ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK

PHASE II INVESTIGATIONS

Fedders Automotive Components
Site No. 915024
City of Buffalo, Erie County

February 1992

Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233

Thomas C. Jorling, Commissioner

Division of Hazardous Waste Remediation

Michael J. O'Toole, Jr., P.E., Director

Prepared by:

Ecology and Environment Engineering, P.C.

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1. EXECUTIVE SUMMARY

1.1 SITE DESCRIPTION AND BACKGROUND

The Fedders Automotive Components Company site (site I.D. number 915024) is located at 57 Tonawanda Street in the City of Buffalo, Erie County, New York (see Figures 1-1 and 1-2). The approximately 2-acre site is situated in an urban commercial and industrial area with the nearest residential area, an older urban neighborhood, about 0.5 mile to the north. The site is located immediately adjacent to and west of Scajaquada Creek.

The Fedders Quiggins Corporation, established in 1915, became the Fedders Automotive Components Company (Fedders) in the 1940s. Since its establishment in 1915, Fedders has manufactured automotive components such as radiators, heaters, and transmission oil coolers. Current processes at the site include metal stamping, soldering, brazing, welding, and painting. Acid-washing and degreasing also are conducted as part of the on-site manufacturing activities.

The industrial wastes generated from plant operations include solder dross, degreasing still bottoms (trichloroethylene [TCE] and formerly tetrachloroethene), and lubricating fluids (petroleum and vegetable-based oils). With the exception of solder dross, which is recycled, and plant waste water, which is discharged to the sanitary sewer system, all of the plant's wastes are drummed and transported off site for disposal (Pinke 1991).

In 1974, the Erie County Department of Environmental Quality, Air Pollution Control Division, instructed Fedders to implement some means of fugitive dust control for their parking area. The company subsequently spread on the parking lot approximately 165 gallons of waste oil per year from 1974 to 1976. Conflicting reports have indicated that the

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practice continued until 1981. Although Fedders officials stated that the oils used for dust control were light lubrication oils and hydraulic fluids, it is thought that the oils may have contained polychlorinated biphenyls (PCBs). In 1981, the parking lot was covered with gravel; therefore, no further actions to control dust were necessary (NYSDEC 1986).

The parking lot in question was also the former location of numerous buildings including one that housed furnace kilns. Between 1936 and 1942, the building and kilns were demolished and the demolition material was used as on-site fill, possibly along with other imported fill, to raise the elevation of this formerly low lying area (NYSDEC 1986, 1989b).

A Phase I investigation was conducted at the site in March 1985 by Engineering-Science, Inc. in association with Dames and Moore for the New York State Department of Environmental Conservation (NYSDEC). No soil or water samples were collected during this investigation. An air monitoring survey conducted during the site inspection with an HNu photoionizer revealed no air emission readings above 1 part per million (ppm).

A site investigation report was prepared by Advanced Environmental Services, Inc. (AES) and Conestoga-Rovers and Associates (CRA) in September 1989 at the request of Fedders. The investigation included the installation of two shallow monitoring wells (piezometers) and the collection of groundwater, surface soil, and subsurface soil samples. The samples were analyzed for Target Compound List (TCL) volatiles, PCBs, and petroleum products (water samples only). PCBs were detected in two surface soil samples at concentrations of 4.4 ppm and 34.2 ppm. The latter sample was collected adjacent to a bank of live transformers (used to supply light and power to the adjacent building) along the east side of the site (see Figure 1-1). PCBs were also detected in one subsurface soil sample at 0.17 ppm. Volatile organics detected in soil samples included ethylbenzene, TCE, toluene, styrene, methylene chloride, and xylenes. Volatiles detected above current NYSDEC Class GA standards included vinyl chloride, ethylbenzene, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethene (1,2-DCE), 1,1,1-trichloroethane (1,1,1-TCA), TCE, and benzene.

Upon review of the Phase I investigation report, NYSDEC concluded that further investigation of this site was warranted. The results of the AES and CRA study supported this finding.

1.2 PHASE II INVESTIGATION

To evaluate the extent of contamination at the site, determine the potential risk to human health and the environment, and accurately calculate a final Hazard Ranking System (HRS) score, a number of investigative tasks were performed at the Fedders site. The Phase II field investigation begun by Ecology and Environment Engineering, P.C. in April 1990 included a site reconnaissance, a geophysical survey, and the collection and analysis of subsurface soil, groundwater, surface water, and sediment samples at selected on-site and adjacent property locations.

Prior to the site inspection conducted as part of the site reconnaissance, a detailed record and file search was initiated to review existing data and identify data gaps. A limited air monitoring survey was conducted during the site reconnaissance using a photoionization detector and a flame ionization detector. Two geophysical survey methods were used to optimize the selection of locations of the wells and test boring and to reduce the risks associated with drilling into unknown terrain. The collection and analysis of various samples were conducted to determine the presence of contaminants and assess their potential for migration.

1.3 SITE ASSESSMENT

The air monitoring surveillance conducted during the site inspection and subsequent field activities indicated the absence of organic vapors at any level above background throughout the Phase II investigation. Electromagnetic ground conductivity (EM31) and total earth magnetic field (magnetometer) measurements both yielded anomalous measurements that were interpreted to represent surface and subsurface features at the site.

Surficial deposits at the site consist of fill material from 4 to 14 feet deep. The bedrock beneath the site, Camillus Shale at depths estimated between 50 and 80 feet, was not encountered in any of the

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wells or the test boring. The Camillus Shale is gray to grayish brown and varies from a thin-bedded shale to a massive mudstone.

Three groundwater monitoring wells were installed to monitor overburden groundwater at the site. One of the wells was hydraulically upgradient of the fill area and two of the wells were downgradient along Scajaquada Creek. The depth to the water table in these wells was measured prior to sampling and ranged from 2.65 to 5.11 feet below ground surface.

Groundwater, surface water, and sediment from Scajaquada Creek and subsurface soil samples were collected and analyzed for TCL volatile organic compounds, semivolatile organic compounds, pesticides, PCBs, inorganic metals, and cyanide.

Four volatile organic compounds (VOCs) were detected in the groundwater sample from GW-2 at levels in excess of NYSDEC Class GA standards. These include 1,1-DCA at 53 µg/L, total-1,2-DCE at 340 µg/L, 1,1,1-TCA at 370 µg/L, and TCE at 640 µg/L. Related chlorinated organic compounds were detected in downstream sediment and subsurface soils. Other VOCs found in soil samples include toluene, ethylbenzene, and total xylenes.

Semivolatiles detected at the site include phenol above the Class GA standard at 16 µg/L in GW-3 and polynuclear aromatic hydrocarbons (PAHs) in soil and sediment. Concentrations of PAHs ranged from 3,900 µg/kg to 34,000 µg/kg in soil; concentrations in sediment were 360,000 µg/kg in the upstream sample and 6,600 µg/kg in the downstream sample. These values are consistent with the site's location in a long-time urban industrial area near a major roadway.

Inorganics found at the site above standard or common ranges include iron and zinc in groundwater and surface water, cadmium and lead in soil and sediment, magnesium, sodium, and cyanide in groundwater, and manganese in soil. Inorganics with downgradient levels significantly above upgradient levels include lead in soil and sediment, and cadmium, manganese, and cyanide in soil.

The nature and extent of inorganic contamination at the site is generally consistent with expectations of an urban industrial site. However, elevated concentrations of organic compounds in groundwater, soil, and sediment suggest that contaminated soil (or fill) is releasing contaminants to groundwater and to Scajaquada Creek.

1.4 HAZARD RANKING SYSTEM SCORE

The HRS score was completed to quantify risks associated with the Fedders site. The HRS is applied to inactive hazardous waste sites in New York State to prioritize those needing additional investigation and remediation. The system evaluates site characteristics, containment measures, waste types, and potential contaminant receptors.

Under the HRS, three numerical scores are computed to express the site's relative risk of damage to the population and the environment. The three scores are described below:

- S_M reflects the potential for harm to humans or the environment from migration of a hazardous substance away from the facility via groundwater, surface water, or air. It is a composite of separate scores for each of the three routes (S_{gw} = groundwater route score, S_{sw} = surface water route score, and S_a = air route score).
- S_{FE} reflects the potential for harm from substances that can explode or cause fires.
- S_{DC} reflects the potential for harm from direct contact with hazardous substances at the facility (i.e., no migration need be involved).

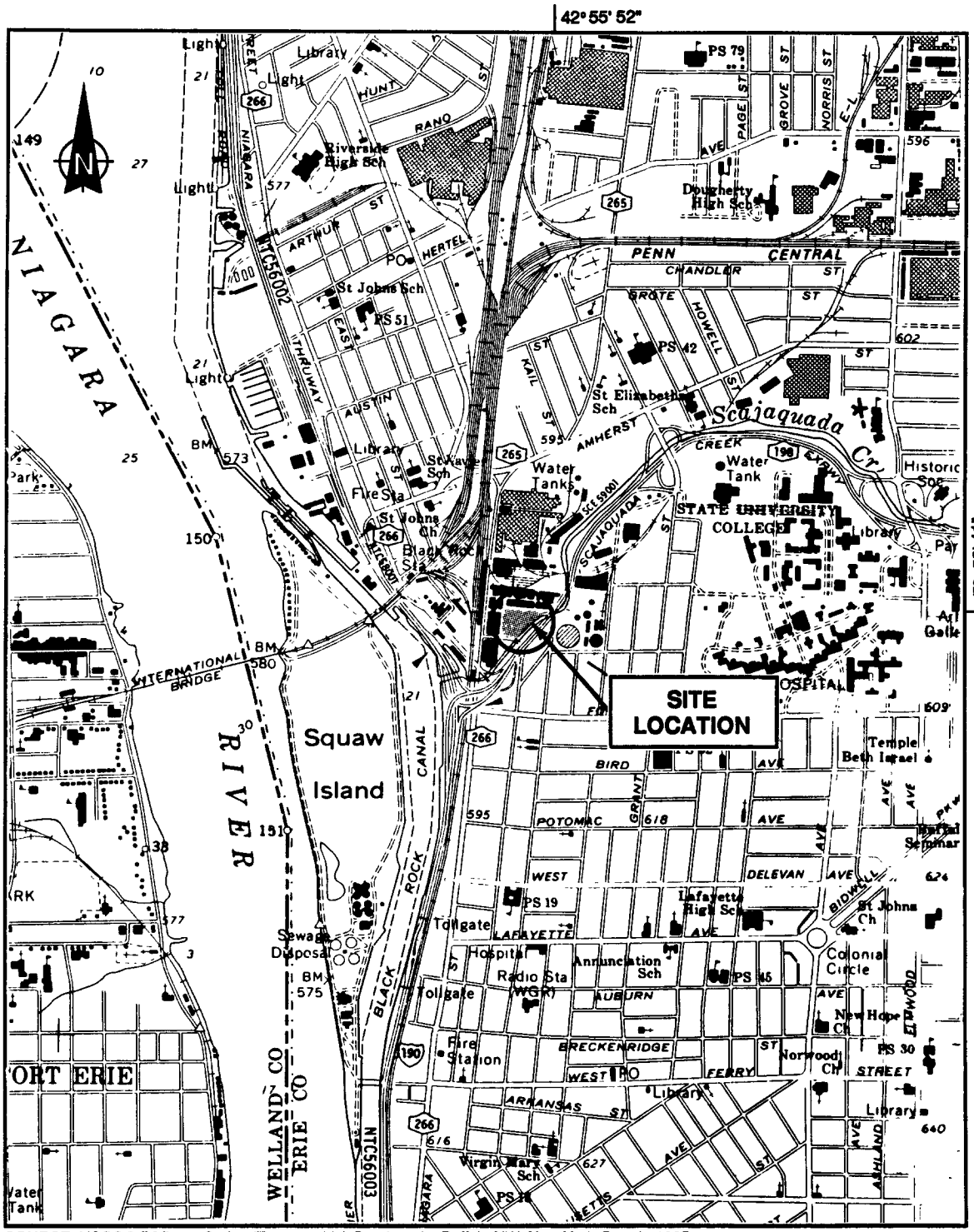
Based on the results of this and previous studies, the HRS scores for the Fedders Automotive Components site have been calculated as follows:

$S_M = 22.34$ ($S_{gw} = 3.06$; $S_{sw} = 38.53$; $S_a = 0$)

$S_{FE} = 0$

$S_{DC} = 20.83$

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SOURCE: USGS 7.5 Minute Series (Topographic) Quadrangle, Buffalo NW, New York-Ontario 1965.

Figure 1-1
SITE LOCATION MAP, FEDDERS AUTOMOTIVE COMPONENTS SITE

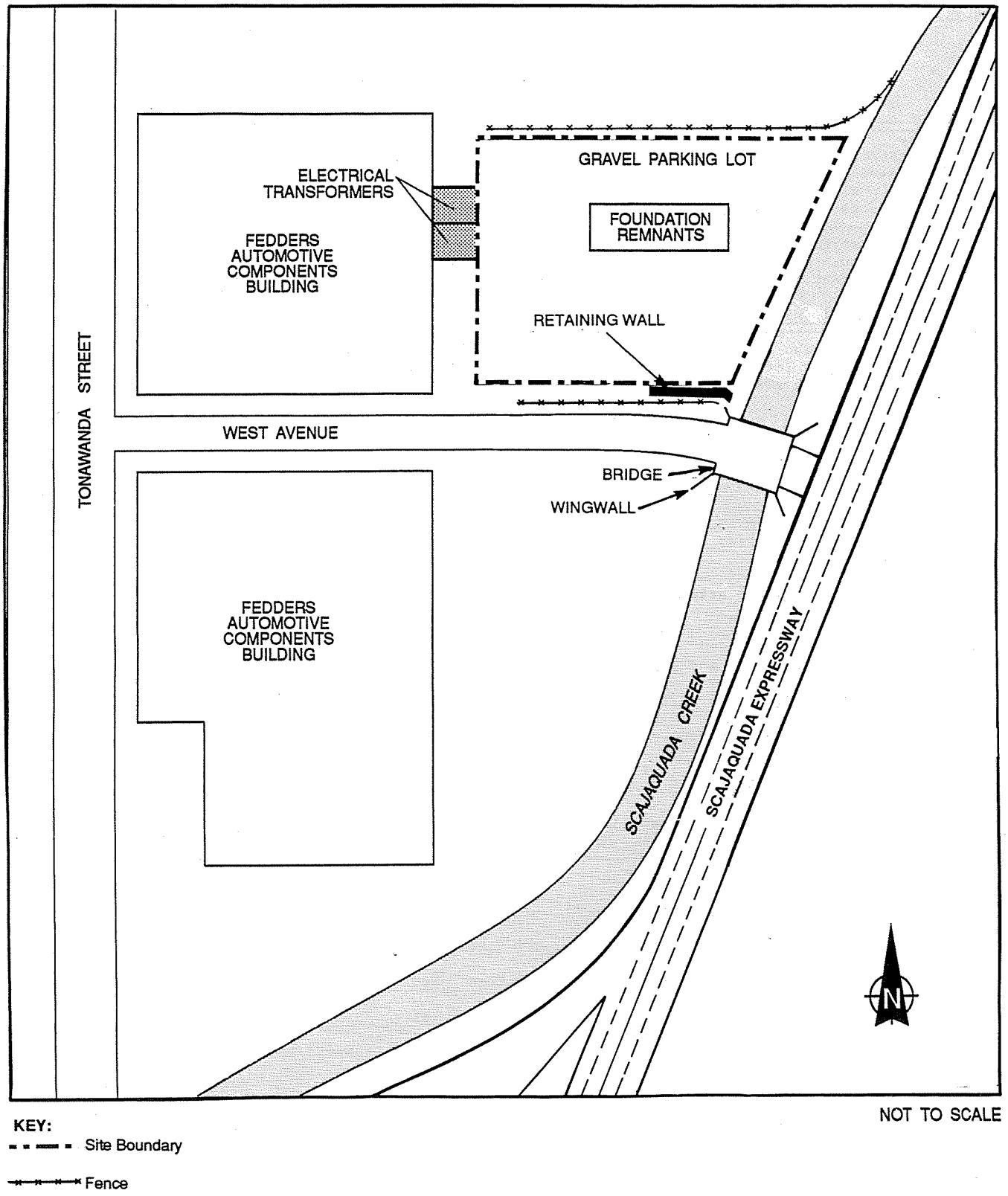


Figure 1-2
SITE MAP, FEDDERS AUTOMOTIVE COMPONENTS

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

ADDITIONS/CHANGES TO REGISTRY OF INACTIVE HAZARDOUS WASTE DISPOSAL SITES

1. Site Name	2. Site Number	3. Town	4. County
Fedders Automotive Components	915024	Buffalo	Erie

5. Region	6. Classification	7. Activity
9	Current 2a /Proposed _____	[ ] Add [ ] Reclassify [ ] Delist [ ] Modify _____

8a. Describe location of site (attach USGS topographic map showing site location).
Located in an urban commercial and industrial area at 57 Tonawanda Street in the City of Buffalo. Immediately adjacent to the west side of the site is Scajaquada Creek.

b. Quadrangle Buffalo NE NY c. Site latitude 42°55'52" Longitude 78°53'41" d. Tax Map Number 088.50

9a. Briefly describe the site (attach site plan showing disposal/sampling locations)
The site is a parking lot approximately 2 acres in area, with a slag/crushed stone surface. The lot may have been sprayed with PCB-contaminated oils between 1974 and 1976.

b. Area ~2 acres c. EPA ID number NYD002115087 d. PA/SI [X] Yes [ ] No

e. Completed: [X] Phase I [X] Phase II [ ] PSA [X] Sampling

10. Briefly list the type and quantity of the hazardous waste and the dates that it was disposed of at this site.
Waste oils (hydraulic fluid and lubricating oils) were used for dust control purposes on the Fedders parking lot. An estimated 165 gallons per year were used for up to 8 years. The oil is alleged to have contained PCBs.

11a. Summarized sampling data attached

[ ] Air [X] Groundwater [X] Surface Water [X] Soil [ ] Waste [ ] EP Tox [ ] TCLP

b. List contravened parameters and values

Groundwater: Iron (439-2,130 µg/L); Magnesium (35,900, 53,100 µg/L); Sodium (47,200-516,000 µg/L); Zinc (71.3-447 µg/L); Cyanide (27,900 µg/L); 1,1-Dichloroethane (53 µg/L); Total-1,2-dichloroethene (340 µg/L); 1,1,1-Trichloroethane (370 µg/L); Trichloroethene (640 µg/L); Phenol (16 µg/L).

Surface Water (Sediment): Lead (9,890 µg/kg), Total-1,2-Dichloroethene (13 µg/kg); Trichloroethene (17 µg/kg); Tetrachloroethene (85 µg/kg).

Soil: Cadmium (2.2-7.0 mg/kg); Lead (380-456 mg/kg); Manganese (9,750-15,900 mg/kg). Various organic compounds were also detected in soil. No standards are available.

12. Site impact data

a. Nearest surface water: Distance Adjacent ft. Direction East Classification B

b. Nearest groundwater: Depth 3 ft. Flow direction East [ ] Sole source [ ] Primary [ ] Principal

c. Nearest water supply: Distance 2.1 mi. Direction North Active [X] Yes [ ] No

d. Nearest building: Distance Adjacent ft. Direction West Use Manufacturing

e. Crops/livestock on site? [ ] Yes [X] No

f. Exposed hazardous waste? [ ] Yes [X] No

g. Controlled site access? [X] Yes [ ] No

h. Documented fish or wildlife mortality? [ ] Yes [X] No

i. Impact on special status fish or wildlife resource? [ ] Yes [X] No

j. Within a State Economic Development Zone? [ ] Yes [X] No

k. For Class 2A: Code _____ Health model score _____

l. For Class 2: Priority category _____

m. HRS Score 22.34

n. Significant threat [ ] Yes _____ [X] No [ ] Unknown

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13. Site owner's name Fedders Automotive Component, Co.	14. Address 57 Tonawanda Street	15. Telephone Number (716) 877-8000

16. Preparer

James D. Griffis, CHMM, Ecology and Environment Engineering, P.C.

Name, title, and organization

Date

James D Griffis

Signature

17. Approved

Name, title, and organization

Date

Signature

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2. PURPOSE

This Phase II investigation was conducted under contract to the NYSDEC Division of Hazardous Waste Remediation, Bureau of Hazardous Site Control. The purpose of the investigation was to determine if hazardous wastes have been disposed of at the site; if contaminants exist in the various media (air, groundwater, surface water, or soil); if contaminants are migrating from the Fedders Automotive Components site; and whether threats to human health and/or the environment exist.

The Phase II investigation was designed to supplement existing data for the site and update the HRS score. The Phase I study conducted by Engineering-Science in conjunction with Dames and Moore in January 1986 did not include any sample collection or analysis. Engineering-Science and Dames and Moore did take HNu photoionizer readings in March 1985, though no readings above 1 ppm were recorded. In addition to the Phase I investigation, Fedders contracted Advanced Environmental Services in conjunction with Conestoga-Rovers and Associates to conduct a site investigation that was completed September 1989. Additional soil, surface water, sediment, groundwater, and air sampling, the installation of monitoring wells, and full TCL analytical parameters were implemented in the Phase II investigation scope of work. Additionally, geophysical surveying was conducted at the site for the first time during the Phase II study.

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3. SCOPE OF WORK

3.1 INTRODUCTION

Field work for the Phase II investigation at the Fedders site began in April 1990 and was largely completed by October 1990. A Quality Assurance Project Plan (QAPP) was submitted to NYSDEC for approval prior to the start of field work. A site-specific health and safety plan was generated and submitted to NYSDEC prior to the commencement of any field activities. Appendix A includes the site safety plan.

The scope of work for the Phase II field investigation at the Fedders site was prepared by NYSDEC. With minor exceptions, all field activities were performed in accordance with the scope of work. Variations from the plan occurred as a result of judgments made in the field, with the concurrence of NYSDEC representatives.

3.2 PHASE II SITE INVESTIGATION

3.2.1 Records Search/Data Compilation

Available information from the state, county, and municipal files was collected and reviewed prior to the initiation of field work. Records from local and state agency files were reviewed to supplement the Phase I report prepared by Engineering-Science in conjunction with Dames and Moore in January 1986. The data review allowed for the proper completion of the field investigation, site assessment, and calculation of the final HRS score. Specific contacts are listed in Table 3-1.

3.2.2 Site Reconnaissance and Site Safety

On April 23, 1990, E & E personnel conducted a site reconnaissance. The purposes of the site visit included:

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- To identify access problems,
- Identify tentative locations for wells, surface water, and sediment samples;
- To visually inspect well locations using a portable magnetometer or contact utilities to determine if underground utilities may impact drilling;
- Identify a suitable drilling water supply; and
- Conduct a limited air monitoring study using a photoionization detector (HNu).

While conducting the site reconnaissance, E & E personnel discovered several significant logistical factors relevant to the Phase II investigation. These included:

- An abundance of cultural features (a fence, cars, piles of brick and concrete, and metal debris) present at the site would interfere with surface geophysical surveying methods; and
- The site was an active facility and was not secure from trespassers.

Also noted during the site visit was the lack of protective outer casing on the existing wells at the site.

A site safety plan was developed that included pertinent emergency phone numbers, a map showing the route to the nearest hospital, and a list of dangers to human health potentially posed by contaminants suspected to be present at the site.

Prior to the beginning of any on-site activities, a site safety meeting was conducted by the site safety officer. Discussions included identification of specific contaminants found on site, potential routes of exposure, air monitoring action levels, and a review of planned activities. All on-site personnel signed an attendance sheet acknowledging their presence and understanding of the topics covered. A site safety plan was available to all personnel on site at all times (see Appendix A).

3.2.3 Geophysical Survey

A geophysical survey utilizing an EM31 (electromagnetic terrain conductivity) survey and portable proton magnetometer survey was performed at the Fedders site on April 23, 1990. The surveys, concentrated at various locations around the perimeter of the site, were used to determine site geological conditions, locate buried materials, verify proposed monitoring well locations, and identify any conductive subsurface plumes. Adjustments of up to 20 feet were made in the placement of monitoring wells as a result of the geophysical survey. The geophysical survey methods and results as well as a map showing the locations of survey grids can be found in Appendix B.

3.2.4 Monitoring Well Installation

Three monitoring wells were installed and one test boring was drilled on the Fedders site between September 24, 1990 and September 28, 1990 by American Auger & Ditching, Co. Upgradient well, GW-1, was installed on the northwest corner of the site. Downgradient wells, GW-2 and GW-3, were installed on the eastern edge of the site along Scajaquada Creek.

The test boring was drilled on the southwest corner of the site to a depth of 8 feet (see Figure 3-1). Following the drilling and collection of the required samples, the boring was backfilled with cuttings and grout.

The installation of two wells was difficult due to subsurface interference. For well GW-1, six locations inside the geophysical grid were attempted before the well could be installed. A brick foundation was continually encountered at a depth of less than 2 feet. Well GW-1 was completed as a flush mount well as it is located in the Fedders parking lot. The original GW-3 location was moved prior to drilling as it was in a low lying area with standing water. A concrete slab was encountered at a depth of 2.3 feet at the new location so the well was moved a second time. The new location, designated GW-3A, was augered to 15 feet and the required samples were collected; however, the hole did not produce water. As per NYSDEC's request, the hole was abandoned, the samples were kept for analysis, and the well location was moved a third time. At the new position, designated GW-3B, the auger met refusal at

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approximately 6 feet. The location was moved once more inside the geophysical grid and was successfully completed as well GW-3.

The monitoring wells were drilled and constructed in accordance with NYSDEC guidelines. Drilling of the three wells and one boring involved the advancement of 4.5-inch inside diameter (ID) hollow-stem augers through unconsolidated material. Soil samples were collected by split-spoon sampling in conjunction with a standard penetration test as outlined in ASTM 1586-84. A 2-foot by 2.5-inch outside diameter (OD) hardened steel sampler was driven in specified 2-foot depth intervals by a 140-pound hammer falling 30 inches. Soil sample depths, recoveries, descriptions, and other pertinent information were recorded on the subsurface boring logs (see Appendix C) by the on-site geologist.

At each well location, a small decontamination station was set up, consisting of a work table covered with plastic sheeting and a set of three wash tubs placed on plastic sheeting. After the pertinent information was logged, the split-spoon sampler was subjected to the following decontamination procedure:

- Initial cleaning of all foreign material; and
- Cleaning with high-pressure steam.

The plastic sheeting on the work table was changed after the completion of each borehole to prevent cross-contamination.

Six soil samples for geotechnical analysis were collected from the well borings and placed in 8-ounce glass jars. Three noncohesive and three cohesive samples were selected to represent site surficial materials and subsequently tested for grain-size and Atterberg limits analysis, respectively.

All wells were constructed of 2-inch ID schedule 40 PVC casing and 2-inch ID 0.020-slot machine-slotted schedule 40 PVC well screen. For all wells, a filter pack of quartz sand was poured to 1 foot above the top of the screen as the augers were withdrawn. A 1-foot seal of bentonite pellets was placed on top of the sand pack, and the remainder of the annulus around the casing was filled with a grout mixture of 90% Portland cement and 10% bentonite. Monitoring well completion data is shown in Table 3-2.

Surface casings in all wells except GW-1 stand approximately 2 feet above grade and have sloping concrete drainage pads to divert surface runoff away from the well. This locking protective steel casing was grouted into place over each well to prevent tampering. Well GW-1 has a flush-mounted protective casing due to its location within the employee parking area.

After completion, but not sooner than 24 hours after grouting, each well was developed using a dedicated, precleaned, hand-bailer for a period of 2 hours or until a high degree of water clarity (less than 50 nephelometric turbidity units [NTUs]) and the stabilization of temperature, specific conductance, and pH measurements had occurred.

3.2.5 Groundwater Sampling and Analysis

No sooner than seven days after development, groundwater samples were collected from all three newly installed groundwater monitoring wells following the evacuation of at least three volumes of water to properly purge the well. These samples were analyzed for TCL organic compounds, metals, and cyanide by E & E's Analytical Services Center (ASC). Analyses and reporting were performed following NYSDEC Contract Laboratory Protocol (CLP) November 1987.

Groundwater samples were collected using dedicated, decontaminated bailers with new, dedicated nylon rope. Prior to sample collection, groundwater levels and total depth-of-well measurements were obtained. An amount equaling three standing water volumes was purged from each monitoring well before sample bottles were filled. Turbidity measurements were taken immediately following the collection of samples using a portable nephelometer.

Samples for metals analyses were preserved by adding concentrated nitric acid until the pH of the sample was lowered to less than 2.0 standard units. Samples for cyanide analysis were preserved by adding sodium hydroxide pellets until the pH of the sample was raised to greater than 12.0 standard units.

A drilling water sample was collected from the driller's holding tank. This sample was analyzed for full TCL parameters.

Analytical results are discussed in Section 4.5 and summarized in Appendix D.

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3.2.6 Surface Water and Sediment Sampling and Analysis

Three surface water and three sediment samples were collected from Scajaquada Creek on October 15, 1990 (see Figure 3-1). Each sediment sample was collected from the same location as its surface water sample counterpart (i.e., SED-2 was collected at the same point as SW-2).

SW-1/SED-1 were collected upstream of the site as upgradient samples. Samples SW-2/SED-2 and SW-3/SED-3 were collected as downgradient samples.

Surface water samples were collected using a dip bottle method. Sediment samples were obtained from the 0- to 12-inch interval using pre-cleaned, dedicated stainless steel spoons to fill the sample jars. All surface water and sediment samples were analyzed for full TCL parameters including organic compounds, metals, and cyanide. All analyses were performed by E & E's ASC. Analysis and reporting were performed using NYSDEC CLP. Analytical results are discussed in Section 4.5 and summarized in Appendix D.

3.2.7 Subsurface Soil Sampling and Analysis

Subsurface soil samples were collected continuously from the ground surface to the completion depth for three well borings.

Four 2-foot composite soil samples were to be collected from 0 to 8 feet in the one soil and three well borings at the site. These samples were labeled with the boring number, SB-1 through SB-3 for GW-1 through GW-3 and SB-4 for the test boring, and a letter, A through D, designating the sampling interval (see Table 3-2).

Due to little or no split-spoon recovery in the 6- to 8-foot interval of GW-2, no sample SB-2D was collected. A 6- to 8-foot sample could not be collected from the GW-3 boring; therefore, a sample was collected from the 11- to 13-foot interval and labeled SB-3D.

An extra volume was collected from the 0- to 2-foot interval in GW-3 for matrix spike/matrix spike duplicate (MS/MSD) analyses. All subsurface soil samples including the MS/MSD were analyzed for TCL organic compounds, metals, and cyanide by E & E's Analytical Services Center. Analyses and reporting were performed using NYSDEC CLP. Analytical results are discussed in Section 4.5 and summarized in Appendix D.

Table 3-1

SOURCES CONTACTED FOR THE NYSDEC PHASE II INVESTIGATION AT THE FEDDERS AUTOMOTIVE COMPONENTS SITE

Erie County Department of Environmental Compliance
95 Franklin Street
Buffalo, New York
Contact: Paul Kranz
Telephone Number: 716/858-6370
Date: April 2, 1990
Information Gathered: Information about files pertaining to NYSDEC sites.

Erie County Department of Environment and Planning
95 Franklin Street
Buffalo, New York
Contact: Michael Alspaugh
Telephone Number: 716/858-6013
Date: March 29, 1990 and April 2, 1990
Information Gathered: Photocopies of aerial photographs dating from 1951 to 1981 for clarification of site chronology, bedrock, water table, historic sites, and floodplain information.

Erie County Water Authority
922 Sturgeon Point Road
Derby, NY 14047
Contact: Mike Martin
Telephone Number: 716/947-4252
Date: April 10, 1990
Information Gathered: Erie County NYSDEC Phase II sites within Erie County's Water Service.

New York State Department of Environmental Conservation
584 Delaware Avenue
Buffalo, New York 14202
Contact: Joseph Sciascia
Telephone Number: 716/847-4585
Date: April 3, 1990
Information Gathered: File search for NYSDEC Phase II report preparation.

New York State Department of Environmental Conservation
Bureau of Hazardous Site Control
50 Wolf Road
Albany, New York 12233
Contact: Mike Ryan and Jane Thapa
Telephone Number: 518/457-9538
Date: April 3-4, 1989
Information Gathered: File search for additional data and NYSDEC Phase I reports.

New York State Department of Environmental Conservation
584 Delaware Avenue
Buffalo, New York 14202
Contact: Jaspal Walia
Telephone Number: 716/847-4585
Date: March 29, 1990 and April 3, 1990
Information Gathered: File search.

City of Buffalo
Water Division
Porter Avenue
Buffalo, New York
Contact: Staff
Telephone Number: 716/851-4710
Date: April 10, 1990
Information Gathered: Water intakes for the City of Buffalo.

02[UZ]YP6080:D3264/6299/20

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Table 3-1 (Cont.)

New York State Department of Environmental Conservation
Information Services/Significant Habitat Unit
Wildlife Resources Center
700 Troy-Schenectedy Road
Albany, New York 12110
Contact: Burrell Buffington
Telephone Number: 518/783-3932
Date: April 10, 1990
Information Gathered: Information on designated critical habitats with respect to NYSDEC Phase II sites.

New York State Department of Health
584 Delaware Avenue
Buffalo, New York 14202
Contact: Cameron O'Conner
Telephone Number: 716/847-4365
Date: March 24, 1989
Information Gathered: File search for NYSDEC Phase II report preparation.

New York State Department of Health
Bureau of Environmental Exposure
2 University Place
Room 205
Albany, New York 12203
Contact: Jeff Chiarenzelli
Telephone Number: 518/458-5310
Information Gathered: Viewed site inspection reports for NYSDEC Phase II sites.

02[UZ]YP6080:D3264/6299/20

Table 3-2

SUBSURFACE SOIL SAMPLE LOCATIONS, DEPTHS, AND ANALYSES

Sample I.D.	Boring I.D.	Date	Sample Depth* (feet)	Analysis	Comments
SB-1A	GW-1	9-26-90	0 - 2	TCL**	
SB-1B	GW-1	9-26-90	2 - 4	TCL	
SB-1C	GW-1	9-26-90	4 - 6	TCL	
SB-1D	GW-1	9-26-90	6 - 8	TCL	
SB-2A	GW-2	9-26-90	0 - 2	TCL	
SB-2B	GW-2	9-26-90	2 - 4	TCL	
SB-2C	GW-2	9-26-90	4 - 6	TCL	Limited volume
SB-3A	GW-3	9-25-90	0 - 2	TCL	Extra volume for MS/MSD
SB-3B	GW-3	9-25-90	2 - 4	TCL	
SB-3C	GW-3	9-25-90	4 - 6	TCL	
SB-3D	GW-3	9-25-90	11 - 13	TCL	
SB-4A	B-1	9-25-90	0 - 2	TCL	
SB-4B	B-1	9-25-90	2 - 4	TCL	
SB-4C	B-1	9-25-90	4 - 6	TCL	
SB-4D	B-1	9-25-90	6 - 8	TCL	
B1-01	B-1	9-25-90	6 - 8	Atterberg Limits	
GW01-01	GW-1	9-26-90	0 - 2	Grain size	
GW01-02	GW-1	9-26-90	9 - 10	Atterberg Limits	
GW02-01	GW-2	9-26-90	9.5 - 10	Grain size	
GW03-01	GW-3	9-25-90	11 - 11.3	Atterberg Limits	
GW03-02	GW-3	9-25-90	5 - 6	Grain size	

02[UZ]YP6080:D3264/6301/18

*Samples were composites of the stated interval.
**Includes volatiles, semivolatiles, pesticides, PCBs, metals, and cyanide.

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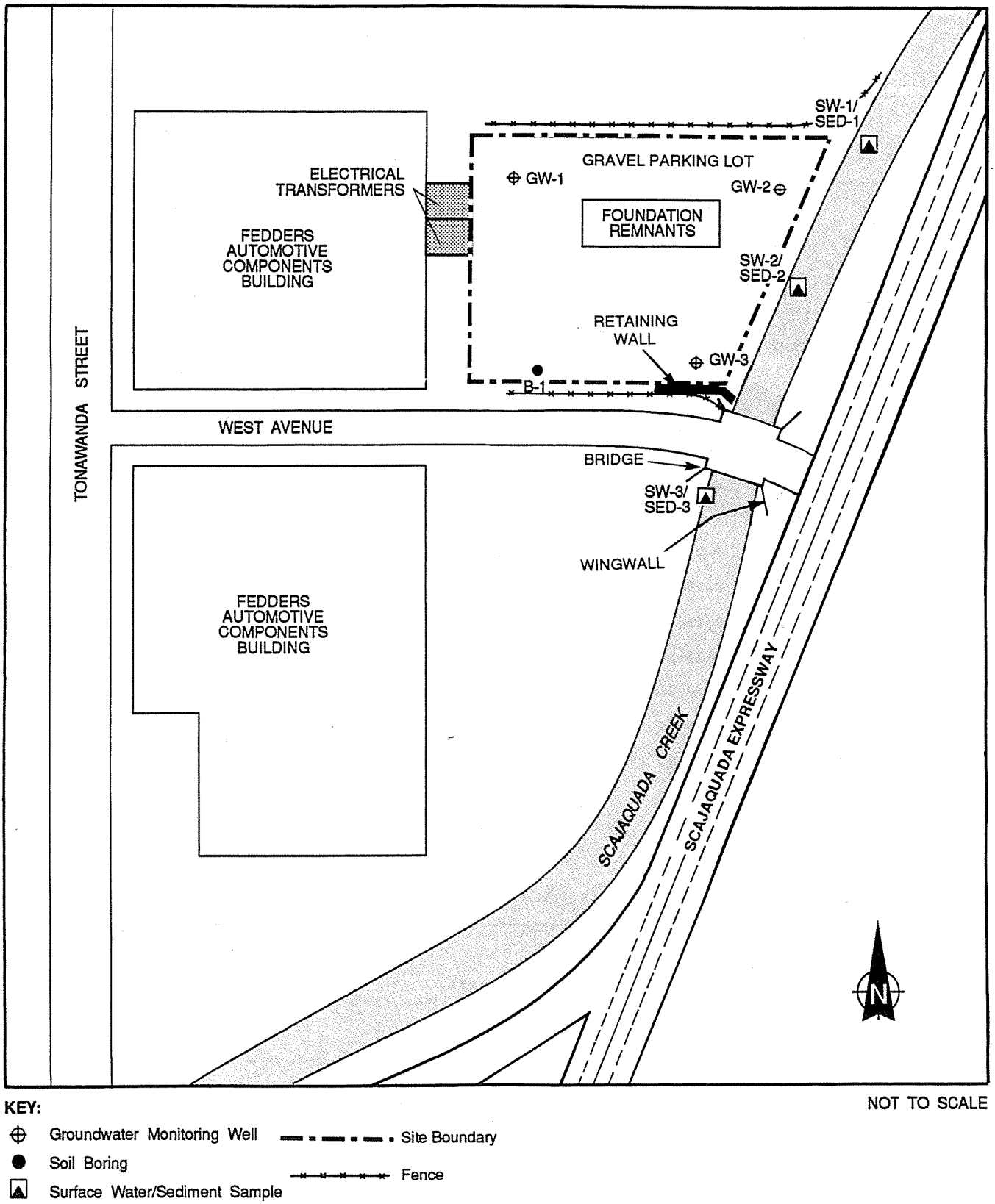


Figure 3-1
SAMPLING LOCATIONS, FEDDERS AUTOMOTIVE COMPONENTS SITE

YPD2966A

4. SITE ASSESSMENT

4.1 SITE HISTORY

The Fedders Automotive Components Company site is located at 57 Tonawanda Street in the City of Buffalo, Erie County, New York. The approximately 2-acre site is situated in an urban commercial and industrial area. The nearest residential area is an older urban neighborhood approximately 0.5 mile north of the site. The site is located immediately adjacent to Scajaquada Creek, which borders the site to the east.

The Fedders Quiggins Corporation was established in 1915. During the 1940s, the company became the Fedders Automotive Components Company (Fedders). Since its establishment in 1915, Fedders has manufactured automotive components such as radiators, heaters, and transmission oil coolers. Current processes at the site include metal stamping, soldering, brazing, welding, and painting. Acid-washing and degreasing activities are also conducted as part of the on-site manufacturing activities.

The industrial wastes generated from plant operations include solder dross, degreasing still bottoms (trichloroethene [TCE] and formerly tetrachloroethene), and lubricating fluids (petroleum and vegetable-based oils). With the exception of solder dross, which is recycled, and plant waste water, which is discharged to the sanitary sewer system, all of the plant's wastes are drummed and transported off site for disposal (Pinke 1991).

In 1974, the Erie County Department of Environmental Quality, Air Pollution Control Division, instructed Fedders to implement some means of fugitive dust control for their parking area. The company subsequently spread on the parking lot approximately 165 gallons of waste oil per year from 1974 to 1976. Conflicting reports have indicated that the practice continued until 1981. Although Fedders officials stated that

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the oils used for dust control were light lubrication oils and hydraulic fluids, it is thought that the oils may have contained PCBs. In 1981, the parking lot was covered with gravel; therefore, no further actions to control dust were necessary (NYSDEC 1986).

The parking lot in question was also the former location of a building that housed furnace kilns. Between 1936 and 1942, the building and kilns were demolished and the demolition material was used as on-site fill, possibly along with other imported fill, to raise the elevation of this formerly low lying area (NYSDEC 1986, 1989b).

A Phase I investigation was conducted at the site in March 1985 by Engineering-Science, Inc. in association with Dames and Moore for NYSDEC. No soil or water samples were collected during this investigation. An air monitoring survey conducted during the site inspection with an HNu photoionizer revealed no air emission readings above 1 ppm.

A site investigation report was prepared by Advanced Environmental Services, Inc. (AES) and Conestoga-Rovers and Associates (CRA) in September 1989 at the request of Fedders. This investigation included the installation of two shallow monitoring wells (piezometers) within test pits. One composite subsurface soil sample from each test pit and one groundwater sample from each well (piezometer) were collected and analyzed for TCL volatiles, PCBs, and petroleum products (water samples only). Also, six surface soil samples (0- to 2-foot composites) were collected and analyzed for TCL volatiles and PCBs.

PCBs were detected in one of the two subsurface soil and two of the six surface soil samples. The highest concentration of PCBs detected, 34.2 ppm, was found in a subsurface sample collected adjacent to a bank of transformers along the east side of the site. These transformers are used to supply power and light to the adjacent building. The concentration of PCBs in the second subsurface soil sample was 0.17 ppm and in the one surface soil sample, 4.4 ppm. No PCBs were detected in groundwater samples.

Volatiles detected in soil samples include: TCE in two surface and one subsurface sample at levels ranging from 0.32 ppm to 15 ppm; toluene in three surface soil samples at levels ranging from 0.29 ppm to 0.47 ppm; ethylbenzene in one surface soil at 0.47 ppm; methylene chloride in

one surface soil at 0.6 ppm; styrene in one surface soil at 5.6 ppm; and total xylenes in one surface soil at 1.34 ppm. Volatiles detected above current NYSDEC Class GA groundwater standards include vinyl chloride, ethylbenzene, 1,1-DCA, 1,1-DCE, 1,2-DCE, 1,1,1-TCA, TCE, and benzene.

4.2 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Fedders site lies within the Erie-Niagara basin and the Erie-Ontario lowland physiographic province. The overburden consists mainly of glacial till, an unconsolidated, poorly sorted mix of clay, silt, and/or sand. It forms a thin mantle over the bedrock and exhibits low permeability. The region between the Onondaga Escarpment to the north and the hilly areas to the south also received lacustrine clay and silt deposits during late Pleistocene time from the larger ancestral stages of Lake Erie. These deposits exhibit very low permeabilities. As the ancestral lakes retreated, sandy beach sediments were also deposited in this region. These deposits, by their nature, have relatively high permeabilities.

The bedrock in the region is exclusively sedimentary. The shale, limestone, and dolomite units dip gently southward at approximately 40 feet per mile. Although the bedrock dips southward, the land surface is flat or actually increases in elevation to the south. Therefore, the farther south the location, the younger the underlying bedrock.

Up to 32 distinct bedrock members have been identified in Erie County (see Figure 4-1). The oldest unit, Silurian in age, underlying the northern part of the county is the Camillus Shale. This member, which is 30 to 100 feet thick, contains significant reserves of groundwater in cavities formed by the dissolution of gypsum.

Several limestone members also of Silurian age overlie the Camillus Shale. The Bertie Limestone, approximately 50 feet thick, overlies the Camillus Shale and is in turn overlain by the Akron Dolomite, which is about 8 feet thick. Little record of late Silurian or early Devonian history is preserved in Western New York. However, the Middle and Late Devonian record is well preserved beginning with the Onondaga Limestone unconformably overlying the Akron Dolomite. The unit comprises three distinct members that cumulatively are approximately 140 feet thick.

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The Marcellus Shale member overlies the limestone units. This dense, black, fissile shale is approximately 30 to 55 feet thick. This shale, unlike the Camillus Shale, is impermeable. It confines the limestone and Camillus Shale aquifers below.

The Skaneateles Formation overlies the Marcellus Shale. This 60- to 90-foot-thick formation is represented by the Stafford Limestone and Levanna Shale. The black, fissile shale is expected to be impermeable and will therefore confine groundwater found in the lower limestone units.

Overlying the Skaneateles is the Ludlowville Formation represented by the Centerfield Limestone, Ledyard Shale, Wanakah Shale, and Tichenor Limestone members. The shale members contain numerous limestone beds. The Ludlowville Formation is followed by the Moscow Formation represented by the Kashong Shale and Windom Shale. The Moscow Formation is followed by 2,500 feet of upper Devonian rocks in southwestern New York State consisting of the Genesee, Sonyea, West Falls, Java, Canadaway, Chadakoin, and Cattaraugus formations. These consist almost exclusively of shale members. The Canadaway Formation is by far the thickest (up to 1,000 feet) and underlies the southern third of Erie County.

Significant amounts of groundwater occur only in the overburden and in the lower bedrock units. The Camillus Shale contains numerous cavities formed by the dissolution of gypsum and is thus a very productive aquifer. The Onondaga, Akron, and Bertie dolomites and limestones contain water in bedding joints widened by dissolution. Vertical fractures in the limestone provide hydraulic connections among the many bedding planes.

Very little groundwater is found in the formations above the limestone unit. These formations, principally shale, are impermeable. Some water transmission occurs in small fractures in the bedrock, but no wells of significant yield are found in these units. Groundwater in these regions is obtained mainly from glacial overburden deposits (LaSala 1968).

4.3 SITE GEOGRAPHY

4.3.1 Topography

The Fedders site is located within the Erie-Ontario lowland topographic province in the City of Buffalo, Erie County, New York. The

lowlands are characterized by a low, flat-lying topography resulting from pre-glacial erosion of the bedrock and subsequent modification by glaciation. Consequently, the topography exhibits glacial depositional features.

The natural ground surface over the site is generally flat, showing only a slight slope towards Scajaquada Creek to the east. Construction of buildings and their subsequent demolition, as well as landfilling with the debris, has altered the natural relief at the site.

4.3.2 Soils

The U.S. Department of Agriculture (USDA) identifies the soil type within the vicinity of the Fedders site as urban soils. Urban soils represent areas of disturbed or removed material occurring in areas of residential or commercial development. The urban soils generally overlie undisturbed, moderately well drained, gravel-free clay and silt. Natural subsurface material at the site was initially encountered at depths from 4 to 14 feet, and consists of tight inorganic clay with plasticity increasing from low to high with depth. The rate of water movement (permeability) through this clay is assumed to be very slow. The approximate range of hydraulic conductivity of clays is approximately 10^{-10} to 10^{-7} cm/sec (Freeze and Cherry 1979). The composition of the fill recovered in split-spoon samples collected at the site included gravel, sand, silt, clay, and fragments of brick, wood, slag, and glass. Geotechnical analysis of split-spoon samples confirmed the field classification of overburden material as dominantly clays with gravel, sand, and other fill material at the surface and at shallow depths (see Appendix E).

4.4 SITE HYDROGEOLOGY

The information used to develop the discussion in the groundwater subsection includes United States Geological Survey (USGS) topographic maps, the Phase II geophysical survey, four borings with three well installations, geological survey maps, geotechnical analysis, and regional groundwater reports.

The geophysical survey results are presented in Appendix B, the drilling logs in Appendix C, and the geotechnical analyses results in Appendix F.

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4.4.1 Geology

The stratigraphy at the site can be characterized as a 50- to 80-foot blanket of glacial/lacustrine overburden and industrial fill over a southward dipping sedimentary bedrock sequence approximately 2,700 feet in thickness. The bedrock formation directly beneath the Fedders site is the Camillus Shale, which is a Late Silurian unit approximately 400 feet thick. According to Buehler and Tesmer (1963), the Camillus Shale is gray to grayish brown in color, varies from a thin-bedded shale to a massive mudstone, and contains large mineable quantities of gypsum. It is also reported to contain a considerable amount of limestone and dolomite interbedded with the shale (LaSala 1968).

Bedrock was not encountered while drilling either borehole BH-1 or the monitoring wells GW-1, GW-2, or GW-3. The total depths of overburden drilled at each of these locations were 8 feet, 11 feet, 14 feet, and 14.5 feet, respectively.

Overburden deposits include a surface layer of industrial fill that ranges in thickness from approximately 3.5 feet to greater than 14 feet. The fill is reportedly the debris created from the demolition of the old kiln buildings as well as the footings that are still in place. Beneath the fill materials is a variable reddish-brown clay mottled with silt that also contains some fine to coarse sand.

4.4.2 Groundwater Hydrology

Groundwater

Three groundwater monitoring wells were installed at the Fedders site to determine the quality and the direction of groundwater flow. Well locations are shown in Figure 3-1. Monitoring well construction data are presented in Table 4-1. Groundwater level data are shown in Table 4-2.

All three monitoring wells penetrate and monitor one shallow aquifer. Since deeper bedrock wells were not drilled as part of this investigation, it is not known if the bedrock aquifer is hydrologically connected to the upper aquifer. Based on water level data collected in

association with well development and sampling from September 27 through October 16, 1990, groundwater flow is to the southeast. The gradient of groundwater flow is moderately steep at an approximate 2.5% slope. Survey elevations of the wells and groundwater depths are listed in Table 4-3. The survey elevations are based on a benchmark with a chiseled "+" on the N.E. Bonnet Bolt of a hydrant on the south side of West Avenue near baseline point no. 1, elevation 586.50 feet. Figure 4-2 shows the locations of the groundwater monitoring wells along with contours of the uppermost aquifer surface. Results of groundwater sample analysis are discussed in Section 4.5.1 and summarized in Tables 4-4 and 4-5. A survey of the location and elevation of each monitoring well and sample point was performed after all field work was completed. A copy of this survey map is included in Appendix G.

Surface Water

The only surface water body associated with the site is Scajaquada Creek, which forms the southeastern site border and is approximately 40 feet wide. Scajaquada Creek is classified by NYSDEC as a Class B waterway. Surface water from the site drains to the southeast directly into Scajaquada Creek, which flows west into the Niagara River via the Black Rock Canal located approximately 0.25 mile from the site. The Niagara River is used as a source of municipal drinking water and public recreation. There are no New York State Department of Environmental Conservation designated wetlands within 1 mile of the site. A review of the Federal Flood Insurance Program Flood Hazard Boundary Maps indicates that the eastern portion of the site is in the 100-year flood plain of Scajaquada Creek.

4.5 SITE CONTAMINATION ASSESSMENT

Analytical data for the site contamination assessment are presented in Appendix D. For TCL organic compounds, all positive reported values and qualifiers for samples, field QC samples, and laboratory MS/MSD samples are presented on data summary forms. For inorganics, CLP Form 1s are included for all samples and field QC samples.

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4.5.1 Groundwater

Three groundwater samples were collected from the Fedders site. One groundwater sample was collected from each of the newly installed monitoring wells shown in Figure 3-1. All wells are shallow and monitor the overburden aquifer. Well GW-1 is considered upgradient, while wells GW-2 and GW-3 are downgradient wells. Table 4-3 contains groundwater chemical parameters measured during well sampling. All the groundwater samples were analyzed for TCL organics, inorganics, and cyanide.

Twelve inorganic analytes were detected in groundwater samples from the site. Concentrations of five of these analytes, iron, magnesium, sodium, zinc, and cyanide, exceeded NYSDEC Class GA groundwater standards (see Table 4-4). Iron was found above the Class GA standard in all three groundwater samples at levels ranging from 489 µg/L in GW-2 to 2,130 µg/L in GW-1. Magnesium concentrations exceeded the standard in GW-1 at 53,100 µg/L and GW-3 at 35,900 µg/L. Sodium was detected above its standard at concentrations ranging from 47,200 µg/L in GW-2 to 516,000 µg/L in GW-1. Zinc exceeded its Class GA standard in all samples, with concentrations ranging from 71.3 µg/L in GW-3 to 447 µg/L in GW-1. Cyanide was detected in GW-1 only, at a concentration of 27,900 µg/L, which exceeds the Class GA standard.

The highest concentrations of four of the inorganics exceeding standards were detected in the upgradient sample (GW-1) and cyanide was detected in GW-1 only; therefore, elevated levels of these inorganics may not be attributable to the Fedders site. However, fill material encountered during the drilling of GW-1 calls into question the usefulness of this well for representing background conditions.

Volatile organic compounds detected in groundwater include 1,1-DCA, total-1,2-DCE, 1,1,1-TCA, and TCE (see Table 4-5). Concentrations of all of these volatile organics exceeded Class GA standards in sample GW-2; 1,1-DCA was detected at 53 µg/L, total-1,2-DCE was detected at 340 µg/L, 1,1,1-TCA at 370 µg/L, and TCE at 640 µg/L. All four of these volatiles were also found at levels below accurate quantitation in samples GW-1 and GW-3.

Phenol was the only semivolatile organic exceeding its Class GA standard. Phenol was found at 16 µg/L in sample GW-3. Several semi-volatile organics were found below accurate quantitation limits in the

three groundwater samples. These include PAHs in GW-1, GW-2, and GW-3, and 1,2-dichlorobenzene, 1,2,4-trichlorobenzene, and hexachlorobenzene in GW-3.

The pesticide Delta BHC was detected at a low level (0.073 µg/L) in sample GW-2.

4.5.2 Surface Water

Three surface water samples were collected from the Fedders site and analyzed for TCL organic compounds, metals, and cyanide. All three samples, SW-1, SW-2, and SW-3, were collected from Scajaquada Creek, which flows along the eastern boundary of the Fedders site. SW-1 was located upstream of the site, while SW-2 was adjacent to the site, and SW-3 was downstream of both the site and an apparent wastewater outfall of unknown origin. Figure 3-1 shows all sample locations.

No organic compounds were detected in the surface water samples, except low levels of typical field and laboratory contaminants.

Nine metals were detected in the surface water samples, two at levels above the NYSDEC Class B ambient water standards (see Table 4-6). Aluminum was detected in the preparation blank at 150 µg/L; thus, sample results ranging from 296 to 509 µg/L are considered as not detected. Iron and zinc were detected at levels that exceeded NYSDEC standards in all three surface water samples. Iron concentrations ranged from 582 µg/L in SW-3 to 1,130 µg/L in SW-2 and zinc concentrations ranged from 35.1 µg/L in SW-3 to 54.6 µg/L in SW-1. Levels of iron and zinc downstream of the site are not significantly (greater than three times) above upstream levels; therefore, elevated concentrations of these analytes do not seem to be attributable to the site.

4.5.3 Sediment

Three sediment samples, SED-1, SED-2, and SED-3, were collected from Scajaquada Creek. Sample SED-1 was collected upstream, SED-2 was collected adjacent to the site, and SED-3 was collected immediately downgradient of the site and a possible wastewater outfall pipe that was observed flowing steadily in both the summer and winter of 1990, the source of which is unknown. Figure 3-1 shows all sampling locations. Nineteen metals were detected in sediment samples from the site;

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however, only lead and cadmium were detected at levels above their common ranges, as presented in Table 4-7. The concentration of lead in SED-3, downgradient of the site, was significantly higher than the concentration upstream of the site, suggesting a possible release of lead from the site to Scajaquada Creek. The highest level of cadmium was detected in the upstream sample; therefore, elevated levels of this analyte in sediment do not appear to be attributable to the site.

Organic compounds detected in sediment samples include total-1,2-DCE at 13 µg/kg, TCE at 17 µg/kg, and tetrachloroethane at 85 µg/L in SED-3 and various PAHs above quantitation limits in SED-1 and SED-3 and below quantitation limits in SED-2. The total value for PAHs found above quantification limits was 360,000 µg/kg in SED-1 and 6,600 µg/kg in SED-3 (see Table 4-8).

4.5.4 Subsurface Soil Samples

Fifteen subsurface soils samples were collected from the site during drilling of the three wells and one test boring and analyzed for full TCL organic, inorganic, and cyanide parameters.

Twenty-two metals and cyanide were detected in subsurface soil samples. Three of the metals, cadmium, lead, and manganese, were detected above their common ranges in subsurface soil at the site (see Table 4-9). Cadmium was detected above its standard range in all samples at concentrations ranging from 2.2 mg/kg in SB-4C to 7.0 mg/kg in SB-1A. Lead was detected above its common range in samples SB-2A at 380 mg/kg, SB-2C at 431 mg/kg, SB-3A at 456 mg/kg, and SB-4A at 391 mg/kg. Manganese was found above its common range at 15,900 mg/kg in SB-1A and 9,750 mg/kg in SB-3A.

Cyanide was detected in soil from the three well borings at levels ranging from 1.2 mg/kg in sample SB-2A to 89.5 mg/kg in SB-1B.

Ten VOCs were detected in subsurface soil samples collected at the site (see Table 4-10). Seven of these compounds were found only in samples from the GW-2 well boring (SB-2); one compound, toluene, was found only in the GW-3 well boring (SB-3); one compound, total-1,2-DCE was found in the GW-2 well boring and the soil boring (SB-4); and one compound, TCE, was found in samples from all three well borings and from the soil boring.

1,2-DCA was detected in sample SB-2A at 7 µg/kg. Chloroethane was detected in SB-2B at 54 µg/kg. 1,1-DCE and 1,1,1-TCA were detected in SB-2A at 9 µg/L and 500 µg/L, respectively, and in SB-2B at 16 µg/L and 800 µg/L, respectively. 1,1-DCA, ethylbenzene, and total xylenes were detected in samples SB-2A, SB-2B, and SB-2C. Concentrations of 1,1-DCA ranged from 160 µg/kg in SB-2A to 1,100 µg/kg in SB-2C. Ethylbenzene concentrations ranged from 36 µg/kg in SB-2A to 40 µg/kg in SB-2C. Total xylenes concentrations ranged from 220 µg/kg in SB-2C to 720 µg/kg in SB-2A. Ethylbenzene and total xylenes were also found below accurate quantification limits in sample SB-1B from the GW-1 well boring. Toluene was found only in sample SB-3A, at a concentration of 15 µg/kg. Total-1,2-DCE was detected in SB-2B at 150 µg/kg, SB-4B at 10 µg/kg, SB-4C at 40 µg/kg, and SB-4D at 120 µg/kg. TCE was detected in samples SB-1A, SB-1B, SB-2A, SB-2B, SB-3A, SB-3B, SB-4A, SB-4B, SB-4C, and SB-4D at concentrations ranging from 6 µg/kg to 530 µg/kg.

4.5.5 Contamination Assessment Summary

The principal threat to health and the environment posed by the Fedders site is potential direct contact with soils and sediment samples contaminated with VOCs.

Eleven VOCs were detected in various media at the Fedders site. All volatiles detected in groundwater were above Class GA standards (see Table 4-11). TCE was detected in GW-2 at 640 µg/L, in SED-3 at 17 µg/kg and in the 0- to 2-foot (A) and 2- to 4-foot (B) samples in all borings (SB-1 through SB-4) and also in the 4- to 6-foot and 6- to 8-foot samples in SB-4, with concentrations ranging from 6 µg/kg to 530 µg/kg. Total-1,2-DCE was found in GW-2 at 340 µg/L, in SED-3 at 13 µg/kg in the 2- to 4-foot samples from SB-2 and SB-4, and the 4- to 6-foot and 6- to 8-foot samples from SB-4, with concentrations ranging from 10 µg/kg to 150 µg/kg. 1,1-DCA was detected in GW-2 at 53 µg/L, and in the 0- to 2-foot, 2- to 4-foot, and 6- to 8-foot samples from SB-2 at concentrations of 160, 630, and 1,100 µg/kg, respectively. 1,1,1-TCA was detected in GW-2 at 370 µg/L and in the 0- to 2-foot and 2- to 4-foot samples from SB-2 to 500 and 800 µg/kg, respectively. Tetrachloroethene (PCE) was detected in only SED-3, at 85 µg/L. Chloroethane was detected in the 0- to 2-foot sample from SB-2 at 54 µg/kg. 1,1-DCE was detected

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at 9 µg/kg in the 0- to 2-foot sample from SB-2 and at 16 µg/kg from the 2- to 4-foot sample of SB-2. 1,2-dichloroethane was detected in the 0- to 2-foot sample from SB-2 at 7 µg/kg. Toluene was detected at 15 µg/kg in the 0- to 2-foot sample from SB-3. Ethylbenzene and total xylenes were both detected in the 0- to 2-foot, 2- to 4-foot, and 4- to 6-foot samples from SB-2. Ethylbenzene concentrations ranged from 36 µg/kg to 40 µg/kg and total xylene concentrations ranged from 220 µg/kg to 720 µg/kg.

