AFI
ENVIRONMENTAL
A Division of Buffalo Environmental Consultants, Inc.
6101 Robinson Road • Lockport, New York 14094

February 23, 1995 **FAX LETTER**

Mr. John Minichiello
Waste Management of New York
101 Ontario Street
East Rochester, New York 14445

RE: Remedial Soil Investigation **FINAL/REVISED DRAFT PLAN**
Downing Container Services- 191 Ganson St., Buffalo, NY
AFI Project No. H1025.1

Dear Mr. Minichiello:

Enclosed, please find the revised draft copy of the Ganson Street Remedial Action Plan. This is in response to your review and mark ups. We are ready to begin as soon as the snow is off the study area or sooner if you desire to have the snow scraped.

Please advise.

Should you have any questions or comments please don't hesitate to call me at the Lockport office.

Sincerely,

AFI ENVIRONMENTAL,

William L. Heizenrater
Principal

encl.
H1025/LETTERS/MNCHL16

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REMEDIAL ACTION PLAN

DOWNING CONTAINER
191 GANSON STREET, BUFFALO, NEW YORK

PROJECT #H1025

PREPARED FOR:

WASTE MANAGEMENT OF NEW YORK
125 PERINGTON PARKWAY
FAIRPORT, NEW YORK
14450

PREPARED BY:

AFI ENVIRONMENTAL
6101 ROBINSON ROAD
LOCKPORT, NEW YORK
14094

FEBRUARY, 1995

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1.0 INTRODUCTION

1.1 BACKGROUND

AFI Environmental has prepared this *Remedial Action Plan* (RAP) on behalf of Waste Management of New York, Inc. This RAP is intended to address petroleum impacted soil and sediment encountered at the Downing Container Facility located at 191 Ganson Street, Buffalo, New York (Figure 1). This facility is the storage yard and repair shop for Waste Management of New York's Downing Container Division's garbage pickup , roll-off and rental operation. This RAP was prepared to address potential areas of environmental concern (AECs) identified in a Phase I Investigation conducted on October 1994 and a modified Phase II Investigation completed on December 1994. The ESA and subsequent Phase II Investigation resulted in the detection of low level organic, inorganic, and PCB constituents in soil and sediment samples collected at the Ganson Street site. The areas of the site in which constituents were indicated include the following (refer to Figure 2).

The chemical analysis of sediment samples collected from within the storm sewer staging areas and gas islands indicated the presence of semi-volatile organic compounds (SVOC), PCBs metals at concentrations which may exceed NYSDEC guidance levels. Potential sources which may have individually or collectively resulted in the impact to sediment and soil samples include petroleum based fluids utilized for facility operations; runoff of liquids from the garbage trucks or roll off boxes and fluid leakage from parked trucks and automobiles. Potential pathways of releases from these sources to the storm water control system include; runoff received by the storm sewer from the exterior rolloff and truck staging area or fueling islands; and runoff from the parking area captured by the storm sewer.

1.2 PURPOSE AND OBJECTIVES

Waste Management of New York, Inc. has retained AFI Environmental to investigate further the areal extent and composition of impacts in an attempt to identify the cost to mitigate existing soil/sediment contamination at their 191 Ganson Street Waste Management facility. This RAP has been developed for the private use of Waste Management, but in accordance with NYSDEC guidance memorandum. This plan presents the results of previous investigations at the project site; and outlines the scope of the proposed remedial investigative program, and the equipment and procedures to be utilized to evaluate the areal extent of soil and sedimentary contamination to determine the cost of remediation/disposal.

1.3 SCOPE OF WORK

The remedial program proposed for implementation at the Ganson Street facility consists development of a site specific sampling plan in an attempt to characterize the aerial extent of chemical constituents identified in the soils, through establishment of a grid sampling system in

each of the three (3) areas identified as: areas of potential concern (AECs); during the recently completed Environmental Phase I and Modified Phase 2 Investigations. The scope of work required to accomplish these remedial objectives includes the following:

- o Identify three (3) general Investigative areas.
- o Establish a Sampling Grid at each area.
- o Identify Soil Sample Collection techniques.
- o Identify Sample Composite Homogenization techniques.
- o Provide a site specific and Health and Safety Plan.

