 35 MM
SUBJECT: HOLE IN SOUTH WALL AT KENCO PLATING, POOLED LIQUID, AND STAINED SOILS.

PHOTOGRAPH NUMBER: 3
SITE: KENCO PLATING
DATE/TIME: 2/27/90 1400
DIRECTION: NORTH
PHOTOGRAPHER: A. BENDA A. Benda
CAMERA: KODAK 35 MM
SUBJECT: AREA JUST WEST OF HOLE ON SOUTH WALL OF PLANT WHERE IT APPEARS THAT A PREVIOUS HOLE HAS BEEN CEMENTED OVER.

PHOTOGRAPH NUMBER: 4
SITE: KENCO PLATING
DATE/TIME: 2/27/90 1415
DIRECTION: ---
PHOTOGRAPHER: A. BENDA A. Benda
CAMERA: KODAK 35 MM
SUBJECT: STAINED SOIL/SEDIMENT AT SOUTH SIDE OF PLANT.

PHOTOGRAPH NUMBER: 5
SITE: KENCO PLATING
DATE/TIME: 2/27/90 1415
DIRECTION: WEST
PHOTOGRAPHER: A. BENDA
CAMERA: KODAK 35 MM
SUBJECT: STAINS AND LIQUID WEST OF PLANT ALONG CEDAR ST.

PHOTOGRAPH NUMBER: 6
SITE: KENCO PLATING
DATE/TIME: 2/27/90 1300
DIRECTION: NORTHEAST
PHOTOGRAPHER: C. KREINDLER
SUBJECT: WASTEWATER TREATMENT PROCESS AT NORTH END OF PLANT.

PHOTOGRAPH NUMBER: 7
SITE: KENCO PLATING
DATE/TIME: 2/27/90 1315
DIRECTION: SOUTH
PHOTOGRAPHER: C. KREINDLER C. Kreindler
SUBJECT: PLATING LINES AT SOUTH END OF KENCO PLANT.

PHOTOGRAPH NUMBER: 8
SITE: KENCO PLATING
DATE/TIME: 2/27/90 1420
DIRECTION: SOUTHWEST
PHOTOGRAPHER: A. BENDA A. Benda
CAMERA: KODAK 35 MM
SUBJECT: TAT MEMBER KREINDLER OBTAINING COMPOSITE SOIL SAMPLE S62.

PHOTOGRAPH NUMBER: 9
SITE: KENCO PLATING
DATE/TIME: 3/30/90 1100
DIRECTION: NORTH
PHOTOGRAPHER: A. BENDA Ann Benda
SUBJECT: DRUMS CONTAINING CONTAMINATED SOILS EXCAVATED FROM SOUTH SIDE OF KENCO PLATING BUILDING.

PHOTOGRAPH NUMBER: 10
SITE: KENCO PLATING
DATE/TIME: 3/30/90 1115
DIRECTION: WEST
PHOTOGRAPHER: A. BENDA Ann Benda
SUBJECT: AFFECTED AREA ON SOUTH SIDE OF PLANT BACKFILLED WITH SOIL.