All of the chlorinated organics found at the site, with the exception of 1,2-DCA, are related through the following transformation pathways: PCE → TCE → 1,2-DCE (vinyl chloride); and 1,1,1-TCA → 1,1-DCA → chloroethane, or 1,1,1-TCA → 1,1-DCE, or 1,1,1-TCA → 1,2-DCE. Therefore, the occurrence of the parent compounds 1,1,1-TCA, TCE, and/or PCE could account for the presence of seven of eight of the chlorinated organics found at the site. Vinyl chloride, although not found above quantification limits in this study, was found in the two shallow wells (piezometers) installed in a 1989 study and was also found below quantification limits in GW-2.

VOCs are distributed across the site in surface and subsurface soil, water, and sediment. Potential sources of these compounds include the use of contaminated fill for the parking area or a spill or release of chlorinated solvents used as degreasers at the site. Although GW-1 is hydraulically upgradient of the site, subsurface soil samples from SB-1 (the GW-1 well boring) contained fill material and, therefore, contamination of these samples with TCE does not necessarily support the idea of an upgradient source area. In addition, concentrations of TCE are significantly increased in samples from SB-2 and SB-4 when compared with SB-1 concentrations.

Although GW-2 is not the most hydraulically downgradient well with respect to the fill area, soil and water from this well are consistently the most contaminated. This, along with the increase in contamination with depth in SB-2, supports the idea that contaminated soil (fill) in the area of GW-2 may be releasing contaminants into the groundwater.

Although it would be expected that surface samples would have lower concentrations of chlorinated organics due to volatilization into the atmosphere, the significant increases in contaminant concentrations with

depth also support the idea of contaminated fill existing below the surface in the parking lot area.

The presence of low levels of toluene, ethylbenzene, and xylenes in subsurface soil samples may be related to use of the area as a parking lot, and/or the historic use of oils for dust control in this area.

Semivolatile organics detected at the site include phenol above the Class GA standard at 16 µg/L in groundwater from GW-3 and PAHs in sediment and subsurface soil. The source of phenols may be the presence of wood potentially preserved with phenol or phenolic compounds, common wood preservers, in the area of GW-3. Wood was encountered during the drilling of one of the abandoned attempts to install GW-3 (see Appendix C).

According to Edwards (1983), typical concentrations of PAHs in soil range from 0.4 µg/kg (ppb) in protected remote areas to 650,000 µg/kg (ppb) in industrial areas. PAHs may be formed by natural processes such as microbial synthesis, forest fires, and volcanic activity. Anthropogenic sources of PAHs include iron and steel manufacturing, asphalt, heating and power generation, refuse incineration, open burning, and emissions from automobile engine combustion. The primary sources of PAHs at the Fedders site include burning associated with kiln operation, fallout from automobile emissions, and general industrial activity in the area. The concentrations of PAHs detected at the site are consistent with those of urban industrial areas and fall within the published range of PAHs in soil. The highest concentration of PAHs at the site was in the upstream sediment sample, supporting the idea of a general urban/industrial source for the PAHs at the site.

Inorganics detected above standards or common ranges at the site include cadmium in sediment and subsurface soil, iron in groundwater and surface water, lead in sediment and soil, magnesium in groundwater, manganese in soil, sodium in groundwater, zinc in groundwater and surface water, and cyanide in groundwater. Several of these analytes are not attributable to the site due to their elevated upgradient concentrations. Iron, magnesium, and sodium in groundwater are found at their highest levels in upgradient samples. Concentrations of iron in downstream surface water were not significantly above upstream levels. Zinc was found at its highest levels in upgradient groundwater and

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upstream surface water samples. The highest concentration of cadmium in soil or sediment samples was found in the upstream sediment sample. Cyanide was found above standards in the upgradient well only. However, the concentration of cyanide in the SB-1B sample was 89.5 mg/kg, significantly above other levels at the site. This suggests a possible localized source of cyanide in the GW-1 area.

The remaining inorganics found above common ranges and possibly attributable to the site include lead in soil and sediment and manganese in soil. Lead was detected in all soil and sediment samples and exceeded its common range in samples SB-2A, SB-2C, SB-3A, and SB-4A at concentrations ranging from 380 µg/kg to 456 mg/kg.

Lead is a naturally occurring metal found in small quantities in all parts of the environment. Anthropogenic sources of lead include leaded gasoline spillage and combustion, emissions from iron and steel production, metal smelting operations, lead-acid battery manufacturing, and weathering of lead-based paints. Deposition of lead from atmospheric sources can greatly increase lead levels in soils. It has been estimated that soils adjacent to roadways have been enriched in lead by as much as 10,000 micrograms per gram of soil (ppm) since 1930. Furthermore, soils in urban areas may have as much as 130,000 micrograms of lead per gram of soil (ppm). Soils adjacent to buildings with exterior lead-based paint may have concentrations of greater than 10,000 ppm lead (ATSDR 1988).

The levels of lead at the site seem consistent with its location in a long-time urban industrial area adjacent to a major roadway.

Manganese was found above its common range in SB-1A at 15,900 mg/kg and in SB-3A at 9,750 mg/kg. These levels are significantly higher than levels in all other soil samples except SB-3B, which had a concentration of 4,520 mg/kg. Manganese is a metallic element that occurs naturally in soil, rock, air, and water. Elemental manganese is used primarily in metallurgy, especially steel production. Manganese compounds are used as colorants in brick and tile making, in dry cell battery manufacture, in ceramics, and in chemical manufacture and processing (USEPA 1984). The source of elevated manganese in soils at the site is unknown, but may be due to metal and ceramic production at the facility and/or other nearby industrial activities.

4.6 CONCLUSIONS AND RECOMMENDATIONS

Potential threats to human health and the environment are posed by the Fedders Automotive Components site and include direct dermal contact and indirect ingestion of contaminated soil and/or sediment. However, contaminants detected at the Fedders site are consistent with those expected based on the site's past and present industrial use and proximity to other heavy industry in the area. Considering these facts, the absence of documented hazardous waste disposal at this site, and some concern with the detection of VOCs at low concentrations in the groundwater, it is recommended that the Fedders Automotive Components site be referred to NYSDEC's Division of Water for appropriate action.

Subsurface contamination is affecting the quality of the shallow groundwater which flows directly into Scajaquada Creek. The influx of this contamination is not significant when compared to the levels of contaminants entering the creek upstream of the site and existing sediment contamination. However, some remediation is required to reduce the infiltration of surface water into the fill material, thus reducing the extent of groundwater contamination. An evaluation of the observed contamination of Scajaquada Creek sediments by the NYSDEC Division of Fish and Wildlife is recommended.

The following paragraphs recommend measures for consideration to mitigate the risk associated with the site:

- Paving the parking lot area with an impervious material would impede the infiltration of precipitation and surface runoff and reduce the potential for off-site migration of contaminants; and

- Some portions of the site are fenced while others are open. The installation of a fence around the entire site would prevent unauthorized access.

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Table 4-1

MONITORING WELL CONSTRUCTION DATA

Well	Feet of Screen	Feet of Riser	Thickness of Bentonite (Feet)	Total Depth of Well (Feet)	Stick-up Height (Feet)
GW-1	5	3.6	1	8.6	NA
GW-2	10	6.76	1	14.4	2.36
GW-3	10	6.62	1	14.4	2.22

02[UZ]YP6080:D3264/4613/25

Source: Ecology and Environment Engineering, P.C. 1991

Table 4-2

MONITORING WELL AND GROUNDWATER ELEVATIONS

Well Number	Ground Elevation	Elevation of Top of PVC Casing	Depth of Groundwater from Ground Elevation	Groundwater Elevation
GW-1	581.0	580.69	2.65	578.35
GW-2	577.1	579.46	4.01	573.09
GW-3	577.3	579.52	5.11	572.19

02[UZ]YP6080:D3264/6300/24

Note: All elevations are in feet and are referenced from a point of assumed, not actual, elevation.

Source: Ecology and Environment Engineering, P.C. 1991

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Table 4-3

FIELD MEASUREMENTS OF GROUNDWATER CHEMICAL PARAMETERS TAKEN DURING WELL SAMPLING

Well	Date	Time	pH	Temperature (°F)	Conductivity ($\times 10^3$ µg/cm)	Nephelometric Turbidity Units (NTU)
GW-1	10/16/90	1103	7.20	60.5	3.06	>200
GW-2	10/16/90	1112	6.20	61.0	1.04	>200
GW-3	10/16/90	1140	6.75	61.5	1.32	>200

02[UZ]YP6080:D3264/6303/22

Source: Ecology and Environment Engineering, P.C. 1991

Table 4-4

INORGANIC ELEMENTS FOUND IN GROUNDWATER

Analyte	Range (µg/L)	NYSDEC Class GA Groundwater Standard or Guidance Value (µg/L)	Samples Exceeding Standard	
			Sample Number	Concentration (µg/L)
Aluminum	ND - 845	NA	--	--
Arsenic	ND - 2.4**	25	--	--
Barium	44.5 - 60.4***	1,000	--	--
Calcium	76,800 - 129,000	NA	--	--
Iron	489 - 2,130	300	GW-1	2,130
			GW-2	489
			GW-3	638
Lead	3.1 - 4.5	25	--	--
Magnesium	11,700 - 53,100	35,000*	GW-1	53,100
			GW-3	35,900
Manganese	123 - 299	300	--	--
Potassium	3,650 - 11,600**	NA	--	--
Sodium	47,200 - 516,000	20,000	GW-1	516,000
			GW-2	47,200
			GW-3	173,000
Zinc	71.3 - 447	30	GW-1	447
			GW-2	94.4
			GW-3	71.3
Cyanide	ND - 27,900	100	GW-1	27,900

02[UZ]YP6080:D3264/6304/20

*Guidance value.
**Analyte present in sample. Reported value may be biased low.
***Analyte present in sample. Quantitation may not be accurate.

Key:

NA = No standard.
ND = Not detected in concentrations significantly higher than in blank.

Source: Ecology and Environment Engineering, P.C. 1991.

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Table 4-5

ORGANIC COMPOUNDS FOUND IN GROUNDWATER

Compound	Range (µg/L)	NYSDEC Class GA Groundwater Standard (µg/L)	Samples Exceeding Standard	
			Sample Number	Concentration (µg/L)
Volatiles*				
1,1-Dichloroethane	ND - 53	5	GW-2	53
Total-1,2-Dichloroethene	ND - 340	5**	GW-2	340
1,1,1-Trichloroethane	ND - 370	5	GW-2	370
Trichloroethene	ND - 640	5	GW-2	640
Semivolatiles				
Phenol	ND - 16	1	GW-3	16
Pesticides/PCBs				
Delta BHC	ND - 0.073	NA	--	--

02[UZ]YP6080:D3264/6305/19

*Volatile results for GW-1 and GW-3 are considered as estimates due to surrogate recoveries and/or internal standard problems indicating matrix interferences.

**Groundwater Standard given is for trans-1,2-dichloroethene, although the reported results are for total-1,2-dichloroethene.

Key:

NA = No state standard or guidance value listed.
ND = Not found at or above detection limit.

Source: Ecology and Environment Engineering, P.C. 1991.

Table 4-6

INORGANIC ELEMENTS FOUND IN SURFACE WATER

Analyte	Range (µg/L)	NYSDEC Standard (µg/L)	Samples Exceeding Standard	
			Sample Number	Concentration (µg/L)
Barium	60.1 - 64.3*	NA		
Calcium	169,000 - 176,000	NA		
Iron	582 - 1,130	300	SW-1	784
			SW-2	1,130
			SW-3	582
Lead	7.5 - 15.0	90		
Magnesium	23,200 - 23,800	NA		
Manganese	54.2 - 62.5	NA		
Potassium	3,680 - 3,850*	NA		
Sodium	56,000 - 58,100	NA		
Zinc	35.1 - 54.6	30	SW-1	54.6
			SW-2	45.9
			SW-3	35.1

02[UZ]YP6080:D3264/6306/25

Note: NYSDEC Class B ambient water standards are used. Lead standard calculated based on a hardness of 1,390 mg/L (ppm).

*Inorganic analyte present. Quantitation may not be accurate.

Key:

NA = No standard.
ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1991.

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Table 4-7

INORGANIC ELEMENTS FOUND IN SEDIMENTS

Element	Range (mg/kg)	Common Range for Eastern U.S. Soils (mg/kg)*	Samples Exceeding Common Range	
			Sample Number	Concentration (mg/kg)
Aluminum	1,480 - 10,800	7,000 - >100,000	--	
Arsenic	[2.7]*** - 11.0***	<0.1 - 73	--	
Barium	[23.1] - 238	10 - 1,500	--	
Cadmium	4.5 - 10.6	0.01 - 0.70**	SED-1 SED-2 SED-3	10.6 4.5 4.5
Calcium	9,470 - 136,000	100 - 280,000	--	
Chromium	16.8*** - 76.7***	1 - 1,000	--	
Cobalt	ND - [8.0]	<0.1 - 70	--	
Copper	192 - 390	<1 - 700	--	
Iron	13,300 - 25,800	100 - >100,000	--	
Lead	502 - 9,890	<10 - 300	SED-1 SED-2 SED-3	615 502 9,890
Magnesium	1,840 - 12,400	50 - 50,000	--	
Manganese	109 - 536	<2 - 7,000	--	
Mercury	ND - 1.8	0.01 - 3.4	--	
Nickel	23.1 - 42.9	<5 - 700	--	
Potassium	[161] - [1,280]	50 - 37,000	--	
Selenium	ND - [1.2]***	<0.1 - 3.9	--	
Sodium	ND - [1,340]	<500 - 50,000	--	
Vanadium	[6.0]*** - 32.4***	<7 - 300	--	
Zinc	824 - 918	<5 - 2,900	--	

02[UZ]YP6080:D3264/6307/23

*Shacklette and Boerngen, 1984, "Elemental Concentrations in Soils and Other Surficial Materials of the Conterminous United States," USGE Professional Paper 1270.

**W.L. Lindsay, 1979, Chemical Equilibria in Soils, John Wiley and Sons.

***Analyte present. Reported value may be biased low. Actual value expected to be higher.

Key:

[ ] = Analyte present below CRDL but above IDL. Quantitation may not be accurate.

ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1991.

Table 4-8

ORGANIC COMPOUNDS FOUND IN SEDIMENTS

Compound	Sample Number	Concentration (µg/kg)
Volatiles		
Total-1,2-Dichloroethene	SED-3	13
Trichloroethene	SED-3	17
Tetrachloroethane	SED-3	85
Semivolatiles		
Total PAHs	SED-1	360,000
	SED-3	6,600

02[UZ]YP6080:D3264/4606/35

Source: Ecology and Environment Engineering, P.C. 1991.

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Table 4-9

INORGANIC ELEMENTS FOUND IN SUBSURFACE SOILS

Analyte	Range (mg/kg)	Common Range for Eastern U.S. Soils (mg/kg)*	Samples Exceeding Common Range	
			Sample Number	Concentration (mg/kg)
Aluminum	5,310 - 10,800	7,000 - >100,000	--	--
Antimony	ND - 12.3**	<1 - 8.8	--	--
Arsenic	2.1** - 37.1**	<0.1 - 73	--	--
Barium	62.0 - 185	10 - 1,500	--	--
Beryllium	ND - 0.53	<1 - 7	--	--
Cadmium	2.2 - 7.0	0.01 - 0.70***	SB-1A	7.0
			SB-1B	6.2
			SB-1C	2.5
			SB-1D	2.5
			SB-2A	2.5
			SB-2B	2.6
			SB-2C	3.5
			SB-3A	3.7
			SB-3B	2.9
			SB-3C	3.9
			SB-3D	3.1
			SB-4A	5.7
			SB-4B	3.5
			SB-4C	2.2
			SB-4D	2.7
Calcium	2,010 - 125,000	100 - 280,000	--	--
Chromium	12.6** - 304**	1 - 1,000	--	--
Cobalt	ND - 15.5	<0.1 - 70	--	--
Copper	14.1 - 269	<1 - 700	--	--
Iron	15,100 - 41,700	100 - >100,000	--	--
Lead	9.1 - 456	<10 - 300	SB-2A	380
			SB-2C	431
			SB-3A	456
			SB-4A	391
Magnesium	3,060 - 21,300	50 - 50,000	--	--
Manganese	139 - 15,900	<2 - 7,000	SB-1A	15,900
			SB-3A	9,750
Mercury	ND - 1.2	0.01 - 3.4	--	--
Nickel	9.0 - 36.6	<5 - 700	--	--
Potassium	484 - 2,380	50 - 37,000	--	--
Selenium	ND - 0.30**	<0.1 - 3.9	--	--
Silver	ND - 2.1	0.01 - 5	--	--

02[UZ]YP6080:D3264/6308/25

Key at end of table.

Table 4-9 (Cont.)

Analyte	Range (mg/kg)	Common Range for Eastern U.S. Soils (mg/kg)*	Samples Exceeding Common Range	
			Sample Number	Concentration (mg/kg)
Sodium	271 - 539	<500 - 50,000	--	--
Vanadium	14.3** - 140**	<7 - 300	--	--
Zinc	60.2 - 718	<5 - 2,900	--	--
Cyanide	ND - 89.5	NA	--	--

02[UZ]YP6080:D3264/6308/25

*Shacklette and Boerngen, 1984, "Elemental Concentrations in Soils and Other Surficial Materials of the Conterminous United States," USGE Professional Paper 1270.
**Analyte present. Reported value may be biased low. Actual value expected to be higher.
***W.L. Lindsay, 1979, Chemical Equilibria in Soils, John Wiley and Sons.

Key:

NA = No standard.
ND = Not detected.

Source: Ecology and Environment Engineering, P.C. 1991.

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Table 4-10

ORGANIC COMPOUNDS FOUND IN SUBSURFACE SOILS

Compound	Sample Number	Concentration (µg/kg)
Volatiles		
Chloroethane	SB-2B	54
1,1-Dichloroethene	SB-2A	9
	SB-2B	16
1,1-Dichloroethane	SB-2A	160
	SB-2B	630
	SB-2C	1,100*
Total-1,2-Dichloroethene	SB-2B	150
	SB-4B	10
	SB-4C	40
	SB-4D	120
1,2-Dichloroethane	SB-2A	7
1,1,1-Trichloroethane	SB-2A	500
	SB-2B	800
Trichloroethene	SB-1A	14**
	SB-1B	19**
	SB-2A	8
	SB-2B	530
	SB-3A	11**
	SB-3B	6
	SB-4A	80
	SB-4B	81
	SB-4C	220
	SB-4D	460
Toluene	SB-3A	15**
Ethylbenzene	SB-2A	36
	SB-2B	38
	SB-2C	40
Total Xylenes	SB-2A	720
	SB-2B	250
	SB-2C	220
Semivolatiles		
Total PAHs	SB-1A	34,000
	SB-1B	30,000
	SB-2A	15,000
	SB-2B	21,000
	SB-2C	23,000
	SB-3A	3,900
	SB-3B	29,000
	SB-4A	9,400

02[UZ]YP6080:D3264/4914/35

*Value considered estimated since it is above the calibration range. Dilution analysis was not run.

**Value considered estimated due to poor surrogate recoveries and/or internal standard areas. Matrix effect was indicated.

Source: Ecology and Environment Engineering, P.C. 1991.

Table 4-11

ORGANIC ANALYSES SUMMARY

Compound	Sample Number	Concentration (µg/L or µg/kg)
Volatiles		
Trichloroethene	GW-2	640
	SED-3	17
	SB-1A	14*
	SB-1B	19*
	SB-2A	8
	SB-2B	530
	SB-3A	11*
	SB-3B	6
	SB-4A	80
	SB-4B	81
	SB-4C	220
	SB-4D	460
Total-1,2-dichloroethene	GW-2	340
	SED-3	13
	SB-2B	150
	SB-4B	10
	SB-4C	40
	SB-4D	120
1,1-Dichloroethane	GW-2	53
	SB-2A	160
	SB-2B	630
	SB-2C	1,100**
1,1,1-Trichloroethane	GW-2	370
	SB-2A	500
	SB-2B	800
Tetrachloroethene	SED-3	85
Chloroethane	SB-2B	54
1,1-Dichloroethene	SB-2A	9
	SB-2B	16
1,2-Dichloroethane	SB-2A	7
Toluene	SB-3A	15
Ethylbenzene	SB-2A	36
	SB-2B	38
	SB-2C	40
Total xylenes	SB-2A	720
	SB-2B	250
	SB-2C	220
Semivolatiles		
Phenol	GW-3	16
Total PAHs	SED-1	360,000
	SED-3	6,600
	SB-1A	34,000
	SB-1B	30,000

02[UZ]YP6080:D3264/4917/35

Key at end of table.

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Table 4-11 (Cont.)

Compound	Sample Number	Concentration (µg/L or µg/kg)
	SB-2A	15,000
	SB-2B	21,000
	SB-2C	23,000
	SB-3A	3,900
	SB-3B	29,000
	SB-4A	9,500
Pesticides/PCBs		
Delta BHC	GW-2	0.073

02[UZ]YP6080:D3264/4917/35

*Value considered estimated due to poor surrogate recoveries and/or internal standard areas. Matrix effect was indicated.
**Value considered estimated since it is above the calibration range. Dilution analysis was not run.

Source: Ecology and Environment Engineering, P.C. 1991.

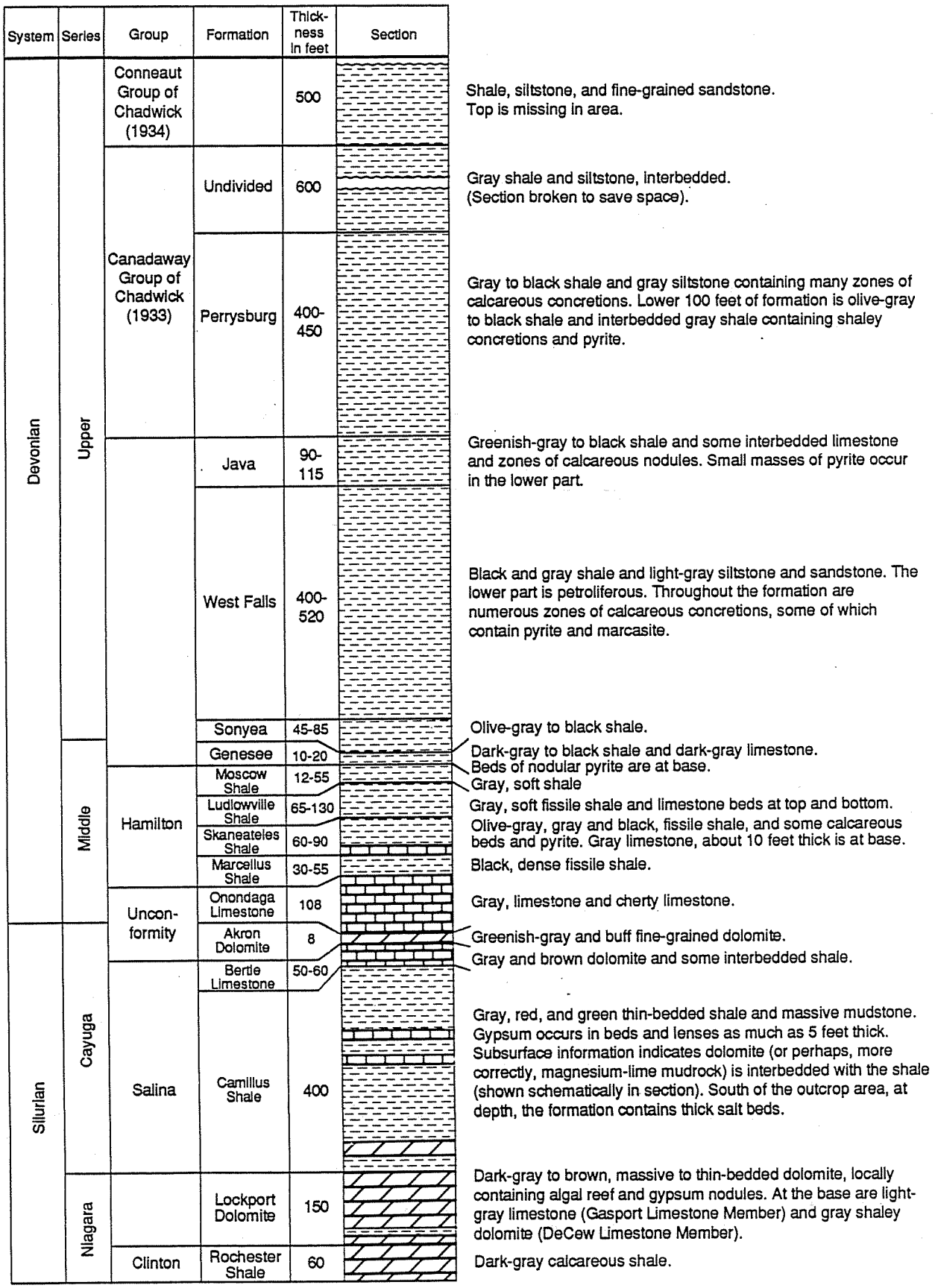


Figure 4-1
BEDROCK UNITS OF THE ERIE-NIAGARA BASIN

YPD3264

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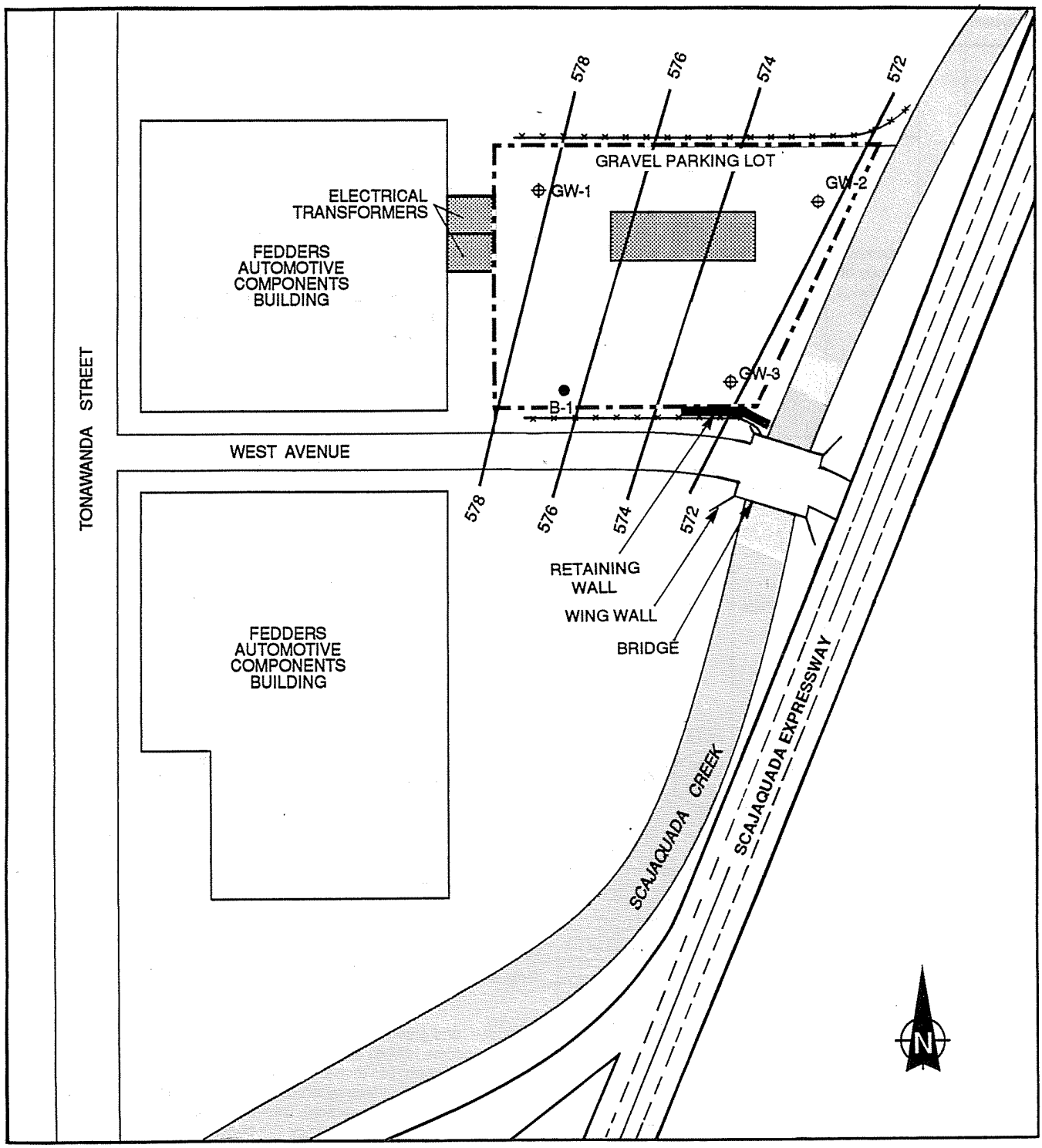


Figure 4-2
FEDDERS AUTOMOTIVE COMPONENTS, GROUNDWATER CONTOUR MAP

YPD2966B

5. FINAL APPLICATION OF HAZARDOUS RANKING SYSTEM

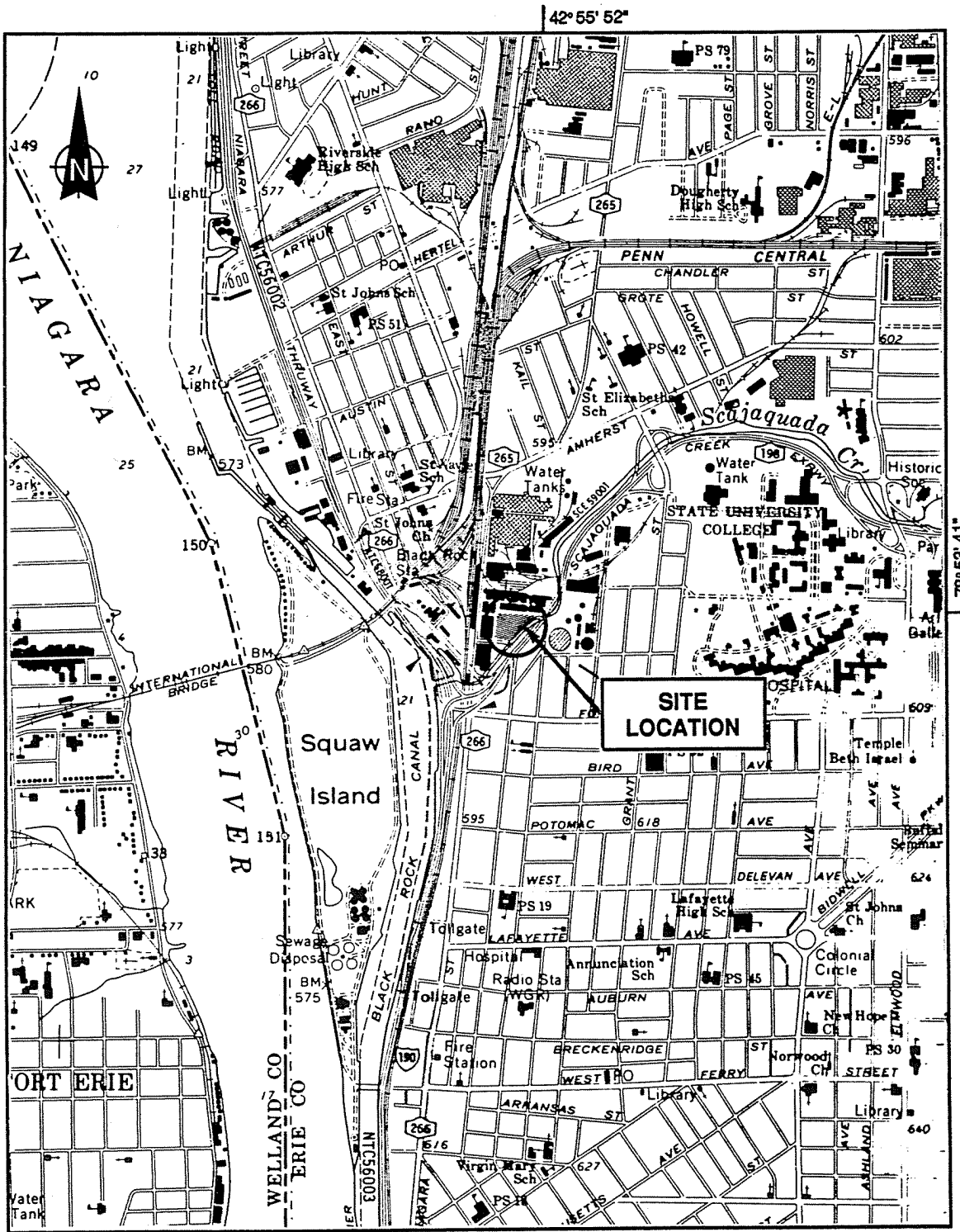
5.1 NARRATIVE SUMMARY

The Fedders Automotive Components site occupies approximately 2 acres at 57 Tonawanda Street in the City of Buffalo, Erie County, New York (see Figure 5-1). The facility has been producing automotive components at the present location since 1915.

The actual site under investigation is the employee parking lot, which was reportedly sprayed with 165 gallons of waste oil per year from 1974 to 1976. Conflicting reports have indicated that the practice continued until 1981. Although the company stated that the oils used consisted of light lubrication oils and hydraulic fluids, it was alleged that the oils may have contained PCBs.

The site is situated in an urban area, with residential, commercial, and industrial areas nearby. The site is located immediately adjacent to the Scajaquada Creek, which borders the site to the east, approximately 0.25 mile upstream from the Niagara River. The primary routes of contaminant exposure are through direct contact with the surface soils of the parking lot and sediment along the Scajaquada Creek bank which are contaminated with chlorinated organic compounds.

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SOURCE: USGS 7.5 Minute Series (Topographic) Quadrangle, Buffalo NW, New York-Ontario 1965.

SCALE 1:24,000

0 ½ 1 Mile

0 .5 1 Kilometer

Figure 5-1
SITE LOCATION MAP, FEDDERS AUTOMOTIVE COMPONENTS SITE

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FIGURE 1

H R S C O V E R S H E E T

Facility Name: Fedders Automotive Components Company

Location: 57 Tonawanda Street, Buffalo, New York 14207

EPA Region: II

Person(s) in Charge of Facility: Mr. G. Gary Moose, President

Name of Reviewer: Sandra Lare Date: 11/90

General Description of the Facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action; etc.)

Fedders Automotive Components Company, manufacturer of automobile radiators, heaters, and transmission oil coolers, is located in the City of Buffalo, Erie County, New York. The company has occupied this site since 1915, when it was established under the name of Fedders Quiggins Corporation. The majority of the generated wastes are (and were in the past) either recycled or disposed of off site. However, starting in 1974, about 165 gallons per year of waste oils (hydraulic fluids and light lubrication oils) were spread over the 2-acre parking lot to suppress dust. Conflicting reports say that this practice continued until either 1976 or 1981. PCBs are the main contaminants of concern, although Fedders claims that no oils containing PCBs were used on the lot. Scajaquada Creek borders the east end of the parking lot, and Fedders employees use the parking lot daily. The contamination routes of major concern are direct contact, surface water, and groundwater.

Scores: $S_M = 22.34$ ($S_{gw} = 3.06$ $S_{sw} = 38.53$ $S_a = 0$)

$S_{FE} = 0$

$S_{DC} = 20.83$

02[UZ]YP6080:D3264/6309

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 (3)	2	6	6	
Net Precipitation	0 1 (2) 3	1	2	3	
Permeability of the Unsaturated Zone	0 (1) 2 3	1	1	3	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			12	15	
3 Containment	0 1 2 3	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			13	26	
5 Targets					3.5
Ground Water Use	0 (1) 2 3	3	3	9	
Distance to Nearest Well/Population Served	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			3	49	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			1,755	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} = 3.06			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	(0) 1 2 3	1	0	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 1 2 (3)	2	6	6	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			11	15	
3 Containment	0 1 2 (3)	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			19	26	
5 Targets					4.5
Surface Water Use	0 1 2 (3)	3	9	9	
Distance to a Sensitive Environment	(0) 1 2 3	2	0	6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 / 12 16 18 (20) / 24 30 32 35 40	1	20	40	
Total Targets Score			29	55	
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			24,795	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{SW} = 38.53			

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

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Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the S_a = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	(0) 1 2 3	1	0	3	
Toxicity	(0) 1 2 3	3	0	9	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8	
	Total Waste Characteristics Score		0	20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 (24) 27 30	1	24	30	
Distance to Sensitive Environment	0 (1) 2 3	2	2	6	
Land Use	0 1 2 (3)	1	3	3	
	Total Targets Score		29	39	
4 Multiply 1 x 2 x 3			0	35,100	
5 Divide line 4 by 35,100 and multiply by 100		S_a =	0		

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	3.06	9.36
Surface Water Route Score (S_{sw})	38.53	1,484.56
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1,493.92
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		38.65
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73 = S_M =$		22.34

FIGURE 10
WORKSHEET FOR COMPUTING S_M

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Inspection by Buffalo Fire Prevention Bureau revealed that the site poses no significant fire hazard.

Fire and Explosion Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1	0	3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100		S_{FE} = 0			

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Incident	(0) 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 (1) 2 3	1	1	3	8.2
3 Containment	0 (15)	1	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 (5)	4	20	20	
Distance to a Critical Habitat	(0) 1 2 3.	4	0	12	
Total Targets Score			20	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			4,500	21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} = 20.83			

FIGURE 12
DIRECT CONTACT WORK SHEET

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DOCUMENTATION RECORDS

FOR

HAZARD RANKING SYSTEM

Instructions: As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,320 drums plus 80 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

Facility Name: Fedders Automotive Components Company

Location: 57 Tonawanda Street, Buffalo, New York 14207

Date Scored: November 1990

Person Scoring: Sandra Lare

Primary Source(s) of Information (e.g., EPA region, state, FIT, etc.):

Uncontrolled Hazardous Waste Site Ranking System Manual
Erie County Department of Environmental Protection
New York State Department of Environmental Conservation
U.S. Environmental Protection Agency

Factors Not Scored Due to Insufficient Information:

None

Comments or Qualifications:

None

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1. OBSERVED RELEASE

Contaminants detected (3 maximum):

Total-1,2-dichloroethene; trichloroethene; and 1,1,1-trichloroethane

Rationale for attributing the contaminants to the facility:

These compounds were detected in downgradient groundwater samples and in other media (sediment, soil) at the site at greater than three times the level in upgradient wells.

* * *

2. ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

A clay and sandy clay overburden layer, possibly a combination of natural and fill material.
Ref. 2, 3

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

Water levels ranged from 2.7 to 7.85 feet below ground surface in October 1990.
Ref. 4, 6

Depth from the ground surface to the lowest point of waste disposal/storage:

Unknown
Ref. 23

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

36 inches
Ref. 1

Mean annual or seasonal evaporation (list months for seasonal):

27 inches
Ref. 1

Net precipitation (subtract the above figures):

36 inches - 27 inches = 9 inches
Ref. 1

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Permeability of Unsaturated Zone

Soil type in unsaturated zone:

The Soil Conservation Service has classified this area as "urban land," in which 80% of the soil surface is covered by asphalt, buildings, or other impervious structures. However, an on-site investigation has found soil to be clay, sand, and silt.
Ref. 6, 7

Permeability associated with soil type:

10^{-5} to 10^{-7} cm/second
Ref. 1

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

liquid
Ref. 4, 8

* * *

3. CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No containment; parking lot has no liner or impermeable base to prevent groundwater contamination.
Ref. 4, 5

Method with highest score:

No containment; score = 3.
Ref. 1

* * *

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

1,1-dichloroethane, total-1,2-dichloroethene, 1,1,1-trichloroethane, trichloroethene, phenol.
Ref. 11, 14, 23

Compound with highest score:

All score = 12.
Ref. 1, 12

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0. (Give a reasonable estimate even if quantity is above maximum.):

Minimum Score of 1.
Ref. 23

Basis of estimating and/or computing waste quantity: No hazardous wastes have been documented at the site and no analytical data have supported the use of PCB-contaminated oil at the site. However, hazardous substances were identified within the groundwater.

* * *

5. TARGETS

Groundwater Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Aquifer is not used within 3 miles; if used, well yields would be low, but usable for household demands.
Ref. 3, 5

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

None within 3 miles.
Ref. 3, 5, 15

Distance to above well or building:

NA

Population Served by Groundwater Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

No known wells within 3 miles.
Ref. 3, 5, 15

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

No wells drawing from aquifer of concern in 3-mile radius.
Ref. 3, 5, 15

Total population served by groundwater within a 3-mile radius:

0
Ref. 3, 5, 15

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1. OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Total-1,2-dichloroethene, trichloroethene, and tetrachloroethane.

Rationale for attributing the contaminants to the facility:

These compounds were detected in sediment downstream of the facility.

* * *

2. ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

2.8%
Ref. 15

Name/description of nearest downslope surface water:

Scajaquada Creek, which has a "B" state water quality classification, is a primary contact recreation stream, suitable for any uses except as a source of water supply for drinking, culinary, or food processing purposes.
Ref. 5, 16

Average slope of terrain between facility and above-cited surface water body in percent:

1.5%
Ref. 15

Is the facility located either totally or partially in surface water?

No, but there have been floods in the parking lot due to the seasonal rising of water levels in Scajaquada Creek.
Ref. 5, 14

Is the facility completely surrounded by areas of higher elevation?

No, the creek that borders it is lower; however, adjacent properties are topographically elevated, causing drainage toward the Fedders site.
Ref. 5

1-Year 24-Hour Rainfall in Inches

2.1 inches
Ref. 15

Distance to Nearest Downslope Surface Water

The creek is directly adjacent to the site; less than 1,000 feet. Distance to drinking water intakes in Niagara River is between 2 to 3 miles.
Ref. 1, 5, 14

Physical State of Waste

Liquid
Ref. 4, 8

* * *

3. CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No containment or runoff diversion structures. Oil was spread directly onto parking lot.
Ref. 4, 5

Method with highest score:

No containment; Score = 3
Ref. 1

* * *

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Total-1,2-dichloroethene, trichloroethane, and tetrachloroethane.
Ref. 11, 14

Compound with highest score:

Tetrachloroethane
Score = 18
Ref. 1, 12

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0. (Give a reasonable estimate even if quantity is above maximum.):

Minimum Score of 1.
Ref. 23

Basis of estimating and/or computing waste quantity: No hazardous waste has been documented at the site and the allegation that PCB-contaminated oil was used at the site was not supported by analytical data. However, hazardous substances were identified in the surface water.

* * *

5. TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Scajaquada Creek drains into the Niagara River, which is a drinking water source, supports recreational boating, commercial shipping and navigation, fishing, and other primary and secondary contact recreations.
Ref. 5, 17

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Is there tidal influence?

No, only seasonal risings of the water level in Scajaquada Creek.
Ref. 5, 14

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

None within 2 miles.
Ref. 5

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

None known to exist within 1 mile.
Ref. 5, 15

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

The ladyslipper, ninebark, and mead sedge all may be found within a 1.5-mile area around the site.
Ref. 18, 19

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

Two intakes are located just under 3 miles downstream from the site, at the foot of Sheridan Drive, in the Niagara River.
Ref. 17

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

Irrigation with water from these intakes is unlikely.
Ref. 21

Total population served:

One intake serves Tonawanda Water District No. 1, population 91,269. The other serves Erie County Van De Water Plant, of which population served is unknown. Regardless, the population served by Tonawanda's intake is sufficient to give factor the highest possible score for the 2.1-mile distance.
Ref. 5, 17

Name/description of nearest of above water bodies:

Niagara River.
Ref. 5

Distance to above-cited intakes, measured in stream miles:

About 2.1 miles.
Ref. 2, 5, 17

1. OBSERVED RELEASE

Contaminants detected:

None detected in air by E & E personnel; none detected by others in two previous site inspections.
Ref. 7, 13, 14, 15

Date and location of detection of contaminants:

None detected.

Methods used to detect the contaminants:

HNu, OVA.
Ref. 13, 15

Rationale for attributing the contaminants to the site:

NA

* * *

2. WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

All compounds scored 0 (zero) on reactivity ratings (of PCBs, toluene, trichloroethane, xylene, ethylbenzene, benzene).
Ref. 1

Most incompatible pair of compounds:

No substances were found to be incompatible.
Ref. 1

Toxicity

Most toxic compound:

PCBs; it should be noted that PCBs in waste oil would not impact the air pathway, Score = 0.
Ref. 1

Hazardous Waste Quantity

Total quantity of hazardous waste:

None.
Ref. 23

Basis of estimating and/or computing waste quantity: No hazardous waste has been documented at the site and the allegation that PCB-contaminated oil was used at the site was not supported by analytical data.

* * *

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3. TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi	0 to 1 mi	0 to 1/2 mi	0 to 1/4 mi
264,989 people	20,547 people		

Ref. 5, 15

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

None within 2 miles.
Ref. 5

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

None known to be within 1 mile.
Ref. 5, 15

Distance to critical habitat of an endangered species, if 1 mile or less:

None.

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Fedders is located in a commercial/industrial area.
Ref. 4, 15

Distance to national or state park, forest, wildlife reserve, if 2 miles or less:

Strawberry Island and Motor Island are approximately 2 miles downstream in the Niagara River, and are significant coastal fish and wildlife habitats.
Ref. 18

Distance to residential area, if 2 miles or less:

An older urban neighborhood is approximately .5 mile north of the site.
Ref. 15

Distance to agricultural land in production within past 5 years, if 1 mile or less:

None within 1 mile.
Ref. 15, 21

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

None within 2 miles.
Ref. 15, 21

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within the view of the site?

No.
Ref. 20

1. CONTAINMENT

Hazardous substances present:

Some hazardous substances identified during sampling, however, site has not been identified as a significant or unusual fire or explosion hazard.
Ref. 22

Type of containment, if applicable:

No containment, parking lot has no liner or impermeable base to prevent migration of hazardous substances.
Ref. 4, 5

* * *

2. WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

None

Ignitability

Compound used:

NA

Reactivity

Most reactive compound:

NA

Incompatibility

Most incompatible pair of compounds:

NA

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Unknown
Minimum score of 1
Ref. 23

Basis of estimating and/or computing waste quantity:

No hazardous waste has been documented at the site and the allegation that PCB-contaminated oil was used at the site was not supported by analytical data.

* * *

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3. TARGETS

Distance to Nearest Population

Approximately 0.5 mile.

Distance to Nearest Building

Building immediately adjacent to site.

Distance to a Sensitive Environment

Distance to wetlands:

NA

Distance to critical habitat:

NA

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Site is within a mixed commercial/industrial/residential area.

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

NA

Distance to residential area, if 2 miles or less:

NA

Distance to agricultural land in production within past 5 years, if 1 mile or less:

NA

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

NA

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within the view of the site?

NA

Population Within 2-Mile Radius

76,966
Ref. 15

Buildings Within 2-Mile Radius

20,254
Ref. 15

1. OBSERVED INCIDENT

Date, location, and pertinent details of incident:

There is no known incident in which contact with substances at the facility has caused injury, illness, or death.
Ref. 4, 5, 7, 13, 15

* * *

2. ACCESSIBILITY

Describe type of barrier(s):

There is a 24-hour guard stationed in the parking lot to restrict public access; however, company employees use the lot daily.
Ref. 15

* * *

3. CONTAINMENT

Type of containment, if applicable:

The parking lot has since been covered with loose gravel; however, it is less than 2 feet deep, and no other adequate containment systems are in use.
Ref. 4

* * *

4. WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

Toluene, xylenes, ethylbenzene, 1,1-dichloroethane, trichloroethane, 1,1,1-trichloroethane.
Ref. 11, 14

Compound with highest score:

Toluene.
Score = 3.
Ref. 1

* * *

5. TARGETS

Population Within One-Mile Radius

20,547 people.
Ref. 5, 15

Distance to Critical Habitat (of endangered species)

None.
Ref. 1, 18

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REFERENCES

If the entire reference is not available for public review in the EPA regional files on this site, indicate where the reference may be found.

Reference Number	Description of the Reference
1	MITRE Corporation, for USEPA, 1984, Uncontrolled Hazardous Waste Site Ranking System, A User's Manual. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
2	Buehler, E.J. and I.H. Tesmer, 1963, Geologic Map of Erie County, New York Bedrock Geology. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
3	LaSala, A.M., Jr., Groundwater Resources of the Erie-Niagara Basin, New York. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
4	Erie County Department of Environment and Planning, February 1982, Hazardous Waste Site Profile, Fedders Automotive Company, Buffalo, New York Site No. 915024. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
5	Advanced Environmental Services, September 1989, Final Report Site Investigation, Fedco Automotive Components Company, Buffalo, N.Y. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
6	U.S. Department of Agriculture, Soil Conservation Service, 1986, Soil Survey of Erie County, New York. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
7	Ecology and Environment Engineering, P.C., Drilling and Testing Company, Inc. September 25, 1990, Subsurface Boring Log, Appendix C, this report. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
8	New York State Division of Environmental Conservation, 1978, New York State Hazardous Waste Survey. Document Location: New York State Division of Environmental Conservation.
9	Cook, George, Fedders Maintenance Superintendent, January 29, 1982, letter to Ronald Koczaja of Erie County Department of Environment and Planning. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
10	New York State Division of Environmental Conservation, Division of Solid Waste Management, August 31, 1978, Facility Inspection Report. Document Location: Erie County Department of Environment and Planning.
11	Ecology and Environment Engineering, P.C., 1990, Site Safety Plan, Fedders Automotive Components, Appendix A, this report. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
12	Sax, N.I., 1975, Dangerous Properties of Industrial Materials, Sixth Edition. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
13	Ecology and Environment Engineering, P.C., April 23, 1990, Geophysical Survey Logbook. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.

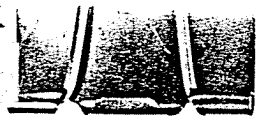
02[UZ]YP6080:D3264/6311

Reference Number	Description of the Reference
14	New York State Division of Environmental Conservation, Division of Hazardous Waste Remediation, Bureau of Hazardous Site Control, January 1990, Phase II (Fifth Round) Work Plan Engineering Investigations and Evaluations at Inactive Hazardous Waste Disposal Sites: Fedders Automotive Components. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
15	United States Environmental Protection Agency, March 27, 1985, Potential Hazardous Waste Site, Site Inspection Report. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
16	State of New York, 1983, Official Compilation of Codes, Rules, and Regulations, Stream Classifications and Standards. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
17	Martin, Mike, Erie County Water Authority, April 10, 1990, personal communication. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
18	Buffington, Burrell, National Heritage Program, April 10, 1990, personal communication. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
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20	National Conference of State Historic Preservation Officers, 1989, National Register of Historic Places, 1966-1988. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
21	Ecology and Environment Engineering, P.C., April 9, 1990, Trip Report and Information from Erie County Department of Environment and Planning. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
22	Eck, G., 1991, Buffalo Fire Prevention Bureau, personal communication. Document Location: Ecology and Environment Engineering, P.C., Lancaster, N.Y.
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REFERENCE 1



Donation
~~Donald Johnson~~
Personal Copy

Uncontrolled Hazardous Waste Site Ranking System

A Users Manual
(HW-10)

Originally Published in
the July 16, 1982, *Federal Register*

United States
Environmental Protection
Agency

1984

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REFERENCE 2

Camillus Shale
Gray shale containing large amounts of gypsum

Contact

Inferred Contact

45'

GEOLOGIC MAP OF ERIE COUNTY, NEW YORK BEDROCK GEOLOGY

by Edward J. Buehler and Irving H. Tesmer

1963

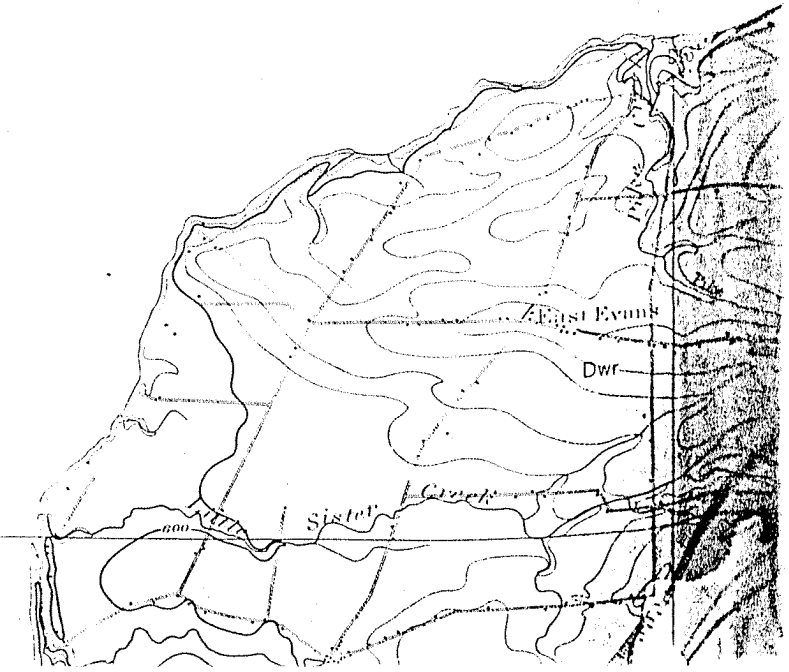
Scale $\frac{1}{62500}$

1 0 1 2 3 4 Miles

CONTOUR INTERVAL 20 FEET

BUFFALO SOCIETY OF NATURAL SCIENCES
BULLETIN, VOL. 21, NO. 3

5-27



42°

REFERENCE 3

GROUND-WATER RESOURCES OF THE ERIE-NIAGARA BASIN, NEW YORK



Prepared for the
Erie-Niagara Basin Regional Water Resources
Planning Board

by

A. M. La Sala, Jr.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

in cooperation with

THE NEW YORK STATE CONSERVATION DEPARTMENT
DIVISION OF WATER RESOURCES

STATE OF NEW YORK
CONSERVATION DEPARTMENT
WATER RESOURCES COMMISSION

Basin Planning Report ENB-3

1968 5-29

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ecology and environment

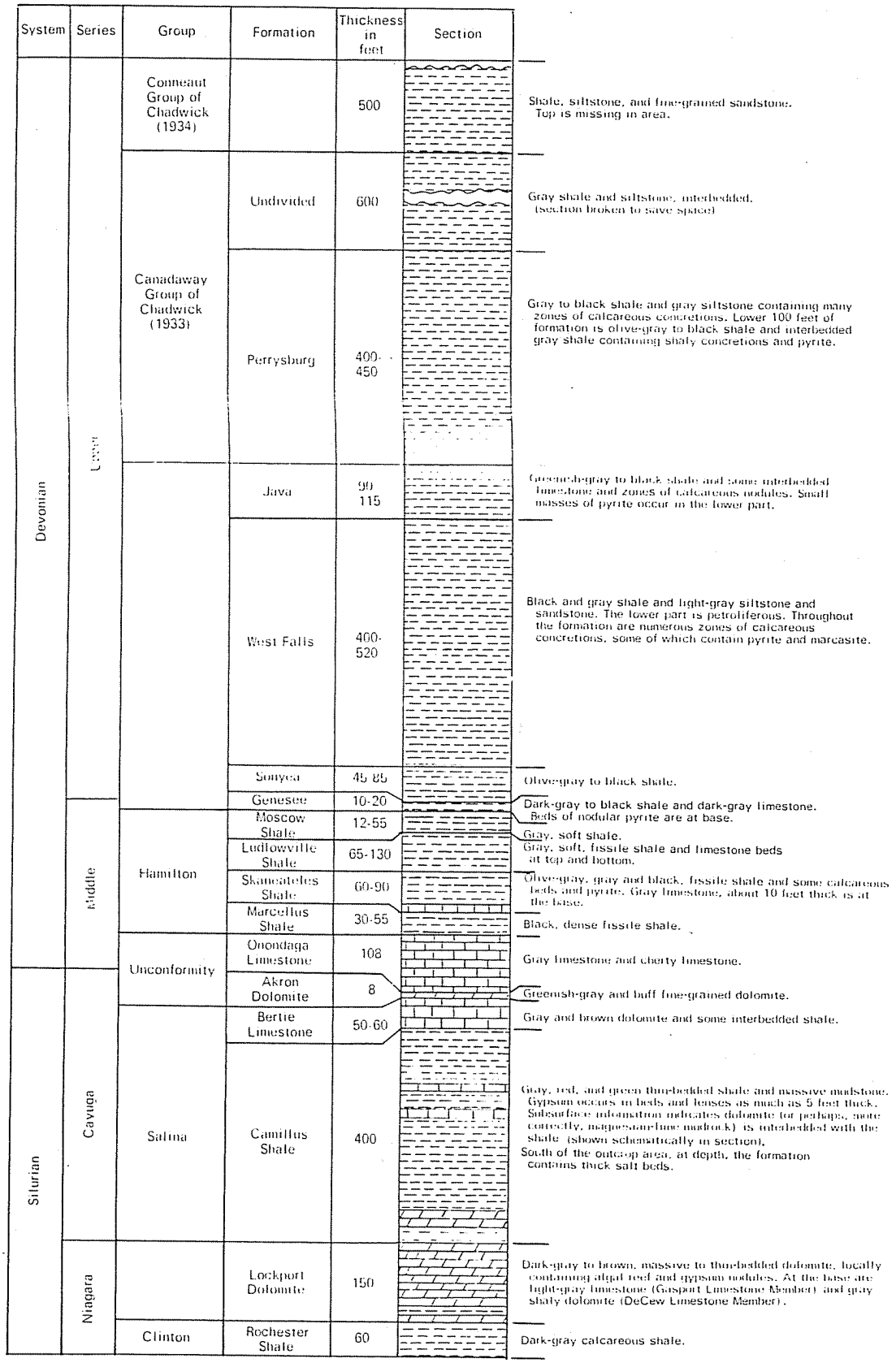


Figure 2.--Bedrock units of the Erie-Niagara basin.

Yields of wells

The Camillus Shale is by far the most productive bedrock aquifer in the area. Except in the vicinity of Buffalo and Tonawanda, where industrial wells produce from 300 to 1,200 gpm, no attempt has been made to obtain large supplies from the formation. However, the inflow of water to gypsum mines near Clarence Center and Akron indicate that large supplies are not necessarily restricted to the Buffalo and the Tonawanda area. Two examples of large flows of water encountered in gypsum mining have already been mentioned. Pumpage from gypsum mines near Clarence Center (including the mine mentioned previously) is substantial. The water pumped is discharged to Got Creek. On July 2, 1963, the creek had a flow of 2.1 mgd (million gallons per day) about half a mile downstream from the mines, that was due almost entirely to the pumpage. Water for industrial use is pumped from a flooded, abandoned gypsum mine at Akron. This pumpage, at a rate of 500 to 700 gpm, has had no appreciable effect on the water level in the mine.

Probably the larger solution openings are most common in discharge areas near Tonawanda Creek and its tributaries and near the Niagara River; the flow of ground water becomes concentrated as it approaches the streams to which it discharges. Other discharge areas, such as low-lying swampy areas and headwaters of small streams that have perennial flow, are likely places to drill wells.

LIMESTONE UNIT

Bedding and lithology

The term "limestone unit" in this report is applied to a sequence of limestone and dolomite overlying the Camillus Shale. The limestone unit includes the Bertie Limestone at the base, the Akron Dolomite, and the Onondaga Limestone at the top. The lithology and thickness of these units are shown in figure 7. The Bertie Limestone and the Akron Dolomite are Silurian in age and are separated from the overlying Onondaga Limestone of Devonian age by an unconformity or erosional contact.