2.0 SITE DESCRIPTION

Figure 1 graphically depicts the property location on Ganson Street south of the intersection with Michigan Avenue in the City of Buffalo, Erie County, New York, which is included on the Buffalo SE NY - 7.5 minute quadrangle of the United States Geological Survey (USGS). The site is approximately 4.78 acre in size and contains one office building, one repair/maintenance garage, one detached office trailer, and gravel driveways and parking areas. The site is generally flat with a very slight slope to the east towards the Buffalo River. As shown on Figure 1, the elevation of the property is approximately 580 feet above mean sea level. Site drainage is accomplished by means of uncontrolled overland flow from the stone driveway and parking area to the east, and a series of four catch basins located in the north central portion of the site. These catch basins discharge to the Buffalo Sewer Authority combined stormwater/sanitary sewer system.

The site is currently owned by Downing container Service, Inc. Figure 2 illustrates the current site plan. The property is bounded by Ganson Street to the west, Integrated Waste Systems, Inc. to the north, Roy Track, Inc. to the east, and General Portland, Inc. to the south and east. All the surrounding properties are industrial in nature.

Current zoning maps were not available for the site, however, based on the nature of the businesses in the area, it is presumed that the site and surrounding properties are zoned heavy industrial. The site is serviced by municipal water and a combined sanitary/storm sewer system. Other utilities included natural gas from National Fuel and electric from Niagara Mohawk. The gas is routed to the main building through underground pipes from Ganson Street. Electric is delivered through overhead lines from Ganson Street.

According to the *Soil Survey of Erie County, New York*, the project site is characterized as having urban soils (Ud). This indicates that 80 percent or more of the soil surface is covered by asphalt, concrete, buildings,or other impervious structure. These areas are mostly nearly level to gently sloping.

Groundwater was encountered at the site in each of the monitoring wells. Static water levels measured in the monitoring wells ranged from 2.88 to 8.02 feet below ground surface. Regional groundwater flow direction, inferred from topographic maps, is generally towards the northwest and northeast to the discharge area represented by the Buffalo Ship Canal and the Buffalo River respectively. Local variations in groundwater flow, however, may occur in the site vicinity.

The Federal Emergency Management Association (FEMA) Flood Insurance rate Map (Panel No. 360230 0020) was consulted to determine the flooding potential of this site. It was determined that the site is not located within the one-hundred year or five hundred year flood plains of any waterway, with the exception of the extreme southern tip of the property (< 10 percent), which slightly impinges on the five hundred year floodplain of the Buffalo River.

3.0 PREVIOUS STUDIES

3.1 PHASE I ENVIRONMENTAL ASSESSMENT

AFI Environmental performed a Phase I Environmental Assessment (ESA) of the project site in September, 1993. This ESA was conducted in accordance with the procedures outlined in American Society for Testing and materials (ASTM) Practice E1527-93. As a result, the following items were disclosed:

- o There is one RCRIS-TS (Treatment, Storage and Disposal) facility located within 1.0 mile radius of the site. This facility has numerous violations associated with ignitable wastes, heavy metals, and chlorinated solvents.

- o The waste hauling operation occupying the subject property was identified as a RCRIS-LG large quantity generator of the following waste types:

  - a solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste (D001).

- o Additionally, one other RCRIS-LG large quantity generator is located within 0.25 mile radius of the site. This site generates the following waste types:

  - a solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste (D001).
  - a solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste (D002).

- o One RCRIS-SG small quantity generator is located within 0.25 mile radius of the site. This site generates the following waste types:

  - spent non-halogenated solvents (F003,F005); and
  - a solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste (D001).

- o The site itself is a listed petroleum bulk storage facility. Additionally, two petroleum bulk storage tank sites are located within a 0.25 mile radius of the subject property:

- o There are three LST (Leaking Storage Tanks) sites located within 0.5 radius of the subject property.

3.2 PHASE I CONCLUSIONS

In accordance with the conclusions drawn in the Phase I ESA Report, the property owner (Waste Management of New York Inc.), in consultation with AFI Environmental, elected to implement a Phase II investigation to examine the subsurface and groundwater of the subject property. The purpose of the investigation was to determine the presence or absence of environmental impacts on the site.

3.3 MODIFIED PHASE II INVESTIGATION

The Phase II subsurface investigation was performed during the period of October 23 to November 2, 1994 with supplemental soil sampling conducted on December 6, 1994. This investigation was conducted in accordance with the investigation plan developed by AFI Environmental. The final report was issued in December 1994.

3.3.1 SOIL BORINGS

Ten (10) soil borings were installed manually using a three (3) inch bucket auger. Soil samples obtained from the bucket auger, from a depth of 0.5' to 1.0', were immediately placed in properly labeled sample containers sealed with tin foil and a screw on cap for screening as described in section 4.3.2. Each soil boring was abandoned following the completion of auguring/sampling activities by backfilling with auger cuttings from the respective borehole.

3.3.2 SEDIMENT SAMPLES

Three (3) sediment samples were collected from each of the three onsite catch basins. The samples were collected using a shovel to remove some material from the bottom of the catch basin. Each sediment sample obtained from the catch basins were immediately placed in properly labeled sample containers sealed with tin foil and a screw on cap for screening. Excess material collected from the catch basins was returned to the bottom of the catch basins.

3.3.3 SAMPLE COLLECTION/SCREENING AND ANALYSIS

The sample collection/screening and analysis program implemented at the project site involved the collection of one (1) groundwater sample from each monitoring well; as well as the field screening of soil and sediment samples to enable the selection of two (2) soil samples from the ten (10) soil borings and one (1) sediment sample for chemical analysis. All sample collection and screening measures were performed in accordance with accepted protocols by an experienced AFI Environmental Geologist. All samples were place in appropriately labeled sample containers for transport under proper chain of custody record to Lozier Laboratories for chemical analysis.

3.3.4 SOIL

Soil samples obtained from split-spoons were screened for total organic vapors (TOVs) utilizing an HNu PID after equilibrating at room temperature for one (1) hour. After removing the screw on cap, the foil seal of the sample container was pierced with the probe of the PID, and a measurement was recorded. PID measurements were zero for all split spoon samples collected during monitoring well installation and ranged from 0ppm to 0.7 ppm for the ten (10) soil and three (3) sediment samples.

Two (2) samples of the ten (10) soil borings and one (1) sediment sample from the three (3) drainage inlets were selected for chemical analysis based upon the results of field screening. The three (3) soil/sediment samples with the highest measured TOV concentration were placed in a laboratory precleaned and properly labeled sample containers and placed on ice in a cooler for transport under proper chain of custody records to Lozier Laboratories. All soil samples underwent testing in accordance with EPA SW-846 Method 8240 for VOCs, TCL Semi-VOCs by method 8270, TCL Pesticides/PCBs by Method 8080, RCRA Metals by Method 6010/7000s, and Cyanide by Method 9012.

3.3.5 SOIL RESULTS

Analytical results from the two (2) soil samples and one (1) sediment sample collected from the project site have indicated the presence of a number of volatile organic compounds (VOCs) and semi volatile organic compounds (SEMIVOCs) commonly associated with petroleum constituents, possibly from fuel oil. Further, PCB-1260 was detected at all locations sampled and analyzed, with the highest concentration at location #9.

Based upon the location from which soil samples containing significant concentrations of VOCs and SEMIVOCs were collected; one can assume that impacts to the soil near the former UST location (location #10) and the fueling/container staging area (location #11) has occurred as the results of minor spillage or leaks. This assumption is consistent with the field screening data.

3.3.6 GROUNDWATER

The chemical analysis of groundwater samples collected from the overburden monitoring wells installed on the site, did not indicate the presence of petroleum constituents in exceedance of NYSDEC guidance values. Based on a comparison with applicable guidance valued established by the NYSDEC STARS Memo #1 and NYSDEC TAGM dated January 24, 1994, it appears that none of the constituents encountered in the soil/sediments have entered the groundwater at any of the areas monitored. Further, it appears that constituents originating from areas off-site are not migrating on-site via the groundwater flow system and that the onsite constituents are not migrating offsite via the groundwater system.