The Bertie Limestone is mainly dolomite and dolomitic limestone but contains interbedded shale particularly in the thin-bedded lower part of the formation. The middle part is brown, massive dolomite, and the upper part is gray dolomite and shale whose beds are of variable thickness. The total thickness of the formation is about 55 feet (Buehler and Tesmer, 1963, p. 30-31).

The Akron Dolomite is composed of greenish-gray and buff dolomite beds varying from a few inches to about a foot in thickness. The upper contact of the Akron is erosional and is often marked by remnants of shallow stream channels. Thin lenses of sandy sediments lie in the bottoms of some channels. The thickness of the formation is generally between 7 and 9 feet (Buehler and Tesmer, 1963, p. 33-34).

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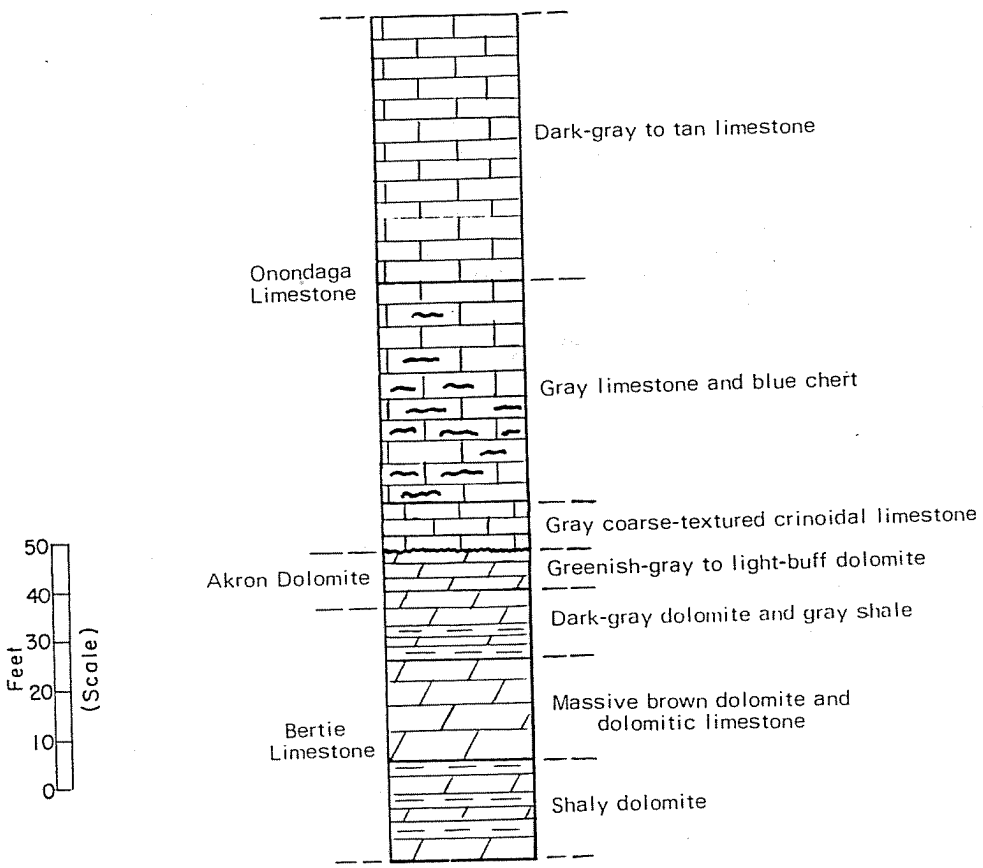


Figure 7.--Lithology of the limestone unit.

The Onondaga Limestone, about 110 feet thick, makes up the greatest thickness of the limestone unit. The formation consists of three members. The lowest member is a gray coarse-grained limestone, generally only a few feet thick. At places this member grades laterally into reef deposits which increases its thickness (Buehler and Tesmer, 1963, p. 35-36).

The middle member of the Onondaga is a cherty limestone. In some zones the chert exceeds the amount of limestone. The unit is probably 40-45 feet thick.

The upper unit is a dark-gray to tan limestone of varying texture and is probably about 50-60 feet thick.

Water-bearing openings

The limestone unit contains water-bearing openings that are similar to those of the Lockport Dolomite. Because the limestone unit is more soluble, however, solution widening of the openings appears to be more

pronounced. The types of water-bearing joints in the limestone can be seen at the falls of Murder Creek at Akron. Not all of the flow of Murder Creek plunges over the falls. A considerable part of the flow percolates into the limestone unit upstream from the falls and discharges from bedding joints both at the face and along the sides of the falls. The principal zones of discharge are at the base of the Bertie, and at a contact of a shaly zone and overlying thick-bedded dolomite 20 feet above the base.

The falls at Akron also illustrate in an exaggerated way the role of vertical joints. Water from Murder Creek percolates into the rock through solution-widened vertical joints before reaching the bedding-plane joints. The continuous and concentrated flow of water in the creek has widened the vertical joints to an unusual degree. Vertical joints are ordinarily very narrow. They probably are most effective in aiding the movement of water to the bedding joints where the bedding joints are close to the rock surface.

Locally, solution along bedding joints in the limestone unit has been great enough to cause the rock overlying the solution opening to settle. Settling of this type probably accounts for at least some of the small depressions in the outcrop belt of the Onondaga Limestone. A collapsed solution zone in the Onondaga Limestone discharges a large volume of water into a quarry (257-840-A) near Harris Hill. About 3,000 gpm is pumped from the quarry, and most of the water is reported to come from the solution zone.

The limestone unit is cut by a fault on the east side of Batavia. Faults cutting limestone are likely to cause shattering along the fault and, thus, create a permeable water-bearing zone.

Hydrologic and hydraulic characteristics

The limestone unit is similar to the Lockport Dolomite in structure. However, its hydrology is different. The limestone unit is cut transversely by Tonawanda Creek and its major tributaries. Small tributaries flow across it in northerly and westerly directions. The limestone unit receives water in the interstream areas by percolation into joints. The water is discharged laterally to the streams and at places along the north-facing scarp or enters the Camillus Shale at depth.

The coefficient of transmissibility of the limestone unit probably ranges from about 300 to 25,000 gpd per foot. Specific capacity data are given in table 3. Drillers' reports indicate high transmissibilities for the limestone unit in Williamsville which probably arise from relatively intense circulation of ground water near Ellicott Creek. The coefficients of transmissibility given in table 3 were computed from specific capacity data by the method described by Walton (1962, p. 12-13).

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Table 5.--Development of ground water for public water supplies in the Erie-Niagara basin

Community	Source 1/	Average use (gallons per day)
Alden	253-829-3, 254-829-1, -2, -3	200,000
Arcade (includes Sandusky)	229-822-1, -2 231-825-2 232-825-1	700,000
Batavia	259-809-2, -6	1,000,000
Cattaraugus	Four areas of springs, 3 mi south to southeast of village and 219-851-1	200,000
Chaffee	233-828-1	15,000
Collins	229-856-1 230-856-1	50,000
Collins Center	229-849-1, -2	25,000
Corfu	257-824-1	60,000
Delevan	Numerous springs, 1 mi southwest of village, including 228-829-1Sp, -2Sp	50,000
East Aurora	246-836-1, -2, -3, -4	750,000
Gowanda	227-856-1	100,000
Holland	238-832-1, -2	80,000
Lawtons	Several springs including 232-855-1Sp	10,000
Machias	Springs south of village	50,000
North Collins	234-856-1, -3, -4, -5	250,000
North Java	Infiltration galleries and well 240-819-1	15,000
Otto	Infiltration gallery about 1 mi south of village	5,000
Springville	230-840-2, -3	400,000
Varysburg	Springs 1 mi east of village and 246-818-1	25,000
West Valley	Infiltration galleries including 223-836-1, -2	35,000

1/ Well or spring number is given for those sources that were inventoried during the study and are listed in tables 6 and 7.

REFERENCE 4

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HAZARDOUS WASTE SITE PROFILE

FEDDERS AUTOMOTIVE COMPANY

BUFFALO, NEW YORK

SITE #915024

Prepared by

Erie County Department of Environment
and Planning

February 1982

FEDDERS AUTOMOTIVE COMPONENT COMPANY

57 Tonawanda Street
Buffalo, New York

DEC Site #915024

BACKGROUND INFORMATION

This site was listed by the Interagency Task Force on Hazardous Waste because the company spread waste oil as a dust suppressant on their parking lot. Approximately 165 gallons/year of waste oil was spread over the 2 acre area. The activity occurred until 1981 when crushed stone was placed over the parking area. The parking area oiling was instituted on the instructions of Erie County (DEQ-Air Pollution Control - approximately 1974) during a fugitive dust control effort. The crushed stone (not slag) has proved satisfactory as a dust control agent. Scajaquada Creek borders one edge of the parking lot. The Niagara River and Black Rock Canal are within ½ mile of the site and to the west.

Waste oils used for dust control were stated by company officials as light lube oils or hydraulic fluids. The company officials stated that the firm did not spread any transformer oils over the parking lot.

Aerial photographs for the years 1959, 1966 and 1952 did not show any indication of waste landfilling at this site.

The study area is located in a highly urbanized zone with an estimated population of grater than 10,000 within a one (1) mile radius of the site. Land use within this one mile radius consists of a mix of industrial, commercial and residential development.

GROUNDWATER, BEDROCK, SOILS AND SURFACE WATER

The URS Study reports a "miscellaneous" natural groundwater table. This area is believed to be underlain with a limestone bedrock according to the URS Study. Doctor Hodges (SUNY at Buffalo) reports that the bedrock lies at a depth of 40-60 feet.

Soils have been classified as "Urban" by the Soil Conservation Service and as silty clay, sand and silt by Ernest H. Muller on his Quaternary Geology of New York State (1977).

The Niagara River and Black Rock Canal are located approximately ½ mile to the west and the Scajaquada Creek is adjacent to the site. These are the only surface waters within two (2) miles of the site.

There are no New York State Department of Environmental Conservation designated wetlands within 1 mile of the site.

A review of the Federal Flood Insurance Program Flood Hazard Boundary Maps indicate that the eastern portion of the site is in the 100 year Flood Plain of Scajaquada Creek.

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- continued -

FIRE AND EXPLOSION

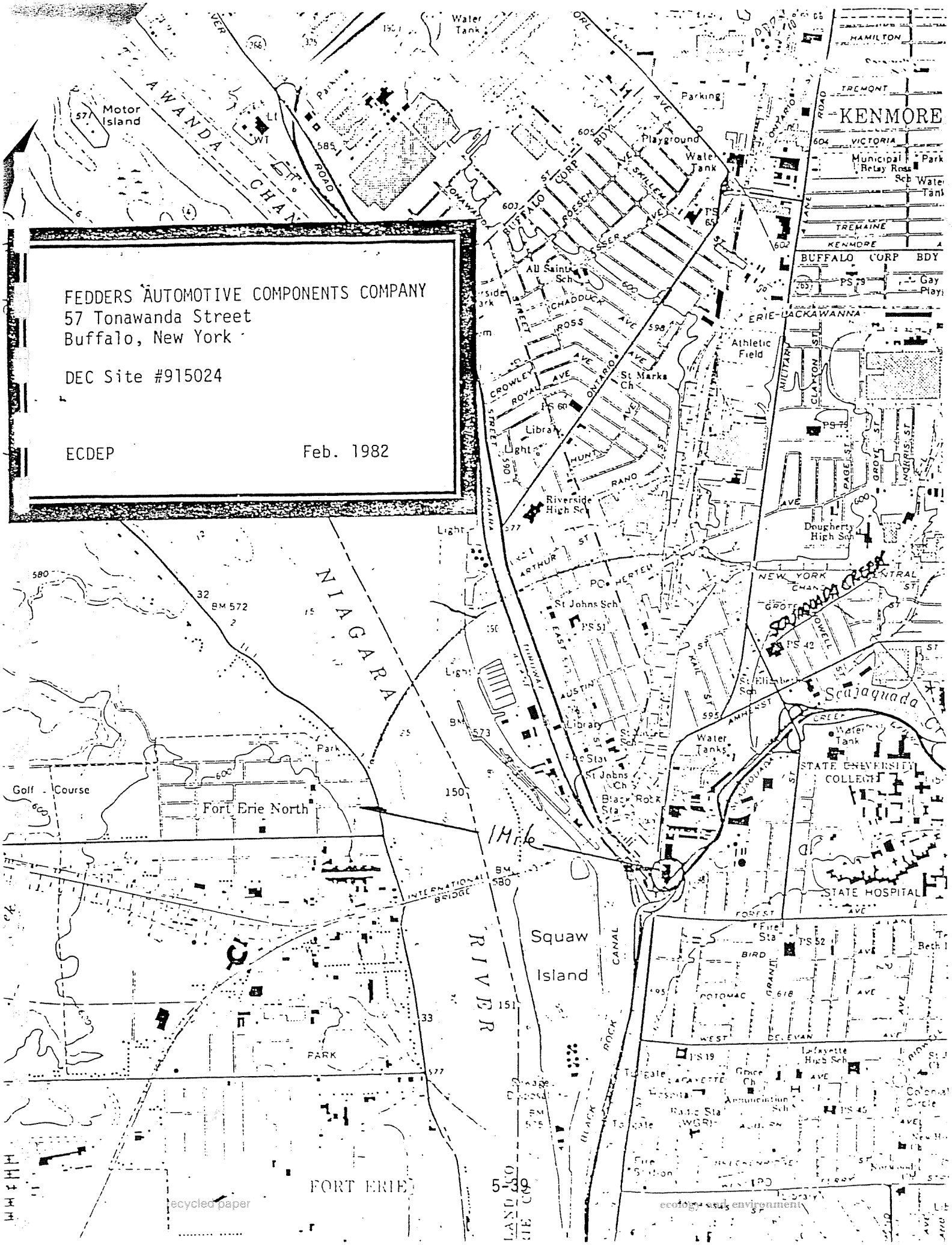
No fire or explosion hazard is associated with this site.

DIRECT CONTACT

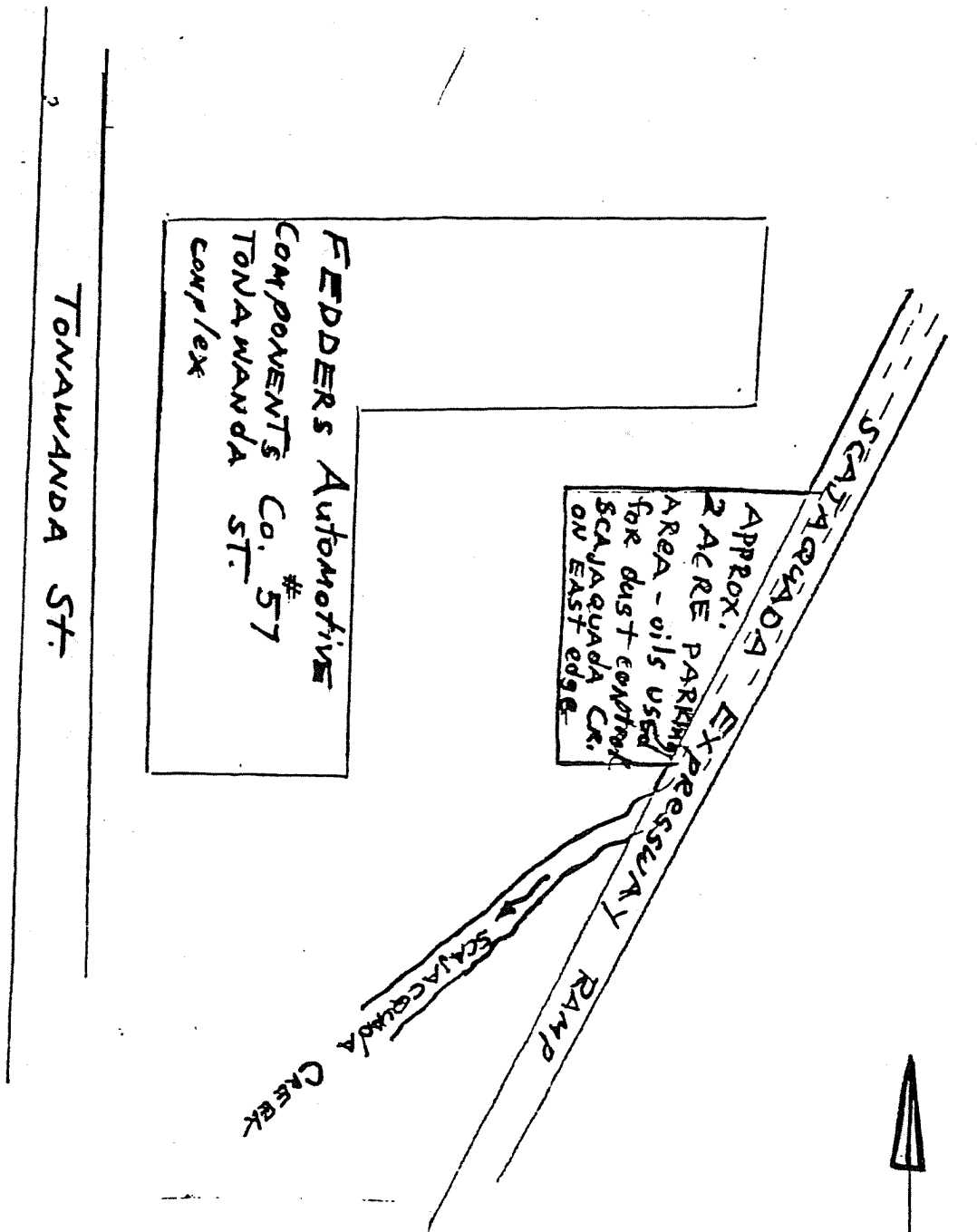
Public access to the site is restricted. Fedders Automotive Component Company employees come in contact with the area on a daily basis when they use the area for parking.

CONCLUSIONS AND RECOMMENDATIONS

It was confirmed that the site received approximately 165 gallons per year of waste oils, spread over a two (2) acre area. This activity occurred for an unspecified period of time. The company stated that light lubrication oils and hydraulic fluids were spread over the parking lot for dust control. Transformer oils were not placed on the lot. PCB's have been associated with hydraulic fluids therefore, it is possible that the soil has been contaminated with PCB's. We recommend that soil samples be taken to determine the presence or absence of PCB's. We also recommend that, if found present in the soils, a EPA leachate potential test be done to determine potential contribution to Scajaquada Creek.



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FEDDERS AUTOMOTIVE COMPONENTS CO.

57 Tonawanda St.
Buffalo, N.Y.

DEC Site # 915024

ECDEP Feb. 1982

REFERENCE 5

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FINAL REPORT
SITE INVESTIGATION

Fedco Automotive Components Co.
Buffalo, New York

September 1989
Ref. No. 3042 (2)

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ADVANCED ENVIRONMENTAL SERVICES
CONESTOGA-ROVERS & ASSOCIATES

HRS COVER SHEET

Facility Name: Fedders Automotive Components Company

Location: 57 Tonawanda Street, Buffalo, NY

EPA Region: II

Person(s) in charge of the facility: Mr. Richard Acksel

Name of Reviewer: S. Robert Steele, II Date: 4/15/85

General Description of the facility:

The Erie County Department of Environmental Quality (Air Pollution Control Division) requested that the Fedders Automotive Components Company take measures to control dust from their parking lot. From 1974 until 1976, waste oil was spread on-site to control fugitive dust. The waste oil used is suspected of containing PCBs. No sampling and analysis of the parking lot soils has been conducted to date.

Scores: S_M = (S_{gw} = S_{sw} = S_a =)

S_{FE} =

S_{DC} =

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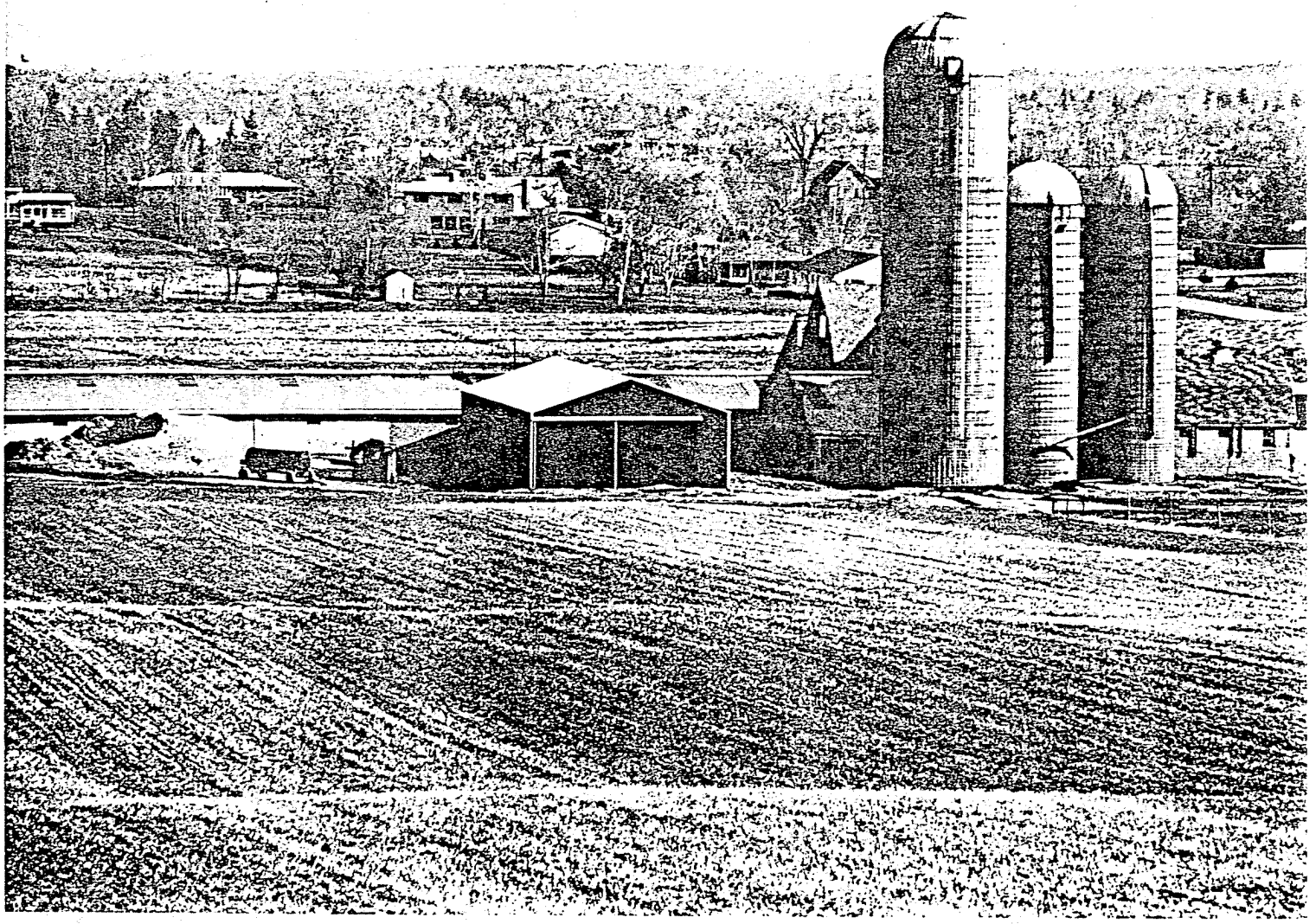
REFERENCE 6

United States Department of Agriculture

Soil Conservation Service

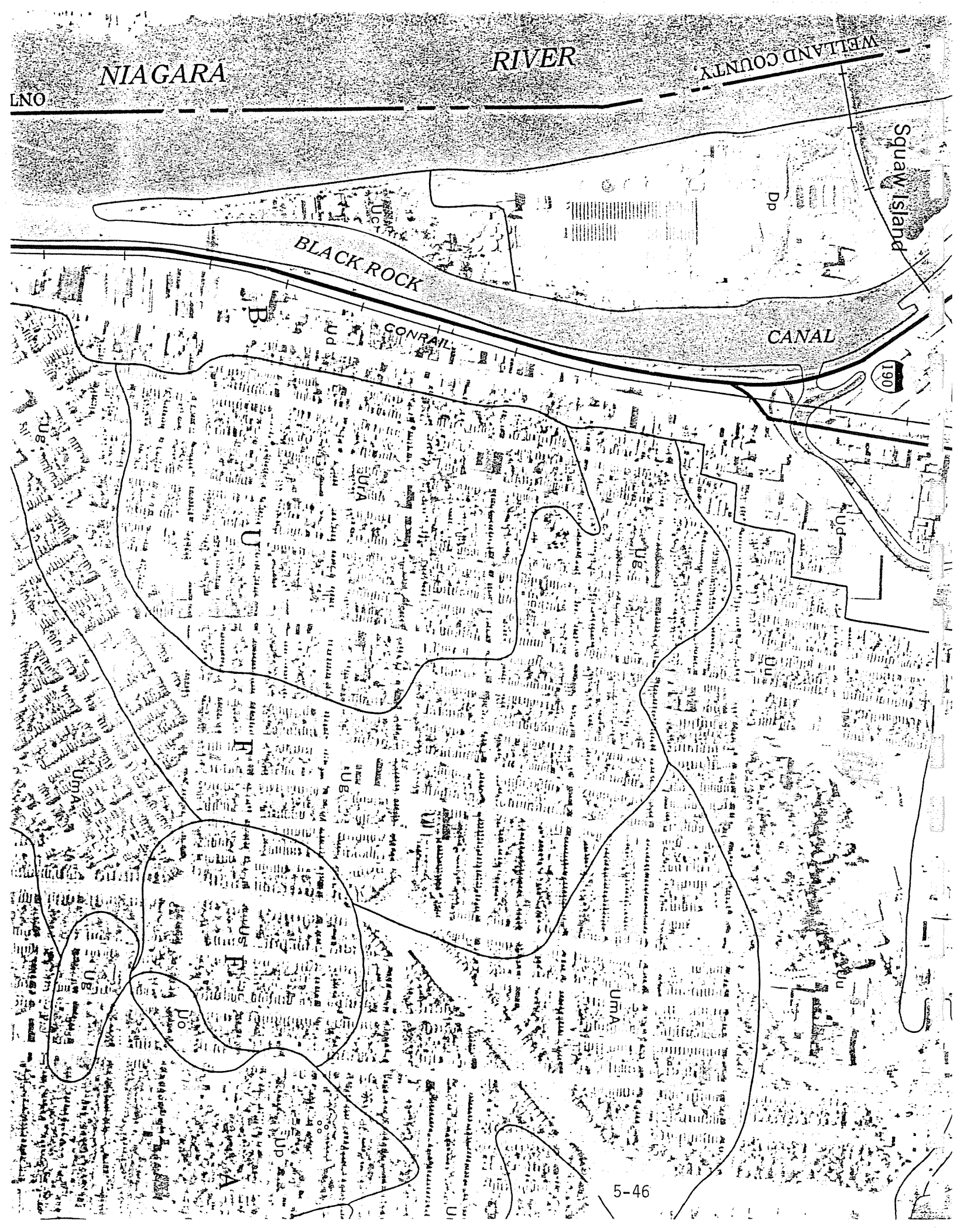
In Cooperation with the Cornell University Agricultural Experiment Station

Soil Survey of Erie County, New York



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NIAGARA
RIVER
WELLAND COUNTY
Squaw Island
Dp
BLACK ROCK
CONRAIL
CANAL
190
Ud
Ug
UmA
Uo
Up
Uu

Cover crops and sod crops in the cropping system protect the surface from scour when flooding occurs. This nearly level soil is well suited to special crops that require irrigation and a stone-free plow layer.

This soil is also well suited to pasture and hay. Overgrazing can restrict plant growth and cause the loss of the pasture seeding. Proper stocking, rotation of pastures, yearly mowing, and deferment of grazing when the soil is wet are the main management concerns. Applications of lime are needed for optimum growth of pasture grasses.

The potential of this soil for wood crops is good. Only a small acreage is wooded. There are few limitations for timber production. Trees that require acid conditions do well on this soil.

Flooding is a serious limitation for most urban uses of this soil. Where the soil is used for septic tank absorption fields, pollution of the water supply can occur because of flooding and because the substratum is moderately to rapidly permeable. Some areas are well suited to recreational uses, such as athletic fields that require a gravel- and stone-free, nearly level site. This soil is an excellent source of topsoil.

This Tioga soil is in capability class I.

Uc—Udorthents, smoothed. These soils formed in deep manmade cuts or fills. Most of these areas are near industrial sites, urban developments, or construction sites. These soils consist of various kinds of excavated earthy material that has been stockpiled for use as fill or topdressing, soil and rock material that has been trucked from other areas and leveled, or soil deposits that are left in areas that have been excavated or deeply scalped. Fill material is variable in composition, but loamy, earthy material is dominant. In some places, the fill is mixed with slag or cinders around abandoned railroad yards. In other places, the earthy fill contains up to 10 percent concrete or asphalt and other trashy wastes.

This map unit is mainly nearly level or gently sloping. Some areas are steeper, particularly at the edge of cuts and along the sides of mounded fill. The areas are variable in shape, depending mostly on ownership boundaries. They range from 5 to 700 acres or more. The larger areas are in the city of Buffalo and adjacent suburbs near the larger industrial complexes.

Udorthents are too variable to have a typical profile, but in one of the more common profiles the surface layer is brown or grayish brown very gravelly loamy sand to silty clay loam 1 to 8 inches thick. The substratum is commonly light olive brown, brown, or dark yellowish brown and varies widely in texture from very gravelly loamy sand to silty clay.

Most areas are idle and support scattered weeds and grasses. A few areas have reverted to brush and tree saplings. Some areas, particularly around railroad yards, are used for urban development.

These Udorthents are mostly excessively drained to moderately well drained. Often the fill has been placed on very poorly drained to moderately well drained soils. Texture, stone content, soil reaction, and depth to bedrock vary considerably from one area to another. Bedrock, however, is usually at a depth of more than 5 feet. Depth to the seasonal high water table and permeability are variable and depend on topography, degree of compaction, soil texture, and other related factors.

These cut and fill areas are usually poorly suited to farm or recreational uses. Onsite investigation is essential to determine the feasibility of using areas for any purpose.

These Udorthents have not been assigned a capability subclass.

Ud—Urban land. This map unit is a miscellaneous area in which 80 percent or more of the soil surface is covered by asphalt, concrete, buildings, or other impervious structures. It includes parking lots, shopping and business centers, and industrial parks—in the cities of Buffalo and Lackawanna but also the business districts and adjacent shopping centers of villages in the suburban area near Buffalo. These areas generally range from 3 to 500 acres or more and are mostly nearly level to sloping.

Included in mapping are some landfills that have not been built upon or covered with asphalt. In many of these, several feet of fill has been placed over marshes and flood plains. The included areas range up to 3 acres.

It was not practical to examine and identify the soils underlying these impervious Urban land areas. Careful onsite investigation is necessary to determine the suitability and limitations of any abandoned areas for any proposed use. Some abandoned areas are suitable for asphalt-covered playgrounds or other recreation uses requiring a hard, impervious surface.

These Urban lands have not been assigned a capability subclass.

UeB—Urban land-Benson complex, 3 to 6 percent slopes. This complex is made up of gently sloping areas of Urban land and excessively drained and somewhat excessively drained Benson soils. Some areas of the Benson soils have been graded, scalped, or filled during urbanization. This complex is underlain by shallow limestone bedrock. These areas are generally about 5 to 100 acres. Slopes are long and gradual and are occasionally interrupted by ledges of rock outcrop.

A typical area of this complex is about 60 percent Urban land that is covered by concrete, asphalt, buildings, or other impervious surfaces; about 25 percent undisturbed Benson soils; and 15 percent other soils. Urban land and Benson soils occur together in such an

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REFERENCE 7

SUBSURFACE BORING LOGS
(APPENDIX C THIS REPORT)

REFERENCE 8

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Appointment Made 1 / 1 by
Site or Phone Visit 1/18/77 by DMQ.
Follow-up 1/26/77 by DALQ
Form Completed 1/26/77 by DALQ
Comments: SEORM Comp. 8/7/78 DALQ

Company Name Fedders Corp
Address 57 Tonawanda St.
Buffalo, NY. 14207
County Erie Phone 877-8000
SIC Codes 1. 3585 3.
2. 3714 4.

New York State Hazardous Waste Survey
Department of Environmental Conservation
Division of Solid Waste Management
50 Wolf Road, Albany, N.Y. 12233 Telephone: (518) 457-6605

I. General Information

1. Company Name FEDDERS AUTOMOTIVE COMPONENT CORP.

Mailing Address 57 TONAWANDA ST BUFFALO NY 14207
Street City State Zip

Plant Location [X] Same as above

Street City State Zip

2. If Subsidiary, Name of Parent Company FEDDERS CORP.

3. Individual Responsible for Plant Operations MR. GEORGE COOK
Name

MAINTENANCE SUPT. 877-8000
Title Phone

4. Individual Providing Information MR FRED SPILLSBURY
Name

PRODUCTION CONTROL MGR. 877-8000
Title Phone

5. Department of Environmental Conservation Interviewer DANIEL QUACKENBUSH

6. Standard Industrial Classification (SIC) Codes for Principal Products

Group Name	SIC Code (4 Digit)	Approximate % of [X] Production / [ ] Value Added
a. MOTOR VEHICLE PARTS AND	3714	100
b. ACCESSORIES		
c.		
d.		

7. Processes Used at Plant
a. STAMPING, SAWING
b. SOLDERING, BRAZING
c. WELDING
d. TESTING, PAINTING, PKGNG.
e. DEGREASING
f ACID WASH

8. Products
a. AUTOMOTIVE RADIATORS
b. CAR HEATERS
c. TRANSMISSION OIL COOLERS
d.
e.

(Use separate form for each waste stream)

I. Waste Stream No. 5 (from Form I, Number 17)

2. Description of process producing waste Machine maintenance yields dirty waste oils; also still bottoms for degreaser still

3. Brief characterization of waste mixture of waste oils & solvent still bottoms - (Chlorethylene VC)

4. Time period for which data are representative 1/1/76 to 12/31/76

5. a. Annual waste production 165 [ ]tons/yr. [X]gal./yr.

b. Daily waste production _____ [ ]tons/day [ ]gal./day

c. Frequency of waste production: [ ]seasonal [X]occasional [ ]continual

[ ]other (specify) _____

6. Waste Composition

a. Average percent solids Small % b. pH range__ to __

c. Physical state: [X]liquid, [ ]slurry, [ ]sludge, [ ]solid,

[ ]other (specify) _____

d. Component	Average Concentration	[ ]wet weight [ ]dry weight	
1. waste oils		[ ]wt.%	[ ]ppm
2. Chlorethylene still bottoms		[ ]wt.%	[ ]ppm
3.		[ ]wt.%	[ ]ppm
4.		[ ]wt.%	[ ]ppm
5.		[ ]wt.%	[ ]ppm
6.		[ ]wt.%	[ ]ppm
7.		[ ]wt.%	[ ]ppm
8.		[ ]wt.%	[ ]ppm
9.		[ ]wt.%	[ ]ppm
10.		[ ]wt.%	[ ]ppm

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e. Analysis of composition is [ ] theoretical [ ] laboratory [X] estimate
(attach copy of laboratory analysis if available)

f. Projected [ ] increase, [ ] decrease in volume from base year: _____% by July 1977;
_____% by July 1983. N/.

g. Hazardous properties of waste: [X] flammable [ ] toxic [ ] reactive [ ] explosive
[ ] corrosive [ ] other (specify) _____

7. On Site Storage

a. Method: [X] drum, [ ] roll-off container, [ ] tank, [ ] lagoon, [ ] other (specify) _____

b. Typical length of time waste stored 2-3 [ ] days, [ ] weeks, [X] months

c. Typical volume of waste stored 110-165 [ ] tons, [X] gallons

d. Is storage site diked? [ ] Yes [X] No

e. Surface drainage collection [ ] Yes [X] No

8. Transportation

a. Waste hauled off site by [ ] you [ ] others

b. Name of waste hauler _____

Address _____
Street City

( )
State Zip Code Phone

9. Treatment and Disposal

a. Treatment or disposal: [X] on site [ ] off site

b. Waste is [ ] reclaimed [ ] treated [ ] land disposed [ ] incinerated
[X] other (specify) road dust control

c. Off site facility receiving waste

Name of Facility _____

Facility Operator _____

Facility Location _____
Street City

( )
State Zip Code Phone

REFERENCE 9

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ref. 9

FEDDERS AUTOMOTIVE COMPONENTS COMPANY
A DIVISION OF FEDDERS CORPORATION
57 Tonawanda Street • Buffalo, N. Y. 14207

January 29, 1982

Dept. of Environment and Planning
Division of Environmental Control
Edward A. Rath County Office Building
95 Franklin Street - 10th Floor
Buffalo, NY 14202

Attention: Mr. Ronald Koczaja
Environment Quality Engineer

Dear Mr. Koczaja:

As we discussed on January 22, 1982, the following is a list of the oils and their suppliers as used in our plant:

1. Niagara Lubricant Company, Inc.
   105 Manitoba Street
   Buffalo, NY

   a) Heavy medium hydraulic oil
   b) 30W motor oil
   c) 10W40 motor oil
   d) Comptol 68

2. Imperial Metallic Lubricants Company
   6 Webster Street
   North Tonawanda, NY

   a) Moluballoy Astrol 881
   b) Molluballoy General Purpose 35

3. AT Supply, Inc.
   505 North French Road
   Amherst, NY

   a) Keystone LT-49

4. Texaco Oil Company

   a) Transformer oil
   (none purchased in at least 5 years - one 55 gallon drum on hand for adding to our transformers as replacement for heat dissipation while operating)

TELEPHONE (716) 877-3000

At the present time, all of our used oil (from compressors, auto motors, etc.) is reused as a lubricant for tube bending. In the past, all surplus oils were sold to Booth Oil Company, 75 Robinson Street, North Tonawanda, NY. At one time, the used hydraulic oil was used for dust control in our parking lot, but the last time it was used for this purpose was the summer of 1976.

All transformer oil changes are done by Volland Electric Equipment Corporation, 1511 Niagara Street, Buffalo, NY, and they dispose of any used transformer oil.

Very truly yours,

FEDDERS AUTOMOTIVE
COMPONENTS COMPANY

George Cook
Maintenance Superintendent

GC:kg
cc: R. Acksel

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REFERENCE 10

-15-1(5/78)

1 Trans. Type
1 ☐ Delete
2 ☐ Add
3 ☐ Change

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT
FACILITY INSPECTION

(877 - 8000)

2 Facility No. 7

Facility Name: Fedders Automotive Components Co

Location (Town, etc.): 57 Townawanda St Buffalo NY 14207

Persons Interviewed & Titles
Fred SPILSBURY Asst. General Manager
William DOLAN Asst. Maintenance Engineer

10 Date 15	16 Time 21	22 Inspector 36	37	38 Remarks 72
08/19	1000 AM	FRED IBRAHIM		No problems work mentioning

Instructions: At each question, use a soft pencil to blacken either the YES or NO box.

		(BAD) YES	(GOOD) NO	
I. LEACHATE				
1.	Is leachate visible on, or near the site?	22		
2.	Is leachate entering surface water?	23		
*3.	Is leachate known to be contravening groundwater standards?	24		22
4.	Is refuse being placed into water?	25		
6.	Is there evidence of unapproved previous burning?	27		
III. COVER				
7.	Is previous day's refuse not covered?	28		
8.	Is refuse protruding through daily, intermediate or final cover?	29		
9.	Is intermediate or final cover not in place, or improperly applied?	30		26 N/A
10.	Is wrong cover material used?	31		
IV. GRADING				
11.	Are there depressions, ponding, cracked cover, too steep slopes?	32		
12.	On completed areas, is the vegetative cover missing or inadequate?	33		28
13.	Are there soil erosion or other drainage problems?	34		
V. SEPARATION DISTANCES				
14.	Is refuse closer than 50 feet to site boundaries?	35		
*15.	Is refuse known to be less than 5 feet above groundwater?	36		
*16.	Is refuse known to be less than __ feet from surface water?	37		30 N/A
VI. NUISANCE CONDITIONS				
17.	Are odors detectable off-site?	38		
18.	Is blowing dust or dirt excessive or a nuisance?	39		
19.	Are papers uncontrolled, or blowing off-site?	40		
*20.	Is methane gas known to be leaving the site?	41		32
21.	Is noise excessive off-site?	42		
VII. OPERATION CONTROL				
*22.	Are Operation Permit conditions being violated?	43		
23.	Is refuse being deposited in a too large area?	44		
24.	Is refuse spread in layers thicker than 2 feet?	45		
25.	Is refuse being compacted poorly?	46		
26.	Is the working face height greater than 10 feet?	47		
27.	Is the working face steeper than a 3 to 1 slope?	48		34 N/A
28.	Is the equipment on site not adequate for proper operation?	49		
VIII. SAFETY AND HEALTH				
29.	Are scavengers present?	50		
30.	Is salvaging uncontrolled or creating a nuisance?	51		
31.	Are rodents and insects not controlled?	52		36
32.	Do unsafe conditions or equipment exist?	53		
IX. ACCESS CONTROL				
33.	Is access to the site improperly or inadequately controlled?	54		
34.	Is the site open without an attendant?	55		
35.	Is information about the site not posted? (hours of operation, etc.)	56		38 N/A
36.	Is access to the operating area poor or unsafe?	57		

*NOTE: For these questions, see the "Background Information Sheet" for this facility.

Site Sketch/Comments: The only dumping site is there 1 5 — 2 were parking lot they dump around 165 gallons per annum & waste oils with the purpose of suppressing the dust. However NO DEGREASING BOTTOMS are ever disposed on the ground. The degreasing bottoms + all waste oils are collected in 55 gallon drums & sent to KROLL Associates — 19 Wood gate Rd Tonawanda NY (837-3252)

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SUPPLEMENTAL LANDFILL INSPECTION FORM

Name of Facility: Fedders Automative Components Co

Active Site ✓ or Inactive Site However, the "SITE" is actually their parking Lot

Describe any odors emanating from site: None

Describe leachate appearance: None

Any evidence of past leachate: None

Estimated distance and direction to nearest well: Not known to estimate

Location of site (may use USGS Quad Map):

Recommendations for follow-up action:

a. Leachate sampling No

b. Subsurface evaluations No

Additional comments or recommendations:

The site is "ACTIVE" only in the sense that the small amounts of waste oils are dumped onto their parking lots. However, this is done absolutely to suppress dust. All other waste degreasing solutions and other types of lubricants are sent to KROLL associates. (A check must be made to see if they are authorized to haul away oils & greases)

TRACTIVE INDUSTRIAL WASTE DISPOSAL OR STORAGE SITE

Site Fedders Automotive Component G

Location 57 Tonawanda St Buffalo NY 14207 (Include a location on a topo map or copy thereof) Lat 42° 56' 30" Long 78° 54' 10"

When Site Was Used For several years

Size of Site (acres) 1.5 - 2 acres

Distance to Nearest Dwelling (Feet) None known of

Distance to Nearest Watercourse (Feet) 1/4 mile away

Type of Soil clay & rock

Proximity to Wetlands very far away

Depth to Groundwater ≈ 15 - 20 ft

Any Identified or Potential Problems None work mentioned

Materials in Site

Material	Quantity	Containers (Type, # per)	Generator (Name & Address)

Any Other Pertinent Information

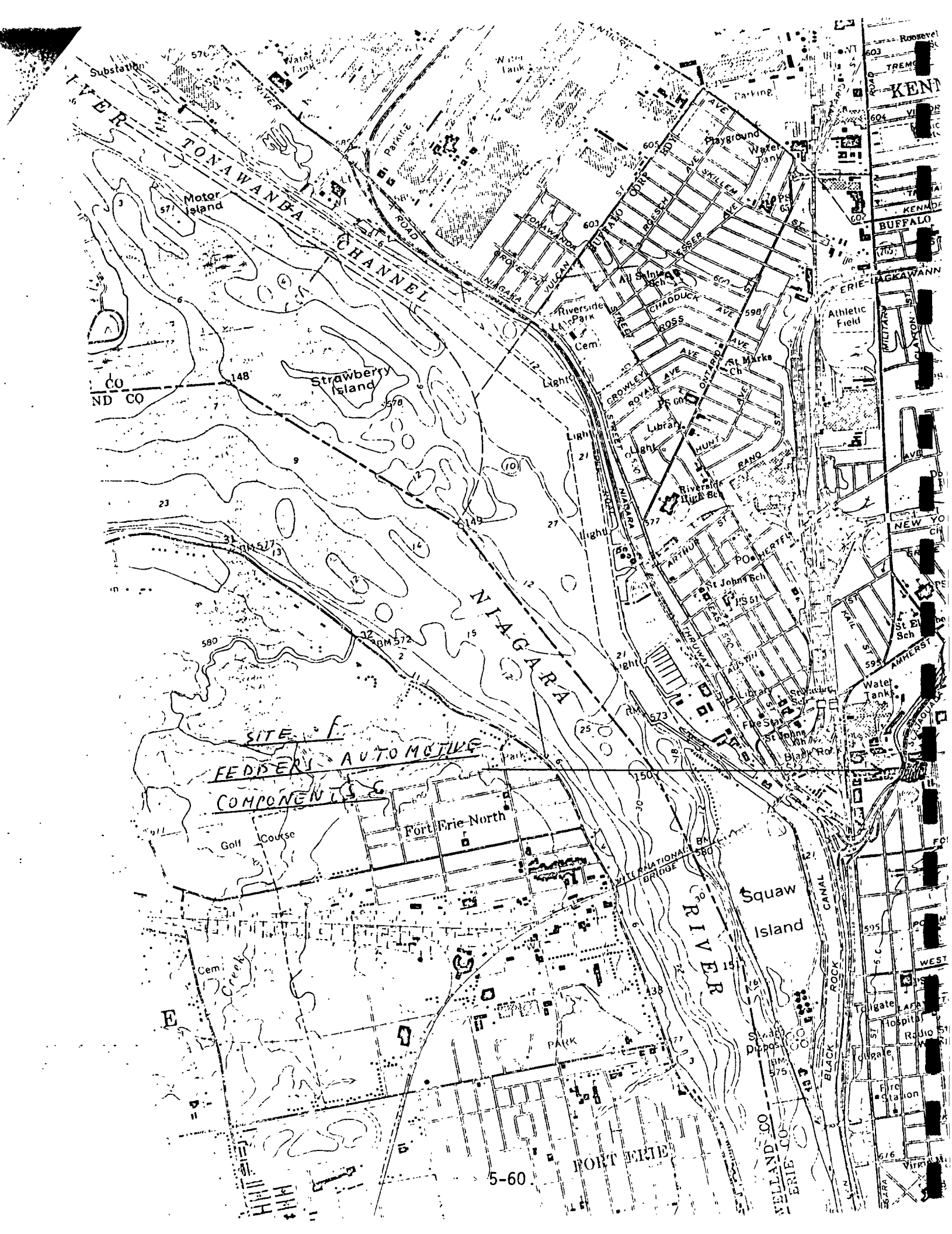
For all practical purposes, this company does not have a dumping area on her premises

Name of Person Giving Information Fred Thrush Phone 886-7666

5-59

8/9/78

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SITE of
FEDERAL AUTOMOTIVE
COMPONENTS
Motor Island
Strawberry Island
Fort Erie North
Golf Course
Squaw Island
NIAGARA RIVER
TONAWANDA CHANNEL
PARK
PORT ERIE

ONLY NEED THIS PACKET COPIED

September 26, 1978

William Dolan, Asst. Maintenance Engineer
Fedders Automotive Components Company
57 Tonawanda Street
Buffalo, NY 14207

Dear Mr. Dolan:

This office is currently conducting an industrial waste survey for the entire Region 9 area. The purpose of the survey is to determine what wastes are being generated by industry and how it is disposed of.

On August 31, 1978, Mr. Fuad Ibrashi of the Erie County Dept. of Environment and Planning, visited your firm to make a preliminary investigation. The only waste disposal on your site is the dumping of waste oil on the parking lot for dust control. In regard to this, would you please inform this office as to what types of waste oil are dumped on the parking lot. This department wants to insure that no oil contaminated with PCB's is used on the parking lot.

Please send the above requested information to this office within 10 days of receipt of this letter. Please contact this office if you have any further questions.

Very truly yours,

John C. McMahon
Regional Engineer,
Solid & Hazardous Waste Program

RJM:lmb
cc: Erie Co. Dept. of Environment and Planning

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COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF ENVIRONMENTAL CONTROL

#16

MEMORANDUM

FROM Anthony T. Voell DATE September 5, 1978

TO Robert Mitrey, P.E., NYSDEC

SUBJECT Industrial Waste Inspections

Fedders Automative Components Company
57 Tonawanda Street
Buffalo, New York

Attached is the following material with respect to the above industrial inspection:

1. Solid Waste Inspection Form 47-15-1
2. Supplemental Landfill Inspection Form
3. Inactive Industrial Waste Disposal Site Inspection Form
4. USGS Location Map
5. Site Map

The only industrial waste disposal at this property is approximately 165 gallons per year of waste oil for dust control on the industry's parking lot.

As indicated in the report there was no other on-site disposal of industrial waste observed or reported.

ATV:jk
Attachment

cc: Don Tamol

ATVoell

Chet - Forward letter to Loop - We have to know what wells need PCB's and it will come from - to answer to

5-62

47-15-1(5/78)

1 Trans. Type
1 ☐ Delete
2 ☐ Add
3 ☐ Change

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT
FACILITY INSPECTION

(877 - 8000)

2 Facility No. 7

Facility Name: Fedders Automotive Components Co

Location (Town, etc.): 57 Tonawanda St Buffalo NY 14207

Persons Interviewed & Titles
Fred SPILSBURY — Asst. General Manager
William DOLAN — Asst. Maintenance Engineer

10 Date 15	16 Time 21	22 Inspector 36	37	38 Remarks 72
08/17/81	1100 AM	FRED IBRAHIM		No problems worth mentioning

Instructions: At each question, use a soft pencil to blacken either the YES or NO box.

	(BAD) YES	(GOOD) NO	
I. LEACHATE			
1. Is leachate visible on, or near the site? 22			
2. Is leachate entering surface water? 23			
*3. Is leachate known to be contravening groundwater standards? 24			22
4. Is refuse being placed into water? 25			
II. BURNING			
*5. Is refuse burning without permit, or not under permit conditions? 26			24
6. Is there evidence of unapproved previous burning? 27			
III. COVER			
7. Is previous day's refuse not covered? 28			
8. Is refuse protruding through daily, intermediate or final cover? 29			
9. Is intermediate or final cover not in place, or improperly applied? 30			26 N/A
10. Is wrong cover material used? 31			
IV. GRADING			
11. Are there depressions, ponding, cracked cover, too steep slopes? 32			
12. On completed areas, is the vegetative cover missing or inadequate? 33			28
13. Are there soil erosion or other drainage problems? 34			
V. SEPARATION DISTANCES			
14. Is refuse closer than 50 feet to site boundaries? 35			
*15. Is refuse known to be less than 5 feet above groundwater? 36			30
*16. Is refuse known to be less than __ feet from surface water? 37			N/A
VI. NUISANCE CONDITIONS			
17. Are odors detectable off-site? 38			
18. Is blowing dust or dirt excessive or a nuisance? 39			
19. Are papers uncontrolled, or blowing off-site? 40			
*20. Is methane gas known to be leaving the site? 41			32
21. Is noise excessive off-site? 42			
VII. OPERATION CONTROL			
*22. Are Operation Permit conditions being violated? 43			
23. Is refuse being deposited in a too large area? 44			
24. Is refuse spread in layers thicker than 2 feet? 45			
25. Is refuse being compacted poorly? 46			
26. Is the working face height greater than 10 feet? 47			
27. Is the working face steeper than a 3 to 1 slope? 48			34 N/A
28. Is the equipment on site not adequate for proper operation? 49			
VIII. SAFETY AND HEALTH			
29. Are scavengers present? 50			
30. Is salvaging uncontrolled or creating a nuisance? 51			
31. Are rodents and insects not controlled? 52			36
32. Do unsafe conditions or equipment exist? 53			
IX. ACCESS CONTROL			
33. Is access to the site improperly or inadequately controlled? 54			
34. Is the site open without an attendant? 55			38 N/A
35. Is information about the site not posted? (hours of operation, etc.) 56			
36. Is access to the operating area poor or unsafe? 57			

*NOTE: For these questions, see the "Background Information Sheet" for this facility.

Site Sketch/Comments: The only dumping site is the 1.5 – 2 acre parking lot. They dump around 165 gallons per annum of waste oils with the purpose of suppressing the dust. However NO DEGREASING BOTTOMS are ever sprayed on the ground. The degreasing bottoms + all waste oils are collected in 55 gallon drums & recycled by ROLL Associates – 14 Wood gate Rd Tonawanda NY (837-3253)

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SUPPLEMENTAL LANDFILL INSPECTION FORM

Name of Facility: Fedders Automative Components Co

Active Site ✓ or Inactive Site However, the "SITE" is actually their parking Lot

Describe any odors emanating from site: None

Describe leachate appearance: None

Any evidence of past leachate: None

Estimated distance and direction to nearest well: Not known to estimate

Location of site (may use USGS Quad Map):

Recommendations for follow-up action:

a. Leachate sampling No

b. Subsurface evaluations No

Additional comments or recommendations:

The site is "ACTIVE" only in the sense that the small amounts of waste oils are dumped onto their parking lots. However, this is done deliberately to suppress dust. All other waste degreasing solutions and other types of lubricants are sent to KROLL Associates. (A check must be made to see if they are authorized to haul away oils & greases)

Site Fedders Automotive Components Co

Location 57 Tonawanda St Buffalo NY 14207 (Include a location on a topo map or copy thereof) lat 42° 56' 30" long 78° 54' 10"

When Site Was Used For several years

Size of Site (acres) 1.5 - 2 acres

Distance to Nearest Dwelling (Feet) None known of

Distance to Nearest Watercourse (Feet) ¼ mile away

Type of Soil clay & rock

Proximity to Wetlands very far away

Depth to Groundwater ≈ 15 - 20 ft

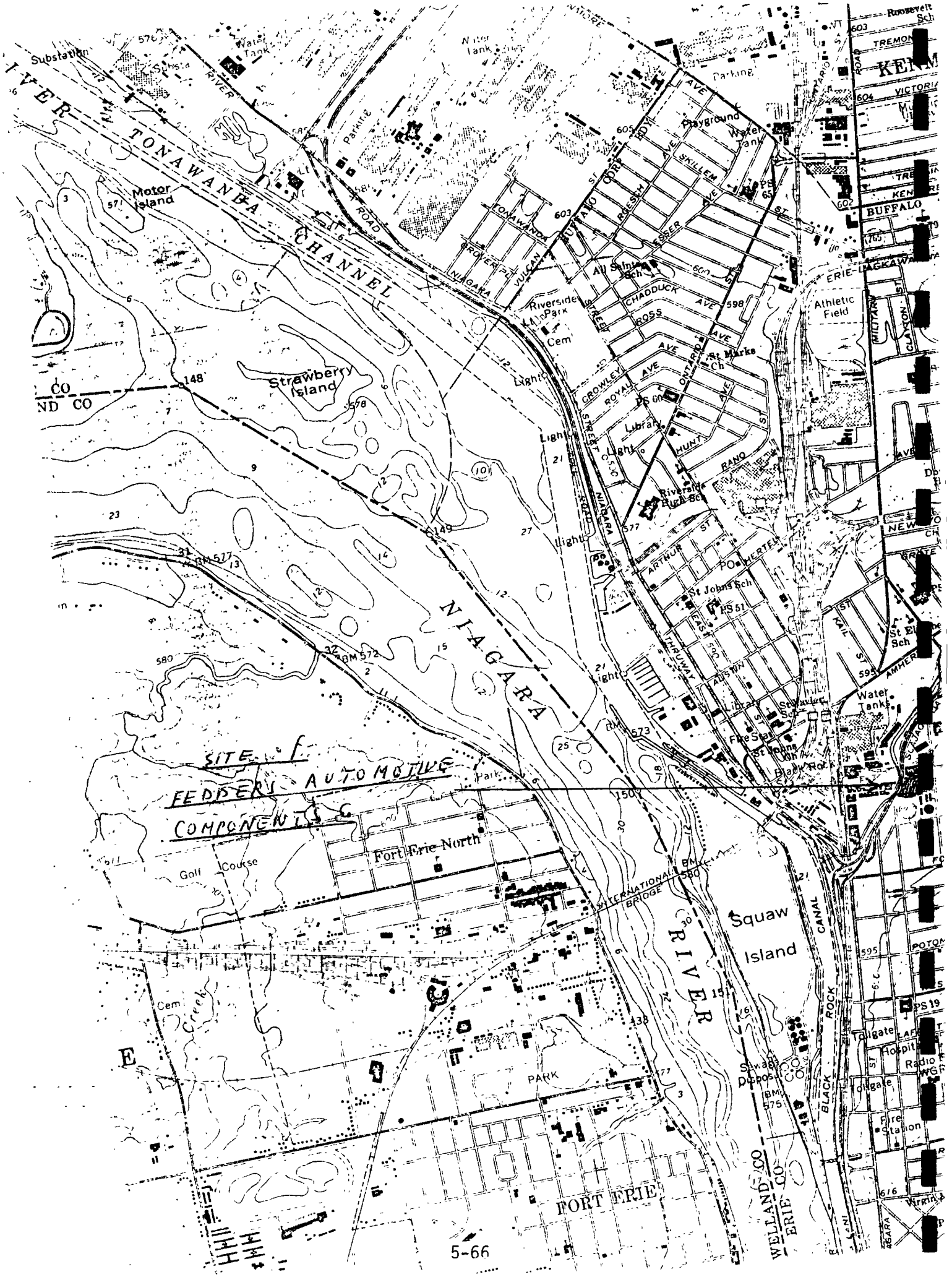
Any Identified or Potential Problems None worth mentioning

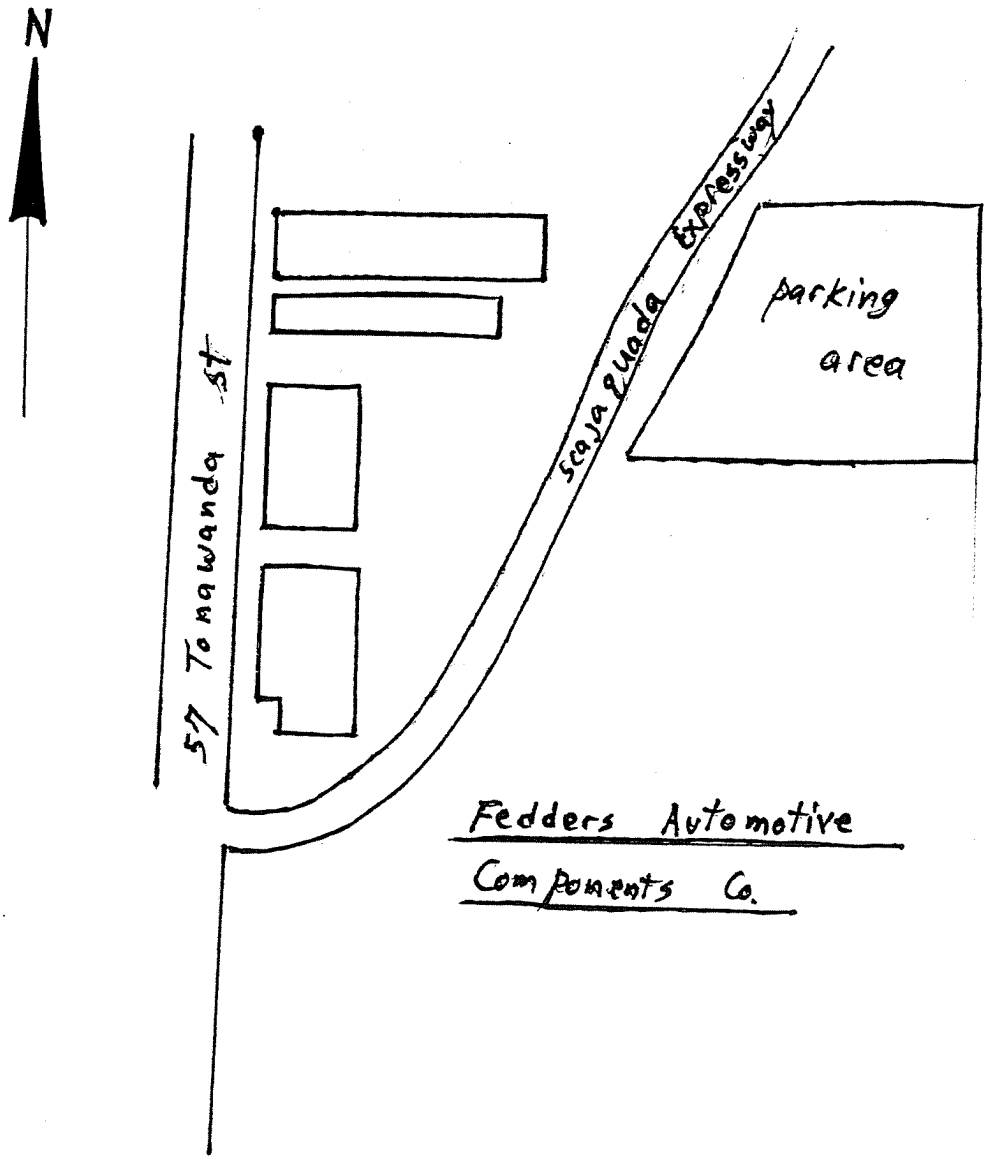
Materials in File

Material	Quantity	Condition (Poor, Fair, Good)	Generator (Name & Address)

Any Other Pertinent Information For all practical purposes, this company does not have a dumping area on the premises

Name of Person Giving Information Fred Thresh Phone 846-7666


SITE OF FEDERAL AUTOMOTIVE COMPONENTS
NIAGARA RIVER
TONAWANDA CHANNEL
Motor Island
Strawberry Island
Fort Erie North
Golf Course
Squaw Island
PARK
FORT ERIE
Riverside Park
Cem
Athletic Field
St Marks Ch
Riverside High Sch
St Johns Sch
PS 61
Library
Water Tanks
Fire Station
Playground
Parking
Substation
Water Tank
Light
BM 577
BM 572
BM 573
BM 575
BM 580
INTERNATIONAL BRIDGE
BUFFALO
KENMORE
TONAWANDA
ERIE-LACKAWANNA
NIAGARA ROAD
BUFFALO CREEK
BLACK ROCK CANAL
WELLAND CO
ERIE CO



8/31/78
F. IBRAHI

REFERENCE 11

SITE-SPECIFIC SAFETY PLAN
(APPENDIX A THIS REPORT)

REFERENCE 12

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Dangerous Properties of Industrial Materials

Sixth Edition

N. IRVING SAX

Assisted by:
Benjamin Feiner/Joseph J. Fitzgerald/Thomas J. Haley/Elizabeth K. Welsburger

5-70

VAN NOSTRAND REINHOLD COMPANY

REFERENCE 13

GEOPHYSICAL SURVEY LOGBOOK

(APPENDIX F THIS REPORT PAGES F-6 THROUGH F-11)

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REFERENCE 14

Phase II (Fifth Round) Work Plan
Engineering Investigations and Evaluations at
Inactive Hazardous Waste Disposal Sites

FEDDERS AUTO COMPONENTS
City of Buffalo, Erie County
Site ID No. 915024

Prepared For:

New York State Department of Environmental Conservation

Prepared by:

Western Site Investigation Section
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation
January, 1990

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REFERENCE 15

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

EPA

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 000211508 7

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
FEDDERS Automotive	57 Tonawanda Street				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Buffalo	NY	14207	ERIE	029	36

09 COORDINATES: 42° LATITUDE 52' 52" | 78° LONGITUDE 53' 41"

10 TYPE OF OWNERSHIP (Check one)
☒ 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
3 27 85 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1974 (BEGINNING YEAR) 1976 (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)
☐ E. STATE ☒ F. STATE CONTRACTOR Engineering-Science (Name of firm) Dames & Moore (Name of firm) ☐ G. OTHER (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
S. Robert STEELE II	Environmental Scientist	ES	(716) 691-7575
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Eileen Gillman	Geologist	DEM	(315) 631-[illegible]
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Mr. Rich Acksel	Mgr QC	57 Tonawanda Street Buffalo, NY 14207	(716) 877-8000
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	12 30 PM	Warm Sunny

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
S. Robert STEELE II	Engineering-Science	[illegible]

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
S. Robert STEELE II		ES	SAME	3 27 85 (MONTH DAY YEAR)

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EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	000211 5087

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 9

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			
OLW	OILY WASTE 3 years	165	gal/year	light lubricating oils and hydraulic fluids were used on-site for dust control from approximately 1974-1976
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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
OLW	WASTE oil w/ PCB's	1336-36-3	Suspect LF		

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)

Erie County, Hazardous Waste Site Profile, February 1982

5-76

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D 002115087

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Small quantity of spilled oil suggests low possibility of groundwater contamination

01 ☐ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Again, small quantity suggests surface water contamination unlikely

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

No

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

No

01 ☐ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Disposal area now covered by additional gravel

01 ☐ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres) 04 NARRATIVE DESCRIPTION

No

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Small quantity of waste oil and large size of Niagara River suggest that impact 2.1 miles downstream would not be serious.

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

No

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

No

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 0 002115087

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

unknown

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

UNKNOWN

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

UNKNOWN

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

Oil spilled on parking lot for dust control purposes

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

NO

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

NO

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

NO

III. TOTAL POPULATION POTENTIALLY AFFECTED: unknown

IV. COMMENTS

It is uncertain if contaminated oils were disposed of on site

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

Site inspection conducted by ES and OEM, 3/27/85

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	0 00211 5087

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		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☑ H. OPEN DUMP	495	gallons
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCINERATION
- ☐ 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

06 AREA OF SITE

2 (Acres)

07 COMMENTS

The Erie county, Dept of Environmental Quality, Air Pollution Control required Fedders Automotive to control fugitive dust from their parking lot by spreading waste oils. This practice was initiated in approximately 1974 and discontinued in 1976.

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.

WASTE oils used for dust control were spread directly on the ground.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

The Fedders Automotive plant site is enclosed and 24 hour security is maintained.

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

Hazardous Waste Site Profile Report, Erie county Department of Environment and Planning, February 1982

Letter from Fedders Automotive, George Cook to Erie county, Ronald Koczaja, 29 January 1982.

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 000211 5087

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as appropriate)

	SURFACE	WELL
COMMUNITY	A. ☒	B. ☐
NON-COMMUNITY	C. ☐	D. ☐

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. ☐	B. ☐	C. ☐
D. ☐	E. ☐	F. ☐

03 DISTANCE TO SITE
A. 2.1 (mi)
B. _____ (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: 0

03 DISTANCE TO NEAREST DRINKING WATER WELL: _____ (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
UNKnown (ft)	NE	~ 50 (ft)	UNKnown (gpd)	☐ YES ☐ UNKnown

09 DESCRIPTION OF WELLS (Including useage, depth, and location relative to population and buildings)
There are no wells known to be in the vicinity of the site

10 RECHARGE AREA		11 DISCHARGE AREA	
☐ YES ☐ NO	COMMENTS: UNKnown	☐ YES ☐ NO	COMMENTS: UNKNOWN

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Scajaquada Creek	☐	0.04 (mi)
Niagara River	☐	0.38 (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. 20,547 NO. OF PERSONS	B. 76,966 NO. OF PERSONS	C. 173,509 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: ~ 0.5 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 20,254

04 DISTANCE TO NEAREST OFF-SITE BUILDING: 0.10 (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 an industrial section of the City of Buffalo. An older urban neighborhood is located ~ 0.5 miles north of the site

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 000211508 7

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) Limestone
☐ 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)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
> 40 (ft)	unknown (ft)	unknown

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
9 (in)	2.1 (in)	2.8 %	N-NW	1.5 %

09 FLOOD POTENTIAL
SITE IS IN > 100 YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)
ESTUARINE: A. > 2 (mi) OTHER: B. > 1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)
Migratory Birds > 1 (mi)
ENDANGERED SPECIES: Haliaeetus leucocephalus Aquila chrysaetos Falco Peregrines.

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. 0.0 (mi)	B. 0.04 (mi) check during visit	C. > 2 (mi)	D. > 1 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The ground surface on this site & adjacent property slopes to the Scajaquada Creek, except where filling has occurred. This site is level with property to the north.

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

Freeze and Cherry, Groundwater, 1979.
Erie Co. DEP site inspection field notes, 8/31/78
Erie Co DEP, Division of Planning, Land Use Maps.
NYS Wetlands Maps
USDOC National Climatic Center
USDOC Technical Paper No. 40

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	000211 5087

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABL
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU	HNU meter measurements were taken during site inspection conducted by ES and OEM, 3/27/85. All readings were less than 1 ppm

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☑ GROUND ☐ AERIAL

02 IN CUSTODY OF Engineering - Journal
(Name of organization or individual)

03 MAPS ☑ YES ☐ NO

04 LOCATION OF MAPS
Site plan was updated during the site inspection.

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Fill material from the demolition of kilns was observed on-site. Kilns previously located on the present parking lot site were demolished between 1936 and 1942 and was used as fill material.

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

Site inspection conducted by ES and OEM, 3/27/85
Interview of Fedders Automotive Components Company, Mr. Richard Acksel, 4/12/85.

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	000211 5087

II. CURRENT OWNER(S) | **PARENT COMPANY** (If applicable)

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
FEDDERS Automotive Components Co.		FEDDERS CORPORATION	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**10 STREET ADDRESS** (P.O. Box, RFD #, etc.)	**11 SIC CODE**
57 Tonawanda Street	3714	158 Hwy 206, PO Box 265	
05 CITY / **06 STATE** / **07 ZIP CODE**		**12 CITY** / **13 STATE** / **14 ZIP CODE**	
Buffalo / NY / 14207		Peapack / NJ / 07977	
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
Fedders Corporation			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**03 STREET ADDRESS** (P.O. Box, RFD #, etc.)	**04 SIC CODE**
57 Tonawanda Street			
05 CITY / **06 STATE** / **07 ZIP CODE**		**05 CITY** / **06 STATE** / **07 ZIP CODE**	
Buffalo / NY / 14207			
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Fedders Quiggins Corp			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
57 Tonawand Street			
05 CITY / 06 STATE / 07 ZIP CODE		05 CITY / 06 STATE / 07 ZIP CODE	
Buffalo / NY / 14207			
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)

Telephone Interview with Fedders Automotive employee Mr Mike Plotner, 3/12/85

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	000211 5087

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
FEDDERS Automotive Components Co.	

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

05 CITY	06 STATE	07 ZIP CODE
Buffalo	NY	14207

08 YEARS OF OPERATION	09 NAME OF OWNER
1980 - present	(SAME)

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER
FEDDERS CORPORATION	

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)

01 NAME	02 D+B NUMBER
Fedders CORP	

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

05 CITY	06 STATE	07 ZIP CODE
Buffalo	NY	14207

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
1940's	SAME

PREVIOUS OPERATORS' PARENT COMPANIES (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

01 NAME	02 D+B NUMBER
Fedders Quigans CORP.	

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

05 CITY	06 STATE	07 ZIP CODE
Buffalo	NY	14207

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
1915-40's (est)	(SAME)

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

Telephone Interview on 3/12/85 with Fedders Automotive employee mr MIKE PLOTNER

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	000211587

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Fedders Automotive Components Co	

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

05 CITY	06 STATE	07 ZIP CODE
Buffalo	NY	14207

Wastes including trichloroethylene still bottoms, solids from acid wash, small quantities of lubricating oils and solder dross are generated on-site and require off-site disposal

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Not Applicable			
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
Volland Electric			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1511 Niagara Street			
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
Buffalo	NY		
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 conducted by ES and OEM, 3/27/85

Interview with Fedders Automotive, mr Richard Acksel, 4/12/85

Interview with Volland Electric, mr Jim Riley and Frank McClellan, 4/12/85.

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 000211508?

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

EPA FORM 2070-13 (7-81)

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 0002115087

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Plant site is secured with fence and 24-hour security

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NO

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: NONE

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

Site inspection conducted by ES and OEM, 3/27/85

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	0 00211 5087

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☑ NO

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

NONE

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

NYSDEC, Environmental Enforcement Division,
NYS, Attorney General's Office

EPA FORM 2070-13 (7-81)

REFERENCE 16

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STATE OF NEW YORK

OFFICIAL COMPILATION

OF

CODES, RULES AND REGULATIONS

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GAIL S. SHAFFER
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162 Washington Avenue
Albany, New York 12231

1/83

TABLE I (contd.)

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
111	0-158-12-77-3 and trib. and 4 as shown on reference map	Tribs. of East Fork	Enter East Fork between Engine Creek, item no. 110, and source.	12	A	A(T)
112	0-158-12-78	Perry Brook	Enters Tonawanda Creek from south approximately 2.8 miles southwest of Johnsonburg.	12	A	A
113	0-185-12-79 and trib. and 80	Tribs. of Tonawanda Creek	Enter Tonawanda Creek between Perry Brook, item no. 112, and source.	12	A	A
114	0-158-13 and tribs. including P 22 as shown on reference map	Two Mile Creek	Enters Niagara River (East Channel) at Two Mile Creek Road in City of Tonawanda.	2,6	B	B
115	0-158-14 and tribs. as shown on reference map	Trib. of Niagara River	Enters Niagara River approximately opposite intersection of Ontario Street and Niagara Street, City of Buffalo.	6	D	D
116	0-158-15 portion as described including P 24 and P 25	Scajaquada Creek	Enters Niagara River approximately opposite intersection of Niagara Street and Tonawanda Street, City of Buffalo. Mouth to crossing of Main Street, City of Buffalo.	6	B	B

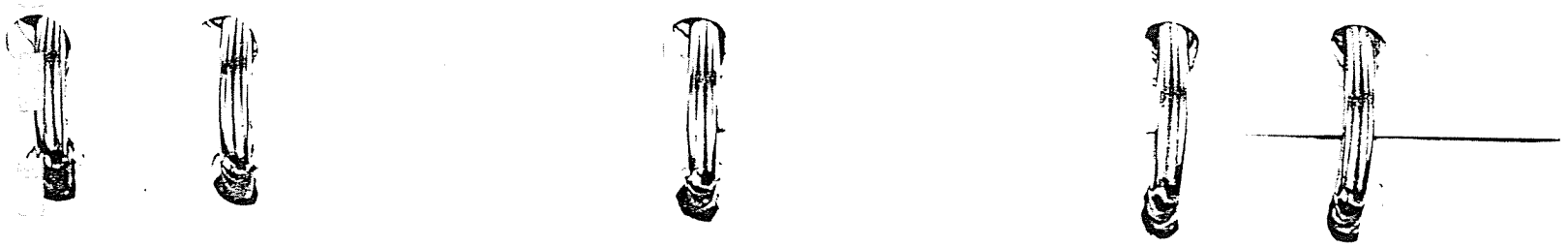


TABLE I (contd.)

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
117	0-158-15 portion as described	Scajaquada Creek	From crossing of Main Street, City of Buffalo to trib. 4 which is in line with continuation of Frederick Drive, Town of Cheektowaga.	6	D	D
118	0-158-15 portion as described	Scajaquada Creek	From trib. 4 which is in line with continuation of Frederick Drive, Town of Cheektowaga to source.	6,7	B	B
119	0-158-15-1,2,3, 4,5,6, and 7 and tribs. as shown on reference map	Tribs. of Scajaquada Creek	Enter Scajaquada Creek from north and northeast between mouth and source.	6,7	D	D
120	Big Burnt Ship Creek	Big Burnt Ship Creek	Seperates Grand Island from Buckhorn Island.	2	B	B
121	G.I. 1	Trib. of Big Burnt Ship Creek	Enters Big Burnt Ship Creek from east opposite eastern end of Buckhorn Island	2	5-91	B

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REFERENCE 17

INTERVIEW ACKNOWLEDGMENT FORM

SITE NAME:	Fedders Auto Components	I.D. NUMBER:	915024
PERSON CONTACTED:	Mike Martin	DATE:	4/10/90
		PHONE NUMBER:	716-947-4252
AFFILIATION:	Erie County Water Authority		
ADDRESS:	722 Sturgeon Point Road Derby, NY 14047	CONTACT PERSON(S):	Melissa Perera

TYPE OF CONTACT: telephone interview

INTERVIEW SUMMARY

Mr. Martin described over the phone the locations of six pumping stations which are within a 3-mile radius of the following three inactive hazardous waste sites: Fedders Auto Components, Hartwell Street Landfill, and West Seneca Transfer Station. There are no maps available which illustrate water intake locations for this area. The six pumping stations are:

1. Emerald Channel - water intake for City of Buffalo, located near the foot of Porter Avenue;

2. Massachusetts Avenue Pumping Station - emergency use only for City of Buffalo;

3., 4. River Road and Sheridan Drive - two intakes located about 1/2 mile apart. One is for the Town of Tonawanda, and the other is for Erie County Van De Water Plant;

5. Northern Tip of Grand Island - City of Tonawanda intake; and

6. Northern Tip of Grand Island - Grand Island Water Department.

ACKNOWLEDGMENT

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to Ecology and Environment, Inc. interviewer(s) (as revised below, if necessary).

Revisions (please write in any corrections needed to above transcript)

Signature: M Martin Date: 5.11.90

REFERENCE 18

INTERVIEW ACKNOWLEDGMENT FORM

SITE NAME:	Fedders Auto Components Site	I.D. NUMBER:	915024
PERSON CONTACTED:	Burrell Buffington	DATE:	4/10/90
AFFILIATION:	National Heritage Program	PHONE NUMBER:	518-783-3932
ADDRESS:	700 Troy-Schenectedy Road Albany, NY 12110	CONTACT PERSON(S):	Judy Vangalio Ralinda Leichner

TYPE OF CONTACT: map search

INTERVIEW SUMMARY

No significant habts were located within 1.5 miles of the site after looking at the Significant habitat Mpas (1980) prepared by the Habitat Inventory unit fortghe NYSDEC Divisionof Fish and Wildlife, Bureau of Widlife.

The mead sedge (Carex meadii), the small white ladyslipper (Cypriepedium candidum) and ninebark (Physocarpus opulifolius var.) may be found within 1.5 miles of the site. These speices are classifed as follows:

mead sedge	SH	U	Map #4207887
ladyslipper	S1	E	Map #4207888
ninebark	S2	R	Map #4207888

Also, approximately 2 miles northwest of the site is the outer boundary of the Strawberry Island - Motor Island, a shallow - signifianct Coastal Fish and Wildlife Habitat. This information was based on the Natural Heritage Maps.

ACKNOWLEDGMENT

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to Ecology and Environment, Inc. interviewer(s) (as revised below, if necessary).

Revisions (please write in any corrections needed to above transcript)

Signature: Burrell Buffington Date: 4/25/90

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REFERENCE 19

NYSDEC Phase II Investigation
(Fifth Round)

Name of Site: Fedders Auto Components Site
Street Address: Tonawanda Street
Town/City: City of Buffalo County: Erie

Site Type: Open Dump __ Structure __ Lagoon __ Landfill __ parking
Estimated Size: 2 Acres

Site Owner/Operator Information
Current Owner: Fedders Auto Components Company
Current Owner Address: 75 Tonawanda Street Bflo 14207
Owners During Use: same
Operator During Use: same
Operators Address: _____
Period Associated with Hazardous Waste: From 1974 To 1976or 1981

Hazardous Waste Disposed: Confirmed ___ Suspected ___
Type and Quantity: The Fedders Company oiled the parking for dust control with an estimated 165 gallons of waste oil per year. The company stated that the oils used consisted of light lubrication oils and hydraulic fluids. It is alleged that the oil may have contained PCB's.

Additional Information:
A Phase I Investigation has been completed for the site and a final report is available.

Mr. G. Gary Moose
Pres
Fedco Automotive Components Co.
57 Tonawanda St.
Buffalo, NY 14207

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Strawberry Island - main Island Shallows - Significant Coastal Fish and Wildlife Habitat



Figure 1
Site Location Map
Fedders Auto Components
Site #915024

USGS Buffalo N.E. and Buffalo N.W. Quadrangles
latitude 42° 55' 52" N
longitude 78° 53' 41" W

Info from National Heritage Program - endangered species, wildlife

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REFERENCE 20

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NATIONAL REGISTER OF HISTORIC PLACES 1966-1988

Erie County—Continued

St. Paul's Episcopal Cathedral, 125 Pearl St., Buffalo, 3/01/73, C,a, 73002298
Thomas Indian School, NY 438 on Cattaraugus Reservation, Irving, 1/25/73, A,C, 73001188
U.S. Post Office, 121 Ellicott St., Buffalo, 3/16/72, C, 72000839
US Post Office—Akron [US Post Offices in New York State, 1858-1943, TR], 118 Main St., Akron, 11/17/88, A,C, 88002449
US Post Office—Angola [US Post Offices in New York State, 1858-1943, TR], 80 N. Main St., Angola, 11/17/88, A,C, 88002452
US Post Office—Depew [US Post Offices in New York State, 1858-1943, TR], Warsaw St., Depew, 11/17/88, A,C, 88002481
USS THE SULLIVANS (destroyer), 1 Naval Cove Pk., Buffalo, 1/14/86, A,g, NHL, 86000085
West Village Historic District, Roughly bounded by S. Elmwood Ave., Chippewa, Georgia, Prospect, Carolina and Tracy Sts., Buffalo, 5/06/80, C, 80002610
Williamsville Water Mill Complex, 56 and 60 Spring St., Williamsville, 9/22/83, A,C, 83001675
Woodlawn Avenue Row [Masten Neighborhood Rows TR], 75—81 Woodlawn Ave., Buffalo, 3/19/86, C, 86000690
Young Men's Christian Association Central Building, 45 W. Mohawk St., Buffalo, 9/08/83, A,C, 83001676

Essex County

Adirondack Iron and Steel Company, Address Restricted, Tahawus vicinity, 10/05/77, A,D, 77000940
Black Watch Library [Ticonderoga MRA], 161 Montcalm St., Ticonderoga, 11/15/88, C, 88002199
Brown, John, Farm, John Brown Rd., Lake Placid, 6/19/72, A,B,c, 72000840
Burleigh, H. G., House [Ticonderoga MRA], 307 Champlain Ave., Ticonderoga, 11/15/88, C, 88002192
Camp Santanoni [Great Camps of the Adirondacks TR], N of NY 28N, Newcomb vicinity, 4/03/87, C, 86002955
Central School [Ticonderoga MRA], 324 Champlain Ave., Ticonderoga, 11/15/88, A,C, 88002202
Church of the Nazarene, W of Essex on NY 22, Essex vicinity, 6/19/73, C,a, 73001189
Clark House [Ticonderoga MRA], 331 Montcalm St., Ticonderoga, 11/15/88, C, 88002204
Community Building [Ticonderoga MRA], Montcalm and Champlain Sts., Ticonderoga, 11/15/88, C, 88002198
Delano, Clayton H., House [Ticonderoga MRA], 25 Father Jogues Pl., Ticonderoga, 11/15/88, B,C, 88002195
Edgewater Farm, 470 Point Rd., Willsboro Point vicinity, 2/17/88, A,C,b, 88000035
Essex County Home and Farm, SW of Whallonsburg on NY 22, Whallonsburg vicinity, 9/23/82, A,C, 82003357
Essex Village Historic District, Town of Essex and surroundings on W bank of Lake Champlain, Essex and vicinity, 5/28/75, A,C, 75001187
Ferris House [Ticonderoga MRA], 16 Carillon Rd., Ticonderoga, 11/15/88, C, 88002203
First Congregational and Presbyterian Society Church of Westport, Main St./CR 10, Westport, 12/19/88, C,a,b, 88002750
Fort Crown Point, Crown Point Reservation, SW of Lake Champlain Bridge and NY 8, Crown Point vicinity, 11/24/68, A,C,D, NHL, 68000033
Fort St. Frederic, Jct. of NY 8 and 9N, Crown Point, 10/15/66, D, NHL, 66000517
Fort Ticonderoga, 2.5 mi. S of Ticonderoga on NY 22, Ticonderoga vicinity, 10/15/66, A,D, NHL, 66000519
Fried, Samson, Estate, NY 74, Severance, 2/26/87, C, 87000225
Gilligan and Stevens Block [Ticonderoga MRA], 115 Montclam St., Ticonderoga, 11/15/88, C, 88002193
Hancock House [Ticonderoga MRA], Montcalm and Wicker Sts., Ticonderoga, 11/15/88, C, 88002197
Hand-Hale Historic District, River and Maple Sts., Elizabethtown, 3/05/79, B,C, 79001582
Ironville Historic District, Area surrounding Ironville including Furnace St. and Penfield Pond, Ironville, 12/27/74, A,B,C, 74001237
Moore, Silas B., Gristmill [Ticonderoga MRA], 218 Montcalm St., Ticonderoga, 11/15/88, C, 88002190
NYS Armory [Ticonderoga MRA], 315 Champlain Ave., Ticonderoga, 11/15/88, C, 88002200
Octagonal Schoolhouse, On Rte. 22 in Bouquet, Essex vicinity, 1/17/73, A,C, 73001190
PAD Factory, The [Ticonderoga MRA], 109 Lake George Ave., Ticonderoga, 11/15/88, A,C, 88002205
Rembrandt Hall [Keeseville Village MRA], Clinton St., Keeseville, 5/20/83, C, 83001677
St. Mary's Church and Rectory [Ticonderoga MRA], 10—12 Father Jogues Pl., Ticonderoga, 11/15/88, C,a, 88002196
Ticonderoga High School [Ticonderoga MRA], Calkins Pl., Ticonderoga, 11/15/88, C, 88002201
Ticonderoga National Bank [Ticonderoga MRA], 101 Montcalm St., Ticonderoga, 11/15/88, C, 88002194
Ticonderoga Pulp and Paper Company Office [Ticonderoga MRA], Montcalm St., Ticonderoga, 11/15/88, A,C, 88002191
Tomlinson House [Keeseville Village MRA], Kent St., Keeseville, 5/20/83, C, 83001678
US Post Office—Lake Placid [US Post Offices in New York State, 1858-1943, TR], 201 Main St., Lake Placid, 11/17/88, A,C, 88002339
Van Ornam & Murdock Block, Main St., Port Henry, 11/14/82, A,C, 82001172
Watson, Elkanah, House, 3 mi. E of U.S. 9, Port Kent, 10/15/66, B, NHL, 66000518
Will Rogers Memorial Hospital, NY 86, Saranac Lake, 9/08/83, A,C, 83001679
Willsboro Congregational Church, NY 22, Willsboro, 5/31/84, C,a, 84002391

Franklin County

Berkeley Square Historic District, 30—84 Main St., 2—29 Broadway, Saranac Lake, 2/11/88, A,B,C, 88000114
Camp Topridge [Great Camps of the Adirondacks TR], S of Keese Mills Rd., Upper St. Regis Lake, Keese Hill vicinity, 11/07/86, C, 86002952
Camp Wild Air [Great Camps of the Adirondacks TR], Upper St. Regis Lake, Upper St. Regis, 11/07/86, C, 86002930
Eagle Island Camp [Great Camps of the Adirondacks TR], Eagle Island, Upper Saranac Lake, Saranac Inn vicinity, 4/03/87, C, 86002941
Horton Gristmill, Mill St., Malone, 4/21/75, A,C, 75001188
Joseph, Beth, Synagogue, Lake and Mill Sts., Tupper Lake, 9/01/88, C,a, 88001441
Lincoln, Anselm, House, 49 Duane St., Malone, 4/21/75, A,C, 75001189
Malone Freight Depot, 99 Railroad St., Malone, 12/12/76, A,C, 76001217
Moss Ledge [Great Camps of the Adirondacks TR], Off NY 30, Upper Saranac Lake, Saranac Inn vicinity, 11/07/86, C, 86002942
Paddock Building, 34 W. Main St., Malone, 11/07/76, A,C, 76001218
Prospect Point Camp [Great Camps of the Adirondacks TR], E of NY 30, Saranac Inn vicinity, 11/07/86, C,a, 86002947
Smith's, Paul, Electric Light and Power and Railroad Company Complex, 2 Main St., Saranac Lake, 11/02/87, A,C, 87001898

Fulton County

Dolge Company Factory Complex, S. Main St., Dolgeville, 9/17/74, A,B,C, 74001238
Downtown Gloversville Historic District, Roughly bounded by Spring, Prospect, E. Fulton, N. and S. Main and Elm Sts., Gloversville, 9/12/85, A,C, 85002367
Fulton County Courthouse, N. William St., Johnstown, 7/24/72, A,C, 72000841
Fulton County Jail, Perry and Montgomery Sts., Johnstown, 10/19/81, A,C, 81000404
Garoga Site, Address Restricted, Ephratah vicinity, 7/22/80, D, 80002613
Gloversville Free Library, 58 E. Fulton St., Gloversville, 5/24/76, A,C, 76001219

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Dutchess County—Continued

Traver, J. E., Farm [Rhinebeck Town MRA], Violet Hill Rd., Rhinebeck, 7/09/87, C, 87001082
Traver, John H., Farm [Rhinebeck Town MRA], Wurtemburg Rd., Wurtemburg, 7/09/87, C, 87001081
Travis House [Poughkeepsie MRA], 131 Cannon St., Poughkeepsie, 11/26/82, A,C, 82001167
Trinity Methodist Episcopal Church and Rectory [Poughkeepsie MRA], 1-3 Hooker Ave., Poughkeepsie, 11/26/82, C,a, 82001168
US Post Office—Beacon [US Post Offices in New York State, 1858-1943, TR], 369 Main St., Beacon, 11/17/88, A,C, 88002456
Union Free School [New Hamburg MRA], Academy St., New Hamburg, 2/27/87, C, 87000117
Union Street Historic District, About 8 blocks in downtown Poughkeepsie centered around Union St., Poughkeepsie, 12/09/71, A,C, 71000537
Upper-Mill Street Historic District [Poughkeepsie MRA], Roughly Mill St. from Center Plaza to Catherine St., Poughkeepsie, 11/26/82, A,C, 82001169
Van Vredenburg Farm [Rhinebeck Town MRA], Cedar Heights Rd., Rhinebeck, 7/09/87, C, 87001079
Van Wyck-Wharton House, S of Fishkill on U.S. 9, Fishkill vicinity, 4/13/72, A,C, 72000828
Vanderbilt Mansion National Historic Site, N edge of Hyde Park, U.S. 9, Hyde Park, 10/15/66, A,C, 66000059
Vassar Home for Aged Men, 1 Vassar St., Poughkeepsie, 4/13/72, A,C, 72000837
Vassar Institute, 12 Vassar St., Poughkeepsie, 1/20/72, A,C, 72001540
Vassar, Matthew, Estate, Academy and Livingston Sts., Poughkeepsie, 8/11/69, C, NHL, 69000141
Vassar-Warner Row [Poughkeepsie MRA], S. Hamilton from Montgomery to 40 Hamilton St., Poughkeepsie, 11/26/82, C, 82001170
Wappingers Falls Historic District [Wappingers Falls MRA], Roughly bounded by South Ave., Elm, Main, Park, Walker, Market, and McKinley Sts., Wappingers Falls, 9/29/84, A,C, 84002380
Williams Farm [Rhinebeck Town MRA], Enterprise Rd., Rhinebeck, 7/09/87, C, 87001080
Winegar, Hendrik, House, SE of Amenia on SR 2 off NY 343, Amenia vicinity, 4/15/75, C, 75001180
Young Men's Christian Association [Poughkeepsie MRA], 58 Market St., Poughkeepsie, 11/26/82, C, 82001171
Zion Memorial Chapel [New Hamburg MRA], 37 Point St., New Hamburg, 2/27/87, C, 87000119

Erie County

33—61 Emerson Place Row [Masten Neighborhood Rows TR], 33—61 Emerson Pl., Buffalo, 3/19/86, C, 86000691
Albright-Knox Art Gallery, 1285 Elmwood Ave., in Delaware Park, Buffalo, 5/27/71, C, 71000538
Allentown Historic District, Off NY 384, Buffalo, 4/21/80, A,C, 80002605
Berkeley Apartments, 24 Johnson Park, Buffalo, 10/15/87, C, 87001852
Blessed Trinity Roman Catholic Church Buildings, 317 LeRoy Ave, Buffalo, 8/03/79, A,C,a, 79001579
Buffalo Gas Light Company Works, 249 W. Genesee St., Buffalo, 9/01/76, A,C, 76001215
Buffalo Main LIght [U.S. Coast Guard Lighthouses and Light Stations on the Great Lakes TR], Buffalo River, Buffalo, 7/19/84, A,C, 84002383
Buffalo North Breakwater South End Light [U.S. Coast Guard Lighthouses and Light Stations on the Great Lakes TR], Buffalo Harbor, Buffalo, 8/04/83, A,C, 83001669
Buffalo State Asylum for the Insane, 400 Forest Ave., Buffalo, 6/24/86, C, NHL, 86003557
Buffalo State Hospital, 400 Forest Ave., Buffalo, 1/12/73, C, 73001186
Buffalo and Erie County Historical Society, 25 Nottingham Ct., Buffalo, 4/23/80, A,C, NHL, 80002606
Cazenovia Park-South Park System [Olmsted Parks and Parkways TR], South Park, NW along McKinley Pkwy. to Cazenovia Park, NW along McKinley Pkwy. to Heacock Park, Buffalo, 3/30/82, C, 82005028
Chapel of Our Lady Help of Christians, 4125 Union Rd., Cheektowaga, 12/14/78, A,C,a, 78001851
County and City Hall, 95 Franklin St., Buffalo, 5/24/76, A,C, 76001216
Delaware Avenue Historic District, W side of Delaware Ave. between North and Bryant Sts., Buffalo, 1/17/74, A,C,a, 74001232
Delaware Park-Front Park System [Olmsted Parks and Parkways TR], Front Park, Porter Ave. to Symphony Cir., N along Richmond Ave., Bidwell Pkwy., Gates Cir. and Delaware Park, Buffalo, 3/30/82, C, 82005029
Dorsheimer, William, House, 434 Delaware Ave., Buffalo, 11/21/80, C, 80002607
Durham Memorial A.M.E. Zion Church, 174 E. Eagle St., Buffalo, 9/15/83, A,a, 83001670
Eaton Site, Address Restricted, West Seneca, 4/03/79, D, 79001581
Eberhardt Mansion, 2746 Delaware Ave., Kenmore, 9/08/83, C, 83001671
Eshelman, J., and Company Store, 6000 Goodrich Rd., Clarence Center, 5/06/82, C, 82003356
Fillmore, Millard, House, 24 Shearer Ave., East Aurora, 5/30/74, B,b, NHL, 74001235
Fosdick-Masten Park High School, Masten Ave. and E. North St., Buffalo, 6/30/83, C, 83001672
Gamel Hexadecagon Barn [Central Plan Dairy Barns of New York TR], Shirley Rd., North Collins vicinity, 9/29/84, C, 84002386
Johnson-Jolls Complex, S-4287 S. Buffalo St., Orchard Park, 5/06/80, C, 80002611
King, Martin Luther, Jr., Park [Olmsted Parks and Parkways TR], Roughly bounded by Northampton St., E. Parade Ave., Best St. and Kensington Expressway, Buffalo, 3/30/82, C, 82005027
Kleis Site, Address Restricted, Hamburg vicinity, 4/20/79, D, 79001580
Lafayette High School, 370 Lafayette Ave., Buffalo, 12/03/80, C, 80002608
Laurel and Michigan Avenues Row [Masten Neighborhood Rows TR], 1335—1345 Michigan Ave., Buffalo, 3/19/86, C, 86000688
Macedonia Baptist Church, 511 Michigan Ave., Buffalo, 2/12/74, A,a, 74001233
Martin, D. D., House Complex [Olmsted Parks and Parkways TR (AD)], 123 Jewett Pkwy., Buffalo, 12/30/75, C, 75001185
Martin, Darwin D., House, 125 Jewett Pkwy., Buffalo, 2/24/86, C, NHL, 86000160
New York Central Terminal, 495 Paderewski Dr., Buffalo, 9/07/84, A,C, 84002389
Parkside East Historic District [Olmsted Parks and Parkways TR], Roughly bounded by Parkside Ave., Amherst St., Colvin Ave., NY Central RR tracks, Main St., and Humboldt Ave., Buffalo, 10/17/86, A,C, 86002817
Parkside West Historic District [Olmsted Parks and Parkways TR], Roughly bounded by Amherst St., Nottingham Terr., Middlesex Rd., and Delaware Ave., Buffalo, 12/10/86, C,g, 86003372
Pierce Arrow Factory Complex, Elmwood and Great Arrow Aves., Buffalo, 10/01/74, A,C, 74001234
Prudential Building, Church and Pearl Sts., Buffalo, 3/20/73, A,C, NHL, 73001187
Riverside Park [Olmsted Parks and Parkways TR], Roughly bounded by Vulcan, Tonawanda, Crowley, and Niagara St., Buffalo, 3/30/82, C, 82005026
Roosevelt, Theodore, Inaugural National Historic Site, 641 Delaware Ave., Buffalo, 11/02/66, B, 66000516
Roycroft Campus, Main and W. Grove Sts., East Aurora, 11/08/74, A,B,C,a,g, NHL, 74001236
Shea's Buffalo Theater, 646 Main St., Buffalo, 5/06/75, A,C, 75001186
South Buffalo North Side Light [U.S. Coast Guard Lighthouses and Light Stations on the Great Lakes TR], Buffalo Harbor, Buffalo, 8/04/83, A, 83001673
St. Andrew's Evangelical Lutheran Church Complex, Sherman and Peckham Sts., Buffalo, 9/08/83, A,C,a, 83001674
St. Paul's Cathedral, 139 Pearl St., Buffalo, 12/23/87, C,a, NHL, 87002600

REFERENCE 21

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ref 2114

INTERVIEW ACKNOWLEDGMENT FORM

SITE NAME:	Fedders Auto Components	I.D. NUMBER:	915024
PERSON CONTACTED:	Michael Alspaugh	DATE:	3/29/90, 4/2/90
AFFILIATION:	Department of Environment and Planning	PHONE NUMBER:	716-858-6013
ADDRESS:	Rath Building 95 Franklin Street Buffalo, NY	CONTACT PERSON(S):	Natasha Snyder Melissa Perera Chris Lewicki

TYPE OF CONTACT: ~~meeting~~ Use of map collection (part of Development Decision Support System [DDSS]) in the Erie County Planning Division

INTERVIEW SUMMARY

On Thursday, March 28, 1990 we asked Mr. Alspaugh if E & E could use the map room for the entire day on Monday, April 2, 1990. He gave permission for us to do so and requested that we record the number of each map that we used. The map numbers are as follows:

Map #	Date of Map	Map Type/Name
# 1H-75	10-13-51	aerial photo
# 2H-120	10-04-51	aerial photo
# 1H-15	9-20-51	aerial photo
# 6	1978-1981	aerial quad
# 7	1978-1981	aerial quad
# 8-1	1960	aerial photo
# 8-4	1960	aerial photo
-----	1975	General Soils Map MCSO SOILS
-----	June 1989	Agricultural Districts of Erie County
DWG # 719-3A-0	Jan. 1980	Depth to Bedrock
DWG # 719-5A-0	Jan. 1980	Depth to Natural Water Table
DWG # 719-9A-0	Jan. 1980	Bedrock Information
-----	Aug. 1983	Significant Fish Habitats
# 6	Jan. 1984	Historic Sites 1981 Local Survey
-----	1982 '82	Water Districts
-----	1979 '83	US Waters & Adjacent Wetlands
-----	1987	Significant Wildlife Habitats
-----	1980 '87	NYS Protected Plant Habitats
#5, #6, #7	1982	Land Use Map
#7	1977 '84	100 yr. Floodplain Map
#6	1981 '83	100 yr. Floodplain Map

ACKNOWLEDGMENT

I have read the above transcript and I agree that it is an accurate ~~summary~~ LISTING of the information ~~verbally~~ conveyed to Ecology and Environment, Inc. interviewer(s) (as revised below, if necessary).

Revisions (please write in any corrections needed to above transcript)

THE INTERVIEWERS WERE SHOWN THE MAPS WHICH THEY REQUESTED AND THE INTERVIEWERS INTERPRETED THE MAPS & INFORMATION WITH ONLY INCIDENTAL EXPLANATIONS BY STAFF — SEE ATTACH DISCLAIMER BY ERIE COUNTY.

Signature: Michael A. Allspaugh Date: 5/7/96

SENIOR PLANNER

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DISCLAIMER

The County makes no representations, warranties or guarantees as to the accuracy or completeness of the material provided through the Development Decision Support System. The System makes available to the public, information which the County has received and compiled in order to assist in basic planning and physical development.

The user of the Development Decision Support System agrees to be responsible for determining the reliability of any information obtained and uses the information at his own risk. The County will not be responsible for any omissions, dissemination of inaccurate information or misuse of any information obtained.

bas063

Ref. 21

Trip Report

To: Natasha Snyder

From: Melissa Perera, Civis Lewicki

Re: Record Search for Erie County NYSDEC Phase II sites

Date: April 9, 1990

c: Jim Griffis, Fred McKosty, CTF 4/P-6000, YP-7000, ~~YR-2000~~ YQ-9000 B. Meyers

On April 2, 1990 M. Perera and C. Lewicki went to the Erie County Department of Environment and Planning to collect data on land use. Most of the information was available in the form of maps, mylar overlays, and aerials. The DEP's maproom is open to the public M-F 2-4 pm. M. Perera and C. Lewicki collected information on: aerial photos (1951, 1960, ~1980), prime agricultural soils, depth to bedrock, depth to natural water table, significant fish habitats, NYS protected plant habitats, significant wildlife habitats, residential & industrial areas near site, 100 yr. floodplains, National Register historic sites, wetlands, and water districts.

Information still needed for all 3 Erie County sites

- census information - Cenus computer program / UB
- water intakes - Erie @ Water Authority
- irrigation - doubtful, as there is no ag. soil w/in 2
- precipitation - climate atlas - in-house?
- soil permeability - can get from Erie County

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Notes + Bibliography for all Erie County sites

April
Erie Co

map	site	notes
Erie County, NY General Soil Map USDA SCS 1975 prime ag. soils	all Erie Co.	no prime ag w/in 2 miles
Agricultural Districts of Erie Co. prepared by Erie Co. DEP, Planning Div., updated June 1983	all Erie Co.	no ag district w/in 1 mile
Depth to Bedrock, Jan. 1980, prep. by Smith Rosenstein Engineers, source: 1. General Soil Map Erie Co. (1970), 2. unpublished soil survey field sheets, Erie Co. Nat'l Coop. DWG # 719-3A-0	W. Seneca	greater than 4' bedrock
	Fedders Auto	greater than 10' bedrock
	Hartwell	greater than 10' bedrock
Depth of Natural Water Table, Jan. 1980, DWG # 719-5A-0, same reference as "Depth to Bedrock"	W. Seneca	frequently flo
	Fedders	no info.
	Hartwell	no info
Bedrock Information, Jan 1980 DWG # 719-9A-0, same reference as "Depth to Bedrock", and Geology of Erie Co., Buehler, E.T., Tesmer, I.H. Society of Natural Sciences Bulletin, Vol. 2 #3 pp. 72-77.	Hartwell	fissile shale bed
	W. Seneca	fissile shale b
	Fedders Auto	limestone bed

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REFERENCE 22

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INTERVIEW ACKNOWLEDGMENT FORM

SITE NAME:	Fedders Automotive Components	I.D. NUMBER:	915024
PERSON CONTACTED:	Lt. George Eck	DATE:	1/4/91
AFFILIATION:	Fire Prevention Bureau Buffalo, NY 14202	PHONE NUMBER:	851-5703
ADDRESS:	Room 312 City Hall Buffalo, NY 14202	CONTACT PERSON(S):	Sandy Lare

TYPE OF CONTACT: telephone interview

INTERVIEW SUMMARY

The Fedders Corporation, located at 57 Tonawanda Street in Buffalo, is licensed as a service station/private, which allows them to have a gas pump at the facility. Fedders also holds licenses for its flammable finishes (allowing combustible paints to be used), and for the storage of a limited amount of hazardous chemical on-site. The facility was last inspected on 12/10/90, and was found to be in compliance with all fire prevention rules and regulations. Therefore, the site poses no significant or unusual fire or explosion hazard.

ACKNOWLEDGMENT

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to Ecology and Environment, Inc. interviewer(s) (as revised below, if necessary).

Revisions (please write in any corrections needed to above transcript)

Signature: George H. Eck Date: 1-7-91

REFERENCE 23

LAB ANALYTICAL DATA
(APPENDIX D THIS REPORT)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

EPA

PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	915024

II. SITE NAME AND LOCATION

01 Site Name (Legal, common, or descriptive name of site)	02 Street, Route No., or Specific Location Identifier
Fedders Automotive Components	57 Tonawanda Street

03 City	04 State	05 Zip Code	06 County	07 County Code	08 Cong. Dist.
Buffalo	NY	14207	Erie	029	36

09 Coordinates Latitude	Longitude	10 Type of Ownership (Check One)
42° 55' 52"	78° 53' 41"	[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
4 / 23 / 90 (Month Day Year)	[ ] Active [X] Inactive	1974 (Beginning Year) | 1981 (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) [ ] E. State [X] F. State Contractor Ecology and Environment Engineering, P.C. (Name of Firm)
[ ] G. Other (Specify) _____

05 Chief Inspector	06 Title	07 Organization	08 Telephone No.
Robert Myers	Geologist	Ecology and Environment Engineering, P.C.	(716) 684-8060
09 Other Inspectors	10 Title	11 Organization	12 Telephone No.
Rick Watt	Geologist	Ecology and Environment Engineering, P.C.	(716) 684-8060
Gene Florentino	Geologist	Ecology and Environment Engineering, P.C.	(716) 684-8060
			( )
			( )

13 Site Representatives Interviewed	14 Title	15 Address	16 Telephone No.
G. Gary Moose	President	57 Tonawanda Street	(716) 877-8000
Richard Pinke	Environmental Specialist	57 Tonawanda Street	(716) 877-8000
			( )
			( )

17 Access Gained by (Check one)	18 Time of Inspection	19 Weather Conditions
Permission	12:45	Sunny, 70°F, South wind 5-10 mph

IV. INFORMATION AVAILABLE FROM

01 Contact	02 Agency/Organization	03 Telephone No.
Walter Demick	NYSDEC	(518) 457-9538

04 Person Responsible for Site Inspection Form	05 Agency	06 Organization	07 Telephone No.	08 Date
J. Griffis		E&E Engineering, P.C.	(716) 684-8060	2 / 20 / 91 (Month Day Year)

[UZ]YP6080:D3264/4943

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

EPA

PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	915024

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
[X] F. Liquid
[ ] G. Gas

02 Waste Quantity at Site (Measure of waste quantities must be independent)

Tons _____
Cubic Yards _____
No. of Drums 26.4

03 Waste Characteristics (Check all that apply)

[ ] A. Toxic
[ ] B. Corrosive
[ ] C. Radioactive
[ ] D. Persistent
[ ] E. Soluble
[ ] F. Infectious
[X] 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			
OLW	Oily waste	1,320	Gallons	165 gals./year for a maximum of 8 years
SOL	Solvents			
PSD	Pesticides			
OCC	Other organic chemicals			
IOC	Inorganic chemicals			
ACD	Acids			
BAS	Bases			
MES	Heavy Metals			

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

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)

Phase I Report (Engineering-Science in association with Dames and Moore, 1986)

[UZ]YP6080:D3264/4943

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

EPA

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 State	02 Site Number
NY	915024

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. Groundwater Contamination
02 [X] Observed (Date 10-16-90) [ ] Potential [ ] Alleged
03 Population Potentially Affected 0
04 Narrative Description

Several metals were detected in groundwater at levels above state standards; however, there are no wells within a 3-mile radius of the site.

01 [X] B. Surface Water Contamination
02 [X] Observed (Date 10-16-90) [ ] Potential [ ] Alleged
03 Population Potentially Affected 91,269
04 Narrative Description:

Iron and zinc concentrations exceeded NYSDEC standards in samples collected from Scajaquada Creek. Scajaquada Creek flows into the Niagara River, a source of drinking water. Water intakes are located approximately 2.1 miles from the site.

01 [X] C. Contamination of Air
02 [ ] Observed (Date _____) [X] Potential [ ] Alleged
03 Population Potentially Affected _____
04 Narrative Description:

No readings above background were detected with the HNu or OVA during the site reconnaissance.

01 [ ] D. Fire/Explosive Conditions
02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
03 Population Potentially Affected _____
04 Narrative Description:

None known.

01 [X] E. Direct Contact
02 [ ] Observed (Date _____) [X] Potential [ ] Alleged
03 Population Potentially Affected 20,547
04 Narrative Description:

Site access is controlled with the use of a fence and a 24-hour guard. 20,547 people live within a 1-mile radius of the site.

01 [X] F. Contamination of Soil
02 Observed (Date 9-24-90 through 9-26-90) [ ] Potential [ ] Alleged
03 Area Potentially Affected ~2 acres
04 Narrative Description:

Subsurface soil samples contained volatiles, semivolatiles and metals.

01 [X] G. Drinking Water Contamination
02 [ ] Observed (Date _____) [X] Potential [ ] Alleged
03 Population Potentially Affected 91,269
04 Narrative Description:

Scajaquada Creek flows into the Niagara River, which is a drinking water source. No contaminants have been detected in the Niagara River that can be attributed to activities at the Fedders site.

01 [X] H. Worker Exposure/Injury
02 [ ] Observed (Date _____) [X] Potential [ ] Alleged
03 Workers Potentially Affected _____
04 Narrative Description:

None reported.

01 [X] I. Population Exposure/Injury
02 [ ] Observed (Date _____) [X] Potential [ ] Alleged
03 Population Potentially Affected 91,269
04 Narrative Description:

None reported.

[UZ]YP6080:D3264/4943

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

EPA

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS (Cont.)

I. IDENTIFICATION

01 State	02 Site Number
NY	915024

II. HAZARDOUS CONDITIONS AND INCIDENTS (Cont.)

01 [ ] J. Damage to Flora 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

None known.

01 [ ] K. Damage to Fauna 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

None known.

01 [X] L. Contamination of Food Chain 02 [ ] Observed (Date _____) [X] Potential [ ] Alleged
04 Narrative Description:

Potential exists if animals drink contaminated surface water or eat organisms living in contaminated sediments.

01 [X] M. Unstable Containment of Wastes (Spills/Runoff/Standing liquids, Leaking drums) 02 [ ] Observed (Date N/A) [ ] Potential [ ] Alleged
03 [ ] Population Potentially Affected _____ 04 Narrative Description:

Waste oil was sprayed directly onto the ground.

01 [ ] N. Damage to Offsite Property 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

None known.

01 [ ] O. Contamination of Sewers, Storm/ Drains, WWTPs 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

None known.

01 [ ] P. Illegal/Unauthorized Dumping 02 [ ] Observed (Date _____) [ ] Potential [ ] Alleged
04 Narrative Description:

None known.

05 Description of Any Other Known, Potential, or Alleged Hazards

N/A

III. TOTAL POPULATION POTENTIALLY AFFECTED 91,269

IV. COMMENTS

Groundwater, surface water, sediment and soil samples contained various organic and inorganic compounds, some of which exceeded NYSDEC standards or guidance values.

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

Phase I Report (Engineering-Science in Association with Dames and Moore, 1986)
Phase II Investigation (Ecology and Environment Engineering P.C., 1990)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

EPA

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 State	02 Site Number
NY	915024

II. DRINKING WATER SUPPLY

01 Type of Drinking Supply (Check as applicable)	Surface	Well
Community	A. [X]	B. [ ]
Non-community	C. [ ]	D. [ ]

02 Status		
Endangered	Affected	Monitored
A. [ ]	B. [ ]	C. [X]
D. [ ]	E. [ ]	F. [ ]

03 Distance to Site
A 2.1 (mi)
B N/A (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)
[X] D. Not Used, Unusable

02 Population Served by Groundwater 0

03 Distance to Nearest Drinking Water Well _____ (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
<3 (ft)	East	40-60 (ft)	_____ (gpd)	Unknown [ ] Yes [ ] No

09 Description of Wells (including usage, depth, and location relative to population and buildings)

No groundwater wells within 3-mile radius of site.

10 Recharge Area		11 Discharge Area	
[ ] Yes	Comments:	[ ] Yes	Comments:
[ ] No		[ ] No	

IV. SURFACE WATER

01 Surface Water (Check one)

[X] A. Reservoir, Recreation, Drinking Water Source
[ ] B. Irrigation, Economically Important Resources
[ ] C. Commercial, Industrial
[ ] D. Not Currently Used

02 Affected/Potentially Affected Bodies of Water

Name:	Affected	Distance to Site
Scajaquada Creek	[X]	Adjacent (mi)
Black Rock Canal	[ ]	~.2 (mi)
Niagara River	[ ]	~.7 (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. 20,547	B. 76,966	C. 173,509
No. of Persons	No. of Persons	No. of Persons

02 Distance to Nearest Population
~0.5 (mi)

03 Number of Buildings Within Two (2) Miles of Site
20,254

04 Distance to Nearest Off-Site Home
>0.1 (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 located in an urban/industrial section of the City of Buffalo. A residential area is located approximately 0.5 mile north of the site.

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

EPA

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA (Cont.)

I. IDENTIFICATION

01 State	02 Site Number
NY	915024

VI. ENVIRONMENTAL INFORMATION

01 Permeability of Unsaturated Zone (Check one)

[ ] A. 10^{-6} - 10^{-8} cm/sec [X] 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) [X] 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)

03 Depth to Bedrock	04 Depth of Contaminated Soil Zone	05 Soil pH
~40 (ft)	14'	

06 Net Precipitation	07 One Year 24-Hour Rainfall	08 Site Slope	Direction of Site Slope	Terrain Average Slope
9 (in)	2 (in)	2 %	east	0.5 %

09 Flood Potential

Site is in 100 Year Floodplain

10 [ ] Site is on Barrier Island, Coastal High Hazard Area, Riverine Floodway

11 Distance to Wetlands (5 acre minimum)

ESTUARINE NA OTHER

A. _____ (mi) B. _____ (mi)

12 Distance to Critical Habitat (of endangered species)

_____ (mi)

Endangered Species: _____

13 Land Use in Vicinity

Distance to:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREA; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AGRICULTURAL LANDS AG LAND
A. 0 (mi)	B. 0.5 (mi)	C. _____ (mi)	D. _____ (mi)

14 Description of Site in Relation to Surrounding Topography

The site is located in a nearly level area that gently slopes towards Scajaquada Creek.

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

Phase I report (Engineering-Science in Association with Dames and Moore, 1986)
Phase II Investigation (Ecology and Environment Engineering, P.C.)
State files

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POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT EPA PART 6 - SAMPLE AND FIELD INFORMATION	I. IDENTIFICATION	
	01 State NY	02 Site Number 915024

II. SAMPLES TAKEN - No samples taken during S.I.

Sample Type	01 Number of Samples Taken	02 Samples Sent to	03 Estimated Date Results Available
Groundwater	3	Ecology and Environment ASC	12-15-90
Surface Water	3	Ecology and Environment ASC	12-15-90
Waste			
Air			
Runoff			
Spill			
Soil	21	Ecology and Environment ASC and Toledo Testing, Inc. (Geotechnical Analysis)	12-15-90
Vegetation			
Other	3-Sediment	Ecology and Environment ASC	12-15-90

III. FIELD MEASUREMENTS TAKEN

01 Type	02 Comments
OVA/HNu	No readings above background obtained in the breathing zone.
pH	Taken during well development and sampling.
Temp.	Taken during well development and sampling.
Conductivity	Taken during well development and sampling.

IV. PHOTOGRAPHS AND MAPS

01 Type [ ] Ground [X] Aerial

02 In Custody of Ecology and Environment Engineering, P.C.
(Name of Organization or Individual)

03 Maps
[X] Yes
[ ] No

04 Location of Maps
Ecology and Environment Engineering, P.C. 368 Pleasantview Drive, Lancaster, New York 14086

V. OTHER FIELD DATA COLLECTED (Provide narrative description of sampling activities)

One sediment and one surface water sample were collected; upgradient, adjacent to, and downgradient of the site, for a total of three sediment and three surface water samples. One groundwater sample was collected from each of three monitoring wells. In addition, subsurface soil samples were collected at 2-inch intervals or as decided by the site geologist. The soil samples were analyzed for TCL or geotechnical parameters.

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

Phase I Report (Engineering-Science in association with Dames and Moore, 1986)
Various state files
Sample analysis from Ecology and Environment ASC and Toledo Testing, Inc.

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

EPA

PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 State: NY	02 Site Number: 915024

II. CURRENT OWNER(S)			PARENT COMPANY (if applicable)		
01 Name: Fedders Automotive Components Company	02 D+B Number: N/A		08 Name	09 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.): 57 Tonawanda Street	04 SIC Code: 5013-13		10 Street Address (P.O. Box, RFD #, etc.)	11 SIC Code	
05 City: Buffalo	06 State: NY	07 Zip Code: 14207	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
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, most recent first)		
01 Name: Fedders Quiggins Corporation	02 D+B Number: N/A		01 Name	02 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.): 57 Tonawanda Street	04 SIC Code: N/A		03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code	
05 City: Buffalo	06 State: NY	07 Zip Code: N/A	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)

[UZ]YP6080:D3264/4943

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POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT EPA PART 8 - OPERATOR INFORMATION - NA	I. IDENTIFICATION 01 State NY / 02 Site Number 915024

II. CURRENT OPERATOR (if different from Owner)				OPERATOR'S PARENT COMPANY (if applicable)			
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						

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	
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						
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						
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)

[UZ]YP6080:D3264/4943

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

EPA

PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	915024

II. ON-SITE GENERATOR - NA

01 Name	02 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code	
05 City	06 State	07 Zip Code

III. OFF-SITE GENERATOR(S) - NA

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) - NA

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)

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POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT EPA PART 10 - PAST RESPONSE ACTIVITIES - NA	I. IDENTIFICATION	
	01 State NY	02 Site Number 915024

II. PAST RESPONSE ACTIVITIES

01 [ ] A. Water Supply Closed 04 Description:	02 Date _____	03 Agency _____
01 [ ] B. Temporary Water Supply Provided 04 Description:	02 Date _____	03 Agency _____
01 [ ] C. Permanent Water Supply Provided 04 Description:	02 Date _____	03 Agency _____
01 [ ] D. Spilled Material Removed 04 Description:	02 Date _____	03 Agency _____
01 [ ] E. Contaminated Soil Removed 04 Description:	02 Date _____	03 Agency _____
01 [ ] F. Waste Repackaged 04 Description:	02 Date _____	03 Agency _____
01 [ ] G. Waste Disposed Elsewhere 04 Description:	02 Date _____	03 Agency _____
01 [ ] H. On-Site Burial 04 Description:	02 Date _____	03 Agency _____
01 [ ] I. In Situ Chemical Treatment 04 Description:	02 Date _____	03 Agency _____
01 [ ] J. In Situ Biological Treatment 04 Description:	02 Date _____	03 Agency _____
01 [ ] K. In Situ Physical Treament 04 Description:	02 Date _____	03 Agency _____
01 [ ] L. Encapsulation 04 Description:	02 Date _____	03 Agency _____
01 [ ] M. Emergency Waste Treatment 04 Description:	02 Date _____	03 Agency _____
01 [ ] N. Cutoff Walls 04 Description:	02 Date _____	03 Agency _____
01 [ ] O. Emergency Diking/Surface Water Diversion 04 Description:	02 Date _____	03 Agency _____
01 [ ] P. Cutoff Trenches/Sump 04 Description:	02 Date _____	03 Agency _____

[UZ]YP6080:D3264/4943

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT EPA PART 10 - PAST RESPONSE ACTIVITIES (Cont.) - NA	I. IDENTIFICATION	
	01 State NY	02 Site Number 915024

II. PAST RESPONSE ACTIVITIES (Cont.)

01 [ ] Q. Subsurface Cutoff Wall 02 Date _____ 03 Agency _____
04 Description:

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 _____ 03 Agency _____
04 Description:

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)

[UZ]YP6080:D3264/4943

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT EPA PART 11 - ENFORCEMENT INFORMATION	I. IDENTIFICATION	
	01 State NY	02 Site Number 915024

II. ENFORCEMENT INFORMATION

01 Past Regulatory/Enforcement Action [ ] Yes [X] No

02 Description of Federal, State, Local Regulatory/Enforcement Action

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

[UZ]YP6080:D3264/4943

6. REFERENCES

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Appendices

APPENDIX A

SITE-SPECIFIC SAFETY PLAN

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SITE SAFETY PLAN

Version 988

A. GENERAL INFORMATION

Project Title: Fedders Automotive Components Project No.: YP-6000

TDD/Pan No.:

Project Manager: Robert Meyers Project Dir.: James Griffis

Location(s): 57 Tonawanda Street, Buffalo New York 14216

Prepared by: R. Meyers Date Prepared: 4-25-90

Approval by: CF Date Approved: 4-27-90

Site Safety Officer Review: JBH Date Reviewed: 9-21-90

Scope/Objective of Work: Environmental sampling soil and water. Drilling and well installation.