3.4 PHASE II CONCLUSIONS/RECOMMENDATIONS

AFI Environmental collected a total of three (3) soil/sediment and five (5) groundwater samples from the project site for analysis pursuant to NYSDEC Petroleum-Contaminated Soil Guidance Policy. The resulting analytical data was assessed to determine if petroleum impacted soil was present and to characterize groundwater quality. In general, impacted soil was encountered in varying degrees in the areas sampled. In this case we don't know that the values exceed the NYSDEC requirements because of the analytical method selected for analysis. It is possible that some of the particular constituents levels could exceed the NYSDEC STARS limits, but this is unknown because TCLP analysis was not performed. The area of the former UST (sample location #10) demonstrated higher levels for VOCs and SEMIVOCs, than the truck fueling/waste container staging area (sample location #11). However, the sludge/sediment sample (sample location #14) collected from the surface water runoff collection inlet was highest of all, especially for Acetone and Toluene (39,000 and 62,400 ppb respectfully). PCB-1260,

4.0 REMEDIAL INVESTIGATION

The investigation proposal by AFI Environmental involves the collection and analysis of a series of soil and sediment samples from three distinct areas; the storm sewer, the UST area, and northeast rolloff staging area. This sampling and analysis program was developed to:

- o To evaluate constituent concentrations with respect to regulatory levels using TCLP Extraction Protocol; and

- o Chemically profile potentially impacted soils and determine rough quantities for disposal at an appropriately permitted facility.

4.1 SAMPLING TECHNIQUES

The proposed sampling techniques for soil sample collecting is described in the following subsections. All samples will be collected by an AFI Environmental field scientist and placed

in precleaned laboratory sample bottles, which will be labeled with the sample number, date and time of collection, sampler's initials, and the analysis requested.

4.1.1 Homogenized Composite Samples

Homogenized composite samples will be assembled to characterize background soil quality and to chemically profile soils contained within the area showing previous evidence of contamination.