Proposed Date of Field Activities: May through September 1990

Background Info: Complete: [X] Preliminary (No analytical data available) [ ]

Documentation/Summary:

Overall Chemical Hazard:	Serious [ ]	Low [X]	Moderate [ ]	Unknown [ ]
Overall Physical Hazard	Serious [ ]	Low [X]	Moderate [ ]	Unknown [ ]

B. SITE/WASTE CHARACTERISTICS

Waste Type(s):

Liquid [X]	Solid [X]	Sludge [ ]	Gas/Vapor [ ]

Characteristic(s):

Flammable/ Ignitable [X]	Volatile [ ]	Corrosive [ ]	Acutely Toxic [ ]
Explosive [ ]	Reactive [ ]	Carcinogen [X]	Radioactive* [ ]

Other: Oil with possible PCBs sprayed on parking lot.

Physical Hazards:

Overhead [ ]	Confined* Space [ ]	Below Grade [ ]	Trip/Fall [X]
Puncture [X]	Burn [ ]	Cut [ ]	Splash [X]
Noise [ ]	Other:		

*Requires completion of additional form and special approval from the Corporate Health/Safety group. Contact RSC or HQ.

[UZ]YP6080:D3264/2919

Site History/Description and Unusual Features (see Sampling Plan for detailed description): Gravel parking lot sprayed with waste soil for dust control.

Locations of Chemicals/Wastes: Surface of parking lot

Estimated Volume of Chemicals/Wastes: 165 galloons sprayed on 2-acre site each year from 1974 to 1976 or from 1974 to 1981.

Site Currently in Operation Yes: [X] No: [ ]

C. HAZARD EVALUATION

List Hazards by Task (i.e., drum sampling, drilling, etc.) and number them. (Task numbers are cross-referenced in Section D)

Physical Hazard Evaluation: Sampling-Task No. 1-Trip/fall and moving autos

Drilling/Well installation-Task No. 2-Typical dangers associated with the operation of a drill rig.

Chemical Hazard Evaluation:

Compound	PEL/TWA	Route of Exposure	Acute Symptoms	Odor Threshold	Odor Description
PCB	0.5 mg/m3 (54)	Skin, ingestion, eyes, inhalation	Edema, jaundice, vomiting, anorexia	None	None
Toluene					
Methylene chloride					
Xylene					
Benzene	(All very low concentration. See Haz. Evaluation Sheets)				
Ethylbenzene					
1,1-dichloroethane					
TCE					

Note: Complete and attach a Hazard Evaluation Sheet for major known contaminant.

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D. SITE SAFETY WORK PLAN

Site Control: Attach map, use back of this page, or sketch of site showing hot zone, contamination reduction, zone, etc.

Perimeter identified? [Y] Site secured? [Y]

Work Areas Designated? [Y] Zone(s) of Contamination Identified? [Y]

Personnel Protection (TLD badges required for all field personnel):

Anticipated Level of Protection (Cross-reference task numbers to Section C):

	A	B	C	D
Task 1			X	X
Task 2			X	X
Task 3				
Task 4				

(Expand if necessary)

Modifications: Dermal and respiratory protection during steaming of contaminated equipment.

Action Levels for Evacuation of Work Zone Pending Reassessment of Conditions:

- Level D: O_2 <19.5% or >25%, explosive atmosphere >10% LEL, organic vapors above background levels, particulates >_____ mg/m^3, other _____.
- Level C: O_2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapor (in breathing zone) >5 ppm, particulates >_____ mg/m^3, other _____.
- Level B: O_2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapors (in breathing zone) >500 ppm, particulates >_____ mg/m^3, other _____.
- Level A: O_2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapors >500 ppm, particulates >_____ mg/m^3, other _____.

Air Monitoring (daily calibration unless otherwise noted):

Contaminant of Interest	Type of Sample (area, personal)	Monitoring Equipment	Frequency of Sampling
Any possible organics	area	OVA and HNu	Continuous
PCB-dust	area	mini ram	periodic-as decided on site
Vinyl Chloride	area	Draeger tube	periodic

(Expand if necessary)

Decontamination Solutions and Procedures for Equipment, Sampling Gear, etc.:

All materials except disposables will be steam cleaned.

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Personnel Decon Protocol: Following disposal of expendables, crew will wash face and hands ASAP

Decon Solution Monitoring Procedures, if Applicable: NA

Special Site Equipment, Facilities, or Procedures (Sanitary Facilities and Lighting Must Meet 29 CFR 1910.120):

Site Entry Procedures and Special Considerations: Watch for traffic

Work Limitations (time of day, weather conditions, etc.) and Heat/Cold Stress Requirements:

Daylight hours only, no working during electrical storms or heavy rains

General Spill Control, if applicable: NA

Investigation-Derived Material Disposal (i.e., expendables, decon waste, cuttings):

Double bag, labeled expendables, render tyvek unusable, NYSDEC will decide what to do with hot trash and steam cleaning water.

Sample Handling Procedures Including Protective Wear:

Team Member*	Responsibility
Robert Meyers	Team Leader
TBD	Site Safety Officer

*All entries into exclusion zone require Buddy System use. All E & E field staff participate in medical monitoring program and have completed applicable training per 29 CFR 1910.120. Respiratory protection program meets requirements of 29 CFR 1910.134, and ANSI Z88.2 (1980).

- - - -

E. EMERGENCY INFORMATION

(Use supplemental sheets, if necessary)

LOCAL RESOURCES

(Obtain a local telephone book from your hotel, if possible)

Ambulance 911

Hospital Emergency Room

Poison Control Center Lifeline (716) 275-5151

Police (include local, county sheriff, state) 911

Fire Department 911

Airport Buffalo International

Agency Contact (EPA, State, Local USCG, etc.) NYSDEC

Local Laboratory E & E ASC

UPS/Fed. Express

Client Contact NYSDEC Valerie Lauzze (518) 457-9538

Site Contact 877-8000 Dick Pink or V.P. Jim Broden

SITE RESOURCES

Site Emergency Evacuation Alarm Method

Water Supply Source TBD

Telephone Location, Number TBD

Cellular Phone, if available NA

Radio NA

Other

EMERGENCY CONTACTS

1.	Dr. Raymond Harbison (Univ. of Florida) ..... Alachua, Florida	(501) 221-0465 or (904) 462-3277, 3281 (501) 370-8263 (24 hours)
2.	Ecology and Environment, Inc., Safety Director Paul Jonmaire	(716) 684-8060 (office) (716) 655-1260 (home)
3.	Regional Office Contact	_____ (home) _____ (office)
4.	FITOM, TATOM, or Office Manager	_____ (home)
5.	E & E Corporate Equipment Warehouse	(716) 681-9788 (716) 681-4356 (FAX)

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MEDTOX HOTLINE

1. Twenty-four hour answering service: (501) 370-8263

   What to report:

   - State: "this is an emergency."
   - Your name, region, and site.
   - Telephone number to reach you.
   - Your location.
   - Name of person injured or exposed.
   - Nature of emergency.
   - Action taken.

2. A toxicologist, (Dr. Raymond Harbison or associate) will contact you. Repeat the information given to the answering service.

3. If a toxicologist does not return your call within 15 minutes, call the following persons in order until contact is made:

   a. **24 hour hotline - (716) 684-8940**
   b. Corporate Safety Director - Paul Jonmaire - home # (716) 655-1260
   c. Assistant Corp. Safety Officer - Steven Sherman - home # (716) 688-0084

EMERGENCY ROUTES

(NOTE: Field Team must Know Route(s) Prior to Start of Work)

Directions to hospital (include map) Exit towards Tonawanda Street (right of driveway) go left on Tonawanda (2 blocks down) then left on Forest Avenue, go approximately 7 blocks down. Buffalo State Hospital is on the left. (See map enclosed.)

Emergency Egress Routes to Get Off-Site TBD

- - - -

F. EQUIPMENT CHECKLIST

PROTECTIVE GEAR

Level A	No.	Level B	No.
SCBA		SCBA	
SPARE AIR TANKS		SPARE AIR TANKS	
ENCAPSULATING SUIT (Type _____)		PROTECTIVE COVERALL (Type _____)	
SURGICAL GLOVES		RAIN SUIT	
NEOPRENE SAFETY BOOTS		BUTYL APRON	
BOOTIES		SURGICAL GLOVES	
GLOVES (Type _____)		GLOVES (Type _____)	
OUTER WORK GLOVES		OUTER WORK GLOVES	
HARD HAT		NEOPRENE SAFETY BOOTS	
CASCADE SYSTEM		BOOTIES	
5-MINUTE ESCAPE COOLING VEST		HARD HAT WITH FACE SHIELD	
		CASCADE SYSTEM	
		MANIFOLD SYSTEM	
Level C		**Level D**	
ULTRA-TWIN RESPIRATOR	X	ULTRA-TWIN RESPIRATOR (Available)	X
POWER AIR PURIFYING RESPIRATOR		CARTRIDGES (Type GMC-H)	X
CARTRIDGES (Type GMC-H)	X	5-MINUTE ESCAPE MASK (Available)	
5-MINUTE ESCAPE MASK		PROTECTIVE COVERALL (Type TYVEK)	X
PROTECTIVE COVERALL (Type _____)	X	RAIN SUIT	
RAIN SUIT		NEOPRENE SAFETY BOOTS	
BUTYL APRON		BOOTIES	X
SURGICAL GLOVES	X	WORK GLOVES	X
GLOVES (Type _____)		HARD HAT	X
OUTER WORK GLOVES	X	SAFETY GLASSES	X
NEOPRENE SAFETY BOOTS		*SARANAX FOR STEAM CLEANING	
HARD HAT	X		
BOOTIES	X		
HARDHAT			

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INSTRUMENTATION	No.
OVA	X
THERMAL DESORBER	
O2/EXPLOSIMETER W/CAL. KIT	X
PHOTOVAC TIP	
HNu (Probe 10.2 eV)	X
MAGNETOMETER	
PIPE LOCATOR	
WEATHER STATION	
DRAEGER PUMP, TUBES VINYL CHLORIDE	X
BRUNTON COMPASS	
MONITOX CYANIDE	
HEAT STRESS MONITOR	
NOISE EQUIPMENT _____	
PERSONAL SAMPLING PUMPS	
PARTICULATE MONITOR	X
RADIATION EQUIPMENT	
DOCUMENTATION FORMS	
PORTABLE RATEMETER	
SCALER/RATEMETER	
NaI Probe	
ZnS Probe	
GM Pancake Probe	
GM Side Window Probe	
MICRO R METER	
ION CHAMBER	
ALERT DOSIMETER	
POCKET DOSIMETER	
FIRST AID EQUIPMENT	
FIRST AID KIT	X
OXYGEN ADMINISTRATOR	
STRETCHER	
PORTABLE EYE WASH	
BLOOD PRESSURE MONITOR	
FIRE EXTINGUISHER	X

DECON EQUIPMENT	No.
WASH TUBS	
BUCKETS	
SCRUB BRUSHES	
PRESSURIZED SPRAYER STEAM	X
DETERGENT (Type _____)	
SOLVENT (Type _____)	
PLASTIC SHEETING	X
TARPS AND POLES	
TRASH BAGS	X
TRASH CANS	
MASKING TAPE	
DUCT TAPE	X
PAPER TOWELS	X
FACE MASK SANITIZER	
FOLDING CHAIRS	X
STEP LADDERS	
DISTILLED WATER	X
SAMPLING EQUIPMENT	
8 OZ. BOTTLES	X
HALF-GALLON BOTTLES	X
VOA BOTTLES	X
STRING	
HAND BAILERS	X
THIEVING RODS WITH BULBS	
SPOONS	X
KNIVES	
FILTER PAPER	
PERSONAL SAMPLING PUMP SUPPLIES	

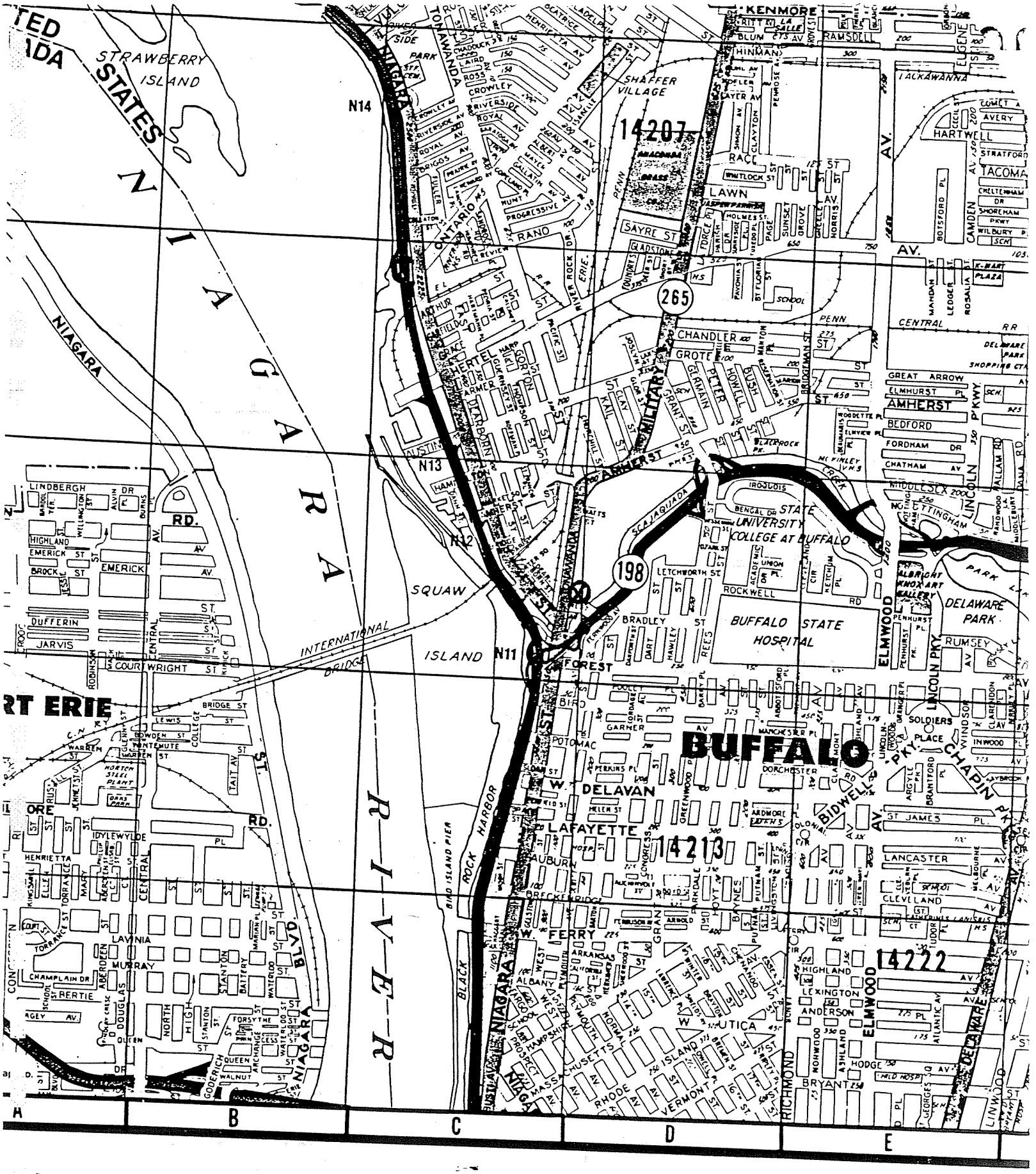
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VAN EQUIPMENT	No.
TOOL KIT	
HYDRAULIC JACK	
LUG WRENCH	
TOW CHAIN	
VAN CHECK OUT	
Gas	
Oil	
Antifreeze	
Battery	
Windshield Wash	
Tire Pressure	
MISCELLANEOUS	
PITCHER PUMP	
SURVEYOR'S TAPE	
100 FIBERGLASS TAPE	
300 NYLON ROPE	
NYLON STRING	
SURVEYING FLAGS	
FILM	X
WHEEL BARROW	
BUNG WRENCH	
SOIL AUGER	
PICK	
SHOVEL	
CATALYTIC HEATER	
PROPANE GAS	
BANNER TAPE	
SURVEYING METER STICK	
CHAINING PINS & RING	
TABLES	
WEATHER RADIO	
BINOCULARS	
MEGAPHONE	

MISCELLANEOUS (Cont.)	No.
SHIPPING EQUIPMENT	
COOLERS	X
PAINT CANS WITH LIDS, 7 CLIPS EACH	
VERMICULITE	
SHIPPING LABELS	X
DOT LABELS: "DANGER"	
"UP"	
"INSIDE CONTAINER COMPLIES ..."	
"HAZARD GROUP"	
STRAPPING TAPE	
BOTTLE LABELS	X
BAGGIES	X
CUSTODY SEALS	X
CHAIN-OF-CUSTODY FORMS	X
FEDERAL EXPRESS FORMS	
CLEAR PACKING TAPE	X

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HAZARD EVALUATION OF CHEMICALS

Chemical Name Vinyl Chloride Date 4-27-90

DOT Name/U.N. No. UN 1086 Job No. _____

CAS Number _____

References Consulted (circle):

(NIOSH/OSHA Pocket Guide) Verschueren Merck Index Hazardline Chris (Vol. II)

Toxic and Hazardous Safety Manual (ACGIH) Other: _____

Chemical Properties: (Synonyms: Chloroethylene, VCM, VC, Chloroethene

Chemical Formula C_2H_3Cl Molecular Weight 62.5

Physical State Gas Solubility (H_2O) Negligible Boiling Point 7°F

Flash Point -108F Vapor Pressure/Density 2580mm Freezing Point -245°F

Specific Gravity 0.9121 Odor/Odor Threshold 4100 ppm Flammable Limits _____

Incompatabilities strong oxidizers, strong Bases, Aluminum Powder, Copper, Peroxides, Copper alloys

Biological Properties:

TLV-TWA 5 ppm PEL 1 ppm Odor Characteristic NA

IDLH 500 ppm Human ✓ Aquatic _____ Rat/Mouse _____

Route of Exposure _____

Carcinogen ✓ Teratogen _____ Mutagen Suspect

Handling Recommendations: (Personal protective measures)

wear impervious clothing - gloves, saranek, booties

Monitoring Recommendations:

Continuous with OVA

Dragers tubes for Vinyl Chloride

Disposal/Waste Treatment:

Health Hazards and First Aid: *Always get medical Attention.

eyes - Wash immediately with water, Skin - Soap & water wash.

Inhalation → move to Fresh Air

Symptoms: Acute: Giddiness, intoxication, Nausea, Visual disturbances, dermatitis

Chronic: ~~None available~~ Liver damage, reproductive effects, CNS depression

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DATE : / /
JOB NO: _____

CHEMICAL NAME: Benzene

SYN : Benzol, Benzole, Benzolene, Coal Tar Naphtha
CAS NO: 71-43-2 FORMULA: C_6H_6
DOT CLASS: 1114

CHEMICAL PROPERTIES

Phys St: Liquid | Boil Pt: 176.00°F | Ionz Pot : 9.25ev | Fl Pt: 12.00°F
Mol Wt : 78.11 | Melt Pt: 41.00°F | Vap Press: 75.00 mmHg | LFL : 1.30%
Sp Gr : 0.88 | Frz Pt : 42.00°F | Odr Thr : 82.00ppm | UFL : 7.90%
Odor : aromatic, pleasant, sweet
INCOMPAT/REACT: nitric acid, oxidizing agents, chlorine, bromine
SOLUBILITY : Water-slightly, soluble in organic solvents

TOXICOLOGICAL PROPERTIES

Exposure Limits: TLV-TWA (ACGIH): 10.00 ppm PEL (OSHA): 10.00 ppm
STEL: — IDLH: 2000.00 ppm
OTHER PROPERTIES : CEILING: 25PPM/15MIN. ACCEPT MAX PEAK ABOVE CEIL
Tox Data: INHAL : rat LC50: 10000ppm/7hr
DERMAL : skn rbt 500mg/24H MODERAT
ORAL : rat LD50: 4894mg/kg
CARCIN : human positive
MUTAGEN : exper
REPRO TOX: exper
AQUATIC : 5ppm/24hr/minnow/lethal/distilled water
OTHER TOX: TARGET ORGANS: Blood, CNS, Skin, Bone Marrow, Eyes, Resp Sys
ROUTES OF EXP: Ingestion, Eye(Ocular), Dermal Absorption, Skin Contact, Inhalation

PERSONAL PROTECTIVE MEASURES

RESPIRATORS : APF: dusty/windy condit or known high concent or >1 but <5ppm; SCBA: >5ppm
CARTRIDGE TYPE : GMC-H or AF3 (NIOSH)
PROTECTIVE CLOTHING: Coverall: Saranex Gloves: Silvershield-8hr, PVA-6hr, Viton-6hr (PVA degrade in water)
SPEC PRECAUTIONS : OSHA REGULATED CARCINOGEN.

FIRST AID

INHALATION: move to fresh air, give O2/CPR if nec, SEEK MEDICAL ATTENTION
EYE/SKIN : remove contaminated clothes, flush areas w/water for 15 min, SEEK MEDICAL ATTENTION
INGESTION : Treat for shock, CPR if nec., SEEK MEDICAL ATTENTION

SYMPTOMS

ACUTE : dizziness,weakness,euphoria,headache,nau/vomt,tight chest,staggering, visual blurring,tremors,skin irritation/scaling/cracking
CHRONIC: loss of appetite, drowsy, nervous, pallor, anemia, petechiae, abnml bleeding, aplasia of bone marrow, leukemia, encephalopathy w/ataxia, tremulousness, emotional lability, diffuse cerebral atrophy

DISPOSAL, FIRE, SPILLS (see attached sheet)

DISPOSAL: D FIRE: 6,7 LEAKS & SPILLS: 3,4,5,6,9
DECOMPOSITION PRODUCTS: carbon monoxide, carbon dioxide

REFERENCES CONSULTED

NIOSH/OSHA Pocket Guide, Chris(vol. III), ACGIH TLV Booklet, RTECS
OTHER REFERENCES: Sigma-Aldrich, Handbook of Poisoning, OSHA

CHEMICAL CLASSIFICATION: Aromatic Hydrocarbon

LAST REVISION DATE: 05/10/89

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DATE : / /
JOB NO: _____

CHEMICAL NAME: Dichloroethane, 1,1-
SYN : Ethylidene Chloride, Chlorinated hydrochloric ether, Ethylidene dichloride
CAS NO: 75-34-3 FORMULA: $C_2H_4Cl_2$
DOT CLASS:

CHEMICAL PROPERTIES

Phys St: Liquid | Boil Pt: 135.14°F | Ionz Pot : -- | Fl Pt: 22.60°F
Mol Wt : 98.97 | Melt Pt: -142.00°F | Vap Press: 182.00 mmHg | LFL : 6.2%
Sp Gr : 1.17 | Frz Pt : -143.32°F | Odr Thr : 49-135.9 ppm | UFL : 16.0%
Odor : chloroform
INCOMPAT/REACT: heat, strong oxidizers, caustics, chemically active metals (Al, Mg, Na, K)
SOLUBILITY : miscible w/common solvents; slightly soluble in H2O

TOXICOLOGICAL PROPERTIES

Exposure Limits: TLV-TWA (ACGIH): 200.00 ppm | PEL (OSHA): 100.00 ppm
STEL: 250.00 ppm | IDLH: 4000.00 ppm
OTHER PROPERTIES :
Tox Data: INHAL : -
DERMAL : -
ORAL : rat LD50: 725mg/kg
CARCIN : indef
MUTAGEN : -
REPRO TOX: exper teratogen
AQUATIC : TLm: 24hr - 130mg/l
OTHER TOX: TARGET ORGANS: Skin, Liver, Kidneys
ROUTES OF EXP: Ingestion, Eye(Ocular), Skin Contact, Inhalation

PERSONAL PROTECTIVE MEASURES

RESPIRATORS : APR: dusty/windy condit or known high concent or >1 but <50ppm; SCBA: >50ppm
CARTRIDGE TYPE : GME-H or APF (NIOSH)
PROTECTIVE CLOTHING: Coverall: Tyvek Gloves: Viton
SPEC PRECAUTIONS : Narcotic in high concentrations. Fatal dose LD50 725mg/kg.

FIRST AID

INHALATION: move to fresh air, art resp if nec, SEEK MEDICAL ATTENTION
EYE/SKIN : remove contaminated clothes, flush w/water 15min, wash skin w/soap & water, SEEK MEDICAL ATTENTION
INGESTION : if conscious, induce vomiting, SEEK MEDICAL ATTENTION

SYMPTOMS

ACUTE : drowsiness, irritation of eyes,nose,throat, overexcitement,headache, intoxication, unconscious, shock, nau/vomt, disturbed vision.
CHRONIC: liver damage, dermatitis, skin burns, possible kidney disease

DISPOSAL, FIRE, SPILLS (see attached sheet)

DISPOSAL: D FIRE: 6,7 LEAKS & SPILLS: 1,3,4,6,9
DECOMPOSITION PRODUCTS: vinyl chloride, hydrogen chloride, phosgene, carbon monoxide, carbon dioxide

REFERENCES CONSULTED

NIOSH/OSHA Pocket Guide, ACGIH TLV Booklet, RTECS
OTHER REFERENCES: Sigma-Aldrich, Handbook of Poisoning

CHEMICAL CLASSIFICATION: Halogenated Hydrocarbon, Halogen Cmpd, Aliphatic & Alicyclic

LAST REVISION DATE: 05/10/89

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DATE : / /
JOB NO: _____

CHEMICAL NAME: Dichloroethylene, 1,1-

SYN : Vinylidene chloride, 1,1-dichloroethene
CAS NO: 75-35-4 FORMULA: $CH_2=CCl_2$
DOT CLASS: 1303/FLAM LIQ 3

CHEMICAL PROPERTIES

Phys St: Liquid | Boil Pt: 89.0°F | Ionz Pot : 10.2 ev | Fl Pt: 0°F
Mol Wt : 96.95 | Melt Pt: 188.5°F | Vap Press: 3.3 mmHg | LFL : 7.3 %
Sp Gr : 1.21 | Frz Pt : -188.0 °F | Odr Thr : — | UFL : 16.0 %
Odor : sweet, like chloroform or carbon tetrachloride
INCOMPAT/REACT: nitric acid, caprolactam soln, copper & aluminum, sunlight, air, heat
SOLUBILITY : insol-H_2O, sol-in organic solvents

TOXICOLOGICAL PROPERTIES

Exposure Limits: TLV-TWA (ACGIH): 5.0 ppm PEL (OSHA): 1.0 ppm
STEL: 20.0 ppm IDLH: —
OTHER PROPERTIES : rat 400mg/kg - mutation
Tox Data: INHAL : -
DERMAL : -
ORAL : -
CARCIN : suspect
MUTAGEN : suspect
REPRO TOX: -
AQUATIC : -
OTHER TOX:
ROUTES OF EXP: Ingestion, Eye(Ocular), Skin Contact, Inhalation

PERSONAL PROTECTIVE MEASURES

RESPIRATORS : APR: dusty/windy condit or known high concent or >1 but <5ppm; SCBA: >5ppm
CARTRIDGE TYPE : GMC-H or AP3 (RACAL)
PROTECTIVE CLOTHING: Coverall: Tyvek Gloves: PVA, Viton (PVA degrades in water)
SPEC PRECAUTIONS :

FIRST AID

INHALATION: move to fresh air, CPR if nec, SEEK MEDICAL ATTENTION
EYE/SKIN : remove contaminated clothes, flush w/lg amt of water at least 15 min, SEEK MEDICAL ATTENTION
INGESTION : give water or milk, DO NOT INDUCE VOMITING, SEEK MEDICAL ATTENTION

SYMPTOMS

ACUTE : dizziness, drunkeness, irritation to skin/eyes/mucous membranes, narcotic in high concentrations, first degree burns-

CHRONIC: lab animals developed liver and/or kidney cancer

DISPOSAL, FIRE, SPILLS (see attached sheet)

DISPOSAL: A FIRE: 1,2,4, LEAKS & SPILLS: -
DECOMPOSITION PRODUCTS: HCl, Phosgene

REFERENCES CONSULTED

NIOSH/OSHA Pocket Guide, Chris(vol. III), ACGIH TLV Booklet, RTECS
OTHER REFERENCES: OSHA

CHEMICAL CLASSIFICATION: Vinyl Halide

LAST REVISION DATE: 04/18/89

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Ecology and Environment, Inc.
Hazard Evaluation of Chemicals
Region V - Chicago

DATE : / /
JOB NO: _____

CHEMICAL NAME: Ethyl Benzen

SYN : Phenylethane, Ethylbenzol
CAS NO: 100-41-4 FORMULA: C6H5C2CH3
DOT CLASS: 1175-FL LIQ CLS

CHEMICAL PROPERTIES

Phys St: Liquid | Boil Pt: 277.20°F | Ionz Pot : 8.76ev | Fl Pt: 59.00°F
Mol Wt : 106.17 | Melt Pt: -139.00°F | Vap Press: 7.10 mmHg | LFL : 1.00%
Sp Gr : 0.86 | Frz Pt : -139.00°F | Odr Thr : .092-0.60 ppm | UFL : 6.70%
Odor : aromatic, oily
INCOMPAT/REACT: nitric acid, oxidizing agents
SOLUBILITY : water-slightly; sol in alcohols, benzene, carbon tetrachloride, ether

TOXICOLOGICAL PROPERTIES

Exposure Limits: TLV-TWA (ACGIH): 100.00 ppm PEL (OSHA): 100.00 ppm
STEL: 125.00 ppm IDLH: 2000.00 ppm
OTHER PROPERTIES :
Tox Data: INHAL : human TcLo: 100ppm/8hr
DERMAL : skin rbt LD50: 17800 mg/kg
ORAL : rat LD50: 3500mg/kg
CARCIN : -
MUTAGEN : -
REPRO TOX: exper teratogen
AQUATIC : 20ppm/96hr/bluegill/TLm/fresh water
OTHER TOX: TARGET ORGANS: Eye, Upper Resp, Skin, CNS
ROUTES OF EXP: Ingestion, Eye(Ocular), Skin Contact, Inhalation

PERSONAL PROTECTIVE MEASURES

RESPIRATORS : APR: dusty/windy condit or known high concent or >1 but <5ppm; SCBA: >5ppm
CARTRIDGE TYPE : GMC-H, AP3 (RACAL)
PROTECTIVE CLOTHING: Coverall: Saranex Gloves: Viton-8hr
SPEC PRECAUTIONS :

FIRST AID

INHALATION: move to fresh air, CPR if nec, SEEK MEDICAL ATTENTION
EYE/SKIN : flush w/lg amt of water IMMEDIATELY for 15 min, wash skin with soap/water, SEEK MEDICAL ATTENTION
INGESTION : SEEK MEDICAL ATTENTION IMMEDIATELY

SYMPTOMS

ACUTE : irritation of eyes, nose, throat, skin; weakness, dizziness, drowsiness, unconscious, CNS depressant. High concentr-
.- narcotic.
CHRONIC: skin rash, erythema, inflammation, dermatitis

DISPOSAL, FIRE, SPILLS (see attached sheet)

DISPOSAL: D
FIRE: 6,7
LEAKS & SPILLS: 3,4,5,6,9
DECOMPOSITION PRODUCTS: CO, CO2

REFERENCES CONSULTED

NIOSH/OSHA Pocket Guide, Merck Index, ACGIH TLV Booklet, RTECS
OTHER REFERENCES: Sigma-Aldrich, OSHA, Poison Handbook

CHEMICAL CLASSIFICATION: Aromatic Hydrocarbon

LAST REVISION DATE:
05/10/89

DATE : / /
JOB NO: _____

CHEMICAL NAME: Methylene Chloride

SYN : Dichloromethane, Methylene dichloride
CAS NO: 75-09-2 FORMULA: CH2Cl2
DOT CLASS: 1593

CHEMICAL PROPERTIES

Phys St: Liquid | Boil Pt: 104.00°F | Ionz Pot : 11.35ev | Fl Pt: --
Mol Wt : 84.93 | Melt Pt: -142.00°F | Vap Press: 350.00 mmHg | LFL : 12.00%
Sp Gr : 1.33 | Frz Pt : -142.00°F | Odr Thr : 100.00ppm | UFL : 19.00%
Odor : like chloroform, sweet, pleasant
INCOMPAT/REACT: heat, moisture, strong oxidizers, strong caustics, chemically active metals, alkali metals, aluminum
SOLUBILITY : slightly water; alcohol, ether

TOXICOLOGICAL PROPERTIES

Exposure Limits: TLV-TWA (ACGIH): 50.00 ppm SKIN PEL (OSHA): 500.00 ppm SKIN
STEL: -- IDLH: 5000.00 ppm
OTHER PROPERTIES : OSHA CEILING: 1000ppm/ MAX PEAK: 2500ppm/5M/any 2H
Tox Data: INHAL : rat LC50 88000mg/m3/30min
DERMAL : -
ORAL : rat: LD50 2100mg/kg
CARCIN : human/animal suspect
MUTAGEN : exper
REPRO TOX: -
AQUATIC :
OTHER TOX: TARGET ORGANS: Skin, Eye, CVS, CNS
ROUTES OF EXP: Ingestion, Eye(Ocular), Dermal Absorption, Skin Contact, Inhalation

PERSONAL PROTECTIVE MEASURES

RESPIRATORS : any detectable concentration - SCBA
CARTRIDGE TYPE : no cartridge available
PROTECTIVE CLOTHING: Coverall: PE Tyvek Gloves: PVA, Viton (PVA degrades in water)
SPEC PRECAUTIONS :

FIRST AID

INHALATION: move to fresh air, artf resp if nec, SEEK MEDICAL ATTENTION
EYE/SKIN : flush w/water 15 minutes, wash skin with soap/water, SEEK MEDICAL ATTENTION
INGESTION : SEEK MEDICAL ATTENTION IMMEDIATELY

SYMPTOMS

ACUTE : mental confusion, light headedness, naus/vomt, headache, staggering, unconscious, irritation of eyes/resp/skin, possible skin burns, heart palpitations, fatigue, giddiness, exhaustion, malaise,death
CHRONIC: skin irritation.

DISPOSAL, FIRE, SPILLS (see attached sheet)

DISPOSAL: B FIRE: 11,13 LEAKS & SPILLS: 1,4,6,9
DECOMPOSITION PRODUCTS: HCl, CO, phosgene

REFERENCES CONSULTED

NIOSH/OSHA Pocket Guide, Chris(vol. III), ACGIH TLV Booklet
OTHER REFERENCES: NIOSH Guides, Sigma-Aldrich, Poison Handbook, 1st Aid for Chem Accid, Cassarett

CHEMICAL CLASSIFICATION: Halogenated or Chlorinated Hydrocarbon

LAST REVISION DATE: 05/10/89

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Hazard Evaluation of Chemicals
Region V - Chicago

DATE : / /
JOB NO: _____

CHEMICAL NAME: Toluene

SYN : Toluol, Methylbenzene
CAS NO: 108-88-3 FORMULA: $C_6H_5CH_3$
DOT CLASS: 1294/FLAM LIQ 3

CHEMICAL PROPERTIES

Phys St: Liquid	Boil Pt: 231.10°F	Ionz Pot : 8.82ev	Fl Pt: 40.00°F
Mol Wt : 92.14	Melt Pt: -139.00°F	Vap Press: 22.00 mmHg	LFL : 1.27%
Sp Gr : 0.87	Frz Pt : -139.00°F	Odr Thr : 1.20ppm	UFL : 7.00%

Odor : pungent, aromatic, benzene-like, sour
INCOMPAT/REACT: nitric acid, strong oxidizers, peroxides
SOLUBILITY : water-slightly

TOXICOLOGICAL PROPERTIES

Exposure Limits: TLV-TWA (ACGIH): 100.00 ppm PEL (OSHA): 100.00 ppm
STEL: 150.00 ppm IDLH: 2000.00 ppm
OTHER PROPERTIES : CEILING: 300ppm, MAX PEAK: 500ppm/10M/8H shift, IRRITANT
Tox Data: INHAL : human Tclo: 200ppm
DERMAL : skin rbt: LD50 12124 mg/kg
ORAL : rat: LD50 5000mg/kg
CARCIN : exper
MUTAGEN : exper
REPRO TOX: exper teratogen
AQUATIC : 1180mg/l/96hr/sunfish/TLm/fresh water
OTHER TOX: TARGET ORGANS: CNS, Liver, Skin, Kidney
ROUTES OF EXP: Ingestion, Eye(Ocular), Skin Contact, Inhalation

PERSONAL PROTECTIVE MEASURES

RESPIRATORS : APR: dusty/windy condit or known high concent or >1 but <5ppm; SCBA: >5ppm
CARTRIDGE TYPE : GMC-H
PROTECTIVE CLOTHING: Coverall: Saranex Gloves: Viton
SPEC PRECAUTIONS :

FIRST AID

INHALATION: move to fresh air, artf resp if nec, SEEK MEDICAL ATTENTION
EYE/SKIN : flush w/water 15 minutes, SEEK MEDICAL ATTENTION
INGESTION : DO NOT INDUCE VOMITING, SEEK MEDICAL ATTENTION IMMEDIATELY

SYMPTOMS

ACUTE : eye/respiratory/skin irritation, fatigue, weakness, confusion, headachedizziness, drowsiness, tingling skin, numbness, vision disturbances, mild macrocytic anemia, narcotic in high concentrations,coma
CHRONIC: drying & cracking of skin, fatty degeneration of the heart, liver, and adrenals, and hemorrhages, anemia

DISPOSAL, FIRE, SPILLS (see attached sheet)

DISPOSAL: D FIRE: 6,7 LEAKS & SPILLS: 3,4,5,6,9
DECOMPOSITION PRODUCTS: CO_2, CO

REFERENCES CONSULTED

NIOSH/OSHA Pocket Guide, Chris(vol. III), ACGIH TLV Booklet, RTECS
OTHER REFERENCES: NIOSH Guides, Sigma-Aldrich

CHEMICAL CLASSIFICATION: Aromatic Hydrocarbon

LAST REVISION DATE: 05/10/89

Hazard Evaluation of Chemicals
Region V - Chicago

DATE : / /
JOB NO: _____

CHEMICAL NAME: Trichloroethane, 1,1,1-

SYN : Methylchloroform
CAS NO: 71-55-6
DOT CLASS: 2831

FORMULA: CH3CCl3

CHEMICAL PROPERTIES

Phys St: Liquid | Boil Pt: 165.00°F | Ionz Pot : 10.20ev | Fl Pt: —
Mol Wt : 133.41 | Melt Pt: -31.00°F | Vap Press: 100.00 mmHg | LFL : 7.00%
Sp Gr : 1.31 | Frz Pt : -38.00°F | Odr Thr : 390.00ppm | UFL : 16.00%
Odor : sweetish, chloroform-like, etherish
INCOMPAT/REACT: strong oxidizers, Al, magnesium, zinc, strong bases; K, Na, acetone, nitrates, O, yield strong rxns
SOLUBILITY : insoluble-water; sol in acetone, benzene, carbon tet, methanol, ether

TOXICOLOGICAL PROPERTIES

Exposure Limits: TLV-TWA (ACGIH): 350.00 ppm | PEL (OSHA): 350.00 ppm
STEL: 450.00 ppm | IDLH: 1000.00 ppm
OTHER PROPERTIES : Affect CNS, IRRITANT
Tox Data: INHAL : human Tclo: 920ppm/70M
DERMAL : -
ORAL : rat: LD50: 10,300 mg/kg
CARCIN : suspect
MUTAGEN : exper
REPRO TOX: teratogen
AQUATIC : 75-150ppm/1 pinfish/1Lm/Salt water-no time period
OTHER TOX: TARGET ORGANS: CNS, Eyes, Nose, Liver, Kidneys
ROUTES OF EXP: Ingestion, Eye(Ocular), Dermal Absorption, Skin Contact, Inhalation

PERSONAL PROTECTIVE MEASURES

RESPIRATORS : AFR: dusty/windy condit or known high concent or >1 but <5ppm; SCBA: >5ppm
CARTRIDGE TYPE : GMC-H or AFG (MSA)
PROTECTIVE CLOTHING: Coverall: PE Tyvek Gloves: Viton
SPEC PRECAUTIONS :

FIRST AID

INHALATION: move to fresh air, artf resp if nec, SEEK MEDICAL ATTENTION
EYE/SKIN : remove contam cloth, flush w/water 15min, wash skin with soap/water, SEEK MEDICAL ATTENTION
INGESTION : give water, induce vomiting if conscious, SEEK MEDICAL ATTENTION IMMEDIATELY

SYMPTOMS

ACUTE : irritation to eyes/skin/muc membranes, incoordination, nausea, confusion, drowsiness, poss loss of consciousness, dizzy, possible lung/brain damage from high concentrations
CHRONIC: dermatitis, liver/kidney damage-minimal

DISPOSAL, FIRE, SPILLS (see attached sheet)

DISPOSAL: A FIRE: 3,7 LEAKS & SPILLS: 6,9,11
DECOMPOSITION PRODUCTS: CO, CO2, HCl, Phosgene

REFERENCES CONSULTED

NIOSH/OSHA Pocket Guide, Merck Index, Chris(vol. III), ACGIH TLV Booklet, RTECS
OTHER REFERENCES: Sigma-Aldrich, Poison Handbook

CHEMICAL CLASSIFICATION: Halogenated Hydrocarbon

LAST REVISION DATE:
05/10/89

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DATE : / /
JOB NO: _____

CHEMICAL NAME: Trichloroethylene

SYN : Trichloran, Triclene, Trilene
CAS NO: 79-01-6 FORMULA: ClCl=CCl2
DOT CLASS: 1710

CHEMICAL PROPERTIES

Phys St: Liquid | Boil Pt: 189.00°F | Ionz Pot : 9.47ev | Fl Pt: 90.00°F
Mol Wt : 131.39 | Melt Pt: -120.64°F | Vap Press: 58.00 mmHg | LFL : 11.00%
Sp Gr : 1.46 | Frz Pt : -123.50°F | Odr Thr : 82.00ppm | UFL : 41.00%
Odor : chloroform-like, ethereal
INCOMPAT/REACT: strong caustics, chemically active metals
SOLUBILITY : insoluble

TOXICOLOGICAL PROPERTIES

Exposure Limits: TLV-TWA (ACGIH): 50.00 ppm | PEL (OSHA): 50.00 ppm
STEL: 200.00 ppm | IDLH: 1000.00 ppm
OTHER PROPERTIES : CEILING: 200ppm,MAX PEAK: 300ppm/5M/2H in 8H shift
Tox Data: INHAL : human Tclo: 160ppm/83min
DERMAL : -
ORAL : rat: LD50: 7193 mg/kg
CARCIN : YES: anim pos, human-sus
MUTAGEN : exper
REPRO TOX: exper teratogen
AQUATIC : 66mg/l/48hr/daphnia/kill/fresh water
OTHER TOX: TARGET ORGANS: Resp Sys, Heart, Liver, CNS, Skin
ROUTES OF EXP: Ingestion, Eye(Ocular), Skin Contact, Inhalation

PERSONAL PROTECTIVE MEASURES

RESPIRATORS : AFR: dusty/windy condit or known high concent or >1 but <3ppm; SCBA: >5ppm
CARTRIDGE TYPE : GMC-H or AF3 (NIOSH)
PROTECTIVE CLOTHING: Coverall: PE Tyvek Gloves: Viton, PVA (PVA degrades in water)
SPEC PRECAUTIONS :

FIRST AID

INHALATION: move to fresh air, CPR if nec, SEEK MEDICAL ATTENTION
EYE/SKIN : flush w/water 15min, wash skin with soap/water, SEEK MEDICAL ATTENTION
INGESTION : give large amt of water, induce vomiting, SEEK MEDICAL ATTENTION

SYMPTOMS

ACUTE : irritation of nose/throat/eyes, nausea, blurred vision, dermatitis, symptoms similar to alcohol inebriation. Narcotic effects in high concent, CNS depression
CHRONIC: liver and/or kidney damage, cardiac degeneration, central nervous system degeneration, dermatitis, anorexia

DISPOSAL, FIRE, SPILLS (see attached sheet)

DISPOSAL: A
FIRE: 11,13
LEAKS & SPILLS: 1,4,6,9
DECOMPOSITION PRODUCTS: CO, CO2, HCl, Phosgene

REFERENCES CONSULTED

NIOSH/OSHA Pocket Guide, Merck Index, Chris(vol. III), ACGIH TLV Booklet, RTECS
OTHER REFERENCES: Sigma-Aldrich, Poison Handbook, 1st Aid for Chem Accid

CHEMICAL CLASSIFICATION: Halogenated Hydrocarbon, Aliphatic & Alicyclic

LAST REVISION DATE: 05/10/89

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HAZARD EVALUATION OF CHEMICALS

Chemical Name Vinyl Chloride Date 4-27-90

DOT Name/U.N. No. UN 1086 Job No. _____

CAS Number _____

References Consulted (circle):

NIOSH/OSHA Pocket Guide Verschueren Merck Index Hazardline Chris (Vol. II)

Toxic and Hazardous Safety Manual ACGIH Other: _____

Chemical Properties: (Synonyms: Chloroethylene, VCM, VC, Chloroethene)

Chemical Formula C2 H3 Cl Molecular Weight 62.5

Physical State Gas Solubility (H2O) Negligible Boiling Point 7°F

Flash Point -108°F Vapor Pressure/Density 2580 mm Freezing Point -245°F

Specific Gravity 0.9121 Odor Characteristic 4100 ppm Flammable Limits _____

Incompatabilities Strong Oxidizers, Strong Bases, Aluminum Powder, Copper, Peroxides, Copper Alloys

Biological Properties:

TLV-TWA 5 ppm PEL 1 ppm Odor/Odor Threshold NA

IDLH 500 ppm Human X Aquatic _____ Rat/Mouse _____

Route of Exposure _____

Carcinogen X Teratogen _____ Mutagen _____

Handling Recommendations: (Personal protective measures)

Wear impervious clothing-gloves, saranek, booties

Monitoring Recommendations:

Continuous with OVA

Draeger tubes for vinyl cloride

Disposal/Waste Treatment:

Health Hazards and First Aid:

Always get medical attention. Eyes-wash immediately with water, Skin-soap and water wash. Inhalation-move to fresh air.

Symptoms: Acute: Giddiness, intoxication, nausea, visual disturbances, dermatitis

Chronic: Liver damage, reproductive effects, CNS depression

[UZ]YP6080:D3264/1404

DATE : / /
JOB NO: _____

CHEMICAL NAME: Xylene, all isomers

SYN : Dimethylbenzene, Xylol
CAS NO: 1330-20-7 FORMULA: $C_6H_4(CH_3)_2$
DOT CLASS: FLAMMABLE

CHEMICAL PROPERTIES

Phys St: Liquid	Boil Pt: —	Ionz Pot : 8.56ev	Fl Pt: 81.00°F
Mol Wt : 106.20	Melt Pt: —	Vap Press: 9.00 mmHg	LFL : 1.00%
Sp Gr : 0.86	Frz Pt : —	Odr Thr : 20.00ppm	UFL : 7.00%

Odor : aromatic odor, sweet
INCOMPAT/REACT: strong oxidizers
SOLUBILITY : practically insoluble in water

TOXICOLOGICAL PROPERTIES

Exposure Limits: TLV-TWA (ACGIH): 100.00 ppm PEL (OSHA): 100.00 ppm
STEL: 150.00 ppm IDLH: 1000.00 ppm

OTHER PROPERTIES :
Tox Data: INHAL : hum TClo: 200ppm
DERMAL : -
ORAL : rat LD50: 4300 mg/kg
CARCIN : -
MUTAGEN : exper
REPRO TOX: exper teratogen
AQUATIC : -
OTHER TOX: TARGET ORGANS: CNS, Eyes, GI Tract, Blood, Liver, Kidneys, Skin
ROUTES OF EXP: Ingestion, Eye(Ocular), Dermal Absorption, Skin Contact, Inhalation

PERSONAL PROTECTIVE MEASURES

RESPIRATORS : AFR: dusty/windy condit or known high concent or >1 but <5ppm; SCBA: >5ppm
CARTRIDGE TYPE : GMC-H or A'3 (NIOSH)
PROTECTIVE CLOTHING: Coverall: PE Tyvek Gloves: PVA, Viton (PVA degrades in water)
SPEC PRECAUTIONS :

FIRST AID

INHALATION: move to fresh air, artf resp if nec, SEEK MEDICAL ATTENTION
EYE/SKIN : flush w/water 15 minutes, wash skin with soap/water, SEEK MEDICAL ATTENTION
INGESTION : DO NOT INDUCE VOMITING, SEEK MEDICAL ATTENTION IMMEDIATELY

SYMPTOMS

ACUTE : vapor cause dizziness, headache, cough, pulmonary distress/edema, nausea/vomiting, abdominal cramps, narcotic in high concent, mild skin irritant
CHRONIC: possible liver and/or kidney damage, pulmonary congestion. Ingestion may be fatal.

DISPOSAL, FIRE, SPILLS (see attached sheet)

DISPOSAL: D FIRE: 6,7 LEAKS & SPILLS: 3,4,5,6,9
DECOMPOSITION PRODUCTS: CO, CO2

REFERENCES CONSULTED

NIOSH/OSHA Pocket Guide, Merck Index, Chris(vol. III), ACGIH TLV Booklet, RTECS
OTHER REFERENCES: NIOSH Guides, Sigma-Aldrich

CHEMICAL CLASSIFICATION: Hydrocarbons, Aromatic

LAST REVISION DATE:
05/10/89

APPENDIX B

GEOPHYSICAL SURVEY

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ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK

PHASE II INVESTIGATIONS GEOPHYSICAL SURVEY

Fedders Auto Components Site
Site Number 915024
City of Buffalo, Erie County

June 1990



Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233

Thomas C. Jorling, Commissioner

Division of Hazardous Waste Remediation

Michael J. O'Toole, Jr., P.E., Director

Prepared by:

Ecology and Environment Engineering, P.C.

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Prepared by:

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1. INTRODUCTION

This geophysical investigation report for the Fedders Auto Components site (I.D. No. 915024) on Tonawanda Street in Buffalo, New York, was prepared by Ecology and Environment Engineering, P.C. (E & E), under contract to the New York State Department of Environmental Conservation (NYSDEC). The geophysical investigation consisted of an EM31 (electromagnetic terrain conductivity) survey and a portable proton magnetometer (total earth field magnetics) survey. This report includes field data (Appendix A) and contour maps (Appendix B) for the geophysical survey performed at this site on April 23, 1990 as part of the Phase II Investigation. Additionally, interpretations of the data generated, along with conclusions, are provided in this report.

2. OBJECTIVES

The geophysical survey program at the Fedders Auto Components site was designed to achieve several general goals. The main objectives of the geophysical methods used were to optimize the locations of the proposed borehole and three groundwater monitoring wells; reduce the risks associated with drilling into unknown terrain and wastes; reduce overall project time and cost; improve the accuracy and confidence of the investigation; identify the existence and boundaries of buried waste or groundwater contamination plumes; and determine vertical and horizontal anomalies.

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3. METHODS

Survey grids were established at each of the four prospective borehole/ monitoring well locations. The X and Y axes of each survey grid were oriented east-west and north-south, respectively. Precise compass orientations were obtained for each of the survey grid axes. A total of four survey grids were established at the site. Survey grid coordinate 0,0 is located in the southwest corner of each contour map. Semi-permanent wooden stakes or painted areas mark the proposed drilling locations.

Survey grids 1 through 4 include the proposed locations of monitoring wells GW-1 through GW-3 and borehole B-1 as follows:

Geophysical Survey Grid No.	Proposed Monitoring Well and Borehole No.
1	GW-1
2	GW-2
3	GW-3
4	B-1

The dimensions (40 feet by 40 feet) and station spacing (10 feet) are identical for each survey grid on site. Both horizontal and vertical dipole readings in north-south and east-west orientations were recorded at each survey grid node while performing the electromagnetic ground conductivity survey using the Geonics, Ltd., EM31 Ground Conductivity Meter. The effective depths of penetration provided by the EM31 in the vertical and horizontal dipole modes are $\leq$18 feet and $\leq$9 feet, respectively. These depths were considered adequate to delineate

any buried materials that may be encountered while drilling. Magnetometer readings were recorded at each node using the EG+G Unimag II (Model G-846) Portable Proton Magnetometer.

All conductivity and geomagnetic field data were recorded in two separate logbooks dedicated to this site investigation. Magnetometer data were reduced by using background station readings to correct the values for diurnal variation when the background readings changed by more than 10 gammas during the survey. EM31 conductivity data were averaged for north-south and east-west orientations for both vertical and horizontal dipole positions. The reduced geophysical data (see Appendix A) were then plotted and contoured for each survey grid (see Appendix B).

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4. DATA INTERPRETATION

The purpose of interpreting the results of the magnetometer and EM31 surveys is to provide a probable explanation for anomalous geophysical contours. The presence of buried utilities, metal objects, wastes, and contaminant plumes is often manifested as relatively elevated or decreased station readings and gradient values. The following interpretations are based on the contour maps generated from magnetometer and EM31 data listed in Tables A-1 and A-2 in Appendix A. Survey grids 1 through 4 encompass each of the four drilling locations as proposed by NYSDEC in the Phase II Investigation Work Plan for the Fedders Auto Components site (see Figure 4-1).

The following discussion provides details of each of the four survey grids:

Survey Grid Area No. 1. A review of magnetometer data contours at survey grid No. 1 indicates that this 1,600-square-foot survey area contains three potential areas of concern. Survey grid No. 1 is located in the northwest corner of the site, adjacent to the facility's electrical transformers. The three areas of concern consist of two areas of relatively high magnetometer readings at coordinates 0,20 and 10,0 and a trough of very low readings in between the peaks. These anomalous readings may be due to the close proximity of the facility's electrical transformers or the presence of buried utilities or metal objects.

The high electromagnetic conductivity values measured with the EM31 (47.5 to 182.5 millimhos/meter) were observed in both vertical and horizontal dipole modes. These high values confirm the presence of numerous small pieces of iron mixed with the slag from which the parking

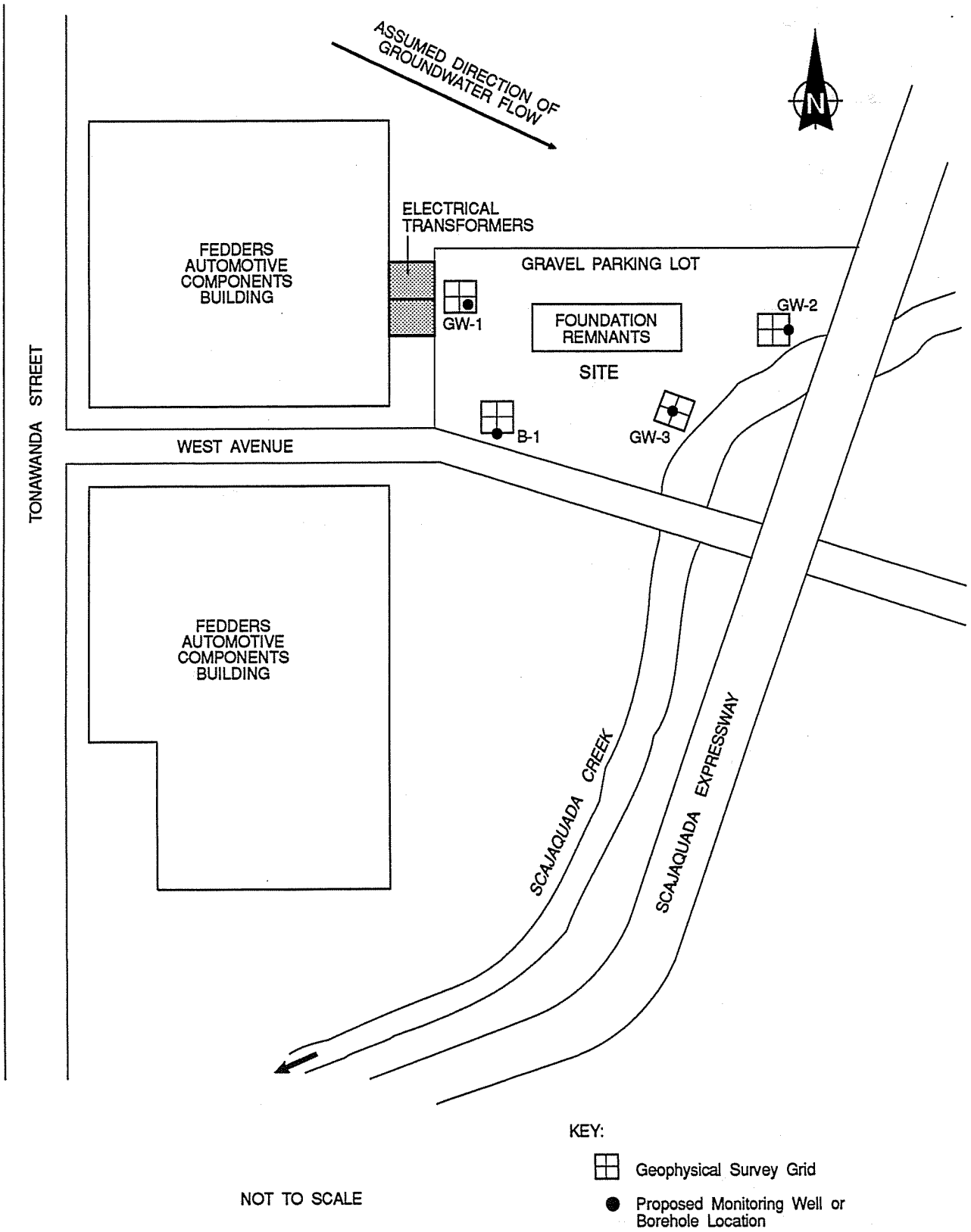


Figure 4-1
GEOPHYSICAL SURVEY GRID AND GROUNDWATER MONITORING WELL AND BOREHOLE LOCATIONS, FEDDERS AUTOMOTIVE COMPONENTS

lot is made. The areas with the steepest gradients and highest readings match the areas of concern found with the magnetometer. In addition to these areas of concern, the EM31 also registered relatively high readings (80 to 145 millimhos/meter) in the northeast quarter of survey grid No. 1, indicating the presence of potential drilling dangers between nine and 18 feet deep.

The safest location for proposed monitoring well GW-1 is at coordinate 30,10, which avoids all three areas of concern in survey grid No. 1. If this location interferes with convenient use of the parking lot at the site, GW-1 may be moved anywhere in the eastern half of the grid because of the relatively moderate readings obtained with both the magnetometer and EM31 (horizontal dipole) in this area.

Survey Grid Area No. 2. Interference from an extremely large metal billboard located approximately 20 feet north of coordinate 30,40 prevented a review of magnetometer data contours at survey grid No. 2. Electromagnetic conductivity values measured with the EM31 ranged from 40 millimhos/meter to greater than 1,000 millimhos/meter, with the vertical and horizontal dipole modes both indicating the presence of a single, large anomaly. This anomaly curves from coordinate 0,20 to coordinate 20,40 and is most probably an underground power line leading to the billboard.

The location of proposed monitoring well GW-2, therefore, must be moved to avoid this anomaly. The new location for GW-2 is coordinate 40,20, which avoids both the anomaly and all other potential hazards that may affect drilling activities.

Survey Grid Area No. 3. A review of magnetometer data contours at survey grid No. 3 indicates that this 1,600-square-foot survey area is free of substantial geomagnetic anomalies. As a result, the risk of drilling into large ferrous objects within this grid area is expected to be minimal.

Fairly high electromagnetic conductivity values measured with the EM31 (37 to 142.5 millimhos/meter) were observed in both the vertical and horizontal dipole modes. The highest values and steepest gradients are located in the western half of the grid. The source of these elevated values is unknown, and drilling in the area should be avoided.

The location of proposed monitoring well GW-3 at coordinate 20,20 as shown on the site map (see Figure 4-1) is acceptable. The location of GW-3 may also be moved to any area within the northeast quadrant of the survey grid or to coordinates 20,10, 30,10, or 40,10.

Survey Grid Area No. 4. A review of the magnetometer data contours at survey grid No. 4 indicates that this 1,600-square-foot survey area is free of any substantial geomagnetic anomalies. The risk of drilling into shallow ferrous material within this grid area is expected to be minimal.

Electromagnetic conductivity values measured in the survey area with the EM31 were generally high, ranging from 58 to 238 millimhos/meter. These elevated values are most probably due to the interference caused by the close proximity of large overhead power lines and buried natural gas pipelines, both of which run parallel to the fenceline.