4.1.2 STATISTICAL SAMPLING GRID

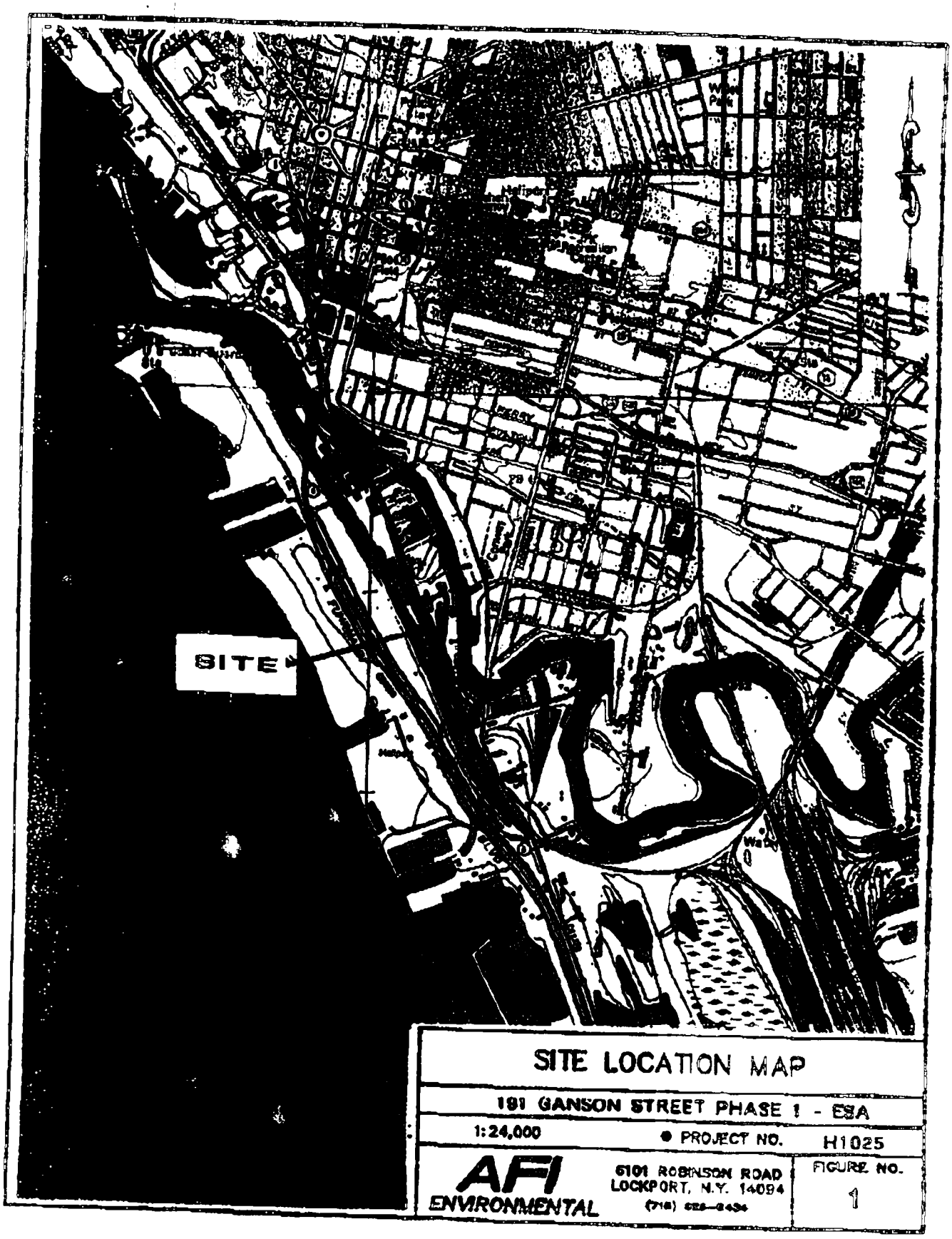
Each are to be investigated will be sectioned off into a statistical sampling grid consisting of two (2) components. The grids will be broken into near field and far field sections. The near field section will consist of the section within a square box whose length is 25 feet centered in the area of the original sampling location. The far field section will consist of a larger square box concentric to the first box, whose length is 125 feet. The near field section will be divided in a grid pattern where the intersections of the x and y axis are on 5 foot intervals, thereby creating 36 intersections. The far field zone will be divided into a grid pattern where the intersections of the x and y axis are on 25 foot intervals thereby creating a grid pattern with again 36 intersections. Five (5) subsamples will be randomly collected from each section and homogenized into a composite sample from each section with a total of two (2) samples from each area to be analyzed for TCLP Stars Volatiles and TCLP Stars Base Neutrals. These will result in a total of six (6) samples plus, field duplicate to be sent to Lozier Labs for analysis.

4.2 ANALYTICAL TESTING

All soil and sediment samples will be transported under proper chain of custody records to Lozier Laboratories, Rochester, New York, immediately following collection. All samples will undergo testing for the Toxicity Characteristic Leaching Procedure (TCLP) STARS Volatiles 1311(8021), and semi-volatile organic compounds (SOCs) in accordance with EPA SW-846 Method 1-311/8220. These analytical methods were selected based upon discussion with Waste Management of New York personnel and due to the types of contaminants identified as a result of earlier investigations of the project site. In addition to internal laboratory quality assurance/quality control (QA/QC) procedures, one (1) field duplicate will be analyzed.

5.0 CONCLUSIONS

Comparisons of the analytical data with applicable regulatory standards and/or guidance values will indicate the toxicity characteristics with respect to constituents analyzed. The data will be adjusted to correct for the dilution factor and compared to the applicable regulatory standards to determine if disposal is warranted and to estimate the rough quantities of disposal.



SITE LOCATION MAP

191 GANSON STREET PHASE I - ESA

1:24,000 ● PROJECT NO. H1025

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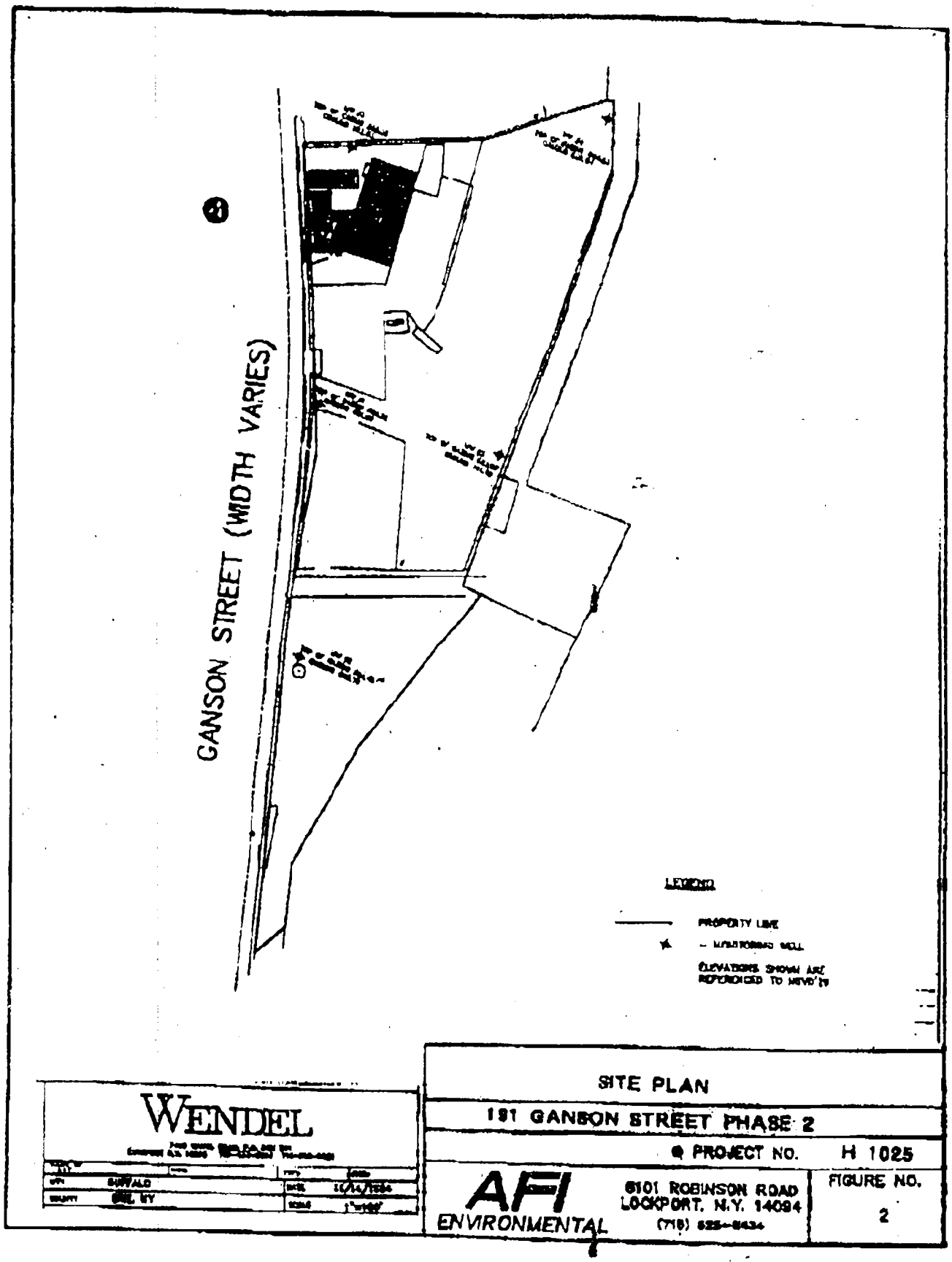
FIGURE NO. 1



WENDEL

	BUFFALO	DATE	12/14/1994
	ERIE, NY	SCALE	1"=100'