The location of the proposed borehole B-1 at the center of survey grid No. 4 is unacceptable due to high electromagnetic conductivity readings at the proposed borehole location. The borehole location should be moved 20 feet to the south, toward the fenceline. The best location for the borehole is at coordinate 20,0, although any point on the southern border of the grid is acceptable.

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5. CONCLUSIONS AND RECOMMENDATIONS

Based upon the interpretation of the data discussed in Section 4, the proposed location of one of the three monitoring wells (GW-3) appears to be acceptable. The other three drilling locations, however, are unacceptable because of the possible presence of buried utilities or metallic debris. Monitoring wells GW-1 and GW-2 and borehole B-1 have been relocated within their grids, as shown in Figure 4-1.

The local underground-utility locating service has been contacted to indicate possible public utilities buried in the vicinity of each of the drill sites. All proposed borehole locations will be confirmed with a NYSDEC representative prior to the commencement of drilling.

APPENDIX A

MAGNETOMETER AND EM31 SURVEY DATA

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Table A-1

MAGNETOMETER READINGS

FEDDERS AUTO COMPONENTS

Grid No. 1

Station Number	Magnetometer Readings (Gammas)
0,0	51,873
0,10	53,240
0,20	56,324
0,30	55,288
0,40	53,288
10,40	51,208
10,30	50,669
10,20	50,734
10,10	51,466
10,0	56,750
20,0	54,318
20,10	51,055
20,20	52,529
20,30	53,001
20,40	53,125
30,40	53,506
30,30	53,522
30,20	53,714
30,10	53,802
30,0	54,911
40,0	53,428
40,10	53,398
40,20	53,667
40,30	53,494
40,40	53,022

[UZ]YP6030:D2966, #3212, PM = 41

Note: Data has not been corrected for natural magnetic fluctuations (i.e., drift) due to nominal change in background data obtained at an off-site base station.

Table A-1 (Cont.)

MAGNETOMETER READINGS

FEDDERS AUTO COMPONENTS

Grid No. 2

Station Number	Magnetometer Readings (Gammas)
0,0	52,893
0,10	52,074
0,20	52,096
0,30	52,355
0,40	51,968
10,40	51,019
10,30	51,473
10,20	51,570
10,10	51,369
10,0	51,439
20,0	50,179
20,10	50,708
20,20	50,607
20,30	50,300
20,40	49,267
30,40	47,519
30,30	48,739
30,20	48,822
30,10	49,339
30,0	48,615
40,0	52,572
40,10	53,499
40,20	47,925
40,30	46,538
40,40	46,395

[UZ]YP6030:D2966, #3212, PM = 41

Note: Data has not been corrected for natural magnetic fluctuations (i.e., drift) due to nominal change in background data obtained at an off-site base station.

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Table A-1 (Cont.)

MAGNETOMETER READINGS

FEDDERS AUTO COMPONENTS

Grid No. 3

Station Number	Magnetometer Readings (Gammas)	Corrected Data* (Gammas)
0,0	51,313	51,310
0,10	49,172	49,169
0,20	49,192	49,189
0,30	49,455	49,450
0,40	49,756	49,751
10,40	49,602	49,597
10,30	48,867	48,861
10,20	48,974	48,968
10,10	48,682	48,676
10,0	50,837	50,829
20,0	50,186	50,178
20,10	48,644	48,636
20,20	48,474	48,465
20,30	48,583	48,574
20,40	49,228	49,219
30,40	49,403	49,392
30,30	48,785	48,774
30,20	48,188	48,177
30,10	48,079	48,067
30,0	48,536	48,524
40,0	48,102	48,090
40,10	49,707	49,694
40,20	50,181	50,168
40,30	48,828	48,815
40,40	49,241	49,226

[UZ]YP6030:D2966, #3213, PM = 36

*Data has been corrected for natural magnetic fluctuations (i.e., drift) by using data obtained at an off-site base station.

Table A-1 (Cont.)

MAGNETOMETER READINGS

FEDDERS AUTO COMPONENTS

Grid No. 4

Station Number	Magnetometer Readings (Gammas)	Corrected Data* (Gammas)
0,0	50,045	50,034
0,10	51,676	51,665
0,20	52,059	52,048
0,30	51,758	51,744
0,40	52,287	52,273
10,40	52,018	52,004
10,30	52,084	52,070
10,20	52,020	52,002
10,10	51,765	51,747
10,0	50,866	50,848
20,0	51,051	51,033
20,10	51,886	51,865
20,20	52,083	52,062
20,30	52,061	52,040
20,40	51,812	51,787
30,40	51,560	51,535
30,30	52,035	52,010
30,20	52,083	52,058
30,10	51,826	51,798
30,0	51,281	51,253
40,0	51,207	51,179
40,10	51,735	51,703
40,20	51,973	51,941
40,30	51,880	51,848
40,40	51,070	51,035

[UZ]YP6030:D2966, #3213, PM = 36

*Data has been corrected for natural magnetic fluctuations (i.e., drift) by using data obtained at an off-site base station.

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Table A-2

AVERAGE GROUND CONDUCTIVITY READINGS WITH EM31

FEDDERS AUTO COMPONENTS

SURVEY GRID NO. 1

Station Number	Vertical Dipole (millimhos/meter)	Horizontal Dipole (millimhos/meter)
0,0	107.5	85
0,10	112.5	85
0,20	112.5	117.5
0,30	160	125
0,40	182.5	135
10,40	71.5	135
10,30	Neg.	145
10,20	100	92.5
10,10	115	72.5
10,0	105	80
20,0	90	65
20,10	92.5	62.5
20,20	62.5	102.5
20,30	142.5	55
20,40	87.5	87.5
30,40	107.5	72.5
30,30	140	47.5
30,20	145	74
30,10	74	71.5
30,0	85	60
40,0	97.5	60
40,10	55	92.5
40,20	97.5	82.5
40,30	137.5	47.5
40,40	97.5	67.5

[UZ]YP6030:D2966, #3208, PM = 29

Table A-2 (Cont.)

AVERAGE GROUND CONDUCTIVITY READINGS WITH EM31

FEDDERS AUTO COMPONENTS

SURVEY GRID NO. 2

Station Number	Vertical Dipole (millimhos/meter)	Horizontal Dipole (millimhos/meter)
0,0	53	73.5
0,10	78	87.5
0,20	Neg	142.5
0,30	160	44
0,40	121	40
10,40	205	42.5
10,30	191.5	42
10,20	Neg.	150
10,10	157.5	120
10,0	117.5	97.5
20,0	90	145
20,10	172.5	117.5
20,20	156	140
20,30	Neg.	215
20,40	Neg.	235
30,40	107.5	97.5
30,30	165	85
30,20	147	90
30,10	96	135
30,0	130	110
40,0	85	92.5
40,10	70	100
40,20	47.5	73.5
40,30	94	75
40,40	81.5	75

[UZ]YP6030:D2966, #3208, PM = 29

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Table A-2 (Cont.)

AVERAGE GROUND CONDUCTIVITY READINGS WITH EM31

FEDDERS AUTO COMPONENTS

SURVEY GRID NO. 3

Station Number	Vertical Dipole (millimhos/meter)	Horizontal Dipole (millimhos/meter)
0,0	97	102.5
0,10	135	115.5
0,20	122	111.5
0,30	160	92.5
0,40	121	98
10,40	129	90
10,30	105	90
10,20	70	126
10,10	142.5	91
10,0	116	92.5
20,0	92.5	60
20,10	81	82.5
20,20	86	83.5
20,30	73	82.5
20,40	75	83
30,40	37	81.5
30,30	66.5	63.5
30,20	62.5	67
30,10	84	56.5
30,0	125	50
40,0	144	44
40,10	87.5	50
40,20	51	58.5
40,30	50	60
40,40	82	37

[UZ]YP6030:D2966, #3208, PM = 29

Table A-2 (Cont.)

AVERAGE GROUND CONDUCTIVITY READINGS WITH EM31

FEDDERS AUTO COMPONENTS

SURVEY GRID NO. 4

Station Number	Vertical Dipole (millimhos/meter)	Horizontal Dipole (millimhos/meter)
0,0	128.5	85
0,10	142	113
0,20	127	174.5
0,30	58	160
0,40	220	122.5
10,40	164	133
10,30	134	155
10,20	145	135
10,10	112	124
10,0	100	91
20,0	111	94
20,10	86	139
20,20	144	125
20,30	138	160
20,40	194	147
30,40	238	187
30,30	118	155
30,20	173	121
30,10	155	117
30,0	109	95
40,0	115	96
40,10	108	125
40,20	163	124
40,30	185	165
40,40	164	281

[UZ]YP6030:D2966, #3208, PM = 29

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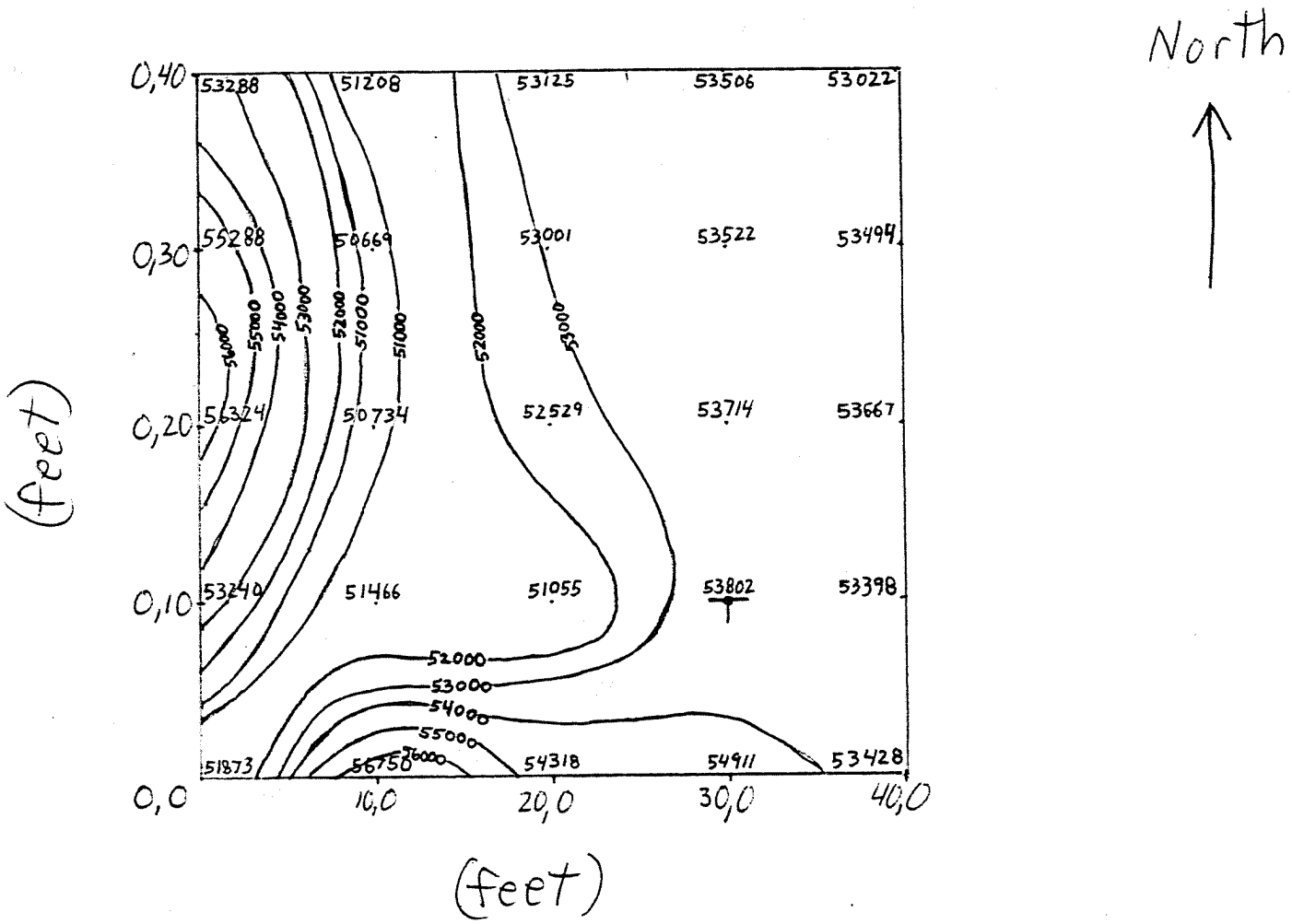
APPENDIX B

MAGNETOMETER AND EM31 SURVEY CONTOUR MAPS

FEDDERS AUTO COMPONENTS
site No. 915024

MAGNETOMETER SURVEY

GRID No. 1



Contour Interval = 1,000 gammas
Proposed Well Location = T

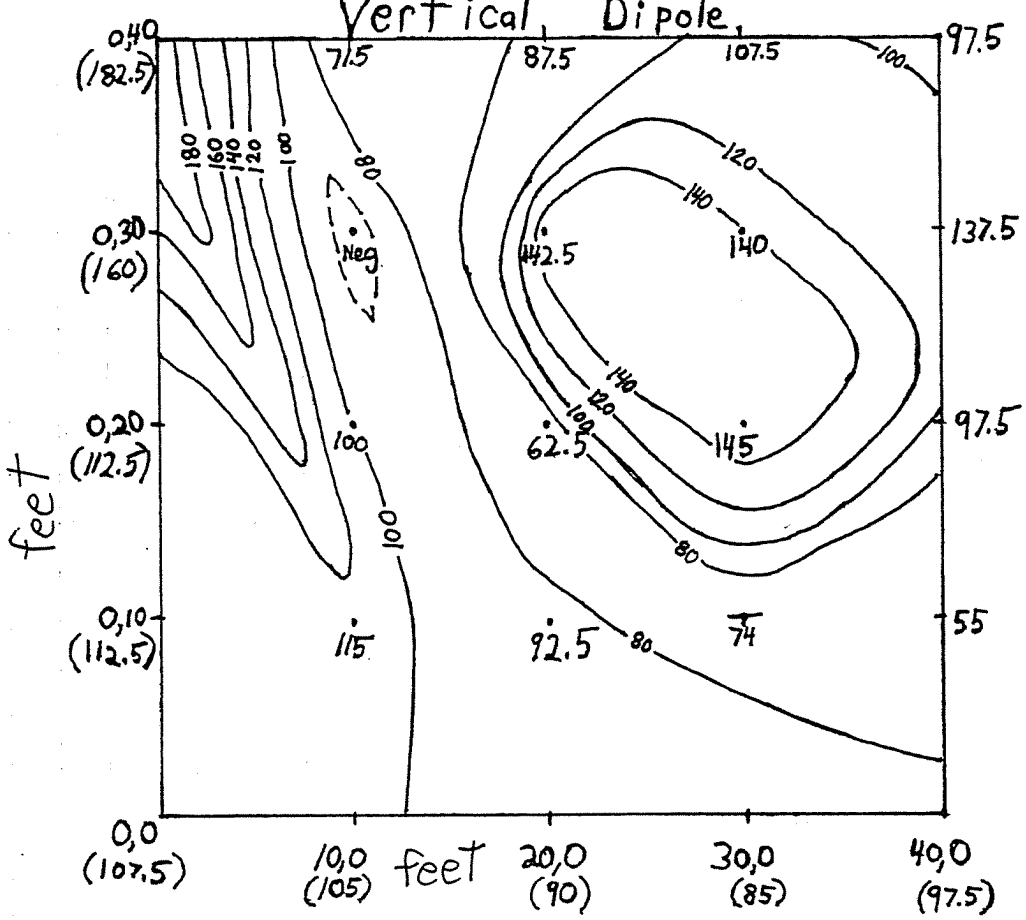
Note - Actual readings used to contour Grid No. 1

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Fedders Auto Components

EM31 Survey
Grid No.1

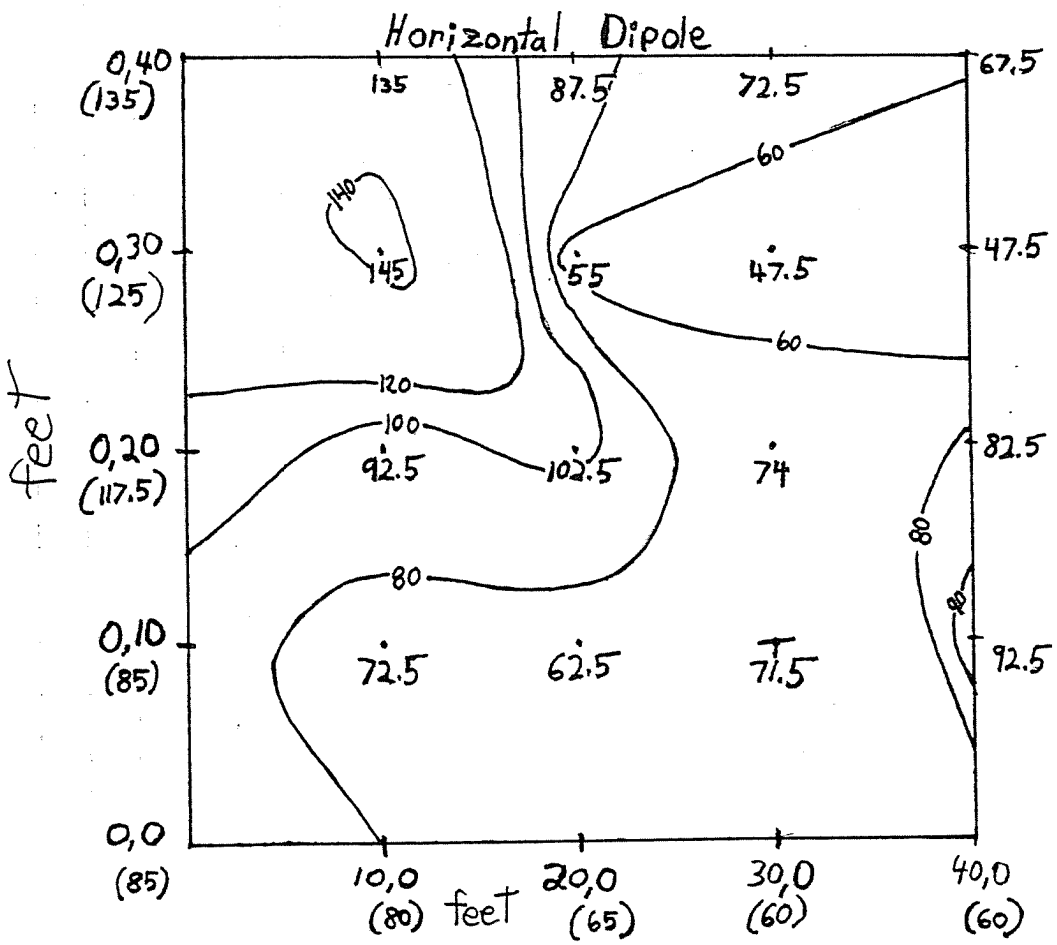


C.I. = 20 millimhos/mete

T = Proposed well-borehole location

--- Neg. = ≥ 1000 millimhos/





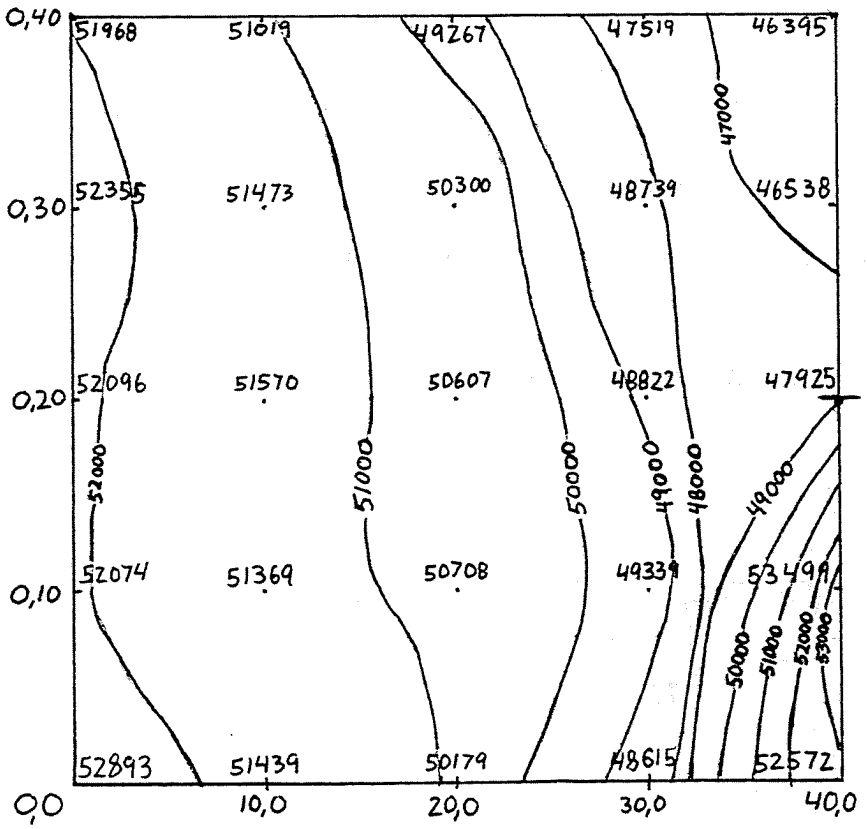
C.I. = 20 millimhos/

T = Proposed well-borehole location.

FEDDERS AUTO COMPONENTS
Site No. 915024

MAGNETOMETER SURVEY

GRID No. 2



Contour Interval =
Proposed Well location = +

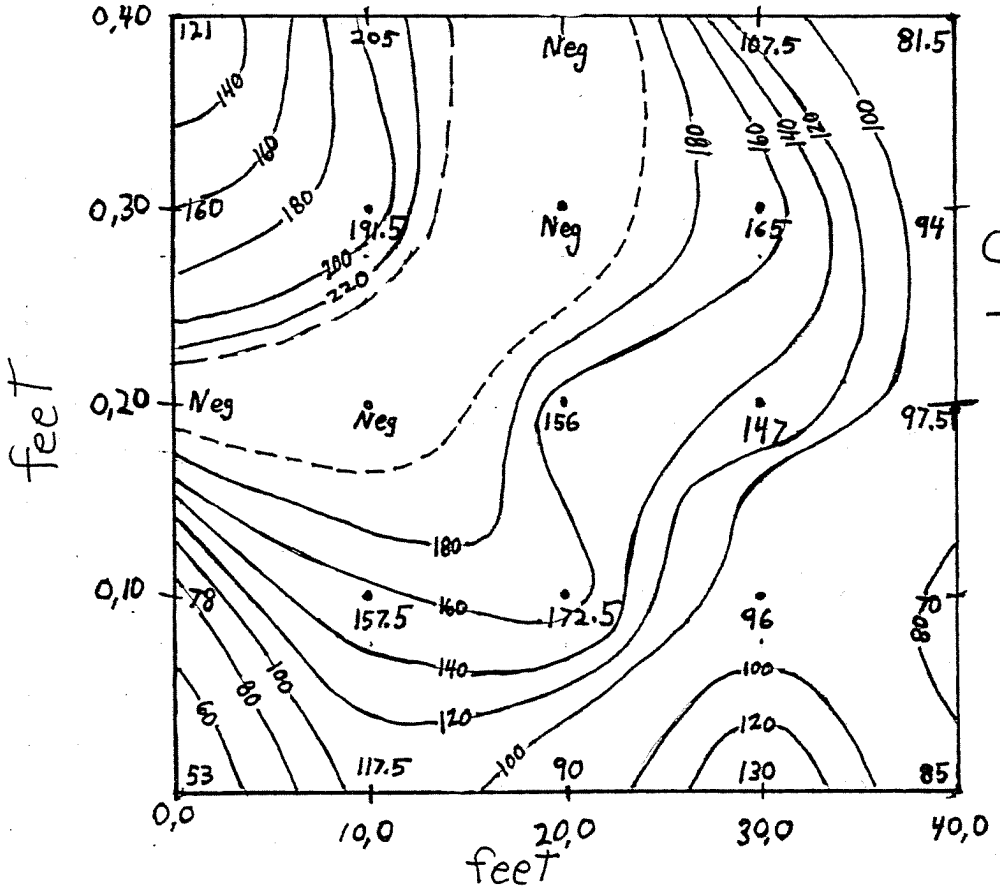
Note- Actual readings used to contour Grid No. 2

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Fedders Auto Components EM31 Survey Grid No. 2

Vertical Dipole

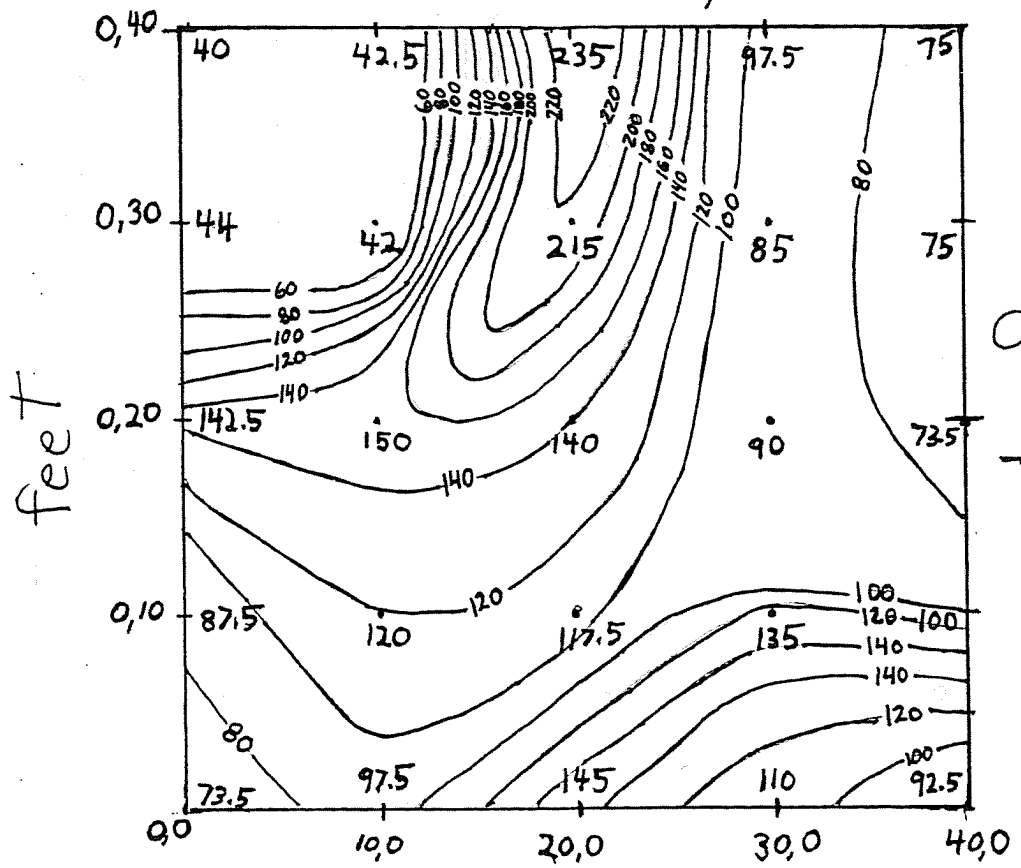


C.I. = 20 millimhos/meter

T = Proposed well/borehole location

N

Horizontal Dipole



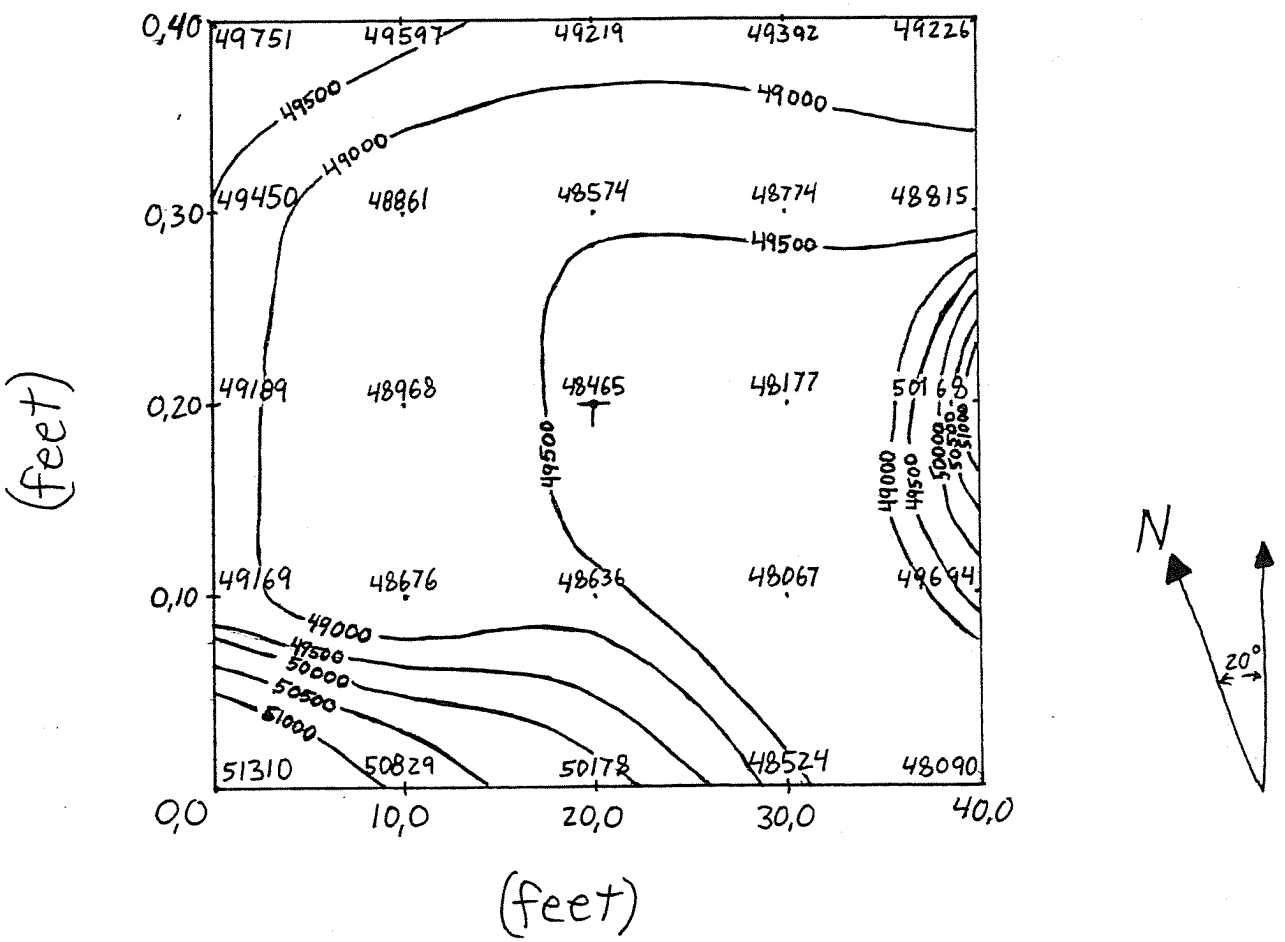
C.I. = 20 millimhos/meter

T = Proposed well/borehole location.

FEDDERS AUTO COMPONENTS
site No. 915024

MAGNETOMETER SURVEY

GRID No. 3



Contour Interval = 500
Proposed Well Location = T

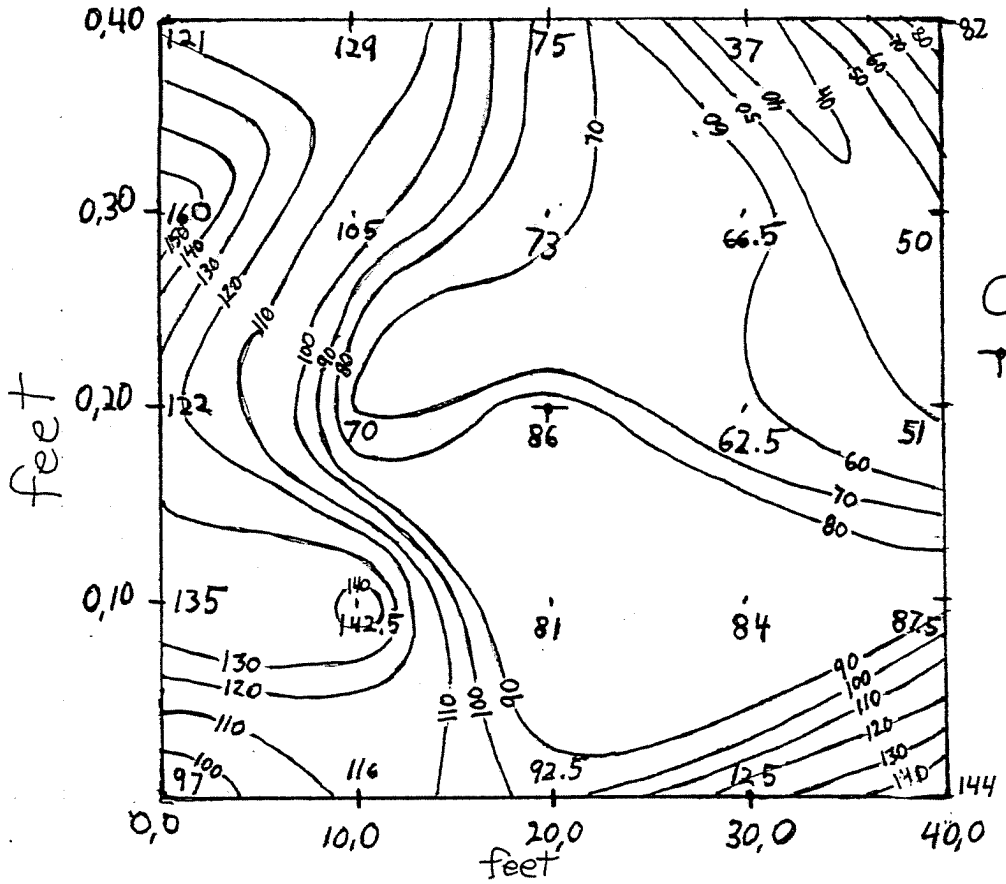
Note - Corrected data used to contour Grid No. 3

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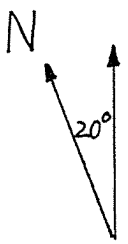
Fedders Auto Components — EM31 Survey Grid No. 3

Vertical Dipole

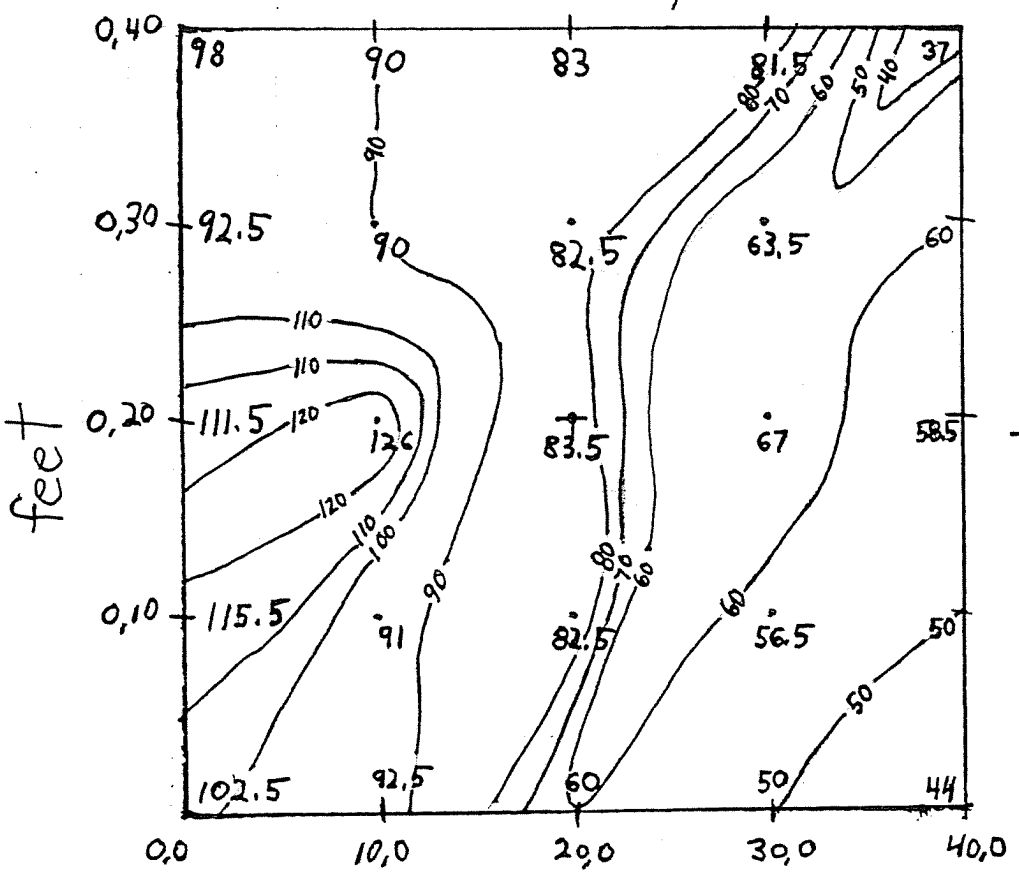


C.I. = 10 millimhos/meter

T = Proposed well/borehole location



Horizontal Dipole



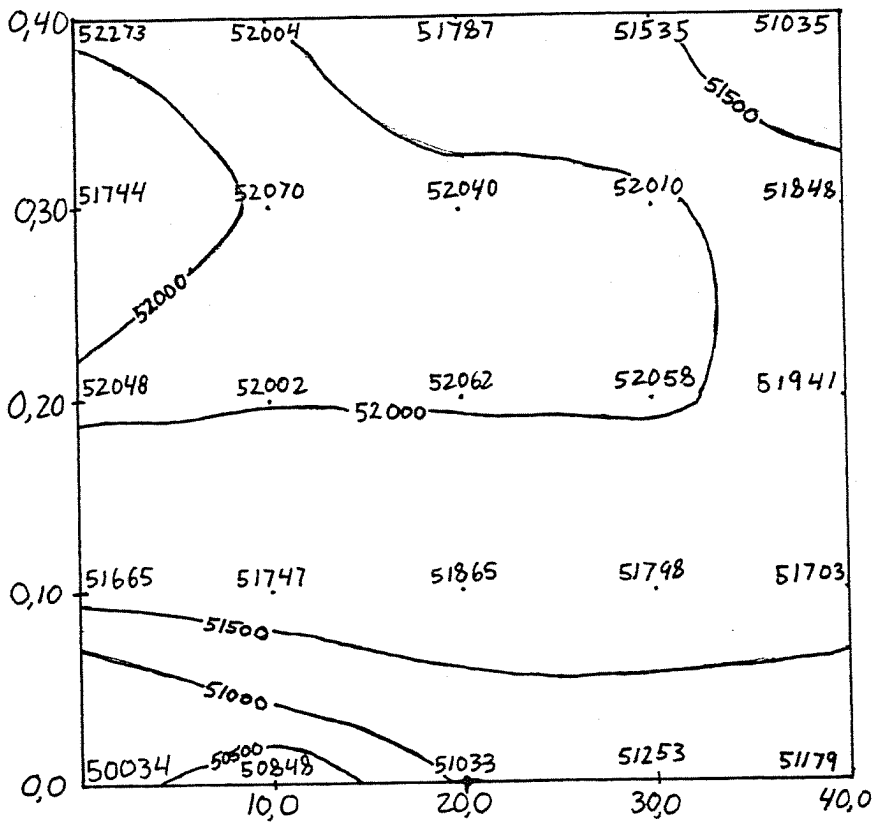
C.I. = 10 millimhos/meter

T = Proposed well/borehole location

FEDDERS AUTO COMPONENTS
site No. 915024

MAGNETOMETER SURVEY

GRID No.4



Contour Interval = 500
Proposed Well Location = T

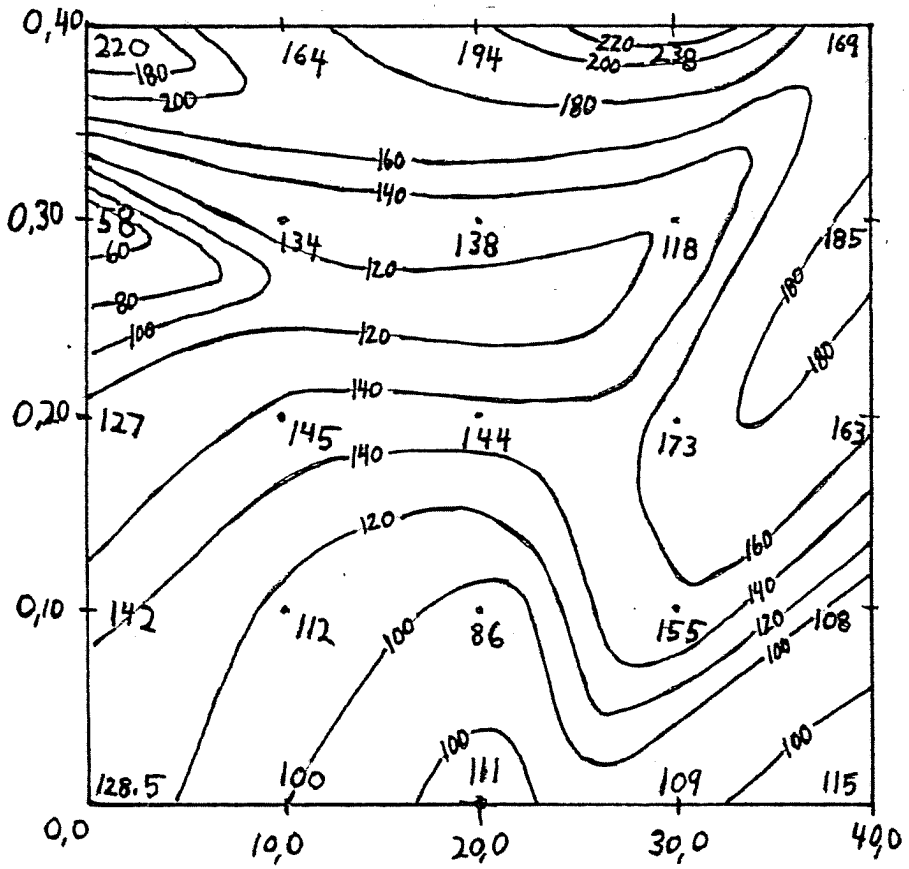
Note- Corrected data used to contour Grid No.4

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Vertical Dipole

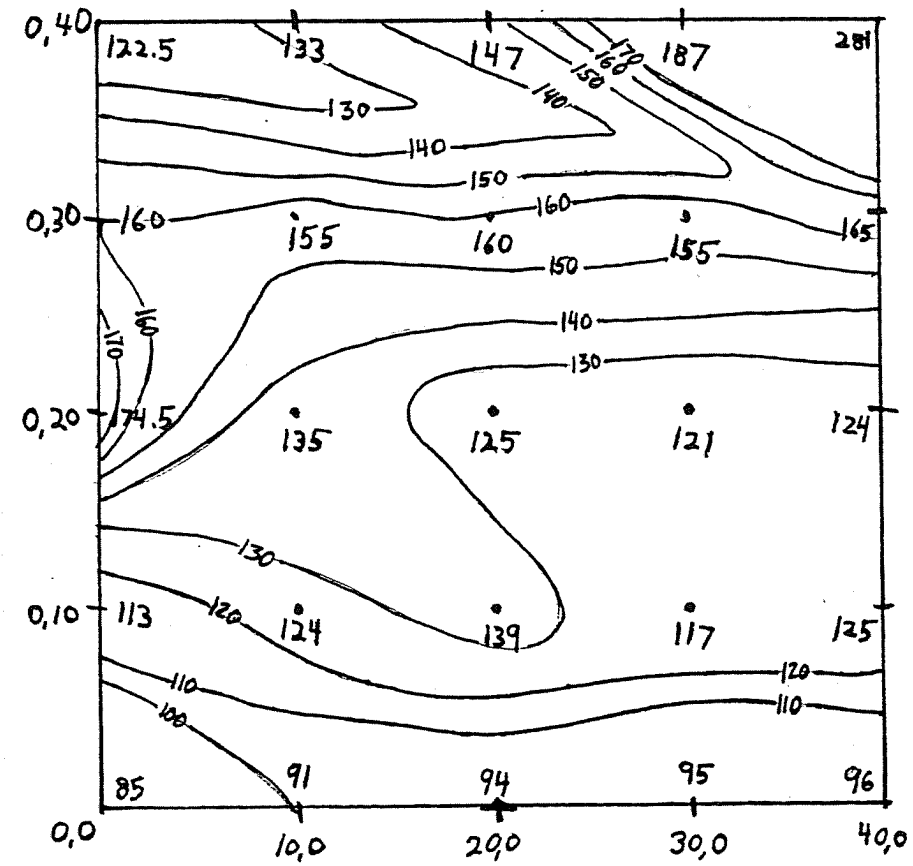


EM31 Survey
Grid No. 4

C.I. = 20 millimhos/meter

⊤ = Proposed well/borehole location

Horizontal Dipole



C.I. = 10 millimhos/meter

⊤ = Proposed well/borehole location.

APPENDIX C

SUBSURFACE BORING LOGS

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DATE
STARTED 9-26-90
FINISHED 9-26-90
SHEET 1 OF 1

E + E DRILLING AND TESTING CO., INC.
SUBSURFACE LOG

HOLE NUMBER GW-1
SURFACE ELEVATION
GROUNDWATER DEPTH ( )

PROJECT Fedders Auto
YPLE040

LOCATION NW corner of lot.
10 E of 40, 20

DEPTH – FT	WELL DIAGRAM	SAMPLE TYPE	SAMPLE NO.	BLOWS ON SAMPLER (0/6, 6/12, 12/18, 18/24)	PROFILE SAMPLE ID (Cl Si Sd Gr)	FIELD IDENTIFICATION OF SOILS	NOTES
5'		SS	1	25 35 / 5 3	SB-1A	SS #1 0-2' 1.3' Recovery 0-0.5' Black gravelly sand Fill 0.5-0.65' Red brick. 0.65-1.0' Concrete 1.0-1.3' Black sand fill.	OVA=0 HNu=0 DRY
		SS	2	1 1 / 2 1	SB-1B	SS #2 2-4' 1.1' Recovery 0-0.7' Black sandy Fill with greasy appearance & oil-like aroma. 0.7'-1.1' Reddish brown clay Fill w/ brick.	OVA > 1000 HNu = 15 ppm MOIST.
		SS	3	2 1 / 1 2	SB-1C	SS #3 4-6' 0.7' Recovery All MOIST reddish brown clay- can't see any foreign fragments ∴ perhaps its natural (?)	OVA = 10 HNu = 3 MOIST.
		SS	4	2 1 / 1 2	SB-1D	SS #4 6-8' 0.8' Recovery All wet reddish brown clay w/ no visible signs of ~~Fill~~ material. Clay (as in #3) Clay is highly cohesive & moderately plastic.	OVA=0 HNu=0 WET.
10	TD=9'	SS	5	7 14 / 19 20		SS #5 8-10' 1.1' Recovery All dry reddish brown clay, tight, highly cohesive & plastic. Appears natural. Water is sitting on top of this layer.	OVA=0 HNu=0 DRY
	screen 4-9' sand 3.5-9' seal 2.5-3.5'	SS	6	15 13 / 18 16		SS #6 9-11' Same as #5 There is water in the hole.	OVA HNu=0

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CLASSIFICATION/BY R. Watt

DATE
STARTED 9-26-90
FINISHED 9-26-90
SHEET 1 OF 1

E + E DRILLING AND TESTING CO., INC.
SUBSURFACE LOG

HOLE NUMBER GW-2
SURFACE ELEVATION
GROUNDWATER DEPTH
( )

PROJECT Fedders Auto.
YPL6040

LOCATION NE corner of lot near Scajacanda Creek.

DEPTH – FT	WELL DIAGRAM	SAMPLE TYPE	SAMPLE NO.	BLOWS ON SAMPLER (0/6, 6/12, 12/18, 18/24)	PROFILE SAMPLE ID (Cl Sl Sd Gr)	FIELD IDENTIFICATION OF SOILS	NOTES
3–4		SS	1	6/8, 11/12	SB-2A	SS #1 0-2' 1.7' Recovery 0-0.6 Black sandy fill w/ brick, glass, slag, etc. 0.6-1.1' Concrete (weathered) 1.1-1.7' Reddish-brown + black clay fill w/ sand, slag, (Foundry material etc.	HNu = 10 ppm OVA = 10 ppm Both only @ very end of spoon. MOIST.
5		SS	2	8/2, 4/3	SB-2B		
		SS	3	3/3, 1/1	SB-3C.		
		SS	4	4/2, 2/1	NONE	SS #2 2-4' 1.6' Recovery 0-1.0' Dark brown sandy fill w/ brick, slag, a white ceramic material, black glass (Foundry) 1.0-1.6' Black sandy clay fill, greasy in appearance but not in touch.	HNu = 0 OVA = 0 Damp
10		SS	5	2/1, 2/2			
		SS	6	2/11, 4/16			
		SS	7	4/2, 2/1		SS #3 4-6' 0.4' Recovery Limited sample volume ∴ will spoon again. 0-0.4' Wet black sandy fill. 2nd time retrieved nothing but water.	HNu = 0 OVA = 0 Wet.
15	TD = 14.5					SS #4 6-8' 0.4' Recovery. Appears to be material that was stuck in bit. Auger cuttings indicate saturated black sandy fill, spoon shows damp sandy clay fill.	
	screen 4.5-14.5'					SS #5 8-10' No recovery. Try again - 2nd spoon is saturated gravelly sand fill.	HNu = 0 OVA = 0 Saturated.
20	sand 4-14.5'					SS #6 10-12' 1.0' Recovery. All wood, as in GW-3b.	OVA = 10 HNu N/A
	seal 3-4'					SS #7 12-14' 1.0' Recovery 0-0.4' Reddish brown sandy clay Fill w/ brick fragments. 0.4-0.9' Wood 0.9-1.0' Black clay w/ wood.	OVA = 100 HNu = 0
25							

640088

C-3

CLASSIFICATION/BY R. Watt

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DATE
STARTED 9-25-90
FINISHED 9-25-90
SHEET 1 OF 2

E + E DRILLING AND TESTING CO., INC.
SUBSURFACE LOG

HOLE NUMBER GW-3a
SURFACE ELEVATION
GROUNDWATER DEPTH N/A

PROJECT Fedders Auto
YP16040

LOCATION SE corner of lot near Scajaquada Creek.

DEPTH – FT	WELL DIAGRAM	SAMPLE TYPE	SAMPLE NO.	BLOWS ON SAMPLER (0/6, 6/12, 12/18, 18/24)	~~PROFILE~~ SAMPLE ID (~~Cl Sl Sd Gr~~)	FIELD IDENTIFICATION OF SOILS	NOTES
5	ABANDONED	SS	1	7 / 8 / 13 / 21	SB-3A	SS#1 0-2' 1.8' Recovery Black sandy fill w/ some clay and gravel. Contains brick, glass, slag, greenstone, etc.	OVA = 3ppm HNu = 0 ppm DRY
		SS	2	5 / 3 / 1 / 3	SB-3B		
		SS	3	3 / 2 / 1 / 2	SB-3C		
		SS	4	1 / 2 / 2 / 3	~~SB-3D~~ RW	SS#2 2-4' 2.0' Recovery. Same fill as 0-2'. clay seam 3" thick in middle is part of the Fill	OVA = 0 HNu = 0 MOIST.
10		SS	5	1 / 1 / 2 / 2			
		SS	6	2 / 2 / 3 / 3	SB-3D	SS#3 4-6' 0.5' Recovery All clay fill. Must have pushed a stone because the top of the spoon was clean. Clay matrix is reddish brown with high cohesion & moderate plasticity. Contains medium + coarse sand, coal fragments & small brick fragments. Auger cuttings indicate that remainder is black sandy fill as above.	OVA = 0 HNu = 0 MOIST.
15							
20							
25						SS#4 6-8' 0.2' Recovery. Same clay fill as #3. Spoon is dry inside - not picking up soil.	
30						SS #5 9-11' 1.7' Recovery. All "natural" reddish brown moist clay with mica fine + medium sand. Same clay as seen in B-1.	OVA = 0 HNu = 0 MOIST.
						SS #6 11-13' 1.1' Recovery All clay as in #5 but with black greasy material + organic matter @ 0.8'. Also a wood frag. @ 0.4' and a coal frag. (½") @ 0.6'. Probably natural but unsure	

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CLASSIFICATION/BY R. Watt

DATE
STARTED 9-25-90
FINISHED 9-25-90
SHEET 1 OF 2

E + E DRILLING AND TESTING CO., INC.
SUBSURFACE LOG

HOLE NUMBER GW-3a
SURFACE ELEVATION
GROUNDWATER DEPTH N/A
( )

PROJECT Fedders Auto
YP10040

LOCATION

DEPTH – FT	WELL DIAGRAM	SAMPLE TYPE	SAMPLE NO.	BLOWS ON SAMPLER (0/6, 6/12, 12/18, 18/24)	PROFILE (Cl Sl Sd Gr)	FIELD IDENTIFICATION OF SOILS	NOTES
	ABANDONED					SS#1 13-15' 2.0' Recovery. Natural material. 0-0.5' Reddish brown clay as above 0.5-1.1' Organic rich clay. Reddish brown w/ black mottles. Contains wood & plant fragments & coal. 1.1-1.3' Black peat moss w/ coalified plant fragments. 1.3-2.0' Organic rich sand. Fine lt brown sand w/ rootlets and plant fragments. Also contains numerous (10%) shells (<5mm) of gastropods & brachiopods. No water to speak of so will abandon this hole and move towards the creek.	MOIST OVA = 0 HNu = 0

640088

CLASSIFICATION/BY R. Wolff

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DATE
STARTED 9-25-90
FINISHED 9-25-90
SHEET 1 OF 1

E + E DRILLING AND TESTING CO., INC.
SUBSURFACE LOG

HOLE NUMBER GW-3b
SURFACE ELEVATION
GROUNDWATER DEPTH 5'

PROJECT Fedders Auto
YP6040

LOCATION SE corner of lot near Scajaquada Creek.

DEPTH – FT	WELL DIAGRAM	SAMPLE TYPE	SAMPLE NO.	BLOWS ON SAMPLER (0/6, 6/12, 12/18, 18/24)	PROFILE (Cl Sl Sd Gr)	FIELD IDENTIFICATION OF SOILS	NOTES
5'	ABANDONED	SS	1	6 / 2 / 2 / 4		SS#1 4-6' 1.3' Recovery. (Augered to 4') Top 0.4' is gravelly sand fill (black) similar to GW-3a (probably from inside auger bit. Bottom 0.9' is reddish brown. clay w/ areas of black sand. Contains ~10% medium to coarse sand + 10% gravel. Very bottom is wet sand fill.	MOIST OVA = 1 ppm HNu = 0
		SS	2	6 / 10 / 14 / 15		SS#2 6-8' 1.4' Recovery. A solid core of wet wood. Has an odd aroma. (Creosote?) CAN'T AUGER THROUGH THE WOOD SO MOVE UP 6' AND TRY AGAIN.	OVA to 30 ppm HNu to 30 ppm
10							

640088

CLASSIFICATION/BY R. Wood

DATE
STARTED 9-25-90
FINISHED 9-26-90
SHEET 1 OF 1

E + E DRILLING AND TESTING CO., INC.
SUBSURFACE LOG

HOLE NUMBER GW-3
SURFACE ELEVATION
GROUNDWATER DEPTH
( )

PROJECT Fedders Auto
4P6040

LOCATION SE corner of lot near Scajaquada Creek.

DEPTH – FT	WELL DIAGRAM	SAMPLE TYPE	SAMPLE NO.	BLOWS ON SAMPLER (0/6, 6/12, 12/18, 18/24)	PROFILE (Cl Sl Sd Gr)	FIELD IDENTIFICATION OF SOILS	NOTES
5		SS	1	2 1 / 1 2		Third try @ GW-3 Auger to 4' then splitspoon. SS #1 1.2' Recovery. 4-6' All black sandy fill as we've seen before. Contains limestone gravel, brick, wood, etc. Wet below 5'.	HNu = 0 OVA < 1 ppm water table near 5'
10		SS	2	1 1 / 1 2		SS #2 6-8' 1.2' Recovery. Reddish brown & black clay fill with slag & coke fragments Moist to wet.	HNu = 0 OVA < 1 ppm
		SS	3	1 1 / 1 0			
		SS	4	1 1 / 1 0		SS #3 8-10' 1.8' Recovery Saturated. 0-0.5' Sandy clayey fill (black) 0.5-1.1' Reddish brown & black clay fill with gravel. 1.1-1.8' Coarse sand & coke/slag fill material.	HNu = 0 OVA < 1 ppm SATURATED
15	TD=14.5' screen 4.5-14.5' sand 4-14.5' seal 3-4'	SS	5	2 1 / 1 1			
20							
25						SS #4 10-12' 0.6' Recovery Saturated black sandy clay fill	HNu = 0 OVA = 5-6 ppm Saturated.
30						SS #5 12-14' No recovery but spoon is all wet. Will run another spoon & try to get something... ... now recovered 1.8' to about 14.5'. Contains: 0-0.5 Brown sandy fill w/ clay & brick fragments. 0.5-1.1 Black organic-rich clay 1.1-1.4 clayey peat moss 1.4-1.8 Brown sandy clay, organic rich w/ ~30% intact shells of gastropods.	HNu = 0 OVA = 0 wet to saturated.
35							
40							

640088

CLASSIFICATION/BY R. Watts

DATE
STARTED 9-25-90
FINISHED 9-25-90
SHEET 1 OF 1

E + E DRILLING AND TESTING CO., INC.
SUBSURFACE LOG

HOLE NUMBER B-1
SURFACE ELEVATION
GROUNDWATER DEPTH
( )

PROJECT Fedders Auto
4Pleo40

LOCATION Near entrance gate on West Ave.

DEPTH – FT	WELL DIAGRAM	SAMPLE TYPE	SAMPLE NO.	BLOWS ON SAMPLER (0/6, 6/12, 12/18, 18/24)	PROFILE SAMPLE ID (Cl Sl Sd Gr)	FIELD IDENTIFICATION OF SOILS	NOTES
5	BOREHOLE FILLED WITH CUTTING) + GROUT	SS	1	3 / 3 / 4 / 6	SB-4A	SS#1 0-2' 1.6' Recovery 6" of black, damp silty sand fill material w/ brick fragments followed to 1.6' with reddish brown clay fill. Clay is moderate to highly cohesive with a moderate plasticity + contains <10% angular black chert fragments (coarse gravel size) + tan sand lenses as well as minor brick fragments.	HNu = 0 ppm (30-40 ppm in hole). OVA = 0
		SS	2	3 / 4 / 6 / 10	SB-4B		
		SS	3	4 / 6 / 11 / 16	SB-4C		
		SS	4	12 / 12 / 16 / 20	SB-4D	SS#2 2-4' 1.3' Recovery All reddish brown damp "natural" clay with black silt mottled throughout. Also contains <5% medium + coarse sand throughout.	HNu < 1 ppm OVA = 0 ppm
10						SS#3 4-6' 1.5' Recovery Top 0.4' is clay as above mixed with slag - hard to tell if it has fallen in from above or not. Remaining 1.1' is clay as above. (like 2-4'). Dry.	HNu = 40-50 ppm OVA = 0 ppm (water vapor)
						SS#4 6-8' 1.8' Recovery Same clay as above but dry.	HNu = 20-30 OVA = 1 ppm (water vapor)

640088

CLASSIFICATION/BY R. Watt

APPENDIX D

ANALYTICAL DATA SUMMARY SHEETS

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DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Fedders Auto Components

WATER SAMPLES (ug/L)

Case #: 9002-359 Sampling Date(s): _____

To calculate sample quantitation limit: (CRQL * Dilution Factor)

CRQL	COMPOUND	Sample No.	GW-1	GW-1RE	GW-2	GW-3	GW-3RE	SW-1	SW-2	SW-3	VBLKW1
		Dilution Factor	1.0	1.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0
		Location		more acceptable		more acceptable					
10	Chloromethane			UJ		UJ					
10	Bromomethane			↓		↓					
10	*Vinyl Chloride										
10	Chloroethane										
5	*Methylene Chloride		8 B	6 B	32 B	7 B	6 B	6 B	14 B	4 B	9
10	Acetone			UJ	29 B	UJ	3 B	13 B	10 B	6 B	
5	Carbon Disulfide			↓		↓					
5	*1,1-Dichloroethene										
5	1,1 Dichloroethane			6 J	53	7 J	6				
5	*Total-1,2-Dichloroethene			8 J	340	7 J	8				
5	Chloroform			UJ		UJ					
5	*1,2-Dichloroethane			↓		↓					
10	*2-Butanone										
5	*1,1,1-Trichloroethane			24 J	370	30 J	26				
5	*Carbon Tetrachloride			UJ		UJ					
10	Vinyl Acetate			↓		↓					
5	Bromodichloromethane										

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

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NOTE: The Glossary of Data Qualifiers for the Data Summary Forms appears on page D-41.

DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES (ug/L)

To calculate sample quantitation limit: (CRQL * Dilution Factor)

CRQL	COMPOUND	Sample No.	GW-1	GW-1RE	GW-2	GW-3	GW-3RE	SW-1	SW-2	SW-3	VBLKW1
		Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
		Location		more acceptable		more acceptable					
5	*1,2-Dichloropropane			UJ			UJ				
5	Cis-1,3 Dichloropropene			↓			↓				
5	Trichloroethene		11	19 J	640	23 J	20				
5	Dibromochloromethane			UJ		UJ					
5	1,1,2 Trichloroethane			↓		↓					
5	*Benzene										
5	Trans-1,3 Dichloropropene										
5	Bromoform										
10	4-Methyl 2 pentanone										
10	2 Hexanone										
5	*Tetrachloroethene										
5	1,1,2,2 Tetrachloroethane										
5	*Toluene										
5	*Chlorobenzene										
5	*Ethylbenzene										
5	*Styrene										
5	*Total Xylenes			↓		↓					

CRDL = Contract Required Detection Limit

*Action Level Exists

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DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Feckles Auto Components

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES
(ug/L)

To calculate sample quantitation limit:
(CRQL * Dilution Factor)

CRQL	COMPOUND	Sample No.	VBLKW2	VBLKW3	SW-1MS	SW-1MSD	DW092490			
		Dilution Factor	1.0	1.0	1.0	1.0	1.0			
		Location								
10	Chloromethane									
10	Bromomethane									
10	*Vinyl Chloride									
10	Chloroethane									
5	*Methylene Chloride		3 J	5	7 B	7 B	9 B			
10	Acetone			3 J	8 B	8 B	13 B			
5	Carbon Disulfide									
5	*1,1-Dichloroethene									
5	1,1-Dichloroethane									
5	*Total-1,2-Dichloroethene									
5	Chloroform						17			
5	*1,2-Dichloroethane									
10	*2-Butanone									
5	*1,1,1-Trichloroethane									
5	*Carbon Tetrachloride									
10	Vinyl Acetate									
5	Bromodichloromethane						8			

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: Fedders Auto Components

Case #: 902-359 Sampling Date(s): _____

WATER SAMPLES (ug/L)

To calculate sample quantitation limit: (CRQL * Dilution Factor)

CRQL	COMPOUND	Sample No.	VBLKW2	VBLKW3	SW-1MS	SW-1MSD	DW092490			
		Dilution Factor	1.0	1.0	1.0	1.0	1.0			
		Location								
5	*1,2-Dichloropropane									
5	Cis-1,3 Dichloropropene									
5	Trichloroethene									
5	Dibromochloromethane									
5	1,1,2 Trichloroethane									
5	*Benzene									
5	Trans-1,3 Dichloropropene									
5	Bromoform									
10	4-Methyl-2-pentanone									
10	2-Hexanone									
5	*Tetrachloroethene									
5	1,1,2,2-Tetrachloroethane									
5	*Toluene									
5	*Chlorobenzene									
5	*Ethylbenzene									
5	*Styrene									
5	*Total Xylenes									

CRDL = Contract Required Detection Limit

*Action Level Exists

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DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	SB-1A		SB-1ARE		SB-1B		SB-1BRE		SB-1C		SB-1D		SB-2A		SB-2APL		SB-2B	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		5.7		1.0	
	% Moisture	10		10		20		20		16		17		14		14		14	
	Location	more acceptable				more acceptable													
10	Chloromethane		UJ				UJ												
10	Bromomethane																		
10	Vinyl Chloride																	8	J
10	Chloroethane																	54	
5	Methylene Chloride	15	B	15	B	20	B	9	B	17	B	17	B	19	B	35	B	17	B
10	Acetone	12	B	23	B	33	B	24	B	36	B	28	B	9	B	46	B	52	B
5	Carbon Disulfide		UJ				UJ												
5	1,1 Dichloroethene													9				16	
5	1,1 Dichloroethane													700	J	160		810	J
5	Total-1,2 Dichloroethene																	130	
5	Chloroform																		
5	1,2 Dichloroethane													7					
10	2 Butanone																		
5	1,1,1 Trichloroethane			2	J									2800	J	500		1700	J
5	Carbon Tetrachloride																		
10	Vinyl Acetate																		
5	Bromodichloromethane																		

CRDL = Contract Required Detection Limit

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DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	SB-1A		SB-1ARE		SB-1B		SB-1BRE		SB-1C		SB-1D		SB-2A		SB-2ADL		SB-2B	
	Sample No.																		
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		5.2		1.0	
	% Moisture	10		10		20		20		16		17		14		14		14	
	Location	more acceptable				more acceptable													
5	1,2-Dichloropropane		UJ				UJ												
5	Cis-1,3-Dichloropropene		↓				↓												
5	Trichloroethene	14	J	9		19	J	19						8				630	J
5	Dibromochloromethane		UJ				UJ												
5	1,1,2 Trichloroethane		↓				↓							3	J			4	J
5	Benzene																		
5	Trans 1,3 Dichloropropene																		
5	Bromoform																		
10	4 Methyl 2 pentanone																		
10	2 Hexanone																		
5	Tetrachloroethene																		
5	1,1,2,2 Tetrachloroethane																		
5	Toluene																	2	J
5	Chlorobenzene						↓												
5	Ethylbenzene					2	J	3	J					36		21	J	38	
5	Styrene						UJ												
5	Total Xylenes		↓			5	J	8						350		720		500	J

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SB-2BDL		SB-2C		SB-3A		SB-3ARE		SB-3B		SB-3C		SB-3CRE		SB-3D		SB-4A	
	Dilution Factor	3.7		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Moisture	14		14		10		10		8		16		16		15		14	
	Location					more acceptable						more acceptable							
CRQL	COMPOUND																		
10	Chloromethane						UJ						UJ						
10	Bromomethane																		
10	Vinyl Chloride																		
10	Chloroethane																		
5	Methylene Chloride	53	B	53	B	15	B	15	B	14	B	17	B	15	B	4	B	4	B
10	Acetone	85	B	140	B	23	B	22	B	15	B	16	B	27	B	30	B	16	B
5	Carbon Disulfide						UJ						UJ						
5	1,1 Dichloroethene	8	J	18	J														
5	1,1 Dichloroethane	630		1100	J														
5	Total-1,2 Dichloroethene	150																5	J
5	Chloroform																		
5	1,2 Dichloroethane			7	J														
10	2 Butanone																		
5	1,1,1 Trichloroethane	800		1600	J														
5	Carbon Tetrachloride																		
10	Vinyl Acetate																		
5	Bromodichloromethane																		

CRDL = Contract Required Detection Limit

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DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: Feddus Auto Components SOIL SAMPLES (ug/Kg)

Case #: 9002-359 Sampling Date(s): _____

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SB-2BDL		SB-2C		SB-3A		SB-3AFLE		SB-3B		SB-3C		SB-3CFLE	SB-3D	SB-4A	
	Dilution Factor	3.7		1.0		1.0		1.0		1.0		1.0		1.0	1.0	1.0	
	% Moisture	14		14		10		10		6		16		16	15	14	
	Location					more acceptable						more acceptable					
CRQL	COMPOUND																
5	1,2 Dichloropropane						UJ						UJ				
5	Cis-1,3 Dichloropropene						↓						↓				
5	Trichloroethene	530		10	J	11	J	3	J	6						80	
5	Dibromochloromethane						UJ										
5	1,1,2-Trichloroethane						↓										
5	Benzene																
5	Trans-1,3 Dichloropropene																
5	Bromoform																
10	4-Methyl-2-pentanone																
10	2-Hexanone																
5	Tetrachloroethene																
5	1,1,2,2-Tetrachloroethane						↓						↓				
5	Toluene					15	J	2	J			2	J				
5	Chlorobenzene						UJ						UJ				
5	Ethylbenzene	22		40			↓						↓				
5	Styrene																
5	Total Xylenes	250		280		3	J										

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Fedder's Auto Components SOIL SAMPLES (ug/Kg)

Case #: 9002-359 Sampling Date(s): _____

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SB-4B		SB-4C		SB-4D		SB-4DDL		SED-1		SED-2		SED-3		VBLKS1		VBLKS2	
	Dilution Factor	1.0		1.0		1.0		2.4		1.0		1.0		1.0		1.0		1.0	
	% Moisture	10		11		11		11		58		54		31		—		—	
	Location																		
CRQL	COMPOUND																		
10	Chloromethane																		
10	Bromomethane																		
10	Vinyl Chloride																		
10	Chloroethane																		
5	Methylene Chloride	4	B	25	B	4	B	24	B	18	B	14	B	14	B	4	J	11	
10	Acetone	18	B	28	B	12	B	48	B	74	B	35	B	37	B	6	J	11	
5	Carbon Disulfide																		
5	1,1 Dichloroethene																		
5	1,1-Dichloroethane																		
5	Total-1,2 Dichloroethene	10		40		120		71						13					
5	Chloroform																		
5	1,2 Dichloroethane																		
10	2 Butanone																		
5	1,1,1-Trichloroethane																		
5	Carbon Tetrachloride																		
10	Vinyl Acetate																		
5	Bromodichloromethane																		

CRQL = Contract Required Detection Limit

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DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: Feckers Auto Components

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SB-4B	SB-4C	SB-4D	SB-4DDL	SED-1	SED-2	SED-3	VBLKS1	VBLKS2
	Dilution Factor	1.0	1.0	1.0	2.4	1.0	1.0	1.0	1.0	1.0
	% Moisture	10	11	11	11	58	54	31	—	—
	Location									
CRQL	COMPOUND									
5	1,2-Dichloropropane									
5	Cis-1,3-Dichloropropene									
5	Trichloroethene	81	220	590 J	460			17		
5	Dibromochloromethane									
5	1,1,2 Trichloroethane			2 J						
5	Benzene									
5	Trans-1,3-Dichloropropene									
5	Bromoform									
10	4-Methyl-2-pentanone									
10	2-Hexanone									
5	Tetrachloroethene							85		
5	1,1,2,2-Tetrachloroethane									
5	Toluene									
5	Chlorobenzene									
5	Ethylbenzene									
5	Styrene									
5	Total Xylenes									

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	Sample No.	VBLKS3		VBLKS4		VBLKS5		SB-1DMS		SB-3AMS		SED-3MS		SB-1DMSD		SB-3AMSD		SED-3MSD	
		Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
		% Moisture	—		—		—		17		10		31		17		10		31	
		Location																		
10	Chloromethane																			
10	Bromomethane																			
10	Vinyl Chloride																			
10	Chloroethane																			
5	Methylene Chloride		8		10		8		80	B	4	B	13	B	24	B	4	B	14	B
10	Acetone		12		13		12		40	B	12	B	25	B	27	B			29	B
5	Carbon Disulfide																			
5	1,1 Dichloroethene																			
5	1,1 Dichloroethane																			
5	Total-1,2 Dichloroethene												5	J					4	J
5	Chloroform																			
5	1,2 Dichloroethane																			
10	2 Butanone																			
5	1,1,1-Trichloroethane																			
5	Carbon Tetrachloride																			
10	Vinyl Acetate																			
5	Bromodichloromethane																			

CRDL = Contract Required Detection Limit

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DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: Feckles Auto Component

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	VBLK53	VBLK54	VBLK55	SB-1Dms	SB-3Ams	SED-3ms	SB-1Dmsd	SB-3Amsd	SED-3msD
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	% Moisture	—	—	—	17	10	31	17	10	31
	Location									
CRQL	COMPOUND									
5	1,2-Dichloropropane									
5	Cis-1,3-Dichloropropene									
5	Trichloroethene									
5	Dibromochloromethane									
5	1,1,2-Trichloroethane									
5	Benzene									
5	Trans-1,3-Dichloropropene									
5	Bromoform									
10	4-Methyl-2-pentanone									
10	2-Hexanone									
5	Tetrachloroethene						1 J			
5	1,1,2,2-Tetrachloroethane									
5	Toluene									
5	Chlorobenzene									
5	Ethylbenzene									
5	Styrene									
5	Total Xylenes									

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 1

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES
(ug/L)

To calculate sample quantitation limit:
(CRQL * Dilution Factor)

	Sample No.	DW092490	GW-1	GW-2	GW-3	SW-1	SW-2	SW-3	SBLKW1	SBLKW2
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Location									
CRQL	COMPOUND									
10	Phenol				16					
10	bis(2-Chloroethyl)ether									
10	2-Chlorophenol									
10	*1,3-Dichlorobenzene									
10	*1,4-Dichlorobenzene									
10	Benzyl Alcohol									
10	1,2-Dichlorobenzene				2 J					
10	2-Methylphenol									
10	bis(2-Chloroisopropyl)ether									
10	4-Methylphenol									
10	N-Nitroso-di-n-propylamine									
10	Hexachloroethane									
10	Nitrobenzene									
10	Isophorone									
10	2-Nitrophenol									
10	2,4-Dimethylphenol									
50	Benzoic Acid									
10	bis(2-Chloroethoxy)methane									
10	2,4-Dichlorophenol									
10	1,2,4-Trichlorobenzene				5 J					
10	Naphthalene									
10	4-Chloroaniline									

CRDL = Contract Required Detection Limit

*Action Level Exists

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DATA SUMMARY FORM: B N A S 2

Site Name: Feddeis Auto Components

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES
(ug/L)

To calculate sample quantitation limit:
(CRQL * Dilution Factor)

	Sample No.	DW092490	GW-1	GW-2	GW-3	SW-1	SW-2	SW-3	SBLKW1	SBLKW2
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Location									
CRQL	COMPOUND									
10	Hexachlorobutadiene									
10	4-Chloro-3-methylphenol									
10	2-Methylnaphthalene									
10	Hexachlorocyclopentadiene									
10	2,4,6-Trichlorophenol									
50	2,4,5-Trichlorophenol									
10	2-Chloronaphthalene									
50	2-Nitroaniline									
10	Dimethylphthalate									
10	Acenaphthylene									
10	2,6 Dinitrotoluene									
50	3-Nitroaniline									
10	Acenaphthene									
50	2,4-Dinitrophenol									
50	4-Nitrophenol									
10	Dibenzofuran									
10	2,4-Dinitrotoluene									
10	Diethylphthalate			2 J						
10	4-Chlorophenyl-phenylether									
10	Fluorene									
50	4-Nitroaniline									
50	4,6-Dinitro-2-methylphenol									

CRDL = Contract Required Detection Limit

*Action Level Exists

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DATA SUMMARY FORM: B N A S 3

Site Name: Feddeus Auto Component

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES
(ug/L)

To calculate sample quantitation limit:
(CRQL * Dilution Factor)

CRDL	COMPOUND	Sample No.	DW92490		GW-1		GW-2		GW-3		SW-1		SW-2		SW-3		SBLKW1		SBLKW2	
		Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
		Location																		
10	N Nitrosodiphenylamine																			
10	4 Bromophenyl phenylether																			
10	*Hexachlorobenzene								2	J										
50	*Pentachlorophenol																			
10	Phenanthrene				2	J			1	J										
10	Anthracene																			
10	Di-n-butylphthalate				5	J	4	J	2	J	2	J	7	J	4	J				
10	Fluoranthene				3	J	1	J	1	J										
10	Pyrene				3	J	1	J	2	J										
10	Butylbenzylphthalate																			
20	3,3 Dichlorobenzidine																			
10	Benzo(a)anthracene																			
10	Chrysene																			
10	bis(2 Ethylhexyl)phthalate		2	B	16	B	14	B	18	B	5	B	12	B	12	B	3	J	9	J
10	Di-n-octylphthalate																			
10	Benzo(b)fluoranthene				2	J														
10	Benzo(k)fluoranthene																			
10	Benzo(a)pyrene				1	J														
10	Indeno(1,2,3-cd)pyrene																			
10	Dibenz(a,h)anthracene																			
10	Benzo(g,h,i)perylene																			

CRDL = Contract Required Detection Limit

*Action Level Exists

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DATA SUMMARY FORM: B N A S 1

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES
(ug/L)

To calculate sample quantitation limit:
(CROL * Dilution Factor)

CROL	COMPOUND	Sample No.									
		Dilution Factor	1.0								
		Location									
10	Phenol										
10	bis(2-Chloroethyl)ether										
10	2-Chlorophenol										
10	*1,3-Dichlorobenzene										
10	*1,4-Dichlorobenzene										
10	Benzyl Alcohol										
10	1,2-Dichlorobenzene										
10	2-Methylphenol										
10	bis(2-Chloroisopropyl)ether										
10	4-Methylphenol										
10	N-Nitroso-di-n-propylamine										
10	Hexachloroethane										
10	Nitrobenzene										
10	Isophorone										
10	2-Nitrophenol										
10	2,4-Dimethylphenol										
50	Benzoic Acid										
10	bis(2-Chloroethoxy)methane										
10	2,4-Dichlorophenol										
10	1,2,4-Trichlorobenzene										
10	Naphthalene										
10	4-Chloroaniline										

CRDL = Contract Required Detection Limit

*Action Level Exists

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DATA SUMMARY FORM: B N A S 2

Site Name: Fecdlus Custo Component

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES
(ug/L)

To calculate sample quantitation limit:
(CRQL * Dilution Factor)

CRQL	COMPOUND	Sample No.																			
		Dilution Factor	SBLKW3 1.0																		
		Location																			
10	Hexachlorobutadiene																				
10	4-Chloro-3-methylphenol																				
10	2-Methylnaphthalene																				
10	Hexachlorocyclopentadiene																				
10	2,4,6-Trichlorophenol																				
50	2,4,5-Trichlorophenol																				
10	2-Chloronaphthalene																				
50	2-Nitroaniline																				
10	Dimethylphthalate																				
10	Acenaphthylene																				
10	2,6 Dinitrotoluene																				
50	3-Nitroaniline																				
10	Acenaphthene																				
50	2,4-Dinitrophenol																				
50	4-Nitrophenol																				
10	Dibenzofuran																				
10	2,4-Dinitrotoluene																				
10	Diethylphthalate																				
10	4-Chlorophenyl-phenylether																				
10	Fluorene																				
50	4-Nitroaniline																				
50	4,6-Dinitro-2-methylphenol																				

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: B N A S 3

Site Name: Fedders Cuyto Component

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES
(ug/L)

To calculate sample quantitation limit:
(CRQL * Dilution Factor)

CRDL	COMPOUND	Sample No.																			
	Dilution Factor	1.0																			
	Location																				
10	N Nitrosodiphenylamine																				
10	4 Bromophenyl phenylether																				
10	*Hexachlorobenzene																				
50	*Pentachlorophenol																				
10	Phenanthrene																				
10	Anthracene																				
10	Di-n-butylphthalate																				
10	Fluoranthene																				
10	Pyrene																				
10	Butylbenzylphthalate																				
20	3,3 Dichlorobenzidine																				
10	Benzo(a)anthracene																				
10	Chrysene																				
10	bis(2 Ethylhexyl)phthalate	9	J																		
10	Di-n-octylphthalate																				
10	Benzo(b)fluoranthene																				
10	Benzo(k)fluoranthene																				
10	Benzo(a)pyrene																				
10	Indeno(1,2,3-cd)pyrene																				
10	Dibenz(a,h)anthracene																				
10	Benzo(g,h,i)perylene																				

CRDL = Contract Required Detection Limit

*Action Level Exists

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ecology and environment

DATA SUMMARY FORM: B N A S 1

Site Name: Fedders Auto Component

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SB-1A	SB-1B	SB-1C	SB-1D	SB-2A	SB-2B	SB-2C	SB-3A	SB-3B
	Dilution Factor	5.0	5.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0
	% Moisture	10	20	16	17	14	14	14	10	8
	Location									
CRQL	COMPOUND									
330	Phenol									
330	bis(2-Chloroethyl)ether									
330	2-Chlorophenol									
330	1,3-Dichlorobenzene									
330	1,4-Dichlorobenzene									
330	Benzyl Alcohol									
330	1,2-Dichlorobenzene									
330	2-Methylphenol									
330	bis(2-Chloroisopropyl)ether									
330	4-Methylphenol									
330	N-Nitroso-di-n-propylamine									
330	Hexachloroethane									
330	Nitrobenzene									
330	Isophorone									
330	2-Nitrophenol									
330	2,4-Dimethylphenol									
1600	Benzoic Acid									
330	bis(2-Chloroethoxy)methane									
330	2,4-Dichlorophenol									
330	1,2,4-Trichlorobenzene									
330	Naphthalene		88 J			70 J	120 J	90 J	300 J	220 J
330	4-Chloroaniline									

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: B N A S 2

Site Name: Fedders Auto Component

SOIL SAMPLES (ug/Kg)

Case #: 9002-359 Sampling Date(s): _____

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SB-1A		SB-1B		SB-1C		SB-1D		SB-2A		SB-2B		SB-2C		SB-3A		SB-3B	
	Dilution Factor	5.0		5.0		1.0		1.0		1.0		2.0		2.0		2.0		2.0	
	% Moisture	10		20		16		17		14		14		14		10		8	
	Location																		
CRQL	COMPOUND																		
330	Hexachlorobutadiene																		
330	4-Chloro-3-methylphenol																		
330	2-Methylnaphthalene	76	J	82	J							140	J	80	J	510	J	260	J
330	Hexachlorocyclopentadiene																		
330	2,4,6-Trichlorophenol																		
1600	2,4,5-Trichlorophenol																		
330	2-Chloronaphthalene																		
1600	2-Nitroaniline																		
330	Dimethylphthalate																		
330	Acenaphthylene																		
330	2,6-Dinitrotoluene																		
1600	3-Nitroaniline																		
330	Acenaphthene	180	J	190	J					220	J	180	J	180	J	65	J	160	J
1600	2,4-Dinitrophenol																		
1600	4-Nitrophenol																		
330	Dibenzofuran	150	J	160	J					140	J	140	J	130	J	150	J	220	J
330	2,4-Dinitrotoluene																		
330	Diethylphthalate																		
330	4-Chlorophenyl-phenylether																		
330	Fluorene	210	J	220	J					200	J	210	J	230	J	57	J	250	J
1600	4-Nitroaniline																		
1600	4,6-Dinitro-2-methylphenol																		

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 3

Site Name: Fedders Auto Component

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	SB-1A		SB-1B		SB-1C		SB-1D		SB-2A		SB-2B		SB-2C		SB-3A		SB-3B	
	Dilution Factor	5.0		5.0		1.0		1.0		1.0		2.0		2.0		2.0		2.0	
	% Moisture	10		20		16		17		14		14		14		10		8	
	Location																		
330	N-Nitrosodiphenylamine																		
330	4-Bromophenyl phenylether																		
330	Hexachlorobenzene																		
1600	Pentachlorophenol																		
330	Phenanthrene	3100		3300						2400		2400		2800		920		3400	
330	Anthracene	540	J	520	J					450		510	J	650	J	150	J	710	J
330	Di-n-butylphthalate											90	J	60	J	92	J	110	J
330	Fluoranthene	5000		5000						2700		2900		36000		930		4700	
330	Pyrene	5400		5100						2000		3700		4100		910		5200	
330	Butylbenzylphthalate									140	J			160	J				
1600	3,3 Dichlorobenzidine																		
330	Benzo(a)anthracene	2900		2600						1200		2000		2100		540	J	2600	
330	Chrysene	2900		2700						1300		2000		2000		640	J	2700	
330	bis(2-Ethylhexyl)phthalate	150	B	300	B	130	B	110	B	570	B	82	B	130	B	70	B	110	B
330	Di-n-octylphthalate																		
330	Benzo(b)fluoranthene	3300		3600						1600		2000		2400		1100		4200	
330	Benzo(k)fluoranthene	2600		1500	J					620		960		1300					
330	Benzo(a)pyrene	3500		3100						1200		1900		1900		660	J	2900	
330	Indeno(1,2,3-cd)pyrene	2700		2500						930		1300		1300		440	J	1900	
330	Dibenz(a,h)anthracene	610	J	430	J					240	J	350	J	330	J	190	J	700	J
330	Benzo(g,h,i)perylene	2200		2100						790		1200		1200		430	J	1700	

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 1

Site Name: Fedders Auto Components SOIL SAMPLES (ug/Kg)

Case #: 9002-359 Sampling Date(s): _____

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SB-3C		SB-3D		SB-4A		SB-4B		SB-4C		SB-4D		SED-1		SED-2		SED-3	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		10.0		5.0		1.0	
	% Moisture	16		15		14		10		11		11		58		54		31	
	Location																		
CRQL	COMPOUND																		
330	Phenol																		
330	bis(2-Chloroethyl)ether																		
330	2-Chlorophenol																		
330	1,3-Dichlorobenzene																		
330	1,4-Dichlorobenzene																		
330	Benzyl Alcohol																		
330	1,2 Dichlorobenzene																		
330	2-Methylphenol																		
330	bis(2-Chloroisopropyl)ether																		
330	4-Methylphenol																		
330	N-Nitroso di-n propylamine																		
330	Hexachloroethane																		
330	Nitrobenzene																		
330	Isophorone																		
330	2 Nitrophenol																		
330	2,4 Dimethylphenol																		
1600	Benzoic Acid																		
330	bis(2-Chloroethoxy)methane																		
330	2,4 Dichlorophenol																		
330	1,2,4-Trichlorobenzene													4400	J			51	J
330	Naphthalene					160	J												
330	4-Chloroaniline																		

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 2

Site Name: Fedders Auto Component

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SB-3C	SB-3D	SB-4A	SB-4B	SB-4C	SB-4D	SED-1	SED-2	SED-3
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	10.0	5.0	1.0
	% Moisture	16	15	14	10	11	11	58	54	31
	Location									
CRQL	COMPOUND									
330	Hexachlorobutadiene									
330	4-Chloro-3-methylphenol									
330	2-Methylnaphthalene			250 J				830 J		
330	Hexachlorocyclopentadiene									
330	2,4,6-Trichlorophenol									
1600	2,4,5-Trichlorophenol									
330	2-Chloronaphthalene									
1600	2-Nitroaniline									
330	Dimethylphthalate									
330	Acenaphthylene							220 J		
330	2,6-Dinitrotoluene									
1600	3-Nitroaniline									
330	Acenaphthene			120 J				4000 J		78 J
1600	2,4-Dinitrophenol									
1600	4-Nitrophenol									
330	Dibenzofuran			130 J				2500 J	100 J	
330	2,4-Dinitrotoluene									
330	Diethylphthalate			210 J	220 J					
330	4-Chlorophenyl-phenylether									
330	Fluorene			120 J				470 J	170 J	83 J
1600	4-Nitroaniline									
1600	4,6-Dinitro-2-methylphenol									

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: B N A S 3

Site Name: Feeders Auto Component SOIL SAMPLES (ug/Kg)

Case #: 9002-359 Sampling Date(s): _____

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	SB-3C		SB-3D		SB-4A		SB-4B		SB-4C		SB-4D		SED-1		SED-2		SED-3	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		10.0		5.0		1.0	
	% Moisture	16		15		14		10		11		11		58		34		31	
	Location																		
330	N-Nitrosodiphenylamine																		
330	4-Bromophenyl phenylether																		
330	Hexachlorobenzene																		
1600	Pentachlorophenol																		
330	Phenanthrene					1300								50000		1700	J	690	
330	Anthracene					250	J							11000		380	J	140	J
330	Di-n-butylphthalate					48	J					93	J	1600	B	640	B	68	B
330	Fluoranthene					1400								52000		2100	J	980	
330	Pyrene					1400								70000		1900	J	1200	
330	Butylbenzylphthalate																		
1600	3,3 Dichlorobenzidine																		
330	Benzo(a)anthracene					770								34000		1300	J	580	
330	Chrysene					860								34000		1400	J	620	
330	bis(2 Ethylhexyl)phthalate	260	B	160	B	130	B	100	B	73	B	85	B	4900	B	1800	B	940	B
330	Di-n-octylphthalate																		
330	Benzo(b)fluoranthene					1100								27000		1400	J	750	
330	Benzo(k)fluoranthene					470								20000		730	J	500	
330	Benzo(a)pyrene					840								29000		1600	J	740	
330	Indeno(1,2,3-cd)pyrene					1650								19000		1200	J		
330	Dibenz(a,h)anthracene					150	J							4800	J	2160	J	83	J
330	Benzo(g,h,i)perylene					3600								16000		1500	J	510	

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 1

Site Name: Fedders Auto Component

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	SBLKS1	SBLKS2	SBLKS3	SBLKS4	SB-1AMS	SB-3AMS	SED2MS	SB-1AMSD	SB-3AMSD
	Sample No.									
	Dilution Factor	1.0	1.0	1.0	1.0	5.0	2.0	5.0	5.0	2.0
	% Moisture	—	—	—	—	10	10	64	10	10
	Location									
330	Phenol									
330	bis(2-Chloroethyl)ether									
330	2-Chlorophenol									
330	1,3-Dichlorobenzene									
330	1,4-Dichlorobenzene									
330	Benzyl Alcohol									
330	1,2 Dichlorobenzene									
330	2-Methylphenol									
330	bis(2-Chloroisopropyl)ether									
330	4-Methylphenol									
330	N-Nitroso di-n propylamine									
330	Hexachloroethane									
330	Nitrobenzene									
330	Isophorone									
330	2 Nitrophenol									
330	2,4 Dimethylphenol									
1600	Benzoic Acid									
330	bis(2 Chloroethoxy)methane									
330	2,4 Dichlorophenol									
330	1,2,4-Trichlorobenzene						360 J			360 J
330	Naphthalene									
330	4-Chloroaniline									

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 2

Site Name: Feeders Creek Component

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SBLKS1		SBLKS2		SBLKS3		SBLKS4		SB-1AMS		SB-3AMS		SED2 MS		SB-1AMSD		SB-3AMSD	
	Dilution Factor	1.0		1.0		1.0		1.0		5.0		2.0		5.0		5.0		2.0	
	% Moisture	—		—		—		—		10		10		54		10		10	
	Location																		
CRQL	COMPOUND																		
330	Hexachlorobutadiene																		
330	4-Chloro-3-methylphenol																		
330	2-Methylnaphthalene									54	J	580	J			120	J	630	J
330	Hexachlorocyclopentadiene																		
330	2,4,6-Trichlorophenol																		
1600	2,4,5-Trichlorophenol																		
330	2-Chloronaphthalene																		
1600	2-Nitroaniline																		
330	Dimethylphthalate																		
330	Acenaphthylene																		
330	2,6-Dinitrotoluene																		
1600	3-Nitroaniline																		
330	Acenaphthene																		
1600	2,4-Dinitrophenol																		
1600	4-Nitrophenol									100	J	210	J	180	J	43	J	220	J
330	Dibenzofuran																		
330	2,4-Dinitrotoluene									100	J								
330	Diethylphthalate																		
330	4-Chlorophenyl-phenylether									140	J	130	J	360	J			120	J
330	Fluorene																		
1600	4-Nitroaniline																		
1600	4,6-Dinitro-2-methylphenol																		

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 1

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	Sample No.																			
	Dilution Factor	5																			
	% Moisture	54																			
	Location																				
330	Phenol																				
330	bis(2-Chloroethyl)ether																				
330	2-Chlorophenol																				
330	1,3 Dichlorobenzene																				
330	1,4-Dichlorobenzene																				
330	Benzyl Alcohol																				
330	1,2 Dichlorobenzene																				
330	2-Methylphenol																				
330	bis(2-Chloroisopropyl)ether																				
330	4-Methylphenol																				
330	N-Nitroso di-n propylamine																				
330	Hexachloroethane																				
330	Nitrobenzene																				
330	Isophorone																				
330	2 Nitrophenol																				
330	2,4 Dimethylphenol																				
1600	Benzoic Acid																				
330	bis(2 Chloroethoxy)methane																				
330	2,4 Dichlorophenol																				
330	1,2,4-Trichlorobenzene																				
330	Naphthalene																				
330	4-Chloroaniline																				

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: B N A S 2

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	Sample No. SED-2MSD																			
	Dilution Factor	5.0																			
	% Moisture	54																			
	Location																				
330	Hexachlorobutadiene																				
330	4-Chloro-3-methylphenol																				
330	2-Methylnaphthalene																				
330	Hexachlorocyclopentadiene																				
330	2,4,6-Trichlorophenol																				
1600	2,4,5-Trichlorophenol																				
330	2-Chloronaphthalene																				
1600	2-Nitroaniline																				
330	Dimethylphthalate																				
330	Acenaphthylene																				
330	2,6-Dinitrotoluene																				
1600	3-Nitroaniline																				
330	Acenaphthene																				
1600	2,4-Dinitrophenol																				
1600	4-Nitrophenol																				
330	Dibenzofuran	160	J																		
330	2,4-Dinitrotoluene																				
330	Diethylphthalate																				
330	4-Chlorophenyl-phenylether																				
330	Fluorene	310	J																		
1600	4-Nitroaniline																				
1600	4,6-Dinitro-2-methylphenol																				

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 3

Site Name: Fedders Auto Component

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	SBLKS1		SBLKS2		SBLKS3		SBLKS4		SB-1AMS		SB-3AMS		SED2MS		SB-1AMSD		SB-3AMSD	
	Dilution Factor	1.0		1.0		1.0		1.0		5.0		2.0		5.0		5.0		2.0	
	% Moisture	—		—		—		—		10		10		54		10		10	
	Location																		
CRQL	COMPOUND																		
330	N-Nitrosodiphenylamine																		
330	4-Bromophenyl phenylether																		
330	Hexachlorobenzene																		
1600	Pentachlorophenol																		
330	Phenanthrene									2200		1500		3700		230	J	1500	
330	Anthracene									390	J	300	J	820	J			2600	J
330	Di-n-butylphthalate							64	J					2600	J			230	J
330	Fluoranthene									3600		1600		3800		280	J	1700	
330	Pyrene																		
330	Butylbenzylphthalate																		
1600	3,3 Dichlorobenzidine																		
330	Benzo(a)anthracene									1800	J	850		2700	J			950	
330	Chrysene									2000		940		3100	J	230	J	920	
330	bis(2 Ethylhexyl)phthalate	62	J	64	J	740		200	J	97	B	120	B	3100	B			130	B
330	Di-n-octylphthalate																		
330	Benzo(b)fluoranthene									2100		1500		3100	J	320	J	1700	
330	Benzo(k)fluoranthene									1700	J			2000	J	200	J		
330	Benzo(a)pyrene											950		3400	J	320	J	1000	
330	Indeno(1,2,3-cd)pyrene									1800	J	580	J	2100	J	250	J	840	
330	Dibenz(a,h)anthracene									340	J	190	J	400	J			380	J
330	Benzo(g,h,i)perylene									1500	J	1610	J	2900	J	200	J	750	

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 3

Site Name: Feckless Auto Components

SOIL SAMPLES (ug/Kg)

Case #: 9002-359 Sampling Date(s): _____

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND																			
	Sample No.	SED-2MSD																		
	Dilution Factor	5.0																		
	% Moisture	54																		
	Location																			
330	N-Nitrosodiphenylamine																			
330	4-Bromophenyl phenylether																			
330	Hexachlorobenzene																			
1600	Pentachlorophenol																			
330	Phenanthrene	3000	J																	
330	Anthracene	740	J																	
330	Di-n-butylphthalate	230	J																	
330	Fluoranthene	4200																		
330	Pyrene																			
330	Butylbenzylphthalate																			
1600	3,3 Dichlorobenzidine																			
330	Benzo(a)anthracene	2600	J																	
330	Chrysene	2900	J																	
330	bis(2 Ethylhexyl)phthalate	3200	B																	
330	Di-n-octylphthalate																			
330	Benzo(b)fluoranthene	3000	J																	
330	Benzo(k)fluoranthene	1500	J																	
330	Benzo(a)pyrene	2800	J																	
330	Indeno(1,2,3-cd)pyrene	1900	J																	
330	Dibenz(a,h)anthracene	420	J																	
330	Benzo(g,h,i)perylene	2100	J																	

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: Feddus Auto Components

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES (ug/L)

To calculate sample quantitation limit: (CRQL * Dilution Factor)

CRQL	COMPOUND	Sample No.	DW092490	GW-1	GW-2	GW-3	SW-1	SW-2	SW-3	PBLKW1	PBLKW4
		Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
		Location									
0.05	Alpha-BHC										
0.05	Beta-BHC										
0.05	Delta-BHC				0.073						
0.05	*Gamma-BHC (Lindane)										
0.05	*Heptachlor										
0.05	Aldrin										
0.05	Heptachlor Epoxide										
0.05	Endosulfan I										
0.10	Dieldrin										
0.10	4,4'-DDE										
0.10	*Endrin										
0.10	Endosulfan II										
0.10	4,4'-DDD										
0.10	Endosulfan Sulfate										
0.10	4,4'-DDT										
0.5	*Methoxychlor										
0.10	Endrin Ketone										
0.5	*Alpha-Chlordane										
0.5	*Gamma-Chlordane										
1.0	*Toxaphene										
0.5	*Aroclor-1016										
0.5	*Aroclor-1221										
0.5	*Aroclor-1232										
0.5	*Aroclor-1242										
0.5	*Aroclor-1248										
1.0	*Aroclor-1254										
1.0	*Aroclor-1260										

CRDL = Contract Required Detection Limit

*Action Level Exists

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DATA SUMMARY FORM: P E S T I C I D E S A N D P C B S

Site Name: Fedders Auto Component

Case #: 902-359 Sampling Date(s): _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	SB-1A		SB-1B		SB-1C		SB-1D		SB-2A		SB-2B		SB-2C		SB-3A		SB-3B	
	Sample No.	SB-1A		SB-1B		SB-1C		SB-1D		SB-2A		SB-2B		SB-2C		SB-3A		SB-3B	
	Dilution Factor	5.0		5.0		1.0		1.0		400		10.0		5.0		4.0		5.0	
	% Moisture	10		20		16		17		14		14		14		10		8	
	Location																		
8	alpha-BHC																		
8	beta-BHC																		
8	delta-BHC																		
8	Gamma-BHC (Lindane)																		
8	Heptachlor																		
8	Aldrin																		
8	Heptachlor Epoxide																		
8	Endosulfan I																		
16	Dieldrin																		
16	4,4'-DDE																		
16	Endrin																		
16	Endosulfan II																		
16	4,4'-DDD																		
16	Endosulfan Sulfate																		
16	4,4'-DDT																		
80	Methoxychlor																		
16	Endrin ketone																		
80	Alpha-Chlordane																		
80	Gamma-Chlordane																		
160	Toxaphene																		
80	Aroclor-1016																		
80	Aroclor-1221																		
80	Aroclor-1232																		
80	Aroclor-1242																		
80	Aroclor-1248																		
160	Aroclor-1254																		
160	Aroclor-1260																		

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: Feddes Auto Components SOIL SAMPLES (ug/Kg)

Case #: 9002-359 Sampling Date(s): _____

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

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CRQL	COMPOUND	Sample No.	SB-3C		SB-3D		SB-4A		SB-4B		SB-4C		SB-4D		SED-1		SED-2		SED-3	
		Dilution Factor	1.0		1.0		4.0		1.0		1.0		1.0		10.0		2.0		1.0	
		% Moisture	16		15		14		10		11		11		58		54		31	
		Location																		
8	alpha-BHC																			
8	beta-BHC																			
8	delta-BHC																			
8	Gamma-BHC (Lindane)																			
8	Heptachlor																			
8	Aldrin																			
8	Heptachlor Epoxide																			
8	Endosulfan I																			
16	Dieldrin																			
16	4,4'-DDE																			
16	Endrin																			
16	Endosulfan II																			
16	4,4'-DDD																			
16	Endosulfan Sulfate																			
16	4,4'-DDT																			
80	Methoxychlor																			
16	Endrin ketone																			
80	Alpha-Chlordane																			
80	Gamma-Chlordane																			
160	Toxaphene																			
80	Aroclor-1016																			
80	Aroclor-1221																			
80	Aroclor-1232																			
80	Aroclor-1242																			
80	Aroclor-1248																			
160	Aroclor-1254														3400	J			200	J
160	Aroclor-1260																4160	J		

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: P E S T I C I D E S A N D P C B S

Site Name: Feckless Auto Components

SOIL SAMPLES (ug/Kg)

Case #: 9088-359 Sampling Date(s): _____

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	Sample No.	PBLKS1		PBLKS2		PBLKS3		PBLKS4		PBLKS5		SB-1AMS		SB-3AMS		SED-2MS		SB-1AMSD	
		Dilution Factor	1.0		1.0		1.0		1.0		1.0		5.0		1.0		2.0		5.0	
		% Moisture	—		—		—		—		—		10		10		54		10	
		Location																		
8	alpha-BHC																			
8	beta-BHC																			
8	delta-BHC																			
8	Gamma-BHC (Lindane)																			
8	Heptachlor																			
8	Aldrin																			
8	Heptachlor Epoxide																			
8	Endosulfan I																			
16	Dieldrin																			
16	4,4'-DDE																			
16	Endrin																			
16	Endosulfan II																			
16	4,4'-DDD																			
16	Endosulfan Sulfate																			
16	4,4' DDT																			
80	Methoxychlor																			
16	Endrin ketone																			
80	Alpha-Chlordane																			
80	Gamma-Chlordane																			
160	Toxaphene																			
80	Aroclor-1016																			
80	Aroclor-1221																			
80	Aroclor-1232																			
80	Aroclor-1242																			
80	Aroclor-1248																			
160	Aroclor-1254																			
160	Aroclor-1260																670	J		

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: P E S T I C I D E S A N D P C B S

Site Name: Fedders Auto Components SOIL SAMPLES (ug/Kg)

Case #: 9002-359 Sampling Date(s): _____

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND																			
	Sample No.	SB-3AMSD		SED2MSD																
	Dilution Factor	1.0		2.0																
	% Moisture	10		54																
	Location																			
8	alpha-BHC																			
8	beta-BHC																			
8	delta-BHC																			
8	Gamma-BHC (Lindane)																			
8	Heptachlor																			
8	Aldrin																			
8	Heptachlor Epoxide																			
8	Endosulfan I																			
16	Dieldrin																			
16	4,4'-DDE																			
16	Endrin																			
16	Endosulfan II																			
16	4,4'-DDD																			
16	Endosulfan Sulfate																			
16	4,4' DDT																			
80	Methoxychlor																			
16	Endrin ketone																			
80	Alpha-Chlordane																			
80	Gamma-Chlordane																			
160	Toxaphene																			
80	Aroclor-1016																			
80	Aroclor-1221																			
80	Aroclor-1232																			
80	Aroclor-1242																			
80	Aroclor-1248																			
160	Aroclor-1254																			
160	Aroclor-1260			640	J															

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: TENTATIVELY IDENTIFIED COMPOUNDS

Site Name: Feddlers Auto Components

Case #: 9002-359 Sampling Date: _____

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((1 - % moisture/100)

CRQL	COMPOUND	Sample No.		Sample No.	
	Dilution Factor	SB-3A 2.0		SED-1 10.0	
	% Moisture	10		58	
	Location				
	CAS# 90120 Naphthalene, 1-methyl	440	J		
	CAS# 132650 Dibenzothiophene			2800	J
	CAS# 86748 9H-Carbazole			3700	J

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: I N O R G A N I C S

Site Name: Fedders Auto Component

Case #: 9002-359 Sampling Date(s): _____

WATER SAMPLES
(ug/L)

+Due to dilution, sample quantitation limit is affected.
See dilution table for specifics.

CRDL	ANALYTE	Sample No.	DW09		GW-1		GW-2		GW-3		SW-1		SW-2		SW-3	
		Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0	
		Location														
200	Aluminum		1300		845		243	B	227	B	352	B	509	B	296	B
60	Antimony															
10	*Arsenic		[2.7]		[2.4]											
200	Barium		[37.5]		[60.4]		[44.5]		[56.9]		[63.7]		[64.3]		[60.1]	
5	Beryllium															
5	*Cadmium		6.4													
5000	Calcium		31200		81700		76800		129000		173000		169000		176000	
10	*Chromium															
50	Cobalt															
25	Copper		35.5													
100	Iron		21800		2130		489		638		784		1130		582	
3	*Lead		61		4.5		3.2		3.1		7.5		15.0		10.6	
5000	Magnesium		7760		53100		11700		35900		23800		23300		23200	
15	Manganese		202		299		123		132		56.0		62.5		54.2	
0.2	Mercury															
40	*Nickel															
5000	Potassium		[1100]		11600		[3650]		9950		[3680]		[3730]		[3850]	
5	Selenium			UL		UL		UL		UL		UL		UL		UL
10	Silver															
5000	Sodium		8960		516000		47200		173000		58100		57400		56000	
10	Thallium															
50	Vanadium															
20	Zinc		66.2		447		94.4		71.3		54.6		45.9		35.1	
10	*Cyanide				27900											

CRDL = Contract Required Detection Limit

*Action Level Exists

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DATA SUMMARY FORM: I N O R G A N I C S

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (mg/Kg)

+Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	ANALYTE	SB-1A		SB-1B		SB-1C		SB-1D		SB-2A		SB-2B		SB-2C		SB-3A		SB-3B		SB-3C	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Solids	90.5		80.2		83.9		82.6		86.1		86.0		86.5		89.6		91.5		84.4	
	Location																				
40	Aluminum	6210		5610		7680		7330		6190		5310		7480		11400		6760		14000	
12	Antimony		UL		UL		UL		UL		UL	[12.3]	L		UL		UL		UL		UL
2	Arsenic	14.7	L	37.1	L	2.7	L	3.5	L	5.7	L	25.5	L	7.2	L	9.5	L	10.6	L	3.1	L
40	Barium	117		79.7		98.2		71.0		79.8		162.0		93.2		123		85.3		110	
1	Beryllium	[0.52]	B	[0.46]	B	[0.29]	B	[0.30]	B	[0.27]	B	[0.34]	B	[0.31]	B	[0.53]					
1	Cadmium	7.0		16.2		2.5		2.5		2.5		2.6		3.5		3.7		2.9		3.9	
1000	Calcium	125000		31300		71400		70800		90800		41200		64400		58200		29900		53300	
2	Chromium	304	L	51.4	L	12.6	L	13.6	L	13.1	L	16.3	L	19.0	L	77.3	L	39.2	L	21.1	L
10	Cobalt	[3.9]		[5.7]		[5.5]		[8.4]				[4.9]		[5.5]		[5.5]		[4.5]		15.5	
5	Copper	196		36		16.5		16.2		116		70.4		135		310		269		19.7	
20	Iron	41700		40300		16900		17200		15100		18000		18800		22200		17800		25000	
1	*Lead	234		39.2		9.1		9.9		380		222		431		456		300		16.8	
1000	Magnesium	15900		53160		21100		21300		17900		8850		14900		4150		3060		13300	
3	Manganese	15500		2050		393		446		757		419		569		9750		4520		668	
0.2	Mercury	0.38								0.34		1.2		0.49		0.14		0.14			
8	Nickel	11.4		36.6		17.7		20.7		11.8		22.6		18.7		9.0		14.6		28.3	
1000	Potassium	[484]		[601]		1660		1550		[855]		[898]		1170		1130		[732]		2380	
1	Selenium		UL	[0.25]	L		UL		UL	[0.23]	L	[0.27]	L	[0.30]	L		UL		L		L
2	Silver	[2.1]														[2.0]					
1000	Sodium	[404]		[430]		[298]		[323]		[382]		[305]		[271]		[500]		[394]		[539]	
2	Thallium																				
10	Vanadium	140	L	33.5	L	17.1	L	16.8	L	16.2	L	14.3	L	19.5	L	77.2	L	43.4	L	26.6	L
4	Zinc	375		470		60.2		92.4		243		170		450		317		468		65.5	
2	Cyanide	1.3		89.5				3.5		1.2		2.8						8.8			

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: I N O R G A N I C S

Site Name: Fedders Auto Components

Case #: 9002-359 Sampling Date(s): _____

SOIL SAMPLES (mg/Kg)

+Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	ANALYTE	SB-3D		SB-4A		SB-4B		SB-4C		SB-4D		SED-1		SED-2		SED-3	
	Sample No.	SB-3D		SB-4A		SB-4B		SB-4C		SB-4D		SED-1		SED-2		SED-3	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Solids	85.0		85.9		90.5		88.9		89.0		41.7		43.8		69.2	
	Location																
40	Aluminum	16100		6680		14000		8730		9350		10800		6500		1480	
12	Antimony		UL		UL		UL		UL		UL		UL		UL		UL
2	Arsenic	[2.1]	L	15.8	L	7.8	L	4.4	L	3.4	L	11.0	L	5.9	L	[2.7]	L
40	Barium	103		185		102		70.5		95		238		98.0		[23.1]	
1	Beryllium																
1	Cadmium	3.1		5.7		3.5		2.2		2.7		10.6		4.5		4.5	
1000	Calcium	2010		17300		16800		64300		57300		94300		136000		9470	
2	Chromium	21.6	L	20.0	L	18.8	L	13.6	L	15.4	L	76.7	L	33.2	L	16.8	L
10	Cobalt	[10.9]		[6.0]		11.9		[7.5]		[8.6]		[8.0]					
5	Copper	17.2		227		16.8		14.1		29.1		390		192		362	
20	Iron	22700		27600		23700		17100		18000		25800		17100		13300	
1	*Lead	11.6		391		14.2		10.9		31.8		615		502		9890	
1000	Magnesium	5820		4970		11900		20900		17500		12300		12400		1840	
3	Manganese	139		1720		376		366		445		536		367		109	
0.2	Mercury			0.14								1.82		0.37			
8	Nickel	22.8		23.5		24.1		19.1		20.0		42.9		23.1		26.2	
1000	Potassium	1210		[877]		1280		1380		1400		[1280]		[1090]		[161]	
1	Selenium		UL		UL		UL		UL		UL	[1.2]	L	[0.50]	L		UL
2	Silver																
1000	Sodium	[317]		[379]		[443]		[286]		[275]		[1340]		[390]			
2	Thallium																
10	Vanadium	26.5	L	21.7	L	24.1	L	17.6	L	17.8	L	32.4	L	[21.3]	L	[6.0]	L
4	Zinc	68.8		718		72.5		56.9		80.5		918		824		856	
2	Cyanide																

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

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GLOSSARY OF DATA QUALIFIERS

CODES RELATING TO IDENTIFICATION

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unreliable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm results.

CODES RELATING TO QUANTITATION

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value expected to be higher.

[]= Inorganic analyte present. As values approach the IDL the quantitation may not be accurate.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

APPENDIX E

GEOTECHNICAL ANALYSES

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ecology and environment

1810 North 12th Street
P.O. Box 2186
Toledo, Ohio 43603
(419) 241-7175
Fax # (419) 241-1808

Registered Engineers, Chemists and Geologists

William F. Boyle, president
Thomas R. Uhler, P.E., vice president Technical Services
Richard L. Johnson, P.E., chief Geotechnical Division

Founded in 1927

Toledo Testing Laboratory

October 24, 1990

Mr. Robert Meyers
Ecology and Environment, Inc.
368 Pleasantview Drive
Lancaster, New York 14086

RE: LABORATORY TESTING
OF SUBMITTED SOIL SAMPLES
FEDDERS AUTO, NYSDEC PHASE 2
YOUR PROJECT NO.: YP-6040
YOUR P.O. NO. 54964
T.T.L. JOB NO. 11420

Dear Mr. Meyers:

Please find enclosed the results of laboratory analyses completed on submitted soil samples from the Fedders Auto, NYSDEC Phase 2 project per your referenced purchase order number. These samples were received at our office on October 11, 1990.

If you should have any questions or comments, or if we can be of any further assistance please feel free to contact us.

Very truly yours,

TOLEDO TESTING LABORATORY
Steven L. Bouws
Geotechnical Engineer

Richard L. Johnson
Chief Geotechnical Engineer

RLJ/SLB/dmr

recycled paper

ecology and environment

Project No. 11420

TOLEDO TESTING LABORATORY, INC.

Sheet 1 Of

TABULATION OF TEST DATA

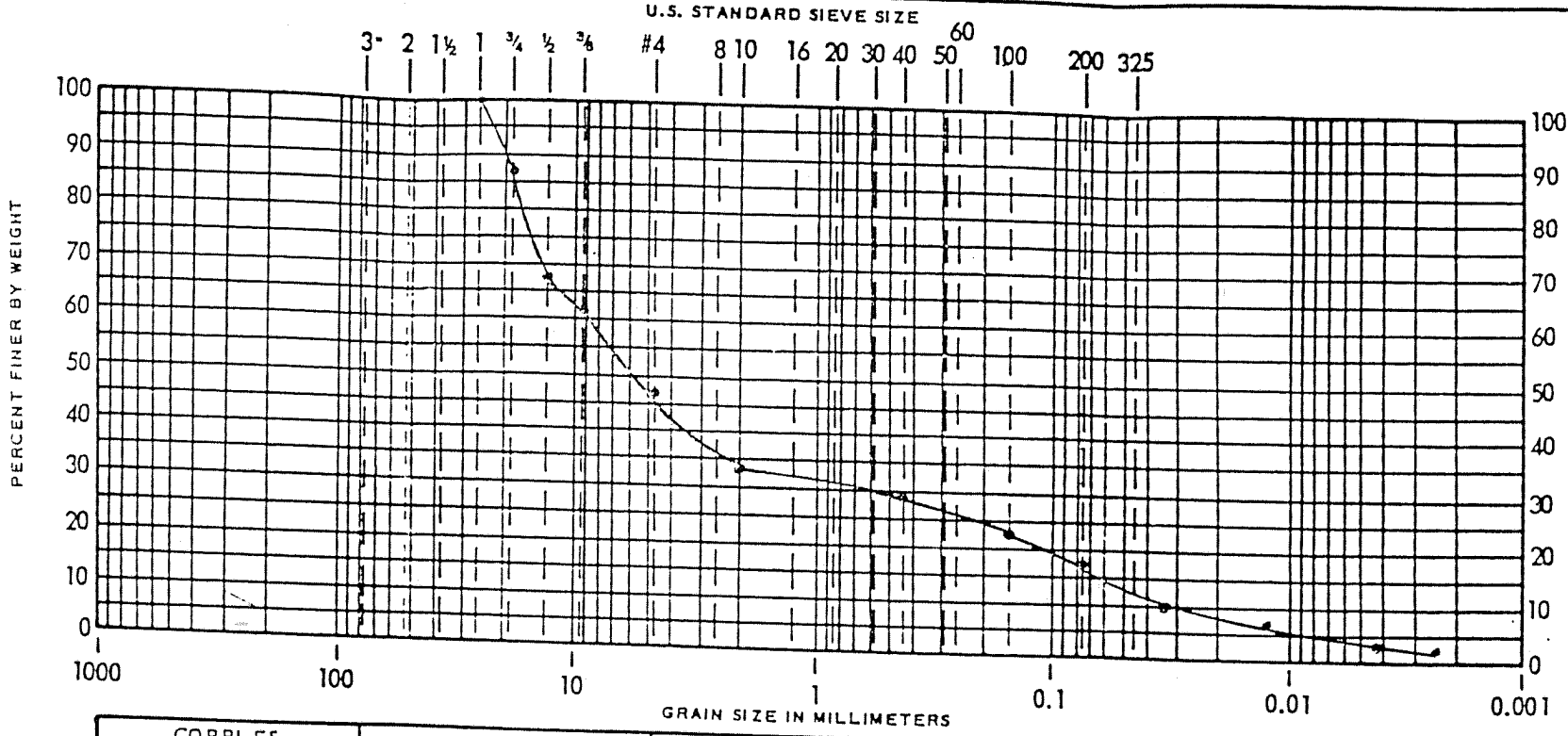
Test Boring or Test Pit Number	Sample Number	Depth of Sample	Elevation of Sample Tip	Standard Penetration (Number of Blows/Foot Unless Otherwise Stated)	Natural Water Content (Percent of Dry Weight)	In-Place Dry Density (Pounds per Cubic Foot)	Unconfined Compressive Strength (PSF)		Particle Size Distribution							Atterberg Limits			Unified Soil Classification System Designation
									Gravel (Percent)	Coarse Sand (Percent)	Medium Sand (Percent)	Fine Sand (Percent)	Silt (Percent)	Clay (Percent)	Colloids (Percent)	Liquid Limit (Percent)	Plastic Limit (Percent)	Plasticity Index (Percent)	
B-1	B1-01	6'-8'														32	17	15	CL
GW-1	GW01-01	0'-2'							54	12	4	12	14	4					
GW-1	GW01-02	9'-10'														28	17	11	CL
GW-2	GW02-01	9.5'-10'							32	12	15	23	12	6					
GW-3	GW03-01	11'-11.3'														38	19	19	CL
GW-3	GW03-02	5'-6'							21	12	12	20	27	8					

recycled paper
colleges and environment

E-3

Figure 1

SOIL CLASSIFICATION SHEET



PROJECT Fedders Auto
Your Project No. YP-6040
BORING NO. GW-1
SAMPLE NO. GW01-01
DEPTH 0.0' - 2.0'
CLASSIFICATION

NATURAL % MOISTURE
LIQUID LIMIT
PLASTIC LIMIT
PLASTICITY INDEX
COLOR
REMARKS Your P.O. No. 54964
T.T.L. Job No. 11420

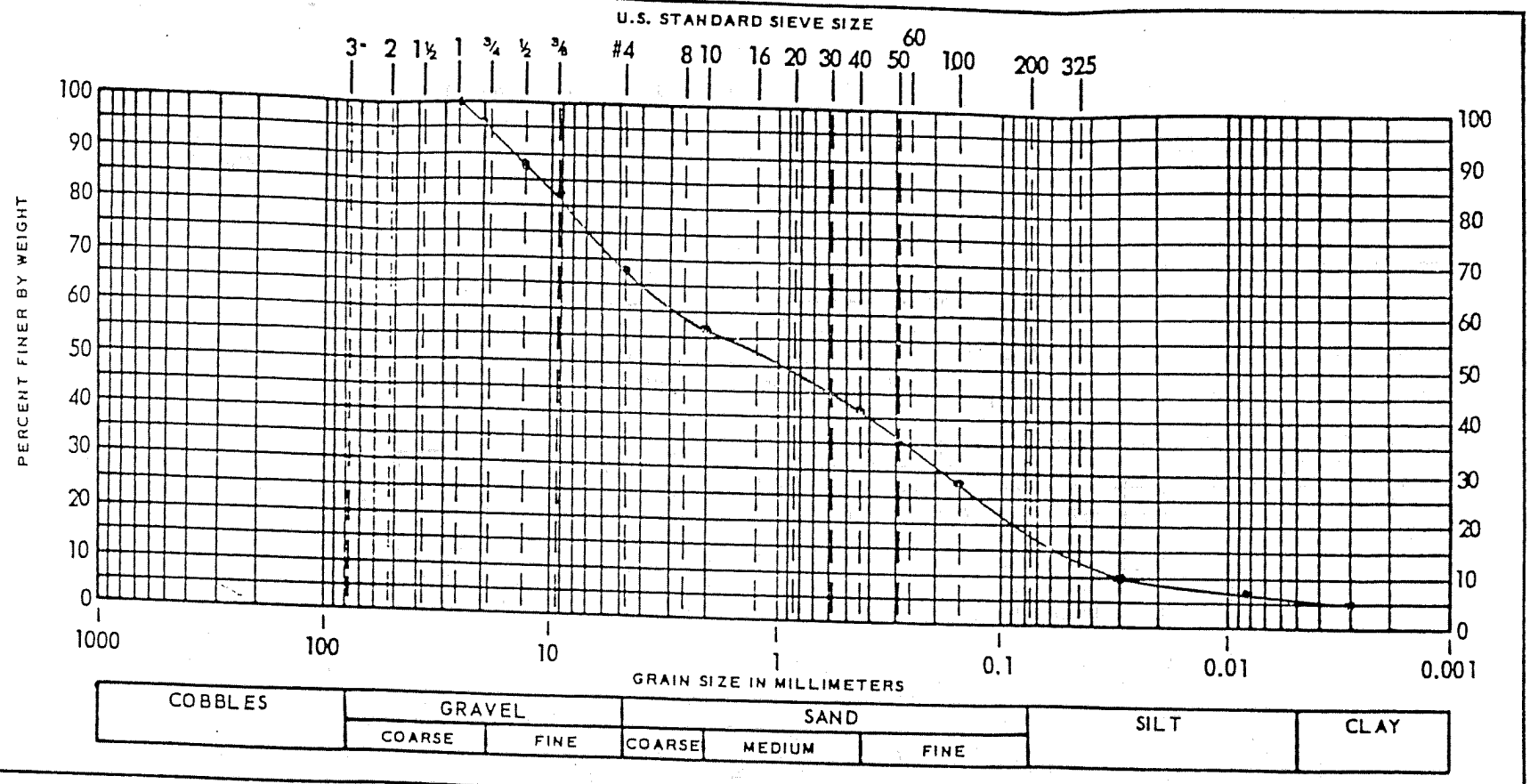
Toledo Testing Laboratory, Inc.

recycled paper

ecology and environment

Figure 7

SOIL CLASSIFICATION SHEET

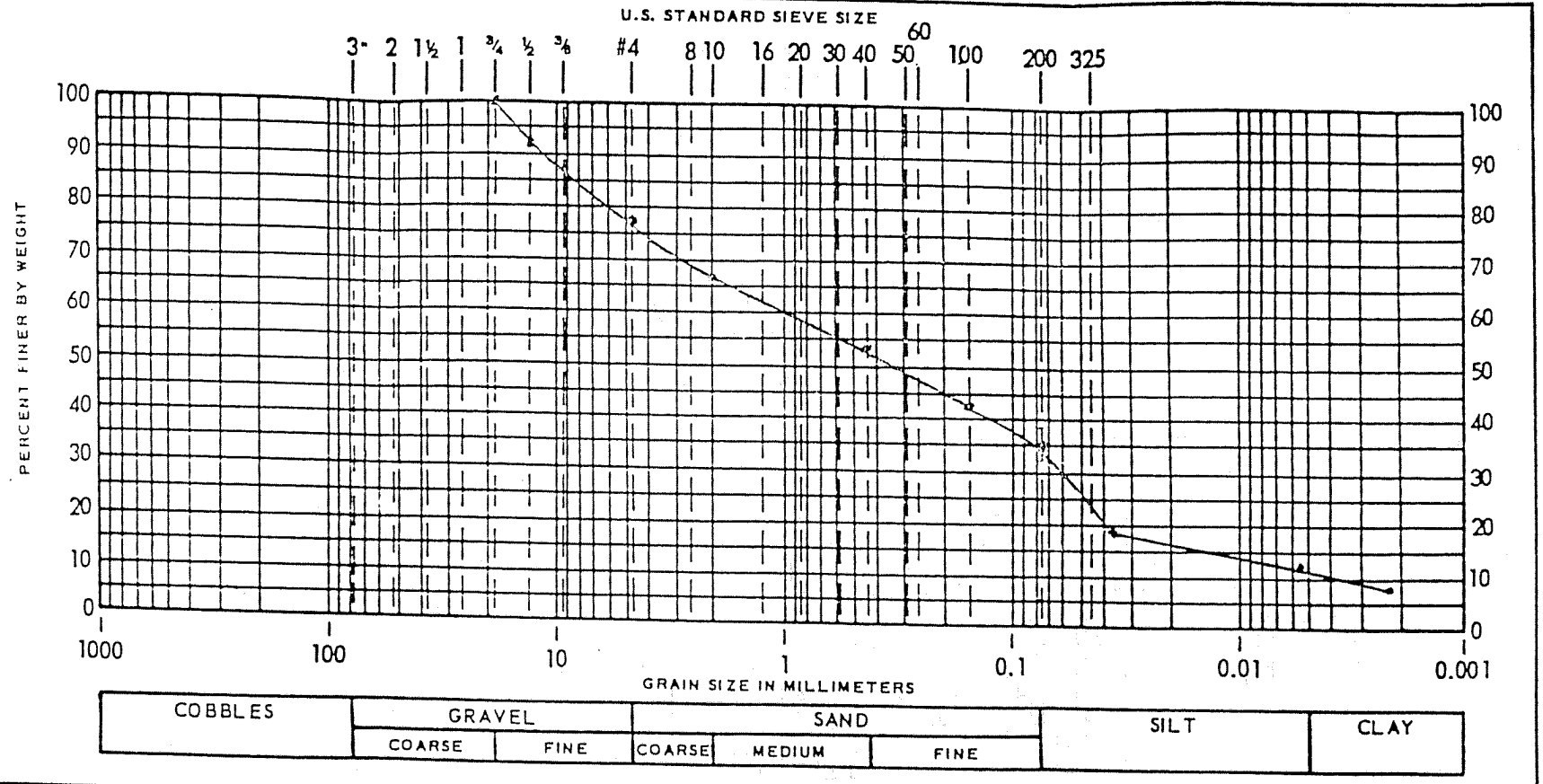


PROJECT Fedders Auto
Your Project No. YP-6040
BORING NO. GW-2
SAMPLE NO. GW02-01
DEPTH 9.5' - 10.0'
CLASSIFICATION

NATURAL % MOISTURE
LIQUID LIMIT
PLASTIC LIMIT
PLASTICITY INDEX
COLOR
REMARKS Your P.O. No. 54964
T.T.L. Job No. 11420

Toledo Testing Laboratory, Inc.