SITE PLAN

191 GANSON STREET PHASE 2

PROJECT NO. H 1025

AFI ENVIRONMENTAL

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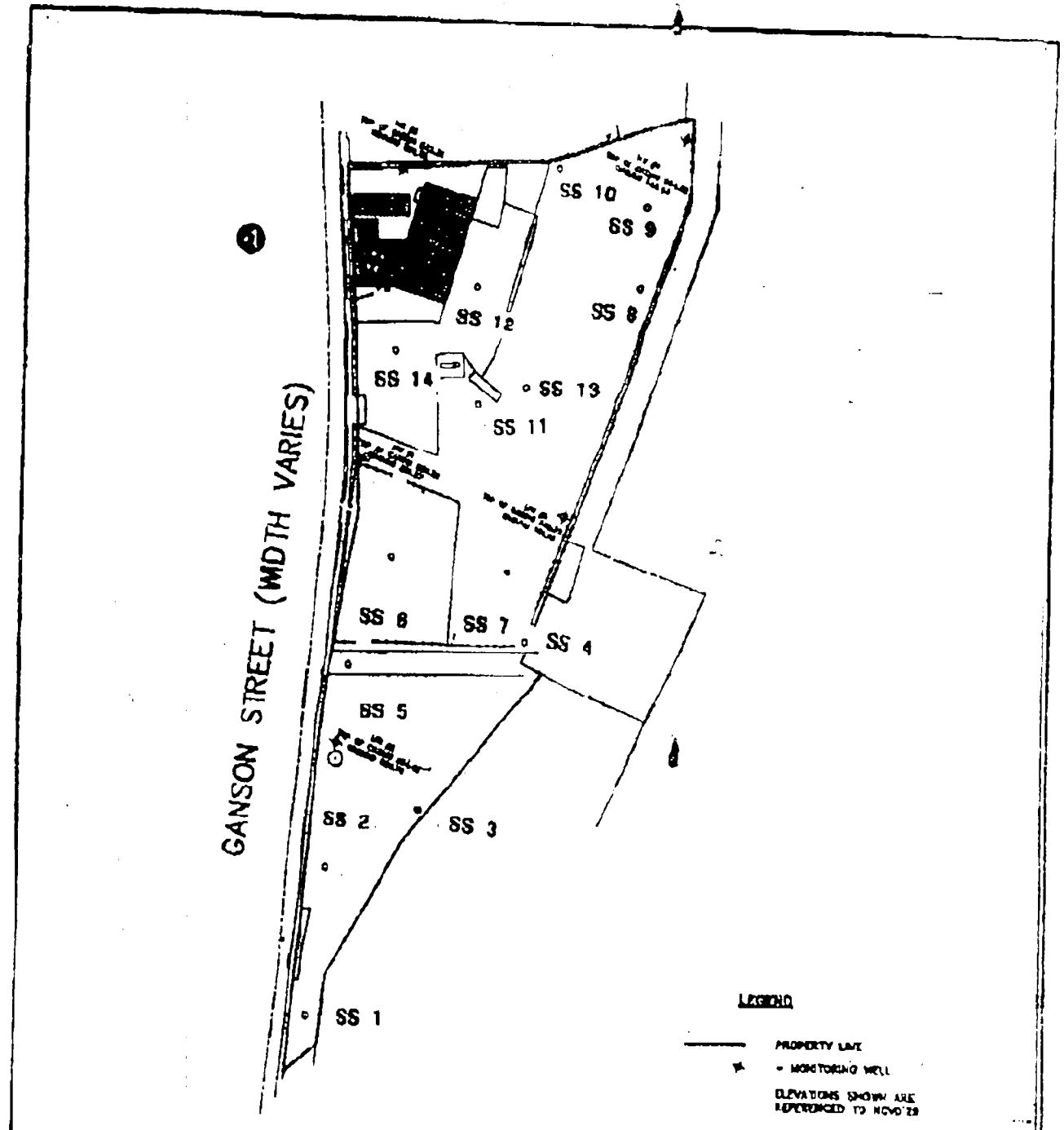
FIGURE NO. 2



WENDEL

SOIL SAMPLE LOCATIONS

191 GANSON STREET PHASE 2

PROJECT NO. H 1625

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FIGURE NO. 3


6 29'95


6 29'95