SOIL CLASSIFICATION SHEET



PROJECT Fedders Auto
Your Project No. YP-6040
BORING NO. GW-3
SAMPLE NO. GW03-02
DEPTH 5.0' - 6.0'
CLASSIFICATION

NATURAL % MOISTURE
LIQUID LIMIT
PLASTIC LIMIT
PLASTICITY INDEX
COLOR
REMARKS Your P.O. No. 54964
T.T.L. Job No. 11420

Toledo Testing Laboratory, Inc.

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Figure 4

APPENDIX F

FIELD LOGBOOKS

- o MAGNETOMETER SURVEY
- o EM-31 GEOPHYSICAL SURVEY
- o DRILLING AND SAMPLING

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ecology and environment, inc.

International Specialists in the Environment

Job Number YP-6000

Magnetometer Survey

Fedco. Auto Components
57 Tonawanda st. Buffalo NY 14216

NYSDEC Phase II, fifth round

Nancy Neik - Contact to have parking lot emptied.

E & E Job Number YP6020

Telephone Code Number

Site Name FEDCO AUTO COMPONENTS

State/City New York / Buffalo

TDD

PAN

SSID

Start/Finish Date 4-23-90 , 4-23-90

Book 1 of 1

E & E Emergency Response Center: (716) 684-8940

recycled paper

ecology and environment

MONDAY 23 APRIL 1990

MAGNETOMETER SURVEY

1412 BACKGROUND 53808, 53800, 53806, 53814, 53805

GRID 4 POINTING MAG TO THE WEST

1415	0,0	50045
	0,10	51676
	0,20	52059
	0,30	51758
	0,40	52287
	10,40	52018
	10,30	52084
	10,20	52020
	10,10	51765
	10,0	50866
	20,0	51051
	20,10	51886
	20,20	52083
	20,30	52061
	20,40	51812
	30,40	51560
	30,30	52035
	30,20	52083
	30,10	51826
	30,0	51281
	40,0	51207
	40,10	51735
	40,20	51973
	40,30	51880
1422	40,40	51070

R. Watt

4-23-90

1423 Background 53843, 53848, 53843, 53847, 53843
(RAM 51-8-90 Avg = 44.9)

GRID 3

1425	0,0	~~49172~~	51313
	0,10	~~49192~~	49172
	0,20		49192
	0,30	49455	
	0,40	49756	Car 10' to the west
	10,40	49602	
	10,30	48867	
	10,20	48974	
	10,10	48682	
	10,0	50837	
	20,0	50186	On 3' high brick pile
	20,10	48644	
	20,20	48474	
	20,30	48583	
	20,40	49228	
	30,40	49403	
	30,30	48785	
	30,20	48188	
	30,10	48079	
	30,0	48536	
	40,0	48102	PVC well
	40,10	49707	
	40,20	50181	
	40,30	48828	
1433	40,40	49241	Rusted 55 gal drum 3' to the NE

R. Watt

4-23-90

1434 Background 53856, 53849, 53861, 53868, 53872 (Avg = 61.2 RAM 5-8-90)

GRID 2

1436	0,0	52893	
	0,10	52074	
	0,20	52096	
	0,30	52355	
	0,40	51968	
	10,40	51019	
	10,30	51473	
	10,20	51570	
	10,10	51369	
	10,0	51439	
	20,0	50179	
	20,10	50708	
	20,20	50607	
	20,30	50300	
	20,40	49267	
	30,40	47519	
	30,30	48739	
	30,20	48822	
	30,10	49339	
	30,0	48615	
	40,0	52572	on wooden pontoon.
	40,10	53499	
	40,20	47925	
	40,30	46538	
1443	40,40	46395	

R. Watt

4-23-90

1444 Bkgrd 53855, 53860, 53863, 53859, 53865 (RAM 5-8-90 Avg = 60.4)

GRID 1

1446	0,0	51873	2 - 55 gal drums 7' to the West
	0,10	53240	1 - 55 gal " " "
	0,20	56324	
	0,30	55288	
	0,40	53288	
	10,40	51208	
	10,30	50669	
	10,20	50734	
	10,10	51466	
	10,0	56750	
	20,0	54318	
	20,10	51055	
	20,20	52529	
	20,30	53001	
	20,40	53125	
	30,40	53506	
	30,30	53522	
	30,20	53714	
	30,10	53802	
	30,0	54911	
	40,0	53428	
	40,10	53398	
	40,20	53667	
	40,30	53494	
1453	40,40	53022	

1454 Bkgrd 53867, 53860, 53864, 53868, 53869 (RAM 5-8-90 Avg. = 65.6)

R. Watt

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ecology and environment, inc.
International Specialists in the Environment

Job Number YP-6000 Site Recon. and

EM-31 Geophysical Survey
Fedco. Auto Components
57 Tonawanda St. Buffalo N.Y. 14216

NYSDEC Phase II, fifth round

E & E Job Number YP6020

Telephone Code Number

Site Name Fedco Auto Components

State/City Buffalo, NY

TDD

PAN

SSID

Start/Finish Date 4-23-90 / 4-23-90

Book 1 of 1

E & E Emergency Response Center: (716) 684-8940

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ecology and environment

MONDAY 23 APRIL 1990

WEATHER: Sunny, 70°F, 5mph S wind gusting to 10 mph

E&E Personnel on site: Bob Meyer
Gene Florentino
Rick Watt

OBJECTIVE: Site recon + geophysical survey.

1100 Bob Meyer, Gene Florentine + Rick Watt begin mobilization of equipment:
OVA - calibrated + charged
HNu w/ 10.2 eV probe - calib. + charged
EM31 - calib. + charged
Unimag II magnetometer - calib. + charged

2300 Arrive @ site.
Parking lot is behind building (on east side) between Tonawanda St. + Rt 198.
Lot is compacted ~~stone~~ crushed stone w/ sand matrix, medium to dark grey in color.
Few pieces of what appears to be slag are dispersed thru-out.
Concrete foundation remants in center of lot - see map.

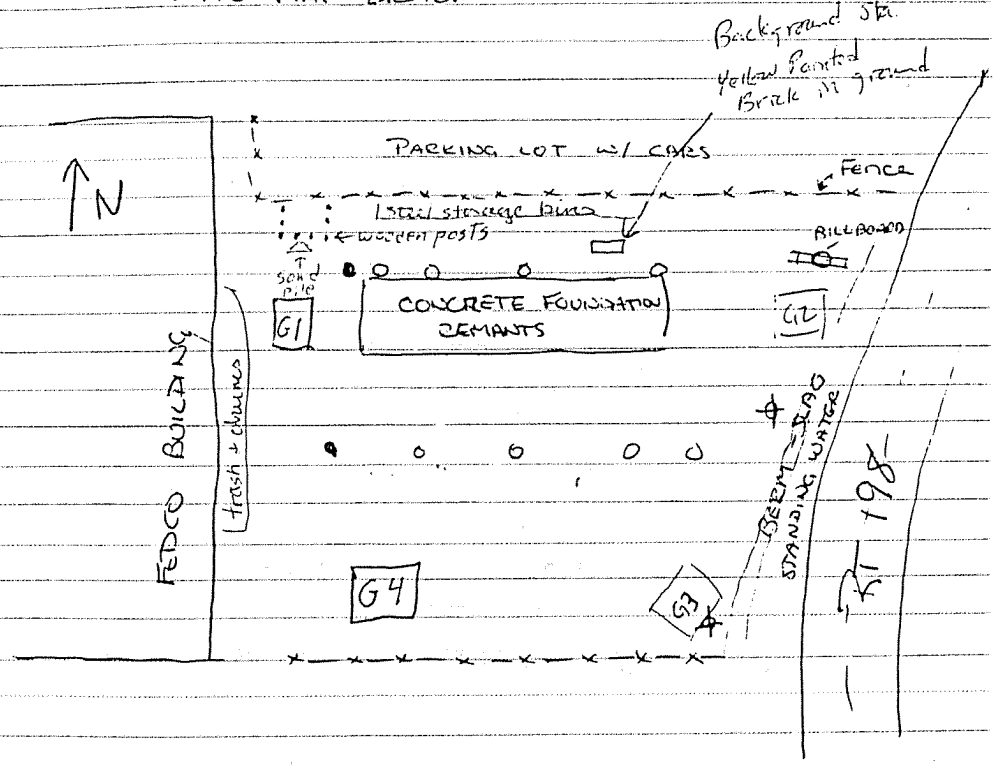
2345 Bob M. goes to talk to site contact, Dick Pink while Gene F. + Rick W. do perimeter check with OVA + HNu.

1300 OVA + HNu reading 0 ppm above background up + down wind. No OVA rdgs anywhere on site.

MONDAY 23 APR. '90

1300 Two wells on site. No OVA rdg. in wells.
One well in SE corner + one in E center of site
Both PVC construction 2" diam. - no protective casing
only 2.5'-3' of PVC riser sticking up. Both capped

SITE MAP SKETCH



• 55 gal drum filled w/ concrete
0 55 gal drum filled w/ trash
Pre existing PVC wells

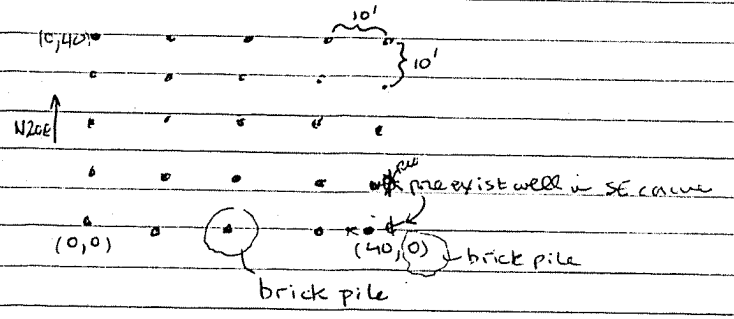
Mon 23 Apr 90

1310 There are numerous surface piles of fill material along the E side of the site - seperate piles of bricks, broken concrete, crushed stone, gravel, sand, etc.

Lot has a more distinct oil cover along east side

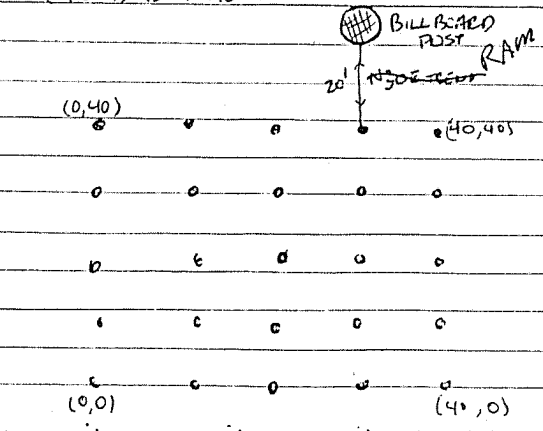
1311 Begin laying out grids

GRID 3 (Y axis trend is N20E)



F-9

GRID 2 (Y axis is true N-S



Mon 23 APR 90

1348 Setting up Grid-GW-1
Node 10,40 is 10' from southwest corner of wooden posts along North fenceline
-Grid GW-1 has a true N-S and E-W orientation.

1400 Setting up Grid-GW-4
Node 0,0 is 10' from South fenceline and 10' from utility pole near entrance to lot.
* with true N-S and E-W orientation.

1410 Calibrating EM31 and Mag at background station.

GRID 4 - Rick mag
- Bob EM31
- Gene - EM31 Eggbeat

EM31 Readings in millimhos/

MAG readings in gammas

Background = 74 millimhos

1420 Began Grid 4

Sta	VERT N-S	VERT E-W	HORIZ N-S	HORIZ E-W	Comments
0,0	122	135	80	90	Southwest corner 10' N of fence 10' E of utility p.
0,10	142	142	110	116	
0,20	110	144 ~~205~~ GF	144	205	
0,30	18	98	140	180	
0,40	230	210	145	100	
10,40	178	150	130	136	
10,30	130	138	130	180	
10,20	150	140	130	140	
10,10	120	104	128	120	
10,0	112	88	104	78	10' no. of fence
	Gate 1 South		4/23/90		

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ecology and environment

Monday 4/23/90

+35

Grid 4 (cont.)

Sta	VERT N-S	VERT E-W	HORIZ N-S	HORIZ E-W	Comments
20,0	110	112	108	80	10' no. of fence
20,10	90	82	154	124	
20,20	140	148	132	118	
20,30	106	170	130	190	
20,40	158	230	122	172	
30,40	200	276	168	206	
30,30	64	172	130	180	GF
30,20	166	180	110	132	10' no. of fence
30,10	138	172	104	130	~~10' no. of fence~~
30,0	98	170	88	102	10' no. of fence
40,0	110	120	94	98	10' no. of fence
40,10	102	114	110	140	large chunk of metal
40,20	170	156	124	124	
40,30	130	248	150	180	
40,40	150	178	290	072	near cars

450

F-10

Began Grid 3

Sta	VERT N-S	VERT E-W	HORIZ N-S	HORIZ E-W	Comments
0,0	59	135	80	125	
0,10	130	140	102	129	
0,20	122	122	98	125	
0,30	140	180	85	100	
0,40	52	190	96	100	
10,40	110	140	80	100	
10,30	100	110	80	100	
10,20	60	80	110	142	

Robert A Meyer

Sta	Vert. N-S	Vert. E-W	Horiz. N-S	Horiz. E-W	
10,10	140	145	100	82	
10,0	90	142	80	105	
20,0	95	90	60	60	on Pile of brick
20,10	72	90	95	70	
20,20	72	100	72	95	
20,30	72	74	77	88	
20,40	69	81	77	89	
30,40	42	32	96	67	Possibly off foundation
30,30	64	69	63	64	
30,20	63	62	62	72	
30,10	75	93	56	57	
30,00	120	130	50	50	
40,0	160	128	38	50	Existing well "we
40,10	80	95	46	54	
40,20	8AM 48	54	57 ~~70~~ 8AM	60	
40,30	50	50	60	60	
40,40	80	84	38	36	

Complete @ 15:05

4-23-90 Robert A Meyer

8

Grid - GW-2

4-23-90

Sta.	Vert. N-S	Vert. E-W	Horiz. N-S	Horiz. E-W	
~~0,40~~	~~120~~	~~120~~	35	30	RAM
0,0	17	89	37	110	
0,10	63	93	86	89	
0,20	Neg.	56	80	205	
0,30	150	170	50	38	
0,40	RAM ~~1~~ 120	122	42	38	
10,40	240	170	35	50	
10,30	248	135	70	14	
10,20	Neg.	Neg.	140	160	
10,10	155	160	150	90	
10,0	70	165	70	125	
20,0	100	80	115	175	
20,10	180	165	130	105	
20,20	172	140	160	120	
20,30	Neg.	Neg.	370	60	
20,40	Neg.	Neg.	400	70	
30,40	85	130	75	120	
30,30	165	165	85	85	
30,20	155	140	100	80	
30,10	100	92	150	120	
30,0	150	110	80	140	
40,0	95	75	115	70	Giant Oyster Wood palet
40,10	85	55	130	70	
40,20	110	85	87	~~60~~ RAM 60	
40,30	100	88	75	75	
40,40	81	82	75	75	

Robert a Myers 4-23-90

1525

Grid GW-1

Rick - GM31
Gene - Log book

Sta.	Vert. N-S	Vert. E-W	Horiz. N-S	Horiz. E-W	
0,0	120	95	90	80	on Concrete
0,10	110	115	95	75	" "
0,20	110	115	115	120	" "
0,30	175	GF ~~40~~ 145	110	140	" "
0,40	225	140	135	135	" "
10,40	115	28	170	100	10' So of SW1
10,30	160	Neg	200	90	On Concrete
10,20	110	90	115	70	" "
10,10	115	115	80	65	
10,0	95	115	75	85	
20,0	85	95	60	70	
20,10	80	105	60	65	
20,20	60	65	95	110	
20,30	160	125	60	50	
20,40	85	90	65	110	
30,40	80	135	50	95	
30,30	135	145	45	50	
30,20	130	160	48	100	
30,10	43	105	53	90	
30,0	85	85	65	55	
40,0	100	95	60	60	
40,10	10	100	75	110	
40,20	95	100	70	95	
40,30	140	135	48	47	
40,40	80	115	50	85	

1540 Completed Survey

Robert a Myers 4-23-90

ecology and environment, inc.

International Specialists in the Environment

Job Number YP1040

FEDDERS AUTO - DRILLING & Sampling

recycled paper

New York State
Department of
Environmental Conservation

KEVIN N. GLASER
Senior Engineering Technician
Region 9

Office Address:
584 Delaware Ave.
Buffalo, NY 14202-1073
(716) 847-4585

Mailing Address:
600 Delaware Ave.
Buffalo, NY 14202-1073

FEDCO AUTOMOTIVE COMPONENTS COMPANY
A UNIT OF NYCOR, INC.

57 Tonawanda Street
Buffalo, New York 14207
Telephone: (716) 877-8000
In N.Y.S. 1-800-792-6742
Outside N.Y.S. 1-800-531-3115
Telex# 9102406532/FEDCO Buf
Fax# 716-877-6779

LAWRENCE F. GAMBACORTA
Buyer

F-13

ecology and environment

E & E Job Number YP6040

Telephone Code Number _____

Site Name FEDDERS AUTO

_____

State/City Buffalo, NY

TDD _____

PAN _____

SSID _____

Start/Finish Date 9-24-90 / 10-16-90

Book 1 of 1

E & E Emergency Response Center: (716) 684-8940

MONDAY 24 SEPTEMBER 1990 YP16040

WEATHER: Sunny, clear, 10-15 SW wind, 55°F.

PERSONNEL: Rick Watt - FTL
John Hood - SSO

OBJECTIVES: Drill + develop 3 monitoring wells.
Collect subsurface soil samples from 3 wells + from ORC boring.
Soil samples are composites of split spoons: 0-2', 2-4', 4-6', and 6-8'.

0815 Rick and John meet @ HQ. Go get rental van from Action Rental. Then load up expendables and bottles from E+E, equipment @ ESC, get preservative from ASC, + buy S.S. compositing bowls.

0905 Rick + John arrive @ Fedders. John drives route to hospital while Rick checks in with site contact Dick Pinke. Drillers have not yet arrived.
Dick showed Rick where a restroom is that we can use.

0920 Rick phones Jim Griffis to see if he's heard from Rocky or Lee - Jim G. was not in office

0930 Rick looks for monitoring well locations. In general, the site looks the same as it did during the site recon / geophysical surveys; ie, the same debris piles, surface conditions, etc., exist.

0940 Due to the wind, the surface water of Scajacauda Creek is flowing upstream; ie, away from the lake.
John Hood returns.

0945 While waiting for drillers, John + Rick prep labels and bottles.

R. Watt 9-24-90

F-14

MONDAY 24 SEPTEMBER 1990 YP16040

EQUIPMENT USED:

VAN - ZEP530
TURBIDIMETER 02-03-003
PH/Cond/temp 02-01-011
Gastech O_2/CG/H_2S monitor 01-03-007-15
OVA 01-01-016
HNu 01-02-002
WL indicator 13-03-010
Rad Mini 08-01-002
No miniram available.

1210 Rick calls Jim Griffis back. Lee got a late start + he doesn't know where he's going. John + Rick will return to office + then meet Lee @ the toll plaza in Williamsville, NY.

1500 Arrive @ site w/ American Auger Lee Penrod + Derek Grieve
We waited @ the toll plaza until 1445.

1505 Walk the site w/ the drillers + they prepare to decon. There is currently enough water in the truck's tank to decon today. It is water from Dix Landfill, so sampling won't be necessary.

1520 John fires up + calibrates the OVA + HNu. Downwind of the site is 0 ppm above background as taken upwind of the site.

1530 Dick Pinke joins us. He has to be around during drilling + he will be leaving shortly ... no drilling today. That's okay because we have to go to the Erie County Water Authority on Union Rd. in Cheektowaga to ~~fill~~ get drilling water.

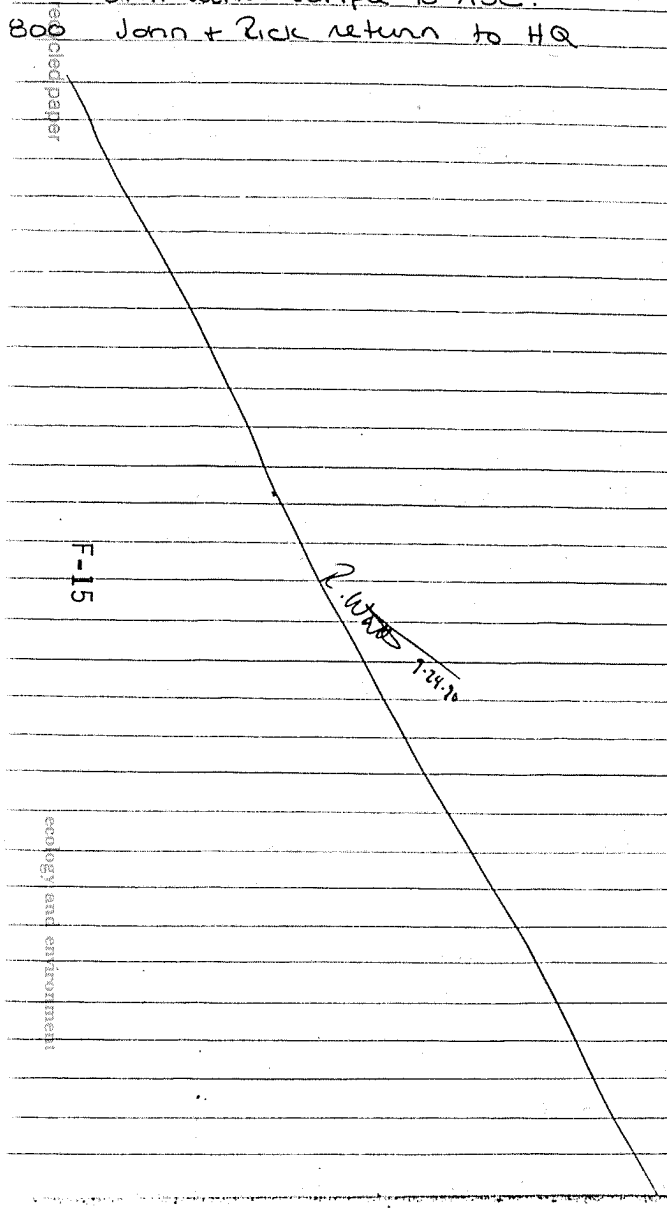
1725 After loading up with water, take drill water sample (DW092490) from valve on tank.

R. Watt 9-24-90

MONDAY 24 SEPTEMBER 1990

730 John + Rick leave the water authority to take drill water sample to ASC.

800 John + Rick return to HQ



ecology and environment

TUESDAY 25 SEPTEMBER 1990 YP60040

WEATHER: overcast, 15-20 mph SW wind, 50°F/70°F

PERSONNEL: Rick Watt - FTL
John Hood - SSO
Lee Penrod - Driller - American Auger
Derek Grieve - Helper

0800 John + Rick arrive on site. Lee + Derek already on site and preparing to steam clean.
Dick Pinke and Larry Ciambacorta of Fedco meet us
John fires up + calibrates the HNu, OVA + CG/O_2 meter.

0840 Rick Watt leaves to buy ice and ziplocs.

0850 Rick returns, Kevin Glaser, DEC arrives.

0900 John conducts site safety meeting
° chemical hazards - PCBs + Vol. organics
° physical hazards - drill rig, etc., ask Dick Pinke to stand back

0915 Background Monitoring equipment readings.
OVA: <1.0 ppm
HNu: <1.0 ppm
Rad mini ≃ .02 → .03 mR/hr
O_2 ≃ 21%
% LEL = 0%
H_2S = 0.1

0930 Began drilling borehole No. 1 (with 6" OD casing & 4" breathing zone. Had refusal @ 8' in three holes.
OVA reading in hole ≃ 5 ppm, ≃ 1 → 2 ppm on HNu.

0935 Refusal @ 8" in 3 different holes. Appears to be limestone or concrete dust on end of shoe. Will move back some 6'.

0940 Continue drilling @ ≃ 8" → 24" in 3 more holes. Will move rig to right ≃ 5'.

RW

TUESDAY 25 SEPTEMBER 1990 YP60040

0942 Have tried holes between 20,0 & 40,0. It appears there is a concrete slab @ 8-10" depth. Will now try 20,10.

0952 Slab appears to extend to 20,15 (can see where the soil stops shaking when the hammer is dropped). Check the geophysical report - 20,20 looks okay & Kevin Glaser is in agreement, so we'll move to 20,20 & try again

0958 Re-[illegible] 3' D[illegible] will look [illegible] & back 5' [illegible] [illegible] [illegible]

TUESDAY 25 SEPTEMBER 1990 YPL6040

~~Sample SB-3D~~

1258 All that came up in 6-8' split spoon was a few inches of clay fill as in 4-6' spoon. Tried again w/ and w/o basket - no recovery. Suspect moist or wet sandy fill is not being retrieved. Inside of spoon is not even wet or dirty. Can't retrieve sufficient sample. ∴ will auger to 9' & try taking SB-4D sample there. Auger to 9' because end of last spoon went to 9' because we reinserted it in same hole.

1305 Pull 9-11' sample

OVA = 0 ppm, HNu = 0 ppm in hole & sample.

1307 9-11' is natural clay, so we'll skip sample SB-3D.

317 Pull 11-13' sample

OVA = 0, HNu = 0 in hole & on sample.

320 There is unnatural looking material in 11-13' clay sample (see log sheet) so sample SB-3D

Also sample GW03-01 from 11' for Atterberg Limits.

1325 Check WL in MW-2S (?) which is 45' S of our current position and 20' closer to the creek.

WL = 5.1' BGS TD = 11.3' BGS.

326 Kevin Glaser goes to call Albany to see what to do.

330 Check WL in MW-1S (?)

WL = 3' BGS TD = 8' BGS.

350 Kevin returns. Val Lauzze said that if there's no water @ 15' then move closer to the creek.

415 Spoon 13-15' is natural material & is moist but there is no sufficient water for a well. New position chosen by Kevin Glaser of DEC is ~12' E of 40,30 off the grid ∴ we will drill slowly.

Lee & Derek breakdown equip. to decon.

Kevin okays usage of samples from ~~GW-3~~ 1ST GW-3 hole. Abandoned GW-3 hole is now GW-3a on log sheets

R Watt 9.25.90

TUESDAY 25 SEPTEMBER 1990 YPL6040

1429 Photo 1 Lee deconning after abandonment of GW-3

Photo 2 View E past GW-3a. New GW-3 position is near small spery pile of crushed stone.

1450 Finish decon. Do paperwork for GW-3a, then move to GW-3.

Samples today:

ID	BORING	DEPTH
SB-4A	B-1	0-2'
SB-4B	B-1	2-4'
SB-4C	B-1	4-6'
SB-4D	B-1	6-8'
SB-3A	GW-3a	0-2'
SB-3B	GW-3a	2-4'
SB-3C	GW-3a	4-6'
SB-3D	GW-3a	9'-11'-13'

1503 Begin GW-3 in new position. Will auger to 4' then spoon continuously below that.

1516 Pull spoon #1 4-6'

OVA = 2-3 ppm, HNu = 0 ppm in hole

OVA = 0, HNu = 0 in breathing zone

OVA = 1 ppm, HNu = 0 on sample.

1528 Spoon #2 6-8', OVA reading in hole 2-3 ppm. Sample pulled. 16" of wood in split spoon, light telephone pole odor. HNu reading ≈ 20 ppm. OVA 20-50 ppm. Drillers will auger through wood & collect another split spoon.

1537 Drillers can only auger to 6'. OVA read ≈200 ppm in hole, but HNu read 1-2 ppm.

1540 Will now move rig ahead 5-6' because Lee can't auger through the wood.

R Watt 9-25-90

T-17

recycled paper
ecology and environment

TUESDAY 25 SEPTEMBER 1990 YPL0040

1620 Augered to 4.5' in hole next to GW-3. Trip split spoon = 1 ppm in breathing zone.

1627 Collected split spoon from 4 → 6' OVA = < 1.0 ppm. Split spoon in route ≈ 5'

1630 Decision made to continue drilling well.

1635 Pull split spoon from 6-8'
OVA = 0, HNu = 0 in breathing zone
OVA = <1 ppm, HNu = 0 on sample.

1623 Pull sample from 8-10'
OVA = 0, HNu = 0 in breathing zone
OVA = <1 ppm, HNu = 0 on sample

1629 Pull sample from 10-12'
OVA = 0, HNu = 0 in breathing zone
OVA = 5-6 ppm, HNu = 0 on sample

1632 Pull sample from 12-14'
OVA = 0, HNu = 0 in breathing zone
OVA = 0 7pm, HNu = 0 on sample.

1645 Finish augering to 14.5'. Will let it set overnight + set well in morning w/ 10' screen.
Dick Pinke leaves site.
(Kevin Glaser left @ 1530).

1710 All leave site.
Rick to ASC to deliver samples.

1745 Rick delivers samples then heads to HQ

T. Watt 9-27-90

WEDNESDAY 26 SEPTEMBER 1990 YPL0040

WEATHER: overcast, scattered thunderstorms, 10 mph SW winds 60°/65°

PERSONNEL: Rick Watt - FTL, E&E
John Hood - SSO "
Lee Penrod - American Auger
Derek Grieve - " "
Dick Pinke - Fedco.

OBJECTIVE: Complete GW-3 + one additional well

0730 Rick stops @ ESC to get cooler.

0800 All on site. Prepare to construct well in GW-3
John fires up monitoring equipment.

0820 Kevin Glaser - NYSDEC, arrives

0830 Heavy rains come.

0840 Rain stops - just drizzle now

Derek decons 10' screen 6.5' risers
Using 2" ID, 0.010" slotted, schedule 40 PVC screen + 2" ID, flush-joint, threaded, sch. 40 PVC casing

0846 Heavy rains return.

0850 Just drizzle now - see 1 flash of lightning - wait to see if more.

0905 No more lightning, so after completing set-up, begin cleaning out auger bit w/ 3⅞" roller bit.

0915 Complete rotary drilling
Set well + begin pouring sand.

0940 Finish pouring sand to 4' BGS

0946 Finish pouring bentonite seal to 3' and hydrating it

0950 There is an oil sheen on the surface water + in the water in the hole on top of the bentonite. It seems to have come from the lead auger ∴ it came from down the hole.

1010 No elevated OVA or HNu readings (< 1.0 ppm). Background was ½ ppm on OVA.

T. Watt 9-26-90

Wednesday Sept 26 1990 YPE040

1005 Drillers finished grouting hole. Will set locked cover.

1010 Driller moving to area of GW-2.

1020 Finish GW-3. Drillers begin decon.

1040 Hnu checked background HC readings @ site of GW-2. <1.0 ppm in breathing zone. Immediate surface reading @ ½" was ≈ 60 ppm. After digging down 2" reading was ≈ 15 ppm. Accounted readings above 1" over the ground.

1115 Finish decon & set up @ GW-2. Moved position 10' E of 40,20.

1130 OVA + HNu readings < 1.0 ppm @ GW-2 in breathing zone & general level.

1135 Drillers start first split spoon.

1136 Photo 3 Split spooning GW-2
Photo 4 " "

1137 Pull sample 0-2' Sample SB-2A/3A-GW
OVA = 0, HNu = 0 in breathing zone
OVA = 10 ppm, HNu = 10 ppm at bottom of sample only
OVA = 20 ppm, HNu = 110 ppm in hole (noticeably water vapor rising).

1145 Pull sample 2-4' Sample SB-2B/3B-GW
OVA = 0, HNu = 0 in breathing zone
OVA = 0, HNu = 0 on sample

1150 Pull sample 4-6' Sample SB-2C/3C-GW
OVA = 0, HNu = 0 in breathing zone
OVA = 0, HNu = 0 on sample.
OVA = 30, HNu = to 50 in hole
Limited volume retrieved. ∴ will try to spoon again.

1155 2nd spoon 4-6' No recovery ∴ sample SB-2C/3C is only 1 VOA & ½ 8oz. jar.

R. Wall 9-26-90

WEDNESDAY 26 SEPTEMBER 1990 YPE040

1205 Pull sample 6-8'
HNu = 4 ppm, OVA = 0 on sample.
Sample is only moist + appears to be stuff that was stuck in the bit. The auger cuttings from 6-8' indicate saturated material. ∴ since this is not representative, we will not sample 6-8'.
OVA = 10 ppm in hole.

1212 Pull sample 8-10' No recovery. Try to spoon again.
2nd spoon shows 0.3' Recovery of coarse material that is mostly water - thats why there has been limited recovery.
OVA = 0 ppm, HNu = 0 on sample
OVA = 1 ppm in hole.

1215 Sample GW02-01 from 9.5-10' For grain size.

1225 Pull sample 10-12'
OVA = 10-15 ppm in hole
OVA = 10 ppm, HNu not working (fogged lamp) on sample.
Sample retrieved is wood, like in GW-3b.

1232 Pull sample 12-14'. Managed to auger through wood.
OVA = 60 ppm in hole
OVA = 100 ppm on sample (decaying wood)
HNu not working

1235 with augers to 13', OVA = 10-100 ppm on cuttings + fluctuating wildly. Recalibrated HNu which shows 0 ppm on cuttings, ∴ methane derived from decaying organic matter (wood) encountered.

1240 Augered to 14.5'. Will set well identical to GW-3.

1254 Derek decons 10' screen + 5' riser.

1300 D-G-O cleaning out auger bit w/ 3 7/8" roller bit.

1307 HNu reading @ GW-2 @ 12" above ground is < 1.0 ppm.

9-26-90

Wednesday Sept 26, 1990 YP 6040

1310 Finish reaming out bit.

1315 Begin pouring sand. Will pour sand to 4'
Photo 5 - Lee fishing.

1345 Sand to 4', Bentonite pellet seal to 3'
Let bentonite hydrate.

1400 Mix Portland cement / bentonite to complete hole.

1415 Complete grouting + set protective cover.

1420 Begin decon.

1505 Complete decon.

1510 Move equip to GW-1, which will be drilled @ 30,10 as in the geophys. report.

1515 Background HNu readings @ GW-1 = 0 ppm.

1525 Begin split spooning GW-1

1526 Refusal @ 8". Move 10' SW near 20,10.

1528 Refusal @ 4". OVA ≤ 5 ppm in hole.
Move to 40,0.

1536 Refusal @ 6". OVA = 3-4 ppm in hole.
Move to near 40,20.

1545 Refusal @ 15" OVA = 3 ppm in hole.

1550 Retrieved material is brick + foundation material.
Dicke P. goes to find blueprint showing foundations.

1555 Dicke couldn't find any blueprints, so we'll auger where we are to see if we're on a concrete slab or what.

1600 Augered to 15". All brick, can't continue.
The eastern part of the geophys. survey grid looks clean so we'll try 10' E of 40,20

1606 Managed to get to 2' OVA + HNu readings in iso / GA sample were < 1 ppm. Sample SB-1A

Rick K. Lee 9-26-90

WEDNESDAY 26th SEPTEMBER 1990 YP6040

1620 OVA readings on split spoon were 2 ppm @ bot = 60 ppm in middle. HNu readings were 1-5 ppm in middle, and 1-15 ppm on bot. Cuttings were reading 30 ppm OVA & 30 ppm on HNu. Sample SB-1B

1630 Will take 4-6' split spoon before containing the cuttings as per Kevin Glaser's request.

1640 Pull sample 4-6' Sample SB-1C
OVA = 10 ppm, HNu = 3 ppm on sample
OVA = 0, HNu = 0 in breathing zone.
Since the high HNu readings seem to have been isolated to 1 discreet area (3-4'), Kevin Glaser says not to contain the cuttings -
okay - Kevin Glaser

1646 Pull sample 6-8' Sample SB-1D
OVA = 0, HNu = 0 on sample, b.z. + cuttings.

1648 Pull sample 8-10' @ 9' OVA or HNu readings from split spoon or from hole =

1655 Will auger to 9' + take 1 more split spoon 9-11'
Can't auger too much further for fear of bringing the tight dry clay from 9' up into our water bearing zone. ∴ we will auger to 9' + take another split spoon from 9-11' to confirm the presence + thickness of the clay layer.

1705 Dicke Pinke off-site

1715 Kevin Glaser off-site.
Will construct well tomorrow

1720 All leave site

1745 Rick delivers samples + heads to HQ

R. Wood 9-26-90

THURSDAY 27 SEPTEMBER 1990 YPL0040

WEATHER: Overcast, Foggy, calm, 55°/75°

PERSONNEL: Rick Watt - E+E FTL
John Hood - E+E SSO
Lee Penrod - American Auger Driller
Derek Grieve - American Auger Helper
Dick Pinke - Fedco Rep.
Kevin Glaser - NYSDEC Rep.

OBJECTIVE: Construct GW-1, develop GW-2 & GW-3

0730 Rick stops to buy supplies
0810 Rick + John arrive - others on site.
Prepare to construct well in GW-1
Will use 5' of screen & 4'6" of risers (TD = 9')
0834 Lee finished reaming out auger bit with 3 7/8" roller bit. Prior to inserting bit, there water inside the augers came up to ~5' BGS.
1015 Lee finished setting flush mount cap on GW-1.
The outer casing is secured with 7/16" bolts.
1120 Begin cleanup & prep. to decon.
1040 Begin steam cleaning.
1110 Finished steam cleaning.
1115 Lee moved rig over to MW-3. Will use pump to purge well while set up development monitoring equipment. Rick called it a
1130 GW-3 WL = 8.23' TOC TD = 16.80' TOC
WL ≈ 5.8' BGS TD ≈ 14.4' BGS
1 well volume = 1.4 gal
3 well vol = 4.1 gal
1145 Derek completes decon. Develop w/ rig pump.
1155 Development water shows 3% LEL & up to 5.8 ppm H_2S
water has H_2S odor.

R. Watt 9-27-90

THURSDAY 27 SEPTEMBER 1990 YPL0040

GW-3

TIME	GALLONS PURGED	pH	cond. µS/cm	temp. °F	Turbidity NTUs	
1140	0	7.30	733	69.9	>200	
1140	1	7.08	1201	65.9	>200	
1140	2	7.03	1207	66.3	>200	
1141	3	6.99	1208	66.6	>200	
1146	5	7.12	1192	65.2	>200	Pumping ~ 0.5 gpm
1157	10	8.23	1638	70.4	>200	← Temp. goes up because
1214	15	7.51	1550	64.7	>200	we are pumping +
1249	20	7.00	1583	72.3 ~~74.9~~	>200	pump yields heat to
1316	25	7.23	1790	72.0	>200	water as it passes thru
1323	30	8.14	1702	69.0	>200	- Shut pump off @ 13 gal. ∴
1341	33	8.31	1688	71.0	190	temp decreased
1344	35	-	-	-	>200	

1344 Development of GW-3 complete. Decon then move to GW-2.

GW-2

TIME	GALLONS PURGED	pH	cond µS/cm	temp °F	turbidity NTU	
1406	0	8.28	980	79.5	>200	Purged water is
1406	1	7.32	1056	79.1	>200	"Foamy" in bucket.
1407	2	7.28	924	78.3	>200	
1407	3	7.25	814	78.3	~~>200~~	Pumping ~ 1.0 gpm
1408	5	7.53	939	71.5	>200	
1413	10	7.91	1054	67.3	>200	
1419	15	7.80	1029	69.8	>200	
1425	20	7.81	1090	67.8	65	} Shut down pump for a few minutes
1436	25	7.46	990	68.7	>200	
1440	30	7.66	997	67.9	>200	
1446	35	7.80	1011	68.2	151	
1506	40	7.55	1018	68.5	>200	

R. Watt 9-27-90

THURSDAY 27 SEPTEMBER 1990 YP6040

1356 GW-2 WL= 7.25' TOC TD= 16.75' TOC
WL ≈ 5.8' ~~BGS~~ TOC TD WL ≈ 14.5' BGS
∴ 1 well volume = 1.5 gal

GW-2 DEVELOPMENT CONT.

TIME	GALLONS PURGED	pH	cond (µS/cm)	temp (°F)	turbidity (NTU)
15:12	45	7.86	1002	68.6	82
15:17	50	7.83	992	69.4	28
15:20	52	7.88	1000	70.0	27

15:22 GW-2 Development complete.
Decon development equipment.

1635 All leave site.

F-22

R. Watt 9-27-90

FRIDAY 28 SEPTEMBER 1990 YP6040

WEATHER: Clear, light SW wind 60°/75°F
PERSONNEL: Rick Watt - E+E FTL
John Hood - E+E SSO
Lee Penrod - American Auger Driller
Derek Grieve - American Auger
Dick Pinca - Fedco Rep.

0830 Rick leaves HQ
0850 All arrive on site
0931 ~~GW-1~~ GW-1 WL= 3.0' TOC TD= 8.6' TOC
(Flush mount) ∴ well volume = 0.9 gal

Develop GW-1 by hand bailing.

TIME	GALLONS PURGED	pH	cond. (µS/cm)	temp (°F)	turbidity (NTU)	
0935	0	7.43	1402	63.8	>200	
0936	1	7.35	1890	64.5	>200	
0937	2	7.20	2420	64.7	>200	
0938	3	7.21	2390	64.6	>200	
0940	5	7.09	24600	63.6	>200	
0944	10	7.26	26660	65.2	>200	
0949	15	7.22	2780	65.3	>200	WL is consistent @ 3' BGS
0954	20	7.22	2840	65.2	>200	
0959	25	7.20	2900	65.0	>200	
1003	30	7.27	2980	65.4	>200	
1007	35	7.30	3060	65.8	>200	
1011	40	7.25	31160	66.1	>200	
1015	45	7.31	3200	65.8	>200	
1020	50	7.27	2930	69.3	>200	
1024	55	7.36	3240	66.4	>200	
1028	60	7.31	3180	66.3	>200	
1034	65	7.31	3240	66.0	>200	
1040	70	7.27	3190	66.8	>200	

R. Watt 9-28-90

FRIDAY 28 SEPTEMBER 1990 YPL6040

GW-1 development cont...

TIME	GALLONS PURGED	pH	COND (µS/cm)	TEMP. (°F)	TURBIDITY (NTU)	
1045	75	7.29	3220	66.1	>200	
1049	80	7.28	3230	66.2	>200	
1054	85	7.31	3280	66.6	>200	
1059	90	7.31	3230	68.1	>200	
1104	95	7.29	3210	67.2	>200	
1109	100	7.27	3240	67.0	>200	
1114	105	7.26	3230	72.3*	>200	*Possible problem w/ temp. probe.
1118	110	7.27	3240	78.0*	>200	
1122	115	7.34	3170	75.1*	>200	

Development of GW-1 complete.

* Send copy of work plan to Dick Pinke

1135 All leave site.

F-23

R. Wade 9-27-90

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ecology and environment

10-15-90

1355 GW #1 - HNU - 7.4% < 1

1358 - WELL #1

DEPTH TO WATER FROM GROUND LEVEL = 2' 6.5"

WELL DEPTH 8.67

TO BE PURGED - 3 GAL

	pH	TEMP	COND	TURBIDITY	
1405 -	6.90	64.5	1620	> 200	START
1410 -	6.95	63.5	3130	> 200	FINISH
1415	PURGED 5 GALS.				

1420 GW #2 - HNU - UP TO 1

1422 - DEPTH TO WATER 6.26' FROM TOP OF PVC

TOTAL DEPTH 16.5'

PURGED 5 GALS

	pH	TEMP	COND	TURBIDITY
1423 -	6.65	62	1120	14.1
1430 -	6.70	62	1030	> 200

GW #3 - HNU - < 1

1432 DEPTH TO WATER 7.51' FROM TOP OF PVC

TOTAL DEPTH 16.51'

GRAY IN COLOR

H_2S - ODOR FROM WELL

PURGED 5 GALS.

	pH	TEMP	COND	TURBIDITY
1437 -	6.50	62	1070	12.0
1445 -	6.50	61.5	1090	> 200

Chal Cl 10-15-90

MONDAY OCTOBER 15, 1990

WEATHER: SUNNY, WARM, WINDS LT

PERSONNEL + EQUIPMENT: C. EICH (CE)
B. KOERNER (BK)
RENTAL VAN
HNU
pH/TEMP/COND METER
TURBIDITY METER
WATER LEVEL IND.

1000 C. EICH + B. KOERNER MOBILIZE EQUIPMENT FOR PURGING WELLS AT FEDDERS SITE.

1230 LEAVE E+E FOR FEDDERS IN PERSONAL VEHICLE

1300 MET WITH DICK PINKE OF FEDDERS. HE WILL ACCOMPANY US WHILE WE PURGE WELLS & LOCATE POTENTIAL SAMPLE LOCATIONS FOR TOMORROW

1340 EQUIPMENT SET UP AT GW-1. CALIBRATED HNU TO 54 ppm @ 9.8 SPAN 10.2 EV PROBE. C.E. + B.K. DON LEVEL D PROTECTION (TYVEK, BOOTIES, GLOVES)

F-24 REMOVED PROTECTIVE CAP FROM GW-1. (FLUSH MOUNT WELL AT PARKING LOT LEVEL) WELL CAP IS LOCKED, SCREW DOWN TYPE. WATER IS TRAPPED INSIDE CRISTY BOX. USED PAPER CUP TO BAIL WATER OUT BEFORE OPENING CAP.

1355 OPENED CAP (SEE PG. 21 FOR FIELD MEASUREMENTS FOR ALL 3 WELLS + VOLUMES PURGED)

1450 PACKED UP EQUIPMENT. INFORMED D. PINKE WHAT TIME WE WOULD BE BACK TOMORROW.

1510 LEFT SITE FOR DAY

Chad E. 10-15-90

TUESDAY OCTOBER 16, 1990

SAME PERSONNEL + EQUIPMENT AS 10/15/90, PLUS ACTION RENTAL VAN DODGE CARAVAN LIC# ZEV587

0815 PICK UP RENTAL VAN AT ACTION + DROVE TO WAREHOUSE TO GET SAMPLE BOTTLES. MET B. KOERNER AT WAREHOUSE. PRESERVED METALS + CN^- BOTTLES.

0920 LEFT FOR FEDDERS SITE

0950 ARRIVE ON-SITE. CALIBRATED HNU, TURBIDIMETER AND CHECKED pH METER. BEGAN LABELING SAMPLE BOTTLES

1005 TOLD DICK PINK WE WERE HERE + THAT HE SHOULD JOIN US AROUND 1030 AFTER WE FINISH LABELING BOTTLES

1050 BRUCE + CHAD DON LEVEL D TYVER, BOOTIES, GLOVES, SAFETY GLASSES

1054 - GW#1 - HNU - 0 WL - 2.7' TOC

	pH	TEMP	COND	TURBIDITY
1103	7.20	60.5	3060	>200

1112 - GW#2 HNU - 0 WL - 6.46 TOC

	pH	TEMP	COND	TURBIDITY
1119	6.20	61	1060	>200

1130 GW#3 HNU - 0 WL - 7.85 TOC

	pH	TEMP	COND	TURBIDITY
1140	6.75	61.5	1320	>200

Chad E. 10-16-90

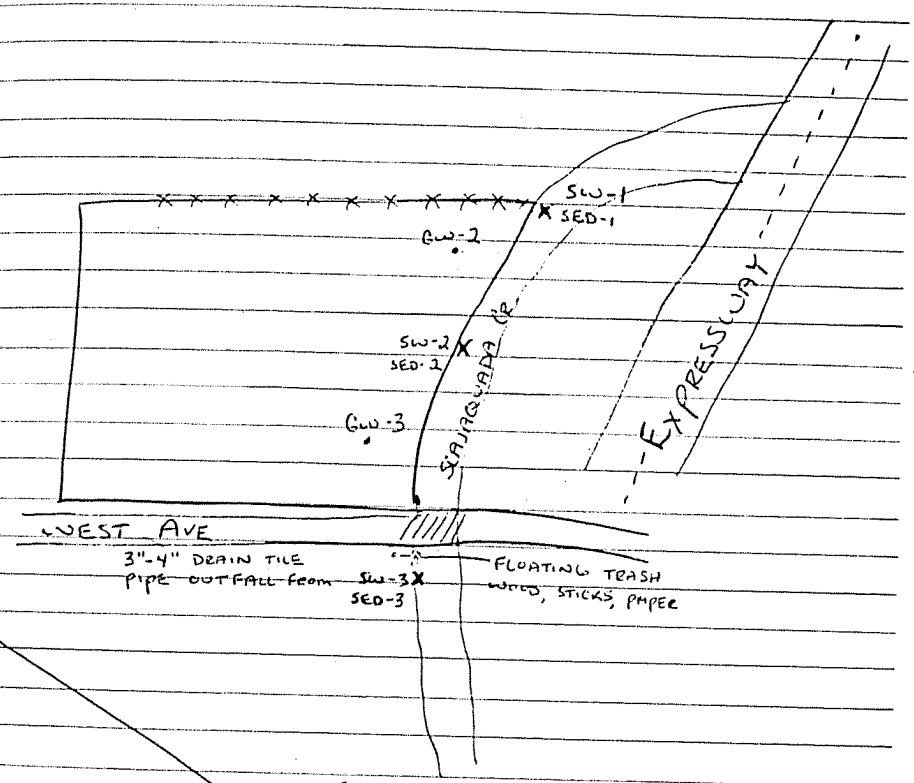
Oct 16, 1990

1205 Took SW-1 - upstream in Scajaquada Creek
1220 " SED-1 - same location as SW-1
1230 Collected Sample SW-2 - downstream in Sca. Cr
1250 Collected Sample SED-2 MS/MSD
1315 Collected Sample SW-3 - MS/MSD
1325 Collected Sample SED-3.
Dick Pinke went back into office
Packaged samples, custody sealed all bottles
1410 Left for E+E ASC.
1520 Dropped off samples, went to Equipment warehouse to drop off Equipment

F-25

Chad Ell 10-16-90

10-16-90



Chad Ell 10-16-90

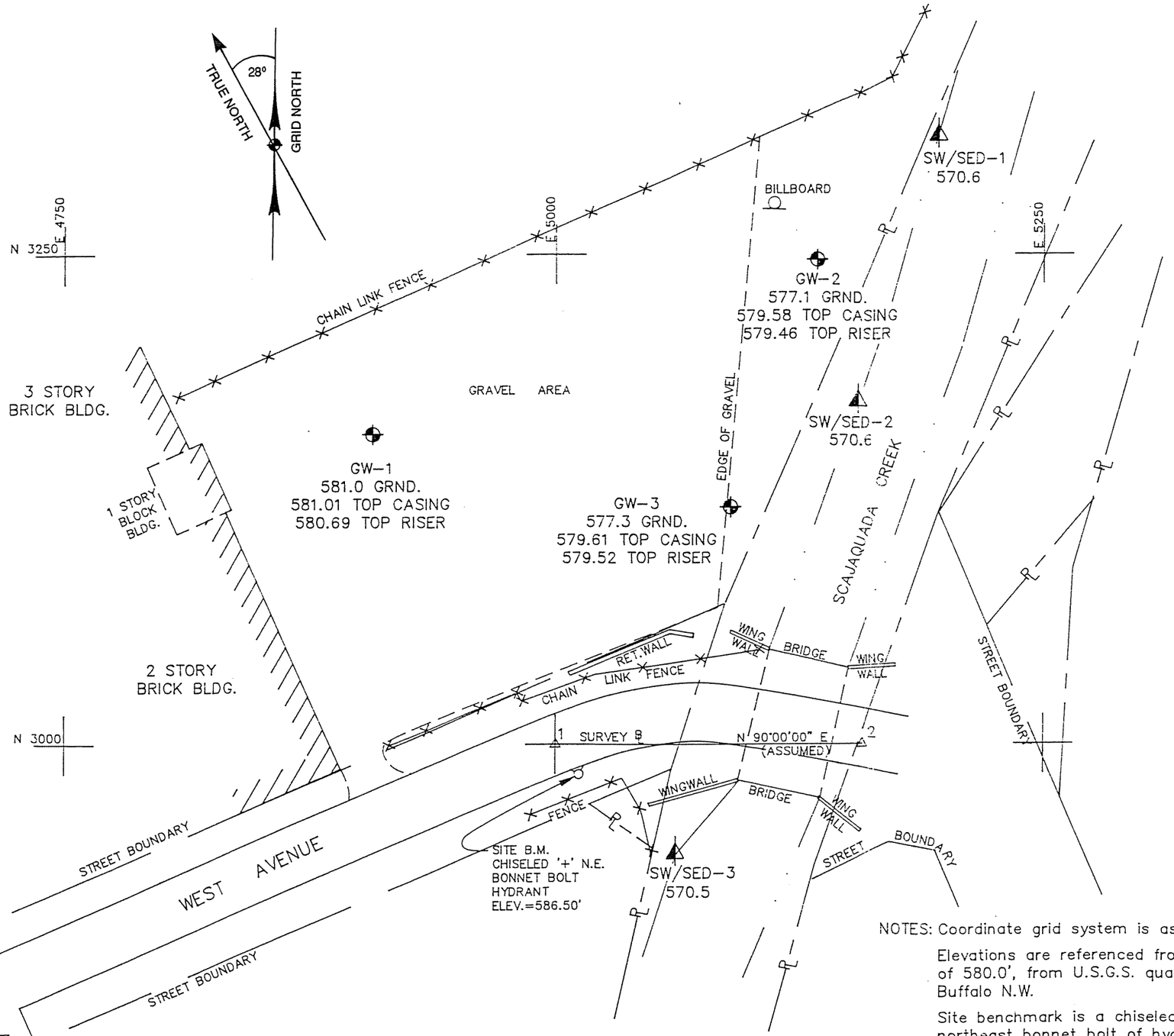
ecology and environment

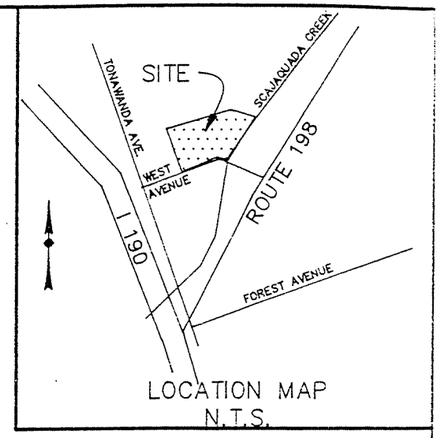
APPENDIX G

SITE SURVEY MAP

recycled paper

ecology and environment





0 60 120 FT

SCALE

COORDINATE LIST		
NAME	NORTH	EAST
GW-1	3159	4907
GW-2	3247	5133
GW-3	3121	5089
SW/SED-1	3310	5195
SW/SED-2	3176	5154
SW/SED-3	2945	5061
PK 1	3000.00	5000.00
PK 2	3000.00	5156.00

LEGEND

MONITORING WELL

SURFACE WATER/SEDIMENT SAMPLE LOCATION

NOTES: Coordinate grid system is assumed.

Elevations are referenced from a spot elevation of 580.0', from U.S.G.S. quadrangle Buffalo N.W.

Site benchmark is a chiseled "+" on the northeast bonnet bolt of hydrant located on the south side of West Ave., elevation= 586.50.

Baseline points 1 & 2 are PK nails.

Property lines shown are approximate and were derived from portions of tax maps provided by Ecology & Environment, Eng.,P.C.

REVISED: 05/10/91 LABEL NORTH ARROW, ADDED BAR SCALE

ENGINEERING INVESTIGATIONS AT FEDDERS AUTO COMPONENTS Site No.915024

New York State Department of Environmental Conservation

Prepared for:
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Prepared by:
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Tel. No. 716-442-6940

DATE	SCALE	SHEET
03/13/91	1"= 60 '